MEMORANDUM FOR: Major General Vaught, USA
Lieutenant General Gast, USAF
Colonel Beckwith, USA
Colonel Kyle, USAF
Lieutenant Colonel Seiffert, USMC
Lieutenant Colonel Guidry, USAF

Subject: Testimony Relating to the Iranian Hostage Rescue
Mission, Before the Senate Armed Services Committee,
7 May 1980

1. Attached is a working copy of the official transcript of the
hearings on testimony before the Senate Armed Services Committee
(SASC) on 7 May 1980, relating to the Iranian hostage rescue
mission. The witnesses in these hearings were: MG Vaught,
LTG Gast, COL Kyle, COL Beckwith, LTC Seiffert, LTG Guidry,
and CPT [redacted].

2. Request the addressees review the text of the testimony for
the following purposes:

a. To insure accuracy of information provided by the hearing
   witnesses.

b. To provide information for the record which the witnesses
   were not in the position to do so during the hearings.

c. To identify classified information in the text of the
   testimony, if any.

3. In reviewing the text, the following procedures should be
   used:

   a. Edit the text for accuracy and grammatical errors.

      (1) In no case should changes be made which will change
      the context of the testimony given by the witnesses.

      (2) All changes should be made in pencil. Deletions of
      portions of the text other than classified should be
      lined out in pencil, without bracketing (see subparagraph c
      below).

   b. [Redacted]

   c. [Redacted]
b. If any of the witnesses stated during the hearings that they would supply information for the record, submit that information on DD Form 2136, a copy of which is attached. The form may be reproduced if additional copies are needed.

c. Bracket in pencil that portion of the transcript which is classified and indicate degree of classification.

4. Request you return the reviewed and corrected copy of the transcript with inserts, if any, to this office LTC S. D. Olynyk, J-3, ext 50987, JNLT 1200, Tuesday, 13 May 1980. LTC Olynyk will incorporate all changes provided by the addressees into one edited copy for submission to the Legal Advisor and Legislative Assistant to the Chairman, Joint Chiefs of Staff.

CHARLES W. DYKE
Major General, USA

Attachments
a/s

SECRET
MEMORANDUM FOR MG VAUGHT

Subject:  HAC Hearing 2 June 1980 1330

BACKGROUND

WITNESSES

MR. CLAYTOR
LTG PUSTAY
LTG GAST
MG VAUGHT
COL BECKWITH

DEFENSE SUBCOMMITTEE

CLOSED SESSION

CONGRESSIONAL LIAISON COMMENTS

This will be an attempt by GOP members to regain the initiative/limelight.

Following topics will probably be covered:

Helo maintenance

Parts
History
Quality of mechanics

Star articles

MG VAUGHT PERSONAL
Plan Loopholes

Jack Edwards (GOP) will probably lead.

It is anticipated that each witness will discuss his portion of the operation. Game plan next week.

Army budget liaison will brief personalities at 1100 today.

RECOMMENDATIONS

Read enclosures.

Bring LTC PERRYMAN and LTC SIEFERT as backups.

INCLOSURES

Probable questions based on Star articles
Star articles
Article by Edward Luttwak
Operations costs submitted to Sen. Hollings
QUESTIONS ON HELO MAINTENANCE

Is it true there were no special maintenance standards for the mission birds?

Why not?

Why did you select these birds over others?

Did the training phase indicate any helo maintenance problems?

Did you have spare parts based on anticipated maintenance problems?

Did you have any problems acquiring spare parts?

If you spent 6 million on maintenance as reported to Sen. Hollings, shouldn't this have been a good indicator on the unreliability of the helo?

Why weren't the helo's on the NIMITZ flown longer if that was Col. Pitman and Capt. Sherwood's recommendation based on an earlier visit?

Why did you fly the mission with helo #8 when you knew that the EISENHOWER was bringing newer and better birds than the "hanger queen"?

What was the quality of maintenance of the NIMITZ helos when your crews reached ship?

What maintenance was done to the birds prior to launch?

Did the pre-mission helo flights indicate any maintenance problems?

Were the ship's captain and helo personnel aware of the mission so they would take special interest in the helos or was it "Business as Usual" to preserve OPSEC?

Why didn't helo #5 go to Desert 1?
QUESTIONS ON PLANNING

why did you fail to provide for a duststorm contingency?
Did your people know that duststorms could occur?
what were their instructions?
why did the helo's and the C-130's fly at different altitudes?
why didn't the helo's and C-130's fly the same route with the C-130's reporting the duststorms to the helo's?
why didn't the helo's report the duststorms?
why didn't Colonel Kyle report the duststorms?
where were you?
were training missions called off for bad weather?
why?
how could you expect to fly the mission if you didn't train under worst case conditions?
did the air traffic controller on the ground at desert 1 give improper instructions to the helo that crashed?
was there a contingency plan for an emergency evacuation of desert 1? if not, why not?
was there panic?
if not, why was so much classified material left?
why weren't people sanitized before the mission?
if they were, why was so much classified left? is this indicative of a discipline and leadership problem?
why was there no apparent attempt to sweep the helo's before departure?
why weren't the helo's destroyed?
where did the money come from for the escape kits?
QUESTIONS ON MAJOR GENERAL VAUGHT

why were you selected for this mission?

What are your qualifications in the area of special operations?

Who did you respond to for planning guidance?

Why wasn't this operation conducted by EUCOM or REDCOM?

Did you become involved in negotiations or contacts with other countries?

How did you intend to notify other countries of the hostage snatch?

Did other countries know what you were doing from their soil?

Why didn't you use more helos?

What were the planning assumptions?
Gaps Seen in Training For Rescue Attempt

By Lisa Myers
Washington Star Staff Writer

Planners of the ill-starred U.S. raid to free American hostages in Iran failed to train or prepare for many of the contingencies they finally encountered - including the sandstorm and the emergency withdrawal, which turned chaotic.

Interviews with a score of officials involved in planning and executing the raid reveal that it was assumed that the operation would be postponed in the event of bad weather and that there was no contingency plan to be implemented if bad weather was encountered after the mission was launched.

Training missions conducted in preparation for the raid were called off whenever weather diminished visibility, military sources say. Yet, helicopter pilots were not told whether the same "aborted" directive applied if bad weather was encountered on the mission itself.

When the C-130s encountered the sandstorm, the on-site commander, Air Force Col. James H. Kyle, considered warning the following helicopters. But 45 minutes later the weather broke and Kyle opted not to send a message.

Apparently even the top commander, Army Col. James B. Vaught, was unprepared to deal with weather problems. When the helicopter flight leader, Marine Lt. Col. Ed Seiffert, informed Vaught of the dust storm, sources say Vaught replied: "What are you going to do?"

Seiffert, who had turned back and landed after encountering the sandstorm, elected to continue because only one of the seven other helicopters had followed him out of the cloud.

Lack of planning also contributed to the disaster at Desert I, when a helicopter veered into a C-130 loaded with fuel, killing eight men. The mishap was caused, sources say, when the air traffic control officer gave incorrect instructions to the helicopter, which was refueling at the C-130 into which it crashed.

Officers on the scene describe the aftermath as fiery chaos, noting that there was no contingency plan for an emergency evacuation in the event of such a disaster.

Kyle, the on-site commander, decided to get out immediately. Taking time to destroy the abandoned helicopters and recover the classified documents they contained would have risked the lives of all involved, he concluded.

In reporting the calamity, Kyle recommended to Vaught that fighters be dispatched to blow everything up. "You might want to run some fighters over to destroy the surviving helos," Kyle is reported to have said. No air strike was ordered.

Col. Richard Abel, spokesman for the Joint Chiefs of Staff, says no strike was run for fear of killing Iranians. "Had they destroyed (the helicopters) and by destroying them, cost Iranian casualties, you would have put the lives of our hostages at greater risk," he explained.

Officials also point to major planning and execution errors involving precautions to be taken to avoid detection by the Iranians and preparation of the helicopters.

Although Secretary of Defense Harold Brown says "secrecy was paramount," Marine and Air Force pilots seemingly had different understandings of what they safely could do. While the helicopters struggled through the sandstorm, closely following the terrain to avoid detection by Iranian radar, the Air Force pilots flew all the way at a high altitude. The failure of the helicopters ultimately caused the mission to be aborted because only five, instead of the required six, helicopters arrived at the rendezvous point in satisfactory shape.

Worried about radio intercepts, the Marines also observed strict radio silence, even under the two-hour duration of the disorienting sandstorm. In contrast, the first C-130 pilot to reach Desert I risked compromising the mission by announcing his arrival on an open frequency. His non-interceptable radio had broken under the impact of landing. But Army Col. Charles A. Beckwith had another secure radio on site.

Abel maintains that there was no security breach because the C-130s flew low enough to escape Iranian radar. He says there was "no evidence that the Iranians knew anything about the mission until it was over."

The Iranians, however, later learned that the radar covering that sector of the country was turned on the night of the raid. They reportedly are investigating why.

Interviews also reveal that no special maintenance standards were established for the eight RH-53s being asked to perform a task for which they were not designed - flying 500 miles across a hot, sandy desert. Moreover, they were not flown as much in preparation for the ordeal as was recommended.

When Marine Col. Charles Pitman, commander of the helicopter task force, visited the carrier Nimitz in January, he told the ship's commanding officer that the helicopters needed considerably more flight time. The helicopter maintenance officer, Marine Capt. Sherwood, visited the Nimitz in March and also recommended more flight time.

Yet, sources say, seven helicopters averaged a total flight time of 20 to 25 hours between January and mid-April, as opposed to the 110 hours considered optimal by Pitman. The eighth chopper was out of commission part of this time, awaiting spare parts for repairs.

Although blinding sandstorms are not uncommon in the Iranian desert, the helicopter pilots were not fully trained for the mission, sources say. They did practice wearing night vision goggles in darkness and fog and experienced the resulting nausea, vertigo and loss of depth perception. But in practice sessions, visual terrain references were available. During the sandstorm, they were not.

Abel says the adequacy of training and maintenance is evidenced by the fact that seven of the eight helicopters made it to Desert I. He acknowledges there was no specific directive on what to do if bad weather was encountered, but insists "the helicopters had the authority to recommend an abort if they thought they could not proceed."

Pentagon weather experts still are unable to explain what caused the sandstorm, which they describe as a fog-like cloud of dust. They claim it was not forecastable.
Investigators Wonder About The Leader

By John Fialka
Washington Star Staff Writer

Some of the investigators probing the aborted raid to save the hostages in Tehran have come to the conclusion that one of the most fundamental errors in the raid may have been the initial selection of its commander, Maj. Gen. James B. Vaught.

Although the major focus of the investigations thus far has been on the equipment failures, Vaught—a much-decorated Army paratrooper—apparently did not make a favorable impression during his testimony on Capitol Hill before the armed services committees.

One Senate investigator who interviewed Vaught and the other commanders of the raid has concluded that Vaught may have been “simply beyond his depth” in his position as the man who planned the overall nature of the raid and selected the subordinate commanders who carried it out.

But his view was called completely “off-base” by an officer who served with Vaught at Ft. Bragg, who said the men there would “walk to hell and back” for him.

A military aide to a liberal member of the Senate Armed Services Committee found Vaught’s testimony “incredible.”

“The military people, on the other hand, a conservative congressman and former combat veteran who heard Vaught testify described him as a “super macho, gung-ho type who believed that nothing was going to stop him.”

“I just didn’t believe him,” said the officer, who declined to be identified. “He’s the kind of guy who would lead you into combat and get your ass shot off.”

A military aide to a liberal member of the Senate Armed Services Committee found Vaught’s testimony “incredible.”

“If this was Saturday Night Live, all you have to do is run the tape,” he said, adding that Vaught spent a considerable amount of time telling the committee members of his previous combat record. “The real question,” the aide said, “is who picked a man like that for this mission.”

At the moment, Vaught has become a “non-person” as far as the Pentagon’s public affairs office is concerned. Previously released biographical information on Vaught has been pulled back and Vaught’s picture is no longer considered public information.

According to the assistant secretary of defense for public affairs, Tom Ross, nothing about the overall commander of the raid has been released and the reason for this is that the commander may be used for other special missions. Ross said that any publicity about him may harm his effectiveness.

One result of this policy is that most of the publicity surrounding the raid has centered around Col. Charlie Beckwith, who would have been the ground commander had the mission gone on to Tehran. Beckwith was made available to a selected group of Pentagon reporters on the understanding that no pictures would be taken of him and that no recordings of his voice were made for broadcast.

Beckwith, a tough-talking, no-nonsense combat type, told reporters that he was brought to the point of tears when malfunctioning of three of the eight helicopters sent into Iran and then a fiery crash between a fourth helicopter and one of the mission’s six C-130 transports ended the mission before the crucial second phase began.

Just what Vaught’s reaction was is unknown. What is known, according to Pentagon sources, is that Vaught monitored the failure of his brainchild from a specially designed command post in another C-130, sitting at an airport somewhere outside of Iran.

Vaught, according to these sources, had been picked to plan counter-terrorist operations by Gen. Edward C. Meyer, the Army’s chief of staff, before the hostages were taken in the U.S. embassy in Tehran.

As a result, on Nov. 11 when the planning for the raid began, the chairman of the Joint Chiefs of Staff, Air Force Gen. David C. Jones, told Vaught to begin picking his team for the raid.

Under Vaught and the Joint Chiefs, the raid became what is known in the Pentagon as a “combined arms operation.” Marine pilots flying Navy helicopters were to meet Beckwith’s team of Army commandos that were flown to the first of three bases to be used in the mission by Air Force C-130s.

Gen. Jones, Secretary of Defense Harold Brown, and other Pentagon officials have said, without specifically naming Vaught, that they gave the commander of the mission all the people, equipment and maintenance backup that he requested.

Vaught’s problem, according to some of those who interrogated him, was that he did not appear to have the diplomatic or strategic skills necessary to pull off the complex operation that evolved. “What we expected was a tactician, a planner. What we got was another Charlie Beckwith, a super gung-ho, charismatic combat type, somebody who would have been more at home running a brigade or a company,” said one of them.

Col. Richard Abel, spokesman for the Joint Chiefs of Staff, said of Vaught: “He has been responsible for planning the readiness of a number of Army units whose mission has been counter-terrorism. He has also been involved in a number of unconventional military operations and involved in both the planning and execution of unconventional warfare operations.”

According to his biography in Who’s Who, Maj. Gen. Vaught, 54, was born in Conway, S.C., and went into the Army in World War II. He saw combat in Korea and in Vietnam and, is, among other things, the holder of the Silver Star and the Legion of Merit.
After Vietnam, Vaught went to Fort Bragg, N.C., where he became chief of staff of the 18th Airborne Corps in 1973. An officer who served under him there, who also asked not to be identified, said that criticism of Vaught was "totally off base. Anybody who knows him would walk to hell and back for him."

He said that the day Vaught was named brigadier general at Ft. Bragg, "damn near the whole brigade stopped. They were all happy for him."

In 1976 Vaught went to Izmir, Turkey, where he was chief of staff for Allied Land Forces in Southeastern Europe, a NATO command. Afterwards, until shortly before the raid, he was commander of the 24th Infantry Division at Fort Stewart, Ga.

At Bragg, Vaught, a big, broad-shouldered man, was known as a master parachutist and something of a logistics expert. He reportedly had developed the paratrooper's traditionally intense dislike for the Marines. He kept a sign on his desk that said "Trust in God, But All Other Things Check Out."

As more elements of the overall plan become known, there are signs that the focus of investigative interest is shifting from the hardware failures of the raid to what are seen as failures in the assumptions supporting its overall strategy. Some of the outside critics of the mission have been quite blunt about it.

"Whoever planned this thing was a fool," asserts Edward N. Luttwak, a senior military analyst at Georgetown's Center for Strategic and International Studies.

"It gives meaning and depth to a whole range of stories you've been hearing on competence and manpower problems in the Army," said Luttwak, once an aide to former Secretary of Defense James Schlesinger.

Luttwak asserts that special operations types in the U.S. Army are now chosen for "swagger rather than for their brains" because the Army's ability to run commando-type missions has seriously eroded in recent years as "business school-type" managers have taken over the top commands.

"Not having a clue of what was the right kind of person for this thing, they went and got Hollywood characters for it. Beckwith is a classic barroom toughie," said Luttwak, who asserted that the rescue plan was far too complicated to work and relied on too few helicopters.

Those few who have actually seen Beckwith's commander, Maj. Gen. Vaught, will not go that far, but Vaught's appearance before them was apparently a memorable one.

"This was indeed a character," said another Senate military aide.

"He was a gung-ho type of which there are few that we ever see. He's definitely what you'd call a muddy boots kind of soldier."

THE WASHINGTON STAR Saturday, May 17, 1980 A-8

Private Pledges Innocent in Officer's Death

PORT BRAGG, N.C. (AP) — An Army private entered a plea of innocent yesterday to a murder charge stemming from the death of an officer whose parachute failed to open.

Pfc. Amin Williams, a 20-year-old parachute rigger, is accused of sabotaging a parachute worn by Capt. Lawrence D. Hill, who fell to his death March 26 when his parachute failed to open during a routine jump at Fort Bragg.
A critical view of the U.S. military establishment

Playing "What's wrong with the military?" has become a favorite American game since the embarrassing failure of the Tehran rescue mission. Some of the least encouraging answers come from Edward N. Luttwak, a professional military analyst who has been a consultant to the Secretary of Defense and is the author of nine books and studies of war. The senior fellow at the Georgetown Center for Strategic & International Studies has criticized the raid to free the hostages in Tehran, not because of the effort but because of its apparent ineptness. Forbes put some simple questions to Luttwak and got some pessimistic answers.

Luttwak: Let's start with the things that are hard and physical. The fighter planes of the Air Force, are they ready to fly? Are the ships ready to sail? Are the radar and missile launches ready to function? Are they maintained? We all know it's very expensive in manpower and spare parts to keep everything working 100%, 100% of the time. Readiness is very perishable, like French bread, you have to buy it every day, it doesn't last. So 100% readiness would be terribly wasteful, but we have to keep the whole machine going at considerably better than zero. The question is, how much? For this purpose targets are laid down.

Let's say 70% to 80% of top fighters in Europe are to be ready at all times. Maybe in the States it is 60%, ready to fly. When you look at what they want, you find a big gap. In practice if the U.S. has 400 F-15 fighters, to make up a number, it has only 150 ready to fly. This means you are spending a lot of money to buy aircraft you don't actually have. They are on the lists but not actually available to shoot. This is a straightforward problem, the consequence of lack of money.

In the Air Force, it may be lack of money for spare parts and technicians. In the Navy it is a huge shortage of technicians. The Navy is supposedly short 10,000 to 15,000 technically trained petty officers and men. Naval aviation is hit both ways, short of people and spare parts. But we are talking here only of the physical readiness of equipment.

There is a second question. Are these people combat-ready in the sense that they have the training, the experience, the discipline to actually fight? Here the picture varies considerably from service to service. The low average mental level of Army enlisted manpower and the practice of the Army to send its better people into maintenance and support and management and administration, leaving only the dregs for the combat units, means that what we have in those units are very simple people using very complicated equipment. The only way you can do this is with very, very rigorous training. But they don't do very much training. They mainly sit around
As I See It

in barracks because training is expensive. If it's artillery you have to shoot it. If it's armor you have to move it and shoot. So you have people of low mental categories who don't do much training spending a lot of time sitting around the barracks and therefore don't have the competence. They don't have the morale and the discipline, which is a function of morale. People who are bored and idle will not be disciplined.

The Army, therefore, is in very bad shape. It seems the Marine Corps is getting better manpower, more dedicated, more motivated, and spending more of its money on more intensive and more interesting training.

In the case of the Navy, it's a mixed picture. Apparently the Navy is badly afflicted by the loss of highly trained technical men and the cascade effect—if you're short of technicians, those left have to work harder, spend more time at sea, and this creates more unhappiness, which leads to more shortages.

The Air Force has much less of this problem. They are short of money for spare parts, and in the case of the Strategic Air Command, short of money for fuel to fly their planes.

FORBES: But isn't this just the problem of the peacetime military? Any peacetime military?

Luttwak: That is almost an excuse. The truth is, we are in the position of someone who is trying to drive a car, a very powerful car, trying to drive it sideways. You can't do it. Sure, we are spending $150 billion, but we are spending in a way that is structurally wrong. You see, there are only a certain number of weapons you can get men and train them into units.

One way is if you have national conscription. As a matter of course every 18-year-old knows and expects that when he reaches his birthday he will go into the service.

Another way is to have a truly professional army where you set very high standards for admission and you pay very well. That way you pick and choose and wind up with wonderful manpower and have no training or discipline problems. This is what the Indians do. It is a very poor country, and although the pay of soldiers is low by our standards, by India's standards it is high. So they have a truly professional army and get the very best of the population volunteering.

The third kind is to pick up the drags of society, scouring the saloons, dragging them off the streets and out of the prisons. But then you have iron discipline, court martials, no appeals, corporal punishment. You make up with iron discipline what you don't have from motivation or enthusiasm.

The current American military force does not have mass conscription, does not have the high standards and selectivity of a truly professional army and does not have the discipline of an 18th-century army. It lies between alternatives and is not workable. You can only try to get capability by drowning the problem in money, but we're not drowning it in money.

If we wanted to have a really effective army, with the present structure of the volunteer army we'd have to spend $250 billion a year, not $150 billion. The volunteer army is the most expensive way of getting true combat capability. It doesn't work.

FORBES: Doesn't our technological advantage, better weaponry, make up for those problems?

Luttwak: Technology or no technology, in the reality of warfare as opposed to paper calculations, the intangibles of leadership, command experience, tactical ingenuity, morale and the skill of troops are much more important than material factors, your firepower, mobility and so on.

"A broadly capable armed enemy, like the Soviet Union, with its tanks, artillery, mechanized infantry, its gas forces, will not be defeated by devices of narrow ingenuity, by gimmicks like the wired missile or assault breakers."

That we have all these engineers and physicists in our defense policymaking, men who are so enamored of technical solutions, is a disservice because it disconnects from the real problem. A broadly capable armed enemy, like the Soviet army, with its tanks, with its artillery, with its mechanized infantry, with its gas forces, will not be defeated by devices of narrow ingenuity, by gimmicks like the wired missile or the assault breaker.

The assault breaker is the latest gadget. You just instrument the battlefield and you sit behind and press buttons and all those missiles will come down and kill everything moving on it.

FORBES: Yet our equipment used in combat by allies such as the Israelis has been superior on the battlefield.

Luttwak: You mention the Israelis. If you look at the American defense establishment, it is full of engineers and some systems analysts. The Israeli defense establishment consists largely of soldiers on one hand and clerks on the other. The clerks, who are engineers and scientists, serve as advisers, strictly subordinate, at lower levels. It's not incorrect to say that American equipment has been operated better by the Israelis than by the U.S., and deployed better, too.

The problem is, and I am talking as a civilian analyst, that there is a deformity, a real deformity at the very center of our defense establishment. Serious study of warfare, on the art of warfare, has been suppressed by the brutal imposition of analytical techniques which measure wonderfully what they measure but which don't happen to measure the really significant aspects of war.

The tactical, the leadership, the morale, the skill, are so much more important than the material things. Yet the different techniques we use, the systems analysis, the programming, all capture only the material aspects.

FORBES: For example?

Luttwak: An example: Every person who has seriously studied war knows that it is critically important to allow the combat unit to develop kinship and solidarity. Men under fire don't fight for their country, they fight for their buddies. Everyone knows this and every serious army makes it a point to have very stable structures, regiments and the like.

But that is not efficient. For simple efficiency you want to have all the manpower in a big pool and send the correctly trained person where he is needed most. But when you move the guy, you are disrupting two organizations, and there is no way you can put the morale—the terribly important but completely unmeasurable development of solidarity—into those computers.

If you look at our Army units, you'll see what enormous turbulence there is. People come and go all the time. Companies, battalions, platoons are not the

FORBES, MAY 26, 1980
Social Security, says this financial expert, is run in a way that diminishes our living standard and promises to reduce it much further.

The shocking shape of things to come

By Ashby Bladen

At the American Council of Life Insurance annual meeting in Washington in December 1978, there was a debate about that much overworked topic, Social Security, between Professor Martin Feldstein (who is one of my heroes because he is almost unique among professional economists in his understanding of the way our financial system really works) and the famous liberal economist Joseph Pechman. Mr. Pechman finally admitted that there is indeed a problem with Social Security, but, he asked, if it won't become a crisis for a quarter-century or more, why should this Congress worry about it? The answer, of course, is that failing to face up to it amounts to misleading young people about the standard of living they can expect to have after they retire. A timely and orderly transition to a financially viable Social Security system is likely to occur only if thoughtful business people, like the readers of Forbes, who understand the difference between responsible and irresponsible finance, demand it. Perhaps you noticed that the Republican candidates for the presidency debated Social Security in New Hampshire, and it was perfectly obvious that not one of them understands the basic problem. The Republicans!

As it stands today, Social Security is simply an income transference scheme. A payroll tax is levied, taking money away from workers and their employers, and the proceeds are given to Social Security beneficiaries. Nearly all of the proceeds are consumed. Nothing is invested.

To understand why this can't go on indefinitely we have to understand what productive investment really is. Under a private financial system productive people who are currently producing more than they need or desire to consume, and who wish to provide for their future...
SECRET

STATEMENT BY
MAJOR GENERAL JAMES R. VAUGHT, USA
COMMANDER, JOINT TASK FORCE - 79

ON THE HOSTAGE RESCUE ATTEMPT IN IRAN, APRIL 24 1980

Opening Statement. In Chairman, Judges and

(0) Gentlemen, we will attempt, to provide you the maximum
amount of information in the minimum time. I believe it would
be appropriate, with your concurrence, for me to proceed in the
following manner: I will

In these terms I will

risks; sketch the history of the Joint Task Force; list the
organization we formed to do the job; and then cover planning,
training; the decision making process; deployment and actions
taken up through Desert-I. Then we would take your questions.

First the mission. On 12 November 1979 the Chairman of
the Joint Chiefs of Staff directed me to prepare a joint task
force to go to Iran, free our hostages and return them to US
control. He reviewed for me what had been done between
4

and 12 November. I then organized an austere but
typical Joint Staff organization containing J1 personnel, J2,
J3, J4, J5, J6, etc. Most of this staff were already members
of a Joint Staff element, the Special Operations Division. On
SDD

However, before going further I'd like to focus a bit more
on the nature of the mission. I've been in the hostage
rescue and counter-terrorist business very deeply for the
past three years in several capacities. Operational security
and surprise

are absolute prerequisites to success in all

17 May 1992

SECRET

CONFIDENTIAL

Classified By
Declassified ON 24 May

OADR
counter-terrorist activities at all times. From the outset, our plan placed heavy emphasis upon maintaining total operational security in order to achieve complete surprise up until the point that our rescue force would have crossed the wall at the Embassy. Hostage rescue is always a very dangerous and uncertain undertaking from beginning to end. The chances for success are assessed very carefully and it is understood that even the smallest problem can have a major adverse impact on those chances. No matter how hard we may try, things can simply go to hell in a handbasket at any point from start to finish. If one does not accept this fact then there is no reason to plan and train. One only has to refer to the events in London on Monday to validate this fact. Returning to the planning phase, my staff also included weather and medical officers, and other specialists. As we planned the mission we examined the region, the distances, friendly bases, and the capabilities of various US forces and equipment. In the early days, we worked very hard to put together what one might call an emergency capability. By the 20th of December, we had a plan of sorts, but it was not sufficiently complete or strong in its components to enable me to recommend to my superiors that it be used.

We needed to learn the true nature of the Iranian defense and security forces, their intelligence and
During its early stages, the true character of the hostage holders and their modus operandi, and the situation in and around Tehran, Iran. We continued to make a vigorous intelligence collection effort and at the same time to test various components of our force and our plan by conducting training. Initially we conducted training along the east coast of the US but we knew we would be working in a desert environment when we implemented the plan so we quickly changed our focus to the western desert of the US -- the Arizona, California, Nevada areas -- where we trained extensively from December 1979 to 15 April 1980.

From the outset, the decision making process and the chain of command was very clear. I reported directly to the Chairman of the Joint Chiefs of Staff. All other members of the Joint Chiefs were available to me at any time for council and advice. They were fully informed of the status of my planning, training, and any problems encountered. At the appropriate time, I personally briefed the President with the National Security Council present. This session lasted for nearly three hours. The President asked many appropriate questions and made several helpful suggestions, approved the plan and authorized deployment to begin. He made it very clear to all present that the chain of command ran from him through the Secretary of Defense to the Chairman of the Joint Chiefs of Staff to me. This chain was never challenged or violated.

(U) Deployment at our forward bases went as planned and by
On 21 April all aircraft of the force were at their launch locations and in a "go readiness posture." A detailed weather briefing was given and the decision to continue as planned was announced. On 24 April six C130s and eight RH53 helicopters launched and proceeded to enter Iran at first darkness. The helicopters were flying in a single eight ship formation. The 130s were phased in with one preceding the others by about one hour in order to secure and prepare the landing fields at Desert 1. The first C130 landed on time. The security plan was implemented, the airfields were delineated and validated. Three of the 130s brought fuel, two of the 130s brought people and one 130 brought people and 1500 gallons of contingency fuel. In common knowledge, the helicopters experienced difficulty on the way to Desert 1. Between one and one-half and two hours into the mission, number 6 helicopter noted a blade failure warning light and immediately landed. It's crew was picked up per plan by number 8 and the mission continued. Later along the way, the helicopters encountered two sessions of reduced visibility due to suspended dust. Their passage through these thoroughly tested their skill and training. Unfortunately one helicopter, number 5, experienced a failure of some essential navigational aids and elected to turn back to the carrier after it had completed about two thirds of the distance to Desert 1. However, six of the helicopters did arrive at Desert 1 in time to be
and continue the mission to the next location as planned. While the last two helicopters to arrive at Desert 1 (numbers 1 and 2 were being refueled), number 2 affirmed an indication, they had noted in flight, that they may have experienced hydraulic failure in one of its flight control systems. It was determined that the hydraulic pump had failed, placing the helicopter in a non-flyable status.

(U) It had been previously agreed and was an established part of the plan, that a prerequisite for mission continuance beyond Desert 1 was that we must have at least six helicopters in flyable condition. When I was advised of the fact that we were down to five helos, my on-scene commander pointed out that we were now in an abort condition. I asked if he thought we could proceed with five helos. After a short pause, during which time I understand he conferred with the Sub-Task Force Commanders, he recommended that we should withdraw from Desert 1. I told the on-scene commander to begin implementation of the withdrawal plan but not to depart until I gave him the order. I then called the Chairman of the JCS and informed him of the situation at Desert 1. I recommended that we cancel the mission and withdraw. He asked me how much time he had to confer with others before I must have a decision. I told him he had 10 and not more than 15 minutes. He informed me that he would speak with the Secretary of Defense and the President and get back to me soonest. In about eight
About 8 minutes later I received a flash report from the desert that a helicopter had collided with a C130, that there would most likely be massive casualties. I immediately imposed minimize conditions on all radio messages downward and directed my staff to request medical assistance. The injured were treated by medical personnel at the refueling site. The on-scene commander conducted a rapid but complete withdrawal from the desert in approximately 23 minutes under most difficult conditions. In addition to the burning aircraft and the ordnance that was cooking-off, there was an existing possibility of one of the abandoned helos being torched which, because of the proximity of the loaded C-130s, could have caused further casualties to the force. After checking the crash scene for any further survivors or bodies and releasing the 44 Iranian bus passengers unharmed, the C-130s carrying all living Americans departed Desert 1. Once the injured were back at the command base, they were immediately flown back to the United States for further treatment.

The above is a brief summation of what occurred up through Desert 1. It is my understanding that we are not expected to address today those aspects of the operations which were planned to take place beyond Desert 1. We are now ready to take your questions.
MEMORANDUM FOR LIEUTENANT COLONEL STEPHEN D. OLYNYK, USAR

SUBJECT: Senate Armed Services Committee Request

1. The SASC has requested that they be provided with a complete organizational chart/wiring diagram that shows the entire chain of command for the Iranian hostages rescue mission. The diagrams should include names, as well as positions, and should be detailed to the extent that it even shows which pilots were in which helicopters.

2. In addition, the Committee has requested information concerning the eight helicopters used in the aborted mission. The Committee understands that six of the helicopters were originally loaded onto the carrier NIMITZ when the NIMITZ arrived from the Mediterranean. With respect to those six helicopters, the Committee wants to know what happened to each of the six, whether they malfunctioned, continued to operate, etc. The Committee further understands that two of the helicopters were shipped at a later time, that they were flown to the Mediterranean, and placed on the NIMITZ and brought around to the Indian Ocean on the NIMITZ. The Committee would like the same information with respect to those two choppers—whether those two malfunctioned, continued to operate, completed the mission, etc.

HAROLD L. MILLER
Colonel, JAGC, USA
Legal Adviser & Legislative Assistant to the Chairman, JCS
(u) 1. The Joint Task Force's (JTF) mission was to rescue the hostages held at the American Embassy compound and the Iranian Ministry of Foreign Affairs. The goal was to rescue them and recover the rescue force intact. The task force was trained and guided to minimize Iranian casualties. In short, the rescue mission was designed to be a surgical operation with the sole objective to rescue the hostages, to protect the rescue force and absolutely minimize casualties and damage to Iranian people and property. The most important and key ingredient for success was to reach the American Embassy compound in Tehran without detection and to surprise the militant captors. The time for the assault, one thirty, shortly after midnight, was chosen to reduce the probabilities of detection in the approach to the compound. It was also judged that the guard force would be comparatively less alert at this hour and reinforcements to the guard force would be less responsive.

(u) 2. The criteria for surprise was a driving and overriding factor in all of the planning, training and conduct of the operation. All the actions in and over Iran were required to be conducted during the hours of darkness. Because of the geographical size of Iran and the distance to be traveled by the rescue force over Iran, contrasted by the hours of darkness per 24 hour period, the mission required
two nights and one full daylight period. The force was to
be inserted the first night, spend one daylight period in
hiding, then conduct the rescue and the extraction during
darkness of the second night. Failure occurred during the
first night when weather and technical problems caused the
JTF to recommend to higher authorities that the mission be
terminated. To have continued was not feasible and in our
judgement would have led to failure with much larger
consequences.

(U) 3. Within a few days following the Militants take-over of
the Embassy a small team of experts was formed to develop
plans and capabilities to rescue the hostages. There was no
time table set for implementation of the rescue mission.

4. Early in the planning several considerations and planning
factors were identified which had to be resolved. One of
the major factors was the great distances which the force
must travel to Iran and then the large geographical size of
Iran proper. These distances were a determining factor in
deciding that the operation would require one night of
darkness then one daylight period to be followed by the
second night for the rescue and extraction. The plan was
developed into three phases. Phase One, the first night,
was the insertion phase which included the hideout of the
helicopters within a hundred miles of Tehran and the initial
staging point of the ground rescue force. Phase Two was to
begin immediately but in a methodical and gradual fashion
and it included reconnaissance of the highways and ap-
proaches to the Embassy. ________ were
available for this part of the operation. Shortly after midnight the actual rescue was to begin. As hostages were freed they and the rescue force were to be picked up by the helicopters and flown to an abandoned airfield a long range fixed wing aircraft were to be in position and protected by a security force. As the helicopters arrived, transfer was to be made to the fixed wing aircraft which were medically manned and equipped. The fixed wing aircraft were scheduled to depart to another location with eventual transfer to final destinations. The helicopters would have been left behind intact. There was not sufficient fuel nor hours of darkness available to fly them out of Iran.

5. A second set of factors, which required resolution, was also caused by the geographical size of Iran, Iranian armed forces capabilities and radar detection capabilities. It was determined that the best approach was to launch the helicopters from a position south of the Iranian coast in the Gulf of Oman. The helicopters could fly northward in the eastern part of Iran, a comparatively low populated part of Iran and where few radars were positioned, none of them with the capability to detect low flying aircraft. However, the distance to the helicopter drop off point for the ground rescue force and helicopter hideout area was great - approximately 1000 miles. There was a further requirement for the helicopters to have several hours of fuel remaining at the hide. This additional fuel would enable them to pick up the former hostages and the rescue force and deliver them to
The extraction airfield where the fixed wing aircraft were to be waiting for the extraction. Although the RH-53D helicopter, utilized in the mission, has very good range, it did not have sufficient fuel to complete the mission. Consequently the helicopters required refueling en route from the aircraft carrier to the hiding area in the vicinity of Tehran. The fuel was flown in aboard C-130 aircraft. These aircraft were equipped with fuel bladders, pumps and hoses to conduct the refueling. It was at this location and after the helicopters were refueled that the mission was terminated. There were only five operational helicopters at this point and the mission required a minimum of six.

6. From the outset, in mid November 1979, the Joint Task Force (JTF) was instructed to develop initial capabilities in the event that an early rescue was required. The JTF was also directed to continue refinement in training, equipment, and planning. The developed force capability was the result of an evolutionary process. The JTF was provided ready and total access to the entire resources of the U.S. Government, the Department of Defense and other departments. Equipment and personnel from the Army, Navy, Marines and Air Force were identified. The latest technology that could be applied feasibly was available. In fact several new equipment prototypes were tested and used by the JTF, and very successfully. Other equipment capabilities, procedures and techniques were developed by the JTF, frequently with the assistance of research and development facilities.
procured for minesweeping. It is a long range helicopter but required additional auxillary fuel tanks to be carried for the rotor blades and tail rotor fold to facilitate ship handling. It has sufficient navigation equipment for minesweeping but not judged to be adequate for their mission. Two navigation systems were installed on the helicopters: Omega and dead reckoning navigation systems. These systems were employed as aids to dead reckoning navigation. Dead reckoning navigation requires that the pilot navigate at night utilizing night vision goggles to confirm visually terrain, roads, towns and checkpoints along the planned flight route. It was judged infeasible to install higher technology navigational aides such as Forward Looking InfraRed (FLIR) and terrain following radar. The amount of engineering and added weight was prohibitive. The planned method of navigation for the helicopters then was to fly in clear air with five miles or more visibility to enable the aircrews to navigate visually with the navigation systems as an aide. The plan required good weather. During training and rehearsal exercises the concept was validated repeatedly. Weather, then, became a primary consideration in the decision making process on when to begin the rescue mission. Two nights of suitable weather were required. The RH-53D is judged to be a reliable aircraft. Based on several years of maintenance data collection and experience gained by the helicopter rescue mission aircrews and maintenance personnel, the decision was made to launch eight aircraft from the
daily since October. Weather fronts, jet streams, density variables, cloud cover, temperatures and winds were forecast each day and on the following day a comparison was made of forecast and actual weather. All of the U.S. weather resources were available. Subsequent to the Iranian revolution there has been a paucity of weather reporting stations in Iran in particular the desolate and harsh eastern and southern Iran where the helicopters were to fly. Nevertheless, the availability of weather data was judged to be adequate for the forecasters to make good forecasts. On 24 April the forecaster forecasted suitable weather for the next two days. Clear skies and light winds were forecasted for the helicopter route.

B. Intelligence: All indications were favorable.

C. Maintenance: All aircraft were mission capable and judged to be in very good condition.

D. Overall conditions. The force was able, prepared and ready for the mission. The JTF Commander directed that the mission begin.

11. The mission: On the afternoon of 24 April six air refuelable C-130s and eight helicopters took off on schedule. All aircraft were performing well. Approximately two hours after take off, one of the helicopters, number six in the flight of eight, developed mechanical problems. Cockpit instruments indicated that one of the main rotor blades had
Fire broke out immediately and both aircraft became quickly engulfed in flame. The C-130 was heavily loaded with personnel and munitions. Personnel in both aircraft were extracted through superhuman disciplined efforts. However regretably 5 Air Force personnel perished in the cockpit of the C-130 and 3 Marines perished in the helicopter. The fire was far too intense to recover them. Munitions began to cook-off and fragments began striking helicopters. Two were damaged, one resulted in a fuel leak. The heat became so intense that adjacent helicopter crews felt the aircraft were endangered. The C-130s were moved forward. At this point the deputy commander for operations at the refueling site consulted with the helicopter commander and determined that there was no alternative but to shut down the helicopters and move the C-130s away from the fire for unloading the helicopter crews. Some of the helicopter personnel attempted to return to the helicopters to recover the classified material about the heat and exploding ammunition and flying projectiles was too intense. Five helicopters were classified material were left intact.

The force was now faced with the potential of further disaster. Personnel accountability, assistance to the wounded, release of the prisoners, reloading the C-130s were only a few of their problems. The commander consulted with CCT and developed a plan for departure. Within 20 minutes following the aircraft accident, the three C-130s were airborne with all personnel accounted for. Hours later they landed and were met by medical personnel.
12. Command control. Lines of responsibility and authority were firmly established and understood. The commander of the JTF (CJTF) had reliable and abundant secure voice contact with the force. There were three deputy commanders: Deputy for C-130 Operations, Deputy for Helicopter Operations and Deputy for the Ground Rescue Force.

The chain of command ran from the President to the Chairman, JCS (CJCS), to the Joint Task Force Commander to the Deputy Commanders. The Joint Task Force Commander was assigned the responsibility and authority for the conduct of the mission. He was provided full latitude and flexibility for the conduct of mission as prebriefed to the President. There were instant and secure communications to the CJCS for consultation should the need arise and also to provide recommendations or request for guidance. The CJCS was in direct secure contact with the President.

The Deputy for C-130 Operations was in command of the C-130s and ground rescue force enroute to the refueling site. The Deputy for Helicopter Operations was in command of the helicopters to the refueling site. The Deputy for C-130 operations was designated commander of all forces at the refueling site. The Deputy for C-130 Operations was charged to consult with the Deputies for Helicopters and the Ground Rescue Force but any required decision or guidance at the refueling site was his responsibility. Any requests for guidance from or recommendations to the CJTF were to come from him. This command arrangement worked well and there were no deviations.
OSD PAO News Release

Elements of the 101st Abn Div (Air Assault) deployed from Ft. Campbell Ky to Norton AFB, CA on 10-11 June in a deployment readiness exercise. Men, equipment and helicopters from several of the Division's units have been formed into the 158th Composite Aviation Battalion which will remain in the Norton area for several weeks of intensive individual and unit training. Central to the training are 30 UH-60A Black Hawk helicopters, the Army's newest and most advanced utility helicopter. The Black Hawk has been designed to perform missions of troop and equipment transport, resupply, aeromedical evacuation and command and control. The 101st is the first Army unit to be equipped with the Black Hawk and the current exercise is designed in part to give air crews greater experience and qualification in the helicopter. Supporting the training are 8 CH-47C Chinook helicopters.

Elements of the following 101st units are involved:

D/158 Asslt Helo Bn
B/101 Asslt Helo Bn
159th Cmb Supt Helo Bn
5th Trans Bn
101st Aviation Group

63D MAW at Norton is acting as host and supporting training.

Number of men: approx 450
Contingency Press Guidance for Activity at Ft Bliss-White Sands

The following statement is proposed for your use if an announcement is required:

"During the period of 15 June-10 July 80, a small scale exercise involving ground and air units will be conducted in the Ft Bliss-White Sands area. Besides day time activity, there will also be some limited operations at night. The exercise will involve some low altitude flights by helicopter and fixed wing aircraft. Both small firings arms and close air support will be conducted on the White Sands-Ft Bliss ranges."

The following is proposed in response to specific queries:

Q1. How many personnel are involved in the exercise?

A1. The number of personnel involved will vary with the maximum number being 900.

Q2. What is the purpose of the exercise?

A2. The personnel and equipment of selected units will be evaluated on their ability to deploy, establish proper command and control, and successfully execute a variety of tasks to include: air field defense, close air support, and aerial resupply.

Q3. What units will/are involved in the exercise?

A3. In order to maintain the short or no notice aspects of this evaluation, we can not announce the unit designations at this time. Any query that cannot be answered within the context of this message should be referred to ________.
Contingency Press Guidance Concerning HH-53 PAVE LOW Deployment:

This guidance would not be prepositioned, instead it would be retained by the Test Directorate and used to assist Service PAO to respond to specific inquiry.

The following statement is proposed for use in response to query only:

"Four Air Force HH-53-H helicopters and approximately 70 aircrew and maintenance personnel have deployed to the Ft Bliss area. These aircraft will be operating in the general area of Ft Bliss for approximately three weeks. The HH-53H, nicknamed the PAVE LOW, is a modified version of the HH-53C. This variant is just entering the US Air Force inventory. This deployment is part of the operational test and evaluation of the helicopter and continuation training for the aircrew and maintenance personnel."
Contingency Press Guidance for Activity at Dugway

The following statement is proposed for your use if an announcement is required:

"Elements of the 101st Abn Div (Air Assault) at Ft. Campbell Ky will deploy to Dugway Army Proving Grounds on 26 June 80 in a deployment readiness exercise. Men, equipment and helicopters from several of the Division's units have been formed into the 158th Composite Aviation Battalion which will remain in the Dugway area for several weeks of intensive individual and unit training. Central to the training are 26 UH-60A Black Hawk helicopters, the Army's newest and most advanced utility helicopter. The Black Hawk has been designed to perform a variety of missions to include: troop and equipment transport, resupply, aeromedical evacuation and command and control. The 101st is the first Army unit to be equipped with the Black Hawk and the current exercise is designed in part to give air crews and maintenance personnel greater experience in qualification in the helicopter. Supporting the training will be 4 CH-47C Chinook helicopters and USAF transport and helicopter aircraft. The maximum number of personnel involved in the training will be approximately 500.

Any query which cannot be answered within the context of this message should be referred to ________.
SECRET

THE JOINT CHIEFS OF STAFF
OFFICE OF THE DIRECTOR FOR OPERATIONS (J-3)
WASHINGTON, D.C. 20301

DATE 20 May 80

MEMORANDUM FOR LTGEN Pustay
GEN Jones

SUBJ: Request for Cost: Senator Hollings' Letter of 6 May 80

Sir, Senator Hollings has requested (brown tab) cost estimates of the rescue attempt. He requested this data initially by 12 May but through coordination with his office and interim response (orange tab), we have delayed a final response until this week. Proposed final response, which has been coordinated with Service representatives and office of ASD(Compt), is at blue tab. The total is just under $200 million. A summary of the cost is immediately beneath the blue tab, followed by a summary of the cost associated with each Service.

I would appreciate your review, and General Jones', today if possible. General Jones does want to see this prior to release.

Bill D
CHARLES W. DUKK
Major General, USA

Copy to:
MG Vaught
LTGEN Gast

[Signature]
SUMMARY*

COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT
(ALL COSTS IN FY-80 DOLLARS)

1. Estimated value of items expended
   on the mission

   Army
   Navy
   Air Force
   Subtotal

   Estimated Cost
   $1,151,541
   161,200,000
   15,806,319
   $1,178,157,860

2. Training & Preparation

   Army
   Navy
   Air Force
   Subtotal

   Actual Cost
   $190,762
   6,500,000
   3,534,588
   $10,225,350

3. Airlift and Other Support

   Army
   Navy
   Air Force
   Subtotal

   Actual Cost
   $44,627
   6,000
   9,499,628
   $9,550,255

Estimated Grand Total

$197,933,465

* For detail accounting see Service enclosures, attached

CLASSIFIED BY: J-3
REVIEW ON: 15 MAY 86
COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT - US ARMY
(ALL COSTS IN FY-80 DOLLARS)

1. **Estimated value of items expended on the mission**
   - 2020 Minor weapons, clothing, communications and miscellaneous stock funded items: $1,037,591
   - 2035 Communications equipment and non-standard items: 100,294
   - 2033 Research and development items and REDEYE systems: 13,656
   **Subtotal**: $1,151,541

2. **Training and Preparation**
   - 2020 Base support: $190,762

3. **Airlift and Other Support**
   - 2020 Army airlift and temporary duty: $44,627

**Estimated Grand Total, Army**: $1,386,930

CLASSIFIED BY: Dir, DCSOP, OD
REVIEW ON: 15 May 86
COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT - US NAVY
(ALL COSTS IN FY-80 DOLLARS)

1. Estimated value of items expended on the mission
   
<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1506 RH-53D</td>
<td>$158,100,000 (FY-81/82/83)*</td>
</tr>
<tr>
<td>1109 Marine Night Vision and other special equipment</td>
<td>800,000</td>
</tr>
<tr>
<td>1804/1106 Components, Paint</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$161,200,000</strong></td>
</tr>
</tbody>
</table>

* 7 RH-53E aircraft would be procured to replace the out-of-production RH-53Ds. FY 1981 funds (9.0M) provide advance procurement. FY 1982 funds (128.1M) provide for aircraft procurement. FY 1983 funds (21.0M) provide for modification kits to incorporate a mine countermeasures capability in the aircraft.

2. Training and Preparation
   
<table>
<thead>
<tr>
<th>Item</th>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1804 Emergency Repairs - RH-53D</td>
<td>$ 3,000,000</td>
</tr>
<tr>
<td>1804 Component Repairs - RH-53D</td>
<td>$ 3,500,000</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$ 6,500,000</strong></td>
</tr>
</tbody>
</table>

3. Airlift and Other Support
   
<table>
<thead>
<tr>
<th>Item</th>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1106 Temporary Duty</td>
<td>$ 6,000</td>
</tr>
</tbody>
</table>

**Estimated Grand Total, Navy** $167,706,000

CLASSIFIED BY: CNO
REVIEW ON: 15 MAY 86
COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT - US AIR FORCE
(ALL COSTS IN FY-80 DOLLARS)

1. Estimated value of items expended
   On the mission

   3010 C-130 destroyed  $14,500,000
   3010 Palletized Inertial Navigation Systems (PINS)  1,015,000
   3080 M-151A2 Jeep destroyed  3,196
   3080 Fuel System  130,025
   3080 Miscellaneous Equipment  158,098
   Subtotal  $15,806,319

2. Training and Preparation

   KC-135 Tanker support during training,
   deployment and employment

   3010 Depot Spares  $ 85,873
   3400 Aviation FOL, Depot Equipment Maintenance
   (DPEM), Supplies  3,341,438

   C-130 Support provided above normal training
   requirements

   3010 Depot Spares  10,430
   3400 Aviation FOL, Depot Equipment Maintenance
   (DPEM), Supplies  96,847

   Subtotal  $3,534,588

CLASSIFIED BY: HQ TAC/DO Msg
132300Z May 80
DECLASSIFY ON: 13 May 88
3. Airlift and Other Support

ASIF airlift in support of training, deployment, medical evacuation and redeployment. Allocation of these costs to the using Service is presently in work.

3400 TDY expenses
3400 Reconstitution of refueling system
3500 Rations consumed

Subtotal

Actual Cost
$ 8,396,768

Estimated grand total, Air Force

$ 9,499,628
MEMORANDUM FOR THE RECORD

Subject: Cost Associated with Iran Hostage Rescue Attempt

1. Mr. Al South (OASD/C) has passed on telephonically to LTC Olynk the following information with respect to the status of the cost package:

   a. The package has been passed from Mr. Hamilton to the OSD Comptroller, and is with Mr. South.

   b. The following changes to the package were agreed upon by Mr. Hamilton and OSD Comptroller and will be introduced into the package, with copies furnished to MG Dyke:

      The cost for RH-53D and C-130 aircraft will be deleted, with a footnote added as follows: The cost for these aircraft is excluded on the basis that the decision has not been reached as to when, how, and to what extent this capability will be replaced.

      b. The package with a cover letter will be signed today, 21 May, and forwarded to Senator Hollings. MG Dyke will be provided with a copy.

      c. Mr. South recommended that MG Dyke insure that Mr. Hamilton understands that US Army "cover costs" associated with the mission were not included in the package.

      d. The cover letter to Senator Hollings will indicate that this package has been coordinated with Mr. Joy. Mr. South assumed that MG Dyke discussed the package with Mr. Joy only in broad outlines, not in any detail.

      e. The letter will also state that the costing was compiled with the cut-off date at the point of mission abort.

   /s/ [Signature]

   LTC, USA
Dear [Mr. Speaker]
[Mr. President]

This is the Report required by Section 4(a)(2) of the War Powers Resolution (Public Law 93-138) and, to the extent applicable, by Section 4(a)(1) of that Resolution.

On April 24, 1980 I directed elements of the United States Armed Forces to commence the positioning stage of a rescue operation which was designed, if the subsequent stages had been executed, to effect the rescue of the American hostages who have been held captive in Iran since November 4, 1979 in clear violation of international law and the norms of civilized conduct among nations. The subsequent phases of the operation were not executed. Instead, for the reasons described below, all these elements were withdrawn from Iran, and no hostilities occurred.

The sole objective of the operation that actually occurred was to position the rescue team for the subsequent effort to withdraw the American hostages. The rescue team was at all times under my command and control and required my approval before executing the subsequent phases of the operation designed to effect the rescue itself. No such approval was requested or given because, as described below, the mission was aborted.
Beginning approximately 10:30 AM EST on April 24, six U. S. C-130 transport aircraft and eight RH-53 helicopters entered Iran air space. These aircraft were not equipped for air combat or bombing. Their crews were not equipped for combat. Some of the C-130 aircraft carried a force of approximately 90 members of the rescue team equipped for combat, plus various support personnel.

From approximately 2 to 4 PM EST the six transports and six of the eight helicopters landed at a remote desert site in Iran approximately 200 miles from Tehran where they disembarked the rescue team, commenced refueling operations and began to prepare for the subsequent phases.

During the flight to the remote desert site, two of the eight helicopters developed operating difficulties. One was forced to return to the carrier Nimitz; the second was forced to land in the desert, but its crew was taken aboard another of the helicopters and proceeded on to the landing site. Of the six helicopters which landed at the remote desert site, one developed a serious hydraulic problem and was unable to continue with the mission. The operational plans called for a minimum of six helicopters in good operational condition able to proceed from the desert site. Eight helicopters had been included in the force to provide sufficient redundancy without imposing excessive strains on the refueling and exit requirements of the operation. When the number of helicopters available to continue dropped to five, it was determined that the operation could not
proceed as planned. Therefore, on the recommendation of the force commander and my military advisers, I decided to cancel the mission and ordered the United States Armed Forces involved to return from Iran.

During the process of withdrawal, one of the helicopters accidentally collided with one of the C-130 aircraft, resulting in the death of eight personnel and the injury of several others. At this point, the decision was made to load all surviving personnel abroad the remaining C-130 aircraft and to abandon the remaining helicopters at the landing site. Altogether, the United States Armed Forces remained on the Ground for a total of approximately three hours. The five remaining aircraft took off about 5:45 PM EST and departed from Iran airspace without further incident at about 8:00 P.M. EST and departed from Iranian airspace without further incident at about 8:00 P.M. EST on April 24. No United States Armed Forces remain in Iran.

The remote desert area was elected to conceal this phase of the mission from discovery. At no time during the temporary presence of United States Armed Forces in Iran did they encounter Iranian forces of any type. We believe, in fact, that no Iranian military forces were in the desert area, and that the Iranian forces were unaware of the temporary presence of United States Armed Forces until after their departure from Iran. As planned, no hostilities occurred during this phase of the mission - the only phase
At one point during the period in which United States Armed Forces elements were on the ground at the desert landing site a bus containing about fifty Iranian civilians happened to pass along a nearby road. The bus was stopped and disabled. Its occupants were detained by United States Armed Forces until their departure, and then released unharmed. One truck closely followed by a second also passed by while United States Armed Forces elements were on the ground. These elements stopped the first truck by shooting into the engine. The driver ran to the second truck which then escaped across the desert. Neither of these incidents affected the subsequent decision to abort.

Our rescue team knew, and I knew, that the operation was certain to be dangerous. We were all convinced that if and when the rescue operation had been commenced it had an excellent chance of success. They were all volunteers, they were all highly trained. I met with their leaders before they went on this operation. They knew then what hopes of mine and of all Americans they carried with them.

To the families of those who died and who were injured, I have expressed the admiration I feel for the courage of their loved ones and the sorrow that I feel personally for their sacrifice.

The mission on which they were embarked was a humanitarian mission. It was not directed against Iran; It was not directed
against the people of Iran. It was not undertaken with any feeling of hostility toward Iran or its people. It caused no Iranian casualties.

This operation was ordered and conducted pursuant to the President's powers under the Constitution as Chief Executive and as Commander-in-Chief of the United States Armed Forces, expressly recognized in Section 8(d)(1) of the War Powers Resolution. In carrying out this operation, the United States was acting wholly within its right, in accordance with Article 51 of the United Nations Charter, to protect and rescue its citizens where the government of the territory in which they are located is unable or unwilling to protect them.
MEMORANDUM FOR THE LEGAL AND LEGISLATIVE ASSISTANT
TO THE CHAIRMAN, JCS

Subject: Senate Armed Services Committee Request

1. Reference is made to your memorandum for LTC S.D. Olynyk, dated 2 May 1980, subject as above.

2. At inclosures A and B are the responses to the questions by the Senate Armed Services Committee, as outlined in the references:
   - Inclosure A. Organizational Chart of the Iranian Hostage Rescue Mission
   - Inclosure B. Information on the eight helicopters used in the hostage rescue operation.

Attachment a/s

CHARLES W. DYKE
Major General, USA
Vice Director for Operations

Copy provided
- CINC
- ACJCS
- LTG Gast
- MG Vaught
- COL Miller, LL Asst to CJCS
- Mr. Stump

* Included as far as

REGRADED UNCLASSIFIED
WHEN SEPARATED FROM
CLASSIFIED ATTACHMENT
ENCLOSURE B TO MEMORANDUM FOR THE LEGAL AND LEGISLATIVE
ASSISTANT TO THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Response to Staff Query, Senate Armed Services Committee

1. Eight RH-53 helicopters were utilized for the rescue operations. All eight helicopters were from USN Minesweeper Squadron HM-16 based at Norfolk, Virginia.

2. In mid-November 1979, six of the eight RH-53 helicopters were partially disassembled and airlifted by C-5 aircraft from Norfolk to where they were reassembled and flown aboard KITTY HAWK. In early January the two additional RH-53 helicopters (numbers 2 and 6 on the rescue mission) from HM-16 were airlifted from Norfolk to the Mediterranean where they were reassembled and loaded aboard the NIMITZ. The NIMITZ sailed from the Mediterranean to the Indian Ocean and relieved the KITTY HAWK on station on 23 January 1980. The six RH-53 helicopters aboard the KITTY HAWK were loaded aboard the NIMITZ, making a total of eight.

3. All eight RH-53's were fully operational when they took off from the NIMITZ on 24 April 1980. The mission performance of each helicopter is outlined below:

<table>
<thead>
<tr>
<th>HELO NUMBER</th>
<th>PERFORMANCE</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>No problems</td>
</tr>
<tr>
<td>*2</td>
<td>Arrived at Desert One (Not mission capable)</td>
<td>Second stage hydraulic pump failure.</td>
</tr>
<tr>
<td>3</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>Low first stage hydraulic quantity. Prepared to service.</td>
</tr>
<tr>
<td>4</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>No discrepancies</td>
</tr>
<tr>
<td>5</td>
<td>Returned to NIMITZ (Aborted mission)</td>
<td>Attitude reference system failure/TACAN failure</td>
</tr>
<tr>
<td>*6</td>
<td>Down after 2 hours (Aborted mission; crew picked up by helo #8)</td>
<td>Rotor blade indication failure</td>
</tr>
<tr>
<td>7</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>No problems</td>
</tr>
</tbody>
</table>

* Helos 2 and 6 arrived aboard NIMITZ. There is no correlation with the failure of these two aircraft and the coincidence of their arrival in the Indian Ocean aboard NIMITZ.
SECRET

LOCATED AT AL
FORWARD CP FOR
THIS PHASE

COMJTF
MG VAUGHT

DEPCOMJTF
LTG GAST

DESERT ONE
ON-SCENE CMDR
COL KYLE (USAF)

EC/MC 130(S)
COMMANDER

HELO
(FLIGHT CMDR & PILOT OF HELO 1)

COMBAT
CONTROL TEAM

ROAD AND
AIRFIELD SECURITY

GROUND
FORCE
COL BECKWITH (USA)

LTC SEIFFERT (USMC)

HELO 2
MAJ SCHAEFER

HELO 3

HELO 4

HELO 5

HELO 6

HELO 7

HELO 8

CONFIDENTIAL
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Notes Taken During Interviews by Senate Armed Services Committee Staff, 23 May 1980

Major James H. Schaefer, Jr., USMC, and appeared on 23 May 1980 before Senator Warner and staff members of the SASC for interviews concerning the attempt to rescue US hostages in Iran.

These notes are not verbatim transcripts of the questions and answers, but serve to provide the gist of each session. They are accurate in thrust and content, but may not be precise in terms of actual words or language used.

Charles W. Dyke
Major General, USA

Attachment
a/s

Copy to:
Mr. Hamilton - 3E880
Mr. Ross - 2E800
Mr. Stempler - 3E822
LTG Pustay
VADM Hanson
LTG Shutler
LTG Gast
MG Vaught
COL Miller, LL Asst/CJCS - 2E841
COL Miller, OATSD(LA) - 3D918
COL Abel - 2E857

REGRADED UNCLASSIFIED WHEN SEPARATED FROM CLASSIFIED ATTACHMENT

Classified by: DOD
18O48C
Declassify on: OAR

Downgraded by: DOD, NMC

Confidential

Classified By:

Declassified On:

OAR
SENSITIVE MATERIAL

WARNING

ACCESS TO THIS MATERIAL IS LIMITED TO A STRICT NEED TO KNOW BASIS ONLY!

EYES ONLY FOR: SECDEF

CJCS

LTG PUSTAY

ADM HANSON

RETURN TO SOD, 2C840

ACTION OFFICER: [acted-officer]

TELEPHONE: EXT [number]

SECRET (CLASSIFICATION)

Classified by: [classified-by]
Declassified ON: [declassified-on]
Downgraded to: SECRET
By: [declassified-by]
[Signature]

12 May 1992

CLASSIFICATION REVIEWED C23258
CONDUCTED ON 12 May 1992
DENONITIECL BY DDO, VMCC
DECL 🎮 downgraded to SECRET
REVIEW ON DADD (Multiple Sources)

DIR [signature]

[Date]
TO: CJCS  
SUBJECT: PAO GUIDANCE  

REMARKS  
Attached memorandum requests CJCS discuss with SECDEF the development of PAO guidance regarding the hostages for use by all USG departments.

ACTION  
<table>
<thead>
<tr>
<th>ACTION OFFICER</th>
<th>INFORMATION/COORDINATION/APPROVAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OFFICE</td>
</tr>
<tr>
<td></td>
<td>J-P</td>
</tr>
<tr>
<td></td>
<td>EXEC</td>
</tr>
<tr>
<td></td>
<td>TM CHF</td>
</tr>
<tr>
<td></td>
<td>VCPG</td>
</tr>
<tr>
<td></td>
<td>CPG</td>
</tr>
</tbody>
</table>

DATE OF PREPARATION  
23 JUL 80
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Policy Guidance--Hostage Locations (TS/)(U)

1. (TS) On 1 August COMJTF SNOWBIRD forwarded a memorandum to CJCS requesting CJCS recommend to SECDEF that he coordinate with Secretary of State on development of policy guidelines concerning official statements regarding hostage locations. On 5 August, the Director Joint Staff and Service Operations Deputies approved the memo and forwarded it to CJCS (Atch #1).

2. (S) Subsequently, CJCS requested DJS to discuss the suggestion with Ambassador Komer, who in turn discussed it with Mr. Ross, OSD/PAO. Mr. Komer indicated Mr. Ross was dubious and made the following points:

   a. (U) Quote. Statement we don't know is not entirely true. UnQuote.
5. (TS) In light of the information stated above, request the subject of official statements regarding hostage location be made an agenda item at future SCC or NSC meeting and guidelines as proposed in original memo be considered for discussion.

JAMES B. VAUGHT
Major General, USA

Attachments
a/s
1 August 1980

MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: PAO Policy Guidance: Hostage Locations

Request you recommend to SECDEF his coordination with SECSTATE or the NSC Staff to obtain approval of a policy note to be circulated to all government departments. The note would dictate the following PAO guidelines regarding statements to the press on the hostage locations. Points to be made are:

USG continues to receive conflicting reports of unknown reliability.

USG is concerned first and foremost with a resolution of the crisis and speedy safe return of the hostages.

USG believes that continued speculation (particularly crediting "Official Sources") is counter-productive to the welfare of the hostages and may be and other morale sustaining efforts to and from the hostages.

JAMES B. VAUGHT
MAJOR GENERAL, USA

Approved by the
Operations Deputy
Tom Herman
6/5/80
MEMORANDUM TO: DJ S

Thor - request you discuss with Chief Kone.

DJ

From Ross’s definition, statement we don’t know is not entirely true.

Cat & G

Ref
SECRET CITE J3 0322

SUBJ: PUBLIC AFFAIRS POLICY GUIDANCE

1. ON 1 AUGUST, JTF SNOWBIRD forwarded a memorandum to CJCS requesting CJCS recommend to SECDEF be coordinate with SECSTATE or the NSC staff to obtain approval of a policy note to be circulated to all government departments. The note would provide the following PAO guidelines regarding statements to the press on the hostage locations. Points to be made were:

   (A) USG continues to receive conflicting reports of unknown reliability.

   (B) USG is concerned first and foremost with a resolution of the crisis and speedy safe return of the hostages.

   (C) USG believes that continued speculation (particularly crediting "official sources") is counter-productive to the welfare of the hostages and may be harmful to and other morale sustaining efforts to and from the hostages.

2. Reaction to the memorandum within JCS was favorable. However, the final DOD response was not.
<table>
<thead>
<tr>
<th>DATE/DAY</th>
<th>COMMITTEE/STAFF</th>
<th>WITNESSES</th>
<th>TESTIMONY TRANSCRIPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 Apr 80</td>
<td>HADSC*</td>
<td>Sec Claytor, LTG Pustay</td>
<td>Verbatim Official Transcript</td>
</tr>
<tr>
<td>Monday</td>
<td></td>
<td>BG Todd, RADM Cassidy, COL Pitman, COL Perryman, LTC Seiffert</td>
<td>None</td>
</tr>
<tr>
<td>29 Apr 80</td>
<td>SASC Staff &amp; Sen Warner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(at Pentagon)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 Apr 80</td>
<td>SFAC**, &amp; Sen Warner/Staff</td>
<td>LTC Seiffert</td>
<td>None</td>
</tr>
<tr>
<td>Wednesday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 May 80</td>
<td>SASC Staff &amp; Sen Warner</td>
<td>1 May, A.M. COL Pitman, LTC Seiffert</td>
<td>None</td>
</tr>
<tr>
<td>Thursday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 May 80</td>
<td>SASC</td>
<td>COL Kyle (0930)</td>
<td>None</td>
</tr>
<tr>
<td>Friday</td>
<td></td>
<td>COL Pitman (1200)</td>
<td></td>
</tr>
<tr>
<td>5 May 80</td>
<td>SASC Staff &amp; Sen Warner</td>
<td>LTG Gast, MG Vaught</td>
<td>Informal Notes (LTC Williamson)</td>
</tr>
<tr>
<td>Monday</td>
<td></td>
<td>COL Beckwith</td>
<td>Informal Notes (LTC Williamson)</td>
</tr>
</tbody>
</table>

* House Appropriations Defense Subcommittee  
** Senate Foreign Affairs Committee

* Declassified ON: 18 Oct 81

* CONFIDENTIAL
<table>
<thead>
<tr>
<th>DATE/DAY</th>
<th>COMMITTEE/STAFF</th>
<th>WITNESSES (C)</th>
<th>TESTIMONY TRANSCRIPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 May 80</td>
<td>HASC*</td>
<td>LTG Gast</td>
<td>Informal Notes</td>
</tr>
<tr>
<td>Tuesday</td>
<td></td>
<td>MG Vaught</td>
<td>(LTC Williamson)</td>
</tr>
<tr>
<td>7 May 80</td>
<td>SASC</td>
<td>LTG Gast</td>
<td>Official Verbatim</td>
</tr>
<tr>
<td>Wednesday</td>
<td></td>
<td>MG Vaught</td>
<td>Testimony</td>
</tr>
<tr>
<td>AM &amp; PM</td>
<td></td>
<td>COL Beckwith</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>COL Kyle</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LTC Seiffert</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LTC Guidry</td>
<td></td>
</tr>
<tr>
<td>8 May 80</td>
<td>SASC (closed</td>
<td>SECDEF</td>
<td>Official Verbatim</td>
</tr>
<tr>
<td>Thursday</td>
<td>hearings)</td>
<td>CJCS</td>
<td>Transcript</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CNO</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CMC</td>
<td></td>
</tr>
<tr>
<td>16 May 80</td>
<td>SASC Staff &amp;</td>
<td>COL Perryman</td>
<td>Informal Notes</td>
</tr>
<tr>
<td>Friday</td>
<td>Sen Warner</td>
<td></td>
<td>(COL G. Miller)</td>
</tr>
<tr>
<td>19 May 80</td>
<td>SASC Staff &amp;</td>
<td></td>
<td>Informal Notes</td>
</tr>
<tr>
<td>Monday</td>
<td>Sen Warner</td>
<td></td>
<td>(LTC Williamson)</td>
</tr>
<tr>
<td>20 May 80</td>
<td>SASC Staff</td>
<td></td>
<td>Informal Notes</td>
</tr>
<tr>
<td>Tuesday</td>
<td></td>
<td></td>
<td>(LTC Kvederas)</td>
</tr>
<tr>
<td>23 May 80</td>
<td>SASC Staff &amp;</td>
<td></td>
<td>Informal Notes</td>
</tr>
<tr>
<td>Friday</td>
<td>Sen Warner</td>
<td></td>
<td>(LTC Kvederas)</td>
</tr>
<tr>
<td>2 Jun 80</td>
<td>HADSC**</td>
<td>Sec Claytor</td>
<td></td>
</tr>
<tr>
<td>Monday</td>
<td></td>
<td>LTG Pustay</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LTG Gast</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>MG Vaught</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>COL Beckwith</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>With back-up</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>COL Perryman</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LTC Seiffert</td>
<td></td>
</tr>
</tbody>
</table>

* House Armed Services Committee
** House Appropriations Defense Subcommittee
<table>
<thead>
<tr>
<th>ISSUE</th>
<th>SUSPENSE INT/EXT</th>
<th>REQUESTED BY</th>
<th>DATE</th>
<th>TYPE OF REQUEST</th>
<th>REFERRED TO</th>
<th>ACTION TAKEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maintenance Records on RH-53</td>
<td>SASC</td>
<td>29Apr80</td>
<td>Memo OSD/LLA</td>
<td>ADM Cassidy &amp; CNO</td>
<td>See also #4; Completed 9 May 80</td>
<td></td>
</tr>
<tr>
<td>2. Names, Rank, branch of service, organization, experience of pilots</td>
<td>SASC</td>
<td>29Apr80</td>
<td>Memo OSD/LLA</td>
<td>COL Pitman</td>
<td>Input to COL H. Miller, 6 May 80</td>
<td></td>
</tr>
<tr>
<td>3. Organization and location of 8 RH-53 helos by task no.</td>
<td>SASC</td>
<td>29Apr 80</td>
<td>Memo OSD/LLA</td>
<td>Part of #2</td>
<td>Completed 8 May 80</td>
<td></td>
</tr>
<tr>
<td>4. Dates each pilot and maintenance crew member joined SW training</td>
<td>SASC</td>
<td>29Apr 80</td>
<td>Memo OSD/LLA</td>
<td>Response to LLA,</td>
<td>Responsible, 7 May 80</td>
<td></td>
</tr>
<tr>
<td>5. Reports on next scheduled maintenance</td>
<td>SASC</td>
<td>29Apr80</td>
<td>Memo</td>
<td>ADM Cassidy</td>
<td>Over-and-above Completed 6 May</td>
<td></td>
</tr>
<tr>
<td>6. Weather reports esp sand storm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Completed 5 May</td>
<td></td>
</tr>
<tr>
<td>7. Special checklists</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Completed 5 May</td>
<td></td>
</tr>
<tr>
<td>Maintenance on 8 helos</td>
<td>SASC</td>
<td>29Apr80</td>
<td>OSD/LLA</td>
<td>ADM Cassidy</td>
<td>Completed 6 May</td>
<td></td>
</tr>
<tr>
<td>9. Complete org chart/wiring diagram</td>
<td>SASC</td>
<td>5May</td>
<td>2May</td>
<td>LLA CJCS</td>
<td>Completed 5 May</td>
<td></td>
</tr>
<tr>
<td>10. Hist of 8 helos enroute to NIMITZ</td>
<td>SASC</td>
<td>5May</td>
<td>LLA CJCS</td>
<td>Completed 5 May</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Req for personal data helo crewmembers</td>
<td>J-31</td>
<td>5May</td>
<td>J-31</td>
<td>See #2</td>
<td>Completed 9 May 80</td>
<td></td>
</tr>
<tr>
<td>ISSUE</td>
<td>SUSPENSE INT/EXT</td>
<td>REQUESTED BY</td>
<td>DATE</td>
<td>TYPE OF REQUEST</td>
<td>REFERRED TO</td>
<td>ACTION TAKEN</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------</td>
<td>--------------</td>
<td>--------</td>
<td>-----------------</td>
<td>-------------------------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>12. Reiterated req for maint records</td>
<td>9 May</td>
<td>SASC</td>
<td>5May80</td>
<td>ASD (LA)</td>
<td>MG Vaught</td>
<td>Completed 6 May; see #1; 2 boxes in OPG for review.</td>
</tr>
<tr>
<td>13. Info on failure rate of helos during tng</td>
<td>8May</td>
<td>SASC</td>
<td>5May80</td>
<td>LLA/CJCS</td>
<td>ADM Cassidy COL Pitman</td>
<td>Completed 8 May 80</td>
</tr>
<tr>
<td>14. Map of helo and C-130 flight route in Iran</td>
<td>6May/7May</td>
<td>SASC</td>
<td>6May80</td>
<td>Mr. Stempler</td>
<td>MG Vaught</td>
<td>Completed (COL King</td>
</tr>
<tr>
<td>15. Chart of helo and C-130 refueling at Desert 1</td>
<td>6May/7May</td>
<td>SASC</td>
<td>6May80</td>
<td>Mr. Stempler</td>
<td>MG Vaught</td>
<td>Completed (COL King</td>
</tr>
<tr>
<td>16. Info on portions of PLANS</td>
<td>6May/7May</td>
<td>SASC</td>
<td>6May80</td>
<td>Mr. Stempler</td>
<td>MG Vaught</td>
<td>CDR, JTF-79 does no want plan released</td>
</tr>
<tr>
<td>17. Plan to have available for interview (&amp; MAJ Schaffer)</td>
<td>6May</td>
<td>SASC</td>
<td>6May80</td>
<td>Mr. Stempler</td>
<td>MG Vaught</td>
<td>on call</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MAJ Shaffer in hosp</td>
<td></td>
</tr>
<tr>
<td>18. Info on education levels of mission personnel</td>
<td>15May</td>
<td>HASC</td>
<td>5May80</td>
<td>LLA/CJCS</td>
<td>MG Vaught COL Pitman</td>
<td>Completed, 9 May 86</td>
</tr>
<tr>
<td>19. Available (on call)</td>
<td></td>
<td>SASC</td>
<td>6May</td>
<td>Mr. Stempler</td>
<td>COL Pitman</td>
<td>On call</td>
</tr>
<tr>
<td>20. Info on education level of helo maint pers (on NIMITZ and 20)</td>
<td>15May/16May</td>
<td>HASC</td>
<td>6May</td>
<td>LLA/CJCS</td>
<td>COL Pitman</td>
<td>Completed, 9 May 86</td>
</tr>
<tr>
<td>21. Fact sheet on weather &amp; dust storm in Iran</td>
<td></td>
<td></td>
<td>5May80</td>
<td></td>
<td>CPT</td>
<td>Completed 5 May</td>
</tr>
<tr>
<td>22. Fact sheet on mission abort by helo 5</td>
<td></td>
<td></td>
<td>5May80</td>
<td></td>
<td>ADM Cassidy COL Pitman</td>
<td>Completed 5 May</td>
</tr>
</tbody>
</table>

11A22
<table>
<thead>
<tr>
<th>SSUE</th>
<th>SUSPENSE INT/EXT</th>
<th>REQUESTED BY</th>
<th>DATE</th>
<th>REFERRED TO</th>
<th>ACTION TAKEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Statement for SASC Hearings, 7May80</td>
<td>6May/6May</td>
<td>SASC</td>
<td>5May80</td>
<td>LLA/CJCS</td>
<td>MG Vaught Completed and approved by SCEDE 6 May</td>
</tr>
<tr>
<td>4. Report on Hostage Rescue Opn</td>
<td>0700 8May</td>
<td>MG Dyke</td>
<td>6May80</td>
<td>to GEN Dyke</td>
<td>LTC Olynyk Completed 6 May</td>
</tr>
<tr>
<td>5. Background papers for GEN Pustay for HASC Hearing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Review of LTG Pustay’s 7May Testimony before SASC</td>
<td>LLA/CJCS</td>
<td>3May</td>
<td>Oral to LTG Gast</td>
<td>RTC Olynyk</td>
<td>Completed 8 May</td>
</tr>
<tr>
<td>7. Follow-on Questions on Hostage Rescue (Mr. Ross)</td>
<td>SAPA/CJCS</td>
<td>6May</td>
<td>Oral to MG Dyke</td>
<td></td>
<td>Completed 6 May</td>
</tr>
<tr>
<td>8. Comments on R. Burt’s Story in NYT</td>
<td>ASD(PA)</td>
<td>6May</td>
<td>Memo</td>
<td>MG Dyke</td>
<td>Completed 6May</td>
</tr>
<tr>
<td>9. Recap of Tasks #2, #4, #11, #18, #20</td>
<td>MG Dyke</td>
<td>7May</td>
<td>Memo</td>
<td>MG Vaught</td>
<td>Completed 9 May &amp;</td>
</tr>
<tr>
<td>COL Pitman</td>
<td></td>
<td></td>
<td></td>
<td>RADM Cassidy</td>
<td></td>
</tr>
<tr>
<td>. Helo navigation equipment</td>
<td>SAPA/CJCS</td>
<td>8May</td>
<td>Tele</td>
<td>MG Dyke</td>
<td>Completed, 8 May</td>
</tr>
<tr>
<td>10. Awards for hostage mission participants</td>
<td>ACJCS</td>
<td>8May</td>
<td>Tele</td>
<td>MG Dyke</td>
<td></td>
</tr>
<tr>
<td>2. Cost estimate for hostage rescue effort to SECDEF</td>
<td>Sen. Hollings</td>
<td>6May</td>
<td>Letter</td>
<td>ASD(C)</td>
<td></td>
</tr>
<tr>
<td>3. Navy Q&amp;A on RH-53 contracts</td>
<td>OSD(PA) thru DJS PA</td>
<td>8May</td>
<td>Q&amp;A</td>
<td>CDR George</td>
<td>Completed answers provided by DJS (PA) &amp; Apvd by J31 9 May 80.</td>
</tr>
<tr>
<td>ISSUE</td>
<td>SUSPENSE INT/EXT</td>
<td>REQUESTED BY</td>
<td>DATE</td>
<td>TYPE OF REQUEST</td>
<td>REFERRED TO</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------</td>
<td>--------------</td>
<td>--------</td>
<td>-----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>34. Review of Testimony on hearings by SASC</td>
<td>15 May</td>
<td>LLA/CJCS</td>
<td>12 May</td>
<td>Memo</td>
<td>Witnesses</td>
</tr>
<tr>
<td>35. Inserts for closed testimony be SECDEF, CJCS, Service Chiefs before SASC, 8 May 80</td>
<td>1200</td>
<td>LLA/CJCS</td>
<td>14 May</td>
<td>Memo</td>
<td>LTG Gast</td>
</tr>
<tr>
<td>36. Sen. Tower's concept on Integrated Organization for Anti-Terrorist Ops</td>
<td>27 May</td>
<td>LLA/CJCS</td>
<td>14 May</td>
<td>Memo</td>
<td>BG Johnson &amp; OPG</td>
</tr>
<tr>
<td>37. OSD questions on rescue attempt in Iran</td>
<td>1100/1200</td>
<td>OSD</td>
<td>14 May</td>
<td>Pers to LTG Gast</td>
<td>LTG Gast &amp; Adm Cassidy &amp; Col Kyle &amp; LTC Sieffert</td>
</tr>
<tr>
<td>38. Query from Hearst Newspapers</td>
<td>16 May</td>
<td>Col Able</td>
<td>16 May</td>
<td>Memo</td>
<td>LTG Gast</td>
</tr>
<tr>
<td>39. Request for additional witness before SASC &amp; Sen. Warner's staff</td>
<td>Continued</td>
<td>SASC via LLA/</td>
<td>15 May</td>
<td>Memo</td>
<td>MG Vaught</td>
</tr>
<tr>
<td>40. Query from the New York Times re hostage rescue attempt</td>
<td>16 May</td>
<td>Col Able</td>
<td>16 May</td>
<td>Memo</td>
<td>LTG Gast</td>
</tr>
<tr>
<td>41. Query from the Washington Star</td>
<td>16 May</td>
<td>Col Able</td>
<td>16 May</td>
<td>Tele</td>
<td>LTG Gast</td>
</tr>
<tr>
<td>42. Talker &amp; background paper for Mr. Claytor &amp; LTG Pustay on Intell support to JTF-79</td>
<td>1000/1200</td>
<td>LTG Pustay</td>
<td>16 May</td>
<td>Personal to LTC Olynyk</td>
<td>MG Vaught</td>
</tr>
<tr>
<td>ISSUE</td>
<td>SUSPENSE INT/EXT</td>
<td>REQUESTED BY</td>
<td>DATE</td>
<td>TYPE OF REQUEST</td>
<td>REFERRED TO</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------</td>
<td>---------------------------</td>
<td>----------</td>
<td>-----------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>43. SASC request for addl info on helos</td>
<td>COB</td>
<td>COL G. Miller</td>
<td>20 May</td>
<td>MFR</td>
<td>PADM Cassidy</td>
</tr>
<tr>
<td>44. Sen Stennis/Schweiker request for info on helos</td>
<td>COB</td>
<td></td>
<td>21 May</td>
<td>Memo</td>
<td>RADM Cassidy</td>
</tr>
<tr>
<td>45. Cong Wright's inquiry re &quot;sanitization&quot; of Iran hostage rescue personnel</td>
<td>LLA/CJCS</td>
<td></td>
<td>21 May</td>
<td>Memo</td>
<td>LTC Kvederas</td>
</tr>
<tr>
<td>46. Possible Compromise of classified info re hostage rescue attempt</td>
<td>1500</td>
<td>Leon Schachter OSD Gen Counsel</td>
<td>22 May</td>
<td>Verbal</td>
<td>CAPT Hall</td>
</tr>
<tr>
<td>47. Insert to GEN Jones' Testimony, 8 May 80--&quot;Chronology&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48. Query from Lisa Myers, The Washington Star</td>
<td>1500</td>
<td>SA(PA) CJCS</td>
<td>28 May</td>
<td>Memo</td>
<td>CAPT Hall</td>
</tr>
<tr>
<td>49. Hostage Rescue Aircraft Accident Board</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50. Terms of Reference--Special Ops Review Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ADM Holloway</td>
</tr>
<tr>
<td>51. Request for names &amp; location of Iran MAAG personnel during final year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LTG Gast</td>
</tr>
<tr>
<td>52. Query from Rep. Levitas' Office</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CAPT Hall</td>
</tr>
<tr>
<td>53. Testimony before HADSC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Review of Draft</td>
<td>COB</td>
<td></td>
<td>6 May/COB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Inserts for Record-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Inserts for Record-2</td>
<td></td>
<td></td>
<td>COB 9 May</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Notes Taken During Interviews by Senate Armed Services Committee Staff, 4 June 1980

1. Sikorsky Tech Rep. appeared on 4 June 1980 before staff members of the SASC for interviews concerning the attempt to rescue US hostages in Iran.

2. These notes are not verbatim transcripts of the questions and answers, but serve to provide the gist of each session. They are accurate in thrust and content, but may not be precise in terms of actual words or language used.

Charles W. Dyke
Major General, USA

Attachment
a/s

Copy to:
Mr. Hamilton – 3E880
Mr. Ross – 2E800
Mr. Stempler – 3E822
LTG Pustay
VADM Hanson
LTG Shutler
LTG Gast
MG Vaught
COL Miller, LL Asst/CJCS – 2E841
COL Miller, OATSD(LA) – 3D918
COL Abel – 2E857

Classified by: JCS
Declassified on: OAR

Downgraded by: JCS
Declassified on: OAR

WASHINGTON, D.C. 20301
5 June 1980
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Query on Nose Wheel Damage

Major Schaefer was contacted at his home in Arizona and provided the additional information at the enclosure. Although I had been told earlier of some helicopter tires losing air due to the sand, damage to a nose wheel to the extent described was new information for me. I personally spoke with Major Schaefer today after reading his comments and asked him to expand on this information, particularly as it may have contributed to the accident. Major Schaefer said that the requirement to lift the aircraft to a low hover to taxi was a contributing factor in control of the aircraft. Further, the requirement to hover in order to taxi raised more dust, reducing visibility at the critical point when near the C-130.

Only LTG Gast and MG Vaught have received distribution of this memorandum.

Attachment a/s

Copy to:
LTG Gast
MG Vaught

Declassified by:
DDA, NMG
12 May 1992
ANTITHETIC STATEMENT BY MAJOR JAMES H. SCHRADER, USMC
OF NOSE WHEEL DAMAGE TO HIS AIRCRAFT

Shortly after putting the helicopter on the ground, the nose wheel struck one of the ruts left by a C-123 during its landing. The contact with the rut caused the nose wheel to turn 360° to the right. This deflated both tires and caused the nose wheel arresting device to lose its effectiveness. At the time, the helicopter was traveling at about 3 knots and under positive direction of a ground controller equipped with lighted runways. Since the nose wheel was no longer operable, I had to aim the helicopter into position. This was accomplished in a series of 5-10 yard increments. After each segment of the taxi, I would have to wait for the dust to clear. For the final increment, I lifted the helicopter into a shallow orbit above the dust cloud, lined up on the next runway, and made a straight-in air taxi approach. The nose wheel damage prevented an attempt to ground taxi.
Question: What are the implications of the failure of this mission, and the technical shortcomings of the helicopters employed, for our ability to project conventional military power on a regional or global basis? How serious is our overall tactical helicopter readiness problem and within what timeframe can the necessary fixes be reasonably achieved?

Answer: The failure of this highly specialized rescue mission has no implications whatsoever on our abilities to project conventional military force anywhere in the world. One simply cannot extrapolate from the unique circumstances of this mission to overall US military capabilities.

Of the heavy lift helicopter units in the US Armed Forces, 72% are currently combat ready. [3% are not combat ready because of programmed equipment conversion; and 25% are not combat ready due primarily to personnel, training, and supply deficiencies.]

The readiness problems of US tactical helicopters worldwide are thus similar to those associated with the readiness of fixed wing aircraft units—the readiness levels of both types reflect current training and experience levels of maintenance personnel and the availability of repair parts for scheduled and unscheduled maintenance. The solution to improving the readiness of these aviation forces can only be addressed in the broader context of improved personnel availability and training levels and overall material support improvements.
MEMORANDUM FOR THE LEGAL ADVISER AND LEGISLATIVE ASSISTANT
TO THE CHAIRMAN, JCS

Subject: Congressional Request for Information Concerning
Iran Hostage Rescue Attempt

Reference: Memorandum for the Record, OATSD(LA), 19 May 1980,
"Hostage Rescue Mission" (attached)

1. The following information is submitted in response to your
request (reference above) which requested clarification of
 testimony by COL Perryman and [name redacted] before Senator Warner's
group and the SASC staff on 16 May 1980.

2. Mr. Roberts requested information as a result of his
statement that helicopter #6 was the aircraft which was involved
in the accident onboard the NIMITZ. According to Mr. Roberts,
Senator Warner's group had been told previously that it was #8
helicopter that was involved in the accident.

   a. After a review of all available maintenance records and
interviews with HM-16 key maintenance personnel by the Post
Mission Maintenance Review Team it was determined that
helicopter #6 was the aircraft involved in the ground incident
aboard NIMITZ.

   b. The following information, which is excerpted from the "Post
Mission Summary, RH-53D Helicopter Maintenance and Material
Condition," a copy of which was previously submitted to the
Senate Armed Services Committee Staff, is provided:

On 28 February, damage occurred to aircraft #6 during deck
handling operations. A NIMITZ deck handling crew was towing
the aircraft from elevator #3 into the hangar bay when one
tail rotor blade impacted an overhead padeye structure. The
director in charge of moving the aircraft knew the tail
pylon was spread but felt it would clear the overhead
structure. The Naval Air Rework Facility Pensacola was
requested to provide guidance for repair and recommended
changing only the damaged blade assembly and inspecting the
other components. As a safeguard, the squadron applied the
most stringent interpretation of the General Information
Servicing Manual and replaced the tail rotor blade, rotary
f. Q: With respect to the servo which failed on helicopter #2, what was the life point for that servo?

A: H-53 helicopters with aluminum primary servo housings have a servo removal interval of 1200 hours. All RH-53Ds are equipped with improved steel servos which are removed on condition only. A record is not kept of time accumulated on components that do not have established finite removal intervals.

f. Q: Is it unusual to have five extensions on an aircraft?

A: The average RH-53D is on its second 27-month SDLM period, has 1408 flight hours on the airframe, has accumulated 59 operational service months and has been granted 1.8 extensions. Mission aircraft #5 on 24 April was one month into the fifth extension of its first SDLM period; however, due to a prolonged bailment period at Sikorsky, the aircraft had accumulated only 27 operational service months and 1342 airframe flight hours.

CHARLES W. DYKE
Major General, USA

Attachment
a/s

Copy to:
Mr. Hamilton - 3E880
Mr. Ross - 2E800
Mr. Stempler - 3E822
GEN Jones
LTG Pustay
VADM Hanson
LTG Shutler
LTG Gast
MG Vaught
RADM Cassidy
COL Miller, OATSD(LA) - 3D918
COL Abel - 2E857
COL Pitman
MEMORANDUM FOR THE RECORD

SUBJECT: Hostage Rescue Mission

CDR [redacted] and COL Perryman were interviewed by John Roberts, Steve Dotson, and Bud McFarland. CDR [redacted] told the group that the RH-53D helicopter is normally due for major maintenance every 27 months. However, extensions of three months are frequently granted and not uncommon.

With respect to the eight helicopters assigned to this mission, three were beyond the 27 month period. However, the types of failures associated with helicopters #6, 5, and 2, would not normally be discovered during a major rework.

CDR [redacted] reported to the group that he and his crew had absolute top priority while onboard the NIMITZ, and that at the time the mission occurred he was convinced that the helicopters were ready to fly.

According to CDR [redacted] helicopter #6 was the helicopter which had the accident onboard the NIMITZ; this particularly caught John Roberts' attention, who pointedly stated that up until now the Warner group always had been told that aircraft #8 was involved in the NIMITZ accident. Roberts asked that this discrepancy be clarified.

The attached questions were prepared by Bud McFarland:

1. What is the criteria for scheduling special depot level maintenance (SDLM)? Is it based upon a fixed number of flight hours or an arbitrary calendar life?

2. When an aircraft exceeds the criteria for SDLM, what authority exists for extending its retention in an operational status? What criteria must be met before that authority is exercised?

3. Are any restrictions imposed on an aircraft's use once it is beyond the time requiring SDLM?

4. What exactly takes place during SDLM? Would any or all of the parts which failed on the mission, have been replaced during SDLM?

5. Please provide the same explanation for the Phase A-D 100 hour maintenance checks.

COL Perryman confirmed the maintenance practices for the RH-53D. Some members of the Warner group placed a great deal of emphasis on the maintenance policies associated with the President's helicopters. They noted that all dynamic systems are replaced at their 50% life.

CONFIDENTIAL
With respect to the SERVO which failed on helicopter #2, the Warner group asked "what was the life point for that SERVO"? The group also asked COL Perryman to provide the answer to the question "is it unusual to have five extensions on an aircraft"? COL Perryman, like COL , stated he did not know what he would have done any differently to assure that the helicopter portion of the mission could succeed.

CHANT MILLER
COL, USAF
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Cost Estimates for the Hostage Rescue Operation

Attached for your information is a copy of the dispatched response (TAB A) to Senator Hollings' request for an estimate of the costs of the rescue attempt. Note that the costs of the RH-53D and C-130 aircraft have been excluded from the totals. The memorandum for record at TAB B provides some of the background on this.

CHARLES W. DYKE
Major General, USA

Attachments
a/s

Copy to:
Mr. Hamilton - 3E880
Mr. Ross - 2E800
Mr. Stempler - 3E822
LTG Pustay
VADM Hanson
LTG Shutler
LTG Cast
MG Vaught
COL Miller, LLA/CJCS - 2E841
COL Miller, OATSD(LA) - 3D918
COL Abel - 2E857

Declasified by:
DDO, WMCC
12 May 1992
21 MAY 1990

Honorable Ernest F. Hollings
Chairman, Committee on Budget
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

In further response to your letter of May 6, the attached estimates of the costs of the hostage rescue operation are submitted. These estimates, listed by Military Departments, are presented to show estimated cost for certain items expended on the mission. The costs shown for training and preparation are those over and above programmed expenditures. Military and civilian personnel pay are not included.

The enclosed information has been discussed with Mr. Mike Joy of your office. We sincerely hope that it meets your requirements and contributes to the overall understanding of defense needs. Should there be other requirements in this matter, we are prepared to assist.

Thank you for your long-standing support and continuing interest in the readiness and adequacy of our defense programs.

Sincerely,

John R. Quetsch
Principal Deputy Assistant Secretary of Defense (Comptroller)

Enclosures

SECRET
**SUMMARY**

COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT
(ALL COSTS IN FY-80 DOLLARS)

1. **Estimated value of items expended on the mission**
   - Army
   - Navy
   - Air Force

   **Subtotal**

2. **Training and Preparation**
   - Army
   - Navy
   - Air Force

   **Subtotal**

3. **Airlift and Other Support**
   - Army
   - Navy
   - Air Force

   **Subtotal**

**Total**

<table>
<thead>
<tr>
<th>Estimated Cost</th>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 1,151,541</td>
<td>$ 190,762</td>
</tr>
<tr>
<td>3,100,000</td>
<td>6,500,000</td>
</tr>
<tr>
<td>1,306,319</td>
<td>3,534,588</td>
</tr>
<tr>
<td></td>
<td>$ 5,557,860</td>
</tr>
<tr>
<td></td>
<td>$10,225,530</td>
</tr>
</tbody>
</table>

$ 9,550,255

$25,333,465

\a/ Detail by Military Department is attached.

CLASSIFIED BY: Dir. J-3, JCS
DECLASSIFY ON: May 21, 1986

SECRET
COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT - US ARMY
(ALL COSTS IN FY-80 DOLLARS)

1. Estimated value of items expended on the mission

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Minor weapons, clothing, communications and miscellaneous stock funded items</td>
<td>$1,037,591</td>
</tr>
<tr>
<td>2035 Communications equipment and non-standard items</td>
<td>100,294</td>
</tr>
<tr>
<td>2033 Research and development items and REDEYE systems</td>
<td>13,656</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$1,151,541</strong></td>
</tr>
</tbody>
</table>

2. Training and Preparation

<table>
<thead>
<tr>
<th>Item</th>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Base Support</td>
<td>$ 190,762</td>
</tr>
</tbody>
</table>

3. Airlift and Other Support

<table>
<thead>
<tr>
<th>Item</th>
<th>Total, Army</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Army airlift and temporary duty</td>
<td>44,627</td>
</tr>
</tbody>
</table>

**Total, Army** $1,386,930

CLASSIFIED BY: DIA, DCSOP, OB
REVIEW ON: 15 May 86

SECRET
COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT - US NAVY
(ALL COSTS IN FY-80 DOLLARS)

1. **Estimated value of items expended on the mission a/**
   - 1109 Marine Night Vision and other special equipment
     Estimated Cost: $800,000
   - 1804/1106 Components, Paint
     Estimated Cost: $2,300,000
   - Subtotal: $3,100,000

2. **Training and Preparation**
   - 1804 Emergency Repairs - RH-53D
     Actual Cost: $3,000,000
   - 1804 Component Repairs - RH-53D
     Actual Cost: $3,500,000
   - Subtotal: $6,500,000

3. **Airlift and Other Support**
   - 1106 Temporary Duty
     Total, Navy: $6,000

Total: $9,606,000

*a/* Excludes costs of the seven RH-53B aircraft expended since no decision has been made on whether, when, how or to what extent replacement of this capability will be required.

CLASSIFIED BY: [Signature]
DECLASSIFY ON: May 21, 1986

SECRET
COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT - US AIR FORCE
(ALL COSTS IN FY 80-DOLLARS)

1. Estimated value of items expended a/ on the mission

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>3010 Palletized Inertial Navigation Systems (PINS)</td>
<td>$1,015,000</td>
</tr>
<tr>
<td>3080 M-151A2 Jeep destroyed</td>
<td>3,196</td>
</tr>
<tr>
<td>3080 Fuel System</td>
<td>130,025</td>
</tr>
<tr>
<td>3080 Miscellaneous Equipment</td>
<td>158,098</td>
</tr>
</tbody>
</table>

Subtotal                                           $1,306,319

2. Training and Preparation

<table>
<thead>
<tr>
<th>Item</th>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>KC-135 Tanker support during training, deployment and employment</td>
<td>$85,873</td>
</tr>
<tr>
<td>3010 Depot Spares</td>
<td>3,341,438</td>
</tr>
<tr>
<td>3400 Aviation POL, Depot Equipment Maintenance (DPEM), Supplies</td>
<td></td>
</tr>
<tr>
<td>C-130 support provided above normal training requirements</td>
<td></td>
</tr>
<tr>
<td>3010 Depot Spares</td>
<td>10,430</td>
</tr>
<tr>
<td>3400 Aviation POL, Depot Equipment Maintenance (DPEM), Supplies</td>
<td>96,847</td>
</tr>
</tbody>
</table>

Subtotal                                           $3,534,583

a/ Excludes costs of the C-130 aircraft destroyed during the mission since no decision has been made concerning whether replacement will be programmed, and if so, when.
3. Airlift and Other Support

ASIF airlift in support of training, deployment, medical evacuation and redeployment. Allocation of these costs to the using Service is presently in work.

3400 TDY expenses
3400 Reconstitution of refueling system
3500 Rations consumed

Subtotal

Total, Air Force

Actual Cost

$8,396,768

$1,066,667

19,193

17,000

$9,499,628

$14,340,535
MEMORANDUM FOR THE RECORD

Subject: Cost Associated with Iran Hostage Rescue Attempt

Mr. Al South (OASD/C) has passed on telephonically to LTC Olynyk the following information with respect to the status of the cost package:

a. The package has been passed from Mr. Hamilton to the OSD Comptroller, and is with Mr. South.

b. The following changes to the package were agreed upon by Mr. Hamilton and OSD Comptroller and will be introduced into the package, with copies furnished to MG Dyke:

The cost for RH-53D and C-130 aircraft will be deleted, with a footnote added as follows: The cost for these aircraft is excluded on the basis that the decision has not been reached as to when, how, and to what extent this capability will be replaced.

c. The package with a cover letter will be signed today, 21 May, and forwarded to Senator Hollings. MG Dyke will be provided with a copy.

d. The cover letter to Senator Hollings will indicate that this package has been coordinated with Mr. Joy. Mr. South assumed that MG Dyke discussed the package with Mr. Joy only in broad outlines, not in any detail.

S. D. OLYNYK
LTC, USA

SECRET
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Notes Taken During Interviews by Senate Armed Services Committee Staff Personnel, 20 May 1980

GA appeared on 20 May 1980 before staff members of the SASC (Messrs. Roberts and Dotson) for interviews concerning the attempt to rescue US hostages in Iran.

W2. These notes are not verbatim transcripts of the questions and answers, but serve to provide the gist of each session. They are accurate in thrust and content, but may not be precise in terms of actual words or language used.

CHARLES W. DYKE
Major General, USA

Attachment
a/s

Copy to:
Mr. Hamilton - 3E880
Mr. Ross - 2E800
Mr. Stemple - 3E822
LTG Pustay
VADM Hanson
LTG Shutler
LTG Gast
MG Vaught
COL Miller, LL Asst, CJCS - 2E841
COL Miller, OATSD(LA) - 3D918
COL Abel/LTCOL Wheeler - 2E857

Classified by: DJSOA
180 Oct 85
Declassification: OADR

Downgraded by: DDO, Nmcc
12 May 1992
SECRET - SENSITIVE
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Notes Taken During Testimony Before the House Armed Services Committee on 8 May 1980

1. Attacked is the transcription of notes taken by LtCol C. A. Williamson, Special Operations Division, J-3, during the appearances before the House Armed Services Committee on 8 May 1980 of Col Kyle, LtCol Guidry, and [redacted].

2. These notes are not verbatim transcripts of the questions and answers, but serve to provide the gist of each session. They are accurate in thrust and content, but may not be precise in terms of actual words or language used.

CHARLES W. DYKE
Major General, USA

Attachment
a/s

Copy to:
Mr. Stempler - 3E822
Mr. Hamilton - 3E880
LTG Pustay
VADM Hanson
LTG Shutler
LTG Gast
MG Vaught
COL Miller, LL Asst, CJCS - 2E841
COL Miller, QATSD(LA) - 3D918
COL Abel/LTCOL Wheeler - 2E857

[Signature]

Declasified by:
DDNMC 12 May 1992
MEMORANDUM FOR THE LEGAL AND LEGISLATIVE ASSISTANT TO THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Response to Query on Hostage Rescue Mission

1. References:


   b. Memorandum, Legal Advisor and Legislative Assistant to the Chairman, JCS, 5 May 1980, subject: House Appropriations Committee Request for Information--Hostage Rescue Attempt.

2. This memorandum is in response to question number 2 and 4 in reference a, and question number 3 in reference b. This completes action on all responses required by reference a.

   a. Reference a requested personal data (name, rank, branch of service, parent organization), experience levels, and dates of assignment to Southwest Training Unit of the helicopter pilots and helicopter maintenance crew that accompanied the pilots onboard the NIMITZ.

   b. Reference b requested information on the educational level of the helicopter maintenance personnel which boarded the NIMITZ with the mission maintenance officer, Captain [redacted] and the pilots and air crewmembers who participated in the rescue attempt.

3. At the inclosure is a list containing requested data on the helicopter pilots and the maintenance crewmembers who accompanied the pilots to the NIMITZ. This maintenance crew included four HM-16 maintenance personnel who joined the mission helicopter element from Norfolk and assisted in maintaining the aircraft used in training and rehearsals in the Southwestern United States.
4. The same information and data on the HH-16 helicopter maintenance personnel who were aboard the NIMITZ as members of the embarked HH-16 has been requested from the Chief of Naval Operations, and will be provided to you as soon as it is received.

CHARLES W. DYKE  
Major General, USA

Attachment  
a/s

Copy to:  
Mr. Stempler - 3E822  
Mr. Hamilton - 3E880  
GEN Jones  
LTG Pustay  
VADM Hanson  
LTG Shutler  
LTG Gast  
MG Vaught  
COL Miller, OATSD(LA) - 3D918  
COL Abel/LTCOL Wheeler -2E857

NOTE: Further distribution of the attached personal data should be governed by Privacy Act considerations.
<table>
<thead>
<tr>
<th>NAM/OCS</th>
<th>UNIT</th>
<th>DATE JOINED</th>
<th>LENGTH OF DET</th>
<th>SERVICE</th>
<th>EXPERIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>6113 USMC HMM-461</td>
<td>21Nov79</td>
<td>11 yrs 07 mos</td>
<td>09 yrs 05 mos</td>
<td>Mech Fund Avn Mech Mate Basic Helo Crs</td>
<td></td>
</tr>
<tr>
<td>6113 USMC HMM-204</td>
<td>21Nov79</td>
<td>14 yrs 03 mos</td>
<td>10 yrs 05 mos</td>
<td>Mech Fund Avn Mech Mate Basic Helo Crs</td>
<td></td>
</tr>
<tr>
<td>6113 USMC HMM-461</td>
<td>21Nov79</td>
<td>13 yrs</td>
<td>11 yrs 03 mos</td>
<td>Mech Fund Avn Mech Mate Basic Helo Crs CH-53 CH-53A/H</td>
<td></td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
<table>
<thead>
<tr>
<th>S/N MOS</th>
<th>UNIT</th>
<th>DET</th>
<th>Length of Service</th>
<th>Experience</th>
<th>Schools and Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>/6113 USMC HMT-204</td>
<td>13Dec79</td>
<td>13 yrs 08 mos</td>
<td>9 yrs 07 mos</td>
<td>Helo Fund</td>
<td></td>
</tr>
<tr>
<td>/6113 USMC HMT-301</td>
<td>29Nov79</td>
<td>11 yrs 03 mos</td>
<td>8 yrs 05 mos</td>
<td>Mech Fund, Basic Helo Crs, CH-53A/B Crs</td>
<td></td>
</tr>
<tr>
<td>/6113 USMC HMT-204</td>
<td>21Nov79</td>
<td>6 yrs 09 mos</td>
<td>3 yrs 06 mos</td>
<td>Aviation Fund, Basic Helo Crs, Systems CI-57, CIV Educ: HS, GED</td>
<td></td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained...
<table>
<thead>
<tr>
<th>SSN/DDS</th>
<th>UNIT</th>
<th>DATE JOINED</th>
<th>LENGTH OF SERVICE</th>
<th>EXPERIENCE</th>
<th>SCHOOLS AND TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td>9113 USMC</td>
<td>HMT-204</td>
<td>21Nov79</td>
<td>9 yrs 08 mos</td>
<td>8 yrs 09 mos</td>
<td>Mech Fund</td>
</tr>
<tr>
<td>9113 USMC</td>
<td>HMH-461</td>
<td>21Nov79</td>
<td>Records available at HMC (KIA)</td>
<td></td>
<td>Civ Educ: HS Grad</td>
</tr>
<tr>
<td>9/3072 USMC</td>
<td>H&amp;MS-16</td>
<td>12Dec79</td>
<td>7 yrs 10 mos</td>
<td></td>
<td>Civ Educ: HS Grad</td>
</tr>
<tr>
<td>9/6123 USMC</td>
<td>HMH-461</td>
<td>21Nov79</td>
<td>8 yrs 09 mos</td>
<td>7 yrs</td>
<td>Mech Fund</td>
</tr>
<tr>
<td>9/7041 USMC</td>
<td>MNHS-3</td>
<td>21Dec79</td>
<td>Records not available (Member did not participate in actual operation)</td>
<td></td>
<td>Civ Educ: HS Grad</td>
</tr>
<tr>
<td>9/6055 USMC</td>
<td>HMT-301</td>
<td>30Nov79</td>
<td>6 yrs 11 mos</td>
<td>2 yrs 11 mos</td>
<td>CH-53A/D</td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
<table>
<thead>
<tr>
<th>SSN/AGS</th>
<th>UNIT</th>
<th>DATE JOINED</th>
<th>LENGTH OF SERVICE</th>
<th>EXPERIENCE</th>
<th>SCHOOLS AND TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td>6113 USMC</td>
<td>HMT-301</td>
<td>30Nov79</td>
<td>2 yrs 09 mos</td>
<td>1 yr 11 mos</td>
<td>Avn Fund Basic Helo Crs CIV EDUC: HS Grad</td>
</tr>
<tr>
<td>6113 USMC</td>
<td>HMT-461</td>
<td>21Nov79</td>
<td>Records available at HQMC (KIA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6113 USMC</td>
<td>HMT-204</td>
<td>21Nov79</td>
<td>3 yrs 08 mos</td>
<td>2 yrs 08 mos</td>
<td>Avn Fund Basic Helo Crs CH-53 CIV EDUC: HS Grad</td>
</tr>
<tr>
<td>1391 USMC</td>
<td>WES-27</td>
<td>4Jan80</td>
<td>3 yrs 3 mos</td>
<td>2 yrs 05 mos</td>
<td>CIV EDUC: HS Grad</td>
</tr>
<tr>
<td>6113 USMC</td>
<td>HMT-301</td>
<td>30Nov79</td>
<td>2 yrs 11 mos</td>
<td>2 yrs 01 mo</td>
<td>Avn Fund Basic Helo Crs</td>
</tr>
<tr>
<td>/3534 USMC</td>
<td>WIS-27</td>
<td>4Jan80</td>
<td>Records not available (Member did not participate in actual operation)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
<table>
<thead>
<tr>
<th>SSN/MOS</th>
<th>UNIT</th>
<th>DATE JOINED</th>
<th>LENGTH OF SERVICE</th>
<th>EXPERIENCE</th>
<th>SCHOOLS AND TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td>6113</td>
<td>USMC</td>
<td>HMT-301</td>
<td>11 Dec 79</td>
<td>2 yrs 11 mo</td>
<td>Avn Fund, Basic Helo Crs</td>
</tr>
<tr>
<td>6042</td>
<td>USMC</td>
<td>HMT-301</td>
<td>30 Nov 79</td>
<td>1 yr 11 mo</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>USMC</td>
<td>WES-27</td>
<td>4 Jan 80</td>
<td></td>
<td>Civ Educ, HS Grad</td>
</tr>
<tr>
<td>8226</td>
<td>USN</td>
<td>HM-16</td>
<td>21 Nov 79</td>
<td>8 yrs 11 mos</td>
<td>Avn Fund Crs</td>
</tr>
<tr>
<td>8226</td>
<td>USN</td>
<td>HM-16</td>
<td></td>
<td>2 yrs 08 mo</td>
<td></td>
</tr>
<tr>
<td>8226</td>
<td>USN</td>
<td>HM-14</td>
<td></td>
<td>Records not locally available</td>
<td></td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
<table>
<thead>
<tr>
<th>SSN/ADO</th>
<th>UNIT</th>
<th>DATE JOINED</th>
<th>DET</th>
<th>LENGTH OF SERVICE</th>
<th>EXPERIENCE</th>
<th>SCHOOLS AND TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td>8226 USN</td>
<td>HM-16</td>
<td>21 Nov '79</td>
<td></td>
<td>Records not locally available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8226 USN</td>
<td>HM-14</td>
<td>15 Dec '79</td>
<td></td>
<td>Records not locally available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
<table>
<thead>
<tr>
<th>I/MOS</th>
<th>UNIT</th>
<th>DATE JOINED</th>
<th>LENGTH OF SERVICE</th>
<th>TOTAL FLT HRS</th>
<th>TOTAL H-53 FLT HRS</th>
<th>TOTAL FLT HRS RH-53</th>
<th>TOTAL H-53 FLT HRS W/JTF</th>
<th>MISSION</th>
<th>HELO</th>
</tr>
</thead>
<tbody>
<tr>
<td>7564</td>
<td>USMC</td>
<td>HQMC</td>
<td>8Dec79</td>
<td>18 yrs 08 mos</td>
<td>5500</td>
<td>2500</td>
<td>71.6</td>
<td>39.2</td>
<td>96.0</td>
</tr>
<tr>
<td>7564</td>
<td>USMC</td>
<td>HMH-363</td>
<td>9Dec79</td>
<td>11 yrs 08 mos</td>
<td>1660</td>
<td>1510</td>
<td>50.1</td>
<td>70.1</td>
<td>90.2</td>
</tr>
<tr>
<td>7564</td>
<td>USMC</td>
<td>HMX-1</td>
<td>5Jan80</td>
<td>12 yrs 07 mos</td>
<td>3309</td>
<td>2470</td>
<td>80.1</td>
<td>72.0</td>
<td>78.3</td>
</tr>
<tr>
<td>7564</td>
<td>USMC</td>
<td>H&amp;M-26</td>
<td>21Nov79</td>
<td>11 yrs 11 mos</td>
<td>3350</td>
<td>1244</td>
<td>67.7</td>
<td>31.3</td>
<td>135.2</td>
</tr>
<tr>
<td>7564</td>
<td>USMC</td>
<td>HMH-461</td>
<td>21Nov79</td>
<td>11 yrs 03 mos</td>
<td>2080</td>
<td>1503</td>
<td>55.4</td>
<td>84.3</td>
<td>115.3</td>
</tr>
<tr>
<td>7564</td>
<td>USMC</td>
<td>MAWTS-1</td>
<td>27Nov79</td>
<td>13 yrs 05 mos</td>
<td>3700</td>
<td>3400</td>
<td>48.4</td>
<td>49.3</td>
<td>78.2</td>
</tr>
<tr>
<td>1310</td>
<td>USN</td>
<td>HM-12</td>
<td>19Nov79</td>
<td>08 yrs 07 mos</td>
<td>2710</td>
<td>1510</td>
<td>1264.9</td>
<td>89.1</td>
<td>134.0</td>
</tr>
<tr>
<td>1310</td>
<td>USN</td>
<td>HM-14</td>
<td>10Apr80</td>
<td>10 yrs 03 mos</td>
<td>1550</td>
<td>280</td>
<td>281.7</td>
<td>4.0</td>
<td>14.0</td>
</tr>
<tr>
<td>1310</td>
<td>USN</td>
<td>HM-14</td>
<td>10Apr80</td>
<td>09 yrs 07 mos</td>
<td>DID NOT FLY MISSION</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7564</td>
<td>USMC</td>
<td>HMH-261</td>
<td>21Nov79</td>
<td>09 yrs 03 mos</td>
<td>1580</td>
<td>1197</td>
<td>58.0</td>
<td>81.8</td>
<td>107.4</td>
</tr>
<tr>
<td>7564</td>
<td>USMC</td>
<td>HMH-461</td>
<td>21Nov79</td>
<td>04 yrs 11 mos</td>
<td>1048</td>
<td>837</td>
<td>4.5</td>
<td>40.4</td>
<td>110.5</td>
</tr>
<tr>
<td>7564</td>
<td>USMC</td>
<td>MAWTS-1</td>
<td>21Nov79</td>
<td>08 yrs 04 mos</td>
<td>1688</td>
<td>1432</td>
<td>60.7</td>
<td>70.8</td>
<td>91.6</td>
</tr>
<tr>
<td>7564</td>
<td>USMC</td>
<td>MAWTS-1</td>
<td>21Nov79</td>
<td>09 yrs 11 mos</td>
<td>2564</td>
<td>-1569</td>
<td>96.9</td>
<td>55.8</td>
<td>113.3</td>
</tr>
<tr>
<td>6002</td>
<td>USMC</td>
<td>HMH-461</td>
<td>21Nov79</td>
<td>18 yrs 06 mos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

H-53 Act: Attended the following schools/courses:

CH-53

NOTE: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
MEMORANDUM FOR MAJOR GENERAL VAUGHT, USA
ATTN: LTC [redacted] USA

Subject: (2) Talker and Backgrounder on Intelligence Support to the Iran Hostage Rescue Mission

Ref: Letter, House Permanent Select Committee on Intelligence, 14 May 1980 (attached)

1. Mr. W. Graham Claytor, Jr., Deputy Secretary of Defense, and Lieutenant General John S. Pustay, USAF, Asst to the Chairman, JCS, are scheduled to appear before the House Permanent Select Committee on Intelligence on Tuesday, 20 May 1980, at 1400.

2. LTG Pustay has requested that the following information be provided:

a. For Mr. Claytor and LTG Pustay -

   A talker (1 1/2 pages) outlining and evaluating the adequacy of intelligence support for the planning and execution of the Iran rescue mission, and the role played by various intelligence agencies (DIA, [redacted], etc.) in providing that support. The scope of this paper should cover both pre- and post- Desert One phases of the mission.

b. For LTG Pustay -

   A backgrounder, providing a more in-depth exposition of the role played by intelligence agencies in providing intelligence support to the Iran rescue mission (i.e. DIA, [redacted], [redacted], etc.).

RESPONSE ON FILE IN SOD.
May 14, 1980

Honorable Harold Brown
Secretary of Defense
Washington, D.C. 20301

Dear Mr. Secretary:

As part of its continuing oversight and evaluation of the intelligence community, the Permanent Select Committee on Intelligence was briefed by Director Turner on May 7, 1980 on intelligence aspects of the rescue mission in Iran.

During the course of that session, several Members asked questions concerning aspects of the military role in the mission. Director Turner stated that the military aspects were not within his purview and that such questions should be raised with you.

As you know, this Committee is interested both in the intelligence support for the planning and execution of the mission and in the evaluation of that support by the policy makers and operational commanders. Committee Members are also interested in some of the military planning and operational aspects of the mission.

Therefore, I invite you to appear before the Permanent Select Committee on Intelligence in executive session on Tuesday, May 20, at 2:00 p.m. in Room H-405 to discuss these matters.

With every good wish, I am

Sincerely yours,

EDWARD F. BOLAND
Chairman
matters also. One likely area of interest: maintenance patterns on the helicopters and other equipment.

3. The session will be held in room H-405 at the Capitol.

COPY TO: BG Todd
        COL Abel
        COL Abel
        LTC Olymk

[Signature]

COLONEL MILLER
Subject: Visit of Rescue Operation Personnel with the President

1. Units which participated in the rescue operation not yet visited by the President have been requested to have representatives available for movement to Washington to meet with high level officials on short notice. The total number alerted for this purpose is 26. In addition, 10 personnel (not associated with these units) who served on the Joint Task Force staff have also been identified (but not notified) for a total of 36. In view of the size of this group, three alternatives have been developed for consideration:
   
a. Option 1: One-half of the personnel who have been alerted for this possibility can be moved to Washington and visit with the President at the White House, the Pentagon, or some other location as may be desired. 
   
   Major Advantage: Reduces the size of the group to meet with the President and correspondingly reduces the administrative, transportation, and security requirements.
   
   Major Disadvantage: One-half of the people who may now be expecting a trip to Washington to meet with high government officials will be disappointed.

b. Option 2: Continue with plans and assemble all 36 personnel in Washington. One-half would meet with the President and the other half would meet with the Secretary of Defense and the Chairman, Joint Chiefs of Staff.

   Major Advantage: All personnel now expecting a trip to Washington would be given the opportunity and all personnel would meet with senior officials, providing personal recognition for their participating in the rescue effort.

   Major Disadvantage: The one-half not seeing the President could be disappointed.

c. Option 3: Invite all personnel now alerted to Washington and have all personnel tentatively identified visit with the President at the White House, the Pentagon, or some other location as may be desired.

   Major Advantage: All personnel now alerted would meet with the President.

   Major Disadvantage: The size of the group could entail more extensive administrative, transportation, and security arrangements than those required for Options 1 or 2.

2. Recommendation: It is recommended that Option 3 be selected and that Option 2 be the fall back position.
MEMORANDUM FOR THE LEGAL ADVISER AND LEGISLATIVE ASSISTANT
TO THE CHAIRMAN, JCS

Subject: Inserts for the Record for Testimony Before the
Senate Armed Services Committee, 7 May 1980

b. Telephone Request, 21 May 1980

1. Attached per your request (reference a) are the following
inserts for the record for the testimony on the hostage rescue
attempt held before the Senate Armed Services Committee (SASC),
the afternoon session on 7 May 1980:

   a. Page 7, line 11 1/2: Dates and information on the Soviet naval exercise (provided separately).

   b. Page 111, line 5 1/2: Average hours of helicopter/C-130
      peacetime training flying time (not associated with hostage
      rescue mission). The information provided covers both US Navy
      and US Marine Corps helicopters and USAF C-130 pilots.

   c. Page 130, line 3: List of contents of the cross-country
      kit taken aboard hostage rescue mission helicopters.

   d. Page 144-5: A chart showing the pattern of aircraft
      (helicopters and C-130s) landing and refueling at Desert One.

2. The OPORDER or excerpts thereof (page 172 of the testimony)
   have not been included. A response on this issue is being prepared
   by LTG Gast.

3. A copy of the map showing flight routes of the helicopters and
   C-130s from the Iran coast point of entry to Desert One is provided
   per reference b as an insert to the morning session of the SASC
   hearings on 7 May 1980. (Referenced pages in the text of the testi-
   mony are page 34, line 18; page 35, line 33; page 49.) This map was

Confidential

Declassified on: 01/06/2021

Unclassified
originally classified TOP SECRET, and subsequently downgraded to SECRET, as is reflected in the testimony on above referenced pages. As a result of recent exposure to the public of a map with similar information on ABC TV network, it was decided to declassify the map, which is attached.

CHARLES W. DYKE
Major General, USA

Attachments
a/s

Copy to:
Mr. Ross
Mr. Stempler
CJCS
ACJCS
DJS
J-30
LTGEN Gast
MG Vaught
COL Miller, OATSD(LA)
COL Abel

AG
COL Paschall
OFFICE OF THE CHAIRMAN
Joint Chiefs of Staff

MEMO TO:
Insert required from 7 May PM session - SASC.

p. 7, l. 10 1/2 - dates of

p. 11, l. 5 1/2 - average hours of flying time - not associated with mission.

p. 120, l. 3 - list of what's in a cross-country kit.

p. 144-5 - chart/map used.

p. 172 - out of order. √
CONFIDENTIAL

THE JOINT CHIEFS OF STAFF
OFFICE OF THE DIRECTOR FOR OPERATIONS (J-3)
WASHINGTON, D.C. 20301

DATE  21 May 80

MEMORANDUM FOR RECORD

Received telephone request from the Office of the SSA
for CJCS (Ms J. Jones),
21 May 80, for a copy of
the map showing routes of
flight by the helicopters/C130s
during chaffage rescue
attempt.

The map was referenced during
the hearings (9:17) before SASC
on 7 May 80, and will be
used as insert to official
transcript (pp. 34, 35, and 49).

AC S. D. Olmsten

——CONFIDENTIAL——
All external fuselage/running lights
All sleeve and spindle assemblies
All damper accumulators
Cockpit instruments and lights
Windscreens (clear of paint and scratches)
Pilot's and copilot's control spot lights
All rotor blades (main and tail)

3. Response to Question 8: The checklist items above constituted checks "over and above" those routinely required by US Navy inspection checklists and maintenance procedures. To more thoroughly understand what transpired, it should be noted that on 20 April, mission aircrews and supporting personnel arrived aboard NIMITZ. During the period 20-24 April, mission crews participated in familiarization flights, maintenance check flights, deck turn-ups and mission preparation activities. All eight aircraft were given a full functional check flight during this period. At least one pilot in each assigned mission flight crew was a qualified functional check pilot. Maintenance records were reviewed by the mission aircraft maintenance officer for appropriate maintenance action, and crewmembers made repeated inspections of their assigned aircraft. The mission aircraft maintenance officer had visited the ship approximately three weeks prior to review maintenance records and personally inspected the aircraft. He had provided specific and detailed guidance to HM-16 squadron maintenance supervisors regarding items to be inspected, additional maintenance actions desired, and other pre-mission preparations to be accomplished. He also screened all related records and log books and did not note any components that exceeded allowable removal times. Based upon his guidance, the HM-16 squadron aircraft maintenance officer developed a pre-mission checklist and procedures for its completion. Completion of these actions was verified by the mission aircraft maintenance officer upon his return to NIMITZ on 20 April.

4. This memorandum, together with reference b, completes response to questions 1, 3, 5, 7, and 8. Responses to questions 2, 4, and 6 are working. Answers will be provided as soon as possible. All personnel requested to date have been provided, with the exception of Major Schaeffer who remains under hospital care.

CHARLES W. DYKE
Major General, USA

Attachments
a/s

Copy to:
Mr. Stempler (3E822)
CJCS
ACJCS
LTG Shutter
LTG Gast
MG Vaught

COL Miller, OATSD(LA) (3D918)
COL Abel, Spec Asst PA, CJCS (2E857)
Mr. Peter Hamilton (3E880)
INCLUSION 1 TO MEMORANDUM FOR THE LEGAL AND LEGISLATIVE ASSISTANT TO THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Response to Staff Query, Senate Armed Services Committee

1. Eight RH-53 helicopters were utilized for the rescue operations. All eight helicopters were from USN Minesweeper Squadron HM-16 based at Norfolk, Virginia.

2. In mid-November 1979, six of the eight RH-53 helicopters were partially disassembled and airlifted by C-5 aircraft from Norfolk to the Mediterranean where they were reassembled and flown aboard NIMITZ. In early January, the two additional RH-53 helicopters (numbers 2 and 6 on the rescue mission) were airlifted from Norfolk to the Mediterranean where they were reassembled and loaded aboard the NIMITZ. The NIMITZ sailed from the Mediterranean to the Indian Ocean and relieved the KITTY HAWK on station on 21 January 1980. The six RH-53 helicopters aboard the KITTY HAWK were loaded aboard the NIMITZ, making a total of eight.

3. All eight RH-53’s were fully operational when they took off from the NIMITZ on 24 April 1980. The mission performance of each helicopter is outlined below:

<table>
<thead>
<tr>
<th>HELO NUMBER</th>
<th>PERFORMANCE</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>No problems</td>
</tr>
<tr>
<td>2</td>
<td>Arrived at Desert One (Not mission capable)</td>
<td>Second stage hydraulic pump failure.</td>
</tr>
<tr>
<td>3</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>Low first stage hydraulic quantity.</td>
</tr>
<tr>
<td>4</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>Prepared to service. No discrepancies.</td>
</tr>
<tr>
<td>5</td>
<td>Returned to NIMITZ (Aborted mission)</td>
<td>Attitude reference system failure/TACAN failure.</td>
</tr>
<tr>
<td>6</td>
<td>Down after 2 hours (Aborted mission; crew picked up by helo #8)</td>
<td>Rotor blade indication failure</td>
</tr>
<tr>
<td>7</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>No problems</td>
</tr>
</tbody>
</table>

* Helos 2 and 6 arrived aboard NIMITZ. There is no correlation with the failure of these two aircraft and the coincidence of their arrival in the Indian Ocean aboard NIMITZ.
MEMORANDUM FOR MAJOR GENERAL VAUGHT

BADM TOM CASSIDY, OPG

COLONEL CHARLES H. LITTMAN

Subject: Request for Information and Material for Congress Concerning Attempted Hostage Rescue in Iran

1. The following requirements have been received and require support as indicated:

a. For MG Vaught:

(1) Maps showing helicopter and C-130 aircraft flight routes over Iran during rescue attempt. Maps should not show points of origin but only flight routes over Iran (Item 1, Incl 1, TAB A). Suspense: 1500, 6 May 1980.

(2) Charts showing planned and actual aircraft and helicopter parking/refueling patterns at Desert One site. Major reportedly used a similar chart when he appeared before Senator Warner and the SASC staff personnel. (Item 2, Incl 1 to TAB A). Suspense: 1500, 6 May 1980.

(3) Provide information on the availability of any portion of the operations plan for the rescue attempt (Item 3, Incl 1 to TAB A). Suspense: 1500, 6 May 1980.

(4) Have plans to have Major available for interview by SASC staff personnel or for possible appearance at the SASC hearings (Incl 1 to Tab A). Suspense: Continuing.

(5) Provide information concerning education levels of soldiers associated with rescue attempt as outlined in items (1) and (2), Tab B. Suspense: COB 15 May 1980.
b. For RADM Cassidy:

(1) Have maintenance officer for HM-16 available (on call) for the SASC. (Incl 1 to Tab A). Suspense: Continuing.

(2) Provide information regarding failure rate of helicopters during training and rehearsals (TAB A). Suspense: 8 May 1980.

(3) Provide information concerning the educational level of the helicopter maintenance personnel on the NIMITZ (HM-16 personnel) and the 20-man helicopter maintenance team under Captain [REDACTED] who went aboard the NIMITZ with three helicopter aircrews. (Item (3), Tab B). Suspense: COB 15 May 1980.

(4) Provide information on how to respond to the request for the maintenance records of the eight RH-53 helicopters used on the mission. It is understood that the Navy would prefer to respond to specific questions rather than submit technical records for interpretation by the Congress. The task is for a draft response which either forwards the records with appropriate caveats or for a response which gives the position preferred by the Navy. (TAB C). Suspense: 9 May 1980.

c. For Colonel Pittman:

(1) The four pilots listed below are to be alerted (but not moved) for possible appearance before the SASC as previously discussed (5 May 80):

- LCDR [REDACTED], USN
- CAPT [REDACTED], USMC
- CAPT [REDACTED], USAF
- MAJ [REDACTED], USMC

Suspense: Continuing
(2) In addition to the four officers listed above, the SASC staff has also requested to see Major Schaeffer when his medical condition will permit. I do not perceive this as an urgent requirement. Suspense: Continuing.

CHARLES W. DYKE
Major General, USA
Vice Director for Operations

3 Incl
a/s

Copy Furnished:
Mr. Stempker
CJCS
ACJCS
DJS
LTG Gast
LTG Shutler
COL Miller, LLA to CJCS
COL Miller, OSD/LLA
COL Abel, SA/PA to CJCS
CONFIDENTIAL

OFFICE OF THE CHAIRMAN
Joint Chiefs of Staff
5 May 1980

MEMO TO: MAJOR GENERAL CHARLES W. DYKE

SUBJECT: Iranian Rescue Mission

In addition to the items requested in the attached memo from Jack Stempler, the SASC is also requesting information concerning the failure rate of helicopters during the training period preceding the rescue mission. I understand that during the course of his interview, COL Chuck Pitman was asked concerning the failure rate during training, and Pitman indicated to the Committee that such information was available. If that information is correct, would you please provide that information to my office for further provision to the SASC.

[Signature]
COLONEL MILLER
MEMORANDUM FOR Major General Charles W. Dyke, USA, Vice Director for Operations, Joint Staff

SUBJECT: Iranian Rescue Operation

In connection with the Senate Armed Services Committee hearing scheduled for this Wednesday, the Committee has made the following requests:

1. Without revealing the origin of flight, a map showing the various routes flown by the C-130s and RH-53 helicopters to the Desert One site.

2. A chart showing the location on the ground of the C-130s and the helicopters at Desert One. (Planned and actual).

3. To the extent that such information can be disclosed, the Committee has asked for the operation plan until such time as the mission was aborted.

Committee staff has alerted us that at some point, the staff may wish to meet with Major [redacted] (intelligence briefer), Commander [redacted] (helicopter maintenance officer), Sergeant [redacted] and Major Schaffer.

I would appreciate it if you could arrange to provide an appropriate response to the requests in items 1 to 3 above. Such response should be furnished to this office for transmittal to the Committee prior to the Wednesday hearing.

Jack L. Stempler
Assistant to the Secretary of Defense (Legislative Affairs)
MEMORANDUM FOR THE OPERATIONS PLANNING GROUP (OPG)
ATTN: REAR ADMIRAL CASSIDY

Subject: General Pustay's Testimony Before the Senate Armed Services Committee

1. We have received a transcript of General Pustay's testimony before the Senate Armed Services Committee (SASC) on 28 April 1980, which is attached. The text of the testimony should be reviewed for two reasons:

   a. To insure accuracy of information or data provided by General Pustay.

   b. To provide information or data in those instances where General Pustay was not in the position to furnish the requested information and promised to supply it at a later date. These places are marked in the text.

2. Request your staff provide the required information in draft form by COB 5 May 1980 to LTC S.D. Olynyk, J-3/SOD, who will prepare the input as inserts to the testimony for submission to the Legislative and Legal Assistant to the Chairman, JCS.

Attachment
a/s

CHARLES W. DYKE
Major General, USA
Vice Director for Operations

27B23

DECLASSIFIED
DD 01/WMc
12 May 1992

SECRET
e. Awards by Each Service: Awards in this category would not be under JTF control, although MG Vaught's views could be influential with regard to the policy adopted by each Service. Presently, the Army has no recommendation for awards through Service channels now being processed and the DA officer responsible (LTC Hull, USA MILPERCEN, 325-8700) is aware of none. The 1st Special Operations Wing Commander reportedly desires that 1st SOW personnel who penetrated Iranian airspace receive the DSSM. This appears contrary to MG Vaught's guidance and is an internal Army issue.

3. There are no plans underway, at least no organized effort, to recognize staff personnel in Washington and elsewhere. My recommendation is that no such effort be made. There are literally hundreds of people who have been involved in many locations. Those singled out for recognition by the JTF Commander or by the normal chain of supervision should be recognized but a concerted effort to present awards to staff members would pose difficult problems of equity and run the risk of "cheapening the coin." For staff personnel, we need to let the system work.

4. The JTF seems to have a practical, workable plan for properly recognizing participants. It is an area which MG Vaught wants to control personally. I stand ready to assist as may be appropriate or as requested.

CHARLES W. DYKE
Major General, USA

CF: MG VAUGHT, CDR, JTF
LTG GAST, DEP CMA, JTF
COL [REDACTED] JTF C/S

Note: Classification of this memorandum is based on material obtained from JTF.
MEMORANDUM TO:  

We should make sure to continue with any more training.

All data should remain undisturbed.

Pete Hamilton
MEMORANDUM FOR: Major General Vaught
Lieutenant General Gast

Subject: Request for Cost Estimate of Iranian Rescue Effort

1. Attached is a copy of a 6 May 1980 letter from Senator Hollings to Secretary Brown requesting a cost estimate of the attempted rescue in Iran. Senator Hollings has asked that this estimate be provided by Monday, 12 May 1980, with a breakdown by appropriation account with relevant programmatic detail.

2. I recommend that Service points of contact be advised. The action has been assigned to the Assistant Secretary of Defense (Comptroller) for direct reply to Senator Hollings. I will attempt to obtain a copy of the response for your information.

Attachment
a/s

Copy to:
Mr. Stempker - 3E822
Mr. Hamilton - 3E880
CJCS
ACJCS
LTG Shutler
COL Miller, LL Asst, CJCS - 2E841
COL Miller, OATSD(LA) - 3D918
COL Abel, Spec Asst PA, CJCS - 2E857

CHARLES W. DYKE
Major General, USA
MEMO

Subject: JTF Training Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost (Approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>XVIII ABN CORPS</td>
<td>750,000</td>
</tr>
<tr>
<td>YPG</td>
<td>95,000</td>
</tr>
<tr>
<td>ANNISTON ARMY DEPOT</td>
<td>55,000</td>
</tr>
<tr>
<td>REDCOM</td>
<td>150,000</td>
</tr>
<tr>
<td>DAAF</td>
<td>75,000</td>
</tr>
<tr>
<td>TDY (DA)</td>
<td>25,000</td>
</tr>
<tr>
<td>TDY (OTHER)</td>
<td>40,000</td>
</tr>
<tr>
<td>MCAS YUMA</td>
<td>150,000</td>
</tr>
<tr>
<td>UNPROGRAMMED MAINT</td>
<td>100,000</td>
</tr>
<tr>
<td>MISC</td>
<td>50,000</td>
</tr>
</tbody>
</table>

NOTE:

a. No Airlift Cost Included
b. Cost Data Approximate Based on Reconstitution/Inventory Data Not Yet Received.

Major, USA
MEMO

Subject: Initial Funding Analysis

1. Reconstitution of lost/damaged equipment appears to require the following funding by Service:

   USN/USMC     21,785,467
     ($21M for Helos)

   USAF         13,408,848
     ($11M for C-130)

   ARMY         1,500,000
     ($1M for Comm)

   TOTAL        36,694,315

2. Information does not include airlift costs. Further, cost data is very approximate pending total inventory.

3. Costs incurred by CINCPAC and CINCEUR are not now available.

Major, USA
SUBJECT: CONGRESSIONAL INQUIRY ON COST OF IRANIAN HOSTAGE RESCUE ATTEMPT (TS-NF)

QUOTE

FM AFSFO USAF/CAT TO JCS/J3
INFO SSO USEUCOM/CAT/ECJ-3

ZFM
TOP SECRET NOFORN EYES ONLY
SUBJ: CONGRESSIONAL INQUIRY ON COST OF IRANIAN HOSTAGE RESCUE ATTEMPT (TS-NF)

1ST (TS-NF) HQ USAF/ACB 101627Z MAY 80, SUBJ AS ABOVE, REQUESTED ALL MAJCOMS PROVIDE AN ESTIMATE OF COSTS INCURRED IN SUPPORT OF THE RESCUE EFFORT. SUBJECT 456 WAS UNCLASSIFIED BUT WE ARE PROVIDING DATA TO YOU VIA AFSFO CHANNELS TO PREVENT COMPROMISING CONNECTION WITH PROJECT EC-79 AND THIS COMMAND'S INVOLVEMENT. GUIDANCE PROVIDE USAFE REGARDING THIS PROJECT HAS STRESSED THE NECESSITY TO MAINTAIN ALL ACTIVITY WITHIN A "CLOSE HOLD" CONTEXT.

2ND (TS-NF) BEST ESTIMATE OF COSTS INCURRED AS A DIRECT RESULT OF THE RESCUE ATTEMPT AS AFOLLOWS. THESE QUOTED COSTS ARE THOSE INCURRED DURING THE FIVE DAY PERIOD PRIOR TO 25 APR IN SUPPORT OF THE OPERATIONS AND REPRESENT ONLY THE IMMEDIATE COST OF THE MISSION.

A(1ST) 3580, M-151A2 JEEP, NSN 2320 03 177 9258, REG NR
TOTAL FLYING HOURS IN DIRECT SUPPORT OF RESCUE: 40.2 HRS AT $1127/HOUR - TOTAL $45,617.

3. (TS/IVF) TOTAL FLYING HOURS IN DIRECT SUPPORT OF RESCUE: 40.2 HRS AT $1127/HOUR - TOTAL $45,617.

4. (TS/IVF) OTHER EXPENSES IN TRAINING AND PREPARATION OVER AND ABOVE NORMAL TRAINING AND READINESS:

A. (TS/IVF) TOTAL UNPROGRAMMED FLYING HOUR COST $217,232. CONSISTING OF 39.9 HRS AT JAN 80 F/H COST OF $549/HR AND 17.7 HRS AT FEB COST OF $1127/H.

B. (TS/IVF) TOTAL TOY PER DIEM FOR JAN THRU APR 80 $786

C. (TS/IVF) TOTAL REPORTED EXPENDITURES IN SUPPORT OF PROJECT EC THRU 30 APR 80 TOTAL $573,000 AS FOLLOWS:

A. (TS/IVF) TOY: $61,000
B. (TS/IVF) SUPPLIES & EQUPT: $319,000
C. (TS/IVF) COMMISSARY: $188,000
D. (TS/IVF) OPE-IN REQUISITIONS: $105,000
6. (TS/IVF) TOTAL COSTS OF PROJECT INCURRED BY THIS COMMAND MUST INCLUDE EXPENDITURES FOR ALL SUPPORT ACTIVITIES STARTING ON 7 DEC 79 AND EXTENDING TO THE PRESENT TIME.

7. (TS/IVF) IN VIEW OF CLASSIFICATION AND CLOSE HOLD NATURE OF REQUEST YOU REVIEW THE ABOVE AND PASS THE APPROPRIATE DATA TO HQ USAF/ACB.

REVIEW 16 MAY 1980.

UNQUOTE

REVIEW ON: 14 MAY 2900

#0729
OATMFYW YWORON 26321351814--MNSH--YQKQOH,
ZLY MNSH
ZYGK003DADE
D141724Z MAY 80
FMI580 SAC//DOE//
TO JCS//J3//
ZEM
TOPSFCREAT EYES ONLY
Q0QQ
FOR: MOEN DYE, PASS TO AIR FORCES CELL OPG,
SUBJ: COST ESTIMATES FOR RESCUE ATTEMPT (U)
REF: HQ USAF/ACB (U) MSG 101600Z MAY 80
1. (U) THE FOLLOWING ARE BEST ESTIMATES OF THE COSTS REQUESTED I
REFERENCE MESSAGE
A. (U) ITEMS CONSUMED:
(1) (7) PALLETIZED INERTIAL NAVIGATION SYSTEM (7)
ACQUISITION COST $122,000 EACH
REPLACEMENT COST $145,000 EACH (X7 = $81,015,000.00)
B. (U) TRAINING AND PREPARATION
(1) (7) TOY COST (CONCLUDE TRAVEL/PFR DUEH/EXPENSES TO
A.E
252.4 (THOUSANDS)
50.0
25.0
8.6
TOTAL TOY COSTS $133,000.00
NOTE: UNIT FIGURES ARE APPROXIMATE AND REPRESENT AMOUNTS ALLO-
CATED TO SUPPORT EC-79. NO SAC FIGURE IS ACTUAL COSTS.
2. (U) FLYING HOUR COSTS:
A. (7) TRAINING/PREPARATION:
INITIAL DEPLOYMENT/ROTATION TO E E
HOURS 362.0

TOP SECRET
CONUS REHEARSAL MISSIONS
CTF-70 F14 TRAINING
10 KC-135 RTS STAGE TO CONUS (18-23 APR) 126.0
2 KC-135 RTS STAGE TO (20-22 APR) 55.9
KC/MC/EC-130 DEPLOYMENT SUPPORT (18-21 APR) 65.5
KC-135S REDEPLOY TO CONUS (27-30 APR) 126.9
KC-135S REDEPLOY TO CONUS (27-30 APR) 58.0
AG/MC/EC-130 REDEPLOY SUPPORT (28-30 APR) 49.8
CTF-70 FIGHTER CAP SUPPORT (24 APR) 29.5
EC/MC-130 EGESS REFueling SUPPORT (24 APR) 39.6
O. (179) OTHER
STAGING FOR KC-15 71.0
TOTAL 1705.9
TIMES STANDARD COST FOR ONE KC-135 HOUR 3184.9
TOTAL FLYING HOUR COSTS: 55,431,904.00
DECLASSIFY ON 13 MAY 86
#2632

NNNN
THE JOINT CHIEFS OF STAFF
OFFICE OF THE DIRECTOR FOR OPERATIONS (J-3)
WASHINGTON, D.C. 20301

DATE 20 May 80

MEMORANDUM FOR LTGEN Pustay

GEN Jones

SUBJ: Request for Cost: Senator Hollings' Letter of 6 May 80

Sir, Senator Hollings has requested (brown tab) cost estimates of the rescue attempt. He requested this data initially by 12 May but through coordination with his office and interim response (orange tab), we have delayed a final response until this week. Proposed final response, which has been coordinated with Service representatives and office of ASD(Compt), is at blue tab. The total is just under $200 million. A summary of the cost is immediately beneath the blue tab, followed by a summary of the cost associated with each Service.

I would appreciate your review, and General Jones', today if possible. General Jones does want to see this prior to release.

CHARLES W. DYKX
Major/General, USA

Copy to:
MG Vaught
LTGEN Gast
MEMORANDUM

Date: 2 May 81

709: LtCol Gorst, LTC Vaughn

Subject: Cost Estimates for San Helens.

Please see the attached.

LtCol Rusty and Col Jones. We are in a bind for time on this. It would appreciate your views on it sooner. Thank.

Capt J31

CF: Col Miller, C4AAT & CTO3
Honorable Ernest F. Hollings
Chairman, Committee on Budget
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

In further response to your letter of May 6, the attached estimates of the costs of the hostage rescue operation are submitted. These estimates, listed by Military Departments, are presented to show estimated cost for certain items expended on the mission. The costs shown for training and preparation are those over and above programmed expenditures. Military and civilian personnel pay are not included.

The enclosed information has been discussed with Mr. Mike Joy of your office. We sincerely hope that it meets your requirements and contributes to the overall understanding of defense needs. Should there be other requirements in this matter, we are prepared to assist.

Thank you for your long-standing support and continuing interest in the readiness and adequacy of our defense programs.

Sincerely,

[Signature]

John R. Quitsch
Principal Deputy Assistant Secretary of Defense (Comptroller)

Enclosures
SUMMARY

COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT
(ALL COSTS IN FY-80 DOLLARS)

1. Estimated value of items expended on the mission
   
<table>
<thead>
<tr>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
</tr>
<tr>
<td>$1,151,541</td>
</tr>
<tr>
<td>Navy</td>
</tr>
<tr>
<td>161,200,000</td>
</tr>
<tr>
<td>Air Force</td>
</tr>
<tr>
<td>15,806,319</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td><strong>$178,157,860</strong></td>
</tr>
</tbody>
</table>

2. Training & Preparation
   
<table>
<thead>
<tr>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
</tr>
<tr>
<td>$190,762</td>
</tr>
<tr>
<td>Navy</td>
</tr>
<tr>
<td>6,500,000</td>
</tr>
<tr>
<td>Air Force</td>
</tr>
<tr>
<td>3,534,588</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td><strong>$10,229,350</strong></td>
</tr>
</tbody>
</table>

3. Airlift and Other Support
   
<table>
<thead>
<tr>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
</tr>
<tr>
<td>$44,627</td>
</tr>
<tr>
<td>Navy</td>
</tr>
<tr>
<td>6,000</td>
</tr>
<tr>
<td>Air Force</td>
</tr>
<tr>
<td>9,499,628</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td><strong>$9,550,255</strong></td>
</tr>
</tbody>
</table>

**Estimated Grand Total** $197,933,465

* For detail accounting see Service enclosures, attached
COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT - US NAVY  
(ALL COSTS IN FY-80 DOLLARS)

1. Estimated value of items expended on the mission a/
   - 1109 Marine Night Vision and other special equipment  
     Estimated Cost: $800,000
   - 1804/1106 Components, Paint  
     Estimated Cost: $2,300,000
     Subtotal: $3,100,000

2. Training and Preparation
   - 1804 Emergency Repairs - RH-53D  
     Actual Cost: $3,000,000
   - 1804 Component Repairs - RH-53D  
     Actual Cost: $3,500,000
     Subtotal: $6,500,000

3. Airlift and Other Support
   - 1106 Temporary Duty  
     Total, Navy: $6,000

Total, Navy: $9,606,000

a/ Excludes costs of the seven RH-53B aircraft expended since no decision has been made on whether, when, how or to what extent replacement of this capability will be required.

CLASSIFIED BY: Dir, J-3, JCS
DECLASSIFY ON: May 21, 1986
OADR
### SUMMARY

COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT
(ALL COSTS IN FY-80 DOLLARS)

1. **Estimated value of items expended on the mission**
   - Army
   - Navy
   - Air Force

   **Subtotal**

2. **Training and Preparation**
   - Army
   - Navy
   - Air Force

   **Subtotal**

3. **Airlift and Other Support**
   - Army
   - Navy
   - Air Force

   **Subtotal**

<table>
<thead>
<tr>
<th></th>
<th>Estimated Cost</th>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>$1,151,541</td>
<td>$190,762</td>
</tr>
<tr>
<td>Navy</td>
<td>3,100,000</td>
<td>6,500,000</td>
</tr>
<tr>
<td>Air Force</td>
<td>1,306,319</td>
<td>3,534,588</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$5,557,860</td>
<td>$10,225,530</td>
</tr>
<tr>
<td>Army Airlift</td>
<td>44,627</td>
<td></td>
</tr>
<tr>
<td>Navy Airlift</td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>Air Force Airlift</td>
<td>9,499,628</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>9,550,255</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$25,333,465</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

a/ Detail by Military Department is attached.
3. Airlift and Other Support

<table>
<thead>
<tr>
<th>Item</th>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASIF airlift in support of training, deployment, medical evacuation and redeployment. Allocation of these costs to the using Service is presently in work.</td>
<td>$ 8,396,768</td>
</tr>
<tr>
<td>3400 TBY expenses</td>
<td>1,066,667</td>
</tr>
<tr>
<td>3403 Reconstitution of refueling system</td>
<td>19,193</td>
</tr>
<tr>
<td>3500 Rations consumed</td>
<td>17,000</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$ 9,499,628</td>
</tr>
<tr>
<td>Estimated grand total, Air Force</td>
<td>$28,840,535</td>
</tr>
</tbody>
</table>
COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT - US AIR FORCE
(ALL COSTS IN FY 80-DOLLARS)

1. **Estimated value of items expended a/ on the mission**

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>3010 Palletized Inertial Navigation Systems (PINS)</td>
<td>$1,015,000</td>
</tr>
<tr>
<td>3080 M-151A2 Jeep destroyed</td>
<td>$3,196</td>
</tr>
<tr>
<td>3080 Fuel System</td>
<td>$130,025</td>
</tr>
<tr>
<td>3080 Miscellaneous Equipment</td>
<td>$158,098</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$1,306,319</strong></td>
</tr>
</tbody>
</table>

2. **Training and Preparation**

<table>
<thead>
<tr>
<th>Item</th>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>KC-135 Tanker support during training, deployment and employment</td>
<td>$85,873</td>
</tr>
<tr>
<td>3010 Depot Spares</td>
<td>$3,341,438</td>
</tr>
<tr>
<td>3400 Aviation POL, Depot Equipment Maintenance (DPEM), Supplies</td>
<td></td>
</tr>
<tr>
<td>C-130 support provided above normal training requirements</td>
<td></td>
</tr>
<tr>
<td>3010 Depot Spares</td>
<td>$10,430</td>
</tr>
<tr>
<td>3400 Aviation POL, Depot Equipment Maintenance (DPEM), Supplies</td>
<td>$96,847</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$3,534,588</strong></td>
</tr>
</tbody>
</table>

*a/ Excludes costs of the C-130 aircraft destroyed during the mission since no decision has been made concerning whether replacement will be programmed, and if so, when.*
COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT - US NAVY
(ALL COSTS IN FY-80 DOLLARS)

1. Estimated value of items expended on the mission

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1506 RH-53D</td>
<td>$158,100,000 (FY-81/82/83)*</td>
</tr>
<tr>
<td>1109 Marine Night Vision and other special equipment</td>
<td>800,000</td>
</tr>
<tr>
<td>1804/1106 Components, Paint</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>2,300,000</td>
</tr>
<tr>
<td></td>
<td>$161,200,000</td>
</tr>
</tbody>
</table>

* 7 RH-53F aircraft would be procured to replace the out-of-production RH-53Ds. FY 1981 funds (9.0M) provide advance procurement. FY 1982 funds (128.1M) provide for aircraft procurement. FY 1983 funds (21.0M) provide for modification kits to incorporate a mine countermeasures capability in the aircraft.

2. Training and Preparation

<table>
<thead>
<tr>
<th>Item</th>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1804 Emergency Repairs - RH-53D</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>1804 Component Repairs - RH-53D</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>3,500,000</td>
</tr>
<tr>
<td></td>
<td>$6,500,000</td>
</tr>
</tbody>
</table>

3. Airlift and Other Support

<table>
<thead>
<tr>
<th>Item</th>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1106 Temporary Duty</td>
<td>6,000</td>
</tr>
</tbody>
</table>

Estimated Grand Total, Navy                 $167,706,000
COSTS ASSOCIATED WITH IRAN RESCUE ATTEMPT - US ARMY
(ALL COSTS IN FY-80 DOLLARS)

1. Estimated value of items expended on the mission.
   - 2020 Minor weapons, clothing, communications and miscellaneous stock funded items
     Estimated Cost: $1,037,591
   - 2035 Communications equipment and non-standard items
     Estimated Cost: $100,294
   - 2033 Research and development items and REDEYE systems
     Estimated Cost: $13,656
   Subtotal: $1,151,541

2. Training and Preparation
   - 2020 Base support
     Actual Cost: $190,762

3. Airlift and Other Support
   - 2020 Army airlift and temporary duty
     Actual Cost: $44,627
     Estimated Grand Total, Army: $1,386,930

CLASSIFIED BY: DIF, DCSOP, OD
REVIEW ON: 15-May-86
OAKR
21 May 1980

MEMORANDUM FOR THE RECORD

Subject: Cost Associated with Iran Hostage Rescue Attempt

1. Mr. Al South (OASD/C) has passed on telephonically to LTC Olynyk the following information with respect to the status of the cost package:

   a. The package has been passed from Mr. Hamilton to the OSD Comptroller, and is with Mr. South.

   b. The following changes to the package were agreed upon by Mr. Hamilton and OSD Comptroller, and will be introduced into the package, with copies furnished to MG Dyke:

      The cost for RH-53D and C-130 aircraft will be deleted, with a footnote added as follows: The cost for these aircraft is excluded on the basis that the decision has not been reached as to when, how, and to what extent this capability will be replaced.

      b. The package with a cover letter will be signed today, 21 May, and forwarded to Senator Hollings. MG Dyke will be provided with a copy.

   c. Mr. South recommended that MG Dyke insure that Mr. Hamilton understands that US Army "covert costs" associated with the mission were not included in the package.

   d. The cover letter to Senator Hollings will indicate that this package has been coordinated with Mr. Joy. Mr. South assumed that MG Dyke discussed the package with Mr. Joy only in broad outlines, not in any detail.

   e. The letter will also state that the costing was compiled with the cut-off date at the point of mission abort.

S. D. OLYNYK
LTC, USA
MEMORANDUM FOR: Major General Vaught, USA  
Lieutenant General Gast, USAF  
Colonel Beckwith, USA  
COL Kyle, USAF  
Lieutenant Colonel Seiffert, USMC  
Lieutenant Colonel Guidry, USAF  
Captain [redacted], USAF

Subject: Testimony Relating to the Iranian Hostage Rescue Mission, Before the Senate Armed Services Committee, 7 May 1980

1. Attached is a working copy of the official transcript of the hearings on testimony before the Senate Armed Services Committee (SASC), the afternoon session on 7 May 1980, relating to the Iranian hostage rescue mission. The witnesses in these hearings were: MG Vaught, LTG Gast, COL Kyle, COL Beckwith, LTC Seiffert, LTC Guidry; and CPT [redacted].

2. Request the addressees review the text of the testimony for the following purposes:
   a. To insure accuracy of information provided by the hearing witnesses.
   b. To provide information for the record which the witnesses were not in the position to do so during the hearings.
   c. To identify classified information in the text of the testimony, if any.

3. In reviewing the text, the following procedures should be used:
   a. Edit the text for accuracy and grammatical errors.
      (1) In no case should changes be made which will change the context of the testimony given by the witnesses.
      (2) All changes should be made in pencil. Deletions of portions of the text other than classified should be lined out in pencil, without bracketing (see subparagraph c below).

[Signature]

Classified by: [Redacted]
(5/1980)
b. If any of the witnesses stated during the hearings that they would supply information for the record, submit that information on DD Form 2136, a copy of which is attached. The form may be reproduced if additional copies are needed.

c. Bracket in pencil that portion of the transcript which is classified and indicate degree of classification.

4. Request you return the reviewed and corrected copy of the transcript with inserts, if any, to this office (LTC S. Q. Olynky, J-3, ext 50987) NLT 1200, Wednesday, 14 May 1980. LTC Olynky will incorporate all changes provided by the addressees into one edited copy for submission to the Legal Advisor and Legislative Assistant to the Chairman, Joint Chiefs of Staff.

CHARLES W. DYKE
Major General, USA

Attachments
a/s
MEMO TO: MAJOR GENERAL DYKE

SUBJECT: SASC 7 May 1980 Hearing on Testimony Relating to the Iranian Hostage Rescue Mission; MG Vaught, LTG Gast, Col. Kyle, Col. Beckwith, LTC Seiffert, Capt Guidry

Attached are five working copies of the transcript of subject hearing. Please edit the testimony of these witnesses for accuracy and grammatical errors. In no case should changes be made which will change the context of the testimony given at the time of the appearance of the witnesses. If they stated during their testimony that they would supply information for the record, please submit that information on DD Form 2136 in duplicate and bracket the classified information on the copy. Also bracket in pencil that information considered to be classified in the transcript. Please return one edited/bracketed copy of the transcript and the inserts required, if any, by noon, Wednesday 14 May 1980.

[Signature]

HAROLD L. MILLER
Colonel, JAGC, USA
Legal Adviser and Legislative Assistant to the Chairman, JCS

Regarded Unclassified
When separated from
Classified Area
MEMORANDUM FOR THE LEGAL ADVISER AND LEGISLATIVE ASSISTANT
TO THE CHAIRMAN, JCS

Subject: SASC Request for Witnesses

Reference: Memorandum, Legal Adviser and Legislative Assistant to the Chairman, JCS, 15 May 1980, subject as above (attached)

1. In response to your request (reference above), the following individuals have been notified to appear before the SASC - Senator Warner's team, to testify on the Iran hostage rescue attempt:

   a. Colonel James M. Perryman, USMC
      Project Manager for H-53 Helicopter Series,
      Naval Systems Command, at 1400 hours

   b. Commander
      Maintenance Officer for HM-16 Helicopters
      at 1500 hours

2. The meeting will take place on Friday, 16 May 1980, at 1400 and 1500 hours, respectively, in room 212 Russell Senate Office Building.

3. LTC Charles Williamson, J-3/SOD, will accompany the officers to the hearings.

STEPHEN D. OLYNYK
Lieutenant Colonel, USA

Attachment
a/s

Copy to:
CJCS
ACJCS
DJS
LTG Gast
J-30
MG Vaught
J-33
RADM Cassidy
COL Miller, OATSD(LA) 39218
MEMO TO:  GENERAL DYKE

SUBJECT: SASC Request for Witnesses

We have just been informed that the SASC Warner team (Warner, Roberts, Dotson & McFarlane) would like to see any two of the following:

- Maj. Schaeffer
- Sgt. [redacted]
- Pilot of C-130 #2
- Pilot of first tanker to arrive
- The J-4 of Gen. Vaught's team
- Maj. [redacted]
- Cdr. [redacted]
- Sikorsky TecRep who was aboard NIMITZ
- Col. Perryman.

The meeting will be held in Room 212 Russell Senate Office Building with witness #1 to be heard at 1400 and witness #2 at 1500, tomorrow, 16 May.

HAROLD L. MILLER
Colonel, JAGC, USA
Legal Adviser and Legislative Assistant to the Chairman, JCS

CONFIDENTIAL
MEMORANDUM FOR THE LEGAL ADVISER AND LEGISLATIVE ASSISTANT
TO THE CHAIRMAN, JCS

Subject: SASC Request for Witnesses

Reference: Memorandum, Legal Adviser and Legislative Assistant to the Chairman, JCS, 15 May 1980, subject as above (attached)

1. In response to your request (reference above), the following individuals have been notified to appear before the SASC - Senator Warner's team, to testify on the Iran hostage rescue attempt:

   a. LTC[REDACTED]
      Iranian Hostage Rescue Mission, 1000 hours

   b. MAJ[REDACTED]
      Marine Intelligence Officer
      Hostage Rescue Planning Team, 1100 hours

2. The meeting will take place on Monday, 19 May 1980, at 1000 and 1100 hours, respectively, in room 212 Russell Senate Office Building.

3. LTC Charles Williamson, J-3/SOD, will accompany the officers to the hearings.

PHILIP C. GAST
Lieutenant General, USAF

Attachment

a/s

Copy to:
CJCS J-33
ACJCS RADM Cassidy
DJS COL Miller, OATSD(LA) - 3D918
J-30
J-31
MG Vaught

CONFIDENTIAL
MEMO TO: GENERAL DYKE

SUBJECT: SASC Request for Witnesses

We have just been informed that the SASC Warner team (Warner, Roberts, Dotson & McFarlane) would like to see any two of the following:

- Maj. Schaeffer
- Sgt. [redacted]
- Pilot of C-130 #2
- Pilot of first tanker to arrive
- The J-4 of Gen. Vaught's team
- Maj. [redacted]
- Cdr. [redacted]
- Sikorsky TecRep who was aboard NIMITZ
- Col. Perryman.

The meeting will be held in Room 212 Russell Senate Office Building with witness #1 to be heard at 1400 and witness #2 at 1500, tomorrow, 16 May.

HAROLD L. MILLER
Colonel, JAGC, USA
Legal Adviser and Legislative Assistant to the Chairman, JCS

CONT:ENETIAL
MEMORANDUM FOR THE LEGAL ADVISER AND LEGISLATIVE ASSISTANT
to the CHAIRMAN, JCS

Subject: SASC Request for Witnesses

Reference: Memorandum, Legal Adviser and Legislative Assistant
to the Chairman, JCS, 15 May 1980, subject as above
(attached)

1. In response to your request (reference above), the following
individuals have been notified to appear before the SASC —
Senator Warner's team, to testify on the Iran hostage rescue
attempt:
   a. Major James H. Schaefer, Jr., USMC, Pilot, Helicopter #3
   b. Major

2. The meeting will take place on Friday, 23 May 1980, at 1400
and 1500 hours, respectively, in Room 212 Russell Senate Office
Building.

3. LTC Robert A. Kvederás, J-14/19OD, will accompany the officers
to the hearings and take notes.

4. The above named personnel will meet in Room 2E841 at 1340.
COL Miller, LLA/CJCS, will arrange transportation.

CHARLES W. DYKE
Major General, USA

Attachment
a/s

Copy to:
CJCS
ACJCS
DJS
LTG Gast
J-30
MG Vaught
J-33
COL Miller, OATSD(LA) - 3D918
COL Abel - 2E857
LTC Kvederás
MAJ Schaefer

Classified by: DJ50A
15 Oct 85
OFFICE OF THE CHAIRMAN
Joint Chiefs of Staff
15 May 1980

MEMO TO: GENERAL DYKE

SUBJECT: SASC Request for Witnesses

We have just been informed that the SASC Warner team (Warner, Roberts, Dotson & McFarlane) would like to see any two of the following:

- Maj. Schaeffer
- Sgt. [redacted]
- Pilot of C-130 #2
- Pilot of first tanker to arrive
- The J-4 of Gen. Vaught's team
- Maj. [redacted]
- Cdr. [redacted]
- Sikorsky TecRep who was aboard NIMITZ
- Col. Perryman.

The meeting will be held in Room 212 Russell Senate Office Building with witness #1 to be heard at 1400 and witness #2 at 1500, tomorrow, 16 May.

[Signature]

HAROLD L. MILLER
Colonel, JAGC, USA
Legal Adviser and Legislative Assistant to the Chairman, JCS
MEMORANDUM FOR: Lieutenant General Gast, USAF  
Major General Vaught, USA

Subject: SASC Request for Information and Additional Witnesses Concerning the Iran Hostage Rescue Attempt

Reference: Memorandum, LLA/CJCS, 2 June 1980, "SASC Requests--Rescue Mission" (attached)

1. Per reference cited above, Senator Warner has requested additional information and witnesses in connection with the Iranian hostage rescue attempt.

2. For LTG Gast: Senator Warner has requested that the SASC be provided with the names and present location of all members of the Iran MAAG who served during the last year in which the MAAG operated in Iran.

For MG Vaught: SASC has requested that the following individuals be made available to appear before the SASC staff on Wednesday, 4 June 1980, at 1400:

- MSGT [redacted] Air Combat Controller on site
- Mr. [redacted] Sikorsky RH-53D Tech Rep aboard NIMITZ

Attachment

a/s

Copy to:
Mr. Stempler
Mr. Ross
CJCS
ACJCS
DJS
J-30
Col Miller, LL/CJCS
Col Miller, OATSD(LA)
Col Abel

DECLASSIFIED: OADR

Classified by: DJSO
18 Oct 85
Declared by: OADR
MEMO TO: MAJOR GENERAL DYKE

Attention: Captain Hall

SUBJECT: SASC Requests--Rescue Mission

1. Senator Warner has requested that the SASC be provided with the names of all members of the Iran MAG who served during the last year in which the MAG operated in Iran, and that he also be provided with their present location.

2. The Committee has requested that Sergeant [redacted] (Sikorsky Tech Rep) be available to appear before them at 1400, Wed., 4 June 1980, if available. In the event they are not available at this time, please advise me at your earliest convenience so a different date for their appearance can be arranged.

No Change

HAROLD L. MILLER
Colonel, JAGC, USA
Legal Adviser & Legislative
Assistant to the Chairman, JCS
MEMORANDUM FOR THE LEGAL ADVISER AND LEGISLATIVE ASSISTANT
TO THE CHAIRMAN, JCS

Subject: SASC Request for Witnesses

Reference: Memorandum, Legal Adviser and Legislative Assistant
to the Chairman, JCS, 2 June 1980, subject as above (attached)

1. In response to your request (reference above), the following
   individuals have been notified to appear before the SASC -
   Senator Warner's team, to testify on the Iran hostage rescue
   attempt:

   a. Sikorsky RH-53D Tech Rep aboard NIMITZ.

   b. MSGT, Sikorsky Aircraft Company.

2. The meeting will take place on 4 June 1980, at 1400 and
   1500 hours, respectively, in Room 212 Russell Senate Office
   Building.

3. LTC Robert A. Kvederas, J-3/JOD, will accompany the individuals
to the hearings and take notes.

4. The above named personnel will meet in Room 2E841 at 1340.
   COL Miller, LLA/CJCS, will arrange transportation.

CHARLES W. DYE
Major General, USA

Attachment

(a/s)

Copy to:
CJCS  LTG Shutler
ACJCS MG Vaught
DJS COL Miller, OATSD(LA)
LTG Gast COL Abel

LTC Kvederas

MsgT
OFFICE OF THE CHAIRMAN
Joint Chiefs of Staff
2 June 1980

MEMO TO: MAJOR GENERAL DYKE

Attention: Captain Hall

SUBJECT: SASC Requests--Rescue Mission

Senator Warner has requested that the SASC be provided with the names of all members of the Iran MAC who served during the last year in which the MAC operated in Iran, and that he also be provided with their present location.

The Committee has requested that Sergeant (Sikorsky Tech Rep) be available to appear before them at 1400, Wed., 4 June 1980, if available. In the event they are not available at this time, please advise me at your earliest convenience so a different date for their appearance can be arranged.

HAROLD L. MILLER
Colonel, JAGC, USA
Legal Adviser & Legislative Assistant to the Chairman, JCS

CONFIDENTIAL
To: Dyre

Subject: LTC Olynyk

Dear Mr. Dyre,

Please ensure that we have a file copy of the new personnel list that all participants were aware of. No new names needed.

Thanks,

Enc. delivered + certif. 23 May 2005 400

Declassified by DPONMCC 12 May 1995

Red-1
MEMO TO: LIEUTENANT GENERAL PUSTAY

SUBJECT: House Appropriations Defense Subcommittee Hearing--Rescue Mission

1. There seems to be a good deal of confusion concerning the time, date and place for subject hearing. In order to prevent any misunderstanding, I discussed the hearing with Ralph Preston, the Staffer in charge of the hearing for the Subcommittee. According to Preston, the hearing is scheduled for 1300 hrs, 2 June in Rm H-140 (Capitol). In addition to yourself, the Committee wants to hear from the following witnesses:

- Mr. Claytor;
- LTG Gast;
- MG Vaught; and
- COL Beckwith

2. With respect to a written statement, Preston indicates that is optional with the witnesses. He did state, however, that each witness would be expected to make an oral statement when the hearing commences. As I believe you know, the hearing will be closed.

3. We face the same problem with COL Beckwith that we had with the GASP. That is, how to get him in and out of the building without having his picture taken by members of the press. I discussed this problem with Preston and he has
Agreed to leave Beckwith's name off the published list of witnesses scheduled to appear at the hearing. In addition, we are to consult at a later time concerning arrangements to get Beckwith in and out of the building without being noticed.

Copy to:
MG Dyke
BG Todd

COLONEL MILLER
MEMO TO: LIEUTENANT GENERAL PUSTAY

SUBJECT: House Appropriations Defense Subcommittee Hearing--Rescue Mission

1. There seems to be a good deal of confusion concerning the time, date and place for subject hearing. In order to prevent any misunderstanding, I discussed the hearing with Ralph Preston, the staffer in charge of the hearing for the Subcommittee. According to Preston, the hearing is scheduled for 1300 hrs, 2 June in Rm H-140 (Capitol). In addition to yourself, the Committee wants to hear from the following witnesses:

- Mr. Claytor;
- LTG Gast;
- MG Vaught; and
- COL Beckwith

2. With respect to a written statement, Preston indicates that is optional with the witnesses. He did state, however, that each witness would be expected to make an oral statement when the hearing commences. As I believe you know, the hearing will be closed.

3. We face the same problem with COL Beckwith that we had with the SASC. That is, how to get him in and out of the building without having his picture taken by members of the press. I discussed this problem with Preston and he has
Need to leave Beckwith's name off the published list of witnesses scheduled to appear at the hearing. In addition, we are to consult later time concerning arrangements to get in and out of the building without being noticed.

Copy to:
MG Dyke
BG Todd

Colonel Miller
MEMORANDUM FOR: Major General Vaught, USA
Rear Admiral Cassidy, USN

Subject: Congressional Request for Information Concerning Iran Hostage Rescue Attempt

Reference: Memorandum for the Record, 19 May 1980, "Hostage Rescue Mission" (attached)

1. As a result of testimony by COL Perryman and CDR [obscured] before Senator Warner and the SASC Staff on 16 May 1980, the following requests for additional information were submitted by Mr. Roberts and Mr. McFarland:

   a. Based on CDR [obscured] statement, helicopter #6 was the aircraft which was involved in the accident onboard the NIMITZ. According to Mr. Roberts, Senator Warner's group had been previously told that it was #8 helicopter that was involved in the accident. Mr. Roberts requested that this discrepancy be clarified.

   b. The following questions were submitted by Mr. McFarland:

      (1) What is the criteria for scheduling special depot level maintenance (SDLM)? Is it based upon a fixed number of flight hours or an arbitrary calendar life?

      (2) When an aircraft exceeds the criteria for SDLM, what authority exists for extending its retention in an operational status? What criteria must be met before that authority is exercised?

      (3) Are any restrictions imposed on an aircraft's use once it is beyond the time requiring SDLM?

      (4) What exactly takes place during SDLM? Would any or all of the parts which failed on the mission have been replaced during SDLM?

      (5) Please provide the same explanation for the Phase A-D 100 hour maintenance checks.
With respect to the SERVO which failed on helicopter #2, the Warner group asked "what was the life point for that SERVO"? The group also asked COL Perryman to provide the answer to the question "is it unusual to have five extensions on an aircraft"? COL Perryman, like CDR [redacted] stated he did not know what he would have done any differently to assure that the helicopter portion of the mission would succeed.

[Signature]

[Name]
COL, USAF
MEMORANDUM FOR THE RECORD

SUBJECT: Hostage Rescue Mission

CDR [redacted] and COL Perryman were interviewed by John Roberts, Steve Dotson, and Bud McFarland. CDR [redacted] told the group that the RH-53D helicopter is normally due for major maintenance every 27 months. However, extensions of three months are frequently granted and not uncommon.

With respect to the eight helicopters assigned to this mission, three were beyond the 27 month period. However, the types of failures associated with helicopters #6, 5, and 2, would not normally be discovered during a major rework.

CDR [redacted] reported to the group that he and his crew had absolute top priority while onboard the NIMITZ, and that at the time the mission occurred he was convinced that the helicopters were ready to fly.

According to CDR [redacted] helicopter #6 was the helicopter which had the accident onboard the NIMITZ; this particularly caught John Roberts' attention, who pointedly stated that up until now the Warner group always had been told that aircraft #8 was involved in the NIMITZ accident. Roberts asked that this discrepancy be clarified.

The attached questions were prepared by Bud McFarland:

1. What is the criteria for scheduling special depot level maintenance (SDLM)? Is it based upon a fixed number of flight hours or an arbitrary calendar life?

2. When an aircraft exceeds the criteria for SDLM, what authority exists for extending its retention in an operational status? What criteria must be met before that authority is exercised?

3. Are any restrictions imposed on an aircrafts use once it is beyond the time requiring SDLM?

4. What exactly takes place during SDLM? Would any or all of the parts which failed on the mission, have been replaced during SDLM?

5. Please provide the same explanation for the Phase A-D 100 hour maintenance checks.

COL Perryman confirmed the maintenance practices for the RH-53D. Some members of the Warner group placed a great deal of emphasis on the maintenance policies associated with the President's helicopters. They noted that all dynamic systems are replaced at their 50% life.
DEPARTMENT OF DEFENSE

ACTION
J3(5)

DISTR
UPR CJCS(02) CJCS OJS(01) SJCS(02) FILE

TRANSL/310237Z/31R243Z/A00016GRP0221
DE KUEKJCS 5167 1520243
ZNR P 310237Z MAY 80
FM JCS WASHINGTON DC/J=3/J
TU RUCLFCB/CG-MCAS CHERRY POINT NC
RU8EJMA/CG MCOEC QUANTICO VA
RUCLSLA/437MAW CHARLESTON AFB SC/DXX
RUCLMHA/150W EGLIN AF AUX FLD 9 FL
INFO RUELACMC/CMC WASHINGTON DC
RUEAMQA/HU USAF WASHINGTON DC

BT 1063

SUBJ: HOSTAGE-RESCUE AIRCRAFT ACCIDENT BOARD
1. THE FOLLOWING PERSONNEL ARE REQUIRED TO APPEAR BEFORE THE SUBJECT BOARD AT THE TIME/DATE INDICATED.
   A1G 2 JUNE 1980
   H&MS-26
   HMM-461
   CCT
   B1G 3 JUNE 1980
   1430 - LT HARRISON, J. H., 1 SOW
   HMX-1
   1 SOW
   CCT
2. THE BOARD WILL MEET IN ROOM 146, BUILDING T-26, NAS, NORFOLK, VA.
3. UNIFORM OF THE DAY IS APPROPRIATE.
4. BERTHING INFORMATION MAY BE OBTAINED FROM MRS. R. DOUGHERTY,
   COMNAVAIRLANT CODE 0143, AUTOVON 690-2437 ON 3212.
5. THIS MESSAGE CONFIRMS PRIOR TELCON THIS SUBJECT.
6. YOUR ASSISTANCE IS APPRECIATED.
BT 5167

ANNUTES MAC

PAGE 1

NNNN 310243Z

CONFIDENTIAL

DECLASSIFIED ON: 0 ADR
MEMORANDUM FOR COLONEL GRANT MILLER, OFFICE OF THE ASSISTANT TO THE SECRETARY OF DEFENSE (LEGISLATIVE AFFAIRS)

Subject: Helicopter Performance During Training and Rehearsals for the Hostage Rescue Attempt in Iran

1. Attached is a fact sheet in response to a request by Senator Warner and members of the Senate Armed Services Committee staff during the 29 April and 2 May interviews with Colonel Charles H. Pitman and other helicopter personnel who participated in the hostage rescue attempt.

2. This information is based on interviews with the aircrew and maintenance personnel who were involved in both the training and rehearsals and the actual mission. It must be emphasized that the aircraft used for training and rehearsals were not (and were never intended to be) used on the actual mission. Every expectation was that the eight RH-53D aircraft aboard the NIMITZ would be in better mechanical condition than were the aircraft used in training. By all indications available, to include maintenance and flight records and extensive premission checks, these aircraft were in better condition at the time the launch decision was made.

Attachment
a/s

Copy to:
Mr. Stempler - 3E822
Mr. Hamilton - 3E880
Mr. Ross - 2E800
CJCS
ACJCS
LTG Shutler
LTG Gast
MG Vaught
COL Miller, LL Asst, CJCS - 2E841

CHARLES W. DYKE
Major General, USA

Declasified by:
DDO, NMCC
12 May 1992

CONFIDENTIAL
FACT SHEET

SUBJECT: Helicopter Performance During Training for the Iran Hostage Rescue Attempt

1. PURPOSE: To provide information concerning helicopter performance during training and rehearsals for the hostage rescue attempt in Iran.

2. DISCUSSION:

a. On 29 April and 2 May 1980,  Colonel Charles H. Pitman was interviewed by the Senate Armed Services Committee (Senator Warner and SASC staff members). During this interview, Colonel Pitman was requested to provide data on helicopter performance during the rehearsal and training period for the attempted rescue of US hostages in Iran.

b. The rescue mission preparation phase included rehearsals during which distances and conditions for the helicopters similar to those encountered on the actual rescue mission were approximated. In all but two rehearsals, all helicopters reached the refuel site and subsequent landing sites. In each of the other two exercises, one helicopter had an abort condition for mechanical problems. One helicopter experienced an indicated blade spar failure (the Blade Inspection Method--BIM--warning light came on after departing the refuel site en route to the next landing site) This is the same indicated failure experienced by helicopter number six en route to the refueling site on the actual mission. During the rehearsal, the aircraft with the BIM warning light landed. A main rotor blade was subsequently replaced and the aircraft returned to the exercise.

c. The second mechanical failure which resulted in an abort during training was the loss of a second stage hydraulic pump, similar to the failure experienced by helicopter number 2 on the actual mission. The aircraft which had the hydraulic pump failure during training was repaired in the field by flying in the replacement pump and performing the repairs on site. The aircraft was then returned to home station since the failure occurred as the exercise was ending.

d. Other mechanical malfunctions occurred during training and rehearsals but were of a minor nature which permitted field maintenance to make on-the-spot corrections, allowing the aircraft to continue. Some malfunctions were so minor that they were deferred until the aircraft reached a point in the mission where repairs could be accomplished so as not to interfere with training. Still a third category of malfunctions occurred where aircraft were returned to base for
repairs which would not have been required for flight under actual mission conditions. The decisions to return these aircraft to home base were in keeping with the stringent safety standards applied during training.

e. Data obtained from the H-53 program office at the Naval Air Systems Command on the reliability of the RH-53D aircraft in Navy fleet operations indicates that the abort rate for RH-53D aircraft, once airborne on an Airborne Mine Countermeasures (AMCM) mission, is 8.8%. Because more systems—and far more complex systems—are involved in the AMCM mission, it is estimated that the abort rate for the RH-53 in the troop transport or flight ferry mode is approximately 5%. It must be emphasized that the probability of completing a mission by fully mission capable aircraft once all systems are operating (as was the case with eight RH-53D helicopters which departed the NIMITZ) is the relevant issue, not the fleet "operationally ready" or "mission capable" rate.

f. Attached is the record of day-to-day readiness of the training aircraft for the months of February, March, and April 1980. The on-hand aircraft during this period ranged from six to eight and the operational readiness rate for this small fleet, maintained under austere conditions, averaged 74%. This readiness was achieved at remote sites, with limited facilities and with no intermediate level maintenance support such as that found in a normal squadron or shipboard operation. Further, supply items were located several hundred miles away and were obtained through a very informal system established to preserve operational security. The training aircraft were not used on the mission. The RH-53D helicopters aboard the NIMITZ were in a much better maintenance environment than were those used for training and rehearsals.

g. The experience of the Joint Task Force with the RH-53D aircraft during training, coupled with Naval Air Systems Command data, gave a high assurance of at least six of the eight helicopters completing the flight from the NIMITZ to the refueling site at Desert One in condition to continue the mission.

Attachment
a/s
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

8 May 1980

Subject: Notes Taken During Testimony Before the Senate Armed Services Committee on 7 May 1980

1. Attached is the transcription of notes taken by LTCOL C. A. Williamson, Special Operations Division, J-3, during the appearances before the Senate Armed Services Committee at 1000 hours on 7 May 1980 of LTGEN Gast, USAF; MG Vaught, USA; COL Kyle, USAF; COL Beckwith, USA; LTCOL Guidry, USAF; with COL Atkin, USMC, as backup.

2. These notes are not verbatim transcripts of the questions and answers, but serve to provide the gist of each session. They are accurate in thrust and content, but may not be precise in terms of actual words or language used.

[Signature]
CHARLES W. DYKE
Major General, USA

Attachment
a/s

Copy to:
Mr. Stempler - 3E822
Mr. Hamilton - 3E880
LTG Pustay
VADM Hanson
LTG Shutler
LTG Gast
MG Vaught
COL Miller, LL Asst to CJCS - 2E841
COL Miller, OATSD(LA) - 3D918
COL Abel/LTCOL Wheeler - 2E857

Downgraded by:
DDD, NMCC
- 12 May 1992

Classified By: JES
Declassified On: 18 Oct 85
Declassified: OASS
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Notes Taken During Testimony Before Congressional Committees on 5 and 6 May 1980

1. Attached are the transcriptions of notes taken by Lieutenant Colonel Charles A. Williamson, USAF, Special Operations Division, J-3, during the appearances of the following personnel:

   5 May 1980: COL Charles Beckwith before the staff of the Senate Armed Services Committee (TAB A)

   5 May 1980: LTCOL Roland Guiderly before Senator Warner and Staff of the Senate Armed Services Committee (TAB B)

   5 May 1980: LTGEN Gast and MG Vaught before Senator Warner and staff of the Senate Armed Services Committee (TAB C)

   6 May 1980: MG Vaught and LTGEN Gast before the House Armed Services Committee (TAB D)

2. These notes are not verbatim transcripts of the questions and answers, but serve to provide the gist of each session. They are accurate in thrust and content, but may not be precise in terms of actual words or language used.

CHARLES W. DYKE
Major General, USA

Attachments
a/s

Copy to:
Mr. Stempler - 3E822
Mr. Peter Hamilton - 3E880
LTGEN Pustay
VADM Hanson
LTG Shutler
LTG Gast

MG Vaught
COL Miller, LL Asst to CJCS - 2E841
COL Miller, OATSD(LA) - 3D918
COL Abel/LTCOL Wheeler - 2E857

DDO, NMCC, 12 May 1992
The two questions in the last paragraph of your memorandum are answered as follows:

1. As outlined in comments in paragraph 1 above, weather conditions caused an abort only once during training and that was primarily because of the stringent safety restrictions applied to the training situation. There were plans to delay or, if en route, abort the mission should weather require. The visibility conditions encountered were difficult. However, six aircraft did arrive at Desert One.

2. With regard to question 2, any weather decision would be ultimately based on subjective judgment and evaluation of meteorological phenomena. A decision on the number of aircraft merely required a count. Six of the helo pilots correctly judged the weather and arrived at Desert One. When one of those aircraft experienced hydraulic difficulties, responsible personnel on the ground counted the five remaining and decided, based on previously established criteria, to terminate the mission.

| INCL A 1/3 |

Copy to:
Mr. Stempler
CJCS
ACJCS
LTG Shutler
LTG Gast
MG Vaught
COL Abel
COL Miller, LL Asst, CJCS
COL Miller, OASD LA
COL Kyle
COL Beckwith
COL Pitman
LTC Seiffert
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Notes Taken During Senate Armed Services Committee Discussions with Rescue Force Members

Attached is the transcription of notes taken by LTCOL Charles A. Williamson, USAF, Special Operations Division, J-3, on 2 May 1980, during appearances before Senator Warner and Senate Armed Services Committee staff members by personnel who participated in the rescue effort. These notes are not verbatim transcripts of the questions and answers but serve to provide a gist of each session. They are accurate in thrust and content, but not precise in terms of actual words or language used.

CHARLES W. DYKE
Major General, USA
Vice Director for Operations

Attachment
a/s

Copy to:
Hon Jack L. Stempler (Asst to SECDEF, LA)
LTG Pustay
VADM Hanson
LTG Shutler
LTG Gast
MG Vaught
COL H. L. Miller (LL Asst CJCS)

Declassified by: DDO, NMCC
12 May 1992
Opening Statement.

Gentlemen, we will attempt to provide you the maximum amount of information in the minimum time. I believe it would be appropriate, with your concurrence, for me to proceed in the following manner: describe my mission and its inherent risks; sketch the history of the Joint Task Force; list the organization we formed to do the job; and then cover planning, training; the decision making process; deployment and actions taken up through Desert 1. Then we would take your questions.

First the mission. On 12 November 1979 the Chairman of the Joint Chiefs of Staff directed me to prepare a joint task force to go to Iran, free our hostages and return them to U. S. control. He reviewed for me what had been done between 4 November and 12 November. I then organized an austere but typical Joint Staff organization containing J1 personnel, J2, J3, J4, J5, J6, etc. Most of this staff were already members of a Joint Staff element known as SOD Special Operations Division. However, before going further I'd like to focus a bit more on the nature of the mission. I've been in the hostage rescue and counter-terrorist business very deeply for the past three years in several capacities. Operational security and surprise are absolute prerequisites to success in all counter-terrorist activities at all times. From the outset our plan placed heavy emphasis upon maintaining total operational security in order to achieve complete surprise up until the point that our rescue force would have crossed the wall at the Embassy. Hostage rescue is always a very dangerous and uncertain undertaking from beginning to end. The chances for success always run somewhere between 0 and 100 and these numbers are often very close together.
No matter how hard we may try things can simply go to hell in a handbasket at any point from start to finish. If one does not accept this fact then there is no reason to plan and train. One only has to refer to the events in London yesterday to validate this fact. My staff also included weather and medical officers, and other specialists. As we planned the mission we examined the region, the distances, friendly bases, the capabilities of various U. S. forces and equipment. In the early days we worked very hard to put together what one might call an emergency capability. By the 20th of December we had a plan of sorts but it was not sufficiently complete or strong in its components to enable me to recommend to my superiors that it be used. In addition, we needed to learn the true nature of the Iranian defense and security forces, their intel and warning system, the true character of the hostage holders and their modus operandi, and the situation in and around Tehran itself. We continued to make a vigorous intelligence collection effort and at the same time to test various components of our force and our plan by conducting training. Initially we conducted training along the east coast of the U. S. but we knew we would be working in a desert environment when we implemented the plan so we quickly changed our focus to the western desert of the U. S. — the Arizona, California, Nevada areas -- where we trained extensively from December 1979 to 15 April 1980. From the outset the decision making process and the chain of command was very clear. I reported directly to the Chairman of the Joint Chiefs of Staff. All other members of the Joint Chiefs were available to me at any time for council and advice. They were kept fully informed of the status of my planning, training, and any problems encountered. At the appropriate time I personally briefed the President with the National Security Council present. This session lasted
for nearly three hours. The President asked many appropriate questions and 
made several helpful suggestions, approved the plan and authorized deployment 
to begin. He made it very clear to all present that the chain of command ran 
from him through the Secretary of Defense to the Chairman of the Joint Chief 
of Staff to me. This chain was never challenged or violated.

Deployment at our forward bases went as planned and by 24 April all 
components of the force were at their land launch locations and in a "go 
readiness posture." A detailed weather briefing was given and the decision to 
continue as planned was announced. Just before dark on 24 April six C130s and 
eight RH53 helicopters launched and proceeded to enter Iran at first darkness. 
The helicopters were flying in a single eight ship formation. The 130s were 
phased in with one preceding the others by about one hour in order to secure 
and prepare the landing fields at Desert 1. The first C130 landed on time. 
The security plan was implemented, the airfields were delineated and validated. 
Three of the 130s brought fuel, two of the 130s brought people and one 130 
brought both people and 2,000 gallons of contingency fuel. The helicopters 
experienced more difficulty on the way to Desert 1 than the 130s. Between one 
and one-half and two hours into the mission number 6 helicopter noted a blade 
failure warning light and immediately landed. It's crew was picked up per plan 
by number 8 and the mission continued. Later along the way all helicopters 
encountered two dust formations. Their passage through these formations 
thoroughly tested their skill and training. Unfortunately one helicopter, 
number 5, experienced a failure of some essential navigational aids and 
elected to turn back to the carrier after it had completed about two-thirds of 
the distance to Desert 1. However, six of the helicopters did arrive at Desert 1 
in time to be refueled and continue the mission to the next location as planned.
While the last two helicopters to arrive at Desert 1 (numbers 1 and 2 were being refueled) number 2 affirmed an indication, they had noted in flight, that they may have experienced hydraulic failure in one of its flight control systems. It was determined that the hydraulic pump had failed, the helicopter was in a non-flyable status.

It has been previously agreed among all the Sub-task Force Commanders that a prerequisite for mission continuance beyond Desert 1 was that we must have at least six helicopters in flyable condition. Since this fundamental prerequisite was not met, I asked my on-scene commanders to consult among themselves and reaffirm our previously agreed abort threshold "six was the minimum required." The on-scene commander promptly advised me that they had discussed the status of the helicopters and that all were in agreement that the mission should not be continued and that we should withdraw from Desert 1. I told the on-scene commander to begin implementation of the withdrawal plan but not to depart until I gave him the order. I then called the Chairman of the JCS and informed him of the situation at Desert 1. I recommended that we cancel the mission and withdraw. He asked me how much time he had to confer with others before I must have a decision. I told him he had 10 and not more than 15 minutes. He informed me that he would speak with the Secretary of Defense and the President and get back to me soonest. In about eight minutes he called me and said the President had affirmed my recommendation to withdraw and to do so per plan.

About eight minutes later I received a flash report from the desert that a helicopter had collided with a C130, that there would most likely be massive casualties. I immediately imposed minimize conditions on all radio messages downward and directed my staff to request medical assistance. The injured were treated by medical personnel at the refueling site. The on-scene commanders
conducted a rapid but complete withdrawal from the desert in approximately 23 minutes. Some 44 Iranian bus passengers were released at the scene unharmed. All living Americans were evacuated from Desert 1 in those 23 minutes. Once the injured were back at the command base they were immediately flown back to the United States burn center.

The above is a brief summation of what occurred up through Desert 1. It is my understanding that we are not expected to address today those aspects of the operations which were planned to take place beyond Desert 1. We are now ready to take your questions.
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Hostage Rescue Hearings before the Senate Armed Services Committee, 7 May 1980

1. The formal hearings on the Hostage Rescue Operation before the Senate Armed Services Committee have been confirmed for Wednesday, 7 May 1980, beginning at 1000 hours.

2. Although not confirmed, it now appears that the principal witnesses listed below will appear jointly, in panel fashion, with COL Pitman as backup. A prepared statement is required. Witnesses required are as follows:

  ✓ MG Vaught
  ✓ LTG Gast
  ✓ COL Kyle
  ✓ COL Beckwith
  ✓ LTC Seiffert
  ✓ COL Pitman (as backup; not at table)

Copy furnished:
Each witness
LL Asst, CJCS
74. When was the production date of the MCs and ACs that were used in the operation?

ANS:

**AC-130 (TAC)**
- 69-6567, 30 Aug 69
- 69-6569, 16 Sep 69
- 69-6570, 30 Sep 69
- 69-6575, 30 Oct 69

**EC-130 (TAC)**
- 62-1809, 8 Feb 63
- 62-1818, 18 Mar 63
- 62-1857, 1 Aug 63

**MC-130**
- 27 Aug 65
- 30 Sep 65
- 18 Aug 65
- 7 Jun 63
- 2 Oct 63
- 1 Sep 65
- 20 Sep 65

Dates are official AF acceptance dates from Lockheed.

75. How long would it have taken to pull off the blower on No. 5 and put in on #2 at Desert #1?

ANS: No. 5 had a failed cooler blower and ASN-50.

No. 2 had a failed jam nut in second stage hydraulic flight control system which resulted in the system bleeding empty and subsequent failure of the hydraulic pump.

If #5 had arrived at Desert #1 a choice would have been available as to taking the hydraulic pump from #5 to repair #2 or removing the blower and ASN-50 from #2 to repair #5. Considering the
**SECRET**

**ROUTING AND TRANSMITTAL SLIP**

<table>
<thead>
<tr>
<th>TO</th>
<th>INITIALS</th>
<th>CIRCULAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>A</td>
<td></td>
</tr>
</tbody>
</table>

**DATE**

- CIRCULATING
- CODING
- FILE
- INFORM
- NOTE AND RETURN
- PER CONVERSATION
- SIGNS

**REMARKS**

MG Vaught needs your help for his testimony before Congress.

1. When was the production date of the MCs and ACs that were used in the operation?

2. If you don't have data on the PECAC MC,

3. I would like to have dates posted to tail numbers.

---

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

**FROM**

[Name, office symbol or location]

**DATE**

4 MAY

**PHONE**

---

**CONFIDENTIAL**

Downgraded by:
DDO NMC
12 May 1992

Classified by: DSS
18 Oct
Declasified on: 0 AD
<table>
<thead>
<tr>
<th>TC-130</th>
<th>(McC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-0657</td>
<td>30 Jul 69</td>
</tr>
<tr>
<td>02-0505</td>
<td>16 Sep 69</td>
</tr>
<tr>
<td>02-0515</td>
<td>03 Sep 69</td>
</tr>
<tr>
<td>02-0515</td>
<td>30 Oct 69</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EC-130</th>
<th>(McC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-1809</td>
<td>06 Jul 63</td>
</tr>
<tr>
<td>03-1818</td>
<td>18 Jul 63</td>
</tr>
<tr>
<td>03-1817</td>
<td>20 Sep 63</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MC-130</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 Aug 65</td>
</tr>
<tr>
<td>29 Aug 65</td>
</tr>
<tr>
<td>18 Sep 65</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MC-120</th>
</tr>
</thead>
<tbody>
<tr>
<td>07 Jun 63</td>
</tr>
<tr>
<td>02 Oct 63</td>
</tr>
<tr>
<td>01 Sep 65</td>
</tr>
<tr>
<td>20 Sep 65</td>
</tr>
</tbody>
</table>

Dates are official AF acceptance dates from Lockheed.
<table>
<thead>
<tr>
<th>TO (Name, office symbol or location)</th>
<th>INITIALS</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CIRCULATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COORDINATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INITIALS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FILE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INFORMATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INITIALS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOTE AND RETURN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PER CONVERSATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INITIALS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SEE ME</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SIGNATURE</td>
</tr>
</tbody>
</table>

**REMARKS**

MC VAUGHT NEEDS TO KNOW:

<table>
<thead>
<tr>
<th>CLASSIFICATION ACTION</th>
<th>REASON</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENDED TO 12 MAY 1997</td>
<td></td>
</tr>
<tr>
<td>DESCRIBED TO DD 0, JNSC</td>
<td></td>
</tr>
<tr>
<td>DECL. DISCLOSED TO SEC</td>
<td></td>
</tr>
<tr>
<td>REVIEW ON 12 MAY 1997</td>
<td></td>
</tr>
<tr>
<td>DERIVED FROM</td>
<td></td>
</tr>
</tbody>
</table>

**Classified By:**

**Declassified ON:**

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

**FROM (Name, office symbol or location)**

**DATE**

**PHONE**

**OPTINAL FORM 41**

**SECRET**
<table>
<thead>
<tr>
<th>TO (Name, office symbol or location)</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MG VAUGHN</td>
<td>INITIALS CIRCULATE</td>
</tr>
<tr>
<td></td>
<td>DATE COORDINATION</td>
</tr>
<tr>
<td></td>
<td>INITIALS FILE</td>
</tr>
<tr>
<td></td>
<td>DATE INFORMATION</td>
</tr>
<tr>
<td></td>
<td>INITIALS NOTE AND REMARK</td>
</tr>
<tr>
<td></td>
<td>DATE PER CONVERSATION</td>
</tr>
<tr>
<td></td>
<td>INITIALS SIGNED</td>
</tr>
<tr>
<td></td>
<td>DATE SIGNATURE</td>
</tr>
</tbody>
</table>

**REMARKS**

COAST GUARD WINS.

ALL OFFICIALS CLAIM THEY HAVE NO S3'S - THEY HAVE ONLY THE OLD (144) SINGLE ENGINE RH-5A.

THEY ONLY REQUIRE 1 OUT OF 3 TO BE REPAIRABLE AT ANY ONE TIME BUT SAY IF THE S2'S THEIR ENTIRE FORCE OF 75 IN THE AIR - 10 WOULD BE IN MAINTENANCE AND ABOUT 77% OF THE REMAINING 49 WOULD BE REMI.

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

FROM (Name, office symbol or location) | DATE | PHONE
--------------------------------------|------|------
CUL PASCUAL                          | 5 MAY | 100-11.208
ROUTING AND TRANSMITTAL SLIP

<table>
<thead>
<tr>
<th>TO (Name, office symbol or location)</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Col. Fitchger</td>
<td></td>
</tr>
<tr>
<td>Initials: CIRCULATE</td>
<td></td>
</tr>
<tr>
<td>Initials: FILE</td>
<td></td>
</tr>
<tr>
<td>Initials: FILE</td>
<td></td>
</tr>
<tr>
<td>Initials: RETURN</td>
<td></td>
</tr>
<tr>
<td>Initials: RETURN</td>
<td></td>
</tr>
<tr>
<td>Initials: SEE ME</td>
<td></td>
</tr>
<tr>
<td>Initials: SEE ME</td>
<td></td>
</tr>
<tr>
<td>Initials: SEE ME</td>
<td></td>
</tr>
<tr>
<td>Initials: SEE ME</td>
<td></td>
</tr>
<tr>
<td>Initials: SEE ME</td>
<td></td>
</tr>
</tbody>
</table>

REMARKS

Mr. Waugh wants to know if charges cost in time was late. We believe that were on time or had to circle for awhile.

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

FROM (Name, office symbol or location) | DATE
-------------------------------------|-----
Col. Fitchger                          | 06-09-1944

OPTIONAL FORM 41

AUGUST 1947
GSA FPMR (41 CFR) 100-11.208

UNCLASSIFIED
**Routing and Transmittal Slip**

<table>
<thead>
<tr>
<th>TO (Name, office symbol or location)</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>J-Z</td>
<td>INITIATED CIRCULATE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INITIALS</th>
<th>COORDINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INITIALS</th>
<th>FILE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks**

As a matter of high priority, where held two was found to.

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

**From** (Name, office symbol or location)

**Date**

**Signature**
SECRET

...a Secret...

1. Practice one set at a time. When you followed the conceivable set first, was there any different use for the equipment or at any point? Were the possibilities...

2. The course was done by...go at the beginning...one mile. Our first...

3. Best 15 miles away...
**REMARKS**

M C VAUGH N NEEDS YOUR HELP WITH HIS CONGRESSIONAL TESTIMONY.

1) **WHAT WAS THE NAVY "SWAP OUT" PLAN** (THE THREE RHE 53s ON THE EISENHOWER TO REPLACE THE TWO RHE ON THE NIMITZ)

2) **WHICH TWO RHE 53s WERE TO BE TAKEN OFF THE NIMITZ?**

---

**FROM (Name, office symbol or location):**

**DATE:** MAY 80

**PHONE:** 55672

---

**SECRET**
<table>
<thead>
<tr>
<th>TO (Name, office, symbol, or location)</th>
<th>INITIALS</th>
<th>CIRCULATE</th>
<th>DATE</th>
<th>COORDINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>INITIALS</td>
<td>FILE</td>
<td>DATE</td>
<td>INFORMATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>INITIALS</td>
<td>NOTE AND RETURN</td>
<td>DATE</td>
<td>CONVERSATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>INITIALS</td>
<td>RECEIapple</td>
<td>DATE</td>
<td>SIGNATURE</td>
</tr>
</tbody>
</table>

REMARKS:
MG VAUGH needs a calendar (or schedule) of all crucial dates starting with the preliminary ones on the East Coast. We would like to see the ... after action report. ALSO

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

FROM (Name, office, symbol, or location) | DATE |
----------------------------------------|------|
COL. PASCAGL | AMY  |

OPTIMAL FORM 41
AUGUST 1967
CSA FORM (ASCPM) 100-11.206

[Handwritten annotations]
**ROUTEING AND TRANSMITTAL SLIP**

<table>
<thead>
<tr>
<th>TO (Name, office symbol or location)</th>
<th>INITIALS</th>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>GFC DATTRO</td>
<td></td>
<td></td>
<td>CIRCULATE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INITIALS</th>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FILE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INITIALS</th>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>INFORMATION</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INITIALS</th>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NOTE AND RETURN</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INITIALS</th>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>PER CONVERSATION</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INITIALS</th>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SEE ME</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INITIALS</th>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SIGNATURE</td>
</tr>
</tbody>
</table>

**REMARKS**

MG needs your help for his congressional testimony.
1. How far can the HHS w/crew alone fly w/o refueling?

(Real reason for question is that he needs to refresh his memory on why the HHS were returned. Upon and I think it has to do w/internal space limitations in it.)

You might check w/Col Pitman.

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

FROM (Name, office symbol or location)  DATE

Col. Pascale  MAY

PHONE

OPTIONAL FORM 41  GPO: 1970 O-1 006-008  5041-101

AUGUST 1987  GSA FFMER (45CFR) 500-11.206
<table>
<thead>
<tr>
<th>TO</th>
<th>INITIALS</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>INITIALS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CIRCULATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COORDINATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INITIALS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FILE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INFORMATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INITIALS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOTE AND</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RETURN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PERSONAL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PERMISSION</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INITIALS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SEE ME</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SIGNATURE</td>
</tr>
</tbody>
</table>

**REMARKS**

MG VAUGH needs your help. Need to know:

1) When did the Navy make the decision to buy the RH53? What is its purchase history?
2) What is the failure rate of the RH53? After they have been declared (MC) 200,000 hours, how many are still in service?
3) How many RH53's flew with the AFRES on young pilots, and how many have been ordered as a result of A-488A and the need for refreshment on young pilots?
4) How many of the pilots completed the rest-and-relaxation training?

**INFO NEEDED FOR HIS TESTIMONY BEFORE CONGRESSIONAL COMMITTEES.**

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

**FROM** (Name, office symbol or location)

**DATE**

**PHONE**

**SECRET**
APPROPRIATE THAT WE UPDATE THE CLASSIFICATION GUIDANCE REGARDING
OUR ACTIVITIES THERE.

2. IN ORDER TO FACILITATE LONG TERM PLANNING FOR US ACTIVITIES
IN THE ALL-IMPORTANT MIDEAST-SOUTH WEST ASIA REGION, SECURITY
CLASSIFICATION PROCEDURES CONCERNING [REDACTED] COOPERATION ARE
REVISED AS FOLLOWS:

A. THE FACT THAT THERE HAVE BEEN E-3A, KC-135, AND AIRLIFT
MISSIONS INTO AND OUT [REDACTED] AND THAT EXERCISES HAVE BEEN
CONDUCTED WITH [REDACTED] IS DOWNGRADED TO CONFIDENTIAL EFFECTIVE
UPON RECEIPT OF THIS MESSAGE. [REDACTED] GUIDANCE FOR
PROVIDED SEPARATELY IN JCS [REDACTED]

B. THE FOLLOWING INFORMATION IS REMOVED FROM THE COMPART-
MENTED SYSTEM BUT WILL REMAIN SECRET NO [REDACTED]
(13) [REDACTED] DETAILS CONCERNING [REDACTED]
TO INCLUDE EQUIPMENT DEPLOYED BY THE US AND
TO SUPPORT OPERATIONS.
### MESSAGE HANDLING INSTRUCTIONS

<table>
<thead>
<tr>
<th>MESSAGE HANDLING INSTRUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>{2} <strong>DETAILS OF</strong> PROCEDURE:</td>
</tr>
<tr>
<td>TO INCLUDE: INGRESS/EGRESS COVER AND OTHER AIR DEFENSE MATTERS.</td>
</tr>
<tr>
<td>{3} <strong>ALL ASPECTS OF</strong> MC-130 TRAINING OPERATIONS <strong>INCLUDING COMBINED</strong> ACTIVITIES.</td>
</tr>
<tr>
<td>C. <strong>INFORMATION WHICH DOES NOT SPECIFICALLY PERTAIN TO</strong> COMBINED OPERATIONS WILL BE GOVERNED BY ITS OWN SECURITY CLASSIFICATION GUIDELINES; {EG. LESSONS LEARNED ON BARE BASE OPERATIONS, OR E-3A INTERFACE WITH TF 60 AND TF 70}.</td>
</tr>
<tr>
<td>3. <strong>ALL INFORMATION DIRECTLY RELATED TO SPECIAL MISSION SUPPORT ACTIVITIES</strong> WILL REMAIN <strong>TOP SECRET WITH ACCESS LIMITED TO SPECIFICALLY CLEARED PERSONNEL.</strong></td>
</tr>
<tr>
<td>4. <strong>PUBLIC OR MEDIA QUESTIONS ON THE AFOREMENTIONED ACTIVITIES SHOULD CONTINUE TO BE REFERRED TO OSD/PA.</strong></td>
</tr>
</tbody>
</table>

**SSO NOTE:** DELIVER DURING DUTY HOURS.

REVW 9 JUN 00

---

**DISTRIBUTION:**

---

**DRAFTER:**

**TITLE:**

**OFFICE SYMBOL:**

**PHONE & DATE:**

---

**SPECIAL INSTRUCTIONS:**

---

**TYPED NAME:**

**TITLE:**

**OFFICE SYMBOL AND PHONE:**

---

**SIGNATURE:**

---

**SECURITY CLASSIFICATION:**

---

**DATE/TIME/GROUP:**

---

**DD FORM 173 (OSU)** REPLACES DD FORM 173, 1 JUL 80.
INCLOSURE 1 TO MEMORANDUM FOR THE LEGAL AND LEGISLATIVE
ASSISTANT TO THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Response to Staff Query, Senate Armed Services Committee

1. Eight RH-53 helicopters were utilized for the rescue operations. All eight helicopters were from USN Minesweeper Squadron HM-16 based at Norfolk, Virginia.

2. In mid-November 1979, six of the eight RH-53 helicopters were partially disassembled and airlifted by C-5 aircraft from Norfolk to a location where they were reassembled and flown aboard KITTY HAWK. In early January, the two additional RH-53 helicopters (numbers 2 and 6 on the rescue mission) from HM-16 were airlifted from Norfolk to the Mediterranean where they were reassembled and loaded aboard the NIMITZ. The NIMITZ sailed from the Mediterranean to the Indian Ocean and relieved the KITTY HAWK on station on 21 January 1980. The six RH-53 helicopters aboard the KITTY HAWK were loaded aboard the NIMITZ, making a total of eight.

3. All eight RH-53's were fully operational when they took off from the NIMITZ on 24 April 1980. The mission performance of each helicopter is outlined below:

<table>
<thead>
<tr>
<th>HELICOPTER NUMBER</th>
<th>PERFORMANCE</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>No problems</td>
</tr>
<tr>
<td>*2</td>
<td>Arrived at Desert One (Not mission capable)</td>
<td>Second stage hydraulic pump failure</td>
</tr>
<tr>
<td>3</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>Low first stage hydraulic quantity. Prepared to service. No discrepancies</td>
</tr>
<tr>
<td>4</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>Attitude reference system failure/TACAN failure</td>
</tr>
<tr>
<td>5</td>
<td>Returned to NIMITZ (Aborted mission)</td>
<td>Motor blade indication failure</td>
</tr>
<tr>
<td>*6</td>
<td>Down after 2 hours (Aborted mission; crew picked up by helo #8)</td>
<td>No problems</td>
</tr>
<tr>
<td>7</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>Intermittent chip light indication on takeoff. Not an abort discrepancy</td>
</tr>
<tr>
<td>8</td>
<td>Arrived at Desert One (Mission capable)</td>
<td></td>
</tr>
</tbody>
</table>

* Helos 2 and 6 arrived aboard NIMITZ. There is no correlation with the failure of these two aircraft and the coincidence of their arrival in the Indian Ocean aboard NIMITZ.
MEMORANDUM FOR THE LEGAL AND LEGISLATIVE ASSISTANT
TO THE CHAIRMAN, JCS

Subject: Senate Armed Services Committee Request

1. Reference is made to your memorandum for LTC S.D. Olynyk, dated 2 May 1980, subject as above.

2. At inclosures A and B are the responses to the questions by the Senate Armed Services Committee, as outlined in the references:

   Inclosure A. Organizational Chart of the Iranian Hostage Rescue Mission

   Inclosure B. Information on the eight helicopters used in the hostage rescue operation.

Attachment

a/s

Copy provided
- CJCS
- ACJCS
- LTG Gast
- MG Vaught
- COL Miller, LL Asst to CJCS
- Mr. Stump

CHARLES W. DYKE
Major General, USA
Vice Director for Operations

Downgraded by: DDO, NMCC
12 May 1992
Subject: Response to Staff Query, Senate Armed Services Committee

1. Eight RH-53 helicopters were utilized for the rescue operations. All eight helicopters were from USN Minesweeper Squadron HM-16 based at Norfolk, Virginia.

2. In mid-November 1979, six of the eight RH-53 helicopters were disassembled and airlifted by C-5 aircraft from Norfolk to [mask], where they were reassembled and flown aboard KITTY HAWK. In early January, the two additional RH-53 helicopters (numbers 2 and 6 on the rescue mission) from [mask] were airlifted from Norfolk to the Mediterranean, where they were reassembled and loaded aboard the NIMITZ. The NIMITZ sailed from the Mediterranean to the Indian Ocean and relieved the KITTY HAWK on station on 23 January 1980. The six RH-53 helicopters aboard the KITTY HAWK were loaded aboard the NIMITZ, making a total of eight.

3. All eight RH-53's were fully operational when they took off from the NIMITZ on 24 April 1980. The mission performance of each helicopter is outlined below:

<table>
<thead>
<tr>
<th>HELO NUMBER</th>
<th>PERFORMANCE</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>No problems</td>
</tr>
<tr>
<td>2*</td>
<td>Arrived at Desert One (Not mission capable)</td>
<td>Second stage hydraulic pump failure.</td>
</tr>
<tr>
<td>3</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>Low first stage hydraulic quantity. Prepared to service. No discrepancies</td>
</tr>
<tr>
<td>4</td>
<td>Arrived at Desert One (Mission capable)</td>
<td>Attitude reference system failure/TACAN failure</td>
</tr>
<tr>
<td>5</td>
<td>Returned to NIMITZ (Aborted mission)</td>
<td>Rotor blade indication failure</td>
</tr>
<tr>
<td>6*</td>
<td>Down after 2 hours (Aborted mission; crew picked up by helo #8)</td>
<td>No problems</td>
</tr>
<tr>
<td>8</td>
<td>Arrived at Desert One (Mission capable)</td>
<td></td>
</tr>
</tbody>
</table>

* Helos 2 and 6 arrived aboard NIMITZ. There is no correlation with the failure of these two aircraft and the coincidence of their arrival in the Indian Ocean aboard NIMITZ.
CONFIDENTIAL

COMJTF
MG VAUGHT

DEPCOMJTF
LTG GAST

DESERT ONE
ON-SCENE CMDR
COL KYLE (USAF)

* LOCATED AT ALT
FORWARD CP FOR
THIS PHASE

EC/MC 130(S) COMMANDER

HELO
(FLIGHT CMDR & PILOT OF HELO 1)
LTC SEIFFERT (USMC)

COMBAT
CONTROL TEAM

ROAD AND
AIRFIELD SECURITY

GROUND
FORCE
COL BECKWITH (USA)

HELO 2

HELO 3
MAJ SCHAEFER

HELO 4

HELO 5

HELO 6

HELO 7

HELO 8
MEMORANDUM FOR THE RECORD

Subject: Point of Contact for Matters Relating to Iranian Hostage Rescue Attempt

1. Effective 17 June 1980, matters concerning Congressional testimony, press inquiries, and other matters related to follow-up questions on the operation to rescue US hostages held in Iran will be staffed by the Joint Operations Division (J-3), within the Organization of the Joint Chiefs of Staff. Principal point of contact is LTC R. A. Kvederis, USA, room 2B887, extension 52994.

2. Freedom of information requests on this subject will continue to be staffed by COL Robert Redmond, USA, Special Operations Division (J-3), room 2C839, extension 75279.

CHARLES W. DYKE
Major General, USA

Copy to:
Mr. Hamilton - 3E880
Mr. Ross - 2E800
Mr. Stempler - 3E822
Mr. Schachter - 3E963
LTG Pustay -
VADM Hanson
LTG Shutler
LTG Gast
MG Vaught
BG Johnson (J-33)
COL Miller, LL Asst/CJCS - 2E841
COL Miller, OATSD(LA) - 3D918
COL Abel, 2E857
COL Callaghan

My sincere appreciation to all for the outstanding support and cooperation we have received.

DDO, WMCC
9 May 1992
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Notes Taken During Interviews By Senator Warner and Senate Armed Services Committee Staff Personnel, 19 May 1980

Lieutenant Colonel [Redacted] USA, and Major [Redacted] USMC, appeared before Senator Warner and staff members of the SASC (Messrs Roberts and Dotson) for interviews concerning the attempt to rescue US hostages in Iran, 24 April 1980.

These notes are not verbatim transcripts of the questions and answers, but serve to provide the gist of each session. They are accurate in thrust and content, but may not be precise in terms of actual words or language used.

CHARLES W. DYKE
Major General, USA

Attachment
a/s

Copy to:
Mr. Hamilton - 3E880
Mr. Ross - 2E800
Mr. Stempler - 3E822
LTG Pustay
VADM Hanson
LTG Shutler
LTG Gast
MG Vaught
COL Miller, LL Asst, CJCS - 2E841
COL Miller, OATSD(LA) - 3D918
COL Abel/LTCOL Wheeler - 2E857

Classified by: DJ360 A
Declassify on: OADR

REGRADED UNCLASSIFIED WHEN SEPARATED FROM CLASSIFIED ATTACHMENT
MEMORANDUM FOR: Lieutenant General Gast
Major General Vaughn

Subject: Schedule for Further Interviews by SASC Concerning the Attempted Hostage Rescue Operation in Iran

1. Senator Warner has requested that two personnel associated with the rescue attempt appear before him and the SASC staff members assigned to this effort (Messrs. Roberts, McFarlane, and Dotson) on Tuesday, 20 May 1980, and two more on Friday, 24 May 1980.

2. On 20 May 1980, Colonel [Redacted], USAF, pilot of C-130 #3, will appear in Room 212, Russell Senate Office Building, at 1400. Colonel [Redacted] and Captain [Redacted] will be accompanied by LTC Kvederas who will take notes. All personnel will meet at 1320 hours, 20 May 1980, with Colonel Miller, Legal and Legislative Assistant to CJCS, in room 2E841, Pentagon. Colonel Miller will arrange transportation.

3. On Friday, 24 May 1980, Major [Redacted], USAF, pilot of C-130 tanker #6, and Captain [Redacted], Sikorsky RH-53D Tech Rep aboard NIMITZ, are tentatively scheduled to appear before Senator Warner's group. Details will be provided when available.

4. Senator Warner's group has requested through Mr. Stemppler's office that the following additional personnel who have not yet been interviewed be made available:

<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sergeant [Redacted], USAF, CCT Deputy</td>
<td>Not yet scheduled</td>
</tr>
<tr>
<td>Pilot of first C-130 tanker to land (Major [Redacted], who piloted the last tanker to land and the last C-130 to depart Desert One will substitute; tentatively scheduled for 24 May 1980)</td>
<td>Killed in accident at Desert One</td>
</tr>
</tbody>
</table>
3. Pilot of C-130 #2 (Captain who piloted C-130 #3 will substitute; scheduled for 20 May 1980)

4. Major Schaeffer, USMC, pilot, helicopter #5

Not yet available from USMC

CHARLES W. DYKE
Major General, USA
MEMORANDUM FOR THE LEGAL ADVISER AND LEGISLATIVE ASSISTANT
TO THE CHAIRMAN, JCS

Subject: SASC Request for Witnesses

Reference: Memorandum, Legal Adviser and Legislative Assistant to the Chairman, JCS, 15 May 1980, subject as above (attached)

1. In response to your request (reference above), the following individuals have been notified to appear before the SASC - Senator Warner's team, to testify on the Iran hostage rescue attempt:

   a. LTC [redacted] USA, J-4
      Iranian Hostage Rescue Mission, 1000 hours

   b. MAJ [redacted] USMC
      Marine Intelligence Officer
      Hostage Rescue Planning Team, 1100 hours

2. The meeting will take place on Monday, 19 May 1980, at 1000 and 1100 hours, respectively, in room 212 Russell Senate Office Building.

3. LTC Charles Williamson, J-3/SOD, will accompany the officers to the hearings.

PHILIP C. GAST
Lieutenant General, USAF

Attachment
a/s

Copy to:
CJCS J-33
ACJCS RADM Cassidy
DJS COL Miller, OATSD(LA) - 3D918
J-30 COL Abel - 2E857
J-31

MG Vaught
MEMORANDUM FOR BG TODD

Subject: Information for the Senate Record

Reference: Points Aircraft Encountered Sand/Dust Storm

- First MC-130 took off at 1405Z.
- All helos were airborne as a flight at 1506Z.
- Remainder of MC/EC-130s launched between 1511 and 1519Z.

- #1 MC-130 encountered dust approximately 45 minutes - one hour in from the Iranian coast. Exact time is not certain because of the insidious nature of the dust plus a cloud layer over the moon and use of night vision devices lulled crew into thinking the lack of visibility was due to the lack of moonlight.
  -- Occurred at approximately [58°22' E, 29°22' N].
  -- Time based on one hour from the coast was 1630Z.
  -- Aircraft altitude was approximately 2,000-3,000 feet AGL.
  -- Helos were approximately 140 NM South of the C-130 position at this time.

- Helicopter formation encountered the dust at 1740Z (position [58°22' E, 30°10' N]).
  -- C-130 was approximately 110 NM North of this position at that time.
  -- Helicopter altitude was approximately 500-1,000 feet AGL.

- Conditions improved gradually. C-130's were clear approximately 15 minutes (about 50 NM) prior to Desert Site 1.

- Dust was continuous from entry to exit but may have varied in intensity.

- Other C-130 flying the same route and altitudes as the #1 MC-130 reported encountering and leaving the dust at relatively the same positions as #1 MC-130.
MEMORANDUM FOR THE SPECIAL ASSISTANT FOR PUBLIC AFFAIRS, OFFICE OF THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Helicopter Navigational Equipment

1. This is in response to your request for additional information concerning visual navigational equipment available to the RH-53D pilots and copilots. As pointed out on page 7 of the "Executive Summary" of the report, each aircraft was equipped with both OMEGA and inertial navigation systems. Each pilot and copilot was equipped with AN/PVS-5A night vision goggles. Two of the pilots had experimental models (Phase III, AN/PVS-5A night vision goggles).

2. One question that continues to come up is whether or not the helicopters were equipped with Forward Looking Infrared Radar (FLIR). They were not. The MC-130 aircraft were so equipped.

Copy to:
Mr. Stempler - 3E822
Mr. Hamilton - 3E880
CJCS
ACJCS
LTG Shutler
LTG Gast

MG Vaught
COL Miller, LL Asst, CJCS (2E841)
COL Miller, OATSD(LA) (3D918)

Declassified by
DDD, NMC
12 May 1992

Classified By: OCS
Declassified ON: OCS

SECRETS
MEMORANDUM FOR MAJOR GENERAL VAUGHT, USA

Attention: COL Charles H. Pitman, USMC; RADM Thomas J. Cassidy, Jr.,

Subject: Request for Information and Material for Congress Concerning Attempted Hostage Rescue in Iran

1. References (appended):


   b. Memorandum for MG Vaught, 5 May 1980, subject: "Request for Personal Data on Helicopter Crewmembers Who Participated in Rescue Attempt."

   c. Memorandum for MG Vaught, RADM Cassidy, and Colonel Pitman, 6 May 1980, subject as above.

   d. JCS message, 071747Z May 1980, requesting personal data on RH-53D maintenance personnel aboard USS NIMITZ.

2. The Senate Armed Services Committee has requested personal data on participants in the hostage rescue mission. The specific requirements which remain unanswered are recapitulated and assigned as follows:

   a. Educational levels of all helicopter pilots and the 20-man maintenance crew which accompanied the pilots on board the NIMITZ (para 2, ref a; para 1, ref b; and para 1b(3), ref c).


   b. The dates each pilot and maintenance crewmember joined the JTF training effort (para 4, ref a, and para 2, ref b).

MEMO TO: Ben Smith

Carl—Talked

cleared with Chairman.

He is free up.

—Bottom Line:

— I think we should

send new data in mainframe

forms only if accompanied

by an explanation understood

by everyone.

— I think we should open

up to members by limit

members the key issues

of operation.

J.S. PUSTAY, Lt Gen, USAF
Assistant to the Chairman
MEMORANDUM FOR Mr. Stumpfer

THROUGH: General P...C

SUBJECT: Helo Rescue Mission

As a result of yesterday's briefing to Senators Stennis and Warner and selected staff, we have been requested to provide, as soon as possible, the following:

1. The maintenance records for the 8 RH-53 helicopters. In this connection, the staff is particularly interested in obtaining a detailed history of the 8 helicopters while they were on the aircraft carrier. The staff has received a report that one of the helicopters had an accident while on the Nimitz.

2. The names, ranks, branches of service, organizations, and experience levels of the 16 helicopter pilots and the 20 member special maintenance crew that accompanied the pilots onboard the Nimitz. With respect to the experience levels of the 16 pilots, such report should include total flying hours as well as the number of hours flown in the RH-53.

3. The organization and location of the 8 RH-53 helicopters, by tail number, prior to their assignment to the special mission group.

4. The dates, individually, when the 16 pilots and 20 member maintenance crew joined the southwest training unit.

5. The staff has asked for a report on the next scheduled check-out or maintenance for all parts and systems that failed during the course of the mission.

6. The Committee has asked what weather reports were available, particularly those reports, if any, concerning the sand storm.

7. The Committee would like to obtain any and all special check lists used in performing its mission while onboard the aircraft carrier.

8. The Committee has also asked what "over and above" normal maintenance was performed on the 8 helicopters.

I have verified the above request with John Roberts this morning. As you know, both Senators Stennis and Warner are anxious to conduct and complete the Committee investigation of this matter. They both expressed a desire...
to look at a new helicopter and talk with the pilots. Literally, they have assigned it top priority. In this background, John Rolfes telephoned this morning and relayed some additional requirements. John Roberts, Steve Driscoll, and Bud Manley have been assigned as the Committee personnel responsible for this inquiry. They have been instructed by Chairman Stennis to proceed expeditiously as possible.

1. Roberts has requested that they meet with MCgen Vaught, Colonel Beckwirth, and the pilots this afternoon in the Pentagon. This is their number one priority.

2. The staff team would like to talk to the Marine captain and his 20 member maintenance crew. I think we must do this.

3. The staff would like to meet with the weather officer who is reported to have accompanied the special mission group.

4. Roberts has requested to meet with the colonel in charge of overall training at the southwestern U.S. training site.

5. The staff would like to meet with those personnel responsible for the materiel planning of the mission.

6. The Committee is interested in learning the sequence of events in the delivery of the helicopters and what plans were made for spare parts.

[Signature]
Grant Miller
Colonel, USAF
MEMORANDUM FOR MAJOR GENERAL VAUGHT, USA

Attention: COL Charles H. Pitman, USMC

Subject: Request for Personal Data on Helicopter Crewmembers Who Participated in Rescue Attempt

1. The Senate Armed Services Committee has requested the following personal data on all helicopter pilots and the special 20-man maintenance crew which accompanied the pilots aboard the NIMITZ:

   - Name, rank, branch of service
   - Organization
   - Experience level, to include length of service
     -- For pilots, include total flying hours and hours flown in the RH-53
     -- For mechanics, include special schooling or training and experience on RH-53

2. The dates when each pilot and maintenance crewmember joined the JTF training effort is also required.

   [Signature]

   CHARLES W. DYKE
   Major General, USA
   Vice Director for Operations

CF: CJCS
    AGCS
    LTG CAST
    COL Miller, CL ASS'T TO CJCS

[Classification and declassification annotation]
c. By message (ref d), the CNO has been requested to provide educational and experience data on the HM-16 group rescue personnel.


d. Educational levels of all other personnel (US Army and US Air Force) associated with the rescue attempt (para la(5), ref c).


3. Request that the information and data requested in references a through d be assembled and provided this office NLT COB 15 May 1980.

CHARLES W. DYKE
Major General, USA

Attachments
a/s

Copy to:
Mr. Stempler
CJCS
ACJCS
LTG Shutler
LTG Gast
COL Miller, LL, CJCS
COL Miller, OATSD(LA)

A,G
COL Paschall
COL Abel
LTC Seiffert
MEMORANDUM FOR MAJOR GENERAL VAUGHT
RADM TOM CASSIDY, OPG
COLONEL CHARLES H. PITTMAN

Subject: Request for Information and Material for Congress
Concerning Attempted Hostage Rescue in Iran

1. The following requirements have been received and require
support as indicated:

a. For MG Vaught:

(1) Maps showing helicopter and C-130 aircraft
flight routes over Iran during rescue attempt. Maps
should not show points of origin but only flight
routes over Iran (Item 1, Incl 1, TAB A). Suspense:
1500, 6 May 1980.

(2) Charts showing planned and actual aircraft and
helicopter parking/refueling patterns at Desert One
site. Major reportedly used a similar chart when he appeared before Senator Warner and
the SASC staff personnel. (Item 2, Incl 1 to TAB

(3) Provide information on the availability of any
portion of the operations plan for the rescue
attempt (Item 3, Incl 1 to TAB A). Suspense: 1500,
6 May 1980.

(4) Have plans to have Major _____ available for inter-
view by SASC staff personnel or for possible appear-
ance at the SASC hearings (Incl 1 to Tab A).
Suspense: Continuing.

(5) Provide information concerning education levels
of soldiers associated with rescue attempt as
outlined in items (1) and (2), Tab B. Suspense:
COB 15 May 1980.

[Incident]

29A6
b. For RADM Cassidy:

1. Have Command Maintenance Officer for HM-16 available (on call) for the SASC. (Incl 1 to Tab A). Suspense: Continuing.


3. Provide information concerning the educational level of the helicopter maintenance personnel on the NIMITZ (HM-16 personnel) and the 20-man helicopter maintenance team under Captain who went aboard the NIMITZ with three helicopter aircrews. (Item (3), Tab B). Suspense: COB 15 May 1980.

4. Provide information on how to respond to the request for the maintenance records of the eight RH-53 helicopters used on the mission. It is understood that the Navy would prefer to respond to specific questions rather than submit technical records for interpretation by the Congress. The task is for a draft response which either forwards the records with appropriate caveats or for a response which gives the position preferred by the Navy. (TAB C). Suspense: 9 May 1980.

c. For Colonel Pittman:

1. The four pilots listed below are to be alerted (but not moved) for possible appearance before the SASC as previously discussed (5 May 80):

- LCDR USN
- CAPT USMC
- USAF
- USMC

Suspense: Continuing
(2) In addition to the four officers listed above, the SASC staff has also requested to see Major Schaeffer when his medical condition will permit. I do not perceive this as an urgent requirement. Suspense: Continuing.

CHARLES W. DYKE
Major General, USA
Vice Director for Operations

3 Incl
a/s

Copy Furnished:
Mr. Stemple
CJCS
ACJCS
DJS
LTG Gast
LTG Shutler
COL Miller, LLA to CJCS
COL Miller, OSD/LLA
COL Abel; SA/PA to CJCS
MEMO TO: MAJOR GENERAL CHARLES W. DYKE

SUBJECT: Iranian Rescue Mission

In addition to the items requested in the attached memo from Jack Stempler, the SASC is also requesting information concerning the failure rate of helicopters during the training period preceding the rescue mission. I understand that during the course of his interview, COL Chuck Pitman was asked concerning the failure rate during training, and Pitman indicated to the Committee that such information was available. If that information is correct, would you please provide that information to my office for further provision to the SASC.

[Signature]

COLONEL MILLER
3. I am using the following assumptions on developing JTF cost data:
   a. TDY is 100 percent chargeable.
   b. Use of Davison AAF is 100 percent chargeable.
   c. Normal depreciation is chargeable for hardware.
   d. 

4. Apparently, the President has indicated that costs of this operation will be recouped through Frozen Iranian Assets.

Enclosure
a/s

FAG
Major, USA
MEMORANDUM FOR MAJOR GENERAL VAUGHT

Subject: Request for Appearance Before House Armed Services Committee: Colonel James Kyle

1. The House Armed Services Committee has requested that Colonel James Kyle appear before the Committee at 1400, 8 May 1980. One helicopter pilot and one C-130 pilot (LTC Guidry preferred) are to accompany Colonel Kyle.

2. The purpose of this appearance is to discuss the attempt on 24-25 April 1980 to rescue US hostages in Iran.

3. This appearance by Colonel Kyle is instead of his previously scheduled appearance before the HASC at 1000 hours, 7 May 1980. This frees Colonel Kyle to appear with others scheduled for the SASC hearing at 1000, 8 May 1980 (memorandum attached).

Charles
Major General, USA

Copy to:
Mr. Stempler
CJCS
ACJCS
LTG Shutler
LTG Gast
COL Miller, LL Asst to CJCS
COL Miller, OATSD(LA)
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Hostage Rescue Hearings before the Senate Armed Services Committee, 7 May 1980

(1) The formal hearings on the Hostage Rescue Operation before the Senate Armed Services Committee have been confirmed for Wednesday, 7 May 1980, beginning at 1000 hours.

(2) Although not confirmed, it now appears that the principal witnesses listed below will appear jointly, in panel fashion, with COL Pitman as backup. A prepared statement is required. Witnesses required are as follows:

MG Vaught
LTG Gast
COL Kyle
COL Beckwith
LTC Seiffert
COL Pitman (as backup; not at table)

Charles W. Dyke
Major General, USA
Vice Director for Operations

Copy furnished:
Each witness
LL Asst, CJCS

CONFIDENTIAL
MEMORANDUM FOR THE LEGAL AND LEGISLATIVE ASSISTANT TO THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Response to Query on Hostage Rescue Mission

Reference: Memorandum, Office of the Assistant to the Secretary of Defense for Legislative Affairs, 29 April 1980, "Hostage Rescue Mission"

1. This memorandum is in response to question number 6 in the reference. The question addressed states: "What weather reports were available, particularly those reports, if any, concerning the sandstorm?" (Note: This leaves only questions 2 and 4 in reference, concerning personal data on participants, not fully answered.)

2. In preparation for supporting the rescue mission, the following actions were accomplished:

   a. In November 1979, an experienced military weather officer was assigned full time to become acquainted with forecasting the weather in Iran and to provide that support required to execute the mission.

   b. In November 1979, a special cell of forecasters was created at Air Force Global Weather Central (AFGWC) to generate daily both area and terminal forecasts for select locations in Iran.

   c. In November 1979, the Environmental Technical Applications Center began preparing special climatic studies for select areas and locations in Iran.

   d. Satellite data was received in the Pentagon on a daily basis from the Worldwide Satellite Imagery Data Base at AFGWC. This imagery was used as an aid for weather briefings presented to the JTF Commander.

   e. AFGWC reviewed the surface observations received from Iran for both quantity and quality. Available observations were sparse, but generally of acceptable quality. Only two stations in the entire country reliably reported each hour.
In March 1980, a Defense Meteorological Satellite Program (DMSP) Tactical Van, a Communications Satellite Terminal, and a Tactical Forecast Van were moved to the forward area to support the JTF Commander. The DMSP van is capable of receiving satellite imagery in a real time mode from overhead satellites. The communications van provided a communications link back to the forecasting cell at AFGWC, and the Tactical Forecasting Van provided workspace and additional weather communications to receive local teletype and facsimile weather data.

3. On 24 April 1980, observations were received from 11 reporting locations in the southern half of Iran, some locations reported only once, others each 3 hours, many at random times. Satellite imagery was received approximately each four or five hours by the tactical van. The team at AFGWC prepared its forecast and transmitted it to the forward location. The mission forecast was prepared using all available data and the skills of three well qualified weather officers deployed to the forward area.

4. Post analysis indicates that there was no "sandstorm" or even a "duststorm," both terms implying high surface winds lifting sands or dust from the surface. What was encountered was an area of calm, or light winds with suspended dust in the air restricting visibility. This restriction to visibility appeared to be a localized phenomenon, appearing in two regions, the larger extending for approximately 150 miles. Forecasting events of this scale in a data sparse area is beyond the current state of the art.

5. Two attached fact sheets provide additional information on the weather support concept and the forecasts prepared for the specific rescue route.

Attachments
a/s

Copy to:
Mr. Stempler - 3E822 /HL. Loss
CJCS
ACJCS
LTG Shutler
LTG Gast
MG Vaught
COL Miller, OATSD(LA) 3D918
COL Abel, Spec Asst PA, CJCS - 2E857
MISSION ENVIRONMENTAL SUPPORT EXECUTIVE SUMMARY

Air Weather Service (AWS) has conducted an in-depth post-event analysis of the environmental forecasts provided for the mission. Data available to weather analysts after the mission began were included to gain possible insight into physical factors which caused observed conditions to occur. The weather forecast of temperatures and surface winds for the hideout location and the city of Tehran verified accurately for the nights of 24 and 25 April 1980, respectively. The weather forecasts for the entire Middle East region verified for all weather elements, with the exception of restricted visibility in two regions of the total RH-53 route.

The C-130 route forecast (to include the refueling site) was also verified. It was during portions of the last half of the RH-53 route that suspended dust severely reduced visibility, occasionally to zero. Our analysis of the nighttime satellite imagery shows that isolated thunderstorms did develop (as forecast) at the higher elevations along the ridge to the west of the RH-53 route. One can speculate that the downrush of air from these thunderstorms could be of sufficient magnitude to lift and spread fine, powdery dust into the air and have it remain suspended along the route of the helicopters. These small-sized particulates could conceivably have remained suspended in the air for a period of hours. It is important to note that none of the available weather reporting stations spread across central Iran indicated the presence of large areas of suspended dust or severe restrictions to visibility. There are no active reporting stations along the route of flight. We conclude the occurrence was a very localized phenomenon; to forecast the occurrence of such an event, and its spatial and temporal extent with any degree of reliability, is beyond the current state of the art.
MISSION ENVIRONMENTAL SUPPORT

A. BACKGROUND

1. Planning

a. Climatological Support. The Joint Task Force Environmental Officer (JTFEO) provided to the JTF staff historical climatic narratives, extensive statistical data, and planning information (e.g., deployment computer flight plans (C-130), temperatures, rainfall amounts, winds, ceiling and visibility, illumination data, the probability of consecutive good weather days, etc.). JTFEO prepared the weather support annex to the mission OPLAN.

b. Operational Support

(1) Air Weather Service (AWS) studied reporting stations in the operational area to determine the quality and quantity of weather data, and monitored data received from the Automated Weather Network (AWN) for possible data falsification; with minor exceptions, AWN data were considered reliable and there was no detectable data denial in the area during the entire period. (Iran is considered a sparse weather data area.)

(2) A select group at the Air Force Global Weather Central (AFGWC) commenced preparation of daily weather forecasts for the operational area in November 1979. This area included the eastern Mediterranean, Iran, and the surrounding area. AFGWC provided daily short range forecasts, long range outlooks, and aircraft route weather (i.e., winds, temperatures, visibilities, density altitudes, altimeter settings, flight hazards (icing, turbulence, thunderstorms), etc.). Forecasts were based on numerical model guidance and the AFGWC global satellite data base. AFGWC provided similar products to support JTF practice exercises in the CONUS. AFGWC transmitted products to the JTFEO in the CONUS during planning stages, and to deployed forecasters before and during the mission.

(3) Three weather officers and associated support personnel moved to the deployed location. Equipment deployed consisted of weather teletype and facsimile receivers, dedicated circuits, and a Defense Meteorological Satellite Program (DMSP) direct read-out facility.

2. Execution

a. Equipment. Weather teletype and facsimile receivers and communications circuits were extremely reliable. The DMSP facility overcame initial minor difficulties associated with deployment and was fully operational throughout the period 1-26 April 1980.
b. Products. AFGWC bulletins were received as planned at the deployed location. JTFEO and assistant weather officers used the basic AFGWC products, updated by more recent data from the Middle East area, to prepare route bulletins for C-130s and RH-53s; to prepare weather briefing statements for C-130s, RH-53s, and the JCS; and to brief the JTF Commander.

3. Constraints

a. The operation required accurate weather support in a data sparse area, a problem compounded by the fact that the frequency of surface weather observations decreases significantly during the hours of darkness. Consequently, weather satellite data, along with numerical model forecasts, were the key elements in AFGWC forecast generation. The weather satellite data at the deployed location were invaluable to the JTFEO for finalizing the operational forecasts for the mission and briefing the JTF Commander and staff.

b. Due to Operations Security (OPSEC) constraints, we limited the number of people involved to the absolute minimum. These same OPSEC constraints restricted the amount of detailed information which could be included in the AFGWC forecast bulletin (e.g., countries, city names, and latitude/longitude points along aircraft routes could not be used to identify specific weather element locations). Secure voice coordination from the deployed location via JCS to AFGWC was attempted to alleviate some of these OPSEC-imposed problems. However, these constraints did not adversely affect the quality of weather support to the mission.

B. METEOROLOGICAL SITUATION

At 24 April 0000Z, a weak frontal system was located on a line from northeast Iran southwestward into the central Persian Gulf, causing mostly cloudy skies in central Iran (ceilings greater than 10,000 feet). Skies were fair to partly cloudy elsewhere. An area of isolated thunderstorm activity was observed in the central Zagros Mountains. Upper level features indicated:
(1) the front's northern portion in southern USSR was the strongest and would move to the northeast, (2) the southern portion of the front would continue to weaken, and (3) the mountain thunderstorm activity would decrease during the daylight hours. By 24 April 1200Z, the system had moved approximately 120 miles to the east. An upper level disturbance formed over southwest Iran and caused thunderstorm activity to continue and increase over the Zagros Mountain area. Widespread cloudy skies were observed throughout central Iran. However, skies in southeastern Iran were basically clear in the area of the dissipating southern portion of the frontal system. By 25 April 0000Z, the northern portion of the system moved into Afghanistan with the southern portion essentially dissipated. Partly to mostly cloudy skies remained in central Iran with the upper level disturbance (here again, ceilings greater than 10,000 feet).
C. OPERATIONAL VERIFICATION

1. Rescue Mission Forecast Verification

a. The weather forecast of temperatures and surface winds for the hideout location and city of Teheran verified accurately for the nights of 24 and 25 April 1980, respectively.

b. The weather forecasts for the entire Middle East region verified for all weather elements, with the exception of restricted visibility along latter portions of the total RH-53 route, caused by the suspended dust.

2. C-130 and RH-53 Route Verification

a. The lead C-130 aircrew reported route weather was as briefed. Weather at the refueling site was as forecast; light surface winds, good moonlight illumination with some high cirrus cloudcover, and good visibility. (Visibility did decrease at the refueling site when the helicopters landed due to disturbance of surface dust by rotor downwash.)

b. The helicopter crews crossed the coastline 12 minutes late and arrived at Turnpoint 4 (halfway along the initial route) 12 minutes late, indicating wind forecasts were accurate. Visibility was hazy over water and crystal clear over land, with clear skies and good moonlight illumination from takeoff to Turnpoint 4. Shortly after Turnpoint 4, the helicopter pilots reported encountering restricted visibility due to suspended dust (powder in mouth rather than abrasion or noise from sand). The helicopters regrouped and flew north again along the route, and ran into a second region of reduced visibility. Helicopter crews reported the horizontal extent of the area of restricted visibilities to be some 200 miles along their route of flight. Within that overall distance, there were varying degrees of visibilities, ranging from zero to 5 plus miles. Helicopter crews reported wearing night vision goggles throughout their flight. Six helicopters were able to navigate through the dust, breaking into the clear again approximately 40 miles from the desert refueling site. The helicopter crews debriefed by the JTFEO stated that they encountered no gusty winds within the regions of reduced visibilities; further, flight within these regions was smooth and stable.

D. CONCLUSION

Meteorological satellite imagery revealed enhanced cumulus/towering cumulus activity over the Zagros Mountain Range to the west of the route during the maximum daytime heating. The next meteorological satellite coverage showed that isolated thunderstorms (with associated cirrus blowoff) had developed over the eastern-most ridge of the Zagros Range. The thunderstorm cells
occurred at the higher elevations west of the C-130 and RH-53 routes. One could speculate that a downrush of air from these thunderstorms could be of sufficient magnitude to lift and spread fine, powdery dust into the air and along the route of the helicopters. These small-sized particulates could conceivably have remained suspended in the air for a period of hours. It is important to note that none of the available weather reporting stations spread across central Iran indicated the presence of large areas of suspended dust or severe restrictions to visibility. There are no active reporting stations along the route of flight. We conclude the occurrence was a very localized phenomenon: to forecast the occurrence of such an event, and its spatial and temporal extent with any degree of reliability, is beyond the current state of the art.
FACT SHEET

SUBJECT: Environmental Factors Affecting Hostage Rescue Effort

1. PURPOSE: This sheet describes environmental factors provided with regard to the projected helicopter route.

2. DISCUSSION:

a. Winter storms with low clouds, icing, freezing temperatures, turbulence, and strong headwinds dominated the period from December through February when length of nighttime darkness was optimum. As spring months (March-May) passed, the storm track gradually moved northward into southern USSR and the available nighttime darkness (necessary for operations) decreased while average temperatures increased. Rising temperatures and density altitudes presented critical barriers to helicopter performance capabilities replacing the earlier concerns with icing, freezing temperatures, and other winter conditions outlined above.

b. Dust/sandstorms occur throughout the year showing a general decrease of occurrence in April after the windy month of March. Dust/sandstorms in Iran have a higher frequency and severity during the summer months in the desert region. The period from May-September brings the "Wind of 120 Days" to the eastern Iranian desert region accompanied by extremely dry air, duststorms, and violent gusty winds. These winds are strongest during the daytime and weaken or lull to a breeze at night. Wind speeds of 25 knots or greater are reported 5-15% of the time over most of Iran. Severe dust/sandstorms may last for several days.

c. Enclosure 1 provides climate statistics for available meteorological stations in the Iranian desert along the projected helicopter route. As can be seen from this data, the number of sand and duststorms at those observation points closest to the flight route do not increase from March to April but actually decrease at all but one point (Kerman) where the data remains constant. As has been discussed frequently, the mission was terminated at the "Desert One" refueling site, making the data with regard to Teheran not applicable.
### Climate Statistics - Mean Number Of Days With Dust

<table>
<thead>
<tr>
<th></th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
<th>POR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zanchedan</td>
<td>6</td>
<td>6</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>11</td>
<td>10</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>7-11</td>
</tr>
<tr>
<td>Kerman</td>
<td>8</td>
<td>6</td>
<td>9</td>
<td>9</td>
<td>11</td>
<td>10</td>
<td>13</td>
<td>11</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3-7</td>
</tr>
<tr>
<td>Birjand</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3-3</td>
</tr>
<tr>
<td>Yazd</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3-5</td>
</tr>
<tr>
<td>Teheran</td>
<td>1</td>
<td>*</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>13-15</td>
</tr>
</tbody>
</table>

**NOTE:** * 0.5 Day

**POR** = Period Of Record (Number Of Years)
C.2.a., "The lead C-130 aircrew reported route weather was as briefed."

JTF Weather Officer, verbally debriefed Colonel James H. Kyle at the Forward Operating Location after the mission concerning weather. Col Kyle stated "Stormy, you don't have anything to worry about, the weather was as briefed."

Our C-130's flew the mission without any weather problems and the weather at Desert One was as forecast". Col Kyle described the weather along the route as clear skies with good moonlight illumination during the first portion of the flight, then under high thin cloudcover with reduced visibility due to lack of moonlight during the latter part. He described the weather at Desert One as high thin overcast cloudcover, good moonlight illumination, 3-5 miles visibility, and light surface winds. When asked about whether he encountered any turbulence or wind gusts at flight level, he stated that it was a smooth ride except some light chop over first two ridges. When asked if there was any weather problems at Desert One, he stated that the helicopters had stirred up dust when landing and moving around, but otherwise no weather problems. When asked if he was aware of any visibility problems along the route as reported by the helicopters, he stated that his C-130 had encountered some type of reduced visibility below their flight level about 200 miles south of Desert One for a short period of time, but that this did not affect the C-130's.
MEMORANDUM FOR COLONEL HAROLD V. MILLER, LEGAL ADVISOR AND LEGISLATIVE ASSISTANT TO THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Response to Congressional Query Concerning Hostage Rescue Attempt in Iran (Questions Relate to RH-53 Helicopters)

References:  
  a. Memorandum, Office of the Assistant to the Secretary of Defense (Legislative Affairs), 29 April 1980, "Hostage Rescue Mission"
  b. Memorandum by MG Dyke to the Legal Advisor and Legislative Assistant to the Chairman, Joint Chiefs of Staff, 6 May 1980, "Response to Congressional Queries"

1. This memorandum responds to questions 7 and 8 on page 1 of reference a and is in addition to data previously provided by reference b in response to questions 1, 3, and 5 of reference a.

2. Response to Question 7: The following items were checked in addition to normal maintenance inspection requirements:

Items checked: (for operation and/or security)

- Engine topping (a/c logbook entry)
- Aircraft clocks (for operations)
- Engine armor (for security)
- Omega (checked by FSR)
- Extended range tanks (for security and operation)
- .50 cal mounts (for security)
- All hydraulic lines
- All fuel lines
- Hydraulic pumps
- Hydraulic filters
- Primary servos
- AFCS servos
- Aircraft control linkages and cables
- Tail rotor drive shaft thomas couplings
- APP drive shaft coupling
- MGB oil cooler drive shaft and coupling
- MGB D/S (high speed) and couplings
- Rotor tip lights
All external fuselage/running lights
All sleeve and spindle assemblies
All damper accumulators
Cockpit instruments and lights
Windscreens (clear of paint and scratches)
Pilot's and copilot's control spot lights
All rotor blades (main and tail)

3. Response to Question 8: The checklist items above constituted checks "over and above" those routinely required by US Navy inspection checklists and maintenance procedures. To more thoroughly understand what transpired, it should be noted that on 20 April, mission aircrews and supporting personnel arrived aboard NIMITZ. During the period 20-24 April, mission crews participated in familiarization flights, maintenance check flights, deck turn-ups and mission preparation activities. All eight aircraft were given a full functional check flight during this period. At least one pilot in each assigned mission flight crew was a qualified functional check pilot. Maintenance records were reviewed by the mission aircraft maintenance officer for appropriate maintenance action, and crewmembers made repeated inspections of their assigned aircraft. The mission aircraft maintenance officer had visited the ship approximately three weeks prior to review maintenance records and personally inspected the aircraft. He had provided specific and detailed guidance to HM-16 squadron maintenance supervisors regarding items to be inspected, additional maintenance actions desired, and other pre-mission preparations to be accomplished. He also screened all related records and log books and did not note any components that exceeded allowable removal times. Based upon his guidance, the HM-16 squadron aircraft maintenance officer developed a pre-mission checklist and procedures for its completion. Completion of these actions was verified by the mission aircraft maintenance officer upon his return to NIMITZ on 20 April.

4. This memorandum, together with reference b, completes response to questions 1, 3, 5, 7, and 8. Responses to questions 2, 4, and 6 are working. Answers will be provided as soon as possible. All personnel requested to date have been provided, with the exception of Major Schaeffer who remains under hospital care.

CHARLES W. DUKEL
Major General, USA

Copy to:
Mr. Stempler (3E822)
CJCS
ACJCS
Lt. Shuler
WAC Gast

COL Miller, OATSD(LA) (3D918)
COL Abel, Spec Asst PA, CJCS (2E857)
Mr. Peter Hamilton (3E880)
MEMO TO: Ken Smith

Carl—I have not cleared with Chairman. He is free up.

--- Bottom lines: 

I think we should send new data in more formal forms only if accompanied by an explanation understood by laymen.

I think we should try to understand key concepts of operation.

J.S. PUSTAY, Lt Gen, USAF
Assistant to the Chairman
MEMORANDUM FOR Mr. Stumpfer

THROUGH: General P.R.C.

SUBJECT: Helicopter Rescue Mission

As a result of yesterday's briefing to Senators Stennis and Warner and their staff, we have been requested to provide, as soon as possible, the following:

1. The maintenance records for the 8 Ni-53 helicopters. In this connection, the staff is particularly interested in obtaining a detailed history of the 8 helicopters while they were on the aircraft carrier. The staff has received a report that one of the helicopters had an accident while on the Nimitz.

2. The names, ranks, branches of service, organizations, and experience levels of the 16 helicopter pilots and the 20 member special maintenance crew that accompanied the pilots onboard the Nimitz. With respect to the experience levels of the 16 pilots, such report should include total flying hours, as well as the number of hours flown in the Ni-53.

3. The organization and location of the 8 Ni-53 helicopters, by tail number, prior to their assignment to the special mission group.

4. The dates, individually, when the 16 pilots and 20 member maintenance crew joined the southwest training unit.

5. The staff has asked for a report on the next scheduled check-out or maintenance for all parts and systems that failed during the course of the mission.

6. The Committee has asked what weather reports were available, particularly those reports, if any, concerning the sandstorm.

7. The Committee would like to obtain any and all special check lists which the 20 member special maintenance crew used in performing its mission while onboard the aircraft carrier.

8. The Committee has also asked what "over and above" normal maintenance was performed on the 8 helicopters?

I have verified the above request with John Roberts this morning. As you know, both Senators Stennis and Warner are anxious to conduct and complete the Committee investigation of this matter. They both expressed a desire...
to look at a MH-53 helicopter and talk with the pilots. Naturally, they have assigned it top priority. With this background, John Roberts telephoned this morning and relayed some additional requirements. John Roberts, Steve Dotson, and Bud McFarland have been assigned as the Committee personnel responsible for this inquiry. They have been instructed by Chairman Stevens to proceed as expeditiously as possible.

1. Roberts has requested that they meet with Leon Vaught, Colonel Backwith, and the pilots this afternoon in the Pentagon. This is their number one priority.

2. The staff team would like to talk to the Marine captain and his 20 member maintenance crew. I think we must do this.

3. The staff would like to meet with the weather officer who is reported to have accompanied the special mission group.

4. Roberts has requested to meet with the colonel in charge of overall training at the southwestern U.S. training site.

5. The staff would like to meet with those personnel responsible for the material planning of the mission.

6. The Committee is interested in learning the sequence of events in the delivery of the helicopters and what plans were made for spare parts.

\[ Signature \]

Grant Miller
Colonel, USAF

UNCLASS
MEMORANDUM FOR COLONEL MILLER, LEGAL ADVISOR AND LEGISLATIVE ASSISTANT TO THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Response to Congressional Queries

This information is in partial response to that requested in Colonel Grant Miller's memorandum on this subject of 29 April 1980. The requests for personnel who participated in the rescue attempt to meet with either members or Congressional staff personnel, as outlined in the second half of Colonel Grant Miller's memorandum, have been met. Questions posed in the first half of the memorandum are answered below. Numbers reflect item numbers in Colonel Miller's memorandum.

1. Request for the maintenance records of the eight RH-53D helicopters used on the rescue attempt (Item 1): The Navy is in process of reviewing all aspects of maintenance performed on the RH-53D helicopters involved in this mission and is assessing impact of failures reported. To accomplish this requires access to the maintenance records. Therefore, the Navy would prefer to answer any specific questions rather than submit technical records and unevaluated raw data.

3. Organization and location of the eight RH-53 helicopters, by tail number, prior to their assignment to the special mission group: All eight RH-53 helicopters used on the rescue attempt were assigned to HM-16 based aboard USS NIMITZ. At Inclosure 1 is a copy of a paper previously provided. A correlation of aircraft tail numbers and mission numbers (1-8) is as follows:

<table>
<thead>
<tr>
<th>Mission Number</th>
<th>Bureau Number</th>
<th>Side Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>158744</td>
<td>632</td>
</tr>
<tr>
<td>2</td>
<td>158753</td>
<td>634</td>
</tr>
<tr>
<td>3</td>
<td>158761</td>
<td>637</td>
</tr>
<tr>
<td>4</td>
<td>158693</td>
<td>631</td>
</tr>
<tr>
<td>5</td>
<td>158754</td>
<td>635</td>
</tr>
<tr>
<td>6</td>
<td>158750</td>
<td>633</td>
</tr>
<tr>
<td>7</td>
<td>158686</td>
<td>630</td>
</tr>
<tr>
<td>8</td>
<td>158758</td>
<td>636</td>
</tr>
</tbody>
</table>
5. Next scheduled check out on maintenance for all parts and systems that failed during the course of the mission: There were three failures, as discussed below. Also, see Inclosure 1:

a. Aircraft number 6 landed in the desert with indication of a possible failed rotor blade. The service life of the six main rotor blades on the RQ-53D aircraft is 3,000 hours. The average life of the blades on helicopter number 6 was 956 hours. The blade with the highest time was 1,546 hours. It is not known which blade had the possible failure. In any event, all of the blades were well within service life criteria with only one blade at approximately half-time.

b. Helicopter number 2 experienced a second stage hydraulic pump failure two hours prior to landing at Desert One refueling site. This failure was caused by a fluid system loss as a result of a cracked "B" nut. This item is not changed on the basis of service life. The system is checked for leaks prior to flight. The hydraulic pumps for both the first and second stage systems are replaced only upon failure and are not on a time or service life replacement schedule.

c. Helicopter number 5 returned due to degraded navigational and flight instruments which precluded safe flight in the low altitude weather conditions experienced. A paper provided previously is at Inclosure 2.

Items 2, 4, 6, 7, and 8 continue to be worked. Answers will be provided as soon as possible.

Charles W. Dyke
Major General, USA

2 Inclosures
a/s

Copy furnished:
Mr. Stempler
CJCS
ACJCS
LTC Shutler
LTC Gast
MG Vaught
COL Miller, OATSD(LA)
MEMORANDUM FOR THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Notes Taken During Testimony Before the Senate Armed Services Committee on 7 May 1980

1. Attached is the transcription of notes taken by LTCOL C. A. Williamson, Special Operations Division, J-3, during the appearances before the Senate Armed Services Committee at 1000 hours on 7 May 1980 of LTGEN Gast, USAF; MG Vaught, USA; COL Kyle, USAF; COL Beckwith, USA; LTCOL Guidry, USAF; MAJ with COL Pitman, USMC; and COL [Redacted] as backup.

2. These notes are not verbatim transcripts of the questions and answers, but serve to provide the gist of each session. They are accurate in thrust and content, but may not be precise in terms of actual words or language used.

Attachment

a/s

Copy to:
Mr. Stempler - 3E822
Mr. Hamilton - 3E880
LTG Pustay
VADM Hanson
LTG Shutler
LTG Gast
MG Vaught
COL Miller, LL Asst to CJCS - 2E841
COL Miller, OATSD(LA) - 3D918
COL Abel/LTCOL Wheeler - 2E857

CHARLES W. DYKE
Major General, USA

REGRADING UNCLASSIFIED
WHEN SEPARATED FROM CLASSIFIED ATTACHMENT
MEMORANDUM FOR MR. SLOTRIER

THROUGH: General P.D.

SUBJECT: National Rescue Mission

As a result of yesterday's briefing to Senators Stennis and Warner and their staff, we have been requested to provide, as soon as possible, the following:

1. The maintenance records for the 8 RH-53 helicopters. In this connection, the staff is particularly interested in obtaining a detailed history of the 8 helicopters while they were on the aircraft carrier. The staff has received a report that one of the helicopters had an accident while on the Nimitz. (From Cassion) — (Marked)

2. The names, ranks, branches of service, organizations, and experience levels of the 16 helicopter pilots and the 20 member special maintenance crew that accompanied the pilots onboard the Nimitz. With respect to the experience levels of the 16 pilots, such report should include total flying hours, as well as the number of hours flown in the RH-53.

X The organization and location of the 8 RH-53 helicopters, by tail number, prior to their assignment to the special mission group. (Col Pittman)

X The dates, individually, when the 16 pilots and 20 member maintenance crew joined the southwest training unit. (Col Pittman)

X The staff has asked for a report on the next scheduled check-out or maintenance for all parts and systems that failed during the course of the mission. (Marked Cassion)

X The Committee has asked what weather reports were available, particularly those reports, if any, concerning the sand storm. (Mark — Lt. Col. Schmidt)

X The Committee would like to obtain any and all special check lists which the 20 member special maintenance crew used in performing its mission while onboard the aircraft carrier. (Marked Cassion)

X The Committee has also asked what "over and above" normal maintenance was performed on the 8 helicopters. (Marked Cassion)

I have verified the above request with John Roberts this morning. As you know, both Senators Stennis and Warner are anxious to conduct and complete the Committee investigation of this matter. They both expressed a desire

attachment 2
to look at a UH-60 helicopter and talk with the pilots. 

assigned it top priority. With this background, John Roberts telephoned this 

morning and relayed some additional requirements. John Roberts, Steve Bucson, 

and Bud McFarland have been assigned as the Committee personnel responsible 

for this inquiry. They have been instructed by Chairman Stennis to proceed 

as expeditiously as possible.

1. Roberts has requested that they meet with Ken Vaught, Colonel Buckwith, 

and the pilots this afternoon in the Pentagon. This is their number one 

priority.

2. The staff team would like to talk to the Marine captain and his 20 master 

maintenance crew.

3. The staff team would like to meet with the weather officer who is reported to 

have accompanied the special mission group.

4. Roberts has requested to meet with the colonel in charge of overall training 

at the southwestern U.S. training site.

5. The staff team would like to meet with those personnel responsible for the 

material planning of the mission.

6. The Committee is interested in learning the sequence of events in the 

delivery of the helicopters and what plans were made for spare parts.
THE JOINT STAFF

THE JOINT CHIEFS OF STAFF
WASHINGTON, D.C. 20330

8 May 80

MEMORANDUM FOR THE LEGAL AND LEGISLATIVE ASSISTANT
TO THE CHAIRMAN, JOINT CHIEFS OF STAFF

Subject: Response to Query on Hostage Rescue Mission

1. References:


   b. Memorandum, Legal Advisor and Legislative Assistant to the Chairman, JCS, 5 May 1980, subject: House Appropriations Committee Request for Information--Hostage Rescue Attempt.

2. This memorandum is in response to question number 2 and 4 in reference a, and question number 3 in reference b. This completes action on all responses required by reference a.

   a. Reference a requested personal data (name, rank, branch of service, parent organization), experience levels, and dates of assignment to Southwest Training Unit of the helicopter pilots and helicopter maintenance crew that accompanied the pilots onboard the NIMITZ.

   b. Reference b requested information on the educational level of the helicopter maintenance personnel which boarded the NIMITZ with the mission maintenance officer, Captain and the pilots and aircrewmembers who participated in the rescue attempt.

3. At the inclosure is a list containing requested data on the helicopter pilots and the maintenance crewmembers who accompanied the pilots to the NIMITZ. This maintenance crew included four HM-16 maintenance personnel who joined the mission helicopter element from Norfolk and assisted in maintaining the aircraft used in training and rehearsals in the Southwestern United States.
<table>
<thead>
<tr>
<th>NAME</th>
<th>RANK</th>
<th>SSN/MOS</th>
<th>UNIT</th>
<th>DTE</th>
<th>LENTH OF SERVICE</th>
<th>TOTAL FLT HRS</th>
<th>TOTAL H-53 FLT HRS</th>
<th>TOTAL H-53 MISSION HRS</th>
<th>MISSION HLD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LT COL</td>
<td>7556 USMC</td>
<td>HOMC-</td>
<td>8Dec79</td>
<td>18 yrs 08 mos</td>
<td>5500</td>
<td>2500</td>
<td>71.6</td>
<td>95.0</td>
</tr>
<tr>
<td></td>
<td>MAJ</td>
<td>7556 USMC</td>
<td>HMM-365</td>
<td>8Dec79</td>
<td>11 yrs 08 mos</td>
<td>1600</td>
<td>1510</td>
<td>50.1</td>
<td>70.1</td>
</tr>
<tr>
<td></td>
<td>MAJ</td>
<td>7556 USMC</td>
<td>HMH-1</td>
<td>5Jun80</td>
<td>12 yrs 07 mos</td>
<td>3350</td>
<td>2470</td>
<td>80.1</td>
<td>72.0</td>
</tr>
<tr>
<td></td>
<td>MAJ</td>
<td>7556 USMC</td>
<td>HEMS-26</td>
<td>21Nov79</td>
<td>11 yrs 11 mos</td>
<td>3350</td>
<td>1244</td>
<td>67.7</td>
<td>31.3</td>
</tr>
<tr>
<td></td>
<td>MAJ</td>
<td>7556 USMC</td>
<td>RHH-461</td>
<td>21Nov79</td>
<td>11 yrs 03 mos</td>
<td>2080</td>
<td>1503</td>
<td>55.4</td>
<td>84.3</td>
</tr>
<tr>
<td></td>
<td>MAJ</td>
<td>7556 USMC</td>
<td>MAUTS-1</td>
<td>27Nov79</td>
<td>13 yrs 05 mos</td>
<td>3700</td>
<td>3400</td>
<td>40.4</td>
<td>45.3</td>
</tr>
<tr>
<td></td>
<td>LCCR</td>
<td>1110 USN</td>
<td>HH-12</td>
<td>15Nov79</td>
<td>08 yrs 07 mos</td>
<td>2710</td>
<td>1510</td>
<td>126.9</td>
<td>89.1</td>
</tr>
<tr>
<td></td>
<td>LCDR</td>
<td>1110 USN</td>
<td>HH-14</td>
<td>10Apr80</td>
<td>10 yrs 03 mos</td>
<td>1550</td>
<td>260</td>
<td>261.7</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>LCDR</td>
<td>1110 USN</td>
<td>HH-14</td>
<td>10Apr80</td>
<td>09 yrs 07 mos</td>
<td>2650</td>
<td>260</td>
<td>261.7</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CAPT</td>
<td>7556 USMC</td>
<td>HMH-261</td>
<td>21Nov79</td>
<td>09 yrs 03 mos</td>
<td>1550</td>
<td>260</td>
<td>261.7</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CAPT</td>
<td>7556 USMC</td>
<td>HMH-461</td>
<td>21Nov79</td>
<td>08 yrs 04 mos</td>
<td>1650</td>
<td>1432</td>
<td>60.7</td>
<td>70.8</td>
</tr>
<tr>
<td></td>
<td>CAPT</td>
<td>7556 USMC</td>
<td>MAUTS-1</td>
<td>27Nov79</td>
<td>08 yrs 11 mos</td>
<td>2650</td>
<td>1569</td>
<td>96.9</td>
<td>55.8</td>
</tr>
<tr>
<td></td>
<td>CAPT</td>
<td>8012 USMC</td>
<td>HHM-461</td>
<td>21Nov79</td>
<td>18 yrs 06 mos</td>
<td>1754</td>
<td>1167</td>
<td>59.5</td>
<td>77.5</td>
</tr>
<tr>
<td></td>
<td>CAPT</td>
<td>7556 USMC</td>
<td>HMM-204</td>
<td>21Nov79</td>
<td>07 yrs 04 mos</td>
<td>1650</td>
<td>1165</td>
<td>45.3</td>
<td>62.4</td>
</tr>
<tr>
<td></td>
<td>CAPT</td>
<td>7556 USMC</td>
<td>G02 TAIKCM</td>
<td>2Apr80</td>
<td>07 yrs 10 mos</td>
<td>1650</td>
<td>1165</td>
<td>22.7</td>
<td>9.5</td>
</tr>
<tr>
<td></td>
<td>LT</td>
<td>1110 USN</td>
<td>HM-16</td>
<td>21Nov79</td>
<td>04 yrs 01 mo</td>
<td>807</td>
<td>540</td>
<td>440.7</td>
<td>86.3</td>
</tr>
<tr>
<td></td>
<td>LT</td>
<td>12015 USHC</td>
<td>VF-126</td>
<td>30Nov79</td>
<td>04 yrs 01 mo</td>
<td>807</td>
<td>540</td>
<td>440.7</td>
<td>86.3</td>
</tr>
<tr>
<td></td>
<td>T1/LT</td>
<td>1002 USMC</td>
<td>HGNS-32</td>
<td>4Jan80</td>
<td>10 yrs 04 mos</td>
<td>1002</td>
<td>430</td>
<td>43.0</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CWO-2</td>
<td>1017 USMC</td>
<td>HGNS-2</td>
<td>4Jan80</td>
<td>10 yrs 04 mos</td>
<td>1017</td>
<td>580</td>
<td>58.0</td>
<td>58.0</td>
</tr>
<tr>
<td></td>
<td>CWO-2</td>
<td>1300 USMC</td>
<td>WES-27</td>
<td>21Nov79</td>
<td>11 yrs 03 mos</td>
<td>1300</td>
<td>1167</td>
<td>59.5</td>
<td>77.5</td>
</tr>
</tbody>
</table>

* DEPLOYED TO HIMITZ

NOTE: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
<table>
<thead>
<tr>
<th>RANK</th>
<th>UNIT</th>
<th>DATE JOINED</th>
<th>LENGTH OF SERVICE</th>
<th>EXPERIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYSCT</td>
<td>6113 USNC</td>
<td>1991-204</td>
<td>21Nov79</td>
<td>11 yrs 07 mos 09 yrs 05 mos</td>
</tr>
<tr>
<td>CYSCT</td>
<td>6113 USNC</td>
<td>1991-461</td>
<td>21Nov79</td>
<td>14 yrs 03 mos 10 yrs 03 mos</td>
</tr>
<tr>
<td>CYSCT</td>
<td>6113 USNC</td>
<td>1991-461</td>
<td>21Nov79</td>
<td>13 yrs 11 yrs 03 mos</td>
</tr>
</tbody>
</table>

**Note:** The distribution of this document and the release of information contained therein is governed by the provisions of the Privacy Act.
<table>
<thead>
<tr>
<th>Name</th>
<th>Rank</th>
<th>MOS/Code</th>
<th>Unit</th>
<th>DET</th>
<th>Service</th>
<th>Experience</th>
<th>Schools and Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GYSgt</td>
<td>6113 USMC</td>
<td>1077-204</td>
<td>17Dec79</td>
<td>11 yrs 08 mos</td>
<td>9 yrs 07 mos</td>
<td>Helo Fund</td>
</tr>
<tr>
<td></td>
<td>GYSgt</td>
<td>6113 USMC</td>
<td>1077-201</td>
<td>29Nov79</td>
<td>11 yrs 03 mos</td>
<td>8 yrs 05 mos</td>
<td>Mech Fund</td>
</tr>
<tr>
<td></td>
<td>SSGt</td>
<td>6113 USMC</td>
<td>1077-204</td>
<td>21Nov79</td>
<td>6 yrs 09 mos</td>
<td>3 yrs 06 mos</td>
<td>Mech Fund</td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained herein are subject to the provisions of the Freedom of Information Act.
<table>
<thead>
<tr>
<th>Rank</th>
<th>SSN/AMC</th>
<th>Unit</th>
<th>Date Joined</th>
<th>Length of Service</th>
<th>Experience</th>
<th>Schools and Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSGT</td>
<td>6113 USMC</td>
<td>HMT-204</td>
<td>21Nov79</td>
<td>9 yrs 08 mos</td>
<td>8 yrs 09 mos</td>
<td>Mech Fund %26 Communs Bckgdrd</td>
</tr>
<tr>
<td>SSgt</td>
<td>6113 USMC, 1072 USMC</td>
<td>HMT-204, HAMS-16</td>
<td>21Nov79</td>
<td>7 yrs 10 mos</td>
<td>Records available at HVMC (RPA)</td>
<td></td>
</tr>
<tr>
<td>SSgt</td>
<td>6123 USMC</td>
<td>HMT-204</td>
<td>21Nov79</td>
<td>8 yrs 09 mos</td>
<td>7 yrs</td>
<td>Civ Bckgdrd %26 Communs Bckgdrd</td>
</tr>
<tr>
<td>SSgt</td>
<td>7041 USMC</td>
<td>MMHS-3</td>
<td>21Dec79</td>
<td>6 yrs 11 mos</td>
<td>Records not available (Member did not participate in active operation)</td>
<td></td>
</tr>
<tr>
<td>Sgt</td>
<td>7258 USMC</td>
<td>HMC-301</td>
<td>31Nov79</td>
<td>2 yrs 11 mos</td>
<td>CH-53A %26 Communs Bckgdrd</td>
<td></td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
<table>
<thead>
<tr>
<th>NUM</th>
<th>RANK</th>
<th>SERVICES</th>
<th>UNIT</th>
<th>DATE JOINED</th>
<th>LENGTH OF SERVICE</th>
<th>EXPERIENCE</th>
<th>SCHOOLS AND TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SGT</td>
<td>6055 USMC</td>
<td>1091-451</td>
<td>12Dec79</td>
<td>3 yrs 10 mos</td>
<td>2 yrs 01 mo</td>
<td>Aviation Fund</td>
</tr>
<tr>
<td></td>
<td>SGT</td>
<td>6112 USMC</td>
<td>1091-451</td>
<td>9Jan80</td>
<td>Records available at HQ (KIA)</td>
<td></td>
<td>Civ Dumb; 1st Grad</td>
</tr>
<tr>
<td></td>
<td>SSgt</td>
<td>6113 USMC</td>
<td>1097-101</td>
<td>11Dec79</td>
<td>9 yrs 09 mos</td>
<td>8 yrs 08 mos</td>
<td>Koch Fund</td>
</tr>
<tr>
<td></td>
<td>SGT</td>
<td>6002 USMC</td>
<td>1091-451</td>
<td>30Nov79</td>
<td>Records not available (member did not participate in actual operation)</td>
<td></td>
<td>Basilo High Cpl</td>
</tr>
<tr>
<td></td>
<td>SGT</td>
<td>6042 USMC</td>
<td>1091-451</td>
<td>9Jan80</td>
<td>3 yrs 09 mos</td>
<td>2 yrs 09 mos</td>
<td>For the CIA</td>
</tr>
<tr>
<td></td>
<td>CPL</td>
<td>6113 USMC</td>
<td>1097-204</td>
<td>21Nov79</td>
<td>2 yrs 10 mos</td>
<td>2 yrs</td>
<td>Am Fund &amp; Basic High Cpl</td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
<table>
<thead>
<tr>
<th>RANK</th>
<th>SSN/NOB</th>
<th>UNIT</th>
<th>DATE JOINED</th>
<th>LENGTH OF SERVICE</th>
<th>EXPERIENCE</th>
<th>SCHOOLS AND TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPL</td>
<td>6113 USMC</td>
<td>HMT-301</td>
<td>30Nov79</td>
<td>2 yrs 09 mos</td>
<td>1 yr 11 mos</td>
<td>Avn Fund Basic Helos Rotors CIV EDUC HS Grad</td>
</tr>
<tr>
<td>CPL</td>
<td>6113 USMC</td>
<td>HMT-461</td>
<td>21Nov79</td>
<td>Records available at HPC (KIN)</td>
<td></td>
<td>CIV EDUC HS Grad</td>
</tr>
<tr>
<td>CPL</td>
<td>111 USMC</td>
<td>HMT-204</td>
<td>21Nov79</td>
<td>3 yrs 08 mos</td>
<td>2 yrs 08 mos</td>
<td>Avn Fund Basic Helos</td>
</tr>
<tr>
<td>CPL</td>
<td>1391 USMC</td>
<td>WES-27</td>
<td>4Jan80</td>
<td>3 yrs 3 mos</td>
<td>2 yrs 05 mos</td>
<td>CIV EDUC HS Grad</td>
</tr>
<tr>
<td>CPL</td>
<td>6113 USMC</td>
<td>HMT-301</td>
<td>30Nov79</td>
<td>2 yrs 11 mos</td>
<td>2 yrs 01 mos</td>
<td>Avn Fund Basic Helo Cra</td>
</tr>
<tr>
<td>CPL</td>
<td>5534 USMC</td>
<td>WES-27</td>
<td>4Jan80</td>
<td>Records not available (member did not participate in actual operation)</td>
<td></td>
<td>CIV EDUC HS Grad</td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
<table>
<thead>
<tr>
<th>Name</th>
<th>Rank</th>
<th>SSN/DOB</th>
<th>UNIT</th>
<th>Date Joined</th>
<th>Length of Service</th>
<th>Experience</th>
<th>Schools and Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>M111</td>
<td>AE2</td>
<td>6113</td>
<td>USN</td>
<td>11Dec79</td>
<td>2 yrs 11 mos</td>
<td>1 yr 11 mos</td>
<td>Avn Fund/Hi Grad</td>
</tr>
<tr>
<td>LCFL</td>
<td>AE2</td>
<td>6042</td>
<td>USN</td>
<td>30Nov79</td>
<td>Records not available (Member did not participate in actual operation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPC</td>
<td>FTG</td>
<td>1300</td>
<td>USN</td>
<td>4Jan80</td>
<td>Records not available (Member did not participate in actual operation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M111</td>
<td>AE2</td>
<td>9226</td>
<td>USN</td>
<td>21Nov79</td>
<td>8 yrs 11 mos</td>
<td>2 yrs 08 mos</td>
<td>Avn Fund/Hi Grad</td>
</tr>
<tr>
<td>AE2</td>
<td>AE2</td>
<td>9226</td>
<td>USN</td>
<td>4Jan80</td>
<td>Records not locally available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
<table>
<thead>
<tr>
<th>RANK</th>
<th>SSN/DSN</th>
<th>UNIT</th>
<th>DATE JOINED</th>
<th>DATE OUT</th>
<th>LENGTH OF SERVICE</th>
<th>EXPERIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AO2</td>
<td>2226 USN</td>
<td>IH-15</td>
<td>21 Nov 79</td>
<td></td>
<td>Records not locally available</td>
<td></td>
</tr>
<tr>
<td>AD1</td>
<td>226 USN</td>
<td>IH-14</td>
<td>15 Dec 79</td>
<td></td>
<td>Records not locally available</td>
<td></td>
</tr>
<tr>
<td>AE2</td>
<td>226 USN</td>
<td>IH-14</td>
<td>17 Dec 79</td>
<td></td>
<td>Records not locally available</td>
<td></td>
</tr>
</tbody>
</table>

Note: The distribution of this document and the release of information contained herein is governed by the provisions of the Privacy Act.
Statement: Well, what you have is a strip map which was used by one of the pilots to work his way in from where he first made landfall, as you can see, and then the various sectors that he would take when he saw the visual references which he would need to change direction.

Q: These are all visual references?

A: Well, these are visual, yes, and this was being done... The preciseness of the route was determined... (Yes.) And it does specify where the landing zone is for Desert One, which you had. And that's where the refueling took place and I think all of the information up until that point has been covered rather thoroughly in the press reports. Now, what you have beyond that then is the location of the so-called mountain hideaway that I identified in the first backgrounder that I gave that Saturday and that's where the helicopters were going to roost for the evening and, of course, the troops would either roost in that area or they would move to another area. It would be the call of the commander. There's a lot of flexibility that's built into this and as you begin to ask me questions, I want you to know that the reason why I won't be able to answer some of them definitively is because the situation is very cohesive in terms of concept and benchmarks but it gives the commander on the scene a lot of flexibility to ascertain, you know, what the local situation is like and he has options that he could select from among in order to maximize his chances of surprise, shock, and the actual penetration of the compound. Now, the second item that you have, the color photograph, and I don't know whether you have it there or not, Bob. I guess I have the burned copies but...
Q: Is that the map of Teheran?

A: Yes. The map of Teheran. The principal utility of this map was to depict the various, you might call, prudential, alternate landing zones. If things went wrong anywhere along the evolution of the plan as it was being executed. These pilots had to know the logical places where they could go to extract people under emergency circumstances. Or it could even be a helicopter that went down. The helicopter crew would know to go to, you know, such and such a site and the rescue helicopter dedicated to the rescue mission would know that that's where it could go and safely get in there and extract the people. The other interesting item on this particular map was the yellow line (Which is now a black one here.) which is now a black one which comes up and is the one that would have been followed by trucks should we have elected to use that particular mode of transportation for getting the rescue force into town and that was one of the principal ways of getting them into the area.

Q: You're not implying there was another more logical way?

A: No. Not a more logical way but, again, we did have flexibility.

Q: It was meant to be the principal?

A: It was meant to be one of the principals. Yes. It was definitely meant to be one of the principal ones but again you had some flexibility if you wanted to go another way (Yes) if the circumstances dictated it that way. Then, as you know, the terminal point, as I recall on this thing, would have been at the Embassy compound and there you had an LZ in the compound itself and then you had an LZ in the stadium which was across the way and both of those would have been used or could have been used, depending again upon circumstances, for extraction of the force and the hostages. The thing that I would, you know, like to
sort of emphasize as an overview from that one chart where you begin your landfall, which was the place where you had absolutely minimal chance of detection and also you had fairly decent visual references, so that you could make your penetration, make your long distance navigation rather effectively with little digressions, little distractions, fully suggest, I think, the amount of detail that we put into formulating this particular plan. The Desert One site was very deliberately selected. It took an awful lot of time and a lot of analysis. Both in terms of the geography and the geometry of the distances involved, in terms of the topography and the geology of the surface, and all of that just worked beautifully. We got the 130's in there. We landed them on a remote site in the middle of nowhere at night. Got them all set up, got the hoses out, were all ready to receive and refuel the choppers as they started coming in. Again, everything well orchestrated. The plan was moving as we had predicted except we started to get the interruptions as the helicopters came in. Beyond that, we had very good intelligence that everything was solid in the other areas. We had great confidence that had we gotten by Desert One, that we had a situation there that would have permitted us to roost for an appropriate amount of time before taking on the next step. All of the resources that we needed were available to us and again, a series of green lights. Everything was go. We had very good intelligence at that point on the compound itself, using all resources that are available to us. Nothing very special or very dramatic. But it's the pulling together of a lot of stuff and here again we had every reason to believe that we could have successfully pulled that off. And then the exit from the area again, that was well thought out and now we get into a very murky area and we're going to have to deliberately keep that murky beyond the compound
and beyond the point where you lost the hostages and the rescue
force in the choppers leaving the area.

Now, I'll be happy to answer your questions.

Q: Alright. Let's start back at Drop Zone 7. That's that
triangular area that was to have been the mountain hideaway. What was
going to happen there? Were they going to land, drop jeeps or armored
vehicles from the air? What sort of vehicles were waiting there
already to transport the commandos in? How many commandos were going
to go in aboard these vehicles? Were there going to be Iranian
markings on the sides of them?

A: No, the ... first of all the ... we had not contemplated using
anything such as armored vehicles or anything of that nature. (No)
No. The principal purpose of the roosting point or the hideaway was
simply a place where you could hide the choppers, hide the troops if
you were going to keep them there, and wait for darkness again.

Q: How many choppers, exactly? Can you disclose the precise
number because I have (Well) completely blocked up on this one.
We've heard different reports in Iran and so on that've only been
out for about a week. Perhaps the number has been published,
perhaps not. But I've heard speculation that as far as C-130's goes,
as many as eight might have been involved in this operation. Can
you clear that up in any way? Just the flying hardware?

A: You mean going in, (Yes) Bob, or... No, I'd rather not get
into the total number of C-130's but you're in the ballpark.
Q. What about the choppers themselves? How many choppers were to have been hidden?

A. Everyone that you could've gotten off of DESERT ONE.

Q. Were you going to drop jeeps and machine guns?

A. Again, the primary purpose of that area was to roost, to give you the time that you needed to regroup and wait for the optimum time for the rescue.

Q. How many men would've gone down or reached there with the choppers? 90?

A. It would've been the number that has been posted.

Q. Was the roosting point the construction site?

A. No, this was up in the mountains.

Q. What was the construction site?

A. That's just one of those many primitive landing zones in the area that's used in emergencies.

Q. Were there emergencies?

A. Yes.

Q. Is it true that you tried to fly the rescue team in? Was that one of the contingency plans, instead of driving them? Or was it going to be one big dramatic landing on the football field next to the Embassy?

A. That could've been one of the options that the Commander could've entertained if for some reason we found that you had impassable roads, etc. you would've had to look on to a series of alternatives--if everything else still looked good. If the roads were impassable, but for reasons which didn't suggest a compromise to the plan, then he would've had to try some other alternative. As I said earlier, that was one of our principal ways of getting in.
Q. Could you have used buses as an alternative?
A. Well, trucks or buses. Whatever.
Q. Civilian trucks or buses or trucks and buses disguised as Iranian military vehicles?
A. Trucks and buses would have looked like buses that would've been on the road. In other words, they wouldn't have any specific or unique markings or painted in any particular way. They would have blended in very nicely.
Q. Were there any plans to use Iranian military, air force, or any kind of Iranian marking?
A. No. I guess the Milakakhali found some decals that were available but there were no plans specifically to say put them on trucks or put on this or that.
Q. Is this part of the overall contingency?
A. I am not conceding that we had them. I'm just saying that is has been reported that they were found with the material. I don't know that.
Q. What is the significance of, at this point General— we have the line coming to this construction site, a very very large area. Just one big vacant lot really. But at this junction, one line goes north. We know that this goes up toward Pastorone HQ in the north part of town, the other goes south for the obvious reason. Why the line north?
A. Because in order to get on that road, to head back south again, you have to head north for awhile. There is no shortcut to get across and get into the flow of traffic going this way. The only way you could make that would be to go up here, turn around and then come back.
Q. So this is not a maneuver to cut off the Pastorones from the southern part of the city to block them off.
A. No. There was no specific reason for that. This would've been a logical place to look over your shoulder to make sure you're organized and you've got the control you want for your force, but it had no significance.

Q. What time of morning is this supposed to happen?

A. Now we're getting into the mechanics and tactics which we still want to preserve because some of the stuff we might want to use again.

Q. After a certain hour, it's almost impossible for anyone to move--say this distance--without encountering some vehicles containing either Pasterones or people perporting to be Pasterones. Getting through the city quietly and unobserved could be difficult on that point--controlling radio contact with one another. As to the entry into the compound itself--were that true, if you guys would have done it--what would they have done? Would they have gone in armed, disguised as, or what kind of stuff?

A. I'm afraid I'll have to disappoint you on that one. That's a part of the kit that the rescue force for future operations would like to keep classified.

Q. We heard one analysis that said that they were supposed to enter the compound very quietly, not so much with even silenced firearms, but with very sharp daggers; the primary weapon on this with which to silence the militants who threw up any resistance.

A. Again, I am not going to comment on any of the tactics or techniques which would be the MO of that particular rescue force. We just can't do that.

Q. It has been mentioned that perhaps once inside the compound--everybody collected and safe--that instead of attempting to remove them directly from the Embassy, or from the stadium or the school yard down here, that many of the hostages were to be dispersed in private cars and so on to the outskirts of town so that as they exploded outward just about the time that the authorities were realizing what was happening, they would have been on the
outskirts about the same time that the reactive forces were settling into the center of the city.

A. That could have been one way. Again, if the circumstances would have dictated that, perhaps that would have been one thing that we could have contemplated. But it would have just been one among several. It was not a primary way of doing that.

Q. The primary way was . . . ?

A. I'm not going to get into that.

Q. How many American fatalities might have been calculated into this? It would seem reasonable to assume that some of these were not going to make it. Perhaps for whatever reasons, it was going to work into any sort of plan, this sort of plan, something that has never been tried before.

A. We had a pretty good feel that we could virtually get everybody out.

Q. Virtually everybody?

A. Virtually. I mean we had a reasonably good chance, we thought, of getting everybody out. When I said virtually, I meant you know that there might be some casualties. The point that I'm trying to make is that there was a reasonable expectation you could get all of the hostages out of there, we thought, without suffering a casualty. But, we had to be realistic. We had to assume that depending upon the degree of surprise, then the number of casualties obviously would have to become a factor.

Q. You have a complex high risk operation of this kind and you believe that there is a very good chance of getting them all out. You know, this seems to defy logic, the kind of logic that I'm familiar with at least.
A. One of the central elements of making this thing work was secrecy, shock, surprise, good intelligence, and a highly trained, highly exercised, in terms of practice and proof. We thought that we had all of these ingredients, and with all these ingredients we felt that we had a reasonably good chance of keeping casualties to an absolute minimum. To even include at the outside getting everybody out, all of the hostages out without sustaining a casualty.

Q. Mechanical failure, mechanical reliability is not one of these?

Q. How many bus stops, how many so-called bus stops were there to be? I read the list and it's confusing. How many were there to be overall?

A. Well, you have 12 of them listed over there. And again, they are fields that would accommodate a helicopter, and based in areas where if you had to move something, if something went wrong, it would be a logical place for people to move to for extraction.

Q. Are you saying that those 12 bus stops would have been used only in emergency—if something went wrong—?

A. I'm stating that's there primary ________

Q. Well, what about 13 and 14 which are backup?

A. The bulk of them. We already identified the compound and the stadium as having somewhat special significance.

Q. What about the two fixed-wing backup stops, 13 and 14 ________ and ________ ? Were they military airfields?
A. I don't -- They might have been at one time. I'm not sure the degree of occupancy of them. I think they did have some military role at one point. Some of them right now may be in a semi-dormant state.

Q. Is there anything you can tell us about the amount of cooperation that you might have received from the Iranian air force and government officials and civilians? You say you have very good intelligence from the Embassy itself.

A. No, I said we had very good intelligence from all sources which gave us confidence that we could pull this off. But I'm not going to identify specific sources.

Q. Are 13 and 14 semi-dormant? ... I mean, you ought to know right now if they are semi-dormant... or are they part of a functioning Iranian air force base?

A. Well, as I indicated, they had a certain degree of dormancy which made them reasonable candidates for an emergency situation and we had an emergency ...

Q. Reasonably good condition to take a C-130 force

--- Desert One took C-130s

A. Took 130's

Q. This is, as far as we know, about the only chief military field there which is the one that you fly in and out of when we have to go to that terrible place. What can you tell us that isn't here right in front of us about any of the other ways that you might have planned in this operation to get the hostages out?

A. Now here again you are getting into things which are still more of the doctrine, the tactics which I think you would appreciate, we want to
try and preserve because I think terrorism is going to be around for awhile.

Q. This is one track from one helicopter, this material here. Is it reasonable to assume that the other seven helicopters have charts with the same forces blocked out?

A. I think it's reasonable to assume that each pilot did his the way he, you know, would feel comfortable and it would have something comparable to a strip map, yes, with things that are peculiar to him—

Q. The helicopters that might have had to move here and one you had to move here—wherever—where were they based as the convoy came in like this? Did -- were all eight of them moved to the construction site which is enormous? Or were they to stay down at the mountain highway?

A. That's again a part of the tactics—the ground-air interface which

Q. General, that's interesting because that's one thing that's been puzzling me since the start. What you're saying is they went to a mountain hideaway, a roosting place, and it was not the construction site.

A. The construction site is the one that you referring to.

Q. Right there

A. That's right.

Q. This is -- seems to have been given particular significance, perhaps because this one helicopter might have had this as his bus stop.

A. Now, not necessarily. I...

Q. According to an initial plan but subject to change, (Well) conditions warranting or whatever.
so-called bus stops and maybe the very fact that we selected this
codeword is adding a little extra quality into things. --
They are not to be read that way. They are alternative landing
zones that were pre-selected in the event that you had to abort the
mission for whatever series of reasons, whether it be an individual
helicopter had to go down, whether for some reason you were already on the
ground moving and that had to be interrupted and it had to be dispersed--
that kind of a thing.

--

Q. It was only to be used under those circumstances when
everything might have gone wrong

A. That's right, with the exception of the two that I talked

--

Q. -- was different than using the bus stops

A. It was. Yes, it was different than you think of bus stops.

Q. -- we have absolutely no confirmation from you that
this thing is genuine and that the other thing was genuine.

A. From what I could see, yes, they definitely

--

Q. Do you want to say anything at all about what are your
suspicions about how we came upon this? Do you see any psychological
warfare purpose or any effort to mislead on the part of the Iranians
or anyone else?

A. I don't think so. I haven't really given that much thought
but I think it's worth pursuing why they were released and the way
they were released but I haven't given it that much thought, John.
Q. You know, we're very curious --.
A. Yes

Q. We're a resourceful outfit and we're trying very hard always to -- the competition but sometimes we get information (yes) that sometimes becomes too readily available.
A. Yes, understand that. Understand in your case it was a was a colleague who --

Q. Well, I cannot say for sure but it came from a British television unit who has--which has, over a period of time had a fairly easy relationship with the characters inside the compound. And I would think that this probably came to them from the militants or possibly with --- colleague o.k. One last one. There's a ---- away up here north -- so far up here --you have it on your slide --way the hell up here -- a long way up there --long way from the Embassy -- really a long drive. ...
Number four, yes.
That's pretty far from the Embassy. But it's pretty close to Khomeini's house. Were you thinking of nipping the old man? ...

A. Again, these were distributed throughout because of contemplated ways that the force might be confronted with an emergency and then the best places for them to move to to have minimally detectible, interceptable extraction. That's the whole reason behind this series..

Q: General, is your main thesis that all of these so-called bus stops and all of these landing sites and zones were basically emergency zones?
A. Basically, emergency zones.
... hoped to help us cope in some preplanned fashion ..
Q. Isn't it curious that a pilot would wind up with a plan that had only emergency instructions?

Q: John --

A. Why would you say he only had one?

Q: General, you mentioned that there was particular interest in the football stadium next to the Embassy and athletics ground in the compound itself. He has not confirmed that they were the primary zones. This one here is put down as the primary zone. So perhaps we could take this, the Embassy which is not marked with an arrow as-- Would it be unfair and running across your grain if we kind of suggested that that was the key pickup area?

A. The one that is here marked as primary -- no that would be alright.

Q. How about the racetrack? What is the racetrack?

A. No, again you are talking about
MEMO TO: MAJOR GENERAL DYKE

SUBJECT: SASC 8 May 1980 Hearing on Testimony Relating to the Iranian Hostage Rescue Mission; General Jones/SecDef

Attached are questions asked of SecDef during subject hearing. Please prepare appropriate responses to these questions and submit on DD Form 2135, in duplicate, bracketing on the copy that information considered classified. Please submit these responses by 08 Thursday, 15 May.

HAROLD L. MILLER
Colonel, JAGC, USA
Legal Adviser and Legislative Assistant to the Chairman, JCS
MEMORANDUM FOR RECORD

Subject: Map/Chart Classification

During the course of mission planning and execution all charts depicting in-country operations, actual or alternate locations or route, were considered highly sensitive and were strictly controlled.

Subsequent to the mission these products, particularly those that applied to helicopter operations exclusively are no longer considered sensitive as the products themselves were unclassified and it was the addition of the operational annotations that made the products sensitive.

Specific products that fall into this category are the ONC route charts and the Tehran (Special/1:50,000).

G. A

LtCol, USAF
JTF/J-2

A. C

Maj, USMC
Helio Det/S2
DESERt ONE LANDING/REFUELING

1 - 5 LAND FIRST
1 - 2 TAKE-OFF
6 LANDS
I. SUBJECT: Hostage Rescue Issues

II. PURPOSE: To summarize issues related to the attempt to rescue the US hostages in Iran.

III. MAJOR POINTS:

A. General Issues

- Release of information to Congress pertaining to unexecuted portions of the plan.
  --Analogy to oversight of covert activities.
- Leaks to the press of information which is being withheld from Congress.
  --Congressional fear of future embarrassment.
- Investigation by DOD or FBI. (TAB A)
- Organization/establishment of some form of permanent CT command and control structure. (TAB B)
  --Reaction time for this or new incident.
  --Preservation of capabilities.

B. (U) Issues Related to the Executed Portions of the Operation

- OPLAN and tapes for Congressional review. (TAB C)
- Adequacy of weather support. (TAB D)
  --Dust phenomenon.
- Adequacy of helicopter maintenance. (RH-53D BLUE BOOK)
  --Education level and experience of maintenance personnel. (TAB E)
- Quality of aircraft and maintenance. (TAB F)
  --Use of different aircraft for training and mission. (TAB G)
- Training procedures for helicopter pilots/units (esp. radio transmission and weather-abort procedures) which resulted in "problems" during mission execution.

- Helicopter pilot excessive autonomy.

- Lack of helicopter redundancy. (TAB H)
  
  --Failure to use Operations Research methods to determine needed number of mission aircraft.

- Lack of coordination between lead C-130 and helicopters. (TAB I)

- Failure to warn on weather conditions (dust phenomenon).

- "Perceived" differences as to hostile radar capability.

- "Panic" at Desert One. (TAB J)

- Allegations of Inter-Service disputes.

- Failure to remove or destroy classified material.

Other Issues

- Cost of mission. (TAB K)

- Independent expert analysis of all aspects of operation to include unexecuted portion. (TAB L)
WASHINGTON (UPI) - A SECRET PENTAGON CRITIQUE OF THE FAILED
ATTEMPT TO RESCUE U.S. HOSTAGES IN IRAN CHARGES HELICOPTERS WERE
INADEQUATELY MAINTAINED, HELICOPTER PILOTS NEVER PRACTICED IN BAD
WEATHER, AND WEATHER FORECASTERS MISSED A 200-MILE, 6,000-FOOT-HIGH
UST. FOG. "IT WAS REPORTED TODAY."
"SCRIPPS-HOWARD NEWS SERVICE SAI'D SENIOR MILITARY EXPERTS
INTERVIEWED MORE THAN TWO DOZEN MEMBERS OF THE ABORTED RAID AND
CONCLUDED MAJOR ERRORS WERE MADE IN PLANNING, APPOINTING COMMANDERS
AND EXECUTING THE OPERATION.

EIGHT U.S. SERVICEMEN LOST THEIR LIVES ON AN IRANIAN DESERT SOME
20 MILES FROM TEHRAN IN THE ABORTED APRIL 24 MISSION.

THE CONCLUSIONS - AND SOME PREVIOUSLY UNDISCLOSED FACTS ABOUT THE
MISSION - WERE OBTAINED BY SCRIPPS-HOWARD FROM PENTAGON SOURCES.

THE CRITIQUE DOES NOT ATTEMPT TO EVALUATE WHAT MIGHT HAVE
HAPPENED IF THE MISSION CONTINUED, SCRIPPS-HOWARD SAID. IT MERELY
CITES REASONS THE MISSION FAILED WHEN IT DID.

THE TOP-SECRET DOCUMENT SAID A KEY FACTOR IN THE FAILURE OF THE
MISSION WAS THE SELECTION OF MAJ. GEN. JAMES VAUGHT AS ITS COMMANDER.

THE CRITIQUE NOTED THAT, WHILE VAUGHT IS AN OUTSTANDING SOLDIER, HE
LACKS EXPERIENCE IN PLANNING OPERATIONS INVOLVING SEVERAL MILITARY
BRANCHES - IN THIS CASE THE ARMY, NAVY, AIR FORCE AND MARINES.

VAUGHT WAS DRAFTED FOR THE MISSION AFTER TWO YEARS ON EDUCATIONAL
DUTY AT THE CITADEL, A SOUTH CAROLINA MILITARY SCHOOL. HE HAD
EXPERIENCE AS A DIVISION COMMANDER IN COMBAT BUT DID NOT HAVE SPECIAL
OPERATIONS EXPERIENCE. VAUGHT WAS TAPPED FOR THE JOB BY ARMY CHIEF OF
STAFF GEN. EDWARD MEYER: AT THE TIME, VAUGHT WAS SERVING AT ARMY
HEADQUARTERS AS DEPUTY CHIEF OF STAFF FOR OPERATIONS AND RELATIONS.

ACCORDING TO THE CRITIQUE, THE CREWS NEVER PRACTICED FLYING WHEN
THEY ENCOUNTERED BAD WEATHER SUCH AS SAND STORMS IN THE ARABIAN
DESERT. THE CREWS ASSUMED THAT IF THEY ENCOUNTERED BAD WEATHER IN
IRAN, THE MISSION WOULD BE CANCELED.

UPI 05-30 09:51 RED
May 30, 1980

STATEMENT BY ASSISTANT SECRETARY OF DEFENSE (PUBLIC AFFAIRS) THOMAS B. ROSS
IN RESPONSE TO QUERY:

No such documents exists. The after-action inquiry has not been completed
and no critique of the rescue mission has been drawn up. The Scripps-
Howard story is a mish-mash of erroneous rumors and speculations that
have previously been knocked down by the facts.

---END---

Cc to: General East
General Dyke
Comments on Army Times Article, May 19, 1980 entitled "Iran Raid Radio Tapes Suggest Chaos."

1. "Sources said that weather conditions were such that at least some of the helicopter crews were requesting the mission be aborted long before the helicopters arrived at the desert site where they linked up with other elements of the raiding force."

Comment: There were no requests. The helicopter flight leader reported that he had encountered poor visibility. He and his wingman returned to clear air mass. Based on the absence of radio calls from other helicopter pilots he made the judgment all were proceeding. The helicopters proceeded, none requesting or recommending abort. Six arrived. The only one to turn around was number five because he lost a key navigation system. He reported that he was returning.

2. "Those sources said that the weather problem was a sandstorm of incredible density not a huge dust cloud as claimed by the Pentagon."

Comment: Interviews of the helicopter crews and testimony do not characterize the phenomena as a sand storm. There was no blowing sand, no wind, no significant turbulence or any other indications of a sand storm. The phenomena was suspended dust.

3. "The intensity of sandstorm encountered was such sources said - that the helicopters' radar was 'completely blocked out'."

Comment: The RH-53 is not equipped with radar. Crews did report they had difficulty at times seeing terrain features through night vision goggles. This was caused by dust and low moon illumination while in heavy dust.

4. "Sources said that one helicopter crew tried in vain to shovel sand out of aircraft during the storm."

Comment: There was no dust storm. Sand in the aircraft was not a problem because none was present. Suspended dust probably did enter the cockpit but caused no problems. One pilot noted that the powdery substance accumulated on his lips, but there was no substantial accumulation.

5. "'There was more than one foot of sand inside one helicopter when it had to land', the source said."

Comment: There is no debrief or testimony to substantiate any accumulation of sand in the helicopters. One or two helicopters did report that upon landing at Desert One, their helicopter wheels sank into the sand several inches. There was not a major problem. C-130s landed, taxied, and took off in the same conditions.
6. "Another problem encountered during the mission, sources said, was the amount of radio traffic generated by various elements of the command structure. This created a logjam of communications, they said."

Comment: It is unclear which command net is described. There were many calls made by various JTF elements during the Desert One period. There were disciplined and necessary radio communications. Debrief of all commanders has not highlighted this as a problem. To the contrary, the calls enabled decision makers to report and make necessary judgments, recommendations and decisions.

(U) If the "source" is referring to the Desert One command net which was separate from the JTF command net and on a separate frequency, there is no basis for the comment. The site commander was well informed and radios were necessary to make judgments and decisions.

7. "When the helicopters and the remainder of the raiding party - which included a special 90-man team led by COL Charles A. Beckwith - linked up at the desert site, sources said, a number of 'strap hangers' were among those present. When ammunition began to explode after a helicopter and a C-130 collided, sources said, 'the strap hangers thought they were under fire and panicked.'"

Comment: There were no personnel at the site who did not have a specific requirement during the mission. Weight, security, and tasks for personnel were factors which drove the number down to where only those present were needed or desired.

8. "Sources described a pell-mell rush to the C-130 by those 'strap hangers.' At this point Beckwith's raiding force was continuing to react in a calm disciplined manner, sources said, but at the 'point' they had to run like hell to get aboard (the departing C-130s) or they would have been left behind. The C-130s were airborne in 3 minutes, they added."

Comment: There were no "strap hangers" as commented on in 7, above. We know of no instance of panic, though it can be surmized that the reaction to an aircraft collision, fire and exploding ammunition caused some initial anxiety and confusion among those most proximate to the explosion. However, all of the force in a very disciplined manner began to help sort things out, extract people from the C-130 and helicopters, gather up personnel and equipment, bring in the security force and methodically load the C-130s. The first C-130 to take off was approximately 20 minutes after the collision and the last 23 minutes, not three. No C-130 pilot planned nor did in fact take off until ordered by the site commander who left on the last C-130. No one alive was left. Medical care was provided on the ground and while enroute.

9. "Another occurrence at the desert rendezvous site, revealed by those sources, adds much fuel to the controversy about the raid. Army Times has decided to
13. Q: Why weren't all other helos destroyed using time-delay mechanisms?

A: No delay fusing for explosives was available that allowed safe distance for evacuating force safety. Even had they been available the fuses would probably not have been used due to risk of injury or death to the bus passengers who had been left behind.
withhold those details from publication at this time out of concern for the safety of 53 hostages in Iran."

Comment: We do not know what is alluded to here - but if the sources of information portray similar inaccuracies as the foregoing it will not be helpful to anyone.

10. "We need a thorough investigation of what happened to include a complete examination of top level planning and the role played by (AF) LT Gen Philip Gast, the Special Air Advisor, a source said. 'It needs to be taken apart.'" Comment: The Senate Armed Services Committee is conducting an examination. So is the Department of Defense. LT Gen Gast was an advisor to the Commander of the Joint Task Force (JTF) because of his extensive knowledge of Iran and his extensive experience in air operations. He was designated Deputy Commander of the JTF for the mission.
1. (U) The FOI request discussed below is the second received from Mr. Jack K. Taylor, of "The Daily Oklahoman", concerning the release of RICE BOWL information. The first request was denied for operational security reasons. Mr. Taylor subsequently submitted an appeal restating his original request**

2. (U) FOI #579*** requested that "The Daily Oklahoman" be provided with "non-mandatory costs associated with organization and operations" of Operation RICE BOWL. The policy enunciated by Secretary Brown on 8 May 1980*** provides specific guidance for the release of RICE BOWL matters relating to tactics and techniques. However, given the nature of congressional hearings, it is probable that at least the gross cost data from the operation will be provided, formally or informally, to the media. It should be noted that only the Army cost data is in fact classified.

(U) The FOI action also requested details concerning aircraft maintenance and performance data on the Ni-52D (para 2, 3, 4, 5 of reference). These items have been referred to the Navy for the development of an appropriate response.

4. (U) Recommend the following be declassified and provided to the requester.

The estimated value**** of items expended during the hostage rescue operation was 5.6 million dollars, excluding the replacement costs of aircraft destroyed or left in Iran. In addition, approximately 19.7 million dollars were expended during the training phase of the operation, for aircraft, and for other support requirements. The details associated with this cost data are properly classified in that their disclosure could provide potential adversaries with an understanding of unit capabilities by disclosing types of equipment, thereby reducing the potential effectiveness.
Honorable John G. Tower
United States Senate
Washington, DC 20510

Dear Senator Tower,

This letter is in response to your question for the record concerning the hostage rescue mission.

At the time of the seizure of the American Embassy in Teheran, the Joint Chiefs of Staff had a concept plan which provided options to the National Command Authorities for a military response to terrorist incidents. In addition, the unified commands had supporting plans for response to terrorist incidents in their assigned areas.

A special task force was formed for the hostage rescue mission within the context of the existing plan. This task force, consisting of personnel and equipment from the Army, Navy, Air Force, and Marine Corps, was responsible for the planning, training, and conduct of the mission.

The Joint Chiefs of Staff have reviewed the hostage rescue mission. Several alternatives to the existing command relationships and organizational structure have been analyzed with a view toward improving the military response to a terrorist incident.

The Secretary of Defense has approved a recommendation of the Joint Chiefs of Staff to establish a Joint Task Force with the following mission:

Conduct military operations to counter terrorist acts directed against United States interests, citizens, and/or property when directed by the National Command Authorities, either unilaterally or in support of a unified command (5).

SECRET

Classified By: DJSOA, 18Oct85
Declassified On: 040A
The Joint Task Force will be under the direction of the National Command Authorities through the Joint Chiefs of Staff and Headquarters for the Joint Task Force. The headquarters will be manned by permanently assigned personnel from the Army, Navy, Air Force and Marine Corps. The headquarters will perform unspecified duties.

Pending determination of security aspects, the establishment of this Joint Task Force to counter acts of terrorism is being done on a strict need-to-know basis within the Department of Defense. It is requested that the distribution of information on the Joint Task Force be similarly limited within the Congress.

The operating components of the force will consist of specially organized, equipped, and trained forces assigned to the Joint Task Force and will be under the operational control of the Commander, Joint Task Force. Additional forces will be available for assignment to the force if required. Dedicated also be provided for the force.

The functions of the Joint Task Force will be performed by Service components. These components will be: Army, Navy, Air Force.
The Joint Task Force established for the hostage rescue mission has been retained. Its mission and worldwide counterterrorism operations will be assumed by the Joint Task Force described above when it is operational. The establishment of this force is a matter of high priority for the Joint Chiefs of Staff.

The impact of the establishment of a Joint Task Force on presently authorized appropriations has not yet been determined. Should fiscal initiatives be required they will be coordinated with the Secretary of Defense.
OJCS SUMMARY SHEET

SUBJECT:
Freedom of Information (FOI) Request #576A

REMARKS

1. FOI Request #576A* is an appeal of FOI Request #576** from Mr Jack H. Taylor, of "The Daily Oklahoman". The original request was for the release of specifically identified documents pertaining to the "Iran Hostage Rescue Task Force" that was denied by DJSM 995-80.***

2. The essence of Mr Taylor's appeal is that we have made a "wholesale denial" that is not within the letter or spirit of the law because many of the documents relate only to a 24 hour period and some of this material was captured by the Iranians. He also stated that no effort was made to provide sanitized documents.

3. Recommend the following response:

...The appeal of the Freedom of Information Request denial of 16 May 1980 concerning the "Iran Hostage Rescue Task Force" is also denied because of the requirement to maintain the capability to conduct similar military operations in the future; the requested information remains currently and properly classified as indicated in previous correspondence.

---

* Freedom of Information Request #576A dtd 21 May 1980
** Freedom of Information Request #576 dtd 13 May 1980
*** DJSM 995-80

ACTION OFFICER

<table>
<thead>
<tr>
<th>OFFICE</th>
<th>NAME</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOD</td>
<td></td>
<td>55814</td>
</tr>
<tr>
<td>J-33</td>
<td></td>
<td>71608</td>
</tr>
<tr>
<td>J-31</td>
<td></td>
<td>50972</td>
</tr>
<tr>
<td>LTGPN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MilSec</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COORDINATION/APPROVAL

DATE OF PREPARATION
06 June 1980
SUBJECT: Freedom of Information Request 576 (78-DEU-103)

1. Reference your 29 April 1980 Freedom of Information Action Assignment which forwarded a request from Jack R. Taylor, Jr., The Daily Oklahoman-Oklahoma City Times, for ten specifically identified documents pertaining to the "Iran Hostage Rescue Task Force."

2. The requester may be advised that the nature of the rescue operation and the requirement to maintain the capability to conduct similar military operations in the future, precludes the disclosure of information concerning unit and individual special capabilities or the specifics of tactics and techniques employed by units or individuals associated with this operation. Comments concerning the specific items requested by Mr. Taylor are provided below and are keyed to the paragraph numbers of his request.

a. Para 1 - The detailed roster of personnel assigned to the task force is currently and properly classified. The only exception to this policy was the release of the names of the principal leaders directly involved in the operation. The disclosure of any additional personnel information would prejudice the use of these highly qualified personnel in any future operations by revealing individual specialties. By inference, this information would provide potential opponents with a good understanding of unit missions and capabilities.

b. Para 2 - Official biographies, photographs, and statements of service of the principal leaders directly involved in the operation are not maintained by the OUCS.

By C. Paras 3, 4, and 8 - The TOLE, general, specific, or other orders, and the morning or daily reports, or the equivalents are currently and properly classified for the same reason cited for paragraph 1.
Although an operation plan, tailored to the specific requirements of this special mission, was prepared, the primary management tools employed were flow diagram charts. These will be incorporated into the after action report as appropriate. All of this material remains currently and properly classified to protect operational techniques, concepts, and capabilities.

(e) Para 6 - Logs or journals compiled during the rescue mission are properly classified to protect the organizational structure of the units involved and the specific locations of the participants.

(f) Para 7 - Communications are properly classified for the reasons cited for paragraph 6 and to protect the types and capabilities of communications equipment involved.

(g) Para 9 - After action reports, as such, for individual training exercises were not prepared during the training phase of the operation. Specific training programs are currently and properly classified to protect tactics and techniques that can be employed in the future.

(h) Para 10 - A classified after action report on the operation is presently being prepared. In conjunction with the preparation of the report, the entire hostage rescue operation is being reviewed to maximize the amount of information that can be released as unclassified.

3. The applicable FOIA exemption for denial of the information is 5 USC 552(b)(1).

4. Attached for release to the requester is the detailed, unclassified, account of the hostage rescue operation that was released by the Secretary of Defense to the Chairman of the Senate Armed Services Committee on 6 May 1980.

5. DD Form 2086 and "Request Information Sheet" for this inquiry are attached.

SIGNED

JAMES E. DALTON
Major General, USAF
Vice Director, Joint Staff

Attachments

Prepared by:
H. J. McIntyre, Maj, USAF,
ActingCh, IRAS Br, DocDiv, 78747
MEMORANDUM FOR: Lieutenant General Gast, USAF  
Maj Gen Vaugt, USA  
Adm. Cassidy  
Col. Pitman, USMC

Subject: Insert for the Record Into the Official  
Testimony Transcript Relating to the Iranian  
Rescue Mission Taken During Hearings Before  
the House Appropriations Defense Subcommittee,  
2 June 1980

1. On 2 June 1980, a formal hearing was held before the  
House Appropriations Defense Subcommittee concerning the  
Iran hostage rescue attempt. Copies of the draft official  
transcript are currently being reviewed by the witnesses  
participating in the hearings.

2. In the course of the hearings, several questions were  
asked to which the witnesses were not in the position  
to provide a response, and promised to provide for the  
record appropriate information obtained from individuals  
knowledgeable in the subject area.

3. Attached are relevant pages from the transcript on  
which the questions are raised and discussed. The names  
individuals to whom these questions are referred are  
indicated in the margin.

4. Request you provide this office appropriate information  
in response to the question to be inserted into the record  
by COB Friday 6 June 1980.

M. R. Hall  
for  
CHARLES W. DYKE  
Major General, USA

Attachments  
a/s

[Signature]

Declassified by:  
DDN, NMCC  
12 May 1992
<table>
<thead>
<tr>
<th>ACTION</th>
<th>INFO</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIRECTOR, JOINT STAFF</td>
<td>X</td>
</tr>
<tr>
<td>SECRETARY, JCS</td>
<td></td>
</tr>
<tr>
<td>DIRECTOR, J-2</td>
<td></td>
</tr>
<tr>
<td>DIRECTOR, J-4</td>
<td></td>
</tr>
<tr>
<td>DIRECTOR, J-3</td>
<td></td>
</tr>
<tr>
<td>DIRECTOR, J-5</td>
<td></td>
</tr>
<tr>
<td>DIRECTOR, C3S</td>
<td></td>
</tr>
<tr>
<td>SAGA</td>
<td></td>
</tr>
<tr>
<td>DAS</td>
<td></td>
</tr>
<tr>
<td>J-5(NSC)</td>
<td></td>
</tr>
<tr>
<td>J-3(JRC)</td>
<td></td>
</tr>
</tbody>
</table>

**TYPE OF ACTION**

<table>
<thead>
<tr>
<th>Appropriate Action</th>
<th>Preparation of Reply</th>
<th>Reply Direct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**REMARKS**

Info to:

- LTC KUDEGERAS
- 
- 

Info - SOD, JOD

cy: J-30, 31-33

Declassified by: DDD NMEC
12 May 1992
UNCLASSIFIED

SUSPENSE DATE

ROUTING DATE: 21 Jan 80

CJCS CONTROL NO: 1712
MEMO TO GENERAL CAST

Dave Martin promises these are his final, final questions:

1. Why wouldn't it have been possible to dump fuel at Desert One so as to get all men and equipment aboard five helos?

2. The trouble with the helo that turned back to the Nimitz was all electronic? Couldn't the dousing have had something to do with that?

3. Why wasn't a weather reconnaissance plane sent in ahead of the helos? (I gather Pittman may have expressed second thoughts about that to Martin.)

4. What did Seifert tell Vaught about the impact of the dust on the helos during the flight to Desert One?

5. You mentioned that there were three different astronomical sunrises. What was the time of daybreak or sunup as a layman understands it?

6. In his press conference, Beckwith indicated that there had never been a practice of aborting by getting off the helicopters and onto the C-130s. Is that so?

7. Were the electronics on these helicopters standard equipment or special for the mission? If special, were they too handled by a special parts priority system?

Many thanks. Martin's number is 626-2056.

Thomas B. Ross
MEMO TO GENERAL GAST

Dave Martin of Newsweek has posed the following questions as his final attack on the subject:

1. He has been told that a Pentagon computer calculation put the probable fatality toll at 11 hostages, 30 commandos and 80-90 Iranians. Another source said there was a prediction of 20 percent casualties. Is there anything in this? (If so, we ought to say -- if true -- that it was a worst case assessment.)

2. Martin understood you to say that one of the helicopters could have been repaired at Desert One, if a pump had been available, and the mission could have proceeded even after daylight to a point short of the hideaway. Did he get you right? If so, why didn't you send a pump rather than a truck?

3. Was General Vaught in a C-130 on the ground or actually on the ground?

4. The Star carried a story saying a "Defense readiness report" said ten helicopters would be needed at the start to get the right number at the finish. Is that so?

5. Sam Stratton is quoting Beckwith as testifying that he would have had to have left 15 of his men behind with only five helicopters and that he couldn't do that because all of them had required jobs to do. Why wasn't there a contingency plan to do it with less, if necessary?

6. Martin has heard of a disagreement on the ground about what to do with the bus passengers, suggesting that there was no plan for what to do if Iranians were encountered. Why wasn't there a contingency?

7. Was the Iranian radar turned off as reported afterwards from Teheran?

8. Any plans for issuing decorations to those involved in the rescue mission?

9. How much did the operation cost?

10. You said the CH53 helicopter was never considered because of insufficient range. How then was it possible to train on a full mission profile?

Martin's deadline is Thursday evening.

Thomas B. Ross
9. How much did the operation cost?

Answer: The estimated value of items expended during the hostage rescue operation was 56 million dollars, excluding replacement cost of aircraft destroyed or left in place. In addition, approximately 19.7 million dollars were expended during the training phase of the operation for aircraft and other support requirements.
1. We have been told that a Pentagon computer calculation put the probable fatality toll at 11 hostages, 30 commandos and 80-90 Iranians. Another source said there was a prediction of 20 percent casualties. Is there anything in this answer? We are not aware of any such calculation.
4. The Star carried a story saying a "Defense readiness report" said ten helicopters would be needed at the start to get the right number at the finish. Is that so?

Answer: DOD calculations, based on RH-53 aircraft configured for the mission and supported and operated as they were in preparation for the mission, showed that eight aircraft should be adequate to support the mission. We are not aware of any report to the contrary.

It should be noted that although the RH-53, in its normal configuration includes minesweeping capability in its readiness data, the helicopters assigned for this mission had the minesweeping equipment removed.
THE JOINT CHIEFS OF STAFF
OFFICE OF THE SECRETARY

17 July 1980

MEMORANDUM FOR LTCOL. KVEDERAS

Subject: FOIA Request by The Washington Post for Records on RH53D Helicopters

1. In response to an FOIA request from The Washington Post for records on RH53D Helicopter availability/readiness for 1979 and 1980 (Tab A), the Department of the Navy has prepared the attached proposed response (Tab B).

2. The Navy has denied all documents responsive to items 1, 2, and 3 of the request on the basis of current and proper classification.


4. Also provided will be the maintenance manual for the RH53D helicopter - item 5 of the request.

5. Prior to release of the memorandum by the Navy, the CJCS has been requested to review and comment.

E. E. LOWRY
Chief, Documents Division
Joint Secretariat

Declassified by:
DDO, NMCC
12 May 1992
THE JOINT CHIEFS OF STAFF
OFFICE OF THE SECRETARY

23 July 1980

Memorandum for LTC Olynyk

Subject: FOIA Request by Jack Taylor for Information on RH53D Helicopters

1. In response to an FOIA request from Jack Taylor for Accident and Aircraft Performance Measurement Reports pertaining to the RH 53D helicopters (TAB A), the Department of the Navy has prepared the attached proposed response (TAB B).

2. The Navy has denied release of Aircraft Accident Reports (item 1 of the request) by separate correspondence.

3. Prior to release of the memorandum at Tab B, OASD (PA) requests OJCS review and comments.

Attachments

E.E. Lowry
Chief, Documents Div
SJCS

Declassified by DDC NMCC 12 May 1997

CONFIDENTIAL

Classified by
Declassified ON
Vice Admiral Ernest Seymour
Commander, Naval Air Systems Command
Department of the Navy
ATTN: John Lenahan
POC Coordinator
Washington, D.C. 20361

re: FREEDOM of INFORMATION ACT REQUEST

Dear Sir:

Your attention is invited to the Freedom of Information Act (5 U.S.C. 552), as amended, and to implementing Department of Defense, Department of the Navy and Naval Air Systems Command instructions and regulations.

Under provisions of the above cited authority, request that we be provided with copies of the following documents pertaining to each of the eight (8) RH 53-D Sea Stallion mine countermeasures helicopters from the U.S.S. Nimitz assigned to the Iran Hostage Rescue Task Force which participated in the attempted rescue mission of 24 April:

1. Reports of Aircraft and Motor Vehicle Accidents, filed in accordance with DoD Instruction 7730.7, or any equivalent reports relating to accidents, during the year preceding the 24 April mission.

2. Aircraft Performance Measurement Reports of Neon time Between Engine Overhaul, filed in accordance with DoD Instruction 5019.25, or any equivalent reports relating to neon time between engine overhaul, during the year preceding the 24 April mission.

We are willing to provide reimbursement for reproduction costs, but request waiver of all fees, under Navy Department guidelines, since release of the information would be in the public interest.

Sincerely,

[Signature]

Jack M. Mims, Jr.
Special Assignments/Investigations
REMKS

1. OASD(PA) memorandum, 18 August 1980, requests telephonic JCS approval for the Navy to provide access to the Aircraft Log Books, for each of the RH-53D SEA Stallion Helicopters from the USS Nimitz assigned to the IRAN Hostage Rescue Mission of 24 April 1980, to Mr. Jack H. Taylor, Jr., of the Daily Oklahoman.

2. The Aircraft Log Books are unclassified and the Navy has recommended providing access to Mr. Taylor.

3. Based on the fact that the Navy interposes no objection to release, there is no basis for denial by the OJCS under the provisions of the FOIA.

4. In response to the OJCS request to be informed of any FOI requests re the Iranian Raid, LA&LA was asked to inform Gen Pustay. Please note their chop below.

ACTION OFFICER

T. A. HOUGHTON
Maj, USAF
AsstCh, IRAS Br
DocDiv
78747

COORDINATION/APPROVAL

<table>
<thead>
<tr>
<th>OFFICE</th>
<th>NAME</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DocDiv</td>
<td>Lowry</td>
<td>55363</td>
</tr>
<tr>
<td>IRAS</td>
<td>J. LeBaron</td>
<td>78747</td>
</tr>
<tr>
<td>LA&amp;LA</td>
<td>Ainsworth</td>
<td>71309</td>
</tr>
<tr>
<td>J-3</td>
<td>W. McCall</td>
<td>74243</td>
</tr>
</tbody>
</table>

If of PREPARATION

21 Aug 80
MEMORANDUM FOR OFFICE OF THE GENERAL COUNSEL
ATTN: Ms. Dondy

SPECIAL ASSISTANT TO THE SECRETARY AND DEPUTY SECRETARY
ATTN: LTC Green

ASSISTANT TO THE SECRETARY OF DEFENSE
(Legislative Affairs)
ATTN: COL Miller

THE ORGANIZATION OF THE JOING CHIEFS OF STAFF
ATTN: Captain Kuhlke, USN

SUBJECT: DoN Freedom of Information Act Request; Jack Taylor

The purpose of this memorandum is to seek telephonic approval for the release of records pertinent to Mr. Taylor's FOIA request (copy attached). I am advised by the Department of the Navy that the requested Log Books are unclassified and in the physical possession of the Organization of the Joint Chiefs of Staff. The Action Officer and alternate for my Directorate are Mr. McDonald, x72716, and Cdr Stier, x74803.

[Signature]
Charles W. Hinkle
Director, Freedom of Information and Security Review

Attachment
Chief, DOC DIV

SUBJECT: Freedom of Information Request - Jack Taylor

REMARKS

1. The request by the Judge Advocate General of the Navy* has been reviewed and was found appropriate.

2. Director, J-3, JCS, has no objection to the release of duplicate SDLM records for RH-53D helicopters to Mr. Jack Taylor, Jr., in accordance with the governing provisions of appropriate DOD directives and Joint administrative instructions.

3. The tapes of SDLM records are located in the Special Operations Division, J-3, OJCS.

REFERENCE:

CONFIDENTIAL
TO: SJCS

CLASSIFICATION: UNCLASSIFIED

FOR USE BY ORIGINATING DIRECTORATE

SJCS

DJSM NO.

ODJS SUSPENSE DATE

Chief, DOC DIV

DJSM DATE

ACTION

APPROVAL

X

SIGNATURE

INFORMATION

OTHER

SUBJECT:

Freedom of Information Request - Jack Taylor

REMARKS

1. The request by the Judge Advocate General of the Navy has been reviewed and was found appropriate.

2. Director, J-3, JCS, has no objection to the release of duplicate SDLM records for RH-53D helicopters to Mr. Jack Taylor, Jr., in accordance with the governing provisions of appropriate DOD directives and Joint administrative instructions.

3. The tapes of SDLM records are located in the Special Operations Division, J-3, OJCS.

REFERENCE:


COORDINATION/APPROVAL

OFFICE

NAME

EXTENSION

SOD

55814

MilSec

8457

J-33

26670

Exec


J-31


CLASSIFIED BY:

Declassified ON:

CONFIDENTIAL

ENTRY OF PREPARATION

Sept 80
THE JOINT CHIEFS OF STAFF  
WASHINGTON, D.C. 20330  

3 September 1980

MEMORANDUM FOR THE MILITARY SECRETARY, J-3

Subject: Freedom of Information Request # 623

1. Attached for your agency's action is an FOI request for concurrence in the release of duplicate SDIM records for RH-53D helicopters involved in the Iran rescue operation. The tapes referred to were provided to LTC Vedderas, SOD, on 2 Sep 80. Enclosure (3) and (5) to the Navy Judge Advocate General letter were not provided to this office. We will attempt to acquire and provide them to the AO. Subject was peripherally address in FOI 579, copy attached.

2. The provisions of DOD Directives 5400.10 and 5400.7, and JAI 3000.8 apply to this action. To assist the action officer, a summary of the key portions of the directives are attached.

3. Your response, recommending either total release, partial release, or total denial and record of coordination on JCS Form 9 should be addressed to the Secretary, JCS through the Chief, Documents Division. All manhours expended on this action must be recorded on the attached cost data sheet.

4. If partial or total denial is recommended, your response should include, as the basis for a DJSM, identification of the applicable FOIA exemption(s) and the specific reasons for denial. Please note that the law requires release of any reasonably segregable portion of a record after deletion of legitimately denied information. This requirement severely limits the ability of an agency to deny a document in its entirety, and necessitates a detailed review of each document requested under the FOIA. All information proposed for denial should be indicated in brackets.

5. A recommendation to withhold material must demonstrate that denial serves a significant and legitimate government purpose. When denial is based on security classification, the explanation must logically relate the content of the requested record to criteria in a specified paragraph of DOD Regulation 5200.1R or another authoritative classification guide.

6. The cost sheet, all attachments to the memo, and your response should be returned to Room 2B941 by 10 Sep 80. If you anticipate problems or need assistance in interpreting the pertinent directives, please contact this office (78747, 79660) well in advance of the suspense date. Our action officer is Maj Houghton.
The following data must be maintained on this case until final action is taken. The information in Part I may be charged to the requester. Search costs only involve the costs of locating and identifying the records requested. Information in Part II will be used to report costs of administration of the Act. This data includes time spent determining releasability (classification review, extracting, etc.), administrative handling, coordination, supervisory review, etc.

<table>
<thead>
<tr>
<th>PART I</th>
<th>PART II</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEARCH</td>
<td>COPYING*</td>
</tr>
<tr>
<td>Grade/Agency of Individual</td>
<td>Manual Hours/@</td>
</tr>
<tr>
<td>OJCS/J3/SOD</td>
<td></td>
</tr>
<tr>
<td>LTC R. Kyedera</td>
<td></td>
</tr>
</tbody>
</table>

Subtotal $_______ $_______ $_______ $_______

TOTAL $_______

*DocDiv use only.
OJCS SUMMARY SHEET

TO: THIEF, DOC DIV

SUBJECT: Declassification Review of Audio-Visual Material on Operation EVENING LIGHT (DU)

REMARKS

1. Reference your request* to review still and motion picture photography on Operation EVENING LIGHT for declassification and possible release in response to a request** from OASD(PA).

2. The photography has been reviewed in this Directorate, and there is no objection to its being declassified.

3. However, because of continued sensitivity of some statements made by selected members of the Iran hostage rescue mission prior to its execution, it is requested that access to the audio-visual material be limited to US Government agencies only and that the material be labelled accordingly and repositioned in OASD(PA).

4. The material (photography and magnetic tape) is currently located in the Special Operations Division, J-3 (POC: LTC S. D. Olynyk, Ext 73455).

5. Time spent for review and coordination: 20 hours.

References:
* Memo by Chief, Doc Div, OJCS, 21 Oct 80, subject as above.
** Memo by Director, FOI&SR, OASD(PA), 21 Oct 80 (Still and Motion Picture Photography - Operation EVENING LIGHT (DU)).

ACTION OFFICER

S. D. OLYNYK

COORDINATION/APPROVAL

DATE OF PREPARATION
22 Dec 80
OJCS SUMMARY SHEET

TO: J-31

CONFIDENTIAL

SUBJECT: Declassification Review of Audio-Visual Material on Operation EVENING LIGHT (U)

ACTION

APPROVAL SIGNATURE INFORMATION OTHER

X X

REMARKS

1. Chief, Doc Div, OJCS, has referred* to Director, J-3, for concurrence a request** from OASD(PA) to review audio-visual material related to Operation EVENING LIGHT for declassification and possible release.

2. The background on the origins and current status of OASD(PA) is contained in attached fact sheet***.

3. The material was reviewed in SOD/J-3 and found to be unclassified but sensitive in view of some statements made by selected members of RH-53D helicopter crew on the NIMITZ the day before the execution of the Iran hostage rescue mission.

4. As a result of informal coordination with OASD(PA), it is understood that OASD(PA) will restrict access to the audio-visual material to US-Government agencies only and will label the material accordingly.

5. Recommend approval and dispatch of the attached response (JCS Form 9) to Chief, DOC DIV.

References:

* Memo by Chief, Doc Div, OJCS, 21 Oct 80, subject as above

** Memo by Director, FOI&SR, OASD(PA), 21 Oct 80 (c)"Still and Motion Picture Photography - Operation EVENING LIGHT (U)"

*** Fact Sheet, 22 December 1980, (g) "Audio-Visual Material - Operation EVENING LIGHT (U)"

S. D. OLIVNYK
LTC, USA
SOD, J-3
Ext 73455

COORDINATION/APPROVAL

<table>
<thead>
<tr>
<th>OFFICE</th>
<th>NAME</th>
<th>EXTENSION</th>
<th>OFFICE</th>
<th>NAME</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOD</td>
<td>Stevens</td>
<td>55814</td>
<td>MILSEC</td>
<td>Joan Hoppa</td>
<td></td>
</tr>
<tr>
<td>J-33</td>
<td></td>
<td></td>
<td>EXEC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DATE OF PREPARATION: 22 Dec 80

Preceding Editions of this Form Are Obsolete.
MEMORANDUM

Date 22 Dec 80

To: LTG GAST

Subject: Audio-visual Material on Operation EVENING LIGHT

1. Attached is a proposed alternate response to request from OASD(PA) to approve release of audio-visual material on Operation EVENING LIGHT.

2. The response is based on additional information as to the origin of this request and its purpose (See Fact Sheet attached).

3. I would recommend that perhaps it is more appropriate for J-31 to sign JCS Form 9 to Chief Doc Div, since MG Johnson was not directly involved in JTF-79.

I am available to discuss this action and staff it accordingly.

S/R DELOLYNK
LTC, USA
73455/75279

[Signature]

[Date]
FACT SHEET

Subject: Audio-Visual Material - Operation EVENING LIGHT

1. PURPOSE: To provide information on the origins and current status of the OSD request* for release of still and motion picture photography related to Operation EVENING LIGHT.

2. BACKGROUND: On 30 April 1980, OASD(PA) requested** CINCPAC for any audio-visual coverage made aboard NIMITZ of RH-53D helicopters and crews assigned to the Iran hostage-rescue mission. The stated intent was to insure preservation of such material for record and use by JCS and OSD(PA).

3. Similar requests were made verbally by OASD(PA) to HQDA and HQUSAF, and coordinated with Colonel Able, Spec Asst to CJCS(PA).

4. CTF Seven Zero provided OASD(PA) subject photography via NAVCHINFO:

- The material was reviewed by Colonel Able and declared unclassified but sensitive.
- Colonel Able requested OASD(PA) that any action to release the photography should be coordinated with J-3, JCS.
- Subsequently, the material was reviewed by the Security of Military Information Division, OCNO, and declared unclassified and releasable.

5. In accordance with previous agreement between OASD(PA) and Colonel Able (JCS), the former requested* JCS to review the material for releasability.

- On 11 November 1980, the material was reviewed, in OJCS, by Colonel Pitman, CSG, Commander Goodloe, OPNAV 95F (former CDR HM-56), and LTC Olynyk, SOD/J-3, who agreed that

  -- The photography and tapes are unclassified.
  -- The magnetic tape recording of interviews with selected RH-53D crew members prior to the execution of the Iran hostage rescue mission contains statements which, if released now, may be misconstrued by the public and the media, with respect to the planning and training for the mission, and readiness and individual competence of the mission members.
6. CURRENT STATUS:

a. The audio-visual material is currently stored in SOD/J-3.

b. As a result of informal coordination between SOD/J-3 (LTC S. D. Olynyk) and OASD(PA) (Mr. E. A. Michalski) it was agreed that:

1. There is a justifiable need to limit the use of the audio-visual material to US Government agencies, at least for the duration of the US hostage captivity in Iran.

2. OASD(PA) will retain the repository of the audio-visual material and label it "LIMITED TO US GOVERNMENT AGENCIES ONLY." This will restrict any request for release of the material outside US Government.

References:
* Memo by Chief, DocDiv, OJCS, 21 Oct 80, "Declassification Review of Photography on Operation EAGLE LIGHT (U)"
** SECDEF (OASDPA), 3023252 Apr 80

Prepared By:
COL OLYNYK
USA
SOD, 73455
22 December 1980
OJCS SUMMARY SHEET

TO: CHIEF, DOC DIV

CLASSIFICATION: SECRET

FOR USE BY ORIGINATING DIRECTORATE: 22 Dec 80

THRU: CONFIDENTIAL

DJSM NO. ODJS SUSPENSE DATE

DJSM DATE

ACTION

APPROVAL SIGNATURE INFORMATION OTHER

X X

SUBJECT: Declassification Review of Audio-Visual Material on Operation EVENING LIGHT (U)

REMARKS

1. Reference your request* to review still and motion picture photography on Operation EVENING LIGHT for declassification and possible release in response to a request** from OASD(PA).

2. The photography has been reviewed in this Directorate, and there is no objection to its being declassified.

3. However, because of continued sensitivity of some statements made by selected members of the Iran hostage rescue mission prior to its execution, it is requested that access to the audio-visual material be limited to US Government agencies only and that the material be labelled accordingly and repositioned in OASD(PA).

4. The material (photography and magnetic tape) is currently located in the Special Operations Division, J-3 (POC: LTG S. D. Olynyk, Ext 73455).

5. Time spent for review and coordination: 20 hours.

References:
* Memo by Chief, Doc Div, OJCS, 21 Oct 80, subject as above.
** Memo by Director, FOISR, OASD(PA), 21 Oct 80, "Still and Motion Picture Photography--Operation EVENING LIGHT (U)"

ACTION OFFICER

S. D. OLYNYK
LTC, USA
SOD, J-3
Ext 73455

COORDINATION/APPROVAL

DATE OF PREPARATION
22 Dec 80
MEMORANDUM FOR THE MILITARY SECRETARY, J-3

Subject: Declassification Review #1959 (OASD/PA Memo, 21 Oct 80)

1. Reference the attached 21 Oct 1980 correspondence from the OASD/PA which requested a security declassification review in accordance with E.O. 11652 and DOD Regulation 5200.1R. The attached material (still & motion picture photography) appears to be under your cognizance.

2. Request review of the attached material and submission of recommendations as to (a) declassification, regrading, or continued classification and (b) the releasability of declassifiable/unclassified contents.

3. General instructions for the reviewer are attached. The following comments and special instructions also apply:
   a. Report total review time in JCS Form 9.
   b. Photography pertains to Operation Evening Light.
   c. Review has been precoordinated with LtCol Hederaas, SDO.

4. This review package with all attachments and your comments and record of coordination/approval on JCS Form 9 should be returned to the Documents Division by 4 November 1980.

5. Without classified attachments, this memorandum is UNCLASSIFIED.

E. E. Lowry, Jr.
Chief, Documents Division
Joint Secretariat

Attachments
(a/o: Major Houghton, ext 78747)
(Name & phone number)
MEMORANDUM FOR THE ORGANIZATION OF THE JOINT CHIEFS OF STAFF

ATTENTION: Mr. Lowry
Room 2B941

SUBJECT: Still and Motion Picture Photography—Operation Evening Light

The purpose of this memorandum is to seek your assistance in determining the releasability of the attached material. It was received by NAVCHINFO from CTF Seven Zero and forwarded to this Directorate for release determination. The Office of the Director, Security of Military Information Division (OP-009D) has reviewed the material and posed no objection to its release.

Charles W. Hinkle
Director, Freedom of Information and Security Review

Attachments
<table>
<thead>
<tr>
<th>Roll No.</th>
<th>Date</th>
<th>SC.</th>
<th>TR.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/10</td>
<td>20/80</td>
<td>:00</td>
<td></td>
<td>Head Slate 1                      END 5/10</td>
</tr>
<tr>
<td>1/10</td>
<td>30/80</td>
<td>:00</td>
<td></td>
<td>RH-53 Hurricanes used in Operation &quot;Evening Light&quot; before painting on hangar bay of Nimitz. with marine guards.</td>
</tr>
<tr>
<td>2/11</td>
<td>23/80</td>
<td>:00</td>
<td></td>
<td>Head Slate 2                      END 5/11</td>
</tr>
<tr>
<td>5/12</td>
<td>28/80</td>
<td>:00</td>
<td></td>
<td>RH-53 Hurricanes on hangar deck after painting and flight deck</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Head Slate 3                      END 5/11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RH-53 Hurricanes in hangar bay after painting</td>
</tr>
</tbody>
</table>

Notes or Special Instructions:

Head Slate 1: "XO of USS NIMITZ CVN-68 being propped to Capt. CDR Richard C. Macke, was propped by The CO, Capt. J.R. Batzler and CTF 70 - KADM RE. KIRKSEY

Head Slate 2: "RH-53 Hurricanes used in Operation "Evening Light" before painting on hangar bay of Nimitz, with marine guards"

Head Slate 3: "RH-53 Hurricanes on hangar deck after painting and flight deck"
<table>
<thead>
<tr>
<th>ROLL NO.</th>
<th>SC.</th>
<th>TK.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS/13</td>
<td>1/2</td>
<td>80</td>
<td>Head Slate</td>
</tr>
<tr>
<td>ECO</td>
<td>4/8</td>
<td>0</td>
<td>Interview with RH-53 Hurricane crewmen on the day of Operation &quot;Evening Light&quot;, subjects were intentionally back lighted to obscure their features, otherwise they would not permit us to shoot. END RS/13</td>
</tr>
<tr>
<td>5/14</td>
<td>0/4</td>
<td>0</td>
<td>Head Slate</td>
</tr>
<tr>
<td>2/4/80</td>
<td>15</td>
<td></td>
<td>Interview with HM-16 crewmen on the afternoon of Operation &quot;Evening Light&quot;, subjects were intentionally back lighted to obscure features. END RS/14</td>
</tr>
<tr>
<td>S/15</td>
<td>2/5</td>
<td>0</td>
<td>Head Slate</td>
</tr>
<tr>
<td>2/4/80</td>
<td>10</td>
<td></td>
<td>Interview with AH-53 Hurricane crewmen on the afternoon of Operation &quot;Evening Light&quot;, subjects were intentionally back lighted to obscure features. END RS/15</td>
</tr>
</tbody>
</table>

**Notes or Special Instructions:**

RS/13: ECO - Push Process one stop

RS/14:

RS/15: ECO - Do Not Push
MEMORANDUM FOR NAVY DIVISION, DIRECTORATE FOR FREEDOM OF INFORMATION AND SECURITY REVIEW, OASD/PA

SUBJECT: Still and Motion Picture Photography - Operation Evening Light

1. The inclosed still and motion picture photography was received by CHINFO from CTF Seven Zero and provided to this office after the motion picture film was processed at NPC. The still photography was received with an overall classification of Confidential. The motion picture photography was received with an overall classification of Secret.

2. This film was forwarded to OASD/PA in response to a request we made to CINCPAC. Related correspondence for this project is attached. JCS coordinated on our message to CINCPAC requesting recovery of this photography (Col. Richard Abel, USAF, then Special Assistant to the Chairman for Public Affairs) with the proviso that all photography be submitted to the Chairman for review prior to any release. Upon receipt of the material at this office, all material was handcarried to and given to JCS (Col Abel) who eventually returned it with the guidance that JCS considered the material to be unclassified but sensitive. He further indicated that prior to any release, this should be coordinated with J-3, JCS.

3. Request a determination be made as to the proper classification of subject film and potential releasability from Security Review viewpoint if it is unclassified. If a security classification is retained for subject film, request advice and guidance as to classification of each individual still photo and/or motion picture scene per Section 2, 4-202 Portion Marking par d., DOD Information Security Program Regulation 5200.1-R dtd Dec 78.

DONALD E. BARUCH
Chief, Audiovisual Division
Directorate for Defense Information

Atch
1-Messages
2-Still film
3-Mopix film

[Signature]

[Date: 12 May 1992]
SECRET
CONFIDENTIAL

THE JOINT CHIEFS OF STAFF

MEMORANDUM

Date 12 Nov 80

To: GEN GAST

Subject: Review of Photography on Operation EVENING LIGHT

The photography and the tapes were reviewed by the following personnel:

COL C.H. PITMAN, USMC, CSG

CDR V. GOODLOE, USN, OpNav 954F
(Was on the NIMITZ)

S.D. OLynyk
LTC, USAR
73455

See me 7 of
repare 3 of
from 9, pl.

Dowgradation
Conf

Classified by: DJSO
Declassified ON: 0A02

12 Mar 1992 UNCLASSIFIED
**OJCS SUMMARY SHEET**

**SUBJECT:** Declassification Review of Photography on Operation EVENING LIGHT (U)

**REMARKS**

1. Reference your request* to review still and motion picture photography on Operation EVENING LIGHT for declassification and possible release in response to a request** from OASD (PA).

2. The photography has been reviewed in this Directorate and there is no objection to its being declassified.

3. However, the magnetic tape portion, containing the record of interviews with selected members of the Iran hostage rescue mission prior to its execution, should not be released at this time for the following reasons: While most of the recorded interviews are innocuous, some of the comments made by interviewed Servicemen may be misconstrued by members of the media or general public with respect to the planning and training for the rescue mission, and the readiness and individual competence of hostage rescue mission members.

4. The material (photography and magnetic tape) is currently located in the Special Operations Division, J-3 (POC: LTC S. D. Olynyk; X73455).

5. Time spent for review: 4 hours.

**References:**

* Memo by Chief, Doc Div, OJCS, 21 Oct 80, subject as above.
** Memo by Director, FCGSR, OASD (PA), 21 Oct 80 ("Still and Motion Picture Photography—Operation EVENING LIGHT (U)"

---

**ACTION OFFICER**

S. D. OLYNYK

LTC, USA

SOD, J-3

Ext 73455

**COORDINATION/APPROVAL**

<table>
<thead>
<tr>
<th>OFFICE</th>
<th>NAME</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOD</td>
<td></td>
<td>55814</td>
</tr>
<tr>
<td>MILSEC</td>
<td></td>
<td>55672</td>
</tr>
<tr>
<td>J-33</td>
<td></td>
<td>55843</td>
</tr>
<tr>
<td>J-31</td>
<td></td>
<td>56273</td>
</tr>
<tr>
<td>J-30</td>
<td></td>
<td>55273</td>
</tr>
</tbody>
</table>

**CONFIDENTIAL**

Classified by: D. Foa
Declassified on OASD

---

**STATE OF PREPARATION**

12 Nov 80

JCS AUG 80 9 Previous editions of this form may be issued.
USN 40: Without equipment went next to

---

Told about minor, not told the previous student experience.

S/Sgt: mechanic & door grunter on RH 53

---

[Handwritten notes]
Freedom of Information Request

1. This is in response to an FOI request* for documents relating to the weather conditions in Iran during the attempted hostage rescue mission.

2. All pertinent documents relating to the subject matter were reviewed and it was determined that all documents, except those attached, are still properly classified in the interest of the national defense in accordance with the provisions of DOD Reg 5200.1R, para 2-301c3, 4, 5, & 6. It was further determined that a significant and legitimate governmental purpose exists for preserving the secrecy of these exempt matters, because their disclosure would be expected to nullify the effectiveness of present and future military plans. Consequently, to the extent that the requested documents contain matters which cannot be released, the request of these documents must be denied.

3. Attached are documents which can be released to the FOI requestor. (Tabs A through D). In addition, we are providing (at Tab E) a list of references which were used as a basis for evaluation of climatological conditions in the Middle East region during the planning phase for the hostage rescue mission.

Reference:
* Freedom of Information Request #697(81-DPOI-50)
Maximum predicted abort rates implicit in the decision to deploy eight helicopters. Information is provided only to show that statistical abort rates double that experienced by HM-16 actual operations should have still supported the number of helos required by commencing with eight.

1. Navy-wide in-flight abort rates are normally expressed in terms of number of mission aborts per one hundred (100) flight hours flown. Although not routinely reported, a better pretakeoff indicator of aircraft availability/reliability is the preflight abort rate expressed in number of preflight aborts per one hundred flights scheduled.

2. The planned first phase of the mission, in approximate terms, provided for the following scenario: take-off from NIMITZ; fly 30 minutes to the coast in point; fly another four hours and 30 minutes to Desert One, land and refuel (without systems shutdown); take-off from Desert One and fly for 1 hour and 30 minutes to Mountain Hideout; land and shutdown and be prepared to initiate rescue from Mountain Hideout.

3. By scheduling eight helicopters to insure seven arrive at the coast in point, a planned preflight abort rate (assuming no inflight aborts for the first 30 minutes) of 12.5 is implied. The availability of six helicopters at Desert One, assuming seven departed NIMITZ and after 5 hours of flight, implies an inflight abort rate of 2.86. Projecting this rate for one hour and 30 minutes over the next leg of the flight would establish 5.74 aircraft arriving at the Mountain Hideout. Planning on 5 aircraft subsequently departing from Mountain Hideout implies an abort rate for this takeoff of 12.89 which is more than double the rate actually experience by HM-16.
HELIQUARTER REQUIREMENTS

I. Purpose

To assess the adequacy of the number of helicopters positioned for the mission.

II. Background

1. A review of the abort rates experienced by the eight HM-16 mission RH-53Ds during flight operations from NIMITZ/KITTY HAWK during the period immediately preceding EVENING LIGHT execution, though not timely for mission planning, is valuable in assessing the validity of the planner's estimates. The following HM-16 flight statistics are a matter of record:

<table>
<thead>
<tr>
<th></th>
<th>45 Days (10 Mar-24 Apr)</th>
<th>115 Days (1 Jan-24 Apr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight hours</td>
<td>208</td>
<td>718</td>
</tr>
<tr>
<td>Flights scheduled</td>
<td>79</td>
<td>191</td>
</tr>
<tr>
<td>Preflight aborts</td>
<td>5 (3)</td>
<td>10 (6)</td>
</tr>
<tr>
<td>Inflight aborts</td>
<td>8 (4)</td>
<td>16 (6)</td>
</tr>
<tr>
<td>Preflight abort rate (per 100 flights)</td>
<td>6.3 (3.8)</td>
<td>5.2 (3.1)</td>
</tr>
<tr>
<td>Inflight abort rate (per 100 flight hours)</td>
<td>3.8 (1.9)</td>
<td>2.2 (0.8)</td>
</tr>
</tbody>
</table>

2. A statistical reconstruction of the helicopter mission scenario utilizing abort rates experienced by HM-16 using the 45 day period indicates that statistically, with eight RH-53Ds scheduled, 7.5 should launch, 6.1 should depart Desert One, 5.8 should arrive at Mountain Hideout, with 5.4 subsequently available for the rescue.

III. Main Points

1. A review of mission aircraft logs and maintenance records reveals that using realistic mission launch/continuation/abort criteria vice normal shipboard operating criteria for the 45-day sample period, considerably higher helicopter availability at Mountain Hideout could have been anticipated. Adjusting these values for non-mandatory mission aborts indicates that abort rates of 3.8 and 1.9 for preflight and inflight, respectively, could have been predicted. Again, with 8 aircraft

( ) predicted number if mission abort criteria utilized

13B04
Freedom of Information Request

1. This is in response to an FOI request* for documents relating to the weather conditions in Iran during the attempted hostage rescue mission.

2. All pertinent documents relating to the subject matter were reviewed and it was determined that all documents, except those attached, are still properly classified in the interest of the national defense in accordance with the provisions of DOD Reg 5200.1R, para 2-301c3, 4, 5, & 6. It was further determined that a significant and legitimate governmental purpose exists for preserving the secrecy of these exempt matters, because their disclosure would be expected to nullify the effectiveness of present and future military plans. Consequently, to the extent that the requested documents contain matters which cannot be released, the request of these documents must be denied.

3. Attached are documents which can be released to the FOI requestor. (Tabs A through D). In addition, we are providing (at Tab. E) a list of references which were used as a basis for evaluation of climatological conditions in the Middle East region during the planning phase for the hostage rescue mission.

Reference:
* Freedom of Information Request #697(81-DFOI-50)
scheduled to launch from NIMITZ, 6.5 could have been expected to take-off from Mountain Hideout. Further, since there were no preflight aborts aboard NIMITZ, 6.7 RH-53Ds could have been expected to depart Mountain Hideout.

2. Statistical analysis notwithstanding, the actual inflight helicopter abort rate for the first five hour leg of the mission far exceeded all predictions based upon RH-53D history and recent operational experience with the eight mission aircraft. Those inflight failures encountered were not uncommon to H-53 helicopters. The failure modes were predictable; the frequency of the aborting failures encountered was not. Two flight essential systems failures (a main rotor blade on aircraft #6 and a second stage hydraulic system failure on #2) plus a flight/navigation/instrumentation failure (ASN-50 and TACAN on aircraft #5) in adverse weather conditions resulted in the mission helicopters experiencing a 7.5 or greater inflight abort rate. Conversely, the preflight abort rate had been 0.0 for the take-off from NIMITZ.

3. The severity of the inflight malfunctions and the appropriateness of the actions taken by the pilots are not at issue.

(A) Dual electrical BIM (Blade Inspection Method) indications inflight of an impending rotor blade failure, confirmed by a mechanical indicator upon landing, are normally cause for an abort. Three fatal H-53 accidents have been attributed to blade failure, one of which occurred 16 flight hours after failure indications had been ignored. A total of 31 blades have been found during rework to have had spar cracks, all of which were removed due to BIM mechanical indications. Determination of a faulty indicator vice a failing blade is not possible in the field and the crack propagation rate at high helicopter weights is difficult to predict. Had flight been continued by aircraft #6, a catastrophic failure further into the mission was possible.

(B) Prolonged flight following failure of one of the two redundant primary servo hydraulic systems is not prudent. The pilot of aircraft #2 proceeded to Desert One following 2d stage hydraulic system failure (flight
To discuss RH-53D reliability, availability and maintainability (RAM) data for the 30 aircraft RH-53D fleet reveals the following:

I. Purpose

II. Main Points

A. Determination of the number of helicopters required for the mission. The initial requirement was to provide one airborne mine countermeasures (AMCM) squadron. As planning changed, two additional helicopters were deployed. Eight helicopters were required, two of which were airborne and two others capable at the coast. Subsequent planning called for a minimum of seven helicopters at Desert One for mission continuation. Such planning was keyed to the requirement for five RH-53Ds at Desert One and maintenance experience.
Maintenance actions were being test flown. Maintenance inspection flight verification was performed. Excessed upward because a relatively high percentage of post-flight data was required. No mission capable - supply (NMCS) - not mission capable (MC) per 100 hrs.

<table>
<thead>
<tr>
<th>Flight Hour (DH)/FH</th>
<th>Direct maintenance (NMCS) (4%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>46</td>
</tr>
<tr>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>73</td>
<td>42</td>
</tr>
<tr>
<td>3.8</td>
<td>3.3</td>
</tr>
<tr>
<td>6.3</td>
<td>2.4</td>
</tr>
</tbody>
</table>

July 7-DEC 79
MISSION ACTFL
ALL NAVY

Maintenanceability is provided below:

Where and mission airframe reliability, availability and helicopter's should be considered. A comparison of the mission reliability, the overall material condition of the mission.

To adopt the mission and return to NMCS.

The pilot felt this only course of action was TACAN. The attitude of the remaining white-bread with an operating altitude. He could not have believed that with no indication that the weather was not possible. The asphalt commander also noted conditions at low altitude with inadequate weather information and without asphalt commander authorization. He continued flight into the mountains in instrument.-

(c) Failure of the ASN-50 and its associated flight.

The asphalt commander felt that a replacement was not available. The replacement was not available.

Assessing the duration of approximately two hours.
Analysis of these data confirm that the eight mission RH-53D helicopters demonstrated high reliability and availability during the period they were deployed when compared to other RH-53D's Navy wide. The special support support procedures established resulted in the NMCS rate of HM-16 aircraft being half that of other fleet users. Equally impressive as a result of the dedicated maintenance effort was the high mission capable rate maintained and the significant number of maintenance man hours per flight hours expended on the RH-53Ds. HM-16 expended approximately two and one half times the number of maintenance man hours per flight hour than the average other Navy users.

IV. Helicopter Assessment Summary. Regarding the adequacy of RH-53D helicopters planned for the mission, it is concluded that:

(A) The number of helicopters provided to support the mission was considered adequate based upon operational and maintenance experience. Implicit in this decision was the planning for slightly lower than average inflight failure rates but an exceptionally high number of pre-flight aborts. On balance the planning could be considered conservative.

(B) Statistically, eight helicopters would have been sufficient to insure five mission capable at Mountain Hideout.

(C) The helicopters received priority supply support and intensive pre-mission maintenance.

(D) Operational experience with these helicopters immediately prior to the mission indicated a high probability of success with eight aircraft operational upon mission execution.

(E) The aborting failures experienced on this mission were not uncommon to helicopters in general and H-53s in particular.

(F) The high failure/abort rate experienced could not have been predicted.
PITMAN, CHARLES H. COLONEL USMC
DATE OF RANK: 1 OCT 76
DATE OF BIRTH: 20 OCT 35
PLACE OF BIRTH: CHICAGO, ILL
HOME OF RECORD: MILWAUKEE, WISCONSIN
PRESENT ASSIGNMENT: HEADQUARTERS, USMC

PERRYMAN, JAMES M COLONEL USMC
DATE OF RANK: 1 FEB 78
DATE OF BIRTH: 7 FEB 33
PLACE OF BIRTH: WASHINGTON, D.C.
HOME OF RECORD: WASHINGTON; D.C.
PRESENT ASSIGNMENT: HEADQUARTERS, USMC

CAPTAIN USMC
DATE OF RANK:
DATE OF BIRTH:
PLACE OF BIRTH:
HOME OF RECORD:
PRESENT ASSIGNMENT: 2D MARINE AIR WING, NEW RIVER, NORTH CAROLINA

SEIFFERT, EDWARD E. LIEUTENANT COLONEL USMC
DATE OF RANK: JULY 79
DATE OF BIRTH: 20 APRIL 40
PLACE OF BIRTH: ROCHESTER, NEW YORK
HOME OF RECORD: ERIE, NEW YORK
PRESENT ASSIGNMENT: HEADQUARTERS, USMC

Classified by: DJ504A

CONFIDENTIAL
ST. PHILIP C LIEUTENANT GENERAL USAF

DATE OF BIRTH: 9 JAN 30
PLACE OF BIRTH: PHILADELPHIA, MISSOURI
DATE ENTERED SERVICE: AUGUST 52
PRESENT ASSIGNMENT: LANGLEY, VIRGINIA (VICE COMMANDER, TACTICAL AIR COMMAND)

KYLE, JAMES H. COLONEL USAF

DATE OF BIRTH: 19 DEC 32
PLACE OF BIRTH: KANSAS CITY, KANSAS
DATE ENTERED SERVICE: JULY 54
PRESENT ASSIGNMENT: KIRTLAND AIR FORCE BASE (ASSISTANT DEPUTY COMMANDER FOR RESOURCES MANAGEMENT, 1606TH AIR BASE WING)

DATE OF BIRTH
PLACE OF BIRTH
DATE ENTERED SERVICE
PRESENT ASSIGNMENT

DATE OF BIRTH
PLACE OF BIRTH
DATE ENTERED SERVICE
PRESENT ASSIGNMENT: HEADQUARTERS, AIR WEATHER SERVICE, WASHINGTON, D.C.
AE: JAMES BENJAMIN VAUGHT
RANK: MAJOR GENERAL, USA
DOB: 3 NOVEMBER 1926
CURRENT ASSIGNMENT: DIRECTOR OF OPERATIONS AND READINESS, OFFICE OF THE DEPUTY CHIEF OF STAFF FOR OPERATIONS AND PLANS, UNITED STATES ARMY, WASHINGTON, DC.
DATE ENTERED SERVICE: 21 FEB 1946 - TEMPORARY PROMOTION TO 2LT
PLACE OF BIRTH: CONWAY, SOUTH CAROLINA
MEMORANDUM FOR: Lieutenant General Gast, USAF
Major General Vaught, USA

Subject: SASC Request for Information and Additional Witnesses Concerning the Iran Hostage Rescue Attempt

Reference: Memorandum, LLA/CJCS, 2 June 1980, "SASC Requests--Rescue Mission" (attached)

1. Per reference cited above, Senator Warner has requested additional information and witnesses in connection with the Iranian hostage rescue attempt.

2. For LTG Gast: Senator Warner has requested that the SASC be provided with the names and present location of all members of the Iran MAAG who served during the last year in which the MAAG operated in Iran.

3. For MG Vaught: SASC has requested that the following individuals be made available to appear before the SASC staff on Wednesday, 4 June 1980, at 1400:

   MSGT Air Combat Controller on site
   Mr. Sikorsky RH-53D Tech Rep aboard NIMITZ

Attachment
a/s

Copy to:
Mr. Stempler
Mr. Ross
CJCS
ACJCS
DJS
J-30
Col Miller, LL/CJCS
Col Miller, OATSD(LA)
Col Abel

Charles W. Duke
Major General, USA
MEMORANDUM FOR: Deputy Chief of Staff for Personnel
Deputy Chief of Naval Operations (Manpower, Personnel and Training)/Chief of Naval Personnel
Deputy Chief of Staff, Manpower and Personnel
Deputy Chief of Staff for Manpower

Subject: Information Concerning Personnel Assigned to Iranian MAAG

1. Senator John Warner (R, VA) has requested that the Senate Armed Services Committee be provided with the names and current addresses of personnel assigned to the ARMISH MAAG (Iran) during the last twelve months of its existence. For the purposes of developing a response, this period is being defined as 1 February 1978 - 1 February 1979.

2. Request you provide a listing of officer personnel of your Service assigned to ARMISH MAAG during this timeframe, along with the current military address of each. In the event that any of the officers identified are no longer in Military Service, request you provide the best available civilian address.

3. The Joint Staff point of contact is LTC Robert Kvederas, USA, J-3, AV 225-2994.

Charles W. Dyke
Major General, USA

Copy to:
Commander, US Army Military Personnel Center
Commander, Naval Military Personnel Center
Commander, US Air Force Manpower Personnel Center

CONFIDENTIAL

Declassified ON

OADR
Memo for Dick

Would you please get answers for Tom Ross to the questions checked on the attached (#s 9, 10 and 11).

FYI: TB can handle the other questions, either because of his own knowledge or by not answering the questions.

Donald Y. Wakefield
Colonel, USA
Military Assistant to the Assistant Secretary of Defense
(Public Affairs)
QUESTIONS:

(1) Why was some equipment not destroyed when our troops left Iran?

(2) Is there a possibility that Army equipment would have been better suited than Navy equipment for a mission of this nature?

PROPOSED RESPONSE:

(1) A considered decision was made not to destroy equipment left in Iran based on several factors. The C-130 had been on the ground at Desert One longer than originally planned and their fuel was becoming critical for their own departure. Delay to destroy equipment would have exacerbated the situation. Small arms ammunition from the aircraft involved in the collision was cooking off from the heat of the fire and was exploding. In addition, the helicopters were next to the C-130s and the risk of damaging the C-130s while purposely destroying the helos was considered too great. Delayed explosives were not available to allow destruction of equipment after the C-130s departed.

(2) Navy RH-53 helicopters were chosen for this mission because of their long range and heavy load-carrying capabilities. In addition, with their folding tail and rotor blades, they were uniquely suited to be accommodated aboard ship, the helicopter launch site. The parameters of the mission were extremely demanding, and neither the Army nor the Air Force has helicopters as well suited. Mission security considerations also made the Navy helo more attractive for the operation.

Enclosure
QUESTIONS:

1. Why was some equipment not destroyed when our troops left Iran?

2. Is there a possibility that Army equipment would have been better suited than Navy equipment for a mission of this nature?

PROPOSED RESPONSE:

1. A considered decision was made not to destroy equipment left in Iran, based on several factors. Foremost was the desire to maintain the element of surprise so that the presence of our forces would not be detected and reacted against until they had safely withdrawn. In addition, every effort was made to avoid unnecessary fatality or injury to Iranians, which delayed destruction might inadvertently cause.

2. Navy RH-53 helicopters were chosen for this mission because of their long range and heavy load-carrying capabilities. In addition, with their folding tail and rotor blades, they were uniquely suited to be accommodated aboard ship, the helicopter launch site. The parameters of the mission were extremely demanding, and neither the Army nor the Air Force has helicopters as well suited.
QUESTIONS:

(1) Why was some equipment not destroyed when our troops left Iran?

(2) Is there a possibility that Army equipment would have been better suited than Navy equipment for a mission of this nature?

PROPOSED RESPONSE:

(1) A considered decision was made not to destroy equipment left in Iran, based on several factors. Foremost was the desire to maintain the element of surprise so that the presence of our forces would not be detected and reacted against until they had safely withdrawn. In addition, every effort was made to avoid unnecessary fatality or injury to Iranians, which delayed destruction might inadvertently cause. Access to the equipment by Iranians would not give them any increase in capability which would be detrimental to US interests.

(2) Navy RH-53 helicopters were chosen for this mission because of their long range and heavy load-carrying capabilities. In addition, with their folding tail and rotor blades, they were uniquely suited to be accommodated aboard ship, the helicopter launch site. The parameters of the mission were extremely demanding, and neither the Army nor the Air Force has helicopters as well suited.
<table>
<thead>
<tr>
<th>INFORMATION POSSIBLY OBTAINED BY IRANIANS</th>
<th>INFORMATION PROVIDED CONGRESS?</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;BLUE BINDER&quot;</td>
<td>Yes</td>
<td>Discussed by Sec Claytor/Gen Pustay HAC 2 Jun</td>
</tr>
<tr>
<td>- Emergency LZ Location/Photos/Tehran Maps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Call signs/frequencies, CAP reference points, nav points (e.g., helo hide, warehouse, Manzariyeh)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flight Route Maps</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Brevity Codes (Codewords for radar site Manzariyeh, HPA)</td>
<td>Yes</td>
<td>Not directly related to concept of operation. Can assist in reconstruction of mission plan by inference. Mentioned by Gen Vaught to SASC on 7 May.</td>
</tr>
<tr>
<td>Daily Changing Code Words for 24 Apr</td>
<td>No</td>
<td>Tactical flight information cards not specifically hostage mission related.</td>
</tr>
</tbody>
</table>

**NOTE:** Testimony to Senate Armed Services Committee 7–8 May was limited, generally, to events leading up to and during Desert 1. Testimony to House Appropriations Defense Subcommittee on 2 Jun expanded frame of reference to portions of extraction phase.
<table>
<thead>
<tr>
<th>Date</th>
<th>Committee</th>
<th>Witnesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 April 1980</td>
<td>House Appropriations Defense Subcommittee</td>
<td>DepSecDef Claytor LtGen Pustay, USAF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LtGen Gast, USAF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MG Vaught, USA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COL Beckwith, USA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LtCol Seiffert, USMC</td>
</tr>
<tr>
<td>7 May 1980</td>
<td>Senate Armed Services Committee</td>
<td>SecDef Brown</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gen Jones, USAF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gen Meyer, USA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ADM Hayward, USN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gen Mathis, USAF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gen Barrow, USMC</td>
</tr>
<tr>
<td>8 May 1980</td>
<td>Senate Armed Services Committee</td>
<td>DepSecDef Claytor LtGen Pustay, USAF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LtGen Gast, USAF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MG Vaught, USA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COL Beckwith, USA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COL Perryman, USMC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LtCol Seiffert, USMC</td>
</tr>
<tr>
<td>2 June 1980</td>
<td>House Appropriations Defense Subcommittee</td>
<td>Secret</td>
</tr>
</tbody>
</table>
Questions and Proposed Answers

1. Do tapes exist for the Iran Rescue Mission with recordings of various radio transmissions? If so, to whom do they belong or what government agency has custody of them? Are the tapes classified? If so, what is their classification?
Answer: Some tape recordings do exist for the Iran rescue mission. They are classified and remain in the custody of the Department of Defense.

2. Who has heard the tapes?
Answer: Defense civilian and military officials.

3. I would like a DOD comment on the following allegations made by my sources:

   a. The tapes reportedly reveal troops on the ground were under the impression that they were under enemy fire after the helicopter collision and departed in a disorderly way for that reason ... leaving material behind.

   b. The tapes also reveal troops "panicked" after the crash—with "crying and screaming" transmitted.

Answers:
This is incorrect.

   a. The force acted in a very orderly way to extract people from the C-130 and helicopters, gather up personnel and equipment at the site, and load the C-130s. Equipment on the helicopters in the vicinity of the collision was, for the most part, left in place because of the danger caused by the exploding ammunition and extreme heat of the burning aircraft. Colonel Beckwith described the

Enclosure
scene and orderly load-up and departure in some detail in his press conference of May 1. There was a good deal of heroism displayed under very dangerous circumstances.

b. As we have said in the past, we have no evidence from any source of panic, though it can be surmised that the reaction to an aircraft colliding with an exploding ammunition caused some initial anxiety and confusion among those closest to the explosion. [While the specific contents of the tapes remain classified, there is nothing in the recordings that might indicate "panic".]

4. Have the tapes been subpoenaed by Congress? Is the DOD negotiating with any other branch of the government regarding release of the tapes?

Answer: Congress has requested tapes of the rescue mission. DOD has said it will review what is available and get back to Congress. There is no subpoena pending legal action by Congress to obtain the tapes.
DRAFT RESPONSES: "The Nation" news queries of June 13

1. Tape recordings do exist for the Iran rescue mission. They are classified and remain in the custody of the Department of Defense.

2. Defense civilian and military officials.

3. a. As we have said in the past, we know of no instance of panic, though it can be surmized that the reaction to an aircraft collision, fire and exploding ammunition caused some initial anxiety and confusion among those most proximate to the explosion. All of the force acted in a very disciplined manner to extract people from the C-130 and helicopters, gather up personnel and equipment, bring in the security force and methodically load the C-130's. Colonel Beckwith described the scene in some detail in his press conference May 1. His force went to great lengths to insure no member of the mission was inadvertently left behind prior to the departure of the last C-130 following the collision. Colonel Beckwith stated that his officers went into every helicopter to insure his personnel and equipment were removed and that the only equipment he lost was destroyed on the C-130 involved in the collision.

b. To repeat, we know of no instance of troops "panicking" following the crash. We have no comment on what transmissions may or may not have transpired from the C-130 and helicopter involved in the collision.

4.

Drafted by: LCDR G.I. PETERSON, USN
Operations News Branch, DDI OASD-PA
x75331
Stemple and East. Current status: East and Hamilton feel we should wait until Senate can participate, either first or in conjunction with House. Stemple apparently feels we should go ahead with House.

- Only our Red Book has been kept up to date. Actions have just about stopped! Copies of all actions have been provided to Vaught and East, but no attempt to keep up their books.

- Anything that comes up between now and your return has been funneled to Steve Olympia.

- Enjoy!

Mike

P.S. - You probably will want to gather up the books that have been sent out on distribution.
CONFIDENTIAL

OFFICE OF THE CHAIRMAN
Joint Chiefs of Staff
Date 25 July 1980

MEMO TO: GENERAL C.

SecDef received the attached correspondence from Congressman Aspin. The subject of his constituent's letter has come up before, but we have not had a formal rebuttal. Would appreciate any input you may provide upon which to base a reply. If possible, would like response by 30 July.

Thanks for your help.

[Signature]

RICHARD F. ABEL, COLONEL, USAF
Special Assistant to the Chairman for Public Affairs

CONFIDENTIAL

Classified by DJJS
Declassified on: 27 Mar 1992

A-339
CONFIDENTIAL

THE JOINT CHIEFS OF STAFF
OFFICE OF THE DIRECTOR FOR OPERATIONS

To: LTC Easte

Date: 22 July

Subject: Congressional Request

I have been asked by COL Miller to draft a reply to attached request.

I would appreciate any guidance you may have on the content of the proposed response.

LTC S. O. 1947
73455/7-279

CONFIDENTIAL
Classified By: [Signature]
MEMO TO GENERAL GAST

Dave Martin of *Newsweek* has posed the following questions as his final attack on the subject:

1. He has been told that a Pentagon computer calculation put the probable fatality toll at 11 hostages, 30 commandos and 80-90 Iranians. Another source said there was a prediction of 20 percent casualties. Is there anything in this? (If so, we ought to say — if true — that it was a worst case assessment.)

2. Martin understood you to say that one of the helicopters could have been repaired at Desert One, if a pump had been available, and the mission could have proceeded even after daylight to a point short of the hideaway. Did he get you right? If so, why didn't you send a pump rather than a manifold?

3. Was General Vaught in a C-130 on the ground or actually on the ground?

4. The *Star* carried a story saying a "Defense readiness report" said ten helicopters would be needed at the start to get the right number at the finish. Is that so?

5. Sam Stratton is quoting Beckwith as testifying that he would have had to have left 15 of his men behind with only five helicopters and that he couldn't do that because all of them had required jobs to do. Why wasn't there a contingency plan to do it with less, if necessary?

6. Martin has heard of a disagreement on the ground about what to do with the bus passengers, suggesting that there was no plan for what to do if Iranians were encountered. Why wasn't there a contingency?

7. Was the Iranian radar turned off as reported afterwards from Teheran?

8. Any plans for issuing decorations to those involved in the rescue mission?

9. How much did the operation cost?

10. You said the CH53 helicopter was never considered because of insufficient range. How then was it possible to train on a full mission profile?

Martin's deadline is Thursday evening.

Thomas B. Ross
<table>
<thead>
<tr>
<th>DATE</th>
<th>PRINCIPAL WITNESS/BRIEFER</th>
<th>NO. SUPPORT PERS.</th>
<th>OFFICE</th>
<th>MEMBER, STAFF OR COMMITTEE</th>
<th>SUBJECT</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Apr</td>
<td>Claytor, Pustay</td>
<td></td>
<td></td>
<td>HASC</td>
<td>Iran Hostage Rescue Mission</td>
<td>1 1/4</td>
</tr>
<tr>
<td>8 Apr</td>
<td>Claytor, Pustay</td>
<td></td>
<td></td>
<td>SASC</td>
<td>&quot;</td>
<td>1</td>
</tr>
<tr>
<td>8 Apr</td>
<td>Cassidy</td>
<td></td>
<td></td>
<td>HAC Def Sub</td>
<td>&quot;</td>
<td>2</td>
</tr>
<tr>
<td>9 Apr</td>
<td>Cassidy</td>
<td></td>
<td></td>
<td>SASC</td>
<td>&quot;</td>
<td>3</td>
</tr>
<tr>
<td>9 Apr</td>
<td>Cassidy, Todd, Pitman, Perryman, Seiffert,</td>
<td></td>
<td></td>
<td>HASC</td>
<td>&quot;</td>
<td>@</td>
</tr>
<tr>
<td>9 Apr</td>
<td>Cassidy, Todd, Pitman, Perryman,</td>
<td></td>
<td></td>
<td>SASC/Warner Group</td>
<td>&quot;</td>
<td>3</td>
</tr>
<tr>
<td>10 Apr</td>
<td>Seiffert, Pitman, Seiffert,</td>
<td></td>
<td></td>
<td>SASC/Warner Group</td>
<td>&quot;</td>
<td>3</td>
</tr>
<tr>
<td>11 Apr</td>
<td>Pitman, Seiffert,</td>
<td></td>
<td></td>
<td>SASC/Warner Group</td>
<td>&quot;</td>
<td>10 3/4</td>
</tr>
<tr>
<td>2 May</td>
<td>Pitman, Kyle,</td>
<td></td>
<td></td>
<td>SASC/Warner Group</td>
<td>&quot;</td>
<td>8 1/2</td>
</tr>
<tr>
<td>5 May</td>
<td>Beckwith, Guidry, Gast, Vaught</td>
<td></td>
<td></td>
<td>SASC/Warner Group</td>
<td>&quot;</td>
<td>6</td>
</tr>
<tr>
<td>5 May</td>
<td>Beckwith</td>
<td></td>
<td></td>
<td>HASC</td>
<td>&quot;</td>
<td>2</td>
</tr>
<tr>
<td>6 May</td>
<td>Gast, Vaught</td>
<td></td>
<td></td>
<td>HASC</td>
<td>&quot;</td>
<td>3</td>
</tr>
<tr>
<td>7 May</td>
<td>Gast, Vaught, Beckwith, Seiffert, Kyle, Pitman</td>
<td></td>
<td></td>
<td>SASC</td>
<td>&quot;</td>
<td>6 3/4</td>
</tr>
<tr>
<td>8 May</td>
<td>Jones, Brown, Meyer, Hayward, Mathis, Barrow</td>
<td></td>
<td></td>
<td>SASC</td>
<td>&quot;</td>
<td>4 3/4</td>
</tr>
</tbody>
</table>

Classified By: OADR

Declassified ON: 15 Oct 85
<table>
<thead>
<tr>
<th>DATE</th>
<th>PRINCIPAL WITNESS/BRIEFER</th>
<th>NO. SUPPORT PERS.</th>
<th>OFFICE</th>
<th>MEMBER, STAFF OR COMMITTEE</th>
<th>SUBJECT</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 May</td>
<td>Pustay</td>
<td></td>
<td></td>
<td>HFAC</td>
<td>Iran Hostage Rescue Mission</td>
<td>1</td>
</tr>
<tr>
<td>8 May</td>
<td>Kyle, Guidry</td>
<td></td>
<td></td>
<td>HASC</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>2 May</td>
<td>Pustay</td>
<td></td>
<td></td>
<td>HASC, Stennis, Tower</td>
<td></td>
<td>1 3/4</td>
</tr>
<tr>
<td>6 May</td>
<td>Perryman</td>
<td></td>
<td></td>
<td>SASC/ Warner Group</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>9 May</td>
<td>Claytor, Pustay</td>
<td></td>
<td></td>
<td>House Intel</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>10 May</td>
<td>King, Fleming</td>
<td></td>
<td></td>
<td>SASC/ Warner Group</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>3 May</td>
<td>Shaefer</td>
<td></td>
<td></td>
<td>SASC/ Warner Group</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>2 Jun</td>
<td>Claytor, Pustay, Gast, Vaught, Beckwith (Perryman, Seiffert)</td>
<td></td>
<td></td>
<td>HAC Def Sub</td>
<td></td>
<td>2 1/2</td>
</tr>
<tr>
<td>4 Jun</td>
<td></td>
<td></td>
<td></td>
<td>SASC/ Warner Group</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
MEMORANDUM FOR RECORD

29 July 1980

Subject: Deficiencies Noted During HONEY BADGER

Deficiencies or problem areas noted during HONEY BADGER/TRAINEX PHOENIX.

- Personnel problems
  - The crew force is undermanned - JTD requires 12 qualified crews to man Pave Low aircraft.
  - TDY status of personnel - Crew members cannot be kept in TDY status indefinitely.
  - Training and upgrade of new personnel in special operation procedures basic night nvg operations and Pave Low.

- Operations
  - See Atch 1, Atch 2, and Atch 3.
  - Basic special operations skills of helicopter pilots.
  - Inter-service coordination lacking
  - Mission briefings and briefing guides non-existent or inadequate for all phases of mission.
  - Terminal operations
    - Landing zone procedures
    - Pickup zone procedures
    - Holding area procedures
    - Refueling zone procedures
    - Transhipment zone procedures
    - Ground control
    - CCT activities
    - Lost comm
  - Planning staff inadequate

- Aircraft
  - Qualify H-53 cockpits for NVG operations
  - Camouflage techniques to hide aircraft during daylight
  - Development of medical evacuation capability and emergency pickup of downed aircrews.
AIRCRAFT INCIDENTS RELATED TO HONEY BADGER

1. The following aircraft incidents have occurred during Operation HONEY BADGER on the indicated dates:

11 July

P.L. #790

Collapsed nose gear - roughly midnight, approximately 10 miles from Dugway - training mission night of 11 July, during landing in remote LZ work, collapsed its nose strut. Normal mishap procedures utilized. Aircraft presently Hill AFB undergoing repairs. Estimate up status two to three weeks.

15/16 July Exercise

15 July

Approximately 2240 local, Pave Low #648, experienced a suspected engine fire in flight and landed beside a highway approximately 15 miles SSE of Ely, Nevada. Upon landing crew observed exhaust deflector disattached. Aircraft repaired, returned to Dugway next day.

15 July

HH-53 Slick, had to RON Las Vegas due to loss of vertical gyro. Aircraft returned to Dugway next day during daylight hours.

15 July

UH-60, during TONOPAH operations encountered mechanical problems. Repaired aircraft and departed for Dugway approximately 0800, 16 July (Major [redacted] on scene as JTD Coordinator.)

16 July

In a related matter, [redacted] was called on 16 July by TAC HQ and asked if a light plane that had crashed with General Phillips on board was connected with HONEY BADGER activities. Following check of deployed HONEY BADGER Headquarters, provided a negative reply which was forwarded to TAC HQ.
AIRCRAFT INCIDENTS
RELATED TO HONEY BADGER (Continued)

17 July


18 July, Approximately 1145 EDT

CH-53C, tail #695786, assigned to 1550 ATFW, Kirtland AFB, NM, on a deployment flight from Dugway to Hurlburt crashed approximately 220 NM NW of Kirtland AFB, NM. One fatality, six injuries. Aircraft was lead in flight of four. Approximately 1000 AGL, crew experienced an uncommanded flight control input; while attempting emergency landing, aircraft crashed. Suspect AFCS malfunction. Weather not a factor. Initial report indicated that aircraft was tail #431 and assigned to Eglin AFB. Information corrected late afternoon of 18 July. Reason for error in S/N is unknown at this time.
ATSM-DTA

15 December 1980

SUBJECT: JTF 1-79 After Action Report (November 1979 to December 1980)

Commander
JTF 1-79
JCS
Washington, DC 20301

1. References:

2. (U) General: The parachute rigging element was formed on 19 November 1979 to provide responsive conventional/unconventional heavy drop support to all elements within the JTF. The above references cover the detailed sequence of test events, airdrops, and operations that transpired during the transition from an airdrop mode of insertion of POL support to the combat off-load techniques developed. The role of the rigging element was also modified concurrently with a shift from airdrop support to the operational conduct of the Forward Area Refueling/Rearming Point (FARRP) locations. This mission shift forced the augmentation of the rigging element with trained POL personnel to perform the actual pumping operation. As this training became more advanced and concentrated, a complete new pumping system had to be developed and tested to replace the standard 100 GPM Fare System in order to achieve the desired pumping pressures and refueling times. At the present time, the rigging element has the total capability to conduct low level airdrops of all POL systems, bulldozers and special items of equipment, combat off-load of POL systems and ammunition, and when augmented, the operations of FARRPs.

3. (5) Unit Organization:
   a. In November 1979, the Airborne developed a special operations rigging element consisting of (1) 0-6, (1) WO, (9) NCO's from within its TDA assets.

   b. In May 1980, a mission statement was obtained from Commander, JTF 1-79, and a permanent augmentation of (1) WO and (9) NCO's were added to the TDA of the Airborne Department, QMS, to provide continuous support and training to all elements of the Task Force.
ATSM-DTA

15 December 1980

SUBJECT: JTF 1-79 After Action Report (November 1979 to December 1980)

4. Refueling Equipment:

a. Fifteen new lightweight refueling systems (175-300 GPM pumps, 200 GPM Filter/Separators) along with 15 modified M274 weapons carriers and 40, 500 gallon collapsible drums, plus PLL's are assembled at Fort Bragg, NC, for operational support as necessary. There is no formal accountability on this equipment.

b. Discussions with the J-4, on this problem resulted in a message to DA proposing that the equipment be positioned with the 101st Airborne Division. It is envisioned that the accountability of the equipment will be formalized and a special POL team developed to support and trained for future operations.

c. Recommend the transfer of this equipment and the establishment of the special POL team be expedited.

5. Hostage Rescue Task Force Achievements:

a. Developed low level night airdrop techniques for 500 gallon collapsible drums, 100 GPM Fare Systems and M-274 weapons carriers in a modified CDS configuration. Drop aircraft tested:

(1) MC-130.

(2) C-141B (long range penetration w/in-flight refueling).

b. Developed low level night airdrop techniques for motorcycles for use by Delta/Ranger forces. Personnel jump behind the motorcycles. Modified CDS configuration used in MC-130 and C-141B aircraft.

c. Developed low level night airdrop techniques for the following bulldozers

Type aircraft used: MC-130, EC-130.

d. Developed combat off-load techniques of POL systems and prime movers from MC-130 and C-141B aircraft.

e. Developed, tested, and trained on an improved (175-300 GPM) light-weight FARE system with the capability of high pressure refueling the Pave Low (CH-53) UH-60, AH-1S, CH-47 helicopters.
f. Developed, in conjunction with the CCT/Pathfinder elements, blackout refueling and rearming techniques.

7 Incl
1. AD Annex to OPLAN
2. AD Annex to OPLAN, Part II
3. AD Annex to Honey Badger
5. Honey Badger OT&E Act Rpt, ATSM-DT-A-08
1. (U) Mission:

a. Airdrop from low altitude, sufficient JP-4 in 500 gallon collapsible drums, 100 GPM FARE Systems, and M-274 .5 ton weapons carriers to refuel six (6) CH-53 Marine Helicopters at a pre-determined location in ________.

b. Prepare a back-up airdrop refueling system for the primary mission or for use as a contingency.

2. (U) Organization and Forces:

a. Primary rigging element consisted of (1) O-6, (1) WO and (9) NCO's from the Airborne Department, QNS, Fort Lee, VA (Incl 1).

b. Rigging support element at the primary CONUS operational location was the Air Delivery Branch of the USA Airborne Test Board, Fort Bragg, NC (Incl 2).

c. Two additional personnel were attached to the primary rigging element from the 82d Airborne Division to service the 100 GPM FARE Systems and M-274 .5 ton weapons carriers (Incl 1).

d. Logistical source for this mission was the C-4 Office, XVIII Airborne Corps, Fort Bragg, NC.

3. (U) Command and Control:

a. Command and control was primarily provided through the JTF J-3 with additional direction given by the JTF Commander and Chief of Staff.

b. The lack of a sustained JTF J-4 system required supporting logistical demands for other elements of the JTF. These were usually requested by whoever needed the support.

c. Command and control at forward departure bases were relayed through the senior JTF member at the location to the rigging element.

4. (U) Intelligence: Necessary intelligence was obtained from the JTF J-2 as required.

5. (U) Planning:

a. An initial analysis of the mission indicated that conventional techniques for the heavy drop or low altitude parachute extraction (LAPES) could not be used for the following reasons:
(1) The MC-130's (Combat Talon) were to be the air delivery aircraft. These aircraft did not have operational dual-rail systems for either mode of delivery.

(2) The mission was to be conducted at night over an unlighted, unknown area and LAPES techniques have not been developed for this type drop.

A nonstandard system was developed to drop 500 gallon collapsible drums (Blivets) from an altitude of 750' using a Container Delivery System (CDS) from the C-7A Caribou manual, modifying the roller conveyor system in the Combat Talon and using standard C-130 CDS airdrop techniques. The M-274. 1⁄2 ton weapons carrier (Mule) was also to be dropped in this same nonstandard configuration. All accompanying loads were to be added to the Mule system. The 100 GPM FARE pump systems were to be rigged in a standard A-22 CDS container with the exception of the long grounding rods; these were on the Mule systems.

b. The initial requirement for airdrop was to provide 51,000 lbs of JP-4 to five CH-53 helicopters. The airdrop loads required four Combat Talon aircraft for delivery and consisted of 19 Blivets, 4 A-22's and 2 Mule loads. The Combat Talon modified for CDS has 27' 6" of useable floor space from the buffer board stop to the beginning of the lower ramp. Inclusion 3 contains the air loading table for this requirement and the back-up system.

c. A revised requirement was subsequently decided upon by the JTF to airdrop 30 Blivets (90,000 lbs of JP-4), 6 A-22's and 3 Mules to refuel six CH-53 helicopters (Incl 4). Six Combat Talon aircraft were now available for the airdrop. The back-up system to be used as a contingency would now consist of 22 Blivets, 3 A-22's, and 2 Mule loads.

d. For the purpose of load identification at night, the loads would have the following markings: Blivets - 2 each green chemical lights, A-22's - 2 each blue chemical lights, Mules - 2 each blinking red pathfinder marking lights.

6. (U) Training:

a. The primary rigging elements were fully qualified parachute riggers that required only minimal additional training to adapt to the nonstandard techniques being utilized in the execution of this mission.

b. The rigging of the 100 GPM FARE System in the A-22 container for a 750' airdrop posed no technical problems. Without exception, this type always functioned properly without damage to the equipment. The rigged weight of this airdrop load is 970 lbs. Rigging instructions are contained in Incl 5.

c. The first airdrop of the Mule from 750' with a single C-120 cargo parachute and a direct break-away book-up revealed that the load had
insufficient time to stabilize under the canopy before hitting the ground. Oscillation upon impact caused a crack across the front differential housing, making the vehicle inoperative. This was corrected by using two G-12D cargo parachutes with a modified 15' unreel of extraction parachute in lieu of direct break-away hook-up to the anchor line cable in the aircraft. These changes resulted in a less violent opening thus reducing the oscillation and a slower, stable rate of descent for the load. No further problems or damage occurred with this load. The rigged weight of this airdrop load is 1990 lbs. Rigging instructions are contained in Incl 5.

d. The Blivet was initially rigged with a single C-11A unreel of cargo parachute with a direct break-away hook-up to the anchor line cable in the aircraft. On 25 November 1979, a test drop of one Blivet load was authorized and conducted at Fort Bragg. The drop from 750' was totally satisfactory. On 3 December 1979, another drop consisting of a Blivet load and an A-22 was launched from Davis-Monthan AFB. This drop was also without incident. On 5 December 1979, two full aircraft loads were launched for drop. The compressed Blivets had a sling-shot effect in the aircraft when released. The dumping effect plus the heavy weight of the loads broke the aircraft's anchor line cables, causing the loss of seven out of 10 Blivets. Rigging procedures were changed by using two G-12D cargo parachutes and a modified 15' unreel of extraction parachute in lieu of the direct break-away hook-up system. An intermediate gate system was also installed on the Blivet loads. The intermediate gate system eliminated the sling-shot effect in the aircraft when the compressed loads are released. The different parachute system eliminated the violent opening and excessive stress on the anchor line cable in the aircraft. Subsequent tests at Fort Bragg and exercises in the field with the JTF confirmed the reliability of these procedures and techniques. The rigged weight of a Blivet load is 3500 lbs. Rigging procedures and type aircraft loads are contained in Incl 5.

7. (U) Logistics: The parachute rigging element received total support from the XVIII Airborne Corps and had no reportable problems. Accountability of air items and equipment issued was maintained by the Corps G-4 Office. Support by the USAF at departure air bases was considered to be outstanding.

8. (U) OPSEC Considerations: The selection of Airborne Test Board site at Pope AFB was considered to be ideal for the preparation, staging, movement and storage of the rigged heavy drop loads required to support this mission. Maintaining OPSEC throughout this period posed no significant problems.

9. (U) Recommendations:

a. The dual rail system in the MC-140 (Combat Talon) be restored to operational state and a functional tie-down plate be installed in the aircraft. This would increase the aircraft's versatility to use all available airdrop systems.
b. A night LAPES airdrop capability be developed with the Combat Talon. After having made several black-out landings in this aircraft, it appears feasible to me that as the radar navigators are giving glide-path data to the pilots during a landing approach, the drogue parachute can be released at a height of 35' and then extraction parachutes released at a height of 5-10'. The aircraft does not have to touch down but continues to fly low until the load exits the ramp, then departs the extraction zone. The impact point for the LAPES load would be the touch down coordinates used by the radar navigators.

c. A J-4 be activated concurrently with future JTF's.

d. The Airborne Department, QMS, continue to provide parachute rigging support to the JTF.

5 Incl

Parachute Rigging Element Commander
CONFIDENTIAL

PRIMARY RIGGING ELEMENT
AIRBORNE DEPARTMENT
US Army Quartermaster School, Fort Lee, VA

AUGMENTATION
782d MAINTENANCE BATTALION
82d AIRBORNE DIVISION
<table>
<thead>
<tr>
<th>#NR</th>
<th>LOAD</th>
<th>WT. (lbs)</th>
<th>LGTH</th>
<th>PAX</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5 BLIVETS</td>
<td></td>
<td></td>
<td>1</td>
<td>*#1 load - 3 nets</td>
</tr>
<tr>
<td></td>
<td>1 M-274, *Nets, (4) 5 gal cans</td>
<td>17,500</td>
<td></td>
<td></td>
<td>PAX - Rigger</td>
</tr>
<tr>
<td></td>
<td>MOGAS W/Nozzles, (2) 8' ladder,</td>
<td>1,990</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 sheets plywood, (4) 2&quot;X6&quot;X6&quot;,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1g grounding rods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>19,490</td>
<td>26'7&quot;</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>4 BLIVETS</td>
<td></td>
<td></td>
<td>1</td>
<td>*#9 load for training</td>
</tr>
<tr>
<td></td>
<td>1 A-22 W/100GPM Pump, Filter Separator, Accessory</td>
<td>1,400</td>
<td></td>
<td></td>
<td>#2 load - 3 nets</td>
</tr>
<tr>
<td></td>
<td>Kit W/Marine CCR Nozzle</td>
<td>970</td>
<td></td>
<td></td>
<td>#9 load - No Marine Nozzle</td>
</tr>
<tr>
<td></td>
<td>1 M-274, *Nets (4) 5 gal cans</td>
<td>1,990</td>
<td></td>
<td></td>
<td>PAX - Rigger</td>
</tr>
<tr>
<td></td>
<td>MOGAS W/Nozzles, (2) 8' ladder,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 sheets plywood, (4) 2&quot;X6&quot;X6&quot;,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1g grounding rods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>16,960</td>
<td>26'</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 BLIVETS</td>
<td></td>
<td></td>
<td>1</td>
<td>PAX - Rigger</td>
</tr>
<tr>
<td></td>
<td>1 A-22 W/100GPM, Pump, Filter Separator, Accessory</td>
<td>17,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kit W/Marine CCR Nozzle</td>
<td>970</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>18,470</td>
<td>26'</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 BLIVETS</td>
<td></td>
<td></td>
<td>1</td>
<td>PAX - Rigger</td>
</tr>
<tr>
<td></td>
<td>2 A-22's ea/W 100GPM Pump, Filter Separator, Accessory</td>
<td>17,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kit W/Marine CCR Nozzle</td>
<td>1,940</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>19,440</td>
<td>26'</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

SECRET
<table>
<thead>
<tr>
<th>#/NR</th>
<th>LOAD</th>
<th>WT. (Lbs)</th>
<th>LOAD</th>
<th>PAX</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 BLIVETS</td>
<td>1 M-274, * Nets, (4) 5 gal cans MOGAS W/Nozzles, (2) 8' ladder, 2 sheets plywood, (4) 2&quot;x6&quot;x6&quot;, 1g grounding rods</td>
<td>17,500</td>
<td>1,990</td>
<td>1</td>
<td>Mule load - 3 nets PAX - Rigger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>19,490</td>
<td>26'7&quot;</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5 BLIVETS</td>
<td>1 M-274, * Nets, (4) 5 gal cans MOGAS W/Nozzles, (2) 8' ladder, 2 sheets plywood, (4) 2&quot;x6&quot;x6&quot;, 1g grounding rods</td>
<td>17,500</td>
<td>1,990</td>
<td>1</td>
<td>Mule load - 3 nets PAX - Rigger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>19,490</td>
<td>26'7&quot;</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5 BLIVETS</td>
<td>1 M-274, * Nets, (4) 5 gal cans MOGAS W/Nozzles, (2) 8' ladder, 2 sheets plywood, (4) 2&quot;x6&quot;x6&quot;, 1g grounding rods</td>
<td>17,500</td>
<td>1,990</td>
<td>1</td>
<td>Mule load - 3 nets PAX - Rigger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>19,490</td>
<td>26'7&quot;</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5 BLIVETS</td>
<td>2 A-22's ea/W 100GPM Pump, Filter Separator, Accessory Kit W/Marine CCR Nozzle</td>
<td>17,500</td>
<td>1,940</td>
<td>1</td>
<td>PAX - Rigger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>19,440</td>
<td>26&quot;</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5 BLIVETS</td>
<td>2 A-22's ea/W 100GPM Pump, Filter Separator, Accessory Kit W/Marine CCR Nozzle</td>
<td>17,500</td>
<td>1,940</td>
<td>1</td>
<td>PAX - Rigger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>19,440</td>
<td>26&quot;</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5 BLIVETS</td>
<td>2 A-22's ea/W 100GPM Pump, Filter Separator, Accessory Kit W/Marine CCR Nozzle</td>
<td>17,500</td>
<td>1,940</td>
<td>1</td>
<td>PAX - Rigger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>19,440</td>
<td>26&quot;</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
K拉丁: M-274, 1/2-Ton Weapons Carrier
(Airdrop)

1. The procedures for rigging the M-274, 1/2 Ton Weapons Carrier were taken from two separate chapters of TM 10-500-3. Chapter 10 was used for preparing the honeycomb stacks, the weapons carrier, and installing suspension slings.

2. Chapter 22 was used for preparing platform, positioning carrier, installing lashings and towing slings described as extraction attaching point. No parachute release assembly is used on the load. Two-inch by 6-inch lumber was used in lieu of 2" x 4" lumber for platform construction.

3. The accompanying load of ladders, lumber and nozzles is secured on the bed of the carrier. The nets and grounding rods are secured to the platform. Two extra sheets of 3/4-inch plywood is tacked to the platform after the grounding rods have been secured in place.

4. The parachute system for the load is the same as the bladder load.
1. The procedures used for rigging the bladders are in TN 10-500-3, Chapter 15, with the exception of cargo parachute and release assembly. The G-11A cargo parachute was replaced with two G-12D cargo parachutes, the 68-inch pilot chute was replaced with a 15-ft unreel ed cargo extraction parachute. There is no parachute release assembly used on this load. The two G-12D cargo parachutes were attached to the load by using two 3-ft cargo slings as riser extensions, attaching one end of each 3-ft sling to each G-12D clevis, and the other end attached to the large clevis on the rigged load. The two G-12D cargo parachutes are positioned on the load side by side and clustered together in the center by use of the clustering ties on the parachutes. The cargo parachutes are secured to the load with one single length of Gutted Type III nylon cord at each outside corner.

2. The 15-ft extraction parachute is packed in accordance with procedures outlined in TM 10-1670-215-23. There were some changes made to the pack procedures for this type of airdrop. The bag retaining line was not used, a breakcord tie was made of one turn double Type I cotton webbing from the canopy bridle loop to the breakcord attaching loop on the deployment bag. The tie was secured with a surgeon's knot and locking knot. A 15-ft static line was used, and attached to the breakcord attaching loop with one turn single 1/4-inch tubular nylon secured with a surgeon's knot and locking knot and overhand knots on the running ends. Both metal V-rings were removed from the bag to prevent damage to the aircraft. The 60-ft extraction line was removed and replaced with a 9-ft (2 loop) cargo sling using procedures.
outlined in FM 10-504, Chapter 4, Paragraph 4-6, page 4-8. Secure the 15-ft extraction parachute on top of one of the G-12D cargo parachutes with one turn single Ticket #5 cotton thread at each corner.
Installation of knife used to cut type II nylon webbing.

---

**Front View**

![Diagram](image)

**Figure A**

---

**Rear View**

![Diagram](image)

**Figure B**

---

**Figure A.** Using a length of type VIII nylon webbing, form a loop and position in center of bladder, secure running ends to loop formed by webbing used to secure bladder to skiboard. Prevent webbing from falling on aircraft rollers, safety to bladder with a length of type nylon webbing by securing one end to loop of 8-ft sling on one end of bladder, through loop formed in type VIII nylon webbing and secure to loop in 8-ft sling on opposite end of bladder using 3 half hitches and overhand knots on running ends.

**Figure B.** Secure running end of webbing on knife to loop of type VIII nylon webbing on front bladder with 3 half hitches and overhand knot on running end. Length of webbing should be adjusted so knife will clear floor of aircraft. Fold excess and tape. Safety knife to prevent from going up into parachute after exit from aircraft by using a length of type III nylon webbing. Form a non-slip loop in center of bladder and pass knife through loop. Secure running ends to tiedown clevises on each end of bladder with 3 half hitches and overhand knot on running ends.
Install the single type IIII release gates by securing one end to tiedown provision on the floor of the aircraft, pass the running end through tiedown clevis on bladder, across the front of bladder through tiedown clevis on other end of bladder, and secure to tiedown provision on floor of aircraft.

Attach knife to release gate and safety with one turn double 5 cord cotton.
AIRDROP ANNEX TO OPLAN

(Final 2, 20 Feb 80 to 29 Apr 80)

1. ([U]) Mission: (Added)

a. Airdrop from low altitude, the necessary J-4, 1 in 500 gallon collapsible drums, 300 GPM FARE Systems, and M-274's ton weapons carriers from C-141B aircraft.

b. Airdrop motorcycles for the Delta Force.

2. ([U]) Organization and Forces: No changes to the original organization and forces.

3. ([U]) Command and Control:

a. The JTJ established a functional J-4 office which enabled the rigging element to receive its support, direction and guidance from a single staff element. This facilitated the flow of coordinated information and requirements throughout the operation.

b. In March 1980, command and control at the overseas staging base lacked positive lines of authority. This appeared to correct itself with the closing of the JTJ Headquarters in April 1980.

4. ([U]) Intelligence: Necessary intelligence continued to be obtained from the JTJ J-2. No problems encountered.

5. ([U]) Planning:

a. The planning and training for the HC-130's (Combat Talons) remain valid with minor changes so that the equipment to be dropped can be used in either the HC-130 or the C-141B.

b. The HC-130 requires a center row of intermediate rollers as well as the CBS kit in order to be operational. It was found that the intermediate rollers in the C-141B are closer together and therefore do not require a center row.

c. A revised requirement was decided upon by the JTJ to airdrop 33 Blivers (99,000 lbs of JP-5), seven A-22's containing one FARE System each, and six M-274 weapons carriers (Mules) to refuel seven HH-53 helicopters. Three C-141B aircraft would be the primary airdrop aircraft. This requirement was again revised to eight A-22's and eight Mules for the refueling of eight HH-53 helicopters. Adequate fuel was contained in the 33 Blivers. A contingency backup system containing 10 Blivers, three A-22's and two Mules
was displayed forward to the overseas staging base. All other backup systems were derigged.

d. Delta Force's airdrop requirement was for two Yamaha 500cc motorcycles, one Mule, and four A-22's with water, rations and equipment. The MC-130 would be used for this airdrop followed by personnel. The rigging instructions for the motorcycles are contained in enclosure 1.

e. Load identifications for night operations were not changed.

6. (U) Training:

a. On 25 March 1980, a rigger team of six personnel departed Fort Bragg with the backup airdrop systems for positioning at the forward staging base. Upon arrival, the pump systems and Mules were given an operational check, rerigged and placed in revetments. The team returned to CONUS on 31 March 1980. Upon their return on 23 April 1980, fuel samples were taken and the fuel was found to be fully operational.

b. On 9 April 1980, a C-141A was loaded with eight Blivets, two Mules, and four A-22's. The Mules were loaded length-wise rather than width-wise to provide more stability during the exit sequence (limited floor space in the MC-130 does not permit this positioning). A drop was conducted for the purpose of validating the C-141 aircraft as a delivery system. Drop speed was 150 knots, altitude 750' AGL, clearance time - 21 seconds, drop pattern 9 miles. No damage occurred to any of the equipment. Two changes were made after the operation. The first involved increasing the DUS attitude of the C-141 in order to reduce the clearance time. The second change eliminated the 68' pilot parachute on the A-22 containers and a modified 15' extraction parachute was substituted as a pilot parachute. This provided a more even inflation pattern of the cargo parachutes and faster opening. The modified 15' extraction parachute became the exclusive pilot parachute for all subsequent drops.

c. On 9 April 1980, a C-141B was loaded with 11 Blivets, two Mules, and four A-22 containers. This drop was conducted in 70 knot winds, drop speed 150 knots, 750' AGL. The aircraft clearance time was 20 seconds with a .7 mile drop pattern. No damage occurred to any equipment.

d. The Delta motorcycles were rigged in accordance with the instructions contained in enclosure 1. Two A-22's (water, rations, equipment), two Mules plus the motorcycles were loaded upon an MC-130 and departed 12 April 1980. Operational feedback on the airdrop reported that there was no damage to any equipment. This was the first airdrop of the motorcycles.

e. Three C-141B aircraft were loaded as shown in enclosure 2 and departed 13 April 1980. The desired 30 seconds in trail at the TOT could not be
achieved because of inflight refueling limitations. Fifteen minutes in trail was approved by the JTF. The TOT's were met, drop altitude was 750' AGL, clearance times were 20 seconds. Strike reports were all good. The third aircraft race tracked and 14 parachutists jumped in as a fuel point assembly team. The C-141B was reconfigured for a door-jump during the race track. Assembly time for the assembly and operation of the equipment was approximately 7 hours with this limited force. This airdrop mission was 1837 nautical miles, nonstop.

1. The complete system was serviced, rerigged with JP-5 filled blisters and operationally ready at Fort Bragg by 1200 hours 17 April 1980. This concluded the training.

7. (U) Logistics:

   a. CONUS logistical support continued to be outstanding by all services.

   b. Inadequate logistical control at the overseas staging base resulted in a premature displacement of positioned equipment. Additional efforts were required to re-establish a minimal backup system.

8. (U) OPSEC: OPSEC continued to be good throughout the duration of the preparatory period of time.

9. (U) Recommendations:

   a. The airdrop system has proven to be a reliable method for deep nighttime insertion of fuel systems and should be considered as the primary method of delivery.

   b. Future deployments include complete primary and alternate refueling capabilities (air drop and air land). This would give the commander maximum flexibility with a minimal response time.

   c. The Airborne Department, OMF, continue its role as the parachute rigging support element to the JTF.

G

Colonel, OMC
Parachute Rigging Element Commander
RIGGING PROCEDURES FOR AIRDROPPING TWO MOTORCYCLES

1. Basic procedures for the container used for rigging two motorcycles were taken from TM 10-501, Chapter 12. Two A-22 containers were used and assembled as outlined in TM 10-501, Chapter 12, paragraph 12-3, as shown in figure 12-2. The two pieces of Honeycomb 7" x 21" x 84" in figure 12-2B are not used.

2. The construction details for the skiboard were taken from TM 10-500-3, Chapter 15, figure 15-1. One piece of Honeycomb is placed between the two by sixes before positioning the A-22 cargo sling assemblies and covers.

3. Center three layers of Honeycomb on the container 48" long and the width determined by the distance between the front and rear wheels of the motorcycles used. Position the motorcycles on the Honeycomb facing opposite directions. Place two pieces of Honeycomb filler between both motorcycles. The Honeycomb should be cut the same length of the bikes and height. Secure the two motorcycles together with 1/2" tubular nylon.

4. Honeycomb filler must be used to square the container. The Honeycomb filler must extend to the outer edge of the handlebars. In case the load should turn over. Secure the Honeycomb fillers in place with Type III nylon cord around the Honeycomb pieces to the motorcycles. Place small pieces of Honeycomb across the tops of the motorcycles to form a flat surface for the cargo parachute.

5. Close the A-22 cargo sling assemblies as outlined in TM 10-501, Chapter 12, paragraph 12-5.

6. Attach the cargo parachute as outlined in paragraph 12-6.
7. Use a 15' cargo extraction parachute as a pilot chute. Remove the hardware from the deployment bag, remove the deployment bag safety loop, retaining line and pendulum line. Pack the 15' cargo extraction chute as outlined in TM 10-1670-215-23, with the following exceptions: Make a bresacket tie with one turn double ½" cotton webbing from the parachute bridle loop to the bresacket attaching loop of the deployment bag. Remove the 60' extraction line and replace with a 9' cargo sling. Attach to the connector links of the extraction chute as outlined in TM 10-501, page 4-8, paragraph 4-6, figure 4-5. Attach a 15' static line to the deployment bag with one turn single ½" tubular nylon using a surgeon knot and locking knot with overhand knots on the running ends.
<table>
<thead>
<tr>
<th>LOAD</th>
<th>WT (lbs)</th>
<th>LNGTH</th>
<th>PAX</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Blivets</td>
<td>39,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 A-22's</td>
<td>1,960</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 H-274, each with 3 Nets</td>
<td>5,320</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) 5 gal cans PGAS w/Nozzles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) 8' ladder, 2 sheets plywood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) 2&quot;x6&quot;x6&quot;, lg grounding rods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>46,860</td>
<td>73'6&quot;</td>
<td>2</td>
<td>2 PAX - Riggers</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Blivets</td>
<td>39,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 A-22's</td>
<td>2,880</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 H-274, each with 3 Nets</td>
<td>5,320</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) 5 gal PGAS w/Nozzles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) 8' ladder, 2 sheets plywood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) 2&quot;x6&quot;x6&quot;, lg grounding rods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>47,800</td>
<td>77'6&quot;</td>
<td>2</td>
<td>2 PAX - Riggers</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Blivets</td>
<td>39,500</td>
<td></td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>1 A-22</td>
<td>970</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 H-274 with 3 Nets</td>
<td>2,260</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) 5 gal PGAS w/Nozzles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) 8' ladder, 2 sheets plywood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) 2&quot;x6&quot;x6&quot;, lg grounding rods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>42,840</td>
<td>69'6&quot;</td>
<td>16</td>
<td>2 PAX - Riggers</td>
</tr>
</tbody>
</table>

SECRET

SECRET
1. (U) Mission:
   a. Airdrop from a type C-130 aircraft at the lowest acceptable altitude and under blackout conditions, a type
   b. Combat off-load from a HC-130 aircraft, the necessary JP-4 in 500 gallon collapsible drums, 100 GPM FARE Systems, and M-274 3 Ton weapons carriers to establish helicopter refueling points and operate those refueling points.

2. (U) Organization and Forces:
   a. Rigging Support Element - 1 Officer, 1 Warrant Officer, 8 EM.
   b. POL Handlers/Mechanic - 3 EM.
   c. MAC ACE Element - 4 EM.
   d. Mechanic - 2 EM.

3. (U) Command and Control:
   a. Prior to departure from Fort Bragg on 4 July 1980, all orders, requirements and guidance were provided through the Test Directorate Headquarters, in particular the J-4. This facilitated the planning, preparation and execution of the movement. Ample secure nets were available during this phase.
   b. In the Ore Granda area and Condron Airfield location, the command and control was stabilized with the closure of the Test Directorate element which included the J-4. Communications at this location were considered minimal and poor. Logistical requirements generated in this forward area had to be transmitted back to the JTD's permanent location for action. Consequently, quick, accurate responses in solving any problems was a momentous effort. It is felt that the J-4 should have been positioned in the location with the most effective communication system and a J-4 representative plus an airlifter be positioned in the forward areas if it has lesser communications.
   c. Upon redeployment back to Fort Bragg on 17 July, adequate communications were again available but only to the JTD's permanent location.

4. (U) Intelligence:
   a. There was no central source for obtaining the maps needed for airdrop operations. Maps were obtained by going to subordinate elements of the JTD and looking for extra copies.
b. Current weather forecasts were obtained through the flight service telephone at Condon Airfield. This data was usable in the local areas only. A source for weather information should be established in the JTD forward.

5. (b) Planning:

a. The planning for the airdrop portion commenced in detail on 30 June 1980. Since the air item requirements were standard items with procedures in the 6000 gal), MHE, crane, and HALE were programmed for delivery upon our arrival at Condon Airfield. MAC Headquarters attached the HALE to the Rigger Element for the period 5-17 July 1980.

b. The four FARE Systems with POL Handlers and Mechanic were concurrently requested for arrival with the air items. The JP-4 produce (6000 gal), MHE, crane, and HALE were programmed for delivery upon our arrival at Condon Airfield. MAC Headquarters attached the HALE to the Rigger Element for the period 5-17 July 1980.

c. The proposed training schedule obtained from JTD on 30 June was used as the base line for airdrop operations.

6. (b) Training:

a. On 18 June 1980, the were rigged and readied for airdrop at Condon Airfield. Twelve Blivets of JP-4, four FARE Systems, and two Mules were also readied for combat off-load operation. Four NVG’s were obtained from the Rangers for the off-load operation.

b. By 8 July 1980, the were rigged and readied for airdrop at Condon Airfield. Twelve Blivets of JP-4, four FARE Systems, and two Mules were also readied for combat off-load operation. Four NVG’s were obtained from the Rangers for the off-load operation.

c. Two MC-120 aircraft, each with six Blivets of JP-4, two FARE Systems and one Mule plus refueling team departed Condon Airfield 8 July 1980 for Micheals Airfield. Purpose was to conduct combat off-load, establish refuel points and conduct refueling operations. Each aircraft ACL was 22,000 lbs. Aircraft failure after take-off caused the mission to be aborted and rescheduled for the night of 9-10 July 1980. At inclusion 2 in Test Report ATSM-DT-A-02 covering this operation. Problems encountered were:

1) Too much light in the vicinity which reduced the effectiveness of the NVG’s.

2) Confusion caused by too many people involved; i.e., Refueling Team, CAT, Pathfinders, etc. (maximum of three people per point recommended).

3) One Mule blew spark plugs because of overload.

4) Since this was the first training with actual helicopters, composite forces, and NVG’s, excessive time was used to conduct a partial refueling operation.
Total time elapsed was approximately 3 hours. Five out of eight HH-53's and 12 out of 16 HH-60A's were refueled with 100-200 gallons each. Only three points were established. Rated marginally successful.

d. Test Reports ATSM-DT-A-03 through 06 (Inclusions 1-7) cover the airdrop operations from 10-16 July 1980. The mission was attempted in an EC-130 and aborted after take-off because of engine failure (Inclusion 4). This mission was not rescheduled for airdrop. The mission was successfully dropped three times at 01 CWT DZ from 850' ACL. Developed a degree of proficiency in its night time de-rigging and operation (Inclusions 3, 5, and 6). These operations were rated successful. The full rehearsal airdrop at Fallon Airfield during the night of 15-16 July 1980 is rated marginally successful (Inclusion 7). Although the actual airdrop was good with no damage to the equipment problems occurred during the de-rigging and operation of the aircraft. The presence of a clevis bolt left in the lifting point jammed the retractor and blew a hydraulic seal. The failure to take the loads out of low range reduced its high range speed is up to...

7. (U) Logistics: Adequate time for planning insured the availability of programmed logistical support. Unprogrammed requirements were hampered by the minimal communications system.

8. (U) OPSEC: OPSEC was good throughout the test period. The use of Honey Badger facilitated the operation.

9. ( ) Recommendations/Comments:

a. The mission be selected as the primary airdrop point. Further recommend that three missions be obtained and test operated to fully determine its adequacy for the mission to include (Inclusion 8 is a procedural list for de-rigging).

b. Obtain a commercial airdrop kit to ensure that an airdrop kit can be developed and tested. This should be considered as a replacement for the G-2 kit.

c. Develop night LADES capability for the introduction of a night capability into an operation. This would provide an alternative means of delivery.

d. Conduct additional combat off-loads, establishment of refuel point and refueling operations in order to train personnel, improve techniques and reduce times.

e. Airdrop refuel points as an alternative to combat off-loading. The volume of fuel that may be required could be beyond the HC-130 capability for delivery. Training in this method is required to develop proficiency within the receiving ground unit.

G Ind 3
Parachute Rigging Element Commander

TOP SECRET
HONEY BADGER ODS & E ACTIVITY REPORT

1. Concept, equipment, and or technique tested:
   Air drop from MC-130.
   Evaluation:
   Personnel will receive and operate the
   Perfect techniques for air drop of a suitable
   and simultaneous drop of personnel from
   same altitude at height.

2. Applicable conditions: e.g., lighting, density, altitude, temperature, etc.
   Daytime drop for initial test at Holland DZ.
   DTF 130895, winds calm, clear, winds 107/13K Temp
   approx 75°F. Drop at 1100'. Ceiling 1500'.

3. Results:
   Air drop was perfect. Rigger code of 20420 did
   not permit accomplishment. Personnel could
   the MC-130 achieve significant lift because of
   platform height.

4. Recommendation:
   a. a small, light, will have to be
      used.
   b. The use of MC-130 not to exceed 20,000 lb.

5. Additional remarks:
   a. Rangers personnel were trained in dragging
      procedures and recovery operations.
   b. Rangers also trained in the operation of
SECTION II (rigged data)

Drop No. 01

Size & Type Platform 26', 100

Parachute Size G-11A NO. 608

Extraction Parachute Size 28'

Suspension Sling Size & Type 4 LOOP XSVI

Front 12' Rear 12'

Ballast Weight

Type Accompanying Load NONE

Total Weight 25420

Rigged Height 97

Rigged Width 110

Rigged Length 259

Overhang Front 0 Rear 0

Longitudinal C/B 35'

Type Extraction System 35'

Load Rigged for low velocity Airdrop

DATE RIGGED 17 Jun 80

DATE DROPPED 11 Apr 80

THIS FORM WILL BE COMPLETED BEFORE EACH AIRDROP
1. Concept, equipment, and or technique tested: Contact off-load 12 ea. 500 gal collapsible Tanks (Blank), 4 100 GPM Refueling sytsems (FARE) and 2 M-274 Weapons Carriers (MVCs) in total darkness from 2 HC-130 A/C, established 4 refuel pits and refuel HH-53 and UH-60A helicopters.

2. Desired Goal:
Discharge approx 200 gal JP-4 to 8 HH-53H and 16 UH-60A in total darkness under hot refueling condition.

3. Applicable conditions: e.g., lighting, density, altitude, temperature, etc.

   b. Refueled 5 ea. HH-53H and 12 ea. UH-60A helicopters
   c. One HHC broke causing extensive delay in set up
   d. Combat offoad approx 5 min for an 8 hr - PT set up complete in 17.5 hrs - only 3 0.5 used

5. Recommendations:
   a. Combat offload be configured on 453 L pallets rather than skids. 2 billets per skid. Pumps be pre-positioned on HHCs.
   b. A total of 3 men per point to reduce confusion and control.
   c. The team under total blackout conditions.

6. Additional remarks:
Refueling team from Reyja, Iceland consisted of:
(1) HC-130 - Reyja
(2) Refueler (7641)
(3) Million dollar mechanic - Reyja. Mechanic also trained as refuel pit operator. Recommend NCOIC be fully qualified P4L man.
SECTION II (rigged data)

Drop No. CBQF-1

Size & Type Platform 12 Bl 30 T
2 Mules 4A-22 3/4 (tow) - 4 PAY

Parachute Size NO.

Extraction Parachute Size

Suspension Sling Size & Type

Front --- Rear ---

Ballast Weight

Type Accompanying Load

Total Rigged Weight 2,000 lbs

Rigged Height

Rigged Width

Rigged Length

Overhang Front --- REAR ---

Longitudinal C/B-

Type Extraction System

Load Rigged for --- Airdrop

DATE RIGGED 7 July 1980

DATE DROPPED 9 July 1980

THIS FORM WILL BE COMPLETED BEFORE EACH AIRDROP
1. Concept, equipment, and or technique tested:
Airdrops a [blackout] from MC-130. Airborne[blackout] at 9,900 will be tested for suitability for obstacle clearance in blackout conditions. Rangers personnel will clear and operate the [blackout].

2. Desired Goal:
Perfect low-level drop techniques (850 AGL) for simultaneous drop of the [blackout] and range clearance team.
Train MC-130 crews in air drop techniques, train Rangers in rescue techniques.

3. Applicable conditions: e.g., lighting, density, altitude, temperature, etc.
DZ - Old Lee, approx 4000' above sea level
TCT - 2340 hrs BDT
Wind - SSE 5K
Vis - Unrestricted
Ceiling - Unlimited

4. Results:
(a) Dropped from 850' AGL, G-11B functional properly and landed in Vic of designated LOC. Passes spread target line.
(b) Recovery class given to Rangers

5. Recommendations:
The [blackout] be considered a prime candidate for

6. Additional remarks:
Good operation
SECTION I (unrigged data)

Project No. A75M-DT-A-02
Project Officer
Project NCO
Lost Item

Item Weight 9,900 Height 67
Width 78 Length 140

SECTION II (rigged data)

Drop No. 0 2
Size & Type Platform 16' TYPE II
Parachute Size G/18 NO. 3
Extraction Parachute Size 96'
Suspension Sling Size & Type
Front 9' 3" Rear 9' 3" 1/4
Ballast Weight N/A
Type Accompanying Load N/A
Total Rigged Weight 11,875
Rigged Height 80
Rigged Width 108
Rigged Length 192
Overhang Front 0 REAR φ
Longitudinal C/B. 96 Front 85 2
Type Extraction System SLVCS 120'
Load Rigged for □ Low □ Airdrop

DATE RIGGED 9 Jul
DATE DROPPED 9 Jul

THIS FORM WILL BE COMPLETED BEFORE EACH AIRDROP

TOP SECRET
1. Concept, equipment, and technique tested:
   Air drop a \( \text{EC-130} \) from 24,815 lbs to 24,815 lbs. The \( \text{EC-130} \) will be tested for
   obstacle clearance and performance overall compared to other drops. Rangers will do this and
   update.

2. Desired Goal:
   Conduct a satisfactory night drop of 24,815 lbs and operate under blackout conditions. Develop
   operational data between.

3. Applicable conditions: e.g., lighting, density, altitude, temperature, etc.
   
   **1707 - 0824, 0200 above sea level**
   
   **Tgt: 0130 10 July 60 (48)**
   
   **Wx: 95% SSK**
   
   **Scattered thunderstorms in Vic E.N.**
   
   **Viz: Unlimited**
   
   **Visibility: Unlimited**

4. Results:
   Mission aborted due to AN-10 engine failure after take-off.

5. Recommendations:
   No drop this under the same conditions

6. Additional remarks:
   None

\( \text{EC-30} \)
SECTION I (unrigged data)
Project No. 9T5M-D7-A-03A
Project Officer [Redacted]
Project NCO [Redacted]
Test Item [Redacted]

Item Weight 248.15 Height 109.78
Width 9.6 Length 188

SECTION II (rigged data)
Drop No. No Drop
Size & Type Platform 80' MDC Type II
Parachute Size G114 NO. 6
Extraction Parachute Size 28'
Suspension Sling Size & Type X611
Front 11' 4 Loop Rear 12' 4 Loop
Ballast Weight N/A
Type Accompanying Load N/A
Total Rigged Weight 27,100
Rigged Weight 92
Rigged Width 108
Rigged Length 240
Overhang Front -0- Rear -0-
Longitudinal C/B 126" Front s/f 3.4 aft
Type Extraction System 35 KE FTC
Load Rigged for Low V Airdrop

DATE RIGGED 9 Jul

DATE DROPPED No Drop
Man aborted due to H10 Breeze Failure 07/16

THIS FORM WILL BE COMPLETED BEFORE EACH AIRDROP
1. Concept, equipment, and or technique tested:
   Airdrop the [redacted] from HC-130 (code) under blackout condition.
   Rangers will design and operate the [redacted]

2. Desired Goal:
   Determine the serviceability of the [redacted] under sustained airdrops and night operations conditions.
   Train HC-130 crew in airdrop technique, train Rangers.

3. Applicable conditions: e.g., lighting, density, altitude, temperature, etc.
   DZ - [redacted] (approx. 4000' above sea level)
   WVR - 130Kts (knots)
   Wind - 7K SE
   Vis - 40 mi
   No buildings 2500'
   Ceiling - Scattered 7000'

4. Results:
   a. Successful drop from 850' AGL, no damage, landed in Vic of desired loc.
   b. Recovery conducted by Rangers was excellent

5. Recommendations:
   Continue to drop test to develop serviceability limits on the [redacted]

6. Additional remarks:
   Good operation.
   Fuel #5
   Top Sec.
**SECTION II (rigged data)**

<table>
<thead>
<tr>
<th>Drop No.</th>
<th>02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size &amp; Type Platform</td>
<td>16'</td>
</tr>
<tr>
<td>Parachute Size</td>
<td>G/1B</td>
</tr>
<tr>
<td>Extraction Parachute Size</td>
<td>22</td>
</tr>
<tr>
<td>Suspension Sling Size &amp; Type</td>
<td></td>
</tr>
<tr>
<td>Front 9'3&quot; Loop Rear 9'3&quot; Loop</td>
<td></td>
</tr>
<tr>
<td>Ballast Weight</td>
<td>0/0</td>
</tr>
<tr>
<td>Type Accompanying Load</td>
<td>0/0</td>
</tr>
<tr>
<td>Total Rigged Weight</td>
<td>11.875</td>
</tr>
<tr>
<td>Rigged Height</td>
<td>80</td>
</tr>
<tr>
<td>Rigged Width</td>
<td>10.8</td>
</tr>
<tr>
<td>Rigged Length</td>
<td>19.2</td>
</tr>
<tr>
<td>Overhang Front</td>
<td>0</td>
</tr>
<tr>
<td>Longitudinal C/B 7/8 Front 8/4</td>
<td></td>
</tr>
<tr>
<td>Type Extraction System</td>
<td>3465 120'</td>
</tr>
<tr>
<td>Load Rigged for</td>
<td>4000</td>
</tr>
</tbody>
</table>

**DATE RIGGED** 10 Jul

**DATE DROPPED** 10 Jul
HONEY BADGER OT&E ACTIVITY REPORT

11 July 1980

1. Concept, equipment, and or technique tested:
   Airdrop theory from HC-130 (3rd drop) under blackout conditions.

2. Desired Goal:
   Build data base on the survivability of the
   under sustained airdrop and night operating condition.
   Train HC-130 crews in airdrop techniques.

3. Applicable conditions: e.g., lighting, density, altitude, temperature, etc.
   EZ - 02 Coo, approx 4000' above sea level.
   TOT - 2 130 hrs (del)
   Winds - 35E 5 K
   Ceiling - Scattered 13000' 15000'
   Vic - unrestricted

4. Results:
   a. Successful drop from no damage, landed in Vic
      of desired loc.
   b. Excellent recovery by Rangers.

5. Recommendations:
   Continue to drop test. Use on full-scale test.

6. Additional remarks:
   Good operation.

incl 1/4

TOP SECRET

Page 1 of 2
SECTION III (ripped data)

Drop No. 07

Size & Type Platform

Parachute Size 61B

Extraction Parachute Size 221

Suspension Sling Size & Type

Front 9.344

Rear 9.344

Ballast Weight N/A

Type Accompanying Load N/A

Total Rigged Weight 11,875

Rigged Heigh 80

Rigged Width 108

Rigged Length 192

Overhang Front 0

Rear 0

Longitudinal C/B 90

Type Extraction System Sh/CS 120

Load Rigged for Low V Airdrop

DATE RIGGED 7/3/68

DATE DROPPED 7/3/68
1. Concept, equipment, and/or technique tested:
Airdrop the [redacted] under blackout conditions from
HC-130 followed by personnel for recovery as part
of full-rehearsed HOB (obstacle clearance) operation.

2. Desired Goal:
Airdrop personnel from HC-130 recover and
clear airfield in minimum time under blackout condi-
tions.

3. Applicable conditions: e.g., lighting, density, altitude,
temperature, etc.

- DZ - Fallen

- Other conditions unknown - (not observed by observers)

4. Results:

- From reports, marginally successful, Airdrop
  was short (off by 500-800 yds). Recovery team left
  behind on the ground, prohibiting the HC-130 to
  recover above 3'4' causing a blown hydrant and.
  Leaving the area which reduced HC-130's ability to
  airdrop.

5. Recommendations:
- Additional training in de-rigging techniques and
  operations.

6. Additional remarks:

- Sean Vaughn wanted to C-130 type a/c
  with this mission. This was not accomplished.

- The 16' heavy drop platform was left at Fallon.
LOAD DATA CARD

SECTION II (rigged data)

Drop No. 05
Size & Type Platform 16
       Type II
Parachute Size G110 No. 3
Extraction Parachute Size 20
Suspension Sling Size & Type
Front 9'3'6" Rear 9'3'6"
Ballast Weight N/A
Type Accompanying Load N/A
Total Rigged Weight 11,875 lbs
Rigged Height 80 ft
Rigged Width 10.8 ft
Rigged Length 19.2 ft
Overhang Front 9 ft REAR 0 ft
Longitudinal C/B 96.9 ft
Type Extraction System 4/65 120'
Load Rigged for Low Vel Airdrop

DATE RIGGED 15 Jul 80
DATE DROPPED 16 Jul 80

THIS FORM WILL BE COMPLETED BEFORE EACH AIRDROP

TOP SECRET

OTHER INFORMATION

Ranges, De-Rigged in
a tactical situation
Cut all lashings
Broke seal on hyd. system
Due to a crew left on
suspension point

TM/PM Used for Ref. [redacted]
De-rigging procedures for...

The following steps should be followed in de-rigging the...

1. Remove the four large clevis assemblies from the vehicle suspension points. Be sure to install the large clevis bolt and nut back into the large clevis. Leave the suspension slings attached to the four large clevises and the parachute release assembly. Remove the parachute release assembly, the four large clevises and suspension slings as are component.

2. Remove the lead cover from the... Cut ties holding honeycomb on top of... and remove. Remove the padding from the air cleaner.

Remove exhaust pipe from between the seat and frame and reposition.

3. Remove lashings securing parachute tray. Keep the two large stacks of honeycomb used for the parachute tray. This honeycomb can be used for removing... from the platform.

4. Remove all tie down assemblies securing the... to the platform, by opening the binder assembly handle to release tension. Remove the heavy duty "D" ring from the running end of the tie down and pull the tie down through the tie down points. For combat de-rigging, these tie downs would be cut with a knife and removed.

5. Remove the 8-foot sling from the towing pintle at the rear of the...

The... is now ready to be... from the platform.

NOTE: Be sure to remove the large clevis bolts from the suspension points as stated in step one. If the bolts are not removed, the... will not raise and would also cause damage to the...
(u) 6. Locate the extraction parachute and deployment bags. Separate the three deployment bags and the extraction parachute. Place the extraction parachute in extraction parachute bag. Stretch out the three C-118 cargo parachutes; you must remove the center line from the large clevis assembly to do this. Daisy chain the suspension lines and risers and place each parachute in a parachute deployment bag.

(u) 7. Place all the airframe components and the recovered parachutes on the platform.
1. Concept, equipment, and/or technique tested:

Reg. H-541, 8670 lb, FM 10-508 w/CHA, with 26-113 long parachute and air drop from 750' AGL.

2. Desired Goal:

Develop crew proficiency for 1st SOS. Five loadmasters required recertification in air drop procedures.

3. Applicable conditions: e.g., lighting, density, altitude, temperature, etc.

- Drop alt: 750' AGL
- Wind (avg): 8 kts/30°
- Vis: 4 mi Nme
- Ceiling: 20,000' FT
- Drop (avg): 1445 kts (335°)

4. Results:

- Strike report: 22 m (5 color)
- Operation rated good
- 3 loadmasters recertified

5. Recommendations:

- Continue air drop proficiency training

6. Additional remarks:

[Signature]

[Stamp: TOP SECRET]
LOAD DATA CARD

SECTION I (unrigged data)

Project No. __________________________

Project Officer ________________________

Project NCO ___________________________

Test Item M561, 1½ ton Cargo Tower

Item Weight 7,300 Height 70½

Width 84 Length 227

SECTION II (rigged data)

Drop No. ____________________________

Size & Type Platform 20' modular

Parachute Size G-11B No. 2

Extraction Parachute Size 22' unpe

Suspension Sling Size & Type 11 & 3

Front 11" 3' 1/3" Rear 14' 3/5" 3

Ballast Weight ________________________

Type Accompanying Load N/A

Total Rigged Weight 8670

Rigged Height 94'

Rigged Width 108'

Rigged Length 240'

Overhang Front N/A Rear N/A

Longitudinal C/B 124' front other

Type Extraction System 54/55 126

Load Rigged for Low V Airdrop

DATE RIGGED 12 Aug 80

DATE DROPPED 14 Aug

TOP SECRET

THIS FORM WILL BE COMPLETED BEFORE EACH AIRDROP
(U) 1. Concept, equipment, and or technique tested:

B-52G (Farn Furd) w/ 2674 FAW FM 10-508 w/tx, with 2 24-11B cargo parachutes and air drop from 750' AGL

2. Desired Goal:

Develop crew proficiency for 12500' complete recertification of loadmasters on air drop procedures.

(U) 3. Applicable conditions: e.g., lighting, density, altitude, temperature, etc.

Drop Alt - 750' AGL
Wind (Soft) - 60 K (210°)
Vis - 3.4 mi bag
Ceiling - 2000'
Drop Alt - 750' AGL

(U) 4. Results:

Stable report - 195 m @ 110' clock - operation met all margins successfully. Developed first hand dual rail malfunction. Lost hydraulic pressure, manually rebuilt pressure to air drops. Occurred in 5 min lateARP 2 loadmasters recertified

(U) 5. Recommendations:

a. Continue air drop proficiency training.

b. To inspect all dual rails system for completeness and serviceability.

(U) 6. Additional remarks:

All loadmasters recertified plus 1 crew.
SECTION I (unrigged data)

Project No. 
Project Officer 
Project NCO 
Test Item 4361. 1/4 for Radio Test 

Item Weight 2.300 Height 90 1/2 
Width 84 Length 227 

Miscellaneous Information 

TH/TH Used for Ref. 

DATE RIGGED 12 Mar 50 

SECTION II (rigged data)

Drop No. 
Size & Type Platform 20' x 40' 

Parachute Size G/N B/ 0 
Extraction Parachute Size 22' x 40' 
Suspension Sling Size & Type 47' x 5' 
Front 8' 6" x 6' 6" Rear 6' 6" x 6' 6" 

Ballast Weight 
Type Accompanying Load 11/10 
Total Rigged Weight 8670 

Rigged Height 94' 
Rigged Width 108' 
Rigged Length 240' 
Overhang Front N/A Rear N/A 

Longitudinal C/B 124' Front 0' 
Type Extraction System SI/ES 120 
Load Rigged for Low Airdrop 

DATE DROPPED 15 Aug 65 

THIS FORM WILL BE COMPLETED BEFORE EACH AIRDROP 

[Signature]
HONEY BADGER OTK E ACTIVITY REPORT

1. Concept, equipment, and or technique tested:
   Rig M-561 (Ellicott) w/ 8170 JAW F11 15-508 wally, w/ 2 A-118 cargo parachutes and airlift from 750' ACL.

2. Desired Goal:
   Re-qualify the recertification of the 5 loadmasters and flight crew.

3. Applicable conditions: e.g., lighting, density, altitude, temperature, etc.
   Drop Time 1030 hrs (left)
   Not flown

4. Results:
   Mission aborted because of defective dual rail system.

5. Recommendations:
   P3#20

6. Additional remarks:
   Proof

TOP SECRET

(Censored)
SECTION I (unrigged data)

Project No. __________________________
Project Officer ________________________
Project NCO __________________________
Test Item 1/4 x 40 Carbo Tex

Item Weight 7,300 Height 70½ Width 84 Length 227

SECTION II (rigged data)

Drop No. _____________________________
Size & Type Platform 20' 600G

Parachute Size G 110 No. 2
Extraction Parachute Size 22' 600G
Suspension Sling Size & Type 1½ x 34'
Front (0½') Rear (0½') 21' 600G
Ballast Weight ___________
Type Accompanying Load 2/14'
Total Rigged Weight 8670

Rigged Height 94''
Rigged Width 108''
Rigged Length 240''
Overhang Front N/A REAR N/A
Longitudinal C/B 124' FRONT C/B
Type Extraction System 1/65 120'
Load Rigged for LOW V Airdrop

DATE RIGGED 12 Aug 63
DATE DROPPED 15 Aug 63

THIS FORM WILL BE COMPLETED BEFORE EACH AIRDROP
HONEY BADGER OTS E ACTIVITY REPORT

1. Concept, equipment, and or technique tested:
   a. Combat Off Load from C-141B, multiple 100GPM FARE systems.
   c. Established Rept. refuel points capable of refueling CH-53.
   d. UH-60A a-

2. Desired Goal:
   a. Established operational refuel points in 20 min or less time.
   b. Train the CCT/Pathfinder/Refueler/Rigger team in combat off-load and refueling techniques and procedures.

3. Applicable conditions: e.g., lighting, density, altitude, temperature, etc.
   a. Date/Time - 24/1800 Sept 80
   b. Weather - N/A
   c. Location - Yellow Ramp, Pope AFB

4. Results: Taxi speed was 5K. Ramp cleared to approx. 12" for ground. Commands given over R/A system. 3rd Point cleared in 15 sec. 2nd Point cleared in 38 sec. 2nd Point operational. Taxi way cleared in 15 min. 2nd Point operational at top. Cleared in 23 min. Tow bars out of adjustment. Form 4634

5. Recommendations:
   a. C-141B Combat off-load of refueling systems is a viable option.
   b. Continue to train CCT/Pathfinder/Refueler/Rigger personnel in technique.

6. Additional remarks:

None
Subject: After-Action Report, Army Aviation Participation in JTX Honey Badger, June-July 1980

1. (U) This is an interim after-action report, consisting of all internal and external reports which will contribute to a final report to be completed at a later date. It is not intended for general dissemination, but for the use of agencies, directorates, and commands supporting the creation of Army aviation forces and units for conduct of Special Missions.

2. (S) The report is organized as follows:

   TAB A - Executive Summary of Army Aviation participation in JTX Honey Badger, extracted from a report to the Operations Deputies of the Services.

   TAB B - JTD Honey Badger/Army Aviation evaluations. Conducted and reports prepared by US Army Aviation Board, Fort Rucker, Alabama.

   TAB C - 101 Aviation Group After Action Report, JTX Honey Badger.

   TAB D - Outline of Operation POTENT CHARGE, joint helicopter special missions doctrinal and procedural training and exercising.

   Army Aviation Officer

4 Enclosures
a/s

Distribution—special
Subject: JTX Honey Badger After Action Report

1. Attached is the Executive Summary of Army Aviation participation in JTX HONEY BADGER, prepared as part of the JTX After Action Report to the Operations Deputies of the Services.
INCLOSURE TEN: BLACKHAWK/CH-47C EVALUATION (TS)

1. (TS) Objectives

a. Create Army aviation capability to support near-term special mission requirements (TS).

b. Create doctrinally sound, logistically sustainable long-term capability to successfully conduct special operations.

2. (TS) Background

a. (S/N) Past efforts in the area of Army aviation support of special operations have been limited by equipment shortcomings, organizational decisions, and resource limitations.

b. (S/N) Special operations support is normally characterized by the requirement for deep penetration, surprise, and complex tasks in the objective area. Until recently, the only assets available which were capable of the flight profiles meeting those criteria have been fixed-wing aircraft and a few air-refuelable heavy lift helicopters. The special operations aviation capability of the Army has been reduced to an aviation platoon in the Fifth Special Forces Group.

c. (S/N) Army aviation exists for the stated purpose of supporting the land battle with maneuver, combat support, and combat service support vertical-lift units, and limited fixed-wing special support. Special operations on land are normally conducted by Army ground forces. The only identifiable reason the considerable resources of Army aviation have not been fully integrated into joint air support of those operations in the past was that the helicopters did not exist in the inventory which could penetrate deep, with surprise, and conduct close combat operations in the objective area. Notably, the capability to conduct those operations with vertical-lift aircraft in any significant numbers has been virtually non-existent in any service.

d. (TS) The key objective of the HONEY BADGER/Army Aviation (U) effort was to create the basis for presenting the Joint Chiefs of Staff with a viable Army aviation contribution to joint air special missions (TS) in support of special operations. This was to include both
modification of aircraft and conduct of individual and unit training which would yield a trained special missions-capable rotary-wing force. The secondary objective, as yet unfulfilled, is to integrate that force into a joint force consisting of Army and Air Force air and ground elements.

3. Concept

a. (TS) In early June, the Chief of Staff, U.S. Army, directed that the 101st Airborne Division (Air Assault) be designated the major Army organization which would provide special missions crews and aircraft to JCS.

b. (TS) A survey of all aircraft in the Army inventory, directed by the JTF Commander and conducted by the JTF staff in coordination with the Army staff, indicated that the UH-60A and the CH-47C-plus were the Army helicopters with the greatest immediate potential for special missions (TS).

(1) The UH-60 is a highly survivable, fast helicopter with an unusually good power-to-weight ratio and excellent high-density-altitude performance.

(2) The CH-47C-plus has the highest useful load in the inventory, and has an exceptionally large cargo area with the longest center-of-gravity travel of any helicopter in the world. This makes it particularly suitable for long-range logistics haul.

c. Both the UH-60A and CH-47C-plus were found wanting in several areas when profiled against special missions (TS) concepts. In coordination with ODCSOPS, DA; ODCSLOG, DA; and DARCOM, necessary modifications were identified and a program to conduct those modifications initiated. The decision was made to conduct the majority of the work at Norton AFB, in order that

(1) Individual and unit training could be ongoing in the desert/mountain environment, and

(2) For OPSEC purposes, the work could be advertised as part of the Honey Badger test and evaluation.

d. Terminal Training Objectives were extrapolated from specific special missions (TS) Concepts, then refined to reflect a set of capabilities which would allow considerable flexibility in future planning. Fundamentally, they yielded the following objectives.
(1) UH-60. Full night vision qualification, night long-range flight in excess of 1,000 nm, unfueled, at low level. Coordinated operations with HH-53C, H and CH-47C. Terminal operations black and with IR searchlight.

(2) CH-47C. Full night vision qualification, night long-range flight in excess of 1,000 nm, unfueled, at low level. Coordinated operations. Fuel transfer to HH-53, UH-60, and CH-47.

(3) Pathfinders. Integrated operations with CCT, secure rapid refueling points, conduct fuel transfer ops, set up remote nav aids.

3. Execution.
   a. Equipment modifications. See attachment one.
   b. Training. See attachment two.
   c. Evaluation. See attachment three.

   a. Joint training will be conducted at Hurlburt Field, Florida, during the period 18 to 30 August for the purpose of addressing deficiencies identified during Phase II in the areas of planning, coordination, and execution. Lead crews and IP's from 101 ABD, 1 SOW, USAAVNS, and USMC will conduct seminars and flight training to develop special operations joint doctrine. They will then return to train organizations to prepare them for Phase III, beginning 12 September.
Subject: JTX Honey Badger External Evaluation

1. (U) Attached are the evaluations conducted by HQ, JTD Honey Badger during June and July 1980.

2. (U) The agency supervising the evaluations and preparing the reports was the US Army Aviation Board, Ft. Rucker, Alabama.

3. (U) The reader should note that these reports were prepared on short suspenses, as were the evaluations themselves, due to the desire of the Joint Test Directorate that each Terminal Test Objective and Terminal Training Objective be driven by preceding evaluations.
US ARMY AVIATION BOARD
FORT RUCKER, AL 36330

ABBREVIATED

TEST DESIGN PLAN

FOR

Operational effectiveness evaluation (limited) of UH-60A and CH-47C, configured with extended range fuel systems to conduct precisional navigation self-deployment.

by

Test Project Officer

and

Project Analyst

1 July 1980
CHAPTER 1

1.1 PURPOSE

The purpose of this test is to assess the operational suitability and effectiveness of UH-60A and CH-47C helicopters to conduct precision navigation tactical self-deployment operations.

1.2 BACKGROUND

The Army has demonstrated its commitment for self-deployability of organic aviation assets through various study and evaluation efforts since 1976, the most recent of which culminated in the self-deployment of CH-47C aircraft in operation "Northern Leap." In view of the competition for airlift resources in the event of international turmoil, the self-deployability concept has escalated significantly. The ability of operational US Army aviation units to self-deploy is assessed as a critical requirement. As a result, this test was conceived to evaluate the capability of the UH-60A and CH-47C to self-deploy utilizing precision navigation during day/night.

1.3 DESCRIPTION OF TEST ITEM

1.3.1 This evaluation will be conducted utilizing the UH-60A and CH-47C aircraft configured with Mission Equipment Packages (MEPs) required to conduct self-deployment missions.

1.3.2 Specific components, systems, or equipment comprising the MEPs by type aircraft are enumerated below:

a. UH-60A

(1) Navigation

   (a) OMEGA Inertial Navigation System (may be deleted)

   (b) APX-100 Transponder System

   (c) Doppler (128)

(2) Avionics:

   (a) Collins 718U-5/5M Lightweight High Frequency (HF) Airborne Transceiver w/KY-75 Secure Device.
(b) FM (2)
(c) UHF (1)
(d) ADF (1)

(3) Extend Range, Internal auxiliary fuel system
(6 tanks).

(4) Aircraft survivability equipment (ASE).
   (a) AN/APR-39 V(1) Radar Warning Receiver (RWR)
   (b) APR-44
   (c) M-130 Chaft Dispenser
   (d) Aircrew pressurized oxygen system
   (e) Aircrew Very Pistols
   (f) Infrared Paint

(5) Night Vision Goggle (NVG) Compatibility Modifications
   (a) Cockpit Configuration
   (b) Landing/Search Light IR Filter

(6) Spare Parts Kit
(7) Mission Equipment (per unit SOP)

b. CH-47C:

(1) Navigation:
   (a) APX-72 Mode 4 Transponder
   (b) OMEGA Inertial Navigation System

(2) Avionics
   (a) ARC 1-102 HF
   (b) FM
   (c) UHF-1
   (d) ADF-1

(3) Extended Range, Internal Auxiliary Fuel System
(4 tanks)

(4) Aircraft Survivability Equipment (ASE).

1.5.1.2 Subject participants will be selected from the 158th and 159th Aviation Battalions, 101st Airborne Division, Fort Campbell, Kentucky. Assessment of the operational effectiveness of individual crews and the units will be conducted concurrently. Aircrews performing the selected scenarios will be trained and selected by unit commanders and approved by the test proponent. External unit observers will be employed as data collectors to assist in the evaluation of operational effectiveness, and provide expertise in specific areas of concern such as NVG operations, precision navigation equipment, human factors, logistical support-ability and physiological considerations. Contractor support will be utilized as required for training, installation, and general support of specific items contained in the mission equipment packages (MEP) which have not been type classified.

1.5.1.3 Threat systems employment is not planned as a part of this evaluation.

1.5.1.4 Evaluation measures will make use of objective and subjective data provided concurrently by the test unit and test directorate personnel. Data sources will include participant completed ground and aircrew questionnaires, debriefing results, observer data sheets, and airborne voice recordings.

1.5.2 Tactical Context

1.5.2.1 Mission profiles will include high gross weight airborne operations over extended ranges, both day and night. Operational flight routes selected by the test proponent will provide for low and medium altitude, multi-ship operations over segments of 600, 1100 and 1100 nautical miles (NM) (Table 1-1).

<table>
<thead>
<tr>
<th>MINIMUM ROUTE LENGTH (NM)</th>
<th>TYPE/NUMBER OF AIRCRAFT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UH-60A</td>
</tr>
<tr>
<td>600</td>
<td>15</td>
</tr>
<tr>
<td>1100</td>
<td>6</td>
</tr>
</tbody>
</table>

1.5.2.2 Measures of Effectiveness (MOE):

a. Altitude: 500-300 feet above ground level (AGL) and below 300 feet AGL where possible.

b. Maintenance of maximum range airspeed when possible.
c. Maximum lateral course deviation
± 1500 meters.

d. Maximum enroute course leg deviation
± 3 minutes (based upon estimated times enroute).

e. Fuel/oil consumption rates - not to exceed mission requirements/parameters provided in applicable technical manuals.

f. No human factors findings which may preclude successful completion of a mission profile.

g. No machine - machine interface findings which may preclude successful completion of a mission profile.
CHAPTER 2

2.1 GENERAL

This chapter constitutes an abbreviated format. Only fundamental factors, conditions, date requirements and data handling methods will be enumerated.

2.2 FACTORS AND CONDITIONS

2.2.1 FACTORS

a. Environment

1. Terrain and vegetation (Geographical)
2. Meteorological Conditions

b. Personnel

1. Aircrew experience
2. Aircrew Training
3. Unit Training

c. Threat Systems Operations

d. Flight maneuvers

e. Aircrew tasks and Coordination Requirements

CONDITIONS

As occurs within the test areas
Partialy controlled constraints: Day/Night VFR; ambient light conditions; no icing conditions.

Partialy controlled (In accordance with unit SOP).

Partialy controlled (academic and individual flight training indiginc to mission accomplishment has been conducted).

Partialy controlled (see 2 above)

Systematically varied by the test proponent

Tactically varied

Partially controlled (de tions to occur in the development of tasks and coordination requirement pertinent to mission accomplishment).
f. Physiological/Psychological Conditions
   As occur

g. Order of Events
   Systematically varied by test directorate.

h. Aircraft
   Systematically varied to meet mission requirements (then held constant)
   (1) Configuration
   (2) Performance/Endurance Capabilities
   As occur

2.3 DATA REQUIREMENTS (See Appendix B).

2.3.1 Types of Data:

2.3.1.1 Objective Data:
   a. Data collected by participating units
   b. Data collected by observers
      (1) Endurance Data
      (2) Navigational accuracy data

2.3.1.2 Subjective Data:
   a. Aircrew Questionnaire Responses
   b. Unit Commanders' Comments
   c. Pre and Post mission briefings
   d. Ground and airborne observer/controller comments

2.3.2 Dendritic Structure (See Appendix B)

2.4 DATA HANDLING

Objective data from operational mission profiles will be collected, edited, grouped and logged. Logged data will be analyzed by type aircraft, (aircraft configuration nested within), unit selected flights (formation operations and aircrews nested within), flight mode, flight route, mission time, flight altitude, flight airspeed, endurance/fuel consumption rates, and course deviation. The primary method of analysis will be analysis of variance (ANOVA).
Subjective data will be collected via unit Instructor Pilots (IPs), staff and commanders, data observer/recorders, aircrews, ground observers and airborne controllers. These data will be grouped and subjected to parametric and nonparametric statistical analyses to determine factors detrimental to mission accomplishment and "fixes" which can be applied. The primary analytical tool will be the Chi-square statistic.
CHAPTER 3

EVALUATION ASSESSMENTS

3.1 Operational effectiveness
3.2 Human factors
3.3 Extended range fuel systems
3.4 Aircraft Mission Equipment Packages
3.5 Training requirements
3.6 Mission coordination and premission planning requirement.
3.7 Safety
3.8 Logistical supportability
APPENDIX A

DATA COLLECTION SHEETS/FORMS AND CHECKLISTS

INDEX

1. Mission Effectiveness Data Collection Form
2. Fuel/Oil Consumption Data Collection Form
3. Night Vision Goggle Compatibility Data Sheet
4. Human Factors Data Sheet
5. Aircraft High Gross Weight Performance Data Sheet
6. Post Mission Debriefing Checklist
Purpose of the attached data collection forms is threefold:

1. To determine adequacy of the extended range fuel system.

2. To evaluate the effects of extended range flights on crewmembers.

3. To determine the adequacy of the navigation system(s) and associated training provided.

Observers/data collectors are being utilized to relieve P/CP/N of additional workload, by collecting additional data in flight.

After mission completion, turn this packet into operations. Operations is to forward all data to [redacted] as soon as possible.
1. Complete the following prior to departure from the departure airfield:

   A. PERSONNEL
      Pilot ______________________
      Co-Pilot ____________________
      Navigator __________________
      Crewchief __________________
      Observer/Data Collector ______
      Date _______________________
      How many times has crew flown together? ______
      Of these, how many were NVG day _____, NVG night ______.

   B. AIRCRAFT
      Type (Circle One) : UH-60A CH-47C
      Serial No. _________________
      Gross Weight ______________
      Total Fuel Onboard ________

   C. DEPARTURE AIRFIELD
      Name _________________
      Field Elevation _________
      Free Air Temperature ________ °C
      Pressure Altitude __________

   D. PRIOR TO ENGINE START
      APU Start Time ______________
      Total Fuel Indicated on Fuel Gage ______

   E. AIRCRAFT TAKEOFF
      Time _________
      Total Fuel Indicated on Fuel Gage ______
2. Complete the following in flight:

<table>
<thead>
<tr>
<th>EVENT</th>
<th>TIME (hr:min)</th>
<th>FUEL CONSUMPTION RATE (lb/hr)</th>
<th>A/S (KIAS)</th>
<th>TORQUE</th>
<th>TGT (°C)</th>
<th>PAT (°C)</th>
<th>ALTITUDE MSL</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hover</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Takeoff(T)</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level Off</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T + 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T + 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T + 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T + 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T + 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T + 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T + 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T + 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T + 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL FLIGHT TIME ________ (Hrs:Min)

3. Complete after landing:

A. TOTAL DISTANCE FLOWN ________ (NM)

B. OIL CONSUMED (State pints/quarts/gallons)

   ENG #1 ________

   ENG #2 ________

UH-60A ONLY

   MAIN XMSN ________

   T/R GEARBOX ________

   INTERMEDIATE GEARBOX ________
CH-47C ONLY

FWD XMSN

APT XMSN

COMB XMSN

L ENG XMSN

R ENG XMSN

C. HYDRAULIC FLUID CONSUMED

FLT CONTROL SYSTEM

UTILITY SYSTEM (CH.47) (Gal)

D. TOTAL FUEL ONBOARD (Gal)

E. TOTAL FUEL ADDED (IF KNOWN) (Gal)
EXTENDED RANGE FUEL SYSTEM

CREWMEMBER QUESTIONNAIRE

NAME/RANK:

CREW DUTY: P CP N CE FE

(Circle One)

Left hand column beside each question indicates crewmember who is required to respond. Do not respond to a question if you did not actively participate/observe.

LEGEND

P - Pilot
CP - Copilot
N - Navigator
CE - Crewchief
FE - Flight Engineer
1. Were any safety hazards noted due to operation of the extended range fuel system?
   Yes _____  No _____
   Specify.__________________________________________
   ________________________________________________
   ________________________________________________

2. Were any unique safety hazards encountered while performing maintenance of the extended range fuel system?
   Yes _____  No _____
   Specify.__________________________________________
   ________________________________________________
   ________________________________________________

3. Were any safety hazards noted during refueling? Are any special precautions required?
   Yes _____  No _____
   Specify.__________________________________________
   ________________________________________________
   ________________________________________________

4. Are any safety hazards associated with fuel transfer/management?
   Yes _____  No _____
   Specify.__________________________________________
   ________________________________________________
   ________________________________________________
5. Does fuel management impact adversely on center of gravity?

Yes ______ No ______

Specify. __________________________________________________________

CE, FE

6. Are any hazards associated with installation, removal or maintenance of the extended range fuel system?

Yes ______ No ______

Specify. __________________________________________________________

ALL

7. Place a mark on each of the following scales to indicate the amount of physical and mental work you performed during the preceding flight period.

Physical

1 2 3 4 5 6 7 8 9
Light Moderate Heavy Extreme

Mental

1 2 3 4 5 6 7 8 9
Bored Light Moderate Intense Overload

ALL

8. Rate your level of fatigue (circle correct response).

a. Feel good; could fly again immediately.

b. Slightly tired; could fly again in 30 minutes to an hour.

c. Moderately tired; could fly again in 4-5 hours.

d. Severely tired; could fly again in 8-10 hours after a period of sleep.

e. Exhausted; could not fly again within 24 hours.
9. Place a mark on a scale of 0-8 to indicate the amount each of the following contributed to your level of fatigue.

a. Time at flight controls. P, CP, NAV

0 1 2 3 4 5 6 7 8

b. Mission conditions (weather, etc.).

0 1 2 3 4 5 6 7 8

c. Noise and vibration.

0 1 2 3 4 5 6 7 8

d. Mission anxiety (overwater, ice, uncharted terrain mountains).

0 1 2 3 4 5 6 7 8

↑
e. Aircraft environment (temperature, lighting, fumes).

0 1 2 3 4 5 6 7 8

f. Personal factors (headache, helmet fit, minor illness, personal stress, etc.).

0 1 2 3 4 5 6 7 8

g. Boredom

0 1 2 3 4 5 6 7 8

h. Aircraft seating or restraining devices.

0 1 2 3 4 5 6 7 8

i. Aircraft ventilation (air circulation, heating, cooling).

0 1 2 3 4 5 6 7 8
9. (Continued)
j. Other (Describe)__________________________

10. What can be done to reduce aircrew fatigue on the mission?

11. Please comment on the adequacy, comfort and usefulness of the life support equipment.

12. Are there additional items of life support equipment which should be included on the mission?

13. What additional training do you think is necessary for medical, survival, and life support?
18. Did operation of the extended range fuel system cause any noise or reaction to any other electrical system on the aircraft?

Yes _______ No _______

Specify. ____________________________________________


19. Did operation of any other electrical system cause malfunction of improper operation of the extended range fuel system?

Yes _______ No _______

Specify. ____________________________________________


RELIABILITY/MAINTAINABILITY/SUPPORTABILITY

20. Did any malfunction of the extended range system occur?

Yes _______ No _______

Specify. ____________________________________________


21. What was the corrective action?

____________________________________________________

____________________________________________________

____________________________________________________
22. Are any special tools required to work on extended range fuel system but not provided?

Yes _____ No _____

Specify.______________________________________________

______________________________________________

23. Were the tools in the general mechanic tool box adequate to maintain the extended range fuel system?

Yes _____ No _____

Specify additional tools required._____________________

______________________________________________

24. Were any special tools required to maintain the extended range fuel system?

Yes _____ No _____

Specify.______________________________________________

______________________________________________

25. Were you able to perform all required tasks satisfactorily?

Yes _____ No _____

Specify.______________________________________________

______________________________________________

26. Were you unable to perform any maintenance actions?

Yes _____ No _____

Specify.______________________________________________

______________________________________________
27. Were any maintenance actions required that were not addressed during training?

Yes_____  No_____  
Specify.____________________________________

28. What training did you receive on the extended range fuel system? (Check all appropriate blocks.)

Installation ________  
Normal Removal ________  
Emergency Removal ________  
Operation ________  
Maintenance ________  
Weight & Balance ________  

29. Do you believe you can accomplish the following adequately with training which has been provided?

<table>
<thead>
<tr>
<th>CREWMEMBER</th>
<th>INSTAL/REMOVE</th>
<th>OPERATE</th>
<th>MAINTAIN</th>
<th>REGULATE A/C WT &amp; BA</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>CP</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>CE</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>FE</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

COMMENTS:__________________________________________
14. What, if any, problems due to special mission equipment increased your fatigue?

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>NO PROBLEM</th>
<th>PROBLEM</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doppler</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Omega</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APR-39(l)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APR-44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-130</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HF Radio</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aux Fuel Sys.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A PX-100 Transponder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forward Re-fuel System</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. What do you think is the optimum amount of time to be at the flight controls on a mission such as this one? Why?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

16. What can be done to improve aircrew comfort on the mission?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

17. Additional Comments (If desired:________

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
FROM: Senior Test Project Officer 1 Jul 80

SUBJ: CH-47C NVG Compatibility Emerging Results/Other Findings

TO: Test Director, TTD Honey Badger

1. Significant findings - NVG Compatibility

   a. Some fuel quantity selector switches are spring loaded to TOTAL. All CH-47C fitted with extended range fuel systems should have switches which are not spring loaded. Inability to monitor main fuel cell quantity during fuel transfer can result in a ruptured main fuel cell.

   b. OMEGA lights are "too bright; only the digital readout lights can be dimmed. Recommend a slip on/slip off black metal shield be fabricated.

   c. Navigator station

      (1) Navigator should be seated in the cargo compartment behind the companionway. His equipment should include: portable field table, OMEGA, stop watch and a fixed light source (map light). OMEGA should be mounted on the table in a fashion that it can be transferred to the current location in the cockpit if necessary (if navigator becomes disabled). Working within the companionway does not appear to be the best solution for the navigator due to reflectors from OMEGA and his need to operate with light.

      d. FM radio volume is constantly at maximum and not adjustable with KY-28 installed. This is apparently a problem in the wiring.

      e. IR illuminator brackets allow illuminators to shake around which distract the pilots. A different mounting bracket should be fabricated.

      f. Right position light should have a split element so the bottom half is red which enhances NVG visibility.

      g. Some gages, switches, indicators are not visible. The most significant indicator which cannot be easily read is the RMI. (A detailed analysis of CH-47A NVG compatibility will follow after pilots complete questionnaires).

      h. Cockpit configurations are not standard from one aircraft to another (primarily the center console).

2. Other findings:

   a. CH-47C require blackout curtains at the companionway.
b. Extended range fuel system switch assembly should be labeled as indicated at inclosure 1. Some crewchiefs do not understand the system, i.e., that #1, 2, 3, 4 fuel pumps do not correspond to #1, 2, 3, 4 tanks; why only one pump is normally turned on at a time etc.

c. Crewchiefs can complete normal inflight duties while wearing NVG.

d. Aircraft need to be weighed and DD Form 365C updated accordingly.

e. Standard loading configurations need to be developed. For instance, no provisions have been made for crewchiefs to be seated behind M-60 guns. Generally, two footlockers (which contain miscellaneous gear) are used.

f. Standard mission equipment needs to be determined.

g. No emergency repair system has been devised to plug a tank or repair a line.

h. No dip stick has been provided to determine fuel status.

[Signature]
Sr. Test Project Officer
CH-47 NVG COMPATIBILITY
DATA COLLECTION FORM

NAME AND RANK

DUTY POSITION: P, CP, CE, OBS (Circle One)

DATE

Purpose of this form is to determine the adequacy of modifications applied to the CH-47 to make it NVG compatible. Rate your ability to locate, operate, and/or use the following items using the scale provided, based upon your judgment. Keep in mind that items indicated may effect preflight/postflight, VMC/IMC, or NOE profiles, formation, or transition from one flight mode to another. Indicate where inadequate procedures, training, publications, equipment modifications are a factor.

SCALE:
1- No improvement required
2- Adequate, but improvement required
3- Minor improvement required
4- Major improvement required
5- Unacceptable unless modified
NA- Not installed/observed

<table>
<thead>
<tr>
<th>SUBJECT ITEM/AREA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NA</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COCKPIT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NVG Lighting System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instrument Panel Flood Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pilot/Copilot Illuminator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master Throw Switch ID/Location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflections on Windshields</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead Switches</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lighting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydraulics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery/Generators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel Pumps</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flight Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hoist/Cargo Hook</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC/DC Circuit Breakers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mirror</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAT Gege</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compass</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBJECT ITEM/ AREA</td>
<td>I</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>NA</td>
<td>REMARKS</td>
</tr>
<tr>
<td>-------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>----</td>
<td>--------</td>
</tr>
<tr>
<td>Fire Extinguisher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pilot Instrument Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master Caution Light</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airspeed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude Indicator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Altimeter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radar Altimeter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Indicator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trim</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Torque Meter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotor Tachometer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copilot Instrument Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master Caution Light</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airspeed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude Indicator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Altimeter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trim</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Torque Meter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotor Tachometer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nave Guide Indicator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center Instrument Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Extinguisher Switch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire T-handles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC/DC Load Meter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyclic Trim Indicators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G-S Producer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eng Oil Temp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eng Oil Pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trans Oil Pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trans Oil Press Selector Switch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trans Oil Temp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trans Oil Temp Selector Switch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydraulic Pressures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel Quantity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel Quantity Selector Switch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Console</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caution Panel Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OMEGA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio/Nav Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stick Positioner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine Condition Levers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBJECT ITEM/AREA</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>NA</td>
<td>REMARKS</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>Normal Engine Trim</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Engine Trim</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed Trims</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyclic Control Buttons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thrust Lever Control Buttons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>COMPANION WAY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flight Control Closet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filter Buttons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CARGO COMPARTMENT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Exit Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronics Compartment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heater Compartment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weapons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aux Fuel Cells</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aux Fuel Cell Switches/Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winch/Hoist Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crossfeed Valves and Warning Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accumulators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filter Buttons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Extinguishers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cargo Control Valve</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rescue Hoist (If installed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EXTERIOR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landing Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formation Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Navigation Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotating beacon(s) (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBJECT ITEM/AREA</td>
<td>I</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>NA</td>
<td>REMARKS</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>----</td>
<td>--------</td>
</tr>
<tr>
<td><strong>PREFLIGHT/POSTFLIGHT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main/Fwd/Aft Fuel Levels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cargo Hook</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine Oil Levels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydraulis Reservoirs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydraulic Filter Buttons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb &amp; Eng XMSN Oil Levels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb &amp; Eng Filter Buttons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dephasing Handle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fwd XMSN Oil Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GENERAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NVG Preparation Procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cockpit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aux Fuel System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cargo Compartment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramp Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aircraft Exterior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ability to Perform</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loose Formation Flight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Specify A/C Separation Reqmt. in Rotor Discs)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of Engine Exhaust on</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formation Flt (State best position to Hold)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOCL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Loads</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RECOMMENDATIONS**
On aux fuel control panel.
In dashed outlined areas stretch lines, arrows, words.

Apply spring-to-

OPEN GATE VALUE ON

FUEL TANK CONTROL PANEL

G-417 INTERNAL AUX
CH-47 NVG COMPATABILITY
DATA COLLECTION FORM

NAME AND RANK

DUTY POSITION: P, CP, CE, CDS (Circle One)

DATE

Purpose of this form is to determine the adequacy of modifications applied to the CH-47 to make it NVG compatible. Rate your ability to locate, operate, and/or use the following items using the scale provided, based upon your judgment. Keep in mind that items indicated may affect preflight/postflight, VMC/IMC, or NVE profiles, formation, or transition from one flight mode to another. Indicate where inadequate procedures, training, publications, equipment modifications are a factor.

SCALE:
1- No improvement required
2- Adequate, but improvement required
3- Minor improvement required
4- Major improvement required
5- Unacceptable unless modified
NA- Not Installed/Observed

| SUBJECT ITEM/AREA | 1 | 2 | 3 | 4 | 5 | NA | 455 | 10%
|-------------------|---|---|---|---|---|----|-----|-----
| **COCKPIT**       |   |   |   |   |   |    |     |     |
| **NVG Lighting System** |   |   |   |   |   |    |     |     |
| Instrument Panel Flood Lights | 3 | 5 | 4 | 1 | 1 | 11 | 455 | 210%
| (Pilot/Co-Pilot Illuminator) |   |   |   |   |   |    |     |     |
| (Master/Row Switch Illumination) | 3 | 3 | 2 | 3 | 1 | 13 | 455 | 20%
| Reflections on Windshields | 5 | 4 | 3 | 2 | 1 | 11 | 455 | 18%
| **Overhead Switches** |   |   |   |   |   |    |     |     |
| Lighting | 5 | 4 | 3 | 2 | 1 | 10 | 455 | 20%
| (Hydraulics) | 3 | 2 | 1 | 2 | 1 | 10 | 455 | 10%
| (Battery Generators) | 5 | 4 | 3 | 2 | 1 | 10 | 455 | 10%
| (Inert) | 5 | 4 | 3 | 2 | 1 | 10 | 455 | 10%
| (Air Pump) | 5 | 4 | 3 | 2 | 1 | 10 | 455 | 10%
| (Fire Control) | 5 | 4 | 3 | 2 | 1 | 10 | 455 | 10%
| (GPS) | 5 | 4 | 3 | 2 | 1 | 10 | 455 | 10%
| (Other, Specify) |   |   |   |   |   |    |     |     |
| **AC/DC Circuit Breakers** |   |   |   |   |   |    |     |     |
| (12 Volt) |   |   |   |   |   |    |     |     |
| (24 Volt) |   |   |   |   |   |    |     |     |
| Compass | 6 | 6 | 6 | 6 | 1 | 27 | 455 | 100%
<p>| Total 2.50/4 Column A |   |   |   |   |   |    |     |     |
| 4/10% Columns 4/5 |   |   |   |   |   |    |     |     |</p>
<table>
<thead>
<tr>
<th>SUBJECT/ITEM AREA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NA</th>
<th>CW</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Extinguisher</td>
<td>66</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Pilot Instrument Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master Caution Light</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Airspeed</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Attitude Indicator</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Altimeter</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Radar Altimeter</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>RMI</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>70</td>
</tr>
<tr>
<td>Course Indicator</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>VSI</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Clock</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Trim</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Torque Meter</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td>Rotor Tachometer</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td>Copilot Instrument Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master Caution Light</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Airspeed</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Attitude Indicator</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Altimeter</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>RMI</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>VSI</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Clock</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Trim</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Torque Meter</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Rotor Tachometer</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Cruise Guide Indicator</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td>Center Instrument Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Exit Switch</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>DC Current</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>27</td>
</tr>
<tr>
<td>AC/DC Load Meter</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>27</td>
</tr>
<tr>
<td>Cyclic Pitch Indicator</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Gas Producer</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>TDC</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Eng-01 Tension</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Eng-02 Tension</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Tension Selector Switch</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Tension Selector Switch</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Tension Selector Switch</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Hydraulics Pressure</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Fuel Quantity</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Fuel Quantity Selector Switch</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Console</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAUTION Panel Lights</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>OMEGA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Radar/Nav Controls</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Stick Positioner</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Center Column Lever</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

**REMARKS**

CRET
### SUBJECT ITEM/AREA

<table>
<thead>
<tr>
<th>Item/Area</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Engine Trim</td>
<td>12</td>
<td>11</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Engine Trim</td>
<td>12</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECP</td>
<td>72</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAS</td>
<td>72</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed Trim</td>
<td>72</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyclic Control Buttons</td>
<td>13</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thrust Lever Control Buttons</td>
<td>13</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### COMPANION WAY

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight Control Closet</td>
<td>53</td>
<td>3</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filter Buttons</td>
<td>43</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CARGO COMPARTMENT

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Exit Lights</td>
<td>22</td>
<td>13</td>
<td>13</td>
<td>25</td>
<td>7</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Avionics Compartment</td>
<td>22</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cargo Compartment</td>
<td>22</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winch</td>
<td>51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weapons</td>
<td>51</td>
<td>13</td>
<td>51</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aux Fuel Cells</td>
<td>32</td>
<td>13</td>
<td>13</td>
<td>25</td>
<td>4</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Aux Fuel Cell Switches/Lights</td>
<td>32</td>
<td>13</td>
<td>13</td>
<td>25</td>
<td>4</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Winch/Hoist Controls</td>
<td>28</td>
<td>13</td>
<td>22</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crossfeed Valves and Warning Lights</td>
<td>50</td>
<td>13</td>
<td>51</td>
<td>22</td>
<td>7</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Accumulators</td>
<td>50</td>
<td>13</td>
<td>22</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filter Buttons</td>
<td>50</td>
<td>13</td>
<td>22</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Extinguishers</td>
<td>50</td>
<td>13</td>
<td>22</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramp Control Valve</td>
<td>50</td>
<td>13</td>
<td>22</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### EXTERIOR

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wingtip Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formation Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Navigation Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotating Beacon(s) (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBJECT ITEM/AREA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MA</td>
<td>REMARKS</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>----</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>PREFLIGHT/POSTFLIGHT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main/Fwd/Aft-Fuel Levels</td>
<td>13.14</td>
<td>29.7</td>
<td>29.7</td>
<td>29.7</td>
<td>29.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Choke-Off)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ejector Oil Levels</td>
<td>17.14</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vortex Reservoirs</td>
<td>17.14</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syphon&amp;Filter Buttons</td>
<td>17.14</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cargo &amp; Can XHSN Oil Levels</td>
<td>17.14</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cargo &amp; Eng FilterButtons</td>
<td>17.14</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depressing Handle</td>
<td>17.14</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fwd XHSN Oil Level</td>
<td>17.14</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td>47.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GENERAL**

NVG Preparation Procedures

Cockpit

Aux Fuel System

Cargo Compartment

Ramp Area

Aircraft Exterior

Ability-to-Perform

Loose Formation-Flight

(Specify A/C Separation Reqmt in Rotor Discs)

Effect of Engine Exhaust on Formation-Flt (State best Position to Hold)

-101L

External Loads

Other (Specify)

RECOMMENDATIONS

SECRET
FINDINGS
CH-47

AC to install
Phys. leak in tanks
Not self-sealing / ballistic tolerant
No emergency repair or ebt damage
Not manually removable
No fluid metering system
Removal of E.R.K. prior in air transport?
TO: Task Force Commander, JTD Honey Badger  
INFO: Test Director, JTD Honey Badger  
FROM: USAAVNV3 Project Analyst  
SUBJ: Emerging Results, UH-60A Aircrew Mission Effectiveness

1. The information contained herein constitutes emerging results found from analyzing fifteen (15) randomly selected UH-60A aircrews by USAAVNC observers with regard to the following measures of effectiveness (MOE) as related to mission effectiveness:

   a. Maximum enroute longitudinal course deviation: ±3 minutes (based upon estimated course leg times).

   b. Maximum lateral course deviation: ±1500 meters

   c. Course Altitude: 300-500 feet above ground level (AGL) and below 300 feet AGL where possible.

2. The information is provided in tabular format for the purpose of identifying collective mission effectiveness parameters assessed to date based upon the random selection of the 15 aircrews observed.

3. The observer's mission effectiveness data collection form from which this data was recorded and reduced is found at inclosure 1.

4. Although these objective findings may provide insight as to the unit's overall mission readiness at this time, it is paramount to consider the following comments based upon sound military judgment and experience:

   a. The average aircrew had negotiated route black at least one other time and at least five of the aircrews twice thus establishing a learning curve.

   b. Ambient light conditions, both moon phase and azimuth, were generally considered optimal; however, two observations were conducted under reduced visibility due to thunderstorms, rain showers and haze.

   c. Aircrews were not found to be standardized as to what percentage of the time they collectively or any one member thereof employed night vision goggles (i.e., aircrew deviation of duration NVGs worn estimated from 2-5 hours).
d. Spacing of individual aircraft (sorties) was not necessarily optimal in as much as several aircraft caught up to each other during the conduct of the flight, in some cases reducing navigation to a "follow the leader" situation.

e. The number of observations for anyone aircrew varied significantly due to any of the below reasons:

(1) Mission aborts - maintenance
(2) Mission aborts - operations
(3) Mission aborts - weather
(4) Aircrew workload between short course segments too rigorous for data aggregation.
(5) Partial lack of standardization in observer instructions.

5. Considering the aforementioned constraints, the objective data pertaining to the MOE found in paragraph 1 is tabulated at inclosure 2 using simple statistical procedures identifying central tendency.

6. The number of times that any given aircrew exceeded any given parameter found in the MOE is found below.

<table>
<thead>
<tr>
<th>AIRCREW</th>
<th>LONGITUDINAL DEVIATIONS</th>
<th>LATERAL DEVIATIONS</th>
<th>VERTICAL DEVIATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UH-60A</td>
<td>ETA-ACTUAL/±3.0 MINS.</td>
<td>LEFT/EIGHT OF CRS</td>
<td>500 FT AGL ON CRS/21.5 KM</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>2</td>
<td>*NA</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>0</td>
<td>*NA</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>**8</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>0</td>
<td>**12</td>
</tr>
</tbody>
</table>

**Summary**

| TOTALS | 11 | 9  | **12 |

*Excluded, measured MSL in lieu of AGL.

*Not counted in summary tabling due to IUC weather conditions.
7. It is anticipated that certain correlations may exist between the evaluated individual aircrew's effectiveness as related to the constraints previously discussed and the defined MOE. Hence, further covariance techniques could be applied to investigate a possible relation between two primary variables as deemed appropriate. The two variables of immediate interest would be (1) the number of times the particular aircrew previously negotiated the route and (2) the aircrew's prior aviation experience. Because of the manual effort involved and on site personnel constraints, a more detailed analysis will be provided upon request.

G

Project Analyst
<table>
<thead>
<tr>
<th>POINT</th>
<th>TIME ETE ACTUAL</th>
<th>COURSE 1/ L ON R</th>
<th>ALTITUDE (AGL) 2/</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Signature)
<table>
<thead>
<tr>
<th>POINT</th>
<th>TIME</th>
<th>COURSE 1/</th>
<th>ALTITUDE (AGL) 2/</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDPOINT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**COMMENTS:**

1/ If on course, check "On", if off course indicate left (L) or right (R) in kilometers.

2/ Average altitude (AGL) estimated using radar altimeter.

**OBSERVER:** ____________________________

**PILOT:** ______________________________

**COPILOT:** ____________________________

**NAVIGATOR:** __________________________

**CREW CHIEF:** __________________________

**DATE:** _______________________________
CREW INTEGRITY

How many times has this crew flown together as a mission crew?

Of these how many were under: NVG daylight

NVG night
<table>
<thead>
<tr>
<th>RCREW</th>
<th>COURSE: DEVIATIONS</th>
<th>DELTA TIME (MINUTES)</th>
<th>DEVIATIONS</th>
<th>DELTA DISTANCE OFF COURSE</th>
<th>VERTICAL (ALTITUDE)</th>
<th>COURSE DEVIATIONS (FEET AGL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NO. OF OBVS</td>
<td>AVG TIME</td>
<td>S.D./A TIME</td>
<td>RANGE (MIN-MAX)</td>
<td>NO. OF OBVS</td>
<td>AVG DIST</td>
</tr>
<tr>
<td>1</td>
<td>25</td>
<td>.604</td>
<td>.736</td>
<td>0-2.5</td>
<td>26</td>
<td>.377</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>.891</td>
<td>.976</td>
<td>0-2.4</td>
<td>15</td>
<td>.067</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>1.240</td>
<td>.998</td>
<td>0-3.0</td>
<td>14</td>
<td>.629</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>.250</td>
<td>.378</td>
<td>0-1.0</td>
<td>21</td>
<td>.157</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>1.253</td>
<td>1.336</td>
<td>0-4.9</td>
<td>20</td>
<td>.445</td>
</tr>
<tr>
<td>6</td>
<td>16</td>
<td>.213</td>
<td>.418</td>
<td>0-1.6</td>
<td>11</td>
<td>.518</td>
</tr>
<tr>
<td>7</td>
<td>11</td>
<td>3.118</td>
<td>1.846</td>
<td>0-5.5</td>
<td>23</td>
<td>.287</td>
</tr>
<tr>
<td>8</td>
<td>29</td>
<td>.365</td>
<td>.510</td>
<td>0-2.5</td>
<td>30</td>
<td>.300</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>1.073</td>
<td>1.250</td>
<td>0-4.3</td>
<td>10</td>
<td>.320</td>
</tr>
<tr>
<td>10</td>
<td>.6</td>
<td>.833</td>
<td>.408</td>
<td>0-1.0</td>
<td>9</td>
<td>.200</td>
</tr>
<tr>
<td>11</td>
<td>14</td>
<td>.486</td>
<td>.483</td>
<td>0-1.0</td>
<td>14</td>
<td>.264</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>1.000</td>
<td>.816</td>
<td>0-2.0</td>
<td>9</td>
<td>.100</td>
</tr>
<tr>
<td>13</td>
<td>30</td>
<td>.167</td>
<td>.235</td>
<td>0-0.8</td>
<td>28</td>
<td>.057</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td>.686</td>
<td>1.122</td>
<td>0-3.6</td>
<td>18</td>
<td>.206</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NO. OF OBS</td>
<td>15</td>
<td>NA</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>AVG</td>
<td>15</td>
<td>.934</td>
<td>NA</td>
<td>0.03-2.60</td>
<td>16</td>
<td>.269</td>
</tr>
<tr>
<td>D</td>
<td>7.40</td>
<td>.753</td>
<td>NA</td>
<td>NA</td>
<td>7.35</td>
<td>.169</td>
</tr>
</tbody>
</table>

Cautions are all absolute values from estimated time of arrival (ETA) or from Doppler indicated true course line.

Indicates estimated NAFL altitude due to radar altimeter malfunction or observer error.
The following data is provided for information purposes. It reflects responses to Aviator Flight Experience Data Sheets collected from 52 UH-60 pilots and 23 CH-47 pilots as of 30 June 1980.

2. Data is presented only for total aircraft time, time by type aircraft, night vision-goggle (NVG) time, and combat time (total and by type aircraft). Recent training in NVGs since 30 June 1980 will comprise a great change in NVG time.

<table>
<thead>
<tr>
<th>AIRCRAFT TYPE</th>
<th>AVG TOTAL TIME (HR)</th>
<th>AVG TYPE A/C TOTAL TIME (HR)</th>
<th>AVG NVG TIME (HR)</th>
<th>AVG COMBAT TIME (HR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UH-60A</td>
<td>1644.4</td>
<td>162.5</td>
<td>13.44</td>
<td>11.56</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(42)</td>
<td>(14)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>844.9</td>
<td>231.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1054.4</td>
<td>687.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>397.8</td>
</tr>
<tr>
<td>CH-47</td>
<td>2785.0</td>
<td>781.1</td>
<td>4.4</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(7)</td>
<td>(10)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(10)</td>
<td></td>
</tr>
</tbody>
</table>
FROM: Test Director  
JCS Honeybadger  
Norton AFB CA 92409

SUBJ: Pilot Experience Worksheet

TO: Commander  
ATTN: S-3  
158th Aviation Battalion  
Fort Campbell, KY

1. Pilot Experience Worksheets (Inclosure 1) are to be completed on each aviator participating as an operational pilot during this exercise.

2. Worksheets are to be returned to this test directorate NLT 1600 hours 27 June 1980. Local reproduction of forms is authorized.

3. POC is...

Secret

[Handwritten notes:]
- Telephone number (Putovon)
- Colonel
- Test Director
## PILOT EXPERIENCE WORKSHEET

<table>
<thead>
<tr>
<th>NAME/GRADE:</th>
<th>UNIT:</th>
<th>DATE:</th>
</tr>
</thead>
</table>

### TYPE AIRCRAFT

<table>
<thead>
<tr>
<th>MILITARY</th>
<th>NON-COMBAT</th>
<th>COMBAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility</td>
<td>XX</td>
<td></td>
</tr>
<tr>
<td>UH-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Wing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attack</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AH-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UH-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aeroscout</td>
<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>OH-58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CH-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cargo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CH-47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CH-54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td>XX</td>
<td>XX</td>
</tr>
</tbody>
</table>

### FLIGHT HOURS

<table>
<thead>
<tr>
<th>SUBTOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

### CIVILIAN

<table>
<thead>
<tr>
<th>Rotary Wing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Wing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUBTOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GRAND TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
### QUALIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP/SIP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IFE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOE Qualified</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>School Qualified</th>
<th>Mission Qualified</th>
<th>Mission Familiarized</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVG (&lt;Check Most Appropriate Block&gt;)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total NVG Flight Hours

### OPERATIONAL UNIT FLIGHT EXPERIENCE

<table>
<thead>
<tr>
<th>TYPE UNIT</th>
<th>TOTAL MONTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assault</td>
<td></td>
</tr>
<tr>
<td>Air Cavalry</td>
<td></td>
</tr>
<tr>
<td>Attack Helicopter</td>
<td></td>
</tr>
<tr>
<td>Division/Corps Support</td>
<td></td>
</tr>
<tr>
<td>Assault Support</td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td><strong>xx</strong></td>
</tr>
</tbody>
</table>

---

C

SECRET
DEPARTMENT OF THE ARMY
Headquarters, 158th Aviation Battalion (Aslt Hel)
101st Airborne Division (Air Assault)
Fort Campbell, Kentucky 42223

AFZB-KF-H

28 July 1980

SUBJECT: After Action Report - JTX Honey Badger, Phase I and II.

TO: Commander
101st Avn Gp (CBT)
101st Abn Div (Air Aslt)
Ft. Campbell, KY 42223

Attached documents forwarded for your review.

LTC, IN
Commanding

CG, 101st ABN DIV
28 July 1986

CY2 OF CY-
NO FORN
NOT RELEASABLE TO FOREIGN NATIONALS
JTX Honey Badger After Action Report

TABLE OF CONTENTS

SECTION I - General ................................................................. I
SECTION II - Notification / Deployment .................................... II
SECTION III - Phase I ............................................................... III
  Inclosure 1 - UH-60 Standard Load Table .......................... III-1
  Inclosure 2 - CH-47 Standard Load Table .......................... III-2
  Inclosure 3 - Crew Duties .................................................. III-3
SECTION IV - Phase II .............................................................. IV
SECTION V - JTX Rusty Badger .................................................. V
SECTION VI - Redeployment ...................................................... VI

ANNEX A - Night vision goggle training .................................. A
  Appendix 1 - CH-47 NVG Training ....................................... A-1
ANNEX B - Appendix 1 - Phase I Reoccurring comments from crew
debriefings ............................................................................. B-1
  Appendix 2 - Phase II Reoccurring comments from crew
debriefings ............................................................................. B-2
ANNEX C - Appendix 1 - Joint operations SOP (UH-60/HH-53) ........ C-1
  Appendix 2 - Joint operations SOP (UH-60/HH-53) ............... C-2
ANNEX D - Fuel Consumption Data ............................................... D
ANNEX E - Flying Hours ............................................................... E
ANNEX F - Unresolved Problems ................................................ F
ANNEX G - Lessons Learned....................................................... G
1. The 158th Aviation Battalion (TF Challenge) was comprised of two Uh-60 TOE companies (C and D). B Company 158th Aviation Battalion Provided fillers for personnel shortages within C and D companies. Additionally, 23 pilots from the 229th Attack Helicopter Battalion were attached to the companies and were trained as navigators. A Company 159th Aviation Battalion was attached with 8 CH-47 aircraft.

2. Task Organization, Aircraft, and Number of Personnel.

<table>
<thead>
<tr>
<th>UNIT</th>
<th>OFF</th>
<th>NO</th>
<th>ENL</th>
<th>#AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHC 158</td>
<td>12</td>
<td>6</td>
<td>72</td>
<td>0</td>
</tr>
<tr>
<td>C 158</td>
<td>10</td>
<td>29</td>
<td>72</td>
<td>15</td>
</tr>
<tr>
<td>D 158</td>
<td>9</td>
<td>32</td>
<td>65</td>
<td>15</td>
</tr>
<tr>
<td>ATC</td>
<td>0</td>
<td>0</td>
<td>65</td>
<td>0</td>
</tr>
<tr>
<td>Pathfinders</td>
<td>1</td>
<td>0</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>A 159</td>
<td>6</td>
<td>18</td>
<td>86</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>38</td>
<td>85</td>
<td>310</td>
<td>30</td>
</tr>
</tbody>
</table>

3. Key personnel involved in TF Challenge operations:
SECTION II: NOTIFICATION/DEPLOYMENT

1. The 158th Aviation Battalion was initially notified of deployment at 1000 hours, 2 June 1980.

   a. A certain amount of confusion arose over the initial notification due to lack of information on the duration of deployment, what type of move, what equipment was needed, and what could and could not be discussed about the operation. The 101st Aviation Group and 101st Airborne Division assisted in clarifying these areas. The advance warning given for this move precluded the normal EDREN hour sequence.

   b. Fifteen aircraft self-deployed on the 8th of June and arrived at Norton Air Force Base on the afternoon of the 9th of June. The aircraft remained over night at Ft. Bliss, Tx.

   c. The remaining personnel, vehicles, and aircraft, were flown to Norton, using C5A and C141 aircraft. The Battalion Task Force used 7-C5A chalks and 21-C141 chalks. The initial C141 departed 10 June at 0600, the last aircraft departed on 11 June at 1900. The movement was well planned and executed with few unresolved problems.

2. A Company 159th Aviation Battalion’s initial warning order to deploy was received through command channels the evening of 3 June 80.

   a. The unit was undergoing a Battalion ARTEF at the time. The "be prepared" deployment order was received on 4 June 80, at 0909 hours, via field radio. Confirmation of deployment was received on 8 June 80 and unit was ordered back to garrison (ARTEF completed).

   b. Ten CH-47C Aircraft (8-A/159th and 2-B/159th) departed Ft. Campbell, Ky for Norton AFB, Ca. at 0730 hours on 11 June 80. The aircraft remained over-night at two different locations; Reese AFB, Tx. and Luke AFB, Az.
Eight A/159th CH-47C aircraft arrived at Norton, AFB, Ca. at 1300 hours, 13 June 80. The two B/159th CH-47C aircraft remained at Luke AFB as backup aircraft, but were not required and subsequently returned to Ft. Campbell Ky.
SECTION III: PHASE I

1. Phase I training started on 10 Jun 1980 and ended 3 Jul 1980. Training during this phase was divided into four primary areas; Night Vision Goggle training, Navigator Training, Special Subjects (classroom type training), and Crew Training along a specific route of flight.

2. Night Vision Goggle training is discussed in detail in ANNEX A. The following number of personnel completed the NVG training program.

<table>
<thead>
<tr>
<th></th>
<th>IPS</th>
<th>PICs</th>
<th>CPs</th>
<th>NAVs</th>
</tr>
</thead>
<tbody>
<tr>
<td>UH-60</td>
<td>9</td>
<td>17</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>CH-47</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

3. Navigator training consisted of 32 hours of classroom instruction followed by practical application along given routes. The 32 hours of classroom instruction included:

16 hours Doppler Navigation
3 hours E&G Computer
6 hours Map Reading, Terrain Association
3 hours Time Control Procedure
4 hours Charting Techniques, Layout of Course

Instruction on the Doppler was presented by an Army instructor from Fort Rucker. All other instruction and the evaluation rides were graded by Air Force instructor navigators. At the conclusion of training the navigators were given routes to plan and execute as a demonstration of their proficiency. Due to mission guidance given by army control elements only 12 navigators completed this portion. The remainder of the navigators planned routes Blue, Green, and Black and flew those routes as their evaluation ride. At the conclusion of the routes the navigators were considered mission capable by both the Air Force and the Army instructors.

4. Special subjects were integrated throughout Phase I training and covered the
SECTION III: PHASE I

following subjects:

a. Desert Survival and Flying Techniques – All Flight Crews
b. XM 130 Chaff Dispenser – All

c. Oxygen System Operation
d. Radar Warning Receiver AN/APR 39 and 44

e. Extended Range Fuel System (Emergency Removal and Operation)
f. Operation of High Frequency Radio
g. Mountain Flying Techniques
h. Kneeboard Trainer for AN/APR 39
i. OMEGA Classes Given to CH-47 Crews

*1 XM-130 Chaff Class was broken down into 3 separate classes consisting of operation, handling, loading and unloading.

**2 AN/APR 39 class broken down into 3 separate classes, consisting of operation, identification of sounds and weapons systems, for all crews.

5. During the final days of Phase I all flight crews (UH-60 and CH-47) were required to negotiate a flight route within specific parameters. The UH-60 parameters were to negotiate all check points within ± 1 min and within 500 meters of course, the parameters for the CH-47 were to negotiate all check point ± 3 min and within ½ mile of course.

a. 1) The UH-60 course consists of 3 routes; Blue Route, Black Route, and Green Route. The Blue Route started at Norton AFB and terminated at Cosa Peak. The route was 170 NM in length. The Black Route was 306 NM starting at Cosa Peak and ending at Fallon NAS, NV. Both routes cross terrain that varies from mountains to desert valleys. The Green Route begins at Fallon NAS and continues in a South Westerly direction to a point in the vicinity of Cosa Peak. The course then follows Blue Route back to Norton AFB. The length of Green Route is 181 NM, making a total route length of 727 NM.
2) Black Route has a maximum altitude of 9000 feet and a minimum of below sea level in the desert. Each course consists of a total of 15 check points, with a minimum turn of $3^\circ$ and a maximum turn of $126^\circ$. The longest leg of the course was 70.5 Km and the shortest leg was 13.4 Km. The temperature ranges were $97^\circ$ to $75^\circ$ Fahrenheit.

b. The CH-47 Purple Route was 400 Nm in length and negotiated the Sierra Nevada Mountains. Midway on the course the CH-47s were to link up with the UH-60s to simulate refueling operations. On the first attempt the CH-47s were not able to link up because of blade icing in the mountains that caused a loss of power. When the route was attempted the second time the link up was completed.

6. At the conclusion of Phase I the unit developed a standard load plan for the UH-60, Incl 1, a standard load plan for the CH-47, Incl 2, and crew duties for the UH-60 with Navigators, Incl 3.

7. At the conclusion of each flight, crews were throughly debriefed. The recurring comments from pilot debriefings are contained at ANNEX B.
A - 2 ea Oxygen Bottles
B - Water Cooler
C - 3 ea Hot WX Survival Kits
D - Hoist Assembly (2 A/C only)
E - C Rations
F - Tool Box
G - Personal TA 50
H - 2 ea 5 Gal Water Cans
I - NVG Containers and Gas Masks
J - OMEGA Black Box
K - Cargo/PA(X) Seats

L - M60 MG 2ea
M - Fare System to Include Hoses, Grounding Cables, Rods, Pump; 5 Gal Fuel Can, Fire Ext.
N - PA(X) Seat
O - Small Supply of Assorted Lubricants
P - Navigator Table
Q - Misc. Equipment

All crewmembers wear survival vests, water wings, weapons, flare gun (pilots only)
Crew duties intercepting the navigator into the USA.

1. Pilot-in-Command (PIC)
   a. Flying the aircraft (hazard and obstacle avoidance)
   b. Assist in navigation by pointing out significant terrain features to the navigator.
   c. Follow navigational instructions issued by the navigator.
   d. Monitor radios and make radio calls as appropriate.
   e. Designate specific crew duties to copilot, navigator, and crew engineer for the following:
      1. Fuel transfer.
      2. Monitor instruments during Night Vision Goggles (NVG) and Night Hawk flying conditions.
      3. Hourly fuel checks.
      4. TGT checks en route at different altitudes and temperatures.

2. Copilot
   a. Assist the pilot in hazard and obstacle avoidance by telling him what to expect ahead (map, terrain, etc.).
   b. Backup the navigator by knowing aircraft position at all times; follow on the map.
   c. Assist the navigator by pointing out significant terrain features.
   d. Monitor aircraft heading.
   e. Monitor aircraft performance gauges.
   f. Monitor radios and make radio calls as appropriate.
   g. Perform specific crew duties as designated by PIC.

3. Navigator
   a. Navigation (know the location of the aircraft at all times).
   b. Give navigational instructions to the pilot.
   c. Keep pilot informed on time, distance, and heading to the next checkpoint.
   d. Inform pilot of airspeed necessary to reach checkpoints within (±) 1 minute.
   e. Inform pilot of heading (and necessary heading corrections) to reach checkpoints within 300 meters.
   f. Perform specific crew duties as designated by PIC.

4. Crew Engineer (CE)
   a. Monitor the mechanical conditions of the aircraft.
   b. Assist in navigation by pointing out significant terrain features to the navigator.
   c. Observe for obstacles and maintain clearance during hovering and landing conditions.
   d. Perform any other specific tasks directed by the PIC.
1. a. Phase II began on 5 July 80 with the deployment of 26 UH-60 and 7 CH-47 aircraft from Norton Air Force Base, California to Dugway Proving Grounds, Utah. The aircraft deployed in flights of three and four along two different routes. Route Eagle was approximately 550 Nautical Miles and Route Hawk was approximately 1040 Nautical Miles. Six UH-60 aircraft and 3 CH-47 aircraft were to fly Route Hawk without a refueling - total flight time was 7.5 - 8 hours. All UH-60 and 1 CH-47 aircraft completed the route without refueling. Two CH-47s required 1 refuel stop enroute. The air deployment of limited vehicles and approximately 300 personnel took place over a 36 hour period beginning 4 July at 1900 hours.

b. Training began on the night of 6 July 80 with 21 UH-60 aircraft and 4 CH-47 aircraft being launched along two separate routes (approximately 400 Nm long) to conduct link up and refuel operations. The minimum ambient light necessary to use the night vision goggles was not available and created many problems for crews along both routes and prevented link up and refuel operations.

c. On 7 July, 18 UH-60 and 4 CH-47 aircraft launched along two separate routes (400 Nm) and returned and refueled at a Rapid Refueling Point at Michael AAF. Afterwards the UH-60 crews established laager positions and conducted concealment operations. The CH-47 crews did not move to laager position or conduct concealment operations. No significant problems were encountered during this mission.

d. On 8 July 80, three UH-60 crews (IP's) began formation flight with the Air Force HH-53 helicópter (Pave Low) in an attempt to perfect certain fundamental procedures for future training. Additionally 15 UH-60 crews were scheduled to execute a 400 nautical mile route, return to Michael AAF, con-
duct refuel operation from a fare system established from an HC-130 aircraft, then move to a larger position and conduct concealment operations. The CH-47 crews were to fly a similar mission less the larger and concealment portion. Due to thunderstorms and a cloud cover that restricted the available ambient light for NVG operations the UH-60 crews were not launched. As BMT arrived and the weather improved the CH-47s did complete their mission.

e. On 9 July 80, 15 UH-60 crews and 2 CH-47 crews negotiated two separate routes and the UH-60 crews established larger positions and conducted concealment operations.

f. On 10 and 11 July the UH-60 crews conducted joint flight operations with the Air Force HH53 helicopters (Pave Low) performing as flight lead. During this period a joint effort by Air Force and Army instructor pilots with the assistance of Ft. Rucker IPs resulted in a Joint Operating SOP to standardize formation flight procedures. A Copy of this SOP is contained at Appendix 1 of ANNEX C. Also during this phase the CH-47 crews were also practicing joint operations with the Air Force HH53 (Slick). Flight lead remained an Army responsibility. An SOP outlining CH-47 and HH53 flight procedures was also established and is contained as Appendix 2 of ANNEX C.

g. On 12 July 80, eleven UH-60 aircraft deployed along a designated route conducted link up and refuel operations with a CH-47 operated fares and continued to Oro Grande, NM for training with the Ranger Bn. The mission continued until 14 July 80.

h. The aircraft that did not deploy to Oro Grande continued to conduct joint flight operation with the Air Force, link up/refuel operations, and M60D machine gun and flare gun firing.
2. At the conclusion of each mission the crew was thoroughly debriefed. Re-
occurring comments from Phase II are contained at Appendix 2 ANNEX B.
1. a. Operation Rusty Badger, conducted on 15–16 July 80, was the culmination of all previous individual, crew, and unit training. The scenario developed into two almost identical situations and missions; one in the North in the vicinity of Fallon Naval Air Station and another in the South in the vicinity of Indian Springs. The Northern mission was executed almost entirely by Army aviation elements and therefore the Air Mission Commander was the Task Force Commander. The Southern mission was led by Air Force HH53, Pave Low aircraft and was coordinated and controlled by the Air Force. Within the 158 Task Force, C Co 158 Avn Bn was assigned the Northern mission with 11 UH-60 aircraft. D Company 158 Avn Bn was tasked with support of the Southern mission with 11 UH-60 aircraft. A/159 supported refuel operations in the north and south with 3 CH-47 aircraft in each sector. Both routes were of similar distance (400 NM) and followed generally the same type of terrain.

b. Northern Sector – 3 CH-47 aircraft and one HH53 (Slick) departed as one flight along route Cat at 1945 (Mountain Time) hours. The route went west from Michael AAF through mountain passes to a refuel site (ANN) along the return route located vicinity N 40° 19.2' W 117° 24.5'. Eleven UH-60 aircraft departed in three flights (4, 4, 3) along route Cat at 2103 (mountain time) to Fallon, NAS where a 10 minute ground time was used to simulate discharge of auxiliary fuel tanks. The flights then continued on to a holding area southeast of Fallon vicinity N 30° 59.0' W 118° 15.0' which was 18 NM south of the objective pick up zone. One UH-60 developed hydraulics problems and went down enroute to Fallon and after the remaining 10 aircraft shut down in the holding area 3 more UH-60s failed to start or had maintenance problems.
when called forward to the pick up zone. The pick up zone was notified that only 7 aircraft were available for the extraction. The aircraft departed the holding area and pick up zone as scheduled. However the C141 that was supposed to be on the ground at Fallon NAS 3 minutes prior to the arrival of the UH-60 for transloading of the passengers did not arrive, a C130 that should not have been there at all, almost collided with the flight. Transload of the passengers to the C141 was accomplished and the UH-60s departed along Route Dog which went northeast to the refuel point (ANN) then along interstate 80 east to Windover Airfield, direct to Michael Airfield. The refuel operation at Ann went well with each aircraft refueling approximately 1000 pounds with minimum delay. Only seven of the UH-60s took on fuel however and some confusion arose with the CH-47 crews as to when they were finished and should break down and egress the area. The UH-60 flights arrived back at Michael Airfield at approximately 0530 hours and the CH-47s returned approximately 0830 hours. The remaining UH-60 aircraft with maintenance problems all self recovered except one which was recovered by a company maintenance team. Overall the mission in the Northern Sector went well considering the moon illumination was only 8% for less than 1/3 of the mission.

c. Southern Sector – 3 CH-47 and 2 HH53 (Slick) aircraft departed along Route Eagle at approximately 1850 hours (Mountain Time). Route Eagle was southwest of Michael AAF through the mountain passes to a refuel site (Eeth) vicinity N 38° 12.5' W 115° 51.5' which was along the return route TALLON for the UH-60 aircraft. One of the CH-47 and one HH53 continued farther down the return route to an emergency MEDEVAC and refuel site (Carol) located at LIDA Junction Airfield. Eleven UH-60 aircraft in four flights led by Air Force HH53 Pave Lows departed Michael AAF beginning at 2107 (mountain time)
hours along a route which was basically a straight line heading 220° to Beth:
then proceeded around Tonapah Test Range to the west – then southeast to a
holding area vicinity N 36° 23.0' W 116° 0.0'. All aircraft arrived at the
holding areas without any problem and without utilizing radio communications.
The HH-53 Pave Lows went into the pickup zone alone, vicinity Indian Springs,
and were to return to the holding area and link up with their respective
flights. The air link up operation went poorly and many flights lost in-
tegrity and some UH-60 flights even returned without a flight lead. The
CH-47 refuel operation went well and the aircraft egressed the area with-
out any problems and arrived at Michael AAF at approximately 0630 hours,
except for one aircraft that was forced to land at Tonapah Test Range with
maintenance problems and recovered later that day.

2. Some of the recurring comments from pilot debriefing for both northern
and southern missions are included in Appendix 2 to ANNEX B.
SECTION VI: REDEPLOYMENT

Redeployment to Ft. Campbell, Ky was conducted from Norton AFB, Ca. and from Dugway Proving Grounds, Utah.

a. Dugway Proving Ground to Ft. Campbell, Ky. – 26 UH-60's were launched in flights of five with 30 minute separation, beginning at 0500 hours 18 July 80. The seven CH-47 aircraft were launched in one flight at 0545 hours. One refuel stop was planned at Ft. Riley, Kansas for all aircraft. The CH-47 crews remained overnight at Ft. Riley and continued the following day to New Cumberland, Pa. The UH-60 crews hot refueled and continued flight to Ft. Campbell, Ky. On 19 July 80 two additional aircraft that were unable to depart the previous day (maintenance problems) departed at 0700 hours. The remainder of the Task Force elements were redeployed VIA CH-47 aircraft in all different chalks from 0600 19 July 80 to 0900 21 July 80.

b. Norton AFB to Ft. Campbell, Ky. – two UH-60 aircraft deployed as a flight on 18 July 80 with one refuel stop planned at Ft. Sill, Ok. The remainder of the Task Force elements left at Norton were redeployed to Ft. Campbell, VIA three C5A and 25 CH-47 Chalk Loads. The first return Chalk arrived at Ft. Campbell at 1330 hours 19 July 80 and the last Chalk arrived 1730 hours 21 July 80.

c. The air loadout at both Norton and Dugway was well organized and executed in a timely fashion. All Task Force organic aircraft self re-deployed except one CH-47 which crashed and was destroyed during an administrative flight from Norton AFB to Dugway, Utah on 17 July 80.
SECTION VI: REDEPLOYMENT

d. All aircraft that self-re-deployed arrived at their final destination without major problems except four UH-60's;

986 - Hydraulics, Lake Barkley, Ky

990 - Generator, Ft. Riley, Ks.

723 - 105° Gear Box, Springfield, Mo.

960 - High Trans oil temp/low pressure, Springfield, Mo.

All disabled aircraft were repaired on site and flown to destination on 19 and 20 July 80.
1. This annex deals primarily with the UH-60 NVG training program to train assigned crews to mission profile proficiency. Appendix 1 addresses the CH-47 NVG program, where differences occurred. All academic training for both UH-60 and CH-47 Crews was conducted by Standardization Instructor Pilots, (SIP's) from Ft. Rucker, Al. and consisted of the following subjects:

(2) Introduction to NVG/PVS5.
(3) Aircraft Modification Requirement for NH/NVG Flight.
(4) Night Terrain Interpretation.
(5) Hemispherical Illumination.
(6) NH/NVG Flight; Ground and Air Safety
(7) Aeromedical Factors.

NOTE: 2.0 hours NVG in SFTS was not completed prior to actual NVG flight.

2. a. Projected hours for training:
   1) PIC 6 hours day NVG filter (Mission Qualification)
      6 hours NVG
   2) Co-Pilot and Navigators 2 hours day NVG filter (Orientation)
      2 Hours NVG
   3) Crewchief 2 hours NVG (Orientation)

b. Total training hours used for UH-60.
   NVG 231.6
   NVG Day Filter 112.1

3. NVG Flight Training:
   a. All flight training was conducted by qualified IP/SIP in NVG mission profile.
   b. Maneuvers were flown IAW ATM Manual TC 1-135-1 (UH-60) Draft.
   c. NVG mission profile qualification was conducted on a proficiency basis

   with the following maneuvers evaluated:
(1) 1003 Use DD Form 365F (Weight and Balance)
(2) 1501 Perform Preflight Inspection
(3) 1502 Perform prior to take off checks
(4) 1506 Perform Ground taxi
(5) 1507 Use Performance Charts
(6) 2001 Perform take off to a hover
(7) 2002 Perform Hover (power) Checks
(8) 2003 Perform Hovering turns
(9) 2004 Perform Hovering flight
(10) 2005 Perform Landing from a Hover
(11) 2501 Perform Normal takeoff
(12) 3001 Perform Straight-and-level flight
(13) 3002 Perform Climbs and Descents
(14) 3003 Perform turns
(15) 3006 Perform traffic Pattern Flight
(16) 3006 Perform Fuel Management Procedures
(17) 3010 Navigate by Pilotage and Dead Reckoning (DR)
(18) 3011 Navigate with Doppler
(19) 3501 Perform Before Landing Checks
(20) 3503 Perform VMC Approach
(21) 3506 Perform Go-Around
(22) 3507 Perform Roll-on Landing
(23) 3510 Perform Confined Aera Operation
(24) 3511 Perform Slope Operation
(25) 3512 Perform Pinnacle/Ridgeline Operation
(26) 4010 Describe or Perform Emergency Procedures
(27) 4021 Perform flight with SAS/AFCS off

(28) 4022 Perform Electronic Control Unit (ECU) - Lookout Operations

(29) 4023 Perform Single Engine Failure with Roll-on landing

(30) 4024 Perform Stabilator Malfuction

(31) 5001 Perform terrain flight Mission Planning

(32) 5002 Perform terrain flight Navigation

(33) 5003 Perform Low-level flight

(34) 5004 Perform Contour Flight

(35) 5005 Perform NOE flight

(36) 5006 Perform Masking and Unmasking

(37) 5007 Perform NOE Deceleration

(38) 5008 Perform Hover Out-of-Ground-offect (OGO)

(39) 5009 Perform terrain flight take off

(40) 5010 Perform terrain flight approach

(41) 5016 Perform Evasive Maneuvers

(42) 5019 Operate Radar Warning Receiver (RWR)

(43) 6001 Perform Multi-Aircraft Operation

(44) 6501 Perform Post Flight Tasks

* Perform FARP Procedures (Not Numbered in TC 1-135-1)

4. Moon Illumination: NVG flight training was safely conducted during all levels of moon illumination. A day recon of all training sites was conducted to insure suitable touch down sites were available for modified roll-on landings from sand that were used to minimize Brown Out conditions during landings.

5. Pilot to IP ratio for PIC training was two to one; with a training objective of 2 hours with the NVG day filter and 2 hours NVG per pilot per 24 hour period. Pilot to IP ratio for Co-Pilot training was three to one with a training objective of 2 hours NVG day filter and 2 hours NVG per pilot per 24 hour period. The 2 hour orientation for the crew chiefs was conducted in conjunction with pilot training.
6. Aircraft Preparation:
   a. External lighting: Anti-collision lights were off, top half of position lights were taped, position lights on steady dim, formation lights on position three. For NVG formation flight, formation lights were on position three and were the only external lights.
   b. Internal lighting: Panel Lights Kill Switch was engaged, Master Caution and Caution Advisory NVG Dimmer Switch as adjusted to a reduced level. CDU and Co-pilot and Pilot PDU were taped. Pilot and Co-pilot Flight Instrument Rheostat was set so flight instruments are visible without causing a reflection in the windshields.

7. Flight Following: A Command and Control aircraft was not used. Flight following was conducted between NVG training aircraft or by means of a retransmission site, with flight operations (Norton Base) or the RFP (Norton Lake). Flight following could be enhanced by using secure HF.

8. Conclusion: The following are the most significant findings concerning UH-60 NVG compatibility:
   a. The UH-60 is compatible for NVG operation with slight modifications to the instrument panel, approximately 3–5 minutes taping.
   b. Extended use of NVG is not viewed as a problem.
   c. Long range NVG formation flight can be safely accomplished.
   d. Transition from NVG to Night Hawk takes approximately 2–5 minutes for full night adaptation.
   e. NVG operations and training can be accomplished under all levels of illumination, however, the operational precision and safety is greatly enhanced by an IR search light and with ambient light in excess of 20%.
   f. Trim ball on Vertical Situation Indicator is not visible and is too small.
   g. Center windshield should be glass; plastic windshield currently installed is crazing.
h. Protective covers should be placed over backup pump and hydraulic leak test switches on overhead console.

i. IR illuminators (similar to those provided in the CH-47) should be available in the cockpit.

j. A red lensed flashlight covered with 100 XPH tape with a paper punch-sized hole in the tape provided adequate emergency lighting.

k. All instruments and indicators should be painted with luminous paint. Including:

1. Stabilator controls
2. Stabilator indicator
3. Trim ball in VSI
4. HSI/VSI needles and command bars
5. Engine quadrant controls
6. Altimeters (radar and barometric)

l. Some cockpit lights are too bright; others are too dim. Different lights illuminate at various intensities; not all lights can be varied to an acceptable intensity. Examples:

1. Segment lights and Master Warning Panel lights cannot be independently varied.

2. AFCS dimmed lights are too bright.

3. Central Display Unit and Pilot Display Unit lights cannot be sufficiently dimmed for 0-15% light illumination operations.

4. CIS and Mode Select panel lights should be disconnected from Panel Lights circuit and attached to a dimming switch.

m. The training program has produced competent UH-60A NVG pilots. They are the best qualified to operate the UH-60A under NVG conditions. The pilots should be considered fully NVG qualified Aviators.
1. Unit NVG training consisted of classroom instruction and day/night flights. Academic training was identical to UH-60 program. All unit aviators attended these classes with the enlisted crewmembers attending selected ones.

2. Following NVG classroom instruction day/night training flights were conducted to mission qualify all unit aviators. Mission qualification consisted of a minimum of one flight hour with NVG day filters and two night flight hours with NVG's. During these flights the aviators were required to take off, land and fly straight and level for a specified distance at 200 - 300 ft AGL under the goggles. Unit IP's with the assistance of a Ft. Rucker IP (qualified in NVG's) were trained first. They in turn trained the unit PIC's who in turn trained the pilots. All unit IPs and PICs completed NVG mission qualification training during Phase I.

3. NVG mission familiarization consisted of a minimum of one flight hour with NVG day filters and one night flight with NVGs. The flight maneuvers to be accomplished during familiarization were the same as those for qualification. All pilots and navigators completed NVG mission familiarization during Phase I with some also becoming mission qualified.

4. In addition the unit IPs and PICs were given the leeway to mission qualify unit pilots without the total required NVG hours depending on individual proficiency.

5. Of the twenty-four assigned/attached unit aviators being utilized throughout Phase I and II, sixteen were NVG mission qualified, five were NVG mission familiarized and three were neither (these three were being utilized primarily as navigators).

6. In addition to the NVG classroom instruction the unit aviators participated in practical exercises in taping of cockpit for NVG flight.
Appendix I (Phase I) To ANNEX B (Re-Occurring Comments from Pilots Debriefings) to Honey Badger Aft Action Report

NOT RELEASEABLE TO FOREIGN NATIONALS

Re-Occurring Comments from Pilot Debriefings

Phase I - Black Route

I. CREW COORDINATION:

A. Pilot or Co-Pilot must navigate while navigator is busy inside Aircraft. Recommend that two sets of maps be carried on the flight with the man not on the controls observing the map.

B. Crew integrity must be maintained throughout the period of training.

C. Crew Coordination and teamwork is a prerequisite for mission accomplishment and safety on this type mission.

II. AIRSPEED AND POWER:

A. Airspeed had to be dissipated to climb.  

B. TGT was often in the high range.

C. Rotor droop was experienced while climbing to clear high terrain.

III. NAVIGATION:

A. NVG's are not usable by navigator for map reading.

B. Navigators experienced a heavy work load.

C. Numerous incidents were noted in which Doppler was inaccurate or failed in flight.

D. Doppler worked well after alignment.

IV. TIME ALLOWED:

A. Planning time between briefing and takeoff was not adequate.

B. Navigators must be allowed to plan routes and airspeeds based only upon a target time. Problems with airspeed and power were encountered while trying to meet intermediate checkpoint times.
V. CREW COMFORT:

A. Navigator's seating arrangement is extremely uncomfortable.

B. All crew seats became uncomfortable with prolonged flight.

VI. MISCELLANEOUS: Routes were too congested due to number of Aircraft and spacing.
I. FORMATION FLIGHT WITH U.S. AIR FORCE

H-53's:

A. UH-60's experienced problems with power and aircraft control when in formation with H-53's due to rotor wash.
B. H-53's tended to terminate approaches to a high hover in landing zones.
C. H-53's flight leaders did not follow route as planned or overfly checkpoints.
D. Communications problems existed due to numerous frequencies for each operation, a misunderstanding of CEOI's and callsigns, inoperative secure gear, and overloaded radio nets caused by confusion during missions.
E. Aerial Link-ups during missions create a mid-air collision hazard. All forming of flights should be done on the ground.
F. Formation lights and blade tip lights only should be used with NVC's.
G. Air Force briefing was incomplete, fragmented, and confusing. Briefing in detail is needed, to include contingencies. Some of the material briefed was not needed for the mission.

II. LAAGER AREAS AND RRP's:

A. Leaking fuel nozzles and low-pressure pumps were common at RRP's.
B. Laager/Holding Areas were difficult to identify. Specific sectors should be assigned to each flight to prevent overcrowding and confusion.
C. Lighting for landings at RRP's, P.Z.'s, and laager sites was generally poor. Radio contact with the ground party was difficult to establish, and air traffic control was often inadequate.
III. CAMOUFLAGE:

A. Set-up times for camouflage nets ranged from 45 minutes during daylight to 2 hours at night. Camouflage teardown times ranged from 15-30 minutes.

B. Three to four camouflage systems are required to cover the aircraft.

IV. MISCELLANEOUS:

A. Identification of enroute checkpoints was difficult or impossible due to low illumination. Illumination was too low for NVG's to be effective.

B. Navigator briefings were sometimes insufficient, with minimal time allowed for mission planning.

C. UH-60's experienced rotor droop while hovering, during landing, and upon take-off. Rolling take-offs and landings are preferred when terrain permits.

D. Filtered searchlights on UH-60's is not adequate for mission requirements.
1. Engine Start: As briefed.

2. Aircraft Taxi: As briefed.

   NOTE: UH-60's perform all operational hover checks prior to joining HH-53's on parallel.

3. Commo Check:

   UHF tower frequency (unsecure) immediately following flight lead's request to take active. Call signs as per current CEOI.

4. Take Active:

   NOTE: HH-53's taxi 1000' forward, downwind side of active if crosswind component is on the opposite side of taxiway and perform hover checks. Line up on center line if direct headwind exists. (Formation: Trail, with all anti-collision lights on.)

5. Take-Off Procedures (normal):

   a. As lead aircraft completes hover checks, anti-collision light is turned off. Chalks 2-5 turn off anti-collision lights in sequence when ready.

   b. When trail turns off anti-collision light, lead executes running takeoff (rotating well forward) UH-60's rotate earlier. (Caution: Wake turbulence)

   c. Lead climbs out at 80 KIAS, 500 FPM climb angle until flight is formed with rotor blade separation of 3-5 disks.

   d. Lead and flight accelerate to 110 knots ground speed.

   e. Climb and formation changes are executed as required.

   NOTE: If any individual aircraft problems are encountered, aircraft will leave anti-collision light on and move to opposite side of active dropping out of formation.

6. Take-off Procedures (aborted):

   Aircraft with eminent problem and/or emergency takes unused runway side and maintain clearance from flight members in front of him and attempt to execute a controlled run-on landing on upwind side of active runway.

   NOTE: If direct headwind exists, aircraft attempts to fall out left of formation, then into wind.
7. Formation Changes in Flight:

Formation Changes will be acknowledged and executed upon reception of the following IR/flashlight/anti-collision light signals from flight lead:

<table>
<thead>
<tr>
<th>Light Series</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Staggered left</td>
</tr>
<tr>
<td>2</td>
<td>Trail</td>
</tr>
<tr>
<td>3</td>
<td>Staggered right</td>
</tr>
</tbody>
</table>

NOTES: 1. Changes from staggered left to right or vice versa, will always be executed through trail formation first.

2. If formation change is missed, lead gives signal again.

Lead and all aircraft in flight will leave light signal on for a minimum of 1 second each flash and off 1 second between flashes.

8. Formation Break-up (VFR):

If for any reason, formation break-up is required (i.e., ASE AA warning), all aircraft will break away visually from threat, JINK as required and descend. All aircraft monitor RWR to a lower altitude. If visual link-up cannot be re-established within a reasonable time period, all aircraft will initiate rendezvous join-up procedures as outlined below single ship.

NOTE: Secure communications to assist in aircraft avoidance may be initiated.

9. Aircraft Rendezvous/Link-Up Procedures (VFR):

a. Single-ship aircraft with navigator on course or direct to the next succeeding way-point (checkpoint) to initiate link-up (i.e., if break-up is encountered enroute between way-points 3 and 4, link-up will be attempted at way-point 5).

b. Lead or first aircraft to arrive at link-up point will make two left standard rate 360° turns at the link-up point. CAUTION: Numerous merging aircraft.

c. Groundspeed of 110 will be maintained enroute to link-up point. If link-up is accomplished, each aircraft will join the rear of the flight regardless of previous position. If link-up is missed, proceed single ship to landing/rendezvous point.

10. Formation Approach (Tactical/Non-Tactical):

a. When on 3 mile final for designated landing area, lead will turn-on his IR landing light (steady on). Flight will take 30 seconds spacing, remaining in current formation position (i.e., staggered left).

b. When 2 miles from LZ, lead will decelerate for landing.

c. All aircraft will touch down with minimum ground roll.

NOTE: CH-53's will use a constant deceleration to a touchdown point.
11. Formation Approach "Go-Around" Procedure:

a. Lead will turn off IR landing light designating a go-around and accelerate as required to 80 KIAS and climb to assure obstacle clearance and maintain terrain definition (NVG).

b. Lead will initiate a left hand standard rate turn (terrain permitting) and attempt another approach.

c. Aircraft in flight will maintain separation.

d. Lead will turn on IR search light for landing and decelerate when established or final.

e. Any UH-60's requiring go-around will extinguish IR light and do a single ship go-around, joining on rear of flight.

NOTE: If go-around is initiated because of inadequate LZ, preparation or landing conditions, a landing will not be made.

12. Air Refueling:

Left echelon will be established prior to the ARCP. During the air refueling of the HH-53's, the UH-60 will establish 10-disk separation from lead (or #2 HH-53) and then fly formation off the C-130 maintaining position to allow the 53's maneuvering room. When lead is finished refueling, UH-60's will rejoin and continue the mission. If two 53's are in the formation, each will go to the rear of the echelon formation, then both will pass the formation on the left with UH-60's maneuvering to the stagger left formation.

13. Inadvertent IMC (Lost Visual) Procedures:

Due to the close proximity of aircraft to mountains for masking, a flight could enter IMC. The aircraft entering should alert lead. Lead will state heading, altimeter setting, and minimum safe altitude for enroute segment. Lead will accelerate to 110 kts and climb to 400 feet above minimum safe altitude. Aircraft #3 will decelerate to 90 kts and climb 600 feet above minimum safe altitude. Aircraft #4 will decelerate to 80 kts and climb 800 feet above minimum safe altitude. Aircraft #5 will decelerate to 70 kts and climb to 1000 feet above minimum safe altitude. As each aircraft reaches his altitude, he should accelerate to 110 kts. As aircraft accelerate, they will make turns to increase separation. Aircraft #2 will turn 30° left for staggered left and trail formation and 30° right for staggered right. After completion of turn, fly 30 seconds, then return to entry heading. Aircraft #3 will turn 30° right for staggered left and trail formation and 30° left for staggered right. After completion of turn, fly 30 seconds, then return to entry heading.

Aircraft #4 will turn 60° left for staggered left and trail formation and 60° right for staggered right. After completion of turn, fly 60 seconds, then turn to entry heading. Aircraft #5 will turn 60° right for staggered left and trail formation and 60° left for staggered right. After completion of turn, fly 60 seconds, then return to lead heading.
After completion of break-up, and lead determines that it is necessary, the flight will contact ATC facilities for approach to the nearest facility. When ATC facilities are not available, lead will determine a location that the flight proceed to and let down to VMC. Lead will give this location in LAT/LONG coordinates, and the altitude the flight can expect to break-out. Lead will also give a heading to fly from the coordinates. As each aircraft reaches the coordinates he will start his let down to VMC.

NOTE: During IMC procedures, all aircraft will have navigation lights on bright, with no beacons. One crewmember will transition to instruments.

14. Enroute Abort (Downed Aircraft):

a. Lead aircraft aborts by flashing landing IR light and land with IR light or execute a standard rate turn 180° and RTB extinguishing IR light. #2 becomes lead and flight continues. Trail checks to insure a safe landing, renders assis required and continues mission. SAR cleanup will be as briefed prior to mission

b. All other aborts will be similarly covered by trail.

c. Trail will be monitored by the helo in front of him, and that helo will escort trail to ground.

d. Use IR lights to indicate landing and no lights to indicate RTB.
STAGGERED LEFT

Safe alt. 1400'

30° for 60 sec

Safe alt. 800'

60° for 60 sec

Safe alt. 1600'

30° for 60 sec

Safe alt. 800'

NOT RELEASEABLE TO FOREIGN NATIONALS

SECRET

NOT RELEASEABLE TO FOREIGN NATIONALS
STAGGERED RIGHT

SECRET

NOT RELEASEABLE TO FOREIGN NATIONALS

\[ 80^\circ \text{ for } 30 \text{ sec} \]
\[ \text{safe alt } +600' \]

\[ 80^\circ \text{ for } 60 \text{ sec} \]
\[ \text{safe alt } +60' \]

\[ 80^\circ \text{ for } 60 \text{ sec} \]
\[ \text{safe alt } -300' \]

SECRET

NOT RELEASEABLE TO FOREIGN NATIONALS

C1-7
AMC - Air Mission Commander
ASE - Airborne Survivability Equipment
ARCP - Airborne Refueling Check Point
CCT - Combat Control Team
COLD SIDE (Of Active) - Downwind Side
HOT SIDE (Of Active) - Upwind
IMC - Inadvertent Meteorological Conditions
JINK - Displacement in any one or all the combinations of vertical, latitudinal, or longitudinal planes, usually to avoid effective enemy acquisition or engagement.
RTB - Return To Base
RWR - Radar Warning Receiver
SAR - Search and Rescue
1. This manual describes procedures for HH-53C/CH-47 communications out, night, NVG formation flight. Pre-flight briefings should be detailed, complete, and cover every aspect of the planned mission. Flight lead should brief the following as a minimum:

a. Call Signs: Brief individual tactical call signs for the entire flight.

b. Communications: Brief radio frequencies for the flight. If a frequency change is necessary, brief a geographic point or time when all members of the flight will automatically change frequencies. Identify which radio will be secure and for what portions of the flight they will remain secure (i.e., identify the point during the mission when or where everyone changes to unsecure communications.

c. Start Time: Brief engine start time for all elements of the flight.

d. Taxi/Flight Formation/Communications Check: If taxi clearance is required, each member of the flight calls for his individual taxi clearance. At a prebriefed time, form the flight at a designated spot near the runway (i.e., the parallel taxiway). Flight lead will make a positive communications check with all elements of the flight prior to taxiing on the active runway (i.e., lead, Alpha Golf 78 check-in; flight numbers respond; Alpha Golf 13, Alpha Golf 95, etc.). Lead will request clearance onto the active as necessary. Flight elements will form on the downwind side of the runway in trail formation (See Figure 1). Maintain at least 200 feet for take-off. Perform hover check. When each element is ready for takeoff, he will turn his anti-collision lights off.

e. Aircraft Lighting and Flight Signals: For takeoff and flight, use the following aircraft lighting:

   (1) Daylight Hours or Dusk: Formation lights - max intensity. Position light - max intensity (all position lights should have one layer of green duct tape covering the lens). Anti-collision lights - off.

   (2) Night (NVG): Formation lights - dim. Position lights - dim (all position lights should be covered with one layer of green duct tape). Anti-collision lights - off.

   (3) During Flight: Use a standard military flashlight to pass all light signals with red lens at night.

      (a) Staggered left formation: 1 flash, 1 second duration.

      (b) Trail formation: 2 flashes, 1 second duration, 1 second interval.

      (c) Staggered right formation: 3 flashes, 1 second duration, 1 second interval.
(d) Formation signals can be given by lead or #2. #2 can set the formation as he desires. Do not acknowledge formation change signals with a return signal.

(e) Lead change: 1 flash, 5 second duration (See Figure 1). Only flight lead can direct a lead change. (Lead changes will be acknowledged by each wingman, i.e., lead signals #2, #2 returns signal to lead, #2 signals #3, #3 returns signal to #2, etc.)

(f) Prepare for landing: Lead turns IR searchlight on for 5 seconds.

f. Takeoff/Abort/Join-up Procedures: After all elements have turned off their anti-collision lights, lead will make a running takeoff. Wingman will takeoff in trail, maintaining 200' separation for takeoff. Lead will maintain 60 kts until his scanners notify him that the flight is formed. Inflight, maintain 3-5 rotor disks separation between aircraft. If any member of the flight aborts during takeoff, he will move to the cold lane (downwind side of the runway) and land. Any aborting aircraft is responsible for separation from other aircraft that might abort in front of him. All other aircraft will proceed as normal. Do not break radio silence! (See Figure 2)

9. Type Formation: The flight will maintain stagger left, trail, or stagger right formation. Maintain 3-5 rotor disks between aircraft. Flight lead or #2 can direct formation changes. Change the formation every 20-30 minutes to reduce pilot fatigue. (If lead or #2 waives the formation occasionally, pilot can rest/navigate without the additional strain of flying cross cockpit formation.)

h. Approach and Landing: Lead will turn on IR spotlight for 5 seconds prior the approach pattern to notify wingman of impending landing. Wingmen will then fall into trail formation and accomplish before landing checks. Selection of the landing spot will be made by the PICs. Factors to be considered are obstacle clearance, dust conditions, rotor wash, etc.

2. Alternate Leader: The alternate leader will be the number two (2) CH-47 in the formation. HH-53's will lead only as a last resort.

3. Fighter/Ground Fire/AAA Evasion. If flight lead anticipates hostile fire, he is responsible for navigating the flight around the threat. If any aircraft encounters hostile fire notify the flight on primary secure interplane net. Each aircraft will break formation to take evasive action as necessary. When clear of threat proceed to the next checkpoint. Lead will maintain 80 kts until the second checkpoint downstream from the attack. He will then make two 360° left turns before resuming normal navigation and airspeed. This maneuver gives the wingmen time to maneuver as necessary and rejoin the flight. (Use scanners to maintain aircraft separation and terrain avoidance while maneuvering for evasion.

4. Lost Visual: Aircraft losing visual reference to the formation will call out on the secure primary interplane frequency "Call Sign, lost visual." Lead will turn on formation and position lights full bright and call out heading, altitude presently holding, and/or altitude climbing to for terrain clearance. Wingmen will also turn on formation and position lights full bright and follow heading, altitude, and airspeed changes as depicted in Figure 3. Joinup will be initiated as soon as visual contact and formation can be maintained. If VMC
Aircraft aborting will call out on secure voice "Number in formation, Abort Abort Abort" and proceed to the cold lane. Other aircraft will remain clear.

**FIGURE 1.**
conditions prevail and visual contact with each aircraft is not made, lead will proceed along track to the next checkpoint, execute two 360° left turns, then proceed along track to original destination. If rejoin is not accomplished by this time, wingman will further attempt rejoin along track to destination.

5. Emergency Procedures: If an aircraft experiences a malfunction in flight he has three (3) options: continue the flight, land, or return to base. If an aircraft elects to make a precautionary landing, he will flash his IR landing light, then leave it illuminated. The last aircraft in the flight will follow him to his landing site, note the position or retrieve the crew, then continue with the flight. If the last aircraft makes a precautionary landing, a predesignated aircraft will note his position or retrieve the crew. The flashing IR landing light should alert the rest of the flight that an aircraft is experiencing an emergency. If a member of the flight elects to return to base, he should flash his IR landing light to alert the other members of the flight, then extinguish his IR light.
All lead changes will be initiated by lead only. For stagger left formation, 
#1 will signal #2 using 2 foot forward and aft movement of a flashlight on 
left side of aircraft. #2 will acknowledge repeating and relaying the same 
signal to #3. Each aircraft in tow will follow suit.

#2 will accelerate past #1 and assume lead upon passing #1’s nine o’clock 
position. #1 will clear to the right of the formation, drop back and 
reposition himself as last man. Opposite directions apply for stagger 
right formation.

FIGURE 2
Lead calls out heading and altitude and/or altitude climbing to for terrain clearance. Maintain 80 kts IAS.

1

Turn left 20° for 30 seconds then resumes lead's heading, climbs to lead's altitude + 200; maintain 80 kts IAS.

2

Turn right 20° for 30 seconds, then resumes lead's heading, climbs to lead's altitude + 200; maintain 80 kts IAS.

3

Turns left 40° for 30 seconds, then resumes lead's heading; climbs to lead's altitude + 400; maintain 80 kts IAS.

4

Turns right 40° for 30 seconds, then resumes lead's heading, climbs to leads altitude + 400; maintain 80 kts IAS.

5

FIGURE 3.
<table>
<thead>
<tr>
<th>AIRCRAFT NUMBER</th>
<th>NUMBER OF FLIGHTS</th>
<th>HOURS FLOWN</th>
<th>AVERAGE BURN RATE (Pounds per Hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>22722</td>
<td>3</td>
<td>20.5</td>
<td>880</td>
</tr>
<tr>
<td>22723</td>
<td>9</td>
<td>53.2</td>
<td>880</td>
</tr>
<tr>
<td>22724</td>
<td>2</td>
<td>16.2</td>
<td>749</td>
</tr>
<tr>
<td>22725</td>
<td>1</td>
<td>8.0</td>
<td>826</td>
</tr>
<tr>
<td>22727</td>
<td>9</td>
<td>50.4</td>
<td>864</td>
</tr>
<tr>
<td>22728</td>
<td>4</td>
<td>24.3</td>
<td>852</td>
</tr>
<tr>
<td>22960</td>
<td>9</td>
<td>52.6</td>
<td>862</td>
</tr>
<tr>
<td>22961</td>
<td>9</td>
<td>52.7</td>
<td>897</td>
</tr>
<tr>
<td>22962</td>
<td>8</td>
<td>41.6</td>
<td>868</td>
</tr>
<tr>
<td>22966</td>
<td>1</td>
<td>6.0</td>
<td>872</td>
</tr>
<tr>
<td>22967</td>
<td>7</td>
<td>41.7</td>
<td>827</td>
</tr>
<tr>
<td>22968</td>
<td>6</td>
<td>30.4</td>
<td>817</td>
</tr>
<tr>
<td>22969</td>
<td>5</td>
<td>34.6</td>
<td>807</td>
</tr>
<tr>
<td>22970</td>
<td>3</td>
<td>17.7</td>
<td>779</td>
</tr>
<tr>
<td>22984</td>
<td>10</td>
<td>48.3</td>
<td>878</td>
</tr>
<tr>
<td>22986</td>
<td>9</td>
<td>49.6</td>
<td>878</td>
</tr>
<tr>
<td>22989</td>
<td>6</td>
<td>40.1</td>
<td>923</td>
</tr>
<tr>
<td>22990</td>
<td>8</td>
<td>43.5</td>
<td>886</td>
</tr>
<tr>
<td>22991</td>
<td>8</td>
<td>32.7</td>
<td>811</td>
</tr>
<tr>
<td>22993</td>
<td>8</td>
<td>37.2</td>
<td>928</td>
</tr>
<tr>
<td>22995</td>
<td>9</td>
<td>53.9</td>
<td>896</td>
</tr>
<tr>
<td>22996</td>
<td>7</td>
<td>40.4</td>
<td>886</td>
</tr>
<tr>
<td>22997</td>
<td>7</td>
<td>37.5</td>
<td>896</td>
</tr>
<tr>
<td>22998</td>
<td>5</td>
<td>28.6</td>
<td>936</td>
</tr>
<tr>
<td>22999</td>
<td>3</td>
<td>12.7</td>
<td>849</td>
</tr>
<tr>
<td>23000</td>
<td>5</td>
<td>24.7</td>
<td>1026</td>
</tr>
<tr>
<td>23001</td>
<td>7</td>
<td>39.8</td>
<td>905</td>
</tr>
<tr>
<td>23002</td>
<td>5</td>
<td>21.4</td>
<td>881</td>
</tr>
</tbody>
</table>

AVERAGE FOR FLEET: 871

CH-47

<table>
<thead>
<tr>
<th></th>
<th>Average Burn Rate (Pounds per Hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>68-16015</td>
<td>2500lbs</td>
</tr>
<tr>
<td>68-16018</td>
<td>2400lbs</td>
</tr>
<tr>
<td>67-18527</td>
<td>2900lbs</td>
</tr>
<tr>
<td>68-15825</td>
<td>2600lbs</td>
</tr>
<tr>
<td>68-15834</td>
<td>2350lbs</td>
</tr>
<tr>
<td>68-15845</td>
<td>2400lbs</td>
</tr>
<tr>
<td>68-15859</td>
<td>2600lbs</td>
</tr>
</tbody>
</table>
1. Phase I for all three companies involved in the exercise began with deployment.
   A/159 CH-47 446.4
   C/158 UH-60 714.6
   D/158 UH-60 792.2

2. Phase II began on 5 July and ended 16 July.
   A/159 CH-47 173.6
   C/158 UH-60 547.6
   D/158 UH-60 426.7

   A/159 CH-47 105.1
   C/158 UH-60 156.4
   D/158 UH-60 173.9

4. Total per Company during exercise.
   A/159 CH-47 725.1
   C/158 UH-60 1418.6 *
   D/158 UH-60 1392.8 *

5. Total Honey Badger hours flown: 3526.5
   * 426.7 hours flown from 3rd quarter allocation, remainder from 4th quarter.
ANNEX F (Safety Observations and Considerations) to Honey Badger After Actions Report

1. Observations: NOT RELEASABLE TO FOREIGN NATIONALS

a. Areas restricted to flight were not covered very well in Phase I or Phase II. The management support team did not provide sufficient information about restricted areas, where deadly force could be used, and Air Force range notams for proper route planning and briefing to crews. Once a mission was handed over to the 158th Ops it was often too late to acquire timely information on the entire route of flight.

b. Landing zone lighting should be standardized with the Y or T information using Kem lights, flashlights, or bean bag lights with an IR strobe for LZ location. Single light sources should never be used. This often causes problems for air crews. All light sources should be fixed to the ground to prevent movement during the landing.

c. Each CH-47 should have at least three 22 pound Halon 1211 (nsm4210-01-003-7709) fire extinguishers for possible aircraft fires during RRP operations. (PARA 7-2b FM 10-68)

d. All UH-60, CH-47 crewchiefs and pathfinder personnel should know and read FM 10-68 (Aircraft Refueling). At present they are not knowledgeable of its contents. Also classes should be given on RRP operations.

e. Fifty pound or 22 pound internal Halon fires extinguishers should be deployed with UH-60 Aircraft for use in staging areas, i.e. parking areas, and tactical field sites for starts and shut-down operations.

f. Each CH-47 with refuel pods installed for UH-60 refueling should have an in-line filter separator to prevent aircraft contamination from dissolved water, free water and microbiological growth. (PARA 2-6, 2-9. FM 10-68)
ANNEX F (Safety Observations and Considerations) To Honey Badger After Action Report

\[\text{SECRET}\]

\[\text{NOT RELEASEABLE TO FOREIGN NATIONALS}\]

g. Management Support Personnel ordering fuel should be made aware of commingled fuel. Commingling is mixing of two or more products or grades of products. This could cause small variations in APU and engine performance, that could lead to loss of power and engine failure. (PARA 2-6d FM 10-68)

h. Fuel sampling during the entire Phase I and Phase II was poor. A portable lab should be set up in the field for testing of JP-4 products daily to ensure safe fuel for CH-47 and UH-60 Aircraft.

i. The vest type life jackets for over water flights are poor. The best type is the individual LPF-105s which are inflated by CO₂. A person would never get a chance to inflate a vest type life jacket by blowing in a tube in an actual over water emergency.

2. Safety Consideration:

a. Consideration should be given to having a MEDEVAC aircraft with trained medical people to respond to aircraft mishaps/emergencies. There should also be a chase maintenance aircraft added to aid in maintenance recovery.

b. A Safety Officer should be included into the JTD level or the management support team level for better safety control. One Safety Officer at the 158th Ops cannot gain information early enough to affect good solid safety management prior to mission time.

c. A Safety Officer should be included in the advance party planning for new locations and new phases. Airfield layouts, marked parking spots, fire extinguishers, classes from the local fire department and tactical field layouts should be planned in the advance stages of unit moves.

\[\text{NOT RELEASEABLE TO FOREIGN NATIONALS}\]
ANNEX F (Safety Observations and Considerations) To Honey Badger After Actions Report

d. Flight following could best be performed using two combat control Jeeps stationed at two high points along the route of flight. The present method of control is poor. Additionally HF coverage from 158th Ops could be effective using a KWM-2 Colling radio which are in the Fort Campbell, Ky. inventory. These methods of flight following were used very well in all types of missions in Central America at high and low altitudes.
ANNEX C (AC Modification) To Honey Badger After Action Report

1. The following modifications were completed on all UH-60 Aircraft.
   b. SAM Warning System AN/APR-44.
   c. Extended Range Kit consisting of 6 150 gallon UH-1 Fuel Bladder and pumps.
   d. HF Radio ✒ Secure. 174 Wp ky 75
   e. Night Vision Goggle Modification.
   f. Addition of Navigator Seat.
   g. Addition of Oxygen System.
   h. Chaff Dispenser (XM-130).
   i. 1 Aircraft per company modified for Knee Board Trainer for AN/APR-39.

2. The following modifications were completed on all CH-47C Aircraft.
   a. Omega/VLF Navigation System LTN-211.
   b. Radar Altimeter, AN209.
   d. Extended Range Kit (consisting of four 600 gal fuel tanks).
   e. Aircraft Night Vision Goggle modified (to include cockpit painting, lighting and one searchlight).
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Acquisition and distribution of maps.

DISCUSSION: Maps that were ordered arrived late, in insufficient quantities and in the wrong scale. During an operation such as this, where navigation is critical, the timely ordering, control, and distribution of the proper maps is of the utmost importance.

RECOMMENDATION: During administrative Cross Country flights (deployment/redeployment) each aircraft should have a complete set of IFR Publications and VFR sectionals for route of flight. During tactical cross country flights the navigator and Co-pilot need a complete set of 1:250,000 scale maps that cover the route, check-point, laager sites, etc. 1:500,000 scale maps may be used during daylight operations or when check points are identified by major road intersections, towns, Airfields, etc.
ANNEX H (Unresolved Problems) To Honey Badger After Actions Report

PROBLEM: The Battalion Aid Station is poorly equipped to provide adequate medical care without the support of a medical clearing company when functioning as an isolated unit.

DISCUSSION: The TO & E equipment and medications represent 1950's technology and as presently designed cannot offer depth of care as a single entity.

RECOMMENDATION: Major unit surgeon in conjunction with Division Surgeon and DMSO initiate TO & E changes or augment present TO & E structure so that the Battalion Aid Station can function as a separate entity and still deliver in-depth medical care. Action now initiated at F Chy to obtain necessary equipment. For next phase, aid station will be adequately equipped.

NOT REFERABLE TO FOREIGN NATIONALS
H-2
SECRET
ANNEX H (Unresolved Problems) To Honey Badger After-Action Report

PROBLEM: Non-standardization of aircraft loading procedures during deployment.

DISCUSSION: Aircraft were prepared for loading and then turned over to the 101st Aviation Battalion to load. Upon arrival several bags of common hardware were missing and stabilators were mixed between aircraft and companies.

RECOMMENDATION: A detailed standard loading procedure should be written by the 101st Aviation Group for use by all battalions. Check lists have been standardized and procedures disseminated to units.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Aircraft parts were extremely slow in being replaced.

DISCUSSION: Aircraft parts were promised but seldom received. The parts from the unit's PLL and 5th Transportation Battalion together with cannibalization sustained the units for the first 8 days of the exercise before the first part was received from any external source.

RECOMMENDATION: Aircraft parts be given more emphasis prior to, during, and immediately after deployment.

System now exists to expeditiously handle parts supply.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: No ASL support forward.

DISCUSSION: Limited ASL support was sent forward to Dugway. This caused excessive delays in handling of parts and repairs.

RECOMMENDATION: Where the majority of aircraft go, the ASL must also go.
PROBLEM: Human engineering factors prevent navigators from performing in an optimum manner.

DISCUSSION: The cramped navigator's station causes discomfort to the navigator and degrades his performance. The biggest problem is caused by the location of the AUX Fuel Control Panel.

RECOMMENDATION: Move the AUX Fuel Control Panel to another location and design a seat cushion for navigators.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Secure voice procedures.

DISCUSSION: Secure voice operations are not used during all tactical operations. After an extended effort to repair and key radios daily, seldom is there a time that both Air Force and Army aircraft successfully could use FM and UHF secure with all aircraft.

RECOMMENDATION: Continue emphasizing operation of radios only under secure modes; and request frequent maintenance assistance to respond to short falls.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Receiving supplies that were pushed to S-4 158 Avn Bn that were not identified (i.e. oil, gas nozzles, hose assemblies, adapters) as to which unit they were ordered for.

DISCUSSION: On many occasions items were received thru S-4 that could not be issued due to lack of identification of ordering unit because they were ordered thru DMMC without a document number.

RECOMMENDATION: All requisitions for TF 158 must be submitted through the S-4 in order to establish the proper identity of owner when supplies are received. Also pushed supplies from higher HQ must be earmarked as to whom they are intended.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Doppler Digital Readout unreadable at low light level.

DISCUSSION: The Doppler digital readout can be clearly read with NVG's at light levels not visible to the naked eye only if all bulbs in the display are of equal brightness. A dim digit in the readout may only be read through NVG's if the remainder of the display is brightened to a point where the entire display is visible to the naked eye.

RECOMMENDATION: That all doppler displays be inspected and serviced to insure equal brightness of all display characters.

NOT RELEASABLE TO FOREIGN NATIONALS
PROBLEM: Excess ground support personnel were in the refuel areas creating a safety hazard and command and control problem. Some personnel were observed seemingly unaware of the dangers involved, i.e. running under turning rotor blades, etc.

RECOMMENDATION: The three man CH-47C crew can be utilized as follows: one person at the emergency/manual fuel valve; one person at the pump; one person at the fuel nozzle. Assuming the CH-47’s will always be shut down during refueling operations, the individual crewmember at the nozzle can refuel the UH-60. The only requirement for Pathfinder/Combat Control Team (CCT) personnel would be: 1 each Pathfinder at each refuel point for aircraft control, 1 each Pathfinder at holding area, 1 each Pathfinder at Y and 1 each CCT individual for ground to air communication/control.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Fuel coordination upon arrival at Norton AFB, Ca. was poor.

DISCUSSION: No fuel grounding points were available in the rebuild area. After the aircraft were rebuilt and mission ready they had to be towed to a refuel area. This was during a critical phase of the deployment and was time consuming.

RECOMMENDATION: Attention must be given to coordination of fuel support during training and operational missions.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Aircraft flight following.

DISCUSSION: Because of mountains aircraft flight following was very difficult or non-existent, except on take off, landing, and refueling. A Retrans Station was set up and radio contact was established with remote sites to provide limited flight following. This was still not an adequate solution.

RECOMMENDATION: Flight following should be done internally between members of a flight using UHF radios. A Collins Base Station Radio, capable of high frequency secure communications, should be purchased and used at Battalion Flight Operations. Action initiated to procure adequate ground station to meet secure on all radios.

H-12
PROBLEM: There was a dual inspection of vehicle loading conducted with different standards.

DISCUSSION: Vehicles were inspected in the preposition area and then practice weighed. Vehicles were then brought to the scales where they were again weighed and staged. At the second station, an Air Force representative insisted on inspecting some of the complexes/XLs, which supposedly were inspected the first time. Containers were locked; time was lost looking for keys to satisfy the new unexpected requirement. After that, not all containers were inspected.

RECOMMENDATION: Have one inspection with all drivers and personnel present.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: C Company had no production control clerk available at Dugway.

DISCUSSION: Female soldiers were not allowed in the forward area (unless they were Air Force). C Company has a female production control clerk and her loss required the maintenance officer to perform her duties. This was an overbearing load on the maintenance officer while trying to manage the unit's aviation assets.

RECOMMENDATION: Immediately replace all female soldiers in Aviation units with males if females are not going to be allowed to be deployed.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

NOT RELEASABLE TO FOREIGN NATIONALS

PROBLEM: Transportation for company's local personnel after arrival at new sites.

DISCUSSION: After each move into a new area, line companies need immediate transportation available to conduct operations. There is a valid requirement for a minimum of 3 M809's (pickup truck-type vehicles). Maintenance, flight platoons, and company headquarters all require transportation to become operational.

RECOMMENDATION: A priority must be established to have 3 vehicles available for unit operations as soon as possible after arrival at a deployment site.
PROBLEM: Ground to Air communications.

DISCUSSION: During operation similar to the test conducted 15 and 16 July, radio communication from laager site to the objective areas was nonexistent. The Air Force aircraft kept the APU's running to attempt continuous radio contact, however, this was not successful.

RECOMMENDATION: A long range portable set (preferably HF) needs to be adopted to insure continuous radio contact under all conditions is maintained.

Action was initiated PRC 70 radios which provide secure FM and HF from ground.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Lack of pertinent flying data available to aircrews when pilot and co-pilot are wearing NVG's.

DISCUSSION: Flying with max gross weights, high pressure altitudes, and high DA's necessitates close monitoring of critical instruments within the cockpit. Under NVG conditions, the pilot and co-pilot are unable to see instruments within the cockpit.

RECOMMENDATION: Recommend the Aircraft be configured to give the navigator an instrument panel to monitor critical instruments during flight. The panel as a minimum should include airspeed, radar altimeter, and engine power settings.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Postal Operations.

DISCUSSION: During the planning phase, coordination with deployment site postal officer was not conducted.

RECOMMENDATION: Coordination be effected to permit use of a post office box at deployment site, prior to deployment of main body (preferably prior to POR).
ANNEX H (Unresolved Problems) To Honey Badger After Actions Report

PROBLEM: Non-compatibility of Army and Air Force Dopplers.

DISCUSSION: Air Force doppler and inertial navigation equipment, which accepts coordinates only in latitude and longitude and reads out distance and ground-speed in nautical miles and knots is not totally compatible with Army doppler equipment, which reads out distance and groundspeed in kilometers and kilometers per hour respectively.

RECOMMENDATION: That coordinate lists, groundspeeds and required time on targets be furnished to Army Navigators sufficiently in advance of any joint operation to allow accurate determination of distance and perception of flight logs. Depending on the number of enroute checkpoints, up to one hour of planning may be required for each hour of flight.
ANNEX H (Unresolved Problems) To Honey Badger After Actions Report

PROBLEM: Doppler lighting not compatible with NVG flight at low ambient light levels.

DISCUSSION: Doppler navigation set lighting is not compatible with NVG flight at low ambient light levels due to glare on the inside of the Pilot's and Co-pilot's windscreen. This problem is heightened by the necessity to either turn on the aircraft console lights or use a flash light during required in-flight reprogramming.

RECOMMENDATION: The use of a field-expedient cardboard glare shield alleviates the first problem, but not the second. Recommend that sheet metal glare shields be fabricated for all doppler navigation sets and that doppler panel lighting be wired through an independent rheostat to allow full control of doppler lighting.
ANNEX II (Unresolved Problems) To Honey-Badger After Action Report

PROBLEM: Landing Aircraft in larger areas at night with NVG's.

DISCUSSION: In order to land at night, crews attempted to make maximum use of available cover. After landing in the general vicinity, the crewchief would direct the Aircraft and guide pilots into the final parking area. Cyalume lightsticks were the only acceptable signal light to be used for signal purposes.

RECOMMENDATION: Issue a minimum of four sticks to crews for all night flights requiring use of NVG's.
ANNEX H (Unresolved Problems) To Honey Badger After Actions Report

PROBLEM: Liaison between JTD and Task Force 158 for daily Mission Planning.

DISCUSSION: Initially at Norton AFB, the 101 Aviation Group S-3 Shop (ACE) served as Liaison between JTD and 158th. The information was passed in an untimely and often incomplete manner, causing many internal problems. At Dugway, the (ACE) acted as the Training Management Cell, although JTD was located in the same building. This caused a problem with command relationship, as well as a lack of timely information flow. When direct coordination with JTD was conducted on some missions, the problems were not apparent. The delays, changes, and lack of information provided by the ACE caused a lack of confidence in the Bn S-3 section within the Battalion and Supported Units.

RECOMMENDATION: If the Group S-3 is going to provide Liaison between JTD and 158th Task Force, they should become a working part of 158th. In this way all planning and actions would be in a more direct manner and the information passed would be more timely and with fewer delays. OPC and other considerations make this recommendation invalid. Information will flow from JTD to A&W gp S3 to BN S3. Prompt coordination of all changes will alleviate this perceived problem.

SECRET

H-22
ANNEX H (Unresolved Problems) to Honey Badger After Action Report

PROBLEM: Lack of training for Staff Officers.

DISCUSSION: Training guidance given and mission responsibility precluded Staff from participating in pilot training. Although selected crews are trained, there are insufficient crews trained for all the Aircraft. If the occasion arose for all the Aircraft to be used, Staff Officers would be required to fill vacancies and they would not be trained in the mission.

RECOMMENDATION: Allow adequate training time to include Staff Officers in mission training.
ANNEX II (Unresolved Problems). To Honey Badger After Actions Report

Problem: The pumps on the AUX tanks became a real problem by failing after a couple weeks of use and after a removal exercise.

Discussion: The AUX tank pumps give no indication of failure. Even when one pump fails, the other pump does not have enough power to keep the main tanks from decreasing in fuel amount.

Recommendation: That improved tank pumps replace the present pumps in the AUX tanks.
ANNEX H (Unresolved Problems) To Honey Badger After Actions Report

SECRET

PROBLEM: Confusion existed between operational planners at Oro Grande, NM and Dugway, UT.

DISCUSSION: A briefing conducted by JTD personnel at Oro Grande NM emphasized positive control of all aircraft around the objective area. Detailed reporting procedures were required. Upon arrival at Dugway, this information was ignored and eventually became the critical mistake of the operation. The helicopter crews were flying totally off time requirements, with no frequency or point of contact on the ground. The crews arrived perfectly on schedule but the C141 was not on the ground.

RECOMMENDATION: Prior to execution of an operation of this magnitude, direct, intense, face-to-face coordination is essential. All parties involved, especially controlling agencies, need to be questioned in detail.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Numerous aircraft experienced mechanical failures during phases of the mission. The mission was successful but could have been jeopardized.

DISCUSSION: The final mission was perceived by flight crews as the most demanding exercise of the entire deployment due to the integration of all rehearsed mission sub-tasks. Crew fatigue and lack of maintenance time between the Oro Grande phase and the final mission further complicated the problems encountered.

RECOMMENDATION: Recommend a two-day unit stand down between phases of training. This would allow some recuperation of crews from long term fatigue and increased readiness of aircraft, resulting in a lower failure rate.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Government Pay Checks.

DISCUSSION: Numerous complications and time consumed.

RECOMMENDATION: Mandatory Check-to-Bank Option for all personnel assigned to the unit.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Displacement of aviation units in one day when Aircraft are being self-deployed.

DISCUSSION: When total unit displacement takes place in a 24 hour period. The unit has only marginal Aircraft recovery capability. If Aircraft go down on take off, or enroute, most maintenance personnel, and Tech Supply items are aboard Air Force transports.

RECOMMENDATION: When possible, displace over a 2-3 day period, or assign another unit specific recovery tasks. If two line companies displace, move one forward, and have one back if time permits. This gives better overall coverage.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

NOT RELEASABLE TO FOREIGN NATIONALS

PROBLEM: Inability to maintain single engine flight during first two hours of flight.

DISCUSSION: During the first two hours of flight, with external and internal fuel tanks topped off, single engine flight is not possible. This means any loss of power creates a critical emergency situation. Unless a suitable area for a shallow angle running-landing is available, both the aircraft and personnel are in jeopardy.

RECOMMENDATION: Continue to allow sufficient time for premission planning so as to minimize the amount of time single engine flight is not available.
ANNEX H (Unresolved Problems) To Honey Baiger After Action Report

NOT RELASABLE TO FOREIGN NATIONALS

PROBLEM: Aircraft modification work was not well organized.

DISCUSSION: No one individual or agency was in charge of the MWO operation. This resulted in wasted time and severe post-MWO electrical problems. The cockpits were torn apart three times instead of once.

RECOMMENDATION: When an MWO operation of this magnitude is undertaken in the time period that was allowed, suggest one person or agency be in charge of the overall operation to facilitate a smooth work flow and quality work.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Female Personnel

DISCUSSION: In a unit such as this, female personnel will not be able to be deployed to a forward site. All female armorers, PLL clerks, and typists will have to be replaced with males.

RECOMMENDATION: Designate the battalion as a combat unit, rather than a combat support unit, with all positions filled by males.
ANNEX H (Unresolved Problems) To Honey Badger After Action Report

PROBLEM: Aircraft tires, brakes, tail wheel axles, windshield, generators, and engines need immediate improvements.

DISCUSSION: Based on usage factors of all mentioned items, it is obvious that the components mentioned, are not sufficiently strong enough to support field operations without unacceptably high failure rates.

RECOMMENDATION: Improve specifications to insure minimum standards will be meet.
PROBLEM: Loss of leave at end of fiscal year.

DISCUSSION: Many soldiers have in excess of 60 days leave. Over the past year soldiers have frequently been restricted from taking leave as a result of mission requirements and may therefore lose leave at the end of the fiscal year.

RECOMMENDATION: Allow EM's to retain leave above 60 days for a 180 day grace period commencing 1 Oct 80.
PROBLEM: NVG operations with illuminated level below 20% necessitating the use of an artificially generated aircraft illumination source.

DISCUSSION: The searchlight pink filter (filtered down visible light) as used during this exercise produced an incoherent light pattern which is unacceptable for NVG operations at low illumination levels. The installation of the filter increased aircraft weight, parasite drag and caused searchlight drive motor burn out when the light is stowed.

RECOMMENDATION: Replace searchlight bulb with an IR bulb; the searchlight could then be used in all slew modes with no increase in weight or drag.
ANNEX I (Lessons Learned) To Honey Badger After Actions Report

1. At least 20% moon illumination is required to conduct safe NVG training operations. Effective ambient light is minimum 20% and maximum 70%.

2. Camouflage of the UH-60 can be accomplished in a desert environment using a minimum of 3 net systems and 2 support systems. Optimum camouflage was achieved using 4 net systems and 2 support sets.

3. The UH-60 can be expected to perform with gross weight increased to at least 21,500 pounds with a density altitude condition of 7700 feet.

4. The UH-60 proved to be reliable in a desert environment with only minimal maintenance being performed.

5. The UH-60 is NVG compatible with some shortcomings noted. See ANNEX A.

6. UH-60 formations flight can be performed adequately using Night Vision Goggles as long as proper aircraft spacing is maintained (3-5 rotor discs). If this spacing is not maintained, attempts to re-form or close the formation become hazardous with goggles due to limited depth perception.

7. Pink filtered searchlights proved to be inadequate for the mission.

8. Aircraft tires will not adequately withstand the heat, abrasion, and wear encountered during desert operations.

9. FM radios proved to be of limited usefulness for base station flight-following due to terrain masking and range limitations.

10. Present machinegun mounts installed in UH-60 do not allow gunners to place suppressive fire to the forward quadrants.

11. Airborne link-up with H-53s has proven to be unworkable. H-53s must land adjacent to their UH-60 flights, and then execute a formation take off.

12. UH-60s can easily adapt to formation flight with H-53s. Formation flight can be maintained during IFR conditions.

13. UH-60s must maintain adequate separation from H-53s during takeoff and land-
ANNEX I (Lessons Learned) To Hornet Badger After Actions Report

ding to avoid problems with aircraft control and excessive power demands created by the H-53's rotor wash.

14. UH-60s initially have insufficient power to maintain a 6° climb angle (1000 FPM) while in formation with H-53s using terrain avoidance radar. After 1 to 1 1/2 hours of flight, UH-60s will have a reduced fuel level and can maintain a 6° climb angle. The H-53s 12° climb angle at 2000 FPM was impossible for the Blackhawk to maintain in nearly all cases.

15. The UH-60 proved capable of carrying 15 combat-equipped troops (weapons, LBE, and light rucksacks) when auxiliary fuel cells 1 through 4 had been removed.

16. Maintaining crew integrity and, if possible the same aircraft, is essential for this type operation.
Subject: Operation POTENT CHARGE

1. Attached is the outline of Operation Potent Charge, a vehicle for improving the joint helicopter special missions capability of the Services.

2. POTENT CHARGE will specifically address lessons learned during both phases of JTX Honey Badger with respect to helicopter operations.

3. The Joint Helicopter Doctrine and Procedures Conference has been held, and a draft working copy of the joint procedures handbook is in use.
OPERATION POTENT CHARGE

PURPOSE -

1. Train to deployability readiness a mission-capable force consisting of 5 HH-53H's, 5 HH/CH-53C's, 5 CH-47C's (HICAP), 10 UH-60A's (HICAP).

2. Train a cadre of mission-ready crews for the purpose of conducting scenario-oriented individual and unit training.

3. Articulate doctrine and procedures for the conduct of joint helicopter special operation missions, and document for the future.

CONCEPT -

1. 6 to 8 Aug 80 – Conduct Joint Helicopter Operations Doctrine and Procedures Conference, sponsored by JTD. Attendees from HQ, JTD; HQ, 1st AVN GP; HQ, 1st Special Operations Wing; US Army Aviation Center; and Marine Aviation Weapons and Tactics Squadron One. Determine, in conference, using HONEY BADGER evaluations as a basis, doctrine and procedures for conduct of future helicopter special missions. Document procedures.

2. 18 to 30 Aug 80 – Conduct operational training of a mission package to refine and test doctrine and procedures. Conduct a mission-oriented exercise over realistic distances, in a type mission environment. Evaluate special mission package potential.

ASSETS -

10 - UH60 HICAP
5 - CH47 HICAP
5 - HH53H
5 HHCH53C/D
Select Crew:
- 8 UH60, Army
- 4 CH47, Army
- 4 HH53, Air Force
- 4 HH/CH53, Air Force/USMC
(8) Doctrinal/Procedural Subject Areas –

1. Briefings:
   a. Briefing format/guide
   b. Pre-mission data checklists
   c. Map/chart/flight log preparation
   d. Formation briefs
   e. Emergency procedures briefs
   f. Cell standardization
   g. Tactical situation briefs
   h. Mission note cards

2. Mission, profile, enroute phase –
   a. Ground abort procedures
   b. Communications plan
   c. Spare aircraft procedures
   d. Departure join-up
   e. Enroute link-up
   f. Lost lead link-up
   g. Formation visual signals
      (1) lead change
      (2) frequency change
      (3) position change
      (4) emergency
      (5) break
   h. NVG navigation check points – route selection
   i. Lost comm
   j. Lost visual contact – signals and procedures
   k. Evasive maneuver battle drill
   l. Wing man abort
   m. Downed crew recovery
   n. Re-link procedures, enroute, holding area, LZ/PZ
   o. IP procedures
   p. Holding area procedures
   q. Hides
   r. AR procedures
      (1) timing
      (2) missed AR
      (3) cell procedures
      (4) lighting

3. Mission profile, terminal phase
   a. Aircraft spotting in LZ/PZ holding area
   b. ROE/LZ status/threat/security
   c. Rejoin by aircraft left in holding area
   d. RRP closeout procedures – signals and counts
e. PZ closeout procedures—signals and counts
f. Authentication procedures
g. Evasive maneuver, re-link
h. Pax onload/offload procedures
   (1) count
   (2) control
   (3) conform
i. Lost lead
j. LZ lost comm
   (1) visual signals
   (2) withhold
k. Rescue and recovery response procedures
l. Signals—compromise/pickup/proceed
m. Holding area communications—
   (1) call forward plan
   (2) re-link plan
   (3) withhold plan
   (4) NLT times
n. Passenger instructions
o. Transload area procedures
   (1) pax instructions
   (2) pax marking
   (3) pax accounting
   (4) ingress/egress
   (5) lighting
   (6) communications plan
   (7) lost comm plan—signals
   (8) control points/holding areas
p. RRP/LZ/PZ timing/traffic/holding
q. RRP/LZ/PZ HA procedures
r. Go around procedures
s. CCT/Pathfinder coordination
US ARMY AVIATION BOARD
FORT RUCKER, AL 36362

RECOMMENDED
EMERGENCY REMOVAL PROCEDURES
FOR
UH-60A EXTENDED
RANGE FUEL CELLS NUMBERS
1, 2, 3 & 4

Test Project NCO
27 June 1980
TAILED REMOVAL INSTRUCTIONS

CREWMEMBER

1. Pilot (Prior to Landing)

2. Navigator

3. Navigator

4. BEFORE LANDING

CREWMEMBER L/SIDE

4-1 Disconnect #1 fuel cell pump electrical line at quick disconnect (Figure 2).

4-2 Cut #1 fuel cell bonding jumper wires on main fuel line and check valve (Figure 3).

4-3 Cut forward pallet bonding jumper wire (Figure 4).

CREWMEMBER R/SIDE

4-1 Disconnect #2 fuel cell pump electrical line at quick disconnect (Figure 2).

4-2 Cut #2 fuel cell bonding jumper wires on main fuel line and check valve (Figure 3).

4-3 Cut forward pallet bonding jumper wire (Figure 4).

5. PILOT: After landing instructs crew to remove #1, 2, 3, & 4 fuel cells.

6. AFTER LANDING

CREWMEMBER L/SIDE

6-1 Cut #1 fuel cell forward retaining straps at D-rings (6 each) (Figure 5).

6-2 Disconnect main fuel line for #1 fuel cell at quick disconnect (Figure 6).

CREWMEMBER R/SIDE

6-1 Cut #2 fuel cell forward retaining straps at D-rings (6 each) (Figure 5).

6-2 Disconnect main fuel line for #2 fuel cell at quick disconnect (Figure 6).
6-3 Disconnect fuel drain line for #1 fuel cell at quick disconnect (Figure 7).

6-4 Open left cargo door

6-5 Cut bonding jumpers on left pallet (between #1 & #3 fuel cells) (8 each) (Figure 8).

6-6 Disconnect vent lines at quick disconnects for #1 & #3 fuel cells (Figure 9).

6-7 Disconnect #3 fuel cell drain line at quick disconnect (Figure 7).

6-8 Cut #1 fuel cell aft retaining straps at D-rings (6 each) (Figure 5).

6-9 Cut #3 fuel cell fwd retaining straps at D-rings (6 each) (Figure 5).

6-10 Cut #3 fuel cell bonding jumper wires (2 ea) on main fuel line and on check valve (1 ea) (Figure 10).

6-11 Disconnect #3 fuel cell main fuel line at quick disconnect and reposition fuel lines between #5 & 6 fuel cells (Figure 6).

6-12 Disconnect #3 fuel cell pump electrical line at quick disconnect (Figure 2).

6-13 Cut #3 fuel cell aft retaining straps at D-rings (6 ea) (Figure 5).

6-14 Disconnect #4 fuel cell pump electrical line at quick disconnect (Figure 2).

6-14 Cut #4 fuel cell aft retaining straps at D-rings (6 ea) (Figure 5).

7. LEFT AND RIGHT CREWMEMBERS:

WARNING: Movement from side to side of aircraft should be accomplished around front of aircraft only.
7-1 Remove #3 cell.

7-2 Remove pip pins (4 ea) from left center pallet and rotate pallet aft and inboard (Figure 1).

7-3 Remove #1 cell.

7-4 Remove #4 cell.

7-5 Remove pip pins (4 ea) from right center pallet and rotate pallet aft and inboard (Figure 1).

7-6 Remove #2 cell.

8. NAVIGATOR: Inform pilot when all equipment and crewmembers are secure for takeoff.

TOOLS REQUIRED:

Wire Cutters 2 ea NSN 5110-00-293-3210

Surgical Knife 2 ea To be provided.
<table>
<thead>
<tr>
<th>EVENT</th>
<th>LEFT</th>
<th>RIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonding Jumper Wires to Be Cut</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Disconnect Electrical Pump Wires</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Disconnect Quick Disconnects</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Fuel Cell Retaining Straps Cut</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Pip Pins to be Removed</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
TO: Test Director, JCS Honeybadger
FROM: Test Project Officer
SUBJ: UH-60A Human Factors

The following human factors considerations concerning UH-60A have emerged from discussions with operational pilots:

1. Pilot/Copilot Seat
   a. Becomes uncomfortable after 2 hours flight. A sheep skin pad would probably be beneficial if added to the seat cushion.
   b. Adjustable kidney pads on P/CP seats are too soft and lose resilience, thus becoming ineffective.

2. Navigator seat is too low and navigator must unbuckle seat belt to see/operate Doppler, change radio frequencies, etc. Use of a crew chief/gunner seat and harness assembly or a monkey harness is recommended.

3. Some pilots are counter-balancing helmets by placing weight on the aft portion of their helmets to compensate for weight of NVG. Some are attaching elastic bands between the aft portion of their helmets and their pants belts to reduce neck strain. The formerly mentioned method is hazardous in the event of a crash.

4. Load bearing gear, pencils carried in sleeve pockets on Nomex uniforms, and other items catch on components of extended range fuel systems as crewmembers attempt to move front to rear of aircraft.

5. Cockpit ventilation is inadequate which causes added fatigue to crewmembers during hot weather operations. Additionally, pilots report that numerous P/CP door vent windows do not operate properly.

6. Night operations at high altitudes will require keeping cargo doors closed for crew comfort.

7. Milk should not be placed in box lunches as it sours in hot weather prior to consumption.

8. Relief tubes would be extremely useful. Crewmembers are currently limiting fluid intake before/during extended flights to preclude necessity for urination.

9. Red navigation light does not provide adequate lighting for NVG operations; green does.

Senior Test Project Officer
PENTAGON TELECOMMUNICATIONS CENTER

OTTSZUYH RUCLEUA6950 2072230—RUEADWO.
IMMEDIATE
O 252130Z JUL 80
FM PRESIDENT AVN BD FT RUCKER AL //ATZQ-OT-AU//
TO HQ CA WASH DC //DAMC-RQD//
BT

G

SECTION 01 OF 02
MAJ [REDACTED] PASS TO MAJ [REDACTED]
SUBJ: HONEY BADGER

1. THIS MESSAGE IS A SUMMARY OF FINDINGS WHICH RESULTED DURING
   EVALUATION OF THE FINAL EXERCISE CONDUCTED DURING PHASE II.
   2. PILOT MISSION BRIEFINGS
      A. NORTH ROUTE
         (1) CONDUCTED BY 158 AVN BN
         (2) ADEQUATE WITH SOME EXCEPTIONS
      B. SOUTH ROUTE
         (1) CONDUCTED BY USAF
         (2) UNSATISFACTORY WITH THE EXCEPTION OF WEATHER AND CH-47
      RAPID REFUEL OPNS. SITUATION, MISSION AND EXECUTION WERE PRESENTED
      IN A CONFUSED,UNCLEAR MANNER. NO LOGICAL FORMAT SUCH AS THE 5
      PARA FIELD ORDER WAS USED. NUMEROS CHANGES WERE MADE DURING THE
      BRIEFING; VISUAL AIDS WERE POOR.
         (3) EXTREMELY BRIEFINGS BY PIC'S OF FLIGHT LEADS MADE
      MISSION ACCOMPLISHMENT POSSIBLE.
      C. GENERAL COMMENTS CONSOLIDATED BY EVALUATORS PRESENT AT
     30TH PILOT MISSION BRIEFINGS:
         (1) NUMEROUS FREQUENCIES AND CALLSIGNS UNKNOWN; SOME CHANGED
      DURING BRIEFING.
         (2) SOME VISUAL AIDS WERE INADEQUATE.
         (3) OCCUPATION OF LZ'S WAS NOT PROPERLY BRIEFED.
         (4) LINK UP OF UH-60 AND CH-53 AT LZI SOUTH WAS POORLY
     PLANNED; CHANGED DURING THE BRIEFING.
         (5) FRIENDLY/ENEMY SITUATION WAS NOT BRIEFED.

ACTION DAIM(12) (U,F)
INFO SAPA(3) DALO(6) DAMI(6) DAPE(3) DAAC(6)
AOC-DAMI WATCH(1)

TOTAL COPIES REQUIRED 37

MCN=80207/24141 TDR=80207/22492 TAD=80207/22492 COSN=PR8552

ARMY SECTIONAL MSG

PAGE 01

* 252130Z JUL 80  * 252130Z JUL 80
SECT 01 OF 02
PENTAGON TELECOMMUNICATIONS CENTER

(6) NO CH-47 RRP TERMINATION TIME OR SECURITY PLAN WAS BRIEFED.
(7) LZ SECURITY PLAN WAS NOT BRIEFED.
(8) LZ STATUS AND RULES OF ENGAGEMENT WERE NOT BRIEFED.
(9) AUTHENTICATION TABLES WERE NOT BRIEFED/USED.
(10) THE FOLLOWING PROCEDURES WERE NOT ADDRESSED:
     (A) EVASIVE MANEUVERS
     (B) INSTRUCTIONS FOR PASSENGER DEBOARDING AT AIRFIELDS
     (C) INSTRUCTIONS IN THE EVENT OF LOSS OF LEAD AIRCRAFT
     (D) INSTRUCTIONS FOR LOST COMM
     (E) DOWNED CREW RECOVERY PROCEDURES
     (F) SIGNALS FCP FORMATION CHANGE
(11) JOINT OPERATING PROCEDURES. STANDARDIZATION AND IMPLEMENTATION ARE ESSENTIAL TO MISSION ACCOMPLISHMENT.

3. PREMISSION PLANNING WAS POOR DUE TO THE FOLLOWING:
   A. NAVIGATORS BRIEFED SEPARATELY AND PRIOR TO PILOTS;
   B. 1:500,000 SCALE MAPS ARE INADEQUATE FOR SUFFICIENT DETAIL.
   C. HAZARDS INFORMATION WAS NOT AVAILABLE.
   D. COMPLETE, DETAILED CREW BRIEFINGS WERE NOT CONDUCTED DUE TO INSUFFICIENT TIME.
   E. NUMEROUS INADEQUATE AIR NAVIGATION CHECKPOINTS WERE PROVIDED. (PLANNERS SHOULD UTILIZE AN NVG SIP DURING SELECTION OF CHECKPOINTS.)

4. MISSION EXECUTION
   A. UH-60/CH-53 INGRESS TO HOLDING LZ'S
      (1) THIS PHASE WAS GENERALLY WELL EXECUTED; ENROUTE NAVIGATION/PILOTAGE GOOD.
      (2) SOUTH LZ WAS INADEQUATE: 1 INCH POWDERED DUST; SMALL;
      UH-60'S MADE GO AROUND.
      (3) UH-60 CALL FORWARD PLAN WAS UNCLEAR.
      (4) UH-60/CH-53 LINK UP PLAN WAS POORLY PLANNED AND EXECUTED.
   B. CH-53 INGRESS TO PZ
      (1) GENERALLY GOOD
      (2) ONE AIRCRAFT MADE A GO AROUND
   C. MOVEMENT TO AIRFIELDS
      (1) LACK OF A COMPREHENSIVE PLAN AND EXPERIENCE RESULTED IN MUCH CONFUSION AND DISORGANIZATION WHICH RESULTED IN RELIANCE ON RADIO COMMUNICATIONS.
PENTAGON TELECOMMUNICATIONS CENTER

(2) NUMEROUS AIRCRAFT IN THE VICINITY OF AIRFIELDS WERE FLYING IN VARIOUS DIRECTIONS WITH NO CONTROL AGENCY RESULTING IN NUMEROUS OVERFLIGHTS. NOT ALL PASSENGERS EXITED HELICOPTERS AT APPROPRIATE POINTS ON AIRFIELDS DUE TO LACK OF PROPER PLANNING.

BT
PENTAGON TELECOMMUNICATIONS CENTER

OTTSZYU RUCLEUA6951 2072230---RUEACWC.
IMMEDIATE
O 252130Z JUL 80
FM PRESIDENT AVN 8D FT RUCKER AL //ATZQ-OT-AU//
TO HQ DA WASH DC //DAMO-RQD//
BT

FINAL SECTION OF 02
(3) MUCH OF FLYING WAS CONDUCTED IN EXCESS OF 1500 FT AGL.
(4) CONFUSION AND DISORGANIZATION RESULTED IN PILOTS USING
POSITION LIGHTS, UNFILTERED LANDING LIGHTS AND EXCESSIVE RADIO
TRAFFIC.
(5) AIRCRAFT OFTEN LOST SIGHT OF EACH OTHER DURING FORMATION
FLYING UNDER NVG'S RESULTING IN STROBE LIGHTS BEING USED TO
REGAIN CONTACT BETWEEN AIRCRAFT.
D. REFUELING AT CH-47 RRP'S
(1) ENROUTE PILOTAGE AND NAVIGATION WAS EXCELLENT.
(2) NORTH FLIGHT OVERFLOW THE RRP SITE AND CIRCLED THE AREA
FOR APPROX 15 MINUTES TO LOCATE THE PROPER AREA.
(3) ONE CH-47 AT THE SOUTH RRP HAD TO BE REPOSITIONED APPROX
200 METERS DUE TO POORLY SELECTED TERRAIN.
(4) RRP SET UP WAS COMPLETED IN 15 MINUTES.
(5) REFUELING UH-60 WITH 500 LBS OF JP-4 TOOK BETWEEN 6 AND
11 MINUTES. ONE AIRCRAFT TOOK 13 MINUTES DUE TO CREWCHIEF BEING
UNFAMILIAR WITH THE CCR NOZZLE.
(6) NUMEROUS PILOTS RECOMMENDED THAT UH-60 LANDINGS BE
ACCOMPLISHED AT RIGHT ANGLES TO AND BEHIND CH-47'S FOR SAFETY IN
THE EVENT OF REQUIREMENTS FOR GO AROUNDS.
(7) ONE CH-53 EXPERIENCED FAILURE OF THE NOSE GEAR AND
UTILIZED WHITE LIGHT FOR 11 MINUTES TO TRY TO RESOLVE THE PROBLEM.
(8) ONE RRP PUMP FAILED; CREW MUST RELEASE PRESSURE IN LINES
PRIOR TO CHANGING PUMPS; TIME DELAY WAS NEGLIGIBLE.
5. MISSION EFFECTIVENESS
A. NAVIGATION EQUIPMENT ONBOARD AIRCRAFT OCCUPIED BY
OBERVERS WORKED WELL; GENERALLY NAVIGATION ERRORS WERE LESS THAN
0.6 MILES.
B. JOINT OPERATING PROCEDURES ARE NEEDED FOR STANDARDIZATION

MCN=80207/24152  TCR=80207/2249Z  TAD=802C7/2249Z  CDSN=PRB54A
ARMY SECTIONAL MSG  ******************************************  PAGE 04
* SET-RT  * 252130Z JUL 80
******************************************  SECT 03 OF 02
PENTAGON TELECOMMUNICATIONS CENTER

AND MISSION EFFECTIVENESS IN THE EVENT OF UNEXPECTED OCCURRENCES.
C. AS AMBIENT LIGHT CONDITIONS DEGRADE, FLIGHT ALTITUDES
INCREASE IN EXCESS OF 1500 FT AGL.
D. MORE PRACTICE IN FORMATION FLYING WHILE WEARING NVG'S IS
REQUIRED.
E. SOME CREW MEMBERS ARE NOT FAMILIAR WITH CCR NOZZLE
REFUELING.
F. CREW COORDINATION AND STANDARDIZATION SHOULD BE IMPROVED.
G. ALL CREW MEMBERS SHOULD BE PROVIDED WITH NVG'S; NOT ALL
CH-47 ENLISTED CREW MEMBERS AND NAVIGATORS HAD NVG'S.
H. EXTENDED RANGE FUEL SYSTEMS WORKED WELL. (PREVIOUS
COMMENTS AND RECOMMENDATIONS FOR MODIFICATION STILL APPLY.)
I. A BLACKOUT CURTAIN BETWEEN THE COCKPIT AND NAVIGATOR
AND A COVER OVER THE DOPPLER WERE TESTED; CREW ACCEPTANCE WAS
GOOD. [BLANK] HAS MATERIALS TO MAKE ADDITIONAL CURTAINS/COVERS.
J. COMPLETE TACTICAL MISSION BRIEFINGS TO INCLUDE GROUND
SECURITY PLANS ARE ESSENTIAL.
K. ADEQUATE TIME MUST BE PROVIDED BETWEEN BRIEFINGS AND
MISSIONS TO ALLOW FOR THOROUGH CREW PLANNING AND COORDINATION.
L. PATHFINDERS SHOULD BE INSERTED INTO RRP SITES AT LEAST
15-30 MINUTES PRIOR TO CH-47 ARRIVAL.
M. NOT ALL UH-60'S REFUELED AT THE RRP. CREWS SHOULD
COMPLETE ALL REQUIRED TRAINING TASKS DURING EVERY MISSION TO
INCREASE PROFICIENCY AND CONFIDENCE.

6. RECOMMENDATIONS
A. UH-60 HYDROMECHANICAL UNIT (HMU) AND APU PROBLEMS SHOULD
BE DIAGNOSED AND RESOLVED (RESULTED IN ENGINE FAILURES AND APU
FIRES/FAILURES, RESPECTIVELY).
B. LANDING LIGHTS FITTED WITH LIGHT DIFFUSERS BE MODIFIED
BY ADDITION OF A LIMITER SWITCH TO PRECLUDE INADVERTENT OPERATION
AND DAMAGE/MOTOR BURN OUT.
C. ADDITIONAL MISSION TRAINING OVER SHORTER ROUTES TO PERFECT
MISSION EXECUTION.
D. DEVELOPMENT AND IMPLEMENTATION OF JOINT OPERATIONS.
E. ALL UH-60 AND CH-47 ACFT BE FITTED WITH CURTAINS BETWEEN
NAVIGATORS AND COCKPITS.
F. PROVIDE 48 HOURS OR MORE BETWEEN MISSION NOTIFICATION AND
EXECUTION.

7. TEST AND EVALUATION PCC IS CPT(P)

MCN=80207/24152  TOR=80207/2249Z  TAD=80207/2249Z  CDSN=PR8548

ARMY SECTIONAL MSG

************ PAGE 02 05 95 ************
FROM: Test Project Officer

TO: Test Director, JCS Honeybadger

SUBJECT: UH-60A NVG Compatability

27 Jun 80

1. The following are the most significant findings concerning UH-60A NVG compatibility; comments were derived from data collection forms received and during interviews with IP's.

   a. Trim ball on Vertical Situation Indicator is not visible and is too small.

   b. Center windshield should be glass; plastic windshield currently installed is crazing.

   c. IR searchlight is needed.

   d. Position lights should have split elements so top half is not visible during NVG operations. NOTE: Bottom half of light position light should be green to enhance NVG visibility.

   e. Protective covers should be placed over backup pump and hydraulic leak test switches on overhead console.

   f. Formation flying is no problem - formation lights must be placed on #3 position to afford adequate visibility over engine exhausts.

   g. SR illuminators (similar to those provided in the CH-47) should be available in the cockpit.

   h. A red lensed flashlight covered with 100 MPH tape with a paper punch-sized hole in the tape provides adequate emergency lighting.

   i. All instruments and indicators should be painted with luminous paint. As example:

      (1) Stabilator controls
      (2) Stabilator indicator
      (3) Trim ball in VSI
      (4) HSI/VSI needles and command bars
      (5) Engine quadrant controls
      (6) Altimeters (radar and barometric)

   j. Some cockpit lights are too bright; others are too dim. Different lights illuminate at various intensities; not all lights can be varied to an acceptable intensity. Examples:
(1) Segment lights and Master Warning Panel lights cannot be independently varied.

(2) AFCS dimmed lights are too bright.

(3) Central Display Unit and Pilot Display Unit lights cannot be sufficiently dimmed for 0-15% light illumination operations.

(4) CIS and Node Select panel lights should be disconnected from PNL LTS circuit and attached to a dimming switch.

k. Stops produced for Engine Control Levers are not fitting properly; IP's do not believe they are needed and are not using them.

2. Transition from NVG to Night Hawk takes approximately 2-5 minutes for full adaptation; this is not viewed as a problem area at this time.

3. Extended use of NVG is not viewed as a problem. Some pilots have operated for up to 3 hours continuous duration.

4. IP's feel they are competent UH-60A NVG operators, and certainly the best qualified to operate the UH-60A under NVG, and should be considered fully qualified.

Cyclic till Sw comes back bright.
UH-60A NVG COMPATABILITY
DATA COLLECTION FORM

NAME AND RANK ________________________________

DUTY POSITION (P, CP, N, OBS, CE)

DATE ________________________________

Rate your ability to locate, operate and/or use the following items using the scale provided, based upon your judgment. Purpose is to determine adequacy of procedure being used to prepare the UH-60A for NVG operations.

SCALE:

1 - No improvement required
2 - Adequate, but improvement required
3 - Minor improvement required
4 - Major improvement required
5 - Unacceptable unless modified

PERCENT RESPONSES ≥ 10% ARE REFLECTED IN COLUMNS H95 (PROBLEM AREAS)
ITEM ELIMINATED (−) IF ZERO (0) % RESPONSES IN COLS. H95 (NO PROBLEMS)

<table>
<thead>
<tr>
<th>SUBJECT ITEM/AREA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NO. OF RESPONDENTS</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COCKPIT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master Warning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pilot Instruments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airspeed</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stabilator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mode Select</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radar Altimeter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Altimeter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copilot Instruments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airspeed</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stabilator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mode Select</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radar Altimeter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECRET 31 ITEM CIRCLED IF RESPONSES IN COL. 1
<table>
<thead>
<tr>
<th>SUBJECT ITEM/AREA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>No. of RESPONDENTS</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caution/Advisory Panel</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Display Unit</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compass</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFCS Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Console</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Console</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine Fire T-Handle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APU Fire T-Handle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free Air Temperature Gage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cockpit Flood Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cockpit Utility Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 1 Circuit Breaker Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 2 Circuit Breaker Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC Essential Bus Circuit Breaker Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery/Battery Utility Bus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circuit Breaker Panel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Navigation Lights</td>
<td></td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formation Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anti-collision Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landing Light</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search Light</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead Switches</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine Control Quadrant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflections on Windshield (Indicate source(s))</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collective Grip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyclic Grip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NVC Preparation-Procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-10 DC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transition from VNG to Hightlyhawk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Write in)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CENTER WINDSHIELD</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POSITION LIGHTS</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBJECT ITEM/AREA</td>
<td>RATING</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>--------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Cabin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission Readiness Circuit Breaker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Panel (Cabin)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cabin Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doppler</td>
<td></td>
<td></td>
<td>2</td>
<td>5</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OEGA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Aux Fuel Tanks</td>
<td></td>
<td></td>
<td>2 5</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accumulator Pressure Gauge</td>
<td></td>
<td></td>
<td>2 5</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cargo Hook Operation</td>
<td></td>
<td></td>
<td>1 4</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Lights</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cabin Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exterior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine Oil Level</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main Transmission Oil</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate Gear Box</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tail rotor Gear Box</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulative Reservoirs</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level(s)</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottle Thermal Plug</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhaust</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine Exhaust</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Write in)</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| REMARKS                           |        |   |   |   |   |   |
FINDINGS

Maint. crane unuseable w/ rollers installed
No fuel dump capability on ERK
Internal tyedowns unsecure & incapable of securing load
Navigator seat too low
- seatbelt unused (monkey harness?)
NVG should not be used by infantry
- need lens brushes
- need lens cleaning fluid
H.F. Antenna - no secure
- 1/4" below A/C @ antenna
- Antenna w/ 1/4" below antenna
- possible interference w/ down lead
- possible interference w/ down load field
High G.W. class engine response is poor below NVG Compass
- some light for flight
- some light for ski
- Taping marginal...art
- engine drop causes rotor to go below normal Need relief take
- seatbelt wasn't (Monkey harness?)

NVG - should not be lent to infantry
- need lens brushes
- need lens cleaning fluid

H.F. Antenna - no secure
- 1/2" below H/C @ antenna
- Faraday cage - 2 1/2" wide radius
- possible line down "spiral" interference
- possible interference with field

High BW plans engine response in rotor boom

NVG Compartment
- some lights for flight
- some lights to see
- "Sleepingonnation", sat
- engine drop causes lot of go below normal

Need relief tubes

ERK not interchangeable
- below flared
- routing
- no fuel metering system

Reg's now odd hiedon in air transport