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REPORT ON THE IRANIAN HOSTAGE RESCUE MISSION

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PREFACE

(U) Attached is the after action report on the attempted rescue mission of the American hostages in Iran on 24 April 1980.

(U) The purpose of the report is to describe all planning and training conducted by the Joint Task Force (JTF) in preparation for the mission, review all aspects of mission execution and termination, and evaluate the adequacy of planning and training to support the JTF in execution of the mission. The report is provided in three sections preceded by an Executive Summary. Section I describes planning and training; Section II reviews mission execution; and Section III contains an evaluation and an assessment of planning, training, and where appropriate, execution.

(U) The mission was critiqued thoroughly by a group of Joint Task Force representatives, chaired by the Deputy Commander of the JTF and with the assistance of independent analysts. The group utilized a technique whereby a list of questions was developed which pertained to the conduct of the mission. The group employed the questions to evaluate and assess adequacy of training and planning for the mission.

(U) The result is an evaluation of all known events and planning factors which may have had a bearing on the conduct of the mission. Some of the events are of little or no significance to the outcome of the mission; others are significant. The evaluation section does not attempt to describe the long list of JTF achievements nor does it provide a detailed account of the many events that were

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accomplished with professionalism and dedication. The intent of this report is to enable the reader to draw upon a document written in retrospect with far more knowledge and experience than was available prior to the mission.

(U) The evaluation should be considered in the context of the magnitude of the challenges faced by the JTF. The mission required the force to travel undetected half way around the world in order to penetrate deep into Iran. The Mission was well planned and the force was competent. The force had proceeded for a considerable distance into Iran before it encountered unforecast and unpredictable circumstances in the form of helicopter mechanical failures and suspended dust. The unforecast weather phenomenon had less that a 5% probability of occurrence. There is only a statistical probability of less than 4% that more than two of the eight helicopters launched would have material failures which would render them non-mission capable. Had either event occurred and not the other, the mission could have proceeded. The force worked hard to overcome the circumstances that developed but only five of the six helicopters to arrive at Desert One were mission capable

(U) The JTF had accomplished a great deal of worst case planning. It would be speculative to judge whether the outcome of the mission would have been different had the JTF adopted additional worst case planning options, conducted appropriate training to support those options and modified command and control procedures to respond to the unpredictable events as they unfolded on 24 Apr

(U) (S) This rescue mission was the most difficult and challenging recorded in the annals of military operations. Few will fully appreciate the international, geophysical, astronomical, security and operational complexities associated with this operation. The [redacted] of planning and train[redacted] and avai[redacted] equipment did not and perhaps could not have enabled the JTF to [redacted] the circumstances encountered. The complexities associated with developing all planning criteria left little room for flexibility once the force was deep into Iran. Planners charged with the responsibility to develop capabilities and systems to combat terrorism, while remaining undetected and while traveling great distances can draw on the experience and knowledge gained by the JTF to enable a task force to accomplish the mission under duplicate or similarly difficult conditions experienced on 24 Apr in Iran.

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GLOSSARY OF TERMS
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AAF	Army Airfield
ABBCC	Airborne Battlefield Command and Control Center
AFB	Air Force Base
AFCS	Automatic Flight Control System
AGI	Intelligence collection ship
AGL	Above ground level
ALCE	Airlift Control Element
AMEMB	American Embassy
APP	Auxiliary Power Plant
ART	Air Refuelable [illegible] version of KC-135 tanker, which can be refueled in flight
AWS	Air Weather Service
BIM	Blade Inspection Method. System for in-flight warning of helicopter blade failure
BLIVET	500 gallon air-droppable fuel cell; provides 450 gallons of usable fuel
C&C	Command and Control
CAP	Combat Air Patrol
CAR-15	Submachine gun version of M-16 rifle
CCT	Combat Control Team. Air Force element specializing in air traffic control in forward areas in this case the operation of a landing zone
CEOI	Communications Electronics Operating Instructions
CIA	Central Intelligence Agency
CINCEUR	Commander in Chief, US Forces Europe
CINCPAC	Commander in Chief, Pacific
CJCS	Chairman, Joint Chiefs of Staff
COMBAT TALON	The unclassified code name for a group of specially modified C-130 aircraft.

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COMJTF	Commander, Joint Task Force
CONUS	Continental United States
CSE	Cryptologic Support Element
CTF-70	Commander Task Force - 70
DCI	Director of Central Intelligence
DCM	Deputy Chief of Mission
DCOMJTF	Deputy Commander, Joint Task Force
DELTA	(See SFOD-D)
DIA	Defense Intelligence Agency
DMA	Defense Mapping Agency
DMSP	Defense Meteorological Satellite Program
DOD	Department of Defense
DOE	Department of Energy
DOS	Department of State
DR	Dead reckoning navigation by time and distance computations
DZ	Drop Zone
E&E	Escape and Evasion
EAF	Expeditionary Airfield
ECM	Electronic Countermeasures
EEI	Essential Elements of Information. Key questions of a mission critical nature which must be answered by intelligence before the mission can proceed
[redacted]	
EUCOM	US European Command
EWO	Electronic Warfare Officer
FARE	Forward Area Refueling Equipment, kit for fuel transfer
FARSI	Iranian language (Persian)
FLIR	Forward Looking Infrared, aircraft mounted night vision equipment
FULTON RECOVERY SYSTEM	See STAR

GENDARMERIE	Iranian paramilitary field police force charged with preserving domestic order outside the cities; in being since before the revolution
GPM	Gallons per minute
HAWK	Homing-all-the-way Killer. US made surface-to-air missile
HF	High Frequency - 3-30 MHz
HLZ	Helicopter landing zone
HM-16	Helicopter Mine Countermeasure Squadron 16
HUMINT	Human source intelligence
IAF	Iranian Air Force, also IIAF for Imperial or Islamic Iranian Air Force
IFR	Instrument Flight Rules
IMC	Instrument Meteorological Conditions
INS	Inertial Navigation System
IR	Infrared
IWG	Iran Working Group, Dept of State Working Group
J-1	JTF Personnel Administration
J-2	JTF Intelligence
J-3	JTF Operations
J-4	JTF Logistics
J-6	JTF Communications and Electronics
JCS	Joint Chiefs of Staff
JCSE	Joint Communications Support Element
JOG	Joint Operations Graphic (1:250,000 scale map)
JP-4	Jet petroleum fuel
JTF	Joint Task Force
KEVLAR	Ballistic nylon used to make bullet-proof vests
KY-28 NESTOR	Voice encryption device mounted in aircraft
LAPES	Low Altitude Parachute Extraction System

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LAW	Light Antitank Weapon
LZ	Landing zone
M-72 LAW	66mm singleshot antitank rocket .
M-203	40mm grenade launcher which mounts under the barrel of an M-16 rifle
MAAG	Military Assistance Advisory Group
MAC	Military Airlift Command
MAG	Marine Air Group
MAWTS-1	Marine Air Weapons and Tactics Squadron - 1
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MEDEVAC	Medical Evacuation
MFA	Ministry of Foreign Affairs - Iranian Foreign Ministry
MSL	Mean Sea Level
MULE	Small, light (1 man) air droppable cargo vehicle; designated M-274
NAS	Naval Air Station
NCA	National Command Authorities
NCO	Non-Commissioned Officer
NCOIC	Non-Commissioned Officer In Charge
NGB	Nose gear box
NM	Nautical miles
[redacted]	(S)
NSA	National Security Agency
NVG	Night Vision Goggles
NWS	National Weather Service
OMEGA	A radio navigation system used in some mission aircraft

OPSEC	Operations Security. The sum total of all measures taken (Physical Security, Personnel Security, Communications Security, etc.) to prevent enemy foreknowledge of an operation
OR	Operational Readiness
OSD	Office of the Secretary of Defense
PACAF	Pacific Air Forces Command
PARKHILL	KY-65 and KY-75 voice encryption device
PASDARAN	Also "Revolutionary Guards" or "IRG". Armed Iranian vigilantes under the control of revolutionary committees, charged with maintaining domestic order and carrying out Islamic justice; formed since the revolution.
PHOTINT	Photo Intelligence
PI	Photo Interpreters
PINS	Palletized Inertial Navigation System
POL	Petroleum, oils, and lubricants
PSC-1	Portable satellite communications terminal (manpack
PT-25	A portable VHF, UHF radio, adapted for satellite us in this mission
RDF	Rapid Deployment Force
REDCOM	Readiness Command
REDEYE	US made man portable surface to air missile system
RESCAP	Rescue Combat Air Patrol - See also CAP
RMI	Radio Magnetic Indicator, an aircraft navigation instrument
RWR	Radar Warning Receiver
S-2	Unit Intelligence Officer (Army and Marine Corps)
SAC	Strategic Air Command
SAM/AAA	Surface-to-Air Missile/Antiaircraft Artillery
SAR	Search and Rescue

SAR	Search and Rescue
SATCOM	Satellite Communications
SHAPE	Supreme Headquarters Allied Powers Europe
[redacted]	
SFOD-D	Special Forces Operational Detachment - Delta
[redacted]	
SHF	[redacted] High Frequency - 3-30 GHz
[redacted]	
SOD	Special Operations Division of J3/JCS
SPECTRE	C-130 gunship
STAR	Surface to Air Recovery. Also known as "Fulton Recovery System"; method for pickup of personnel or equipment from ground by an airborne MC-130.
TAC	Tactical Air Command
TACAIR	Tactical Air
TACAN	Tactical Air Navigation, a UHF air navigation aid
TACSAT	Tactical Satellite, a satellite communications system
[redacted]	
TF	Terrain Following
TFR	Terrain Following Radar - APQ-122
TF-70	Task Force-70. US Naval units in Arabian Sea and Indian Ocean in support of Middle East contingencies
UHF	Ultra High Frequency - 300-3000 MHz
US	United States

USA	United States Army
USAF	United States Air Force
USCINCEUR	US Commander-in-Chief, Europe
USMC	United States Marine Corps
USN	United States Navy
VHF	Very High Frequency - 30-300 MHz
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions
VOR	Very High Frequency Omnidirectional Range
VSI	Vertical Speed Indicator, an aircraft flight instrument
[redacted]	[redacted]
YPG	Yuma Proving Ground, Arizona

EXECUTIVE ~~SUMMARY~~

(U) This summary provides a synopsis of events that includes planning and training operations that culminated in the 24 April 1980 attempt to rescue 53 American citizens held hostage in Tehran, Iran. The mission was very complex because of the great distances involved and the lack of US military bases in the area from which to launch the operation. Several plans were considered but were discarded for many reasons. The plan that was selected was the most reasonable and was judged to be militarily feasible.

(S) Throughout the planning and training process the Joint Chiefs of Staff (JCS) received progress reports and on several occasions met as a corporate body to review plans, progress and equipment and to provide guidance and direction. The JCS provided the JTF with all resources requested for the actual rescue attempt. However, it should be noted that the scope of planning, training and final force size and composition was constrained from the outset by a lack of trained forces and special operations equipment. [redacted] Aircraft and crews to include spares were eight [redacted] helicopters [redacted] seven MC-130s, [redacted] four AC-130s, and three C-141s, supported [redacted] KC-135 tankers, Navy carrier based fighter [redacted] attack aircraft for Combat Air Patrol (CAP), and hundreds of people providing aircraft and support world wide.

(U) An overriding consideration throughout development of this plan was operations security (OPSEC). In any operation of this type, the advantage essential to the offensive force is the element of surprise. If surprise was lost any

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time during the operation the hostage takers in the Embassy could have been alerted and reinforced which would have terminated any rescue attempt. The ultimate concern was that if the mission had been compromised this fact could possibly not be known until the rescue force arrived at the Embassy.

(U) The report is provided in three sections. Section I reviews mission preparation, selection of forces and equipment and training. Section II reviews mission execution on 24 and 25 April 1980. Section III provides an evaluation of decisions in the planning, training and execution phases that received the most critical attention and were most germane to the mission. Each of the three sections is presented in a manner that will enable it to stand alone. Therefore, there is, by design, a certain amount of redundancy in the complete report.

SECTION I

MISSION PREPARATION

(U) On 4 November 1979 a group of Iranian demonstrators entered the U.S. Embassy in Tehran and took 63 American citizens hostage. Of immediate concern was the possibility that the hostages may be tried and imprisoned or killed. An initial planning cell was developed in the Special Operations Division (SOD) of the Joint Chiefs of Staff J-3 Directorate and assigned the responsibility to develop an immediate capability to free the hostages. Time was critical and the complexities of the operation staggering due to the geographical location of Tehran in relation to any US or friendly base of operation. On 12 November 1979 by verbal orders passed by the Chairman of the Joint Chiefs of Staff (CJCS), MGEN James Vaught was directed to organize and command a Joint Task Force (JTF) with the mission of rescuing the hostages. [redacted] from the US Army [redacted] organization (DELTA) were summoned and planning began. In the months to follow the JTF's responsibility was to develop a militarily feasible capability to perform the mission.

A

(S) Although the DELTA force was trained to handle situations of this type, most scenarios envisioned situations where host countries were supportive or at least [redacted] In this instance, the rescue force would have to travel up to 1000 miles over Iranian territory before reaching the objective, locate and then release the hostages, then extract the entire group from Iran. In the most basic sense, in consideration of the complexities involved, the

[redacted] ability to accomplish this feat did [redacted] November 1979. Subsequent organization and training was dedicated to developing this capability.

(TS) Several plans for getting DELTA to and from the embassy compound [redacted] surface transportation [redacted] by [redacted] rative countries, were examined but were discarded due to the high risk associated with the operations. It became very obvious that unless an option could be developed that employed helicopters for the extraction, the mission would have little chance of success. To further compound this requirement it was necessary that the helicopters have a heavy lift capability and a long range ferry capability.

(S) The only helicopter model available that met the criteria was the Navy RH-53D, for several pertinent reasons. With extra internal auxiliary fuel tanks plus normal external tanks it was capable of traveling long ranges and it had foldable rotor blades and tail boom which would allow it to operate from an aircraft carrier, thereby enhancing operational security considerations. RH-53Ds were designed for a mine-sweeping mission and their crews trained in the mine countermeasure mission. The crews were not trained in any respect for a mission of the type envisioned. In fact there were no mission trained pilots in any service that had experience in this type of operation within the execute criteria envisioned.

A unit had to be formed and was. It was initially composed of seven, [redacted] man crews, made [redacted] of Navy and [redacted]

pilots and enlisted crews. The Navy RH-53D crews were selected for their familiarity with the aircraft and Marine crews for their knowledge of extended range overland flights, operations from unprepared helicopter landing zones and tactical weapons experience.

(U) (S) The general plan that developed required total surprise and, to accomplish [redacted] have to be [redacted] at night. The helicopters would launch from an aircraft carrier in the northern Arabian Sea with the rescue force aboard, refueling on the ground enroute, then proceeding to a hide site to remain overnight. The next night the DELTA force would proceed to the embassy, rescue the hostages, be extracted by the helicopters, then proceed to a nearby airfield for extraction by long range, fixed wing aircraft. This plan called for two nights of operations with a layover inside Iran during the intervening daylight hours.

(C) (S) On 20 November, CJCS conveyed instructions that six RH-53s be positioned aboard the aircraft carrier USS KITTY HAWK enroute to the area. Helicopter Mine Countermeasure Squadron 16 (HM-16) with six RH-53D helicopters were flown [redacted] via USAF C-5s and C-141s, reassembled [redacted] and on 28 November were flown aboard USS KITTY HAWK enroute to the Northern Arabian Sea.

(U) (S) Meanwhile, the planning group selected the other elements of the Joint Task Force that would participate in the rescue attempt. C-130s were selected to carry equipment and fuel to rendezvous with the helicopter force and Rangers to secure the ingress and egress rendezvous sites. The RH-53 crews began training in the southwest United States

in an environment similiar to the Iranian desert and DELTA trained on a scale model and mockups of the embassy area.

(S) Approximately 25 November, [redacted] were [redacted] as part of the force to provide overhead air support [redacted] planned only to the extent that was necessary to protect the rescue force and secure release of the hostages.

(U) (S) The first joint exercise in early December with all elements participating was disappointing. Not only did the [redacted] dropped fuel blivets rupture on impact, but helicopter pilots had difficulty navigating enroute without moonlight and had additional problems landing. An entirely new technique of operating helicopters completely blacked out, [redacted] vision Goggles (NVGs) was [redacted] the development stage.

(U) (C) Several pilots were diverted from the helicopter program at this time and more experienced H-53 pilots brought in. Use of night vision goggles in all operations was stressed.

(U) (S) Refueling of the RH-53s enroute in country posed a significant problem. Several concepts were considered. The first solution was to airdrop fuel bladders (blivets), which could hold 500 gallons each, with hoses and pumps that would be used for transfer of fuel to the helicopters. Although the concept was promising, confidence in the airdrop method had been reduced on the first exercise when seven of ten

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blivets dropped were destroyed due to improper rigging.

(U) (S) As a result of the poor success of the blivet option, an alternate means of fuel delivery was needed. The result was the bulk delivery system that entailed putting 3000 gallon bladders aboard the C-130s for eventual ground transfer to the RH-53s. Originally designed for transfer from aircraft to bladders on the ground, the system was developed as an aircraft to aircraft transfer system.

(U) (S) A search for an abandoned Iranian airfield within the desired range of Tehran where the helicopter fueling would be conducted did not produce a useable field. [redacted] Military Airfield which was in a caretaker status was selected because of its location and the fact that it was estimated to have only 20 to 40 Iranian Air Force personnel on site.

(S) The plan at this stage was to launch the DELTA force, a [redacted] security force and MC-130s with fuel aboard for the helicopters, from a base [redacted] to NAIN airfield where the [redacted] would secure the airfield, the [redacted] would refuel the helicopters and DELTA transfer to the helicopters; the C-130s return to the launch base and RH-53s proceed to a hide site close to Tehran. The second nights extraction remained essentially unchanged with MC-130s extracting the force from Manzariyeh airfield, about 50 miles south of Tehran.

(U) A rehearsal in mid December exercised this scenario. The exercise validated the plan as a viable concept and training continued.

(U) (S) Additional rehearsals on the same basic scenario were conducted, one in January, two in February and one in

March. Earlier problems were refined and there were improvements in the areas of [redacted] and satellite [redacted] supports, infrared lights for [redacted] use of C-141s to augment MC-130s for extraction purposes, inertial navigation and OMEGA systems installations for RH-53s, etc. In addition, lift requirements increased to accommodate a larger delta force and to compensate for increased air temperatures associated with the approaching Spring and Summer. In January two additional helicopters were positioned aboard USS NIMITZ, the relief aircraft carrier for USS KITTY HAWK. When NIMITZ relieved KITTY HAWK in late Jaunary, HM-16 and the six helicopters were transferred to NIMITZ. There were now eight RH-53Ds on NIMITZ.

(TS) While rehearsals were being conducted to support [redacted] "Nain option", work had continued to locate a remote site in the desert that could be used for helicopter refueling to avoid the requirement to take Nain airfield by force. A possible location had been identified by early January [redacted]

(U) As the number of helicopters increased, fuel requirements exceeded the MC-130 capability to transport the fuel. Because of their increased cargo space and since they were also air refuelable, three EC-130s were selected to carry two 3000 gallon fuel bladders. They would be flown by the experienced MC-130 crews.

(U) For five and a half months the force had trained individually and in joint training evolutions. Numerous small training exercises and five major rehearsals had been completed. Helicopter crews flew 542 hours at night in blacked out conditions. The C-130s (AC/MC/EC) flew approximately 940 hours of direct support time not counting administrative and positioning flights. Almost 2000 hours of flight time had been accumulated with over half flown at night and without accidents. The C-130 crews had adapted to using the night vision goggles, landing on runways both with minimum lights and with no lights when completely blacked out. Off runway landings had also been practiced. Helicopter crews had gained hundreds of hours of experience using NVGs in cross-country navigation under the complete spectrum of illumination; from full moon to no light conditions. Refueling procedures between the C-130s and helicopters had become a smooth operation. DELTA and the Rangers had rehearsed to the point that each man was intimately familiar with his responsibility on the mission. Communications had significently improved and with high reliability. The capability that did not exist on 12 November had now been developed and was a reality.

(U) On 16 Apr the Joint Chiefs of Staff received a

briefing on the plan, determined that it was militarily feasible and approved it. Shortly thereafter for reasons of security, COMJTF ordered all units to be prepared to move to a new unspecified training location. Deployment, in fact, was to the actual deployment base. In rapid succession, the maintenance personnel, aircraft, crews and ground forces were assembled and deployed within a [redacted] period. All forces were in place and ready to commence operations by 23 April. Over 41 aircraft and 800 personnel had moved to A,E [redacted] OPSEC had been maintained.

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SECTION II

MISSION EXECUTION

(TS) All was in readiness. The plan called for one MC-130 to depart [redacted] and seven RH-53s to depart the carrier NIMITZ about one hour later. Since eight helicopters were operational the plan was modified to launch eight. Both the lead MC-130 and the helicopters would cross the Iranian coast about the same time along generally parallel routes that crossed several times enroute to the refueling site, Desert One. The helicopters would remain low, for visual ground navigation and the C-130, after passing [redacted] would climb and proceed enroute at 2-3000 feet above ground level. Two MC-130s transporting personnel and equipment and three EC-130s configured to refuel the helicopters would depart [redacted] about one hour after the lead MC-130 and arrive at Desert One about fifteen minutes before the helicopters.

(TS) The COMJTF [redacted] had the capability for direct communications with two of the airborne C-130s, and the lead helicopter via secure satellite and also with the CJCS in Washington. DCOMJTF [redacted] would also monitor both circuits and provide voice relay if required. The Helicopter Flight Leader would fly the #1 helicopter and the DCOMJTF for Helicopters Operations would be aboard the #5 helicopter. The Desert One Commander, [redacted] Commander and C-130 Commander would all be aboard the first C-130. The Desert One Commander would assume command of the entire ground operation at Desert One from arrival until completion of refueling operations.

(TS) The DELTA force and a Ranger road blocking security element with two motorcycles and a jeep were flown to

EC [redacted] on the afternoon of 24 April. The force was transloaded to the MC-130s and the lead MC-130 departed on the mission at 1405Z. The remaining [redacted] MC-130s and three [redacted]-130s departed in two flights approximately one hour later. All crews had spent the morning reviewing procedures and flight routes. Last minute intelligence and weather updates were provided at the final crew briefing approximately two hours prior to takeoff. There was no change in intelligence data and the weather was forecast to be good for the entire period with visibility of five miles or better along the entire route.

(U) Aboard the carrier NIMITZ, the helicopter pilots were undergoing the same briefings preparing for their scheduled 1505Z launch. As a result of an earlier incident aboard the carrier, where several of the helicopters had been wetted with fire fighting foam and immediately washed with fresh water, the helicopters were brought to the flight deck 20 minutes earlier than initially planned. This allowed the crews extra time for engine start, run-up and systems check out to assure no mission critical elements had been affected and all components were thoroughly dried out. With run up complete and all in order, all eight RH-53s departed NIMITZ on schedule, fully mission capable.

A, E ~~(S)~~ [redacted] KC-135s launched [redacted] in support of the mission with the intent of using [redacted] to refuel the C-130s and one configured to support the Navy Combat Air Patrol if it was launched. The other [redacted] KC-135s were assigned to refuel the air refuelable KC-135s to provide extra time on station.

(U) Approximately two and a half hours after takeoff, the first MC-130 entered an area of deteriorating visibility, later determined to be suspended dust in the atmosphere. The dust phenomenom did not effect the C-130 aircraft, crew or FLIR performance and only affected flight visibility for 10 to 15 minutes on two different occasions. The Desert One Commander, onboard the first MC-130, did not consider the visibility problem of such significance to report to the COMJTF. He assumed the helicopter pilots could make it through the area of reduced visibility.

Approximately two hours into the flight, #6 helicopter had an indication of an impending main rotor blade failure and immediately landed. Number 8 helicopter, in his planned role as enroute mission SAR landed with #6. With blade failure indication confirmed by a secondary method, the crew-of helicopter #6 transferred all equipment to #8 helicopter and both crews were airborne and continuing within ten minutes.

(S) The first MC-130 arrived in the vicinity of Desert One on schedule. [redacted] The C-130 made one FLIR pass to clear the area. They observed one vehicle on the road and orbited until the vehicle passed clear before landing the C-130 on the desert. The landing was harder than normal and although the aircraft was not damaged, the WSC-3 secure radio was rendered inoperative. The road security force exited the aircraft as soon as the aircraft stopped and established positions on the road. They were

immediately confronted with a large vehicle approaching, which they signaled to stop. When it was evident the vehicle, a passenger bus, was not going to stop, [redacted] 40MM grenade round and several CAR-15 rounds were fired over the bus. Although no rounds struck the bus, they were sufficient to cause the bus driver, with his 43 passengers, to stop.

(U) (S) A few minutes later, a second road security force, which had moved away from the aircraft to the west, encountered a fuel truck coming toward them. Again attempts to flag this vehicle down were unsuccessful. The team leader fired several rifle rounds into the air but the truck continued. At that point the team leader shot out one of the trucks headlights and the other team member fired [redacted] M-72 LAW at the right front of the truck. The M-72 projectile impacted directly in front of the truck setting it afire. The driver of the burning truck jumped out and ran to a smaller truck that had been followng behind. The small truck executed an immediate "U" turn and departed the area at high speed. Two of the road team members gave chase on motorcycles but were unable to overtake the truck. No other vehicles approached the landing zone area for the next four hours while the force was at Desert One.

(U) (S) Two hours and forty minutes after takeoff the helicopters entered an area of reduced visibility that the C-130 had previously encountered. Soon after encountering the reduced visibility, the flight leader and his wingman reversed course to return to a dust free area and landed to assess the situation. The flight leader also advised the COMJTF that

the visibility had reduced to zero and that he had lost sight of the other helicopters. He expected the remainder of the flight to remain with him but due to the reduced visibility the other aircraft in the flight did not see him turn. The flight of four (#3,4,5, and 7) proceeded, but at a reduced speed (#8 being approximately 40 NM behind). Helicopters #1 and #2 landed in a clear area. After being on the ground for approximately twenty minutes, and not having heard to the contrary, the flight leader concluded the other four were continuing to Desert One. The flight leader then took off to continue to Desert One and so advised COMJTF.

(U) The pilot of one of the helicopters (#5) in the flight of four began experiencing instrument problems. He had lost his TACAN, shortly after launch from the NIMITZ which posed no real problem unless the weather turned bad at Desert One. Approximately four hours after takeoff and after having been in the area of dust for one and a half hours, number 5 experienced a failed heading indicator and one of two attitude indicators. He regained use of the attitude indicator by selecting the copilots source. However, as a result of these failures, coupled with his co-pilot having persistent episodes of vertigo and loss of visual contact with his flight leader, the aircraft commander did not feel he could continue into the mountainous terrain ahead in the visibility conditions he was experiencing. He reversed course in radio silence and returned to NIMITZ. Approximately one hour later he advised on HF voice that he was inbound to NIMITZ. At Desert One, the remainder of the C-130s landed, established their refueling positions and waited for the helicopters.

(U) The first three helicopters to arrive at Desert One were 45 minutes later than scheduled. The helicopters set up for landing behind their assigned tankers and taxied forward. However, due to extremely heavy dust and sand on one side of the road, which was greater than expected, both nose gear tires of helicopter #3 deflated taxiing across a rut in the sand left by a C-130. Helicopter #8 landed some 30 minutes later and the flight leader with his wingman, ten minutes after that. In attempting to taxi, helicopter #1 also deflated one of his nose tires in the deep sand. The required six helicopters were now on the ground at Desert One, either refueled or in the process of refueling.

(U) The operation at this point was approximately ninety minutes behind schedule, however, it was estimated that the helicopters and DELTA could still transit to their hide sites before daylight. The C-130s would have been critically short of fuel at this point, however, the Desert One Commander had authorized use of some of the fuel planned for the two helicopters that did not arrive. He also requested the KC-135s over the Arabian Sea remain on station as long as possible.

(U) Immediately after landing, the #2 helicopter, which had experienced a loss of second stage hydraulic pressure two hours prior to landing, discovered that a fluid leak in the system had caused the engine driven hydraulic pump to fail. This reduced the helicopter force to five mission capable helicopters; one less than the established minimum required to continue the mission.

(U) The Desert One Commander advised COMJTF of the

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situation and requested guidance. COMJTF requested that the Desert One Commander consult with the other commanders on the possibility of continuing the mission with only five helicopters. There would be contingency fuel at Manzariyeh and possibly by reducing weight, the helicopters would be able to lift DELTA out of Desert One. If required on the second night, some helicopters could refuel at Manzariyeh and shuttle to the embassy. The Desert One Commander replied that it was not feasbible and recommended mission abort. COMJTF consulted with higher headquarters and then directed the Desert One Commander to abort the mission. Helicopter #2 would be destroyed and the others returned to NIMITZ. The bus was to be disabled and the 43 passengers and driver released.

(TS) EC-130 #1 was becoming critically short of fuel and had to depart immediately in order to [redacted] KC-135 refuel enroute [redacted] Therefore it became neceaary to reposition two of the helicopters (#3 and #4) which were parked behind EC-130 #1 so that they would not be damaged by the propellor blast as the [redacted] pilot applied the power necessary for taxi in the sand. As helicopter #3 was being repositioned, it collided with the EC-130 and both were immediately engulfed in flames. As the fire reached munitions aboard the C-130, explosions sent shrapnel throughout the area. The helicopters, were shut down and evacuated. The helicopter crews, the remaining crewmembers from the burning C-130 and helicopter and the ground forces that had been aboard the burning C-130 were assembled and directed to board the remaining three C-130s.

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(U) (S) COMJTF was advised of the accident. The Desert One Commander directed the Combat Control Team (CCT) to insure that no one was left behind. He also decided that the remaining helicopters would be left intact due to their proximity to the evacuation aircraft and since there were no time delay explosives available to destroy them.

(U) (S) After all personnel were aboard, the three C-130s took off approximately 20 minutes after the accident. The initial casualty count was an unknown number killed in the fire, six injured and two with major burns.

(TS) COMJTF ordered two MEDEVAC C-141s which had been prepositioned at [redacted] for the second nights mission to launch [redacted] In addition, a C-9 specially configured with a burn package on a normal standby status was directed to launch from [redacted]

(U) (S) The Desert One Commander requested tactical air support to destroy the helicopters left behind. COMJTF relayed the request to higher authorities in Washington with the recommendation that it not be approved. It was decided in Washington not to approve the request, to avoid endangering Iranian lives, which in turn might jeopardize the hostages. The helicopters were not destroyed. It was not known by the Desert One Commander at the time, but several helicopter crews had left classified material aboard their helicopters during the emergency evacuation following the collision, fire, and explosions.

(TS) Within approximately 20 minutes of the arrival of the C-130s [redacted] the C-141s with medical assistance landed. All helicopter crews, DELTA and the injured personnel were transferred. Less than an hour after landing, the

first C-141 was enroute [redacted] and the second departed twenty minutes later.

~~(S)~~ (PS) Approximately twenty minutes after the MC-130s took off from Desert One, helicopter #5 landed aboard NIMITZ. All aircraft and crews were now accounted for. Upon arrival [redacted] the injured were loaded aboard the C-9 and were flown [redacted] for treatment. Additional C-141s soon arrived and DELTA, the Rangers and helicopter crews were all airlifted to CONUS.

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SECTION III

MISSION EVALUATION

(U) The evaluation of the hostage rescue mission, as it was executed is presented in chronological phases. In each section, those events, decisions and actions taken relevant to that specific phase of the operation are addressed. Each section is divided into four parts: First, chronology of the events of that phase is provided for background purposes; Second, questions relative to events that occurred, actions that were taken, and decisions/judgements made are posed; Third, a discussion of the factors bearing on those questions is provided; and, Fourth, evaluations of the actions taken and decision/judgements are made.

(U) The phases evaluated include:

1. The Launch Decision;
2. Premission Briefings;
3. Weather;
4. Communications;
5. Enroute to Desert One;
6. Operations at Desert One;
7. The Abort Decision;
8. Departure from Desert One; and,
9. Recovery Operations

(U) In the examination of the above phases, many questions were posed, discussed and evaluated. Some of the questions, though cogent, addressed factors which had little or no impact on the conduct of the mission. The evaluations of those questions considered to be of significance are provided below:

1. (U) Based on the information available, the decision by COMJTF to execute the hostage rescue mission was appropriate.

2. (U) Briefings were structured to support the mission. The briefings provided the same information to all participants. There is no evidence that the context of information provided to one part of the force was different or lacking from that provided others.

3. (U) It was, and remains, beyond the state of the art in meteorology to predict, with any degree of accuracy, a localized suspended dust phenomenon such as that encountered on the mission.

4. (U) A weather reconnaissance aircraft preceding the mission in daylight could have compromised the mission. Also, since late afternoon, weather satellite photography showed crisp sharp terrain features along the route where the dust was later reported, It is questionable that the dust phenomenon would have been detected.

5. (U) The lead MC-130 could have been tasked to conduct reconnaissance and report significant unforecast conditions. Such a report may have better prepared the Helicopter Flight Leader for penetration into the area and would most likely have provided a warning to COMJTF prior to receiving the Helicopter Flight Leader's call that he had encountered zero visibility.

6. (U) Minimum observed inflight visibility criteria for the mission could have been established. However, at night, using night vision goggles, it would be difficult to determine when the minimum conditions existed. This could cause a premature mission abort based on a subjective judgement, or lead to a situation where pilots might feel compelled to continue beyond their individual capabilities.

7. (U) The secure communications capability and support were adequate for the planned mission. However, the degradations in voice quality, which were caused by several factors, inhibited the ability of COMJTF to exercise real-time command and control when mission demands overtaxed the system.

8. (U) Strict adherence to radio silence procedures after encountering unforecast conditions may have impeded the flow of information between command elements and interjected an element of uncertainty into the conduct of the operation. The unknown is whether transmission would have compromised the mission.

9. (U) There was a valid basis for the judgment that eight helicopters launching for the mission would provide a high expectation that the required number would complete the mission.

10. (U) The helicopter pilots were adequately trained to perform the mission as planned and demonstrated the ability to contend with the unforecast conditions encountered. Six helicopters successfully negotiated the route, attesting to the high caliber of the crew's skill, discipline and training.

11. (U) Positive command and control was exercised at Desert One at all times.

12. (U) The items selected to be in the helicopter cross-country kits were adequate to support the anticipated requirements of this mission. Additional parts in the kits would not have enabled maintenance personnel to remedy the malfunctions which occurred and permit the mission to continue as planned.

13. (U) The decision to abort the mission when a predetermined mission abort criterion was reached was prudent.

14. (U) With the exception of one map, the classified materials left at the scene were in the helicopters that were in the immediate vicinity of the fire and explosions. After the emergency evacuation of those aircraft, it would have been extremely hazardous to attempt to retrieve this material. This could have resulted in additional casualties.

15. (U) The actions taken by the JTF subsequent to the accident were timely, and responsive to the situation.

16. (U) The abnormal, unprecedented and unexplained mechanical failure of three out of eight helicopters during less than thirty seven total hours of flight (an average of 4.5 hours per helicopter) was the primary cause of the mission abort. All other contentious issues including the unforecasted suspended dust had been successfully overcome. This unprecedented failure rate was several times greater than the normal expectations with no favorable weight given for the special care provided to these eight helicopters for several weeks prior to launch.

a. (U) If available pre-mission operating experience data or training results had suggested the remote likelihood of such a high failure rate, the JTF would have insisted that ten or more RH-53D's be launched on the mission. The data base must now be adjusted by the fact that three out of eight failed in approximately thirty seven hours of collective flight or an average of 4.5 hours per aircraft. Such an unprecedented failure rate brings into question the future usefulness of the RH-53D helicopter for any mission involving several helicopters flying for several hours on an imperative mission.

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b. (U) The decision that eight helicoptes was a prudent and sufficient number, based upon available data, was on the conservative side of the general level of manageable risk inherent in other components of the total balanced but high risk mission profile (i.e., three MC and three EC-130's to land at Desert One, three AC-130 to provide on-call fire support on night two, four MC-130's and two 141's for night two at Manzariyeh). All efforts to add equipment to provide redundency beyond 95 + % prediction of adequacy had to be carefully weighed against the potential loss of security, surprise, speed, simplicity, and economy of force. Each person added to the rescue force increased the total logistical effort, exposure and protection requirement at a ratio of approximately one for one.

17. (U) The following is a list of planning considerations proposed by COMJTF for future counter-terrorist operations:

a. (U) A central point within the DOD should monitor world events to determine where and when terrorists actions could materialize. This will require astute observation on political matters from all source intelligence.

b. (U) There would be a single element within DOD to monitor plans and capabilities DOD-wide for counter-terrorist operations.

c. (U) A dedicated agency should develop a range of concepts, planning factors and equipment requirement for counter-terrorist operations.

d. (~~TS~~) Mission: Organize, train, equip and command special operational forces which can conduct operations anywhere as directed by National Command Authority (NCA).

e. (~~TS~~) Organization:

(1)(~~TS~~) A joint Task Force should be in being as a permanent element within the DOD. This task force if located outside of Washington should have a [redacted] This [redacted] would serve to gather and coordinate intelligence, monitor political events, maintain a file of plans and capabilities and be prepared for immediate response to JCS and NCA when a crisis develops.

(2)(~~TS~~) The JTF should be arranged on conventional as well as unconventional lines. The conventional aspects pertain to designated commanders and staff and the unconventional pertains [redacted] and others as appropriate.

f. (U) (~~TS~~) Personnel:

(U)(1)(~~TS~~) Personnel selected should have credible experience and demonstrated abilities, where possible, in the area of unconventional and counter-terrorists operations. They should be given the opportunity, however, to frequently serve in other staff positions, attend service

[redacted]

schools in order to enable professional growth and provide for equitable promotional opportunities.

(2) (U) The JTF should be charged to develop concepts of operations, recommend development of equipment and intelligence integration and communications requirements for world-wide use.

(3) (U) Maintain direct liaison with the [redacted] CINCs staffs.

g. (U) Equipment: Latest state of the art with proven reliabilities should be made available to the JTF, extensive studies followed by modifications to improve the reliability of the equipment, frequent tests of mobility and rapid reassembly. Equipment, where feasible, should be placed on [redacted] for specified programs to insure reliabilty and modernization and to provide a [redacted] performed. Accurate and highly reliable navigational systems which are self contained and not reliant on external stations.

h. (U) Training: There should be sufficient operations for the JTF and components to train against a range of scenarios. This can be done functionally within the components. Training should be accomplished frequently as a joint endeavor. The JTF working through the JCS should develop [redacted] can be made available.

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i. (U) Supporting Forces: Forces in addition to those assigned or earmarked to support the JTF should be identified, trained and [redacted] Examples are MAC, SAC tankers, naval vessels and forces.

j. (U) Communications: The JTF will be required to deploy over great distances and perhaps [redacted] This requires [redacted] with ability to tie into national systems. These communications should be reliable, secure and light weight and operable on land, sea and a variety of planes and helicopters.

k. (TS) Environment: The JTF should conduct a series of studies in the environment of various countries where operations are likely to be conducted. Details of terrain and weather are particular phenomena which should be thoroughly understood. A system of [redacted] should be established to enable rapid dissemination of latest weather information for current and planned operations.

l. (S) (TS) Operational Security (OPSEC): A detailed analysis is required for Soviet and potential areas of interest where counter-terrorist operations may occur to determine [redacted] Also an operational security plan should be developed with the objective of

enabling the United States public, and potential terrorist, to superficially know that a counter-terrorist capability exists. Beyond that there should be no publicity whatsoever, before, during or after operations whether they are judged succesful or not. Where possible, units participating in counter-terrorist training and operations should be [redacted] The units should not wear distinctive badges, and their equipment should appear to be normal service equipment. An example is MC and AC-130s paint schemes modified where possible to resemble MAC-C130s.

m. (~~TS~~) JTF Coordination: JTF should provide the authority, with appropriate OJCS, coordination to visit CINCs and non-US allied counter-terrorist organizations with the objective to do appropriate liaison and exchange lessons learned.

n. (~~TS~~) Command and Control Communications: Wheras counter-terrorist forces may be required to operate in various regions of the world and also penetrate deeply into a particular country's territory, there is a need for the COMJTF to have ability to monitor progress of the forces and to provide direction when required. This will require development of new techniques and possibly equipment to enable COMJTF to exercise command and control without compromise. The force must have the facilities to train over extended ranges and under varying geographical conditions to enable the exercise of C3.

SECTION I

MISSION PREPARATIONS (U)

(U) ~~(TS)~~ This section of the report describes the evolution of the rescue mission plan and training from 4 Nov 79 through mission execution on 24 Apr 80. The plan was changed, modified, and refined throughout this period as additional intelligence became available, concepts were validated or rejected, training progressed, operational capabilities evolved, equipment was selected, communication procedures evolved, deployment and employment bases became available, environmental factors changed, and political factors varied.

(U) ~~(TS)~~ A single overriding consideration that permeated all aspects of mission planning was operations security (OPSEC). This consideration was included in every aspect of mission planning, training, deployment, and execution. Because of the absolute requirement for the ground rescue force to reach the embassy compound undetected, operations security was always given full weight among all other considerations in making judgements and decisions.

(U) ~~(TS)~~ The planning process for the mission was dynamic. Numerous planning considerations were addressed as operational concepts developed. In some cases, operational capabilities required for the rescue mission existed within the Armed Forces. However, because of the complexities of the mission, the task force developed many new operational capabilities which evolved during the preparation for the mission. As will be discussed later in this report, the

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capability was developed to employ and integrate helicopters, fixed wing aircraft, ground servicing and refueling operations, and ground combat troops in a complex long-range mission scenario conducted under cover of total darkness without lights. This capability did not exist on 4 Nov 79. Some units involved operated within the environment of their normal mission capability while others were formed to carry out specific requirements of the mission. In many cases, operational security did not permit units to operate within their established service systems.

(U) Throughout the planning and training process the Chairman of the Joint Chiefs of Staff (CJCS) was kept informed of progress and frequently provided guidance. Members of the Joint Chiefs of Staff (JCS) also received individual progress reports and, on several occasions, the JCS met as a corporate body to review the plans, training progress, and status of equipment. The JCS provided the Joint Task Force (JTF) all resources requested throughout the planning and preparation period. However, it should be noted that the scope of planning, training and final force size and composition was constrained from the outset by a lack of trained forces and special operations equipment.

(U) There was a series of rehearsals and changes in the concept of operations. This report is keyed to these concepts and rehearsals since they served either to drive changes in the plan and requirements or to validate progress and identify needs in training, intelligence, equipment, etc. These changes and rehearsals are listed in chronological order and each is discussed separately.

4 - 19 November 1979

Developing the Air Land Option (U)

[redacted] (TS) On 4 Nov 79, during a demonstration in the streets in front of the American Embassy, Tehran, a group of Iranians scaled the walls, entered the compound, took over the 27 acre compound, and held 63 Americans hostage. During the next several days, a Joint Task Force was formed by the Joint Chiefs of Staff in Washington to plan and develop a capability to conduct a rescue mission. The Special Operations Division of the JCS J-3 Operations Directorate was selected as the location to begin planning. Two officers from DELTA [redacted] reported to the Pentagon and an advance team from DELTA traveled to [redacted] for isolation purposes and to establish a training camp.

[redacted] (TS) DELTA was selected because of the unit's mission and capability to conduct [redacted] On the basis of DELTA's demonstrated performance, the evaluators concluded that DELTA was the most capable [redacted] force available to the National Command Authorities (NCA).

[redacted] Major General James Vaught, USA, reported to the

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CJCS on 12 Nov 79. By v al orders, he was directed to organize and command a Jo t Task Force with the assigned mission of rescuing the hostages. General Vaught, in his capacity as Commander of the JTF (COMJTF), began to form a small, select planning team. On 14 Nov, Major General Gast reported as special consultant to General Vaught. General Gast had recently returned from Iran as Chief of the Military Assistance Advisory Group (MAAG) and was very familiar with the country and its people.

(U) At this point there was great concern that the hostages might soon be tried and jailed or killed. There was an urgent need to rapidly develop a capability to rescue the hostages, in the event it became necessary to do so.

(~~TS~~) The planners faced many challenges, not the least of which was the geographical location and size of Iran. There were no sizeable US ground combat forces in the proximity of Iran. The country itself is as large as the United States east of the Mississippi River and is five times as large as France. Iran is also surrounded by countries which are not likely to support US staging bases or troop concentrations. Although several of these nations expressed objections to the embassy take over and the hostage situation, it was felt that they would not support a rescue mission into Iran staged from their soil. In any event, the need for total operational security precluded any early contact with other countries.

(U) The mission objective in Tehran was located approximately 350 nautical miles from the northern portion of the Persian Gulf and well over one thousand miles from the Arabian Sea. Anti-American sentiment prevailed throughout

the country and was particularly strong in the capital city of Tehran. The highways and streets of Tehran are poorly laid out and traffic congestion inhibits normal movement within the city.

(TS) By 15 Nov, intelligence had determined that 63 hostages were in the American Embassy compound. Intelligence planning and assessment had been in progress since 7 Nov, initially relying heavily on the Defense Intelligence Agency (DIA) Iran Task Force (ITF) which had been established 5 Nov. [redacted] Through DIA, working relationships were established with other agencies and organizations including the Defense Mapping Agency (DMA), Department of State (DOS), other portions of [redacted] and service intelligence components. These relationships evolved into a limited number of contacts who were "READ IN" on the operation.

(TS) [redacted]

There was considerable reporting to indicate that a significant number of hostages were being held outside the compound. Despite conflicting reports, the weight of the evidence indicated that all, or almost all, of the hostages were inside the compound.

(U)
(TS) The first of several operational rescue concepts called for landing the DELTA force on an isolated airstrip near Tehran using MC-130 COMBAT TALON aircraft. DELTA would

[redacted]

then [redacted] to the American Embassy, free the hostages, and return to the waiting aircraft. While this plan had the advantage of being completed in a single night, time and intelligence were not favorable. There was a very high risk that DELTA would be severely hindered by the crowds which would probably gather and roadblocks which could block escape routes. Also, a suitable airfield could not be identified that would adequately support this concept of operations. Planning and some training continued while other alternatives were being examined.

(TS) During this period, plans and drawings obtained from the State Department along with existing photographs were used [redacted] Efforts were concentrated on weapons training while the plan to enter the compound and rescue the hostages was being developed.

(U) The MC-130 aircrews that would carry the DELTA force into Iran were selected by the First Special Operations Wing. This selection was based on aircrew past performance and experience level. The selected aircrews immediately began to train for the rescue mission.

(S) The MC-130 was specifically selected for the hostage rescue mission because of its unique operational capabilities.

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The MC-130 terrain following radar (TFR) APQ-122 provides the capability to fly at low level [redacted] at night, and in marginal weather. The aircraft is also equipped with an inertial navigation system (INS) which provides excellent navigation capabilities without reliance on external navigational aids. Because of the distances involved, an aerial refueling capability was an absolute necessity. Seven aircraft of the MC-130 fleet are equipped with inflight refueling equipment and four are equipped with forward looking infrared (FLIR). The MC-130 has electronic countermeasure (ECM) capabilitie[redacted] [redacted] The C-130 aircraft is also well suited for short/rough [redacted] operations and, most importantly the MC-130 COMBAT TALON crews train for this type of operation on a continuing basis. The only portion of the assigned mission that required extensive training on the part of the crews was the night landing and take off phase utilizing the night vision goggles (NVG). Two of the inflight refuelable aircraft were also equipped with the surface-to-air recovery (STAR) system. This system allows for the airborne extraction or exfiltration of a combination of one or two persons or equipment weighing up to 500 pounds. The combination of its aerial refueling capability plus ability to navigate precisely at low altitude, [redacted] carry a substantial load into and out of short/rough fields and the ability of the crews made the MC-130 the best aircraft for the rescue operation.

(U) (TS) An extensive list of alternative operations to airlanding of DELTA was explored. Paradrop of DELTA on the

first night of a two night operation was considered along with the option to land the MC-130s at an airstrip outside Tehran to extract the force and the hostages. Disadvantages of these options included risk of injury to DELTA personnel during the paradrop which would add liabilities to the force and an inability to find a location for the drop which was terrain suitable and operationally secure. Trucks were still required for transportation along the entry and escape routes to the waiting C-130s.

(U) (TS) Another option examined included the infiltration of DELTA into Iran via boats in the Persian Gulf. The force would then be moved by vehicles to Tehran. The excessive risk of exposure that would occur on the overland route ruled against this option.

(b)(1) (TS) Consideration was also given [redacted] across th[redacted]border. This option had a high risk factor because of the inspection procedures used at the border. The probability of getting to Tehran without compromise was considerably reduced because of the lengthy period required for the trip and the ongoing unrest in Kurdistan. Infiltration fro[redacted]was also studied with the same conclusion.

(b)(1) (TS) COMJTF and planners made visits t[redacted] between 13 and 19 Nov to review DELTA planning. After a review of the risks and difficulties associated with the various scenarios, COMJTF reported to CJCS that the operational problems associated with these concepts could not be resolved to make the plans militarily feasible. He recommended that a helicopter option be developed which would have greater potential, especially for the extraction phase.

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(U) ~~(S)~~ CJCS subsequently approved the development of a concept utilizing helicopters and directed that the initial plan be refined in the event a near term rescue attempt was required.

(U) ~~(S)~~ A select weather team from Air Weather Service (AWS), a component of the Military Airlift Command (MAC), began supporting the JTF staff on 16 Nov with climatological, solar/lunar, and forecasting information for planning.

19 - 30 November 1979

Developing a Helicopter Capability (U)

(TS) Mission planners evaluated various models of helicopters to identify those aircraft that could travel the distances required, provide the required lift capability, and operate from a clandestine staging area. Staging bases were considered [redacted] If approval was granted to operate from these countries, however, numerous problems would still have to be overcome. The aircraft would have to be brought in early, reassembled, flight tested, and flown regularly to assure reliability. Considering the time the helicopters would have to be in place prior to the mission, operational security would be extremely difficult to maintain. Also the countries involved would not likely give prior permission for the mission to launch from within their borders. Crossing mountainous terrain varying from 9,000 to 11,000 feet presented serious operational hazards. Density altitude would adversely affect lift capability and engine icing problems in weather and turbulence in mountainous terrain would also be a major threat to helicopter operations. The use of smaller helicopters was considered; however, larger numbers would have been required and the smaller helicopters did not have the range required for the mission.

(S) The newly modified Air Force HH-53 PAVE LOW search and rescue helicopter was coming off the production line, but was not available in sufficient numbers for training and employment. Only three HH-53s were available at the time

and for OPSEC reasons it was not considered practical to attempt to accelerate production.

(U) ~~(FOUO)~~ To overcome basing and overflight problems, planners examined an option utilizing helicopters launched from a ship in the Arabian Sea. The Army CH-47 and the Navy RH-53D were available and both had a long range, heavy lift capability. The RH-53 was selected for two reasons. First, it was designed to operate from a ship. Foldable rotor blades and tail enabled a sizeable force to be embarked on an aircraft carrier without significantly degrading its capability to conduct near normal operations and respond to air wing contingency mission tasking. Second, it could be deployed under the cover of an airborne mine countermeasure mission since there had been public discussion of mining Iranian ports on the Persian Gulf. The CH-47 and HH-53 did not have these essential capabilities and were not selected.

(C) The RH-53Ds selected were the most operationally capable in the US Navy inventory and were assigned to Helicopter Mine Countermeasure Squadron 16 (HM-16). HM-16 had recently returned from a deployment and was considered to be the most operationally ready squadron.

(S) Unfortunately there was no integral unit available with the operational expertise required for this mission that could have been assigned responsibility to execute the mission. Therefore a unit had to be formed. On 20 Nov, a helicopter detachment was formed [redacted] t [redacted] was initially decided that seven volunteer crews would be formed. One Navy pilot from HM-16 was selected for each crew because of his knowledge of the RH-53 and to aid in providing operational cover should the helicopters be deployed. A Marine CH-53 qualified pilot was also selected

for each crew because of his familiarity with desert conditions, extended range operations, and tactical experience in the type of helicopter landing zone (HLZ) operations envisioned during the rescue mission. A Navy-Marine three-man enlisted aircrew was formed to provide for maintenance expertise on the RH-53 and crew personnel qualified in use of the 50 calibre machine gun. A combination of three Navy RH-53s and three Marine CH-53s deployed [redacted] on 21 Nov and the detachment began to train under the command of a Navy Commander (O-5). It is emphasized that at this point all crews were operating outside the mission areas for which they were trained and were in fact attempting to develop an entirely new operational capability. From 21 Nov until 8 Dec the helicopter detachment flew 195.8 hours of which 138.7 hours were flown at night. Army night vision goggles were provided and the air crews flew relatively short navigation and formation flights concentrating on ~~landing in unlighted~~ landing zones (LZ) in the dark. The crews developed a moderate capability working separately. Later, joint training with the DELTA force was conducted and pickup of DE[redacted] and simulated hostages was practiced.

(TS) Other plans and capabilities to support the helicopter option began with the formation of the helicopter detachment. An intelligence officer was assigned and special procedures were initiated for courier service to provide him with photographic and other data. The plan envisioned launching from an aircraft carrier near the Iranian coast, just west of the Pakistan border. The DELTA force, composed of [redacted] members at that time, would be aboard the RH-53s and would

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launch at dusk. The DELTA rescue force would be composed of [redacted] and a [redacted] command and control element. This force was later increased as additional mission requirements were assigned to DELTA. The helicopters would proceed north as far as fuel would permit, land to refuel, and then proceed toward Tehran. This concept required a whole new series of planning actions, intelligence requirements, and equipment.

(TS) Solutions to the problem of enroute refueling were examined intensively. On 20 Nov, a search began for an abandoned airstrip or unimproved landing zone that could be used for refueling. [redacted] Consultations also were conducted with US military personnel who had served in Iran, [redacted] geologists, and other people who were knowledgeable of Iran. The search was by process of elimination, starting with the entire area within the range/time envelope and applying successively more stringent criteria to those subareas located within it that might serve as suitable airstrips or unimproved LZs.

(TS) The search focused on the eastern portion of Iran where the population is relatively sparse [redacted] Very little military capability existed in this area [redacted] The western portion of Iran did not offer these advantages.

(TS) There were other factors which limited the geographic area within which refueling could be conducted. The

unrefueled flight time for the RH-53 from an aircraft carrier to the Tehran area was computed to be about eight hours. With the requirement to avoid Iranian and Soviet detection at launch time, the helicopters would have to depart no earlier than nightfall. This would place the rescue force near Tehran in the early morning hours. This would not allow sufficient time for DELTA [redacted] rescue the hostages, fly to an isolated airfield, and depart Iran in C-130s while still under the cover of darkness.

(U) An intensive planning effort was begun to search for ways to conduct a one night operation. However, the number of hours of darkness available posed a high risk, and forced a schedule with no room for error or reconsolidation along the way. The risks were unacceptably high; and although a one night operation had the advantage of a relatively short exposure time for the force in Iran, it was not feasible.

(U) As a result, an operation evolved, spread over two nights and one day. Planners developed a three phased concept.

(S) Phase I would include the flight of DELTA aboard the helicopters to a refueling site, helicopter refueling, and then transit to a hideout area within reasonable proximity of Tehran. At this point [redacted] DELTA [redacted] vehicles to be used for transportation to the embassy. During Phase II, [redacted]

Shortly after midnight, Tehran time, DELTA would enter the compound, rescue the hostages, and call for pick up by the helicopters from an athletic field in the compound. All personnel would then fly to a nearby air strip. Phase III was the exfiltration phase. MC-130s would be in place at a nearby abandoned airfield (having flown in during darkness)

and, once the helicopters arrived, load the hostages and the rescue force and fly out of Iran under cover of darkness.

(U) ~~(US)~~ The three phase, two night approach to planning and execution offered several advantages. The mission could proceed in a more measured and controlled fashion, which would provide time for enroute assessments of force capability and Iranian reactions. Additional contingencies could be examined and planned where prudent and command and control problems would be more manageable. This approach also offered opportunities to withdraw should the force be discovered prior to reaching the compound, or if the force was unable to proceed due to mechanical problems. Delays between Phase I and Phase II caused by adverse weather, new intelligence, mechanical failures, or other problems could be accommodated. The two day, three phased plan began to take shape and, because of it, new demands evolved for training, intelligence, equipment, communications, logistics, and a two day period of suitable weather.

(U) ~~(TS)~~ Refueling of the helicopters in Iran posed the most serious problem. The area for a refueling site was primarily defined by helicopter range capability. An area about 100-150 miles in diameter was identified approximately 500 NM inland. At this point, the helicopters could land with sufficient fuel reserve, obtain fuel to complete the mission, and then proceed to a hide out area, arriving before first light. An exhaustive search failed to produce a suitable abandoned airstrip for the C-130s to land. Also at that point in the planning, there were no known occupied airfields that could be taken by force with-

out a major risk of compromise.

(S) On 22 Nov, planners began to develop a concept for the airdrop of fuel into the desert for the helicopters. The concept of [redacted] using Low Altitude Parachute Extraction System (LAPES) techniques was considered and discarded due to lack of an extraction zone with a suitable hard and flat surface (had such an area been identified, an airland operation would have been feasible). It was decided to develop a capability to airdrop a fuel system that was currently available in the US Army inventory. This system included 500-gallon fuel bladders (blivets) which could be rolled on a suitable desert floor, a series of hoses, and a fuel pump to transfer fuel into the helicopters.

(TS) During the period 22 - 29 Nov, a series of tests and training with the fuel blivets, hoses, and [redacted] was conducted by US Army specialists [redacted] The system proved to be promising. DELTA came to [redacted] for checkout and training since DELTA force would gather up the blivets in the drop zone (DZ) and also perform the refueling operation, assisted by the helicopter crews. At [redacted], a select US Army team of riggers and fuel experts working with MC-130 crews began a series of airdrops. Several problems were identified, including the difficulty of loading four or five blivets, hoses, pumps, and an Army tractor (Mule) onboard. The Mule would also be air dropped, as it was needed to help recover the blivets from along the drop zone and bring them to the helicopters. Other equipment to be airdropped was added to the [redacted] such as camouflage nets. These items were too heavy to carry in the already heavily laden helicopters which would depart from

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A the carrier with DELTA onboard. The drop tests were moderately successful.

(S) Intelligence was heavily tasked to respond to a growing list of essential elements of information (EEI). A flat, firm, and isolated drop zone had not yet been identified. A more detailed enemy order of battle was needed, along

C [redacted] A separate

C route analysis to [redacted] was needed for the

E helicopters and C-130s; [redacted] to a refueling site. [redacted]

C [redacted] A helicopter drop-off point for DELTA and a hideout site for the helicopters were also planning considerations that required extensive study and resolution. Route analysis was required to get

A,C DELTA into the city [redacted] Road blocks and a host of other threats required analysis and much more information was needed on the embassy compound itself. Infiltration and extraction airfields that could be secured and accommodate C-130s still had to be selected.

(TS) By 25 Nov, the JTF had portions of the EEI satisfied. Intelligence indicated that even if DELTA could reach the embassy compound walls undetected, enter the compound, and release the hostages, there was a high probability that Iranian elements would react with force and fire at the

[redacted]

helicopters as they entered and lifted from the compound. COMJTF recommended to that AC-130 SPECTRE gunships be employed in the objective area to provide protective firepower for DELTA if required. [redacted]

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Firepower would be used only to the extent required to release the hostages and protect the rescue force. The mission was to be a surgical operation with the single purpose of extracting the hostages. Collateral damage and casualties were to be kept to the minimum necessary to protect the rescue force. CJCS approved the concept for planning and AC-130 personnel were brought into the planning. [redacted]

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(U) ~~(TS)~~ Concurrently, during the week of 21 Nov, the J-2 recommended to COMJTF that Manzariyeh airfield be considered for use as the MC-130 extraction airfield. It is located about 60 miles southwest of Tehran and was used formerly by the Iranian Air Force (IAF) as a support strip for a bombing and gunnery range. The runway is over 10,000 feet long with a parallel taxiway that can readily accommodate several parked aircraft. It was expected that only a minimum number of caretakers would be present and, although there were some armed forces nearby, it was felt that a ground security force could land aboard the MC-130s, secure, and hold the airfield during the extraction phase.

~~(TS)~~ (U) COMJTF obtained approval ~~from~~ to plan for the use of Manzariyeh and selected [redacted] US Army Ranger

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Battalion [redacted] to provide the security force. The Ranger Commander and a small staff joined the JTF planning cell and participated in several meetings held [redacted]

(U) On 19 Nov, at the same time that the decision was made to form the helicopter detachment, CJCS requested COMJTF to recommend the number of RH-53s required to carry out the helicopter mission. At that point in planning, four to five helicopters were judged to be sufficient and it was recommended that six be deployed to provide for spares and redundancy. The US Navy tasked HM-16 to provide the helicopters. The squadron had just redeployed to Norfolk after a training exercise in Canada. During that exercise, the crews and aircraft had flown considerably, and as a result, were considered to be the most operationally ready heavy lift helicopter squadron available.

(TS) On 20 Nov, CJCS conveyed instructions for HM-16 with six RH-53Ds to deploy to the Indian Ocean under the cover of an airborne minesweeping mission. The squadron was not aware of the planning and training that was ongoing for the rescue mission and felt they were being deployed for a minesweeping mission. The RH-53s were transported [redacted] along with supporting personnel and equipment. This equipment included USMC range extension auxiliary fuel tanks for the helicopters. Four C-5s and five C-141s were used for the lift. The time required to dismantle the first two aircraft, load them into a C-5 and get airborne was approximately 12 hours and 15 minutes. The first C-5 arrived at [redacted] after departure from Norfolk. All helicopters were test flown and declared mission ready eight

days and five hours after the JCS ordered the deployment. Although there was speculation by the press on the departure from Norfolk, the real purpose of the deployment was not revealed.

(S) Meanwhile, the aircraft carrier USS KITTY HAWK was directed by JCS to onload the helicopters as she sailed within 100 nautical miles [redacted] enroute to station in the Arabian Sea. The helicopters and equipment were flown aboard the KITTY HAWK under cover of darkness on the evening of 28 Nov.

(S) JCS considered deploying DELTA and the helicopter crews that would actually fly the rescue mission [redacted] to board the KITTY HAWK along with the helicopters. However, planning, intelligence, and training were judged insufficient and it was determined that the force should continue training in the United States and deploy at a later date.

(S) On 24 Nov, the JTF staff began to develop a list of contingencies. The list was modified throughout Nov and during a COMJTF meeting [redacted] on 29 Nov the list was reviewed extensively and further modified. Each of the commanders began to gain confidence that an operational capability was developing.

(S) As a result of considerations which were evident prior to the 29 Nov meeting, COMJTF recommended to CJCS that the helicopters be moved to a desert region in the western US. This recommendation was based on two major considerations. First, the JTF felt that training should be conducted in a realistic environment similar to that found in

Iran. Second, operational security was of primary concern. Surveys were conducted at the US Army Yuma Proving Grounds (YPG), AZ; Marine Station, Twenty Nine Palms; and Indian Springs AFB, near Las Vegas, Nevada. YPG was selected because of its isolation, facilities, terrain, climate, range availability and size. CJCS concurred with the selection of YPG and the helicopter detachment personnel moved to YPG in a [redacted] on 30 Nov. The helicopters that had been used on the east coast were returned to parent organizations [redacted] and the force was moved undetected.

(U) At the time of the move to YPG the following progress had been made:

a. (C) JTF planning cell was composed of the following expertise:

- Intelligence (two officers)
- Weather (one officer)
- Communications (four officers)
- Logistics (three officers)
- Operations (15 officers)
- Administration (one enlisted and one civilian)

[redacted]

b. (C) The helicopter detachment had flown 195.8 hours. Aircrew capability was judged to be fair, with considerable work remaining.

c. (U)(C) The C-130s had flown 18.6 hours and seven sorties of direct mission training (positioning time/sorties not included). Aircrew status was

[redacted]

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judged to be mission capable, but with more training required in black out landings. Mission aircraft had been modified by installing additional center rails ~~to accomodate the fual blivet drops~~.

d. (U) Delta had rehearsed for two weeks and had procured and modified additional equipment.

e. (C) Communications activities to this point had centered on establishing ~~dedicated communications~~ between the JTF in the Pentagon and DELTA [redacted] point to point secure voice and teletype permitted the rapid exchange of sensitive information through closely controlled facilities. Communications planning continued with emphasis on the use by DELTA of portable manpack satellite terminals backed up by portable HF radios. The shortage of satellite terminals and reliance on HF was a major concern at this stage. It was envisioned that the Joint Communications Support Element (JCSE) from MacDill AFB, FL, would provide the deployed JTF Headquarters with the facilities needed to maintain reliable secure communications with the NCA/CJCS and from COMJTF to deployed subordinate forces.

f. (C) Logistics status - No logistics constraints existed based on stated requirements from the units. Miscellaneous [redacted] and equipment were obtained and stored with expected user units. This material included such items as 18 AN/PVS-5 night vision goggles and 35 Kevlar vests for helicopter crews. The Rangers received four dirt bikes (motorcycles), [redacted] jeeps with [redacted] 36 camouflage systems, [redacted] and various

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quantities and types of munitions.) DELTA received [redacted] three M-274 Mules, [redacted] and various quantities and types of munitions and weapons. Fifty-eight 500 gallon collapsible fuel cells (blivets), seven M-274 Mules, eight forward area refueling equipment (FARE) units with 100 GPM pump systems, and numerous parachutes and rigging equipment were provided to the Airborne Test Board at Fort Bragg for preparation of an air drop of JP-4 for helicopter refueling equipment. A test drop on 25 Nov of one blivet load was conducted at Fort Bragg and was totally satisfactory.

g. (U) The weather support to the JTF staff increased significantly during this period. The mission weather officer prepared daily weather products that included satellite photos, low level helicopter route forecasts, and long range forecasts for Middle East and US southwest desert regions.

h. (TS [redacted] The status of intelligence was generally improving. Better evaluation and interpretation of incoming reports was possible. As intelligence holdings increased, the puzzle became easier to assemble as the edges and corners were sketched in. Also, as time progressed new contacts were developed within the intelligence community, procedures were streamlined, and standing requirements were established. Patterns of indigenous activity were outlined. [redacted] All this contributed to a steady

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rise in confidence in the intelligence picture [redacted]

C [redacted]

C [redacted]

i. (U) ~~(S)~~ The overall assessment was that a capability to conduct the rescue mission was beginning to emerge, but there still remained serious difficulties in planning, intelligence, communications, and training.

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30 November to 24 December 1979

INITIAL TRAINING IN THE DESERT (U)

(U) Preceeding the helicopter detachment move to YPG, a Marine Colonel and a staff of two coordinated preparations with the Army support base. Adequate, though austere, facilities were provided for administration, quarters, and messing. An inactive runway was provided for helicopter parking and a Lockheed facility, which became known as "The Barn", was made available for the follow-on JTF staff and DELTA force. The YPG commander and his staff provided excellent support throughout the training period ahead.

(U) Three CH-53 helicopters were provided by east coast MAG 26 and four from MAG 16 on the west coast. On 1 DEC the first sortie was flown with five helicopters available. The JTF Weather Officer provided basic weather data for local training conditions.

(C) During this period, navigation and formation flying were stressed along with night landings. The pilots experienced difficulties landing in the desert because the downwash from their main rotors generated dust and sand clouds which obscured visibility. Some landings were made in instrument meteorological conditions (IMC). Techniques for making no-hover landings were practiced. Still, there were difficulties. Most of the night flights were conducted during medium to high moon illumination periods. Later, some flights were conducted during total darkness. The

pilots were becoming comfortable with navigation at 500 feet above ground level (AGL) in mountainous terrain at night. They were far from comfortable, however, during the periods when there was no moon illumination.

(U) Concurrent with this training, JTF began to plan an exercise at YPG which would rehearse an integrated mission effort. The exercise would involve MC-130s, helicopters, DELTA personnel, Rangers, a Combat Control Team (CCT) element, and a single AC-130 gunship. The concept for the first exercise was for DELTA to be inserted into country by helicopters, MC-130s to paradrop blivets to refuel the helicopters, DELTA to attack the compound with an AC-130 providing fire support, extraction of DELTA and "hostages" from the compound by helicopter, and final extraction out of country by MC-130s.

(U) The DELTA force arrived aboard a C-141 during darkness two days before the exercise. They used tapes and stones to lay out a simulated embassy compound about 35 miles north of the runway and 25 miles north of the Barn. A CCT set up simulated targets for the gunship. A small, relatively level area about ten miles to the southwest of the simulated compound was selected for the [redacted] drop zone. An area to the north of the drop zone was selected for the helicopter hideout area.

(S) On the first night of the exercise, helicopters with DELTA aboard would launch from the YPG airfield after dark, fly a 1.5 hour navigation flight, and land at the refueling site where DELTA would set up the landing zone and guide the MC-130s in for the drop. Following refueling, the helicopters would fly the DELTA force on a one hour navigation flight to the drop off point/hide-out area where [redacted] The next night, DELTA would

A [redacted] make the assault, call the helicopters in for extraction, and then return to the Barn.

(U) (#) The exercise went poorly. The first helicopter navigation flight to the fuel drop zone was attempted without any moon illumination. The flight leader had difficulty in navigating and had to circle several times. Landings were attempted, but it was determined that it was too dangerous to land in the total darkness.

(U) (#) The following evening another exercise was attempted. Lights were prepositioned on the LZ to assist the pilots in landing. Although the lights would not be available on the LZ during the actual mission, it was felt that this assistance should be provided to enable the refueling and subsequent events to be exercised. The flight leader had similar problems with navigation and after several attempts, the helicopters landed. The C-130s made a low identification pass over the ground party before dropping the fuel blivets. On the second pass the blivets, hoses, a pump, and a tractor were parachuted. Results were poor. Only three of the ten blivets remained intact while the remainder ruptured on impact. The tractor experienced a broken front axle which rendered it useless. The MC-130's blivet load had been packed too tightly and when the restraining line was cut to allow the load to roll back (this was a gravity drop) excess weight broke the anchor cable arm which resulted in slow or non-deployment of several parachutes. The tractor's parachute opened, but the unit had not been rigged properly for the drop.

(U) (C) The exercise was a disappointment. Confidence was

[redacted]

lost in the paradrop of the fuel blivets. It was becoming clear that it would take longer than desired to refuel the helicopters using this mode even if techniques and procedures could be refined. Later in the program the procedures were refined and numerous successful drops were acomplished.

(U) Helicopter aircrew progress was also of major concern. Entirely new techniques of flying and landing with night vision goggles in total darkness, where only a two dimensional picture is presented, required considerable expertise. Throughout the training, proficiency in the use of the NVGs increased to a level never before achieved. During early training evolutions it was obvious that the Services did not possess the expertise required for the use of NVGs envisioned for this mission. Use of the NVGs had previously been limited to basic familiarization. The tactical use of these devices had been limited to such a degree that only a few pilots, Army and Marine Corps, could even address the subject. COMJTF and the planners recognized that more experienced helicopter pilots with more mission parallel qualifications would be required. The most experienced H-53 pilots available were recruited and a major change in personnel took place.

(U) The task at this time was to "institutionalize" the helicopter detachment and gain competence and confidence as soon as practicable. During the succeeding weeks, the detachment stressed fundamentals and functional training, to include navigation, flight formation, desert landings while using night vision goggles, and EC-130 refueling, (a new procedure to be addressed later). In the search for training guidelines on the use of NVGs, the helicopter detachment

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found there were no guidelines available beyond a three flight introductory syllabus from MAWTS-1 at MCAS Yuma. Even in this training environment pilots only acquired about one hour of NVG time during a three flight syllabus. The helicopter detachment realized it had a long way to go when it was apparent that a pilot would have to wear the NVGs for up to five or six hours at a time.

(U)(F) Training in the use of NVGs became very deliberate. It required approximately ten hours of actual goggle time for a pilot to become proficient and comfortable in their use. Pilots had to become accustomed to having the extra weight strapped to their heads while functioning within a forty degree field of view, presented in two dimensions and [redacted] of green and black.

(U)(F) In principle the NVGs amplify available ambient light and are most effective when there is moon illumination. They also provide best results when used at 500 ft AGL or lower. The aircrews also found that for long periods of time there was an acceptable trade off between what was required to navigate precisely and goggle effectiveness that would allow them to fly comfortably between 500-1000 ft above ground level over extended periods.

B [redacted] had a degrading effect on goggles and, depending on source intensity, could wash out or blackout the goggles entirely, rendering them useless. Therefore, the pilot wearing the goggles had to have his side of the cockpit and the center console totally blacked out. The pilot not wearing the goggles had to have his instrument lights

at a very low intensity so as to limit the intensity of a direct light source.

(U) Flying with the goggles entails a coordinated team effort by both pilots. The pilot using the goggles can not read the aircraft instruments and his entire scan is outside the cockpit. Information such as altitude, heading, power and airspeed, must be provided verbally by the pilot not on the ~~goggles.~~ This transmitting of vital information is very important during landings and take offs.

(C) This team effort becomes more important during any navigation problem. The aircrews found that with thorough map study, coupled with the use of photography, precise navigation was managable at low level in a totally blacked out mode to the point where pilot dead reckoning (DR) was more accurate than navigating using either the Palletized Inertial Navigation System (PINS) or OMEGA. In fact, DR was exact to an exceptionally high degree. This degree of competency was achieved through long hours of practice and the establishment of a precise, continual dialog between the ~~two~~ pilots.

(U) (C) The maps used were JOG (AIR) 1:250,000. The pilot navigating would tell the other pilot using the NVGs what he should see on the ground and the surrounding territory and what to expect in the next few miles. He would indicate type terrain, types of trails/roads, foliage, etc., in a manner that was clear and concise. The pilot on NVGs would likewise describe what he was seeing as accurately as possible to be related to the charts. The verbal dialogue became tailored to each crew as they trained and would continue from takeoff until landing. With this constant update of informa-

tion, the pilots knew exactly what was happening all the time and became very confident in their ability to navigate precisely. This operational capability had to be developed because the RH-53 did not have forward looking infrared (FLIR), terrain clearance radar, or an automated map display showing present position.

[redacted]

(TS) Faced with the disappointing results of the air drop fuel exercise, the JTF began to explore alternatives for refueling. One alternative was to drop the fuel on the first night of a multi-night operation. A small team would paradrop in with the fuel, secure it with tractors, and cover the equipment with camouflage nets. A portable TACAN would also be set up for use by the helicopters on a subsequent night. The team would have communications, and if compromised or if the mission could not continue, they would be picked up by the Fulton recovery method. Another variation was to drop equipment only and determine through [redacted] whether the blivets remained intact and undis-

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covered. Although these options remained open until final deployment in mid-April, the JTF did not have high confidence in the concept. The risks of compromise were high because of the multi-night requirement.

(S) (TS) The JTF continued to search for an abandoned air field in the previously mentioned refueling area of interest in Iran. The J-2 was tasked to locate an operational airfield that would be suitable for MC-130s. Indigenous forces at the airfield would have to pose minimal threat to the force as it captured the field. One airfield, Nain (Na-ēn) Military was found to meet these criteria. It is located northeast of Nain city on the highway to Anarak. This field previously supported an IAF electronic warfare training range. After the revolution, training had ceased at the range and only a 20-40 man security and maintenance force remained. [redacted] intimately familiar with the range were consulted and provided important information. A USAF officer who previously served as the [redacted] in Iran until Feb 79 and was very familiar with the installation, was also consulted. As a result of these consultations and analysis of photography, the JTF determined that it would be feasible to secure the airfield and conduct refueling operations. Many refinements were made to this plan in subsequent weeks and details will be presented later in the report. The Rangers were assigned responsibility for securing and holding the airfield.

(S) (TS) To support the operation, an existing USAF refueling system was adapted to the MC-130. The system is a

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3,000 gallon capacity collapsible fuel bladder with a gasoline engine driven fuel pump and pressure hoses which are extended to the receiver aircraft. Most C-130s can carry two bladders interconnected with hoses to provide 5,500 gallons of fuel for transfer (about 250 gallons remain in each tank at the completion of refueling). The MC-130 has less space due to installed electronic systems and only one bladder can be carried. One of the refueling systems was installed and checked out at Davis Monthan AFB, AZ, where the C-130s were temporarily located during training. Training and briefing sessions were conducted with helicopter representatives. The first refueling test was conducted at MCAS Twenty-Nine Palms Expeditionary Airfield (EAF) on the night of 7 Dec. A single MC-130 and three helicopters were used for the test. Coordination problems were encountered, but the mechanical refueling procedures were validated. The successful completion of this event was encouraging to the JTF and the so called "Nain option" was pursued vigorously. The airdrop procedure was also refined as a secondary option in the event the Nain operation became infeasible or a suitable drop zone became available.

~~(C)(S)~~ During December, the mission weather officer continued providing daily weather briefs to the JTF staff increasing the Middle East interest areas from Iran [redacted]

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~~(C)~~ ~~C (TS)~~ DELTA continued training [redacted] After the first rehearsal, DELTA assault plans were refined. Still lacking, however, was verification of a suitable DELTA drop off point, a helicopter hiding area, a verified route

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to Tehran, vehicles to transport the force to Tehran and answers to a number of EEI.

(U) On 11 Dec, COMJTF requested that [redacted]

(U) [redacted]

On 12 Dec, after an analysis of all options, the sports stadium across Roosevelt Street from the northeast corner of the compound was selected as the primary LZ. This required new planning, coordination, and training on the part of DELTA, the gunships, and the helicopters. Unsure [redacted] COMJTF, on 14 Dec, received CJCS permission to develop a concept which called for [redacted] An airfield called Semnan New, located 115 miles east of Tehran, was examined. It was a support field for the IAF HAWK missile training range. Like the electronic warfare range at Nain, training had terminated at Semnan New and only a small security and caretaker force remained. It was estimated that C-141s could land at this field under the cover of darkness and offload both DELTA [redacted] were abundant in the Iranian Armed Forces and so it was determined that if this option materialized [redacted] would be transported. On 16 Dec, members of DELTA began training [redacted] at the Aberdeen Proving Grounds, MD. On 17 Dec, [redacted]

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[redacted] driver training continued until 27 Dec.

(S)(U) The identification of Nain as a potential refueling site caused a series of interrelated changes in the concept of operations. Foremost was the decision for DELTA to fly into Iran aboard the MC-130s and transfer to the helicopters at Nain. This concept had several advantages. First, it reduced substantially the gross weight requirement for the helicopters at launch from the carrier. This would enable the helicopters to carry more fuel in additional internal auxiliary fuel tanks. Second, it would permit DELTA to remain longer in the CONUS for training and, in the event new intelligence became available, changes to DELTA planning and training could be accommodated. DELTA forces could be moved into the area using C-141s [redacted] to the carrier task force in five days. Although it was considered feasible to move [redacted] in 24 hours and then fly them to the aircraft carrier, it was not feasible to provide cover to DELTA and their equipment by using this procedure.

(S)(U) There was a need to develop new communications arrangements and procedures and by 18 Dec some progress had been made to support the following command, control, and communications concept. COMJTF would probably be located at a base in the Mediterranian region. This required communications with the aircraft carrier, the MC-130 base, the MC-130s, gunship aircraft, the Ranger force at Nain, DELTA, helicopters, and the extraction force at Manzariyeh Airfield.

(S)(U) By 15 Dec communications facilities had been established with the Ranger element. This greatly improved

their coordination and planning capabilities. Field training had reconfirmed the suitability of tactical equipment supporting the JTF headquarters. However, communications with airborne and ground forces had not yet been perfected. Confidence in high frequency (HF) voice for communications with aircraft and helicopters was extremely low, prompting additional efforts to improve HF reliability and a search for additional portable satellite communications equipment.

(U) Representatives from CINCPAC and USCINCEUR arrived in Washington in December and participated in planning and coordination.

(TS) Planning and training progressed rapidly through mid-December. There was an urgent need to validate most portions of the plan and to determine the status of training and equipment. Plans for another rehearsal at YPG were formulated based on the mission plan. The mission plan at that time called for the following resources: First night - six MC-130s, [redacted] KC-135s for air refueling MC-130s to and from Nain, six helicopters, [redacted] DELTA, and [redacted] Rangers at Nain. Second night - five MC and three AC-130s with [redacted] KC-135 support sorties for refueling in and out of Manzariyeh Airfield and [redacted] Rangers to secure the airfield.

(S) (U) It was determined that representative forces would be used for the rehearsal. Operational security was a prime consideration. Consequently the following resources played in the rehearsal: three MC-130s, six helicopters, 19 DELTA, two CCTs, three Rangers and one AC-130.

(S) (U) The rehearsal scenario called for the helicopters to fly a two hour navigation flight to the Twenty Nine Palms EAF (used to simulate Nain), where three MC-130s would be waiting with DELTA and three Rangers to control the airfield.

Once refueling was completed, the helicopters would fly a 1.5 hour navigation flight to the Barn at YPG then to a hide out area 20 miles north. There the helicopters would wait until the next day for the call from DELTA advising that they were about to go "over the wall" at a simulated compound. DELTA would proceed [redacted] to a simulated compound which was a small set of lighted buildings near the YPG airfield. Following extraction, the helicopters would fly for about 40 minutes to an abandoned airfield near Holtsville, CA, (used to simulate Manzariyeh) where MC-130s would be waiting.

(U) The rescue plan called for abandoning the helicopters at Manzariyeh, but in this case the helicopters would be flown back to the YPG airfield. Command and control was supported by a 20 man Joint Communications Support Element which had deployed from MacDill AFB for the first rehearsal and remained in place at YPG.

(U) On 14 Dec, several DELTA personnel arrived ahead of the rehearsal date to conduct another test of the airdrop method of refueling. This was accomplished on 17 Dec with two helicopters and one MC-130 dropping four blivets, one pump, and one tractor. The drop was successful and all blivets and other equipment remained intact and were useable. The force refueled the helicopters and experienced no problems.

(U) The rehearsal which began on 18 Dec went according to schedule. There were rough edges to be worked out and more coordination to be accomplished. Areas requiring additional emphasis were blacked out airfield landings for the C-130s, airfield marshalling and control at both airfields, communications, and refueling procedures. The overall

assessment, however, was that the plan was viable and JTF confidence grew substantially. A capability existed but the risks remained high. During this rehearsal a prototype of a new portable satellite terminal was first tested. This new radio, the PT-25, held promise for greater availability of satellite terminals to all ground elements and reduced reliance on HF.

(S) (TS) With the exception of the helicopter detachment, all units redeployed back to their training sites. The helicopters continued functional training as did the MC-130s. [redacted] DELTA resumed training [redacted] concentrating on [redacted] weapons training and plans for the assault on the compound. The Rangers concentrated on training and plans for the Nain and Manzariyeh options.

(U) Operational security remained a major concern. It was decided, with CJCS concurrence, that the task force should take a Christmas break to protect OPSEC. Families would not understand the need to conduct training during Christmas and might elevate concerns to members of Congress or the press after being told that a joint training exercise to validate Army-Marine doctrine would continue through the holidays. Personnel returned home (the helicopter detachment stopped flying), OPSEC was maintained, and an extensive recall plan was developed. The plan provided transportation to recall everyone within 24 hours.

(U) Between 9 Dec and 23 Dec the helicopters had flown 153.0 hours of which 140.7 were flown at night. Between 3 and 21 Dec the C-130s had flown 159.4 hours (144.0 at night).

(U) (C) Modifications required to prepare the RH-53s for

the rescue mission were minimal with the most significant being the removal of mine sweeping equipment and engine sand separators and installation of armor plate and the self contained navigation systems. To provide an onboard navigation capability to augment the primary method of navigation (visual terrain following), inertial navigation systems that could be installed were reviewed. Two basic navigation systems were selected that could be installed temporarily, would provide the accuracy desired, and could insure redundancy since they employed different operating principles. The systems selected were OMEGA and a Palletized Inertial Navigation System. The OMEGA is an accurate positioning system which employs a triangulation method of evaluating radio signals over great distances. The PINS system is entirely self contained and operates from the electric power supply of the aircraft. The PINS requires that it be initiated and zeroized for error at a fixed, non-moving location. Since the mission launch was scheduled from an aircraft carrier at sea, procedures were employed to initialize the system at a land base prior to mission launch. PINS sets would be mounted in specially constructed racks in a C-2 COD aircraft, flown ashore, initialized while the C-2 was motionless at the land base, then flown back to NIMITZ. The C-2 would remain plugged in to ships electrical power until just prior to mission launch. Transfer of the PINS sets from the C-2 to the mission aircraft would be accomplished by activation of an internal battery that supplied power during the transfer. External ships power would then be maintained on the RH-53Ds until they were started and operating.

(U) During this period plans were made to equip all mission RH-53Ds with both OMEGA and PINS systems.

OMEGA. A total of seven Northrop Cardinal systems were available from the contractor. The systems had been used in an earlier test and evaluation program. Since a successful trial installation had been previously tested, it was decided to deploy a Northrop/Naval Air Test Center team [redacted] to install the system on the six HM-16 aircraft. The six systems were installed [redacted] before the aircraft were flown aboard KITTY HAWK. The seventh system was used as a spare. A contractor technical representative embarked on KITTY HAWK and remained with HM-16 for training and maintenance support.

Subsequent mission planning identified the requirement for two additional mission RH-53Ds. Three Litton 211 systems were obtained. These systems were scheduled for installation in mission aircraft and one for installation in a training aircraft at Yuma. The Litton 211 was selected because additional Northrop systems were not available. Also, the Litton 211 had been previously installed and successfully tested on an RH-53D. Two RH-53Ds were airlifted by C-5A [redacted] on 22 Dec and embarked aboard NIMITZ for transit to the Indian Ocean. A special modification team configured both aircraft with the Litton 211 OMEGA system during the transit.

(U) After NIMITZ relieved KITTY HAWK on station in the Indian Ocean, HM-16 transferred to NIMITZ with six RH-53Ds equipped with Northrop Cardinal 1 OMEGA. After taking custody of the two RH-53Ds equipped with Litton 211 OMEGAs

aboard NIMITZ, HM-16 had eight OMEGA equipped RH-53D helicopters.

(U) The JTF arranged to borrow nine PINS from the USAF. Six systems were delivered to HM-16 for installation. A navigation systems expert was provided to install the PINS and train the aircrews. He developed and tested the plan for initializing the PINS and personally supervised the mission set-up of this equipment in all aircraft.

(U) Three PINS systems and an INS technician were provided to the mission aircraft for training at Yuma. These systems were eventually delivered to the NIMITZ prior to the mission to provide a PINS in each mission aircraft.

(U) As of 24 Dec, the intelligence data base continued to grow. Authority was obtained to decompartment certain highly classified intelligence materials upon receipt of an execute order so these could be passed to operational elements, and other procedures for intelligence support improved. More details on remote locations, such as Nain, were compiled as time went on.

4 January - 1 February 1980

The Nain Plan - A Rehearsal (TS)(C)

(TS) COMJTF conducted a planning and review conference, to include [redacted] 4 - 5 Jan. Progress was reviewed and agreement was reached on where more emphasis was required. An extensive contingency review of alternatives was conducted. Areas to receive special emphasis were planning and training for Nain and Manzariyeh, selection of a helicopter drop off point and hide out area, [redacted] The CJCS, the JCS/J-3, and the Army Operations Deputy attended the meeting on 5 Jan, monitored DELTA training, and received an update. They made several suggestions and reassured the JTF that all needed resources would be made available. The CJCS and the J-3 were constantly involved in the planning.

(U) The helicopters began flying at YPG on 5 Jan and continued to refine navigation procedures and techniques. Three RH-53s were delivered from Norfolk by 7 Jan and the total complement now numbered ten helicopters. More training was conducted using the OMEGA and PINS navigation systems as aids to navigation. The primary method of navigation, however, was dead reckoning using night vision goggles to identify navigation check points and to avoid mountains while navigating at altitudes from 500 to 1000 feet AGL. It had been established that prior to takeoff a forecast for

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visual meteorological conditions (VMC) on the mission track was required to execute the mission. As they progressed in training during January, the helicopter pilots perfected techniques which enabled them to navigate accurately below an overcast with very little illumination. Confidence of the aircrews increased rapidly.

[redacted] Weather was highlighted as a crucial factor during the 4-5 Jan conference. Shortly thereafter, COMJTF initiated a program where the assigned mission forecaster would brief him on forecast conditions for the next 2-4 days in Iran as if the mission might be launched the next day. This procedure was designed to gain experience and knowledge about weather in Iran, to evaluate weather forecasting limitations due to lack of reporting stations, and to determine forecast effectiveness. Concurrently, [redacted] providing Iranian weather observation reports from various locations within the country as a further means of evaluating the effectiveness of weather forecasting. That service continued through 25 Apr. The Commander of AWS was in-briefed by the COMJTF on 24 Jan 80 in preparation for the allocation of additional resources from AWS for the mission.

(S) Mission deployment and employment planning continued. By this time [redacted] had been selected as the probable staging base should the mission be directed. Extensive planning led to a base support plan, [redacted] Flow schedules for deployment were laid out. [redacted] were analyzed to determine which base was more suitable for the first night when the

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[redacted]

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MC-130s would land [at Nain] offered OPSEC advantages but required [redacted] tankers to include air refuelable tankers (ART) for pre and post Nain refueling. The MC-130s would also have to fly [redacted] refuelings would have been required and the aircrews would have been too fatigued to fly the demanding mission the next night. For these reason[s] [redacted]

(U) Several more planning conferences were conducted. DELTA mission requirements had grown [redacted] Equipment was added as more was learned from intelligence and the actual exercises. It was determined that four vehicles were insufficient [redacted] A selection process also began to identify Farsi (Iranian language) speaking DOD and Persian [redacted] and to begin a concentrated [redacted] The training program was accomplished at [redacted] by selected DELTA personnel. [redacted] was selected because it was the nearest metropolitan area, [redacted] in a large city (Tehran).

(S) The number of helicopters required for the mission was a matter of considerable discussion and analysis throughout the planning process. Early in the planning process when DELTA had been scheduled to launch in the helicopters from the aircraft carrier, three events were key to this computation. The total number of operational helicopters

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required to extract DELTA and the hostages from the compound was first computed based on operational data and expected loss from enemy action. Then an abort factor was applied from the refueling point to the helicopter hide out to include the extraction at the compound. Finally, the number required for launch, with spares for redundancy, was computed to provide the number required at the refueling point. The number of DELTA personnel required for the mission was [redacted] and each man with equipment computed for an individual total weight of 270 pounds. At this point in Dec, four helicopters were required to be operational at the hide out area, five at the refueling point and six on board the ship.

(TS) In Jan 80, DELTA requirements increased. Several new factors drove the number of personnel and amount of equipment upwards. [redacted] DELTA to the compound. [redacted] a new plan to extract the hostages and rescue force from the sports stadium across Roosevelt Street was developed. Additional personnel and equipment were required to provide for a support/security force [redacted] the stadium. [redacted] Additional ammunition was required to secure [redacted] the stadium. [redacted] to escort the hostages to the stadium for helicopter pickup. [redacted] the security force and a few additional people required in the compound increased the December requirements to a total of [redacted]

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personnel with a grand total of 7000 additional pounds of gross weight.

(U) This new DELTA requirement was not a direct additive requirement. The revised employment plan now called for DELTA to board the helicopters at Nain. Gross weight formerly had been a major factor at launch from the carrier. Now the helicopters, though they would carry additional fuel, would be lighter at takeoff from the carrier and the total number required did not increase in a direct proportion.

(U) A recomputation was made in mid January and the required number of helicopters at the hide out area was determined to be five, six at the refueling site, and seven for launch, for a total of eight aboard the carrier.

To cover this requirement and to allow for any needed future additives, COMJTF requested that CJCS obtain authorization to deploy two additional helicopters. Two additional RH-53Ds were put aboard the NIMITZ [redacted]

(U) Operational Readiness (OR) of the helicopters aboard the KITTY HAWK came under closer scrutiny in January. Earlier COMJTF had dispatched to the KITTY HAWK a list of special items to be worked to include the need for operational communications, engine topping procedures, additional maintenance inspections, etc. The OR rate was not what COMJTF felt was needed and several discussions with the Navy Staff resulted in initiation of special supply support procedures. The OR rate began to improve significantly and the Navy Staff and COMJTF closely monitored the daily reports. When spare parts or technical assistance was required, it was made available immediately.

(U) ~~NOT~~ The initial guidance passed to the KITTY HAWK was that two helicopters should be flown each day, to ensure that all were flown in a three day period. The primary rationale for this sortie rate was to exercise the helicopters but not overfly them as the mission execution was considered imminent. At this time COMJTF reviewed the scheduled sortie rate flown from KITTY HAWK. It was acknowledged that the rate needed to be lower than normal because of OPSEC considerations and flight/hangar deck aircraft management problems on the carrier. The two were interrelated. The KITTY HAWK was required to fly a wide range of aircraft to maintain a normal signature, to provide for aircrew proficiency, and conduct normal operations. It was agreed that a gradual increase in sorties would be accomplished.

(C) ~~(S)~~ The Nain plan required six MC-130s for the first night and six for the second. The USAF Tactical Air Command (TAC), possessed only three air refuelable MC-130s and four were assigned in the Pacific Air Force (PACAF) [redacted] The only refuelable, forward looking infrared MC-130s were in PACAF. Since PACAF resources would be needed for the mission, representatives [redacted] arrived in early December to conduct joint planning and training. For OPSEC reasons, [redacted] were not flown to the CONUS during the early training. However, realistic exercises demanded additional aircraft and on 12 Jan one MC-130 was flown to the CONUS. The available MC-130 fleet for training now totaled four.

(S) (U) AC-130 gunships had been deployed earlier to the Pacific for unrelated high priority operations exercises.

[redacted] and other crews of the gunships were the best qualified for the mission. To protect OPSEC, the [redacted] and a crew returned without aircraft to participate in planning and to direct CONUS gunships during training and exercises.

(U) On 16 Jan, COMJTF, in coordination with the Navy Staff sent his Deputy Commander for Helicopter Operations who served as his principal staff officer for helicopter matters to visit CINCPAC and USS KITTY HAWK. Three other personnel who were specialists in communications, intelligence, and maintenance accompanied him. Their purpose was to brief select CINCPAC staff members on the plan and to coordinate fleet deception and air support planning. They then proceeded to USS KITTY HAWK to get a first hand look at the status of equipment and aircraft. The USS NIMITZ had departed Naples on 2 Jan to relieve KITTY HAWK. On 23 Jan, the six helicopters aboard KITTY HAWK were cross-decked to NIMITZ. The JTF Deputy Commander for helicopter operations and his staff went aboard, briefed the Task Force Commander, the Chief of Staff, and the carrier Commanding Officer on the mission. He solicited and received assurances of support and departed the following day. Several equipment discrepancies were found and corrective action was accomplished. On their return, COMJTF was briefed that the status of aircraft was improving and that the new supply system was working well.

(~~TS~~)(U) The JTF planned another rehearsal for mid-January based on the Nain plan. At the 4-5 Jan conference, the helicopter commander had recommended that future exercises be held at a new location. OPSEC was of concern, but the

principal reason was that the helicopter crews needed to be tested in another area where they were not familiar with the terrain, airfields, and overall environment. They also needed to fly long range navigation flights similar to the ones planned for the mission.

(U) (S) The MC-130 aircrews and DELTA forces agreed with this plan. The aircrews needed to fly long missions requiring air refueling to practice precise navigation and timing over extended routes. It was also felt that DELTA should be exposed to the long hours required in the MC-130s for their mission. Rest for the DELTA force was a major concern as they would be required to fly throughout the first night, first on board MC-130s and then aboard the helicopters to the hide out area. The MC-130s were equipped with mattresses so that DELTA personnel could travel in a prone position if desired. The Rangers had similiar aircraft configuration requirements.

(U) Strategic Air Command (SAC) planners had been involved minimally at this point but sufficiently to plan and schedule KC-135 air refueling training missions.

(S) A survey team was dispatched to the Las Vegas area to negotiate with the USAF [redacted] for new training sites. OPSEC remained a major consideration; however, the team was able to make arrangements and obtain support by briefing only one individual on a small amount of the real purpose for the exercise. As was always the case, the individual was required to sign a statement that he would not divulge information to anyone in accordance with the espionage statutes and other laws.

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(U) ~~(S)~~ A relatively little used concrete strip with a building complex called Desert Rock was used to simulate Nain. Indian Springs AFB was selected to simulate Manzariyeh. It was arranged that no personnel would be near either airfield ramp during night operations (approximately midnight) and that all airfield lights would be turned off to simulate expected conditions in Iran. The airfields were more than adequate for the exercise.

(U) (~~S~~) The survey team also identified good locations to be used for the helicopters to drop off DELTA and hide out the next day.

A ~~(S)~~ Another complex [redacted] was made available. ~~Its similarity~~ to the embassy compound was adequate. Lights were left on to simulate the lighting in Tehran. An area adjacent to the complex was marked off with engineer tape to simulate the stadium for hostage extraction.

~~(S)~~ (~~S~~) Total personnel and aircraft planned for the rehearsal were six helicopters with a spare, four MC-130s, two KC-135 tankers, [redacted] DELTA and [redacted] Rangers.

A ~~(S)~~ Rehearsal plans called for [redacted] Rangers to depart Hurlburt Field on one MC-130 and [redacted] DELTA to depart [redacted] on two MC-130s. One MC-130 departed from Hurlburt to carry fuel. These aircraft were to air refuel enroute with an average flight time of eight hours to Desert Rock. Because of OPSEC, the number of MC-130s was less than planned for the mission (no additional aircraft were flown in [redacted] Refueling trucks were brought from Nellis AFB to simulate the other MC-130s. [redacted] aircrews participated in the rehearsal.

(S) It was planned that a FLIR equipped MC-130 with DELTA personnel aboard would make a low pass down the Desert Rock runway to verify that there were no objects on it. This aircraft could not land on this approach because the landing gear can not be lowered when the FLIR turret is extended. Therefore, a second MC-130 with Rangers aboard was to be in close trail and, if the lead made no calls, would land assuming the runway was clear. The Rangers, with jeeps and motorcycles, [redacted] and be prepared to accept the remaining MC-130s with DELTA and the on board fuel. The helicopters were scheduled to land twenty minutes after the last MC-130 landed.

(U) A developing weather system threatened the exercise. However, COMJTF decided to proceed because the exercise was needed to verify the new plan as soon as practicable. Poor weather was expected off and on during the next week.

(U) The rehearsal began on schedule. The first MC-130s got airborne but a problem developed with the KC-135 tankers. One went down for maintenance problems and there was no spare. Accordingly, the first night's operations were cancelled with the second night's operations to be conducted as scheduled. DELTA returned to base and their portion of the second night operation was simulated by a six man advance party which had arrived previously. An early lesson had been learned. Requirements (fuel and timing) for tanker aircraft must be established early to allow proper coordination and assure spare aircraft are available.

(U) It was decided to continue the helicopter portion of the exercise. Seven helicopters were scheduled and

manned with six scheduled to takeoff. Six helicopters launched. About an hour after takeoff, one aborted due to an unsafe nose gear indication and returned to YPG. The other five proceeded on their scheduled four hour plus navigation flight to Desert Rock. After about three hours, the flight leader in an RH-53 experienced cockpit indications of an impending main rotor blade failure. He landed in Death Valley and a wingman accompanied him. The mechanical blade failure indicator was checked and it also indicated impending failure, a condition which rendered the aircraft unsafe to fly. The aircrew remained with the aircraft to secure it and the other four helicopters proceeded to Desert Rock. The next morning 12 maintenance men and a rotor blade were flown in on another helicopter and the blade was changed in less than an hour.

(U) Weather had developed in the mountain valley hideout and to the north and it was decided that it would be unsafe under training conditions to send the helicopters forward from Desert Rock. They would fly to the hide site at first light.

(U) One of the four that arrived at Desert Rock had a major main gearbox oil leak. While the system could have been serviced and the helicopter could have continued on "the actual mission", it could not have been repaired without expanded maintenance. The decision was made to take it out of the exercise and repair it at YPG. Another aircraft had a cockpit chip light indication which indicated the possibility of main gearbox problems. However, it was checked and determined to be a faulty indicator and the aircraft remained in the rehearsal.

(U) The next morning the lead helicopter, after being repaired in Death Valley, rejoined the rehearsal at the hideout site. The aircraft that had aborted for the nose gear problem also had been repaired and rejoined the rehearsal at the hideout site. These helicopters were brought in to enable the rehearsal to continue.

(U) The second night, the weather was favorable. All MC-130s and KC-135s got airborne and completed the mission as scheduled. Pre and post Indian Springs refueling was conducted over Oklahoma and Texas. The MC-130s landed at Indian Springs and prepared for refueling as [redacted] Rangers secured the airfield.

(U) Six DELTA personnel proceeded to the compound by way of trucks and simulated assaulting the compound. The compound extraction went according to schedule. All five helicopters took off on call from DELTA. Two helicopters landed in the HLZ and then departed one at a time as they were released by the DELTA controller. Others landed one at a time as space became available in the HLZ and DELTA called them in.

(U) The helicopters, as planned, proceeded single ship to Indian Springs where the MC-130s and Rangers were waiting. The MC-130s had landed in total black out conditions with the aid of new IR lenses on their landing lights and night vision goggles. There was no visible light.

(U) This portion of the rehearsal had been satisfactory except for major air coordination problems. The Rangers were tasked to provide control of aircraft and had practiced earlier with the helicopters at YPG. However, they did not have the institutional knowledge and experience to perform

that part of the mission well and more work would be required.

(U) The MC-130s returned to their departure bases using air refueling and the five helicopters returned to YPG.

(U) The rehearsal was productive. It had validated the concept but it also identified many problems which required more planning and training.

COMJTF called a post rehearsal conference at Fort Bragg, on 22 Jan. The JTF staff and component commanders attended. Foremost on the minds of the participants were OPSEC, weather, helicopter reliability, communications, refueling procedures, airfield control, and intelligence. Each of these items is discussed below:

C [redacted]

C [redacted] In response to tasking from COMJTF, [redacted] These studies had been very useful during planning and were crucial to the decision to [redacted]

C [redacted]

were not knowledgeable of the force, plans or mission.

[redacted]

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[redacted] the Iranians and Soviets could determine that unusual activity was occurring. COMJTF requested that the feasibility of incorporating secure UHF into the helicopters be re-examined. This was discussed at length. The UHF secure voice system on the RH-53 left much to be desired, although identical to the system onboard MC-130 aircraft. Transmissions were lengthy due to the keying period and considered by the helicopter crews difficult to understand. The helicopter crews did not consider the capability useful for urgent tactical transmissions in case of emergencies. It was decided that the helicopters would continue with unsecure radios and make calls only when necessary for emergencies or when vital information had to be transmitted.

(U) Weather: The rehearsal had served to emphasize weather as a critical factor in planning and mission execution. First, it reconfirmed COMJTF's conviction that the rescue mission should not be executed unless favorable weather was forecast. The experience at Desert Rock, where it was determined that weather in the hideout area was unsafe for training flights, had highlighted the need for such assurances. It also demonstrated the need for alternate landing sites as the mission progressed. Once the mission began and forces were in

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simulated or actual enemy territory, unforecast weather was to be judged on a case by case basis and the decision to continue would be a judgement call on the part of the flight leader. Force recall would jeopardize OPSEC and any subsequent rescue attempt. It was agreed that the helicopter commander should be prepared to land short of the hideout area if impenetrable unforecast weather occurred or if he could not arrive prior to daylight.

(U) Helicopter Reliability: Analysis conducted by the helicopter commander concluded that of the six helicopters that launched during the exercise, only the one that landed with the bad rotor blade would not have been able to complete the flight if it had been on the actual mission. COMJTF directed that the aircrews continue to use training abort criteria with a realistic emphasis on safety. The detachment was to analyze each training abort to determine whether the aircraft could have safely continued the rescue mission. It was determined that well understood criteria for go/no-go should be developed and utilized for the actual mission. The number of aircraft required for the actual mission was discussed. It was felt that the two additional helicopters enroute to the Indian Ocean would satisfy the requirements. However, the experience during the rehearsal spurred the need for close monitoring of the helicopters afloat and periodic assessment of the number of helicopters required on the NIMITZ.

(U) Communications: The rehearsal validated planning factors and the need to further develop communications. There was a growing number of subscribers and redundancy was required. At that time the communication equipment included two types of portable satellite terminals, HF, VHF, and UHF

portable radios, the larger mobile equipment of the JCSE, and the organic equipment of the various elements used for ~~intra~~-unit needs.

(U) ~~(S)~~ (S) Development of additional communications requirements was laid out to refine the configuration of the PT-25 satellite terminal which by now had been extensively modified by DELTA to increase its power output and receiver sensitivity. This radio, used with the PARKHILL secure voice device, significantly reduced the intercept problem. Of major significance was the successful use of this system and the PSC-1 from an airborne MC-130 and RH-53, proving the feasibility of positive secure communications with airborne resources. This accelerated efforts to find a more suitable antenna and radio for use on mission aircraft. Concurrently, HF testing was expanded to include the use of radio relay stations in an effort to increase the probability of HF reception. More work in the satellite and HF areas was to follow.

(U) ~~(C)~~ Refueling procedures: Refueling had progressed rather well, but coordination between the MC-130s and the helicopters required refinement. Fuel requirements for the actual mission had to be verified. It was agreed that the helicopter detachment would fly more long range missions to verify fuel requirements for the RH-53.

(U) ~~(C)~~ (C) Airfield Control: The air traffic control at Indian Springs was unsatisfactory. Consideration was given to adding an Air Force Combat Control Team to the JTF, thereby relieving the Rangers of the responsibility for air traffic control. However, the need to hold the number of people involved in the mission to only those absolutely required, both for OPSEC and

weight/exposure for the actual mission, were factors in the decision to continue with the Rangers. A Ranger team was sent to Yuma Proving Grounds to train with the helicopters.

(S) (TS) Intelligence: [redacted]

It remained, however to obtain additional details on security in the Ministry, since this vital area of information was still not complete. On 29 Jan, six Americans, with Canadian assistance, exfiltrated from Iran. They provided one more source of information on the current situation in Tehran and the status of the embassy just before it was overrun. As time passed, the intelligence available continued to improve.

(U) The conference ended on a note of growing confidence because of the successful portions of the rehearsal and a feeling that the deficiencies could be corrected. Also, a late breaking event had offered the potential for a new approach to the helicopter refueling portion of the mission.

(S) (TS) For months the JTF had been searching for an isolated area for the MC-130s to land and the helicopters to rendezvous for refueling and loading of DELTA. As mentioned earlier, the JTF and JCS were concerned about the Nain operation in that it

could be compromised on the day following refueling.

(S) (TS) By mid-Jan, the J-2 had conducted detailed studies and found only one area which had any potential; now called Desert One. COMJTF reviewed the data with CJCS and JCS/J-3. The area had potential but the JTF required more information before it could be accepted. [redacted]

(S) (TS) Following the JTF conference, a meeting was conducted [redacted] This was accomplished and a series of requirements was developed [redacted]

(S) (TS) (U) As the requirements for additional personnel increased to conduct the mission during night two of the operation, the JTF began to look for additional airlift capability to be used at Manzariyeh. The MC-130s were fully tasked and there was not much margin for an abort or a damaged aircraft. At that period in planning, one of the MC-130s was tasked to

return to Nain during the second night to pick up Rangers who would remain behind with Farsi speakers to maintain security at Nain after the helicopters and MC-130s departed the previous night.

In discussions with HQ USAF and MAC it was decided to begin a training program to qualify C-141 aircrews in low level navigation (1,000 AGL) through mountainous terrain and to land under reduced runway lighting at Manzariyeh. This concept called for the C-130s to land without any visible lights. After they landed, Rangers could place dim lights at the approach end of the runway and two further down to mark the departure end. On 21 Jan, two hand picked C-141 aircrews went to Hurlburt Field and began to train with the MC-130 crews. During the following two weeks they developed the capability by flying C-141s in black out conditions and became mission capable.

During the last week of January, specialized Ranger training was conducted for the Nain airfield. This training was conducted at Hurlburt where a compound was erected that resembled the support area at Nain. At the completion of training, the Rangers felt confident they could take and hold Nain. By now more intelligence was available. It was judged that Nain had no more than one [redacted] At night, no more than 10-15 guards would be on duty and they would be of marginal quality [redacted]

[redacted] Road watch teams would be established in case of discovery to stop vehicles. Should anyone approach

the compound, Farsi speaking individuals would turn them away or hold them if they became suspicio[redacted] Still the JTF and JCS desired another refueling option to replace Nain and its associated risk of compromise.

(S) The AC-130 gunship portion of the plan was proceeding well but it was determined that more joint training was needed by DELTA and the gunship aircrews. Selected DELTA personnel went to Hurlburt during the last week of January and worked out coordination procedures. The AC-130 crews also had to further validate the capability to safely fire their weapons with external fuel tanks installed on the aircraft. This was accomplished the last few days of January.

1 February - 16 February 1980

The Third Rehearsal

Main Plan ([redacted])

(S) Considerable individual component and joint training had been accomplished during the last two weeks of January and refinements had been made in the plans. It was time to conduct another rehearsal in order to measure progress since the last and to validate planning. JTF judged that OPSEC could be maintained by returning to the Las Vegas area and using the same facilities. The C-141 crews were not yet ready to participate. OPSEC considerations precluded bringing all the [redacted] into play and some artificialities had to be used for refueling (fuel trucks were used to refuel some of the helicopters).

(C) The resources planned for this mission were five MC-130s, six KC-135s, seven helicopters, [redacted] DELTA to include drivers, [redacted] Rangers and one AC-130 gunship.

(C) On the first night of the scheduled exercise, severe icing conditions [redacted] precluded launching the MC-130s. The rehearsal was postponed 24 hours.

(U) The following evening the rehearsal began with all aircraft arriving on time. The MC-130s flew eight hours and landed on schedule at Desert Rock. The helicopters after having flown three hours and forty-five minutes were only 30 seconds late. The refueling went reasonably well and the helicopters arrived on schedule at the drop off point. During

the next day, driver training was conducted. That evening the scenario at the compound went much better than previously, but one helicopter missed a check-point and was late.

(U) (S) Sky conditions from the compound to Indian Springs (50 miles) were 1,500 overcast and rain, but the helicopters made their way through the mountains safely. At Indian Springs AFB the air traffic control was marginal. The rehearsal was concluded and the MC-130s and AC-130s returned to their departure base using air refueling. The six helicopters refueled at Indian Springs and returned to Yuma Proving Grounds.

(S) COMJTF called for a post rehearsal conference at Fort Bragg on 8 Feb. The successful rehearsal had given the JTF considerable confidence, but more work was required. [redacted]

A [redacted] Communications remained a problem. Later, a WSC-3 secure satellite radio would be tested and adapted to the lead MC and AC-130 gunships. The problem of aircraft and airfield control at Indian Springs remained. It was decided to bring a USAF seven man Combat Control Team into the program. Despite the disadvantages to OPSEC of adding personnel, it was judged necessary to accept the trade-off to gain experienced and highly qualified controllers. The CCT was sent to YPG to conduct joint training.

(U) On the positive side, the helicopter pilots had demonstrated exceptional navigation capabilities in demanding weather conditions. However, they needed more work since

[redacted]

one had failed to locate a check point during the rehearsal. By this time the detachment had flown a total of 412.4 hours at night between 9 Dec 79 and 3 Feb 80.

(U)(~~TS~~) The refueling operation was judged to be more than adequate. OPSEC was reported by NSA as the most improved they had seen in a series of military exercises (the helicopters made no radio transmission during the entire rehearsal).

C (~~TS~~)

(~~TS~~) (U) A series of contingencies was reviewed and the commanders gained confidence in the plan because of them. The contingencies provided for alternate ways to proceed once the mission was underway. They also provided for recovery of the force at any time if the mission was compromised. The plan's main strength was that it provided the needed resources, redundancy, and flexibility to continue the mission once it got underway. The planners and the commanders collectively had confidence that a capability existed for the rescue. Needed now was more intelligence, additional training, and a plan to refuel the helicopters at Desert One. With these factors in hand the risks could be reduced significantly. Considerable discusssion was given to helicopter reliability. It was the judgement of the JTF that the eight helicopters aboard the NIMITZ were sufficient for the mission.

(TS- Following the 8 Feb conference, the staff concentrated even more on intelligence.

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[redacted]

This action would preclude Tehran radar from vectoring any fighters launched from the nearest base [redacted]

[redacted] by chance IAF fighters arrived they could not see the aircraft on the ground [redacted]

[redacted]

[redacted]

Iranian revolution (2 Feb) there was an intentional break down of almost all civilian and military structure. [redacted] This analysis did not suggest that the mission could not be compromised. It did verify plann= ing concepts which took advantage of the situation. It also verified the overall operational game plan which called for flexible and bold responses to encounters once the mission was initiated. The judgement was that most events enroute to Tehran would go undetected. If they were detected, [redacted] There were calculated risks to be taken but they were considered to be manageable. [redacted] An effective system had been developed by J-2 in coordination [redacted] etc. Several tests were conducted and the system was improved to the point that [redacted] could be reported to the COMJTF within one to five minutes.

[redacted]

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[redacted]

√-108

DESERT ONE AND MFA PLANS (S)(U)

~~(S)~~ In early February, the JTF had undertaken, with JCS concurrence, to plan for the extraction of the three US diplomats held hostage in the Ministry of Foreign Affairs (MFA). Since [redacted] DELTA force was already committed to the rescue of the hostages in the American Embassy (AMEMB), other forces had to be identified. [redacted] Qualified individuals were identified and immediately commenced planning and training for the mission. [redacted] to assist in the planning phase. During the last week of February, two individuals reported [redacted] for further training. After the training, they went to [redacted]

~~(TS)~~ In mid-February, intelligence indicated that some of [redacted] Prior to this, DELTA's plan was to search for the hostages in the following [redacted] Because of this new intelligence, DELTA was required to modify their plan to include a [redacted] as well. This increase in the number of buildings to clear and secure would further add to the

amount of time required for the rescue force to remain in the compound.

(U) (TS) The fourth JTF exercise was conducted 26 and 27 February 1980 in the YPG and Twenty-Nine Palms area. The purpose of this exercise was to sustain mission capabilities, incorporate CCT expertise, and refine JTF communications. For this exercise, the MC/AC-130s operated from Hurlburt, conducting air refueling to and from the objective area. The forces consisted of four helicopters, four MC-130s, one AC-130, 22 DELTA personnel, 18 Rangers and two CCT personnel. Due to the CCT expertise, this exercise resulted in better control of the aircraft during refueling. In addition, communications between all forces were refined. The JTF's confidence was further increased.

(S)(U) There were two uncontrollable and pressing environmental factors which could cause major revision of the rescue plan: available hours of darkness and ambient temperatures. By 1 May, the number of hours between evening nautical twilight and morning nautical twilight would drop to nine hours and 16 minutes. Eight hours were required for the helicopter mission plus a contingency factor of one hour was desired. By 10 May the average ambient temperature at the time of refueling was anticipated to be 30 degrees Centigrade. This temperature would increase the density altitude and limit helicopter performance, increasing helicopter and refueling C-130 requirements.

A,C (TS) On 6 Mar, the JTF had proposed the [redacted] The information obtained would permit detailed planning

C-110

of the MFA rescue mission. This proposal was not approved at that time as there was the possibility of the hostages being placed under Iranian government control and hopefully, of their subsequent release. The plan, however, was approved on 24 Mar.

(U) On 18 Mar a JTF conference was held at Fort Bragg. One of the major subjects discussed at this conference was the addition of C-141s to be used during the extraction phase of the operation. Plans were finalized to include two C-141s. Also, it was agreed that not less than six flyable helicopters had to reach Desert One.

(S) (TS) Throughout the planning period, operations [redacted] continued to be expanded. On 19 Mar JCS directed the movement of weather and communications support which consisted of one Defense Meteorological Satellite Program (DMSP) Mark III terminal, one Tactical Weather Analysis Center Communications Terminal, one AN/TYC-8A AUTODIN terminal, and one AN/TTC-22 switch board. The JTF Weather Officer deployed [redacted] to set up the weather facility. Other communications equipment that was moved consisted of JCSE [redacted] communications facilities. This was the first movement of equipment and personnel directly related to the JTF mission and would bring the hostage rescue option to a seven-day response status. Six C-141 loads consisting of ALCE, ammunition, fuel bladders, fuel blivets, and MC/AC-130 maintenance were [redacted] on 27 and 28 Mar. Further deployment was stopped at this time and not resumed until 16 Apr, when additional ALCE and MC/AC-130 maintenance loads commenced moving [redacted]

(S) (TS) The last major rehearsal was conducted 25-27 Mar and

[redacted]

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utilized 29 PALMS EAF to simulate Nain and Indian Springs to simulate Manzariyeh. On this exercise a C-141A was used for the first time. The C-141A experienced some problems in conducting the blacked out landing but this problem was later resolved with more training. Exercise participation consisted of six MC-130s, one AC-130, one C-141, six helicopters, DELTA personnel and Rangers. The rehearsal was a success and confidence increased significantly.

(U) In late March, in anticipation of possible deployment, three JTF personnel representing communications, operations and maintenance were sent to NIMITZ. The purpose of this visit was to check on the status of the helicopters on board and to prepare for deployment. The helicopter mission maintenance officer inspected the helicopters and judged them to be in good condition. Based on inputs from the mission maintenance officer, the HM-16 maintenance officer developed a thorough inspection check list. This was a special, detailed, and thorough effort to insure the aircraft would be in the best possible condition.

(S) The JTF continued to refine the air-drop option for helicopter refueling. If air refuelable stretch C-141s could operate [redacted] fuel could be cached at a site in the 100 mile diameter refueling area. On 31 Mar with JCS approval, COMJTF worked with MAC to begin a test. For the first drop C-141A (standard) aircraft were utilized and then the C-141B. The capability was validated by successful air drops during the period 1-14 April 80.

(S) The search had continued to find a desert landing area for the MC-130s to fuel the helicopters. On 31 Mar, the

C [redacted] He recommended to JCS that the plan be revised to include Desert One and CJCS concurred.

(U) LBT As summer approached and surface temperatures and density altitude increased, the number of helicopters required beyond the refueling site increased to six. It was further decided that sufficient fuel should be taken in for all helicopters that might be mission capable at the refueling site, Desert One. This could be as high as eight. A change in the number of helicopters needing fuel necessitated the use of a C-130 aircraft which has a full capacity cargo compartment (41') to allow a dual bladder system to be used. An MC-130E cargo compartment would not accommodate a dual bladder system because of its reduced (27') cargo compartment. The EC-130 was selected because it is airborne refuelable and the Airborne Battle Command and Control Center (ABCCC) module in it was easily removable. Two 3,000 gallon bladders (5,500 gallons usable total) were to be loaded on each of three EC-130 aircraft each fitted with two pumps, four hoses, and filter assemblies. This new capability substantially increased the redundancy and flexibility. MC-130 pilots would fly the EC-130 because of their experience in night operations.

12 April - 24 April 1980

The Count Down (U)

(C) ~~(RS)~~ On 12 Apr CJCS received clearance to instruct COMJTF to begin planning for deployment, and to designate [redacted] for C-130 operations on the first night of the mission. Initial planning [redacted] had been accomplished just three days earlier. CJCS also requested that COMJTF recommend a planning date for mission execution. This date was not intended to be a firm date for execution but only a date on which to base deployment planning. COMJTF recommended Thursday, 24 Apr, based on time needed for some additional training, time required to deploy the force without jeopardizing OPSEC and the desire to conduct the mission during the Iranian weekend. The forces should be in place preferably at least three but no less than two days before the mission to allow the personnel to adjust themselves physiologically with time enough to ready their aircraft and other equipment. The CJCS also instructed that great effort be made to compartmentalize the planning in an attempt to minimize the number of people internal and external who might assume or know that plans were underway to deploy.

(U) ~~(S)~~ A series of interrelated but separate actions were initiated. An airdrop of 3 blivets by three stretch air refuelable C-141s had been previously scheduled for 14-15 Apr. Helicopters would practice refueling from the blivets although the final plan was to air-land fuel aboard EC-130s at Desert One. The air drop option had been perfected over the months and the stretch C-141 offered greater potential.

COMJTF elected to continue with the event; to cancel it would raise speculation and questions within the JTF. The system could be used as a contingency during the mission.

(U) A training exercise was scheduled at Edwards Dry Lake. An EC-130 would land at night with 5,000 gallons of fuel on board and refuel four helicopters. This was conducted since training at an unimproved desert field was needed and in preparation for the actual mission concept validation. The exercise was successful and the concept validated.

On 15 Apr USN P-14s, A-6s and A-7s from the NIMITZ and CORAL SEA began a series of air refueling training missions with KC-135s operating [redacted] The purpose was to qualify USN pilots in air refueling from KC-135s. Rescue mission planning included the use of carrier based tactical air support at extreme ranges to provide contingency air support to the rescue force throughout the operation.

On 15 Apr two officers were sent [redacted] to prepare for the arrival of the first MC-130. They first saw the American Ambassador and then proceeded to [redacted] on 18 Apr.

COMJTF conducted a two day meeting in the Pentagon on 15-16 Apr. The purpose of the conference was to review the plan with commanders, affirm command and control matters, evaluate the readiness of the force, review contingencies, and make an overall assessment of the likelihood of mission success should the mission be initiated on 24 Apr, or if conditions were not favorable on the 24th, during the subsequent days.

The Plan (U)

~~(U) (TS)~~ General: This was a three phased mission, the first phase would be insertion of the force into Iran, through refueling of the helicopters at Desert One, and onward to the helicopter drop-off point for DELTA and helicopter hide out area. MC and EC-130s would depart [redacted] with DELTA, a CCT party, a road security force and fuel for the helicopters at Desert One. At Desert One, the helicopters which departed from the NIMITZ would refuel, load DELTA and proceed to the dropoff point. [redacted] and proceed to a nearby hide out area. The C-130s would return [redacted] Two KC-135 ARTs and two KC-135As would be on station [redacted] of the coast out point for contingency refueling for C-130s and Navy TACAIR if launched.

~~(C)~~ ~~(TS)~~ Phase two would begin after DELTA and the helicopters are in place. [redacted] DELTA then proceeds to the AMEMB compound after midnight, Tehran time, calls for the helicopters and AC-130 gunships and enters the compound. As hostages are freed, DELTA calls for helicopters to land in the AMEMB compound as conditions permit or in the stadium as appropriate. At the same time DELTA enters the AMEMB compound, another rescue team [redacted] rescues the three men at the Ministry of Foreign Affairs. A helicopter picks the MFA Group up from a HLZ nearby. [redacted]

V-116

reaction and to provide protective firepower for the MFA rescue force. Helicopters in single file proceed to Manzariyeh. Phase three begins as four MC-130s from [redacted] two MEDEVAC equipped C-141s from [redacted] standby at Manzariyeh. Manzariyeh is secured by Rangers and supported by a third gunship. After the C-141s and MC-130s are loaded with former hostages, the rescue force and the Rangers depart [redacted] Helicopters are left intact at Manzariyeh. During phase one and two, Navy carrier TACAIR is on alert aboard the aircraft carrier. The Navy aircraft would be refueled by USN organic tankers and an airborne KC-135 tanker if launched. During phase three Navy carrier based TACAIR is airborne on station over the northern portion of the Persian Gulf, supported by an airborne KC-135 ART tanker.

(U) ~~(S)~~ The following is a description of scheduled events. The plan was flexible enough to accommodate slips in the scheduled times. The times shown are goals for the JTF, not firm times that had to be met to achieve success. All times Zulu (for Tehran local add 4+30).

PHASE ONE

(C) 1405Z - An MC-130, the first of six C-130s, is scheduled to depart [redacted] Combat Control Team, A,E [redacted] road security force equipped with one jeep and four motorcycles, and [redacted] DELTA personnel. Also aboard is the Desert One Commander, the C-130 Force Commander, the CCT Commander, the Road Security Commander, and the DELTA Commander. The aircraft is equipped with secure TACSAT WSC-3 radio, linked E with various command elements to include [redacted] the NIMITZ and the lead helicopter. The MC-130 also has secure UHF radio and unsecure HF radio. This lead MC-130 is to land at Desert One at 1810Z, establish two desert landing strips, set up a portable TACAN, and secure the road approaches from the west and east. As the first MC-130 approaches Desert One, [redacted] A [redacted] The Desert One Commander is to report to COMJTF via secure voice when the first C-130 is safely on the ground. Scheduled interval between this C-130 landing and the next is one hour to allow sufficient time for CCT survey, establishment of landing zones, and security force deployment.

1506Z - Eight helicopters scheduled to launch from NIMITZ. F-14s and A-6 CAP aircraft placed on deck alert. If a minimum of seven helicopters fail to coast in over Iran in a mission capable status, the mission is to be aborted. A minimum of seven is required to give assurance that six will be operationally ready at Desert One refueling site. The lead helicopter has a secure TACSAT WSC-3 radio aboard. WSC-3 provides the capability to enter into the same net as the lead MC-130. Helicopter number five is equipped with a PSC-1 TACSAT radio

which provides unsecure voice during ground operations. The helicopters have a crew complement of two pilots, two maintenance personnel (qualified to operate 50 calibre machine guns) and a crew chief. Additionally, one DELTA radio operator is aboard helicopters one and five. The helicopter flight includes the helicopter flight commander and the JTF Deputy Commander for helicopter operations, who is to provide assistance as required and be in charge of helicopter #5, which has been designated for the MFA rescue mission. The helicopters are scheduled to land after all C-130s have landed and are prepared to refuel them.

(C) 1510-1519Z - Two MC-130s and three EC-130s (fuel bladder aircraft) scheduled to depart [redacted] A spare MC-130 backs up the MC-130s. One MC-130 has [redacted] DELTA aboard (number includes attachments), the other, [redacted] DELTA aboard (number includes attachments) and three 500 gallon blivets for contingency fuel. The three EC-130s each have 6,000 gallons of fuel on board, of which 5,500 gallons maximum can be transferred to helicopters. Should one of the MC-130s abort after 20 minutes of flight, the mission is to be aborted. A route map of MC-130s and helicopters follows.

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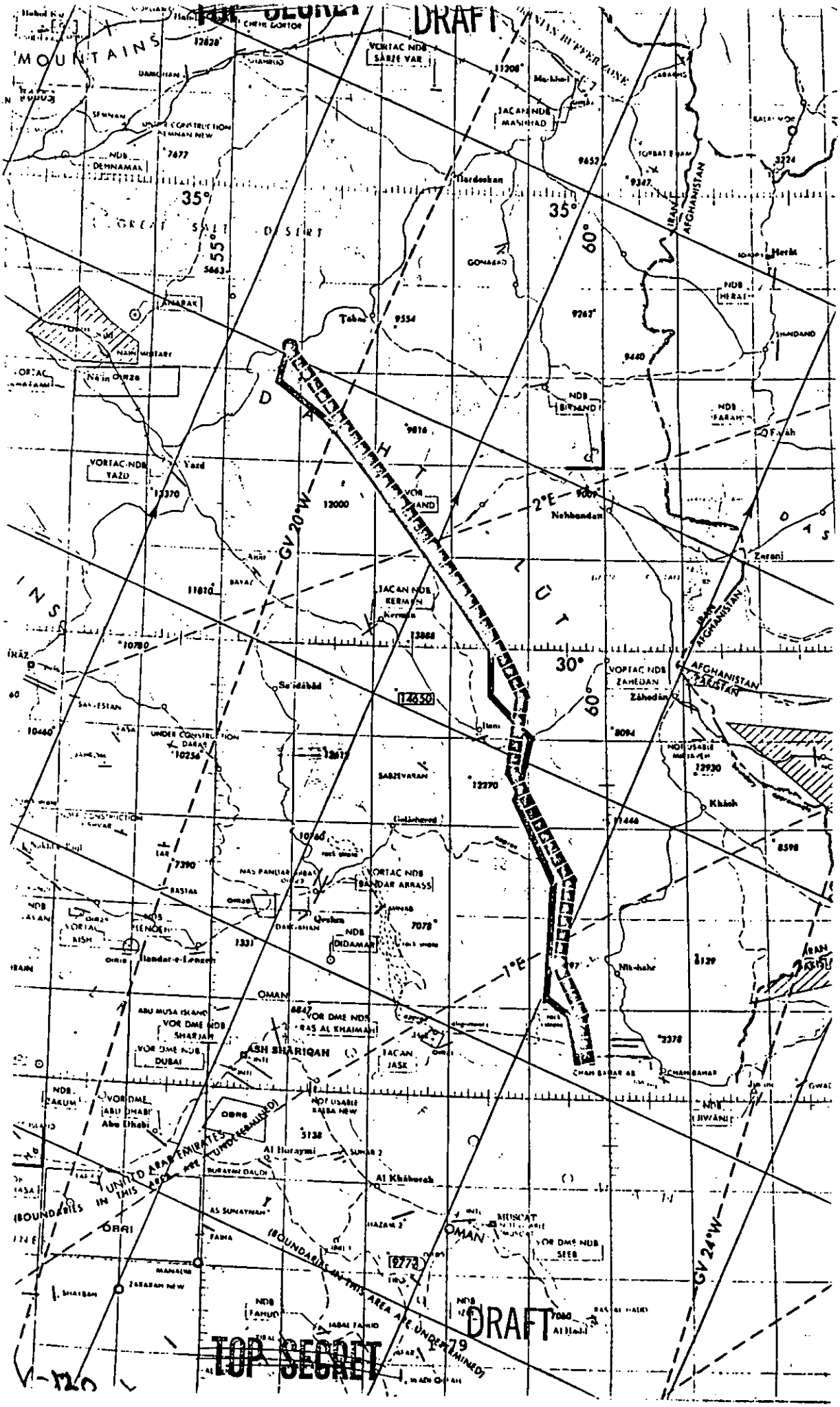

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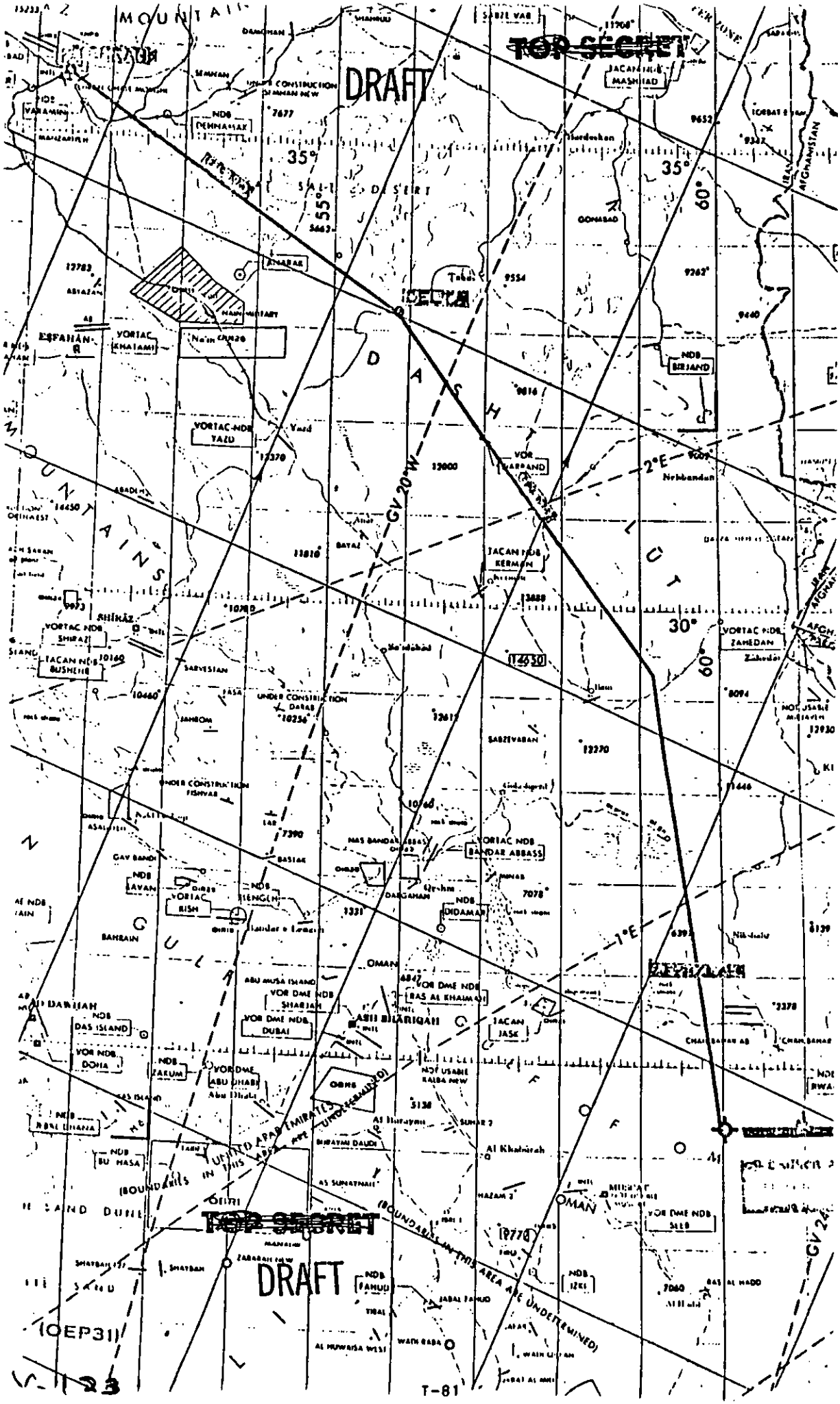
[redacted]

(C) 1517-1519Z - Two KC-135As and one KC-135 ART scheduled to [redacted] Two KC-135As refuel the ART enroute to NIMITZ, then return [redacted] This ART, drogue equipped, is scheduled to arrive over the NIMITZ at 1930Z. The ART is provided to refuel USN tactical air in the event NIMITZ aircraft are required to launch in RESCAP support of Delta forces at Desert One or at the helicopter hideout. The CAP consists of two F-14s, air-to-air configured, and two A-6s/A-7s air-to-ground configured. The CAP aircraft will remain on deck alert status with back ups provided for quick response throughout the vulnerable period (helicopter launch to helicopter bed-down at hide out). If launched on the first day the plan called for the CAP aircraft to proceed at maximum range altitude and speed to the RESCAP area as designated by DELTA forces. Planning figures indicated that the Desert One (Pt ALPHA) refueling area, located approximately 600 NM inland could be reached within 1 + 30 hours. The CAP aircraft would be capable of remaining on station: F-14 and A-6 = 1 + 45 hrs at high altitude, A-6 = 0 + 45 hrs at low altitude. The plan calls for enroute tanking from KA-6D aircraft enroute to the RESCAP area and refueling from KC-135 tankers upon arrival back in the vicinity of NIMITZ. The mission profile was planned as shown on the attached map.

[redacted]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MOUNTAINS
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GULF OF OMAN
SALT DESERT
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VOR DARRAND
TACAN NDB KERMAN
VORTAC NDB SHIRAZ
TACAN NDB BUSHEHR
VORTAC NDB ZAHEDAN
VORTAC NDB BANDAR ABBASS
VORTAC KISH
NDB DIDAMAR
VOR DME NDB SHARJAH
VOR DME NDB DUBAI
VOR DME NDB RAS AL KHAIMAH
TACAN JASK
VOR DME NDB ABU DHABI
NDB DAS ISLAND
VOR NDB DOHA
NDB ZAKUM
NDB BU HASA
NDB FAHUD
NDB IZKI
VOR DME NDB SEEB
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(BOUNDARIES IN THIS AREA ARE UNDETERMINED)
UNITED ARAB EMIRATES
(OEP31)
T-81

(C) 1736-1738Z - One KC-135A and one KC-135 ART depart [redacted] E [redacted] C-130 support. The KC-135A refuels the ART and returns to [redacted] The ART will provide, as a contingency measure, emergency refueling for the first two MC-130s that return from Desert One.

E 1737-1836Z - Two more KC-135s depart [redacted] to provide contingency refueling for the third MC-130 and three EC-130s at Desert One.

1810Z - Lead MC-130 lands Desert One.

1849Z - Helicopters pass point of no-return (fuel).

1910Z - Second MC-130 lands, Desert One.

1917Z - Third MC-130 lands, Desert One.

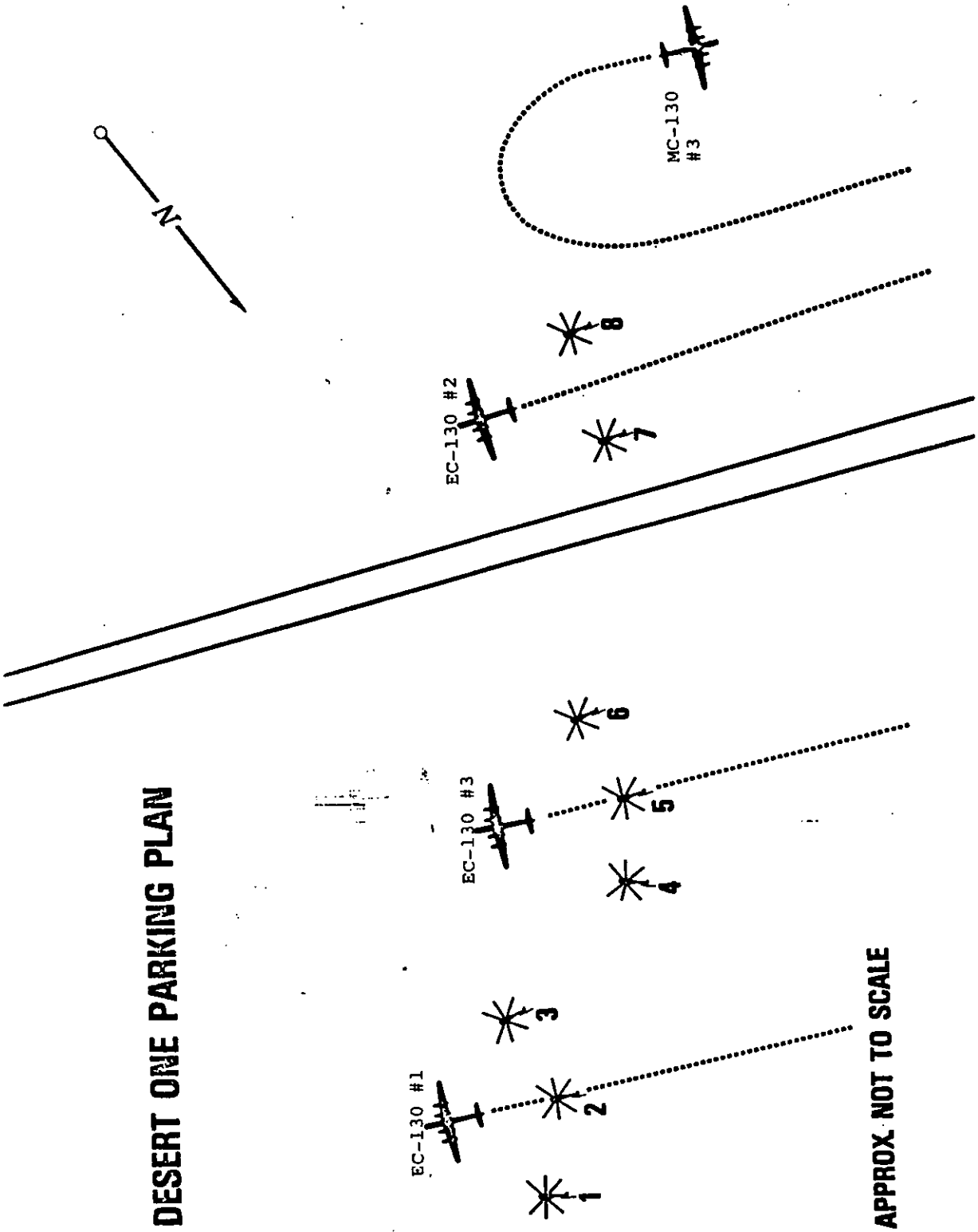
1920-1923Z - First two EC-130s land, Desert One.

1926Z - Lead and second MC-130 take off and return to

E [redacted] to relieve congestion at refueling site.

1928Z - Last (third) EC-130 lands.

1930Z - Helicopters land at Desert One. The refueling configuration is shown on the following diagram.



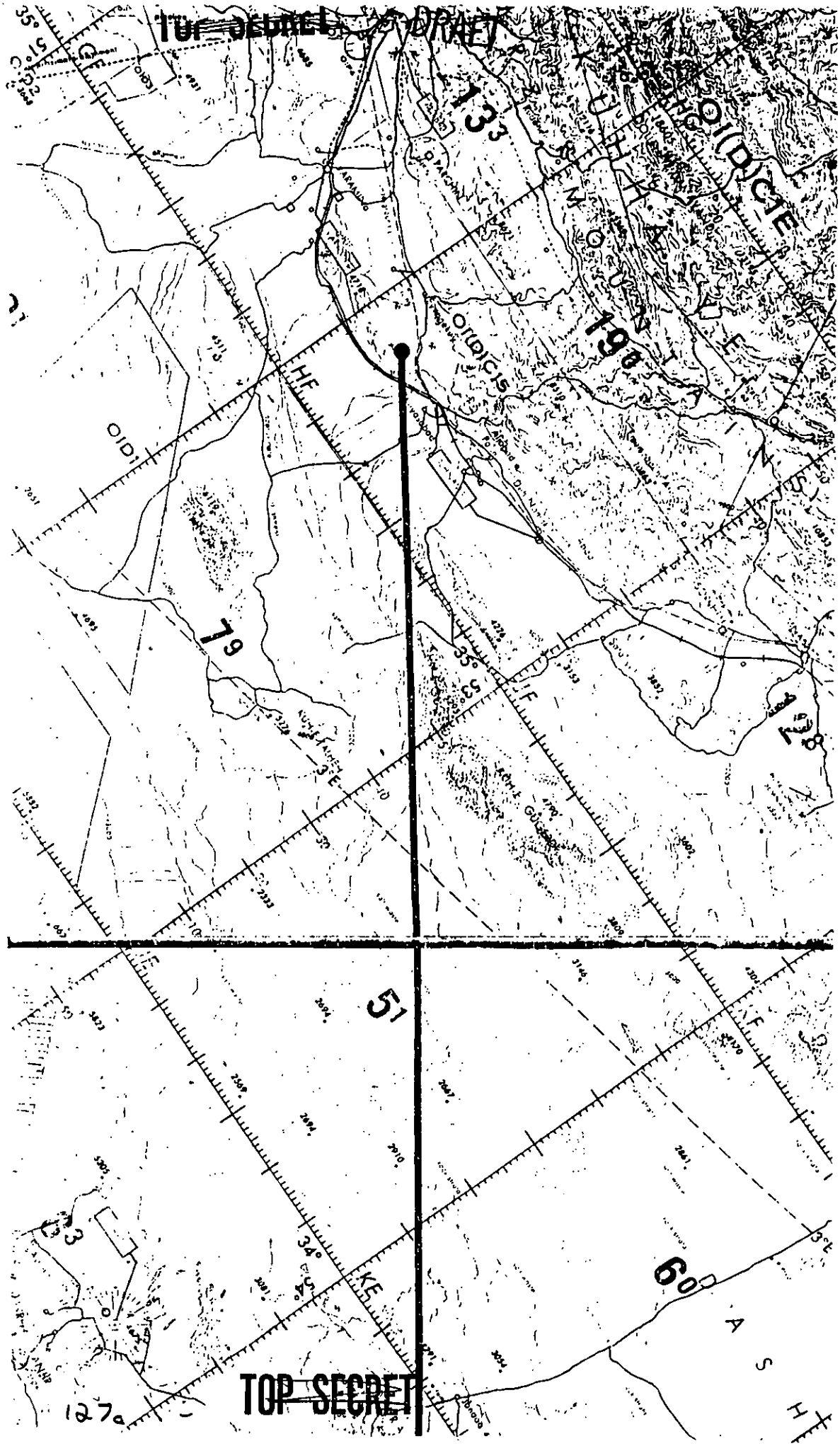
DESERT ONE PARKING PLAN

APPROX. NOT TO SCALE

1930 - 2010Z - Refueling complete, DELTA force loads on to helicopters. Helicopters depart for DELTA drop off point. Six mission capable helicopters are required. If less than six, the mission is to be aborted. Inoperative helicopters, if any, are to be destroyed by the road security force.

2030Z - One MC and three EC-130 aircraft depart after sanitizing the area. They transport any detainees back to the launch base. If a C-130 is inoperative, it is destroyed prior to departure.

(C) 2220Z - Helicopters arrive at DELTA drop-off point, [redacted] The helicopter route is shown on the following map.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OI(D)C1S
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34°
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19
7
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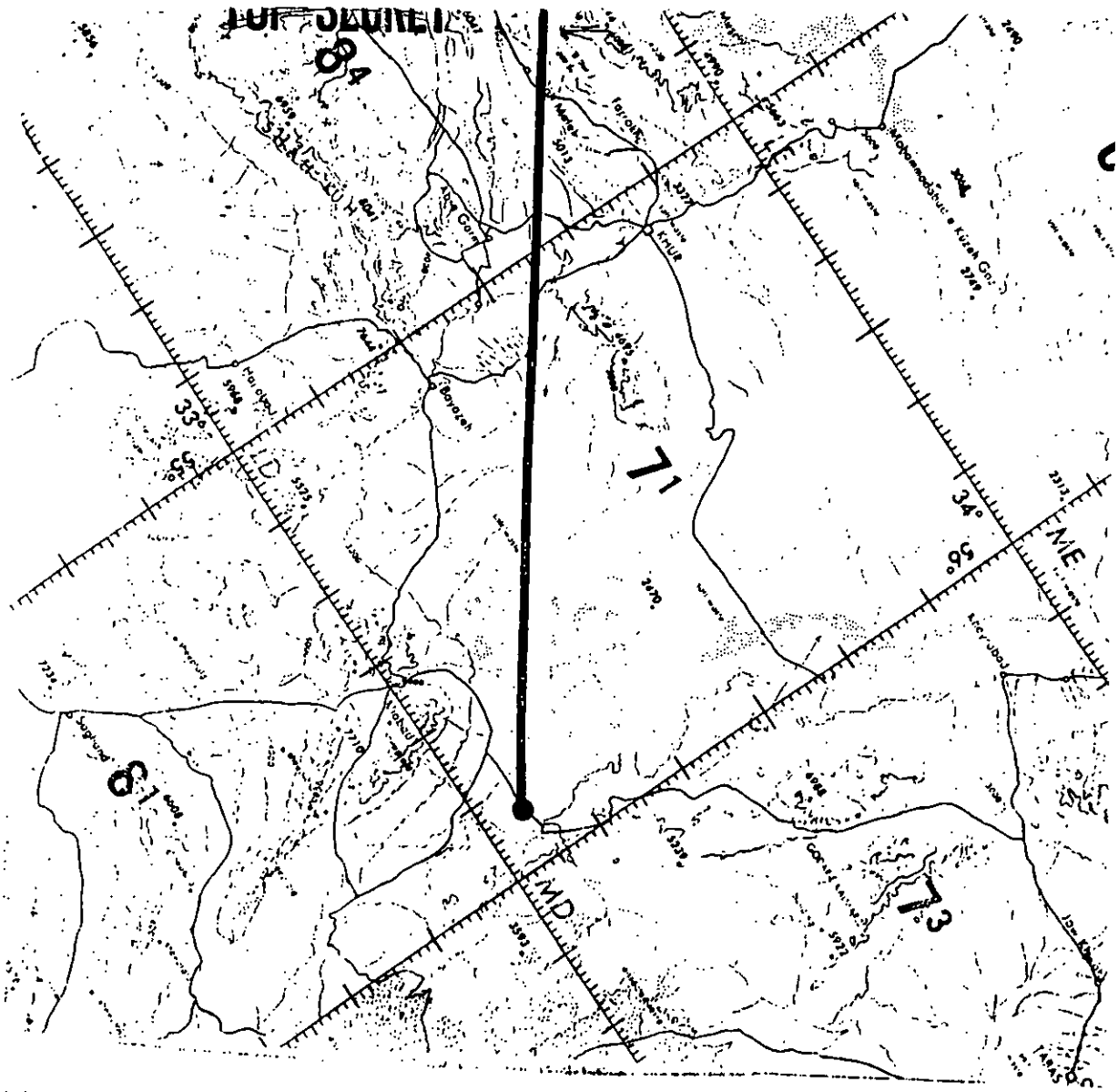
60
127

TOP SECRET



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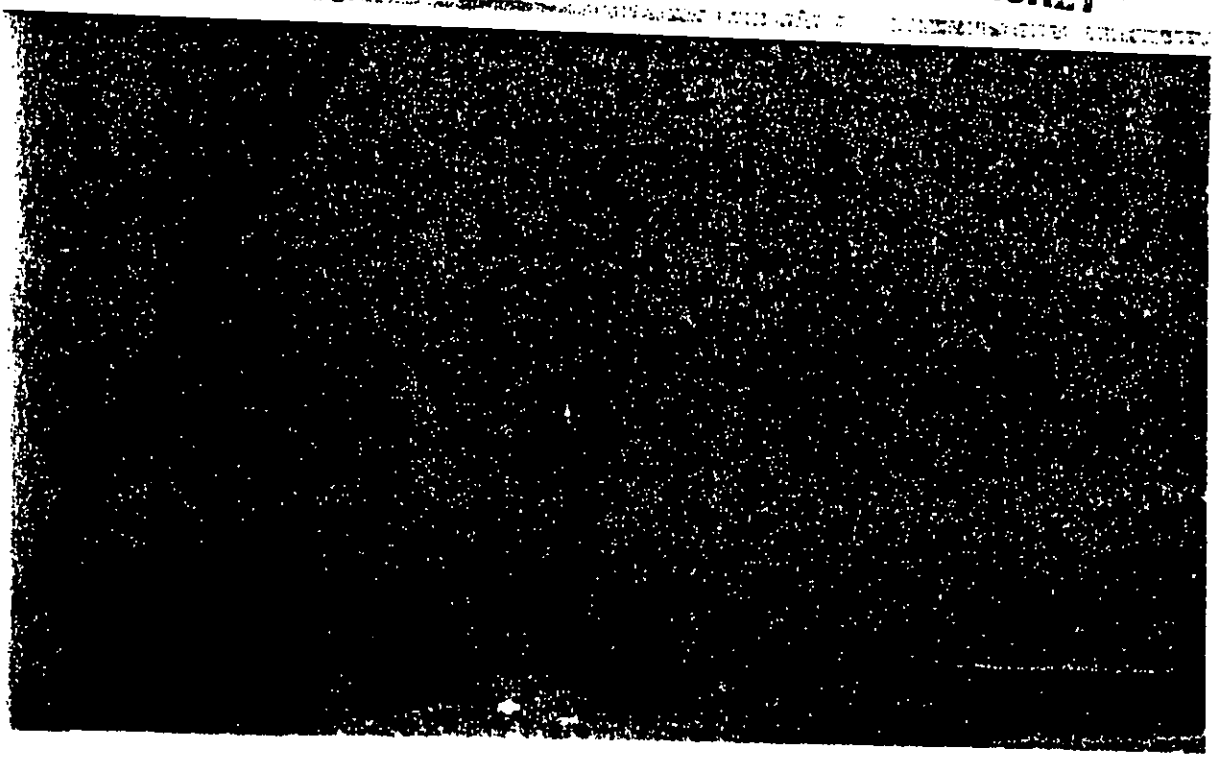

2250 - 2315Z - After off loading DELTA, helicopters fly to helicopter hide out HLZs. (Map of drop off point and helicopter hide out area as shown)

(C) 2315-0200Z - DELTA reports to COMJTF status of force. DELTA [redacted] Their next action will depend on the recommendation [redacted] They will probably remain in the ravine until after day break to conduct briefings and to rest. The air crews [redacted] and establish short range radio communications with DELTA (to be used in emergency only). The DELTA [redacted] team remains with the helicopters until dark.

0030Z - Last of C-130s lands [redacted].

0040Z - Two MC-130s depart [redacted] (fresh crews fly). DCOMJTF returns [redacted]

PHASE TWO

(S) 0200 - 1800Z - Elements of DELTA a[redacted] reconnoiter the highway to the [redacted] They also continue along the planned [redacted] route to the AMEMB and survey the situation. A [redacted] (position and timing to be determined) and prepares to proceed to AMEMB for the rescue. Route map follows.

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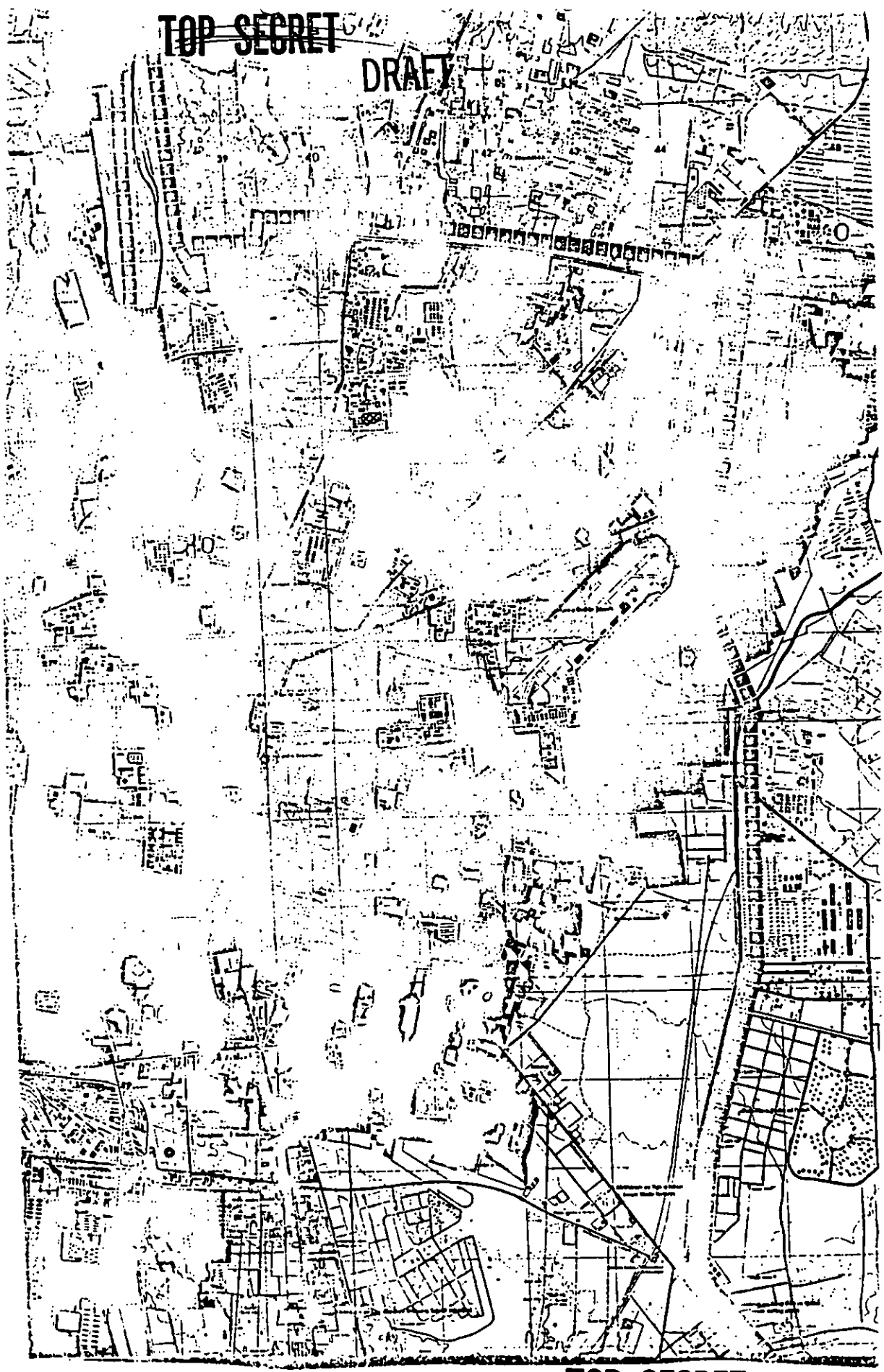
V-131



1453 - Four MC-130s depart [redacted] Manzariyeh airfield. They will fly [redacted] and refuel [redacted] at low altitude at 1710Z, and are scheduled to land at Manzariyeh at 2145Z. COMJTF is aboard the lead MC-130. There are [redacted] Rangers and two medics. One MC-130 contains five blivets of contingency fuel for the helicopters and a resupply of ammo for DELTA. Routes for MC and AC-130s from the Persian Gulf to Manzariyeh are shown on the following map.

V-133

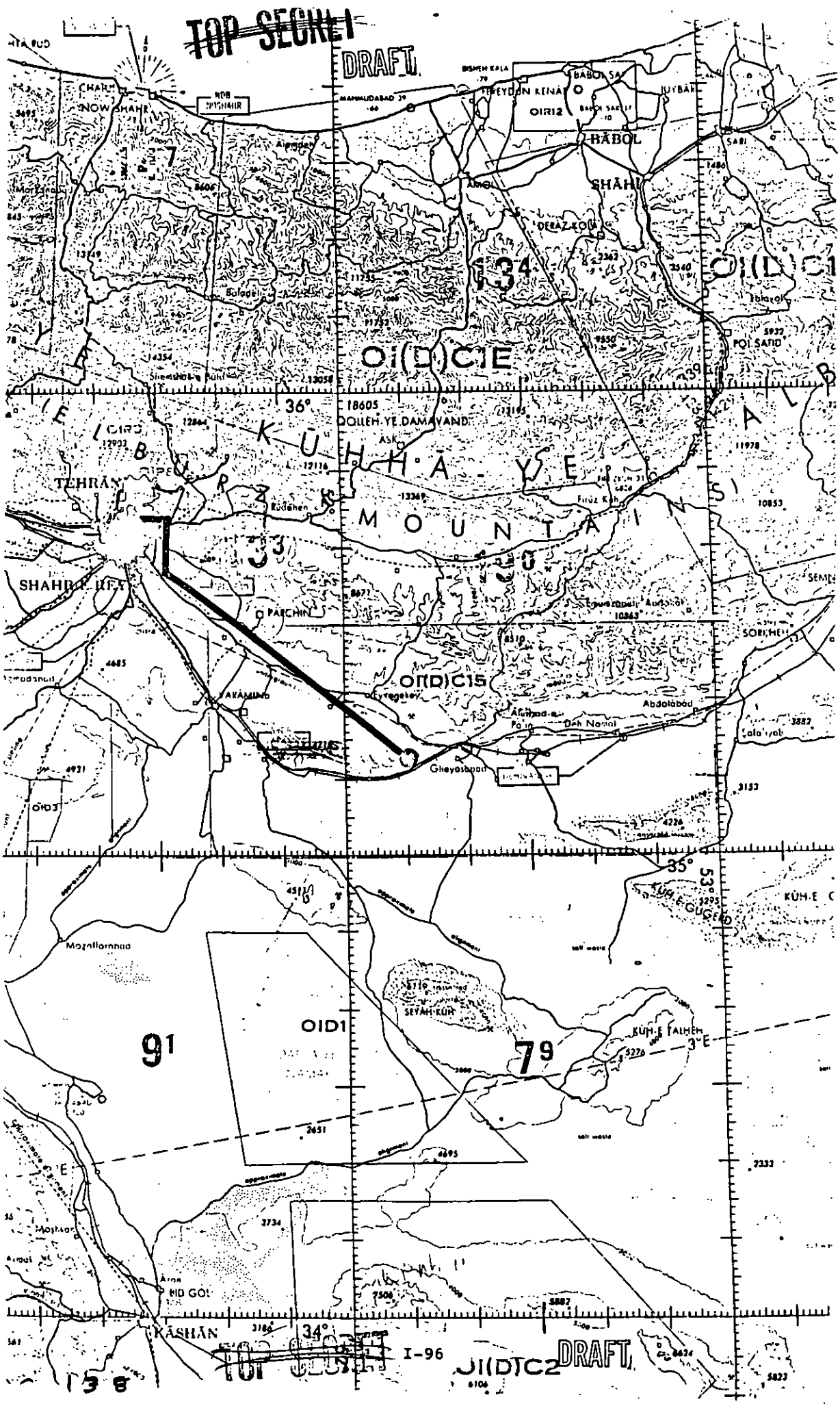
(C) 1503 - The AC-130 gunships depart [redacted]. Two will fly to Tehran and one to the Manzariyeh area. [redacted] and air refuel [redacted] at low altitude at 1730Z. [redacted] arrival of 2040Z. The third, which loiters with its KC-135, will arrive near Manzariyeh at 2110Z.

1811Z - Two MEDEVAC equipped C-141s depart [redacted] 2056Z arrival at Manzariyeh. There are a total of 12 medical personnel, 80 units of blood, and other necessary equipment aboard both C-141s. The route is as shown on the following map.

-135

2000Z - DELTA scheduled to inform rescue force for MFA, COMJTF, helicopters, MC-130s, AC-130s, and C-141s of intended time of assault (time over the wall tentatively scheduled for 2100Z). DELTA has window of up to 20 minutes early or 40 minutes late.

2030Z - Assuming the time over the wall is announced for 2100Z and there are no other calls, the helicopters depart the hide out and in flights of two proceed to an orbit point north of the AMEMB. Helicopter route is as depicted.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BĀBOL
SHĀHI
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KŪHHĀ-YE
MOUNTAINS
TEHRĀN
SHAHR-E REY
PARCHIN
OI(D)C15
Abdolābād
Gheyasābād
OID1
KŪH-E TALHEH
KĀSHĀN
OI(D)C2
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2040Z - Assuming time over the wall is announced for 2100Z, two gunships depart [redacted] One proceeds toward the AMEMB, the other toward [redacted] The lead gunship [redacted] if required.

2045Z - Four MC-130s land Manzariyeh; [redacted] Rangers set up defense; CCT team sets lights for C-141s and sets up portable TACAN.

2056Z - Two C-141s land at Manzariyeh. COMJTF reports to DCOMJTF that all aircraft have landed and prepared to receive helicopters.

2100Z - To execute the ground tactical plan, the DELTA force is divided into [redacted] The C&C element is [redacted] if required, [redacted] transport of the rescued hostages to the stadium, and augmenting stadium security during extraction. [redacted] and being prepared to clear the Staff Cottages and the Consulate, [redacted] and escorting the hostages on the helicopters from the stadium to Manzariyeh. [redacted]

[redacted]

[redacted]

V-139

ment is responsible [redacted] and assistance in clearing/ securing the stadium. Assuming time over the wall is 2100Z, specified [redacted] and prepared to be placed aboard the helicopters. [redacted] If the stakes on the compound field can be removed, the decision may be made to conduct the initial helicopter extractions from this location. [redacted] will conduct their operation simultaneously. The Delta Ground Tactical Plan for the AMEMB Compound follows.

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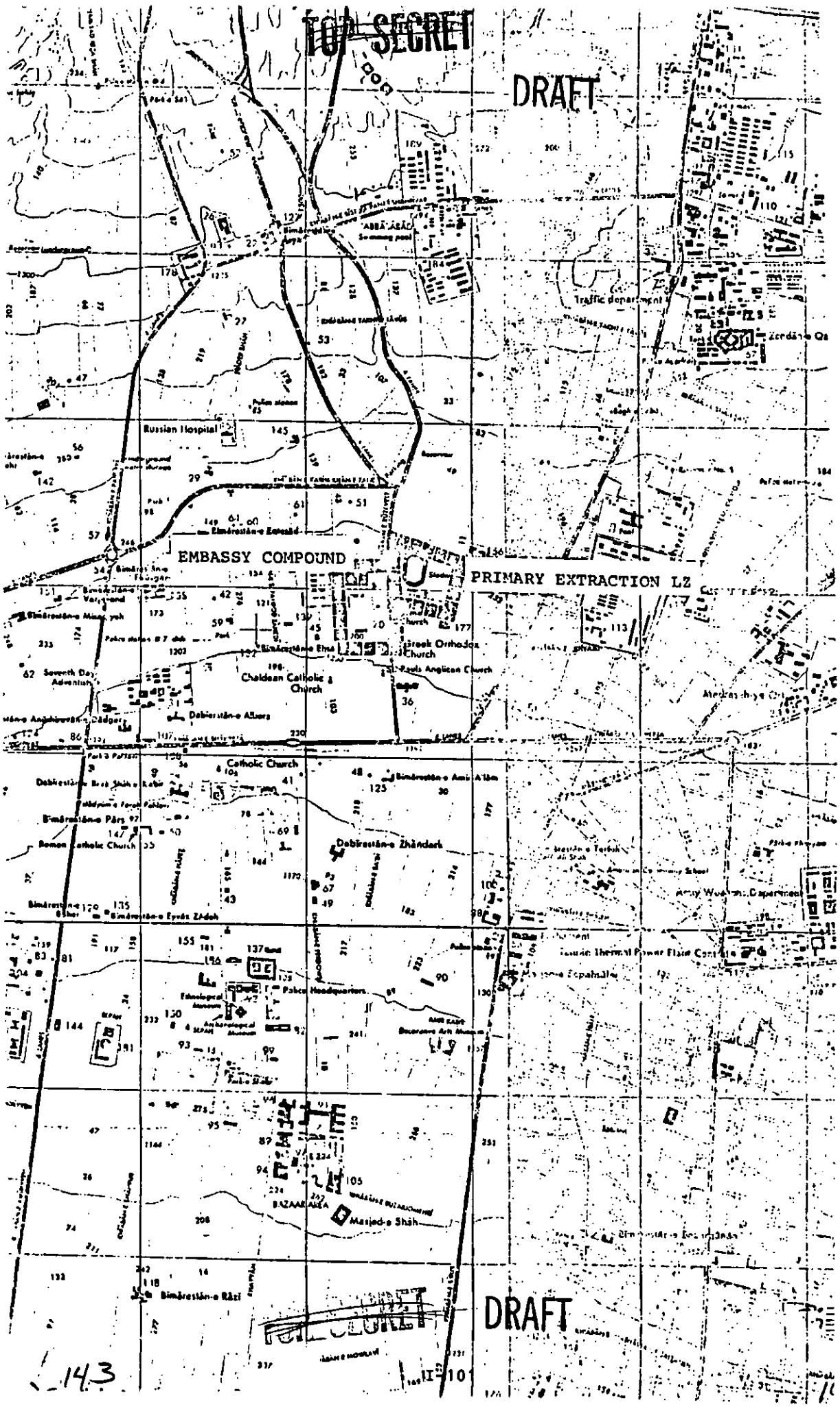
(U) 2100Z - Two F-14s and two A-6s launch from the NIMITZ to rendezvous with a KC-135 ART enroute to station in the northern Persian Gulf.

2105Z - One gunship in position over AMEMB [redacted] A [redacted] The second also provides protection cover for the MFA rescue team. Protective fire provided only on call.

2110 - 2200Z - On call from DELTA, helicopters land on playing field in compound or stadium as determined by DELTA. Helicopters lift off as they are loaded and proceed singly to Manzariyeh. A map depicting the HLZs follows.


TOP SECRET
DRAFT
EMBASSY COMPOUND
PRIMARY EXTRACTION LZ
Russian Hospital
Traffic department
Chaldean Catholic Church
Greek Orthodox Church
Seventh Day Adventist
Catholic Church
Roman Catholic Church
Dabirestán-e Zhándark
Police Headquarters
Masjed-e Shah
Bimárestán-e Rázi
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Concurrently, helicopter number five (or desighated alternate) proceeds to the MFA for an on-call pick-up of the MFA rescue team and hostages. This helicopter returns to the vicinity of the AMEMB to be used for additional lift if required by DELTA. Shown is a map depicting the MFA and the HLZ near the MFA.

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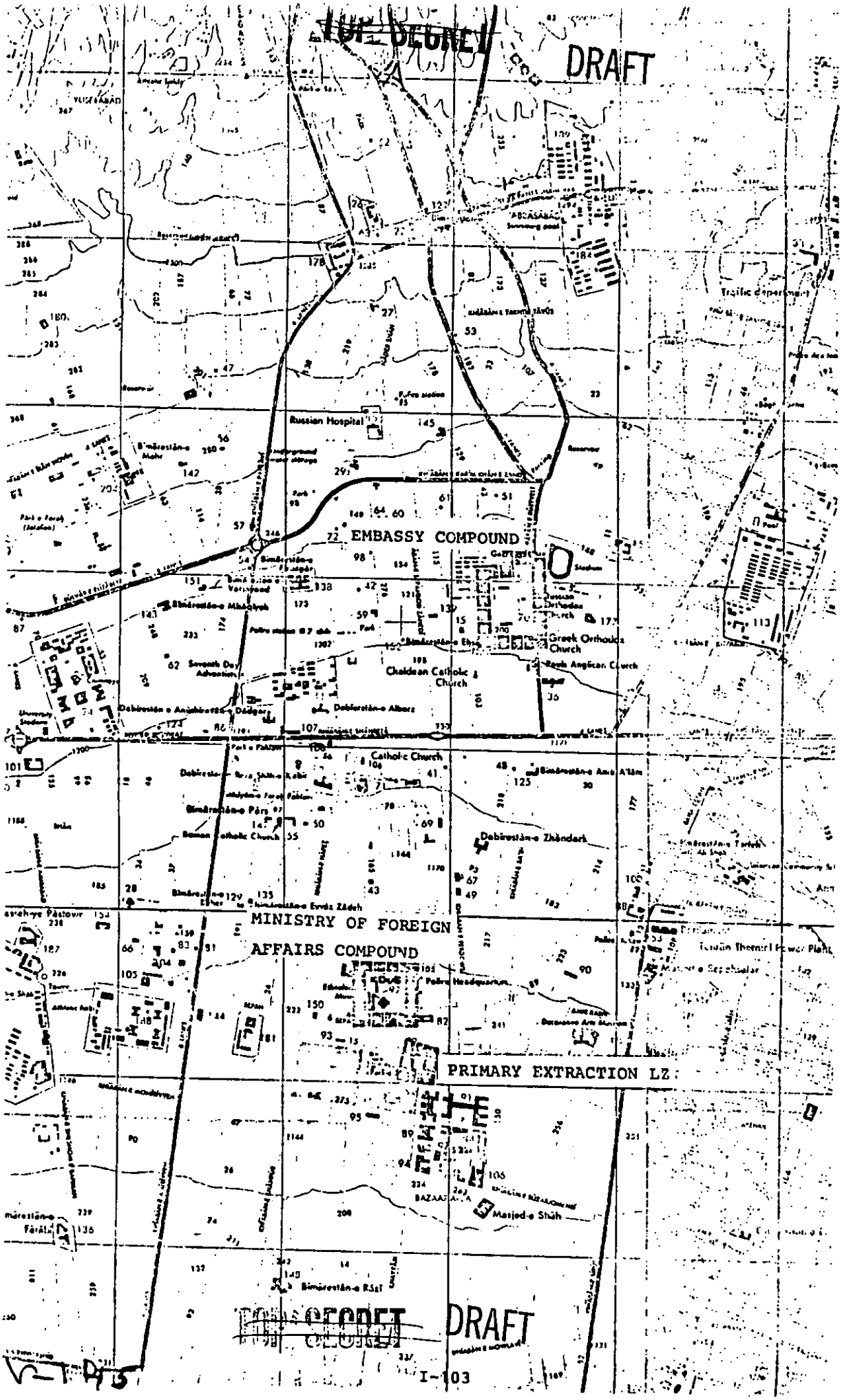
V-144


TOP SECRET
DRAFT
EMBASSY COMPOUND
MINISTRY OF FOREIGN
AFFAIRS COMPOUND
PRIMARY EXTRACTION LZ
Russian Hospital
Greek Orthodox Church
Chaldean Catholic Church
Catholic Church
Masjed-e Shah
TOP SECRET
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[redacted]1102 - Third gunship arrives vicinity of Manzariyeh. It

A [redacted] This gunship provides protective fire power [redacted] or can proceed to the AMEMB if requested by DELTA.

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PHASE THREE

2140 - 2110Z - Helicopters arrive at Manzariyeh. Former hostages, wounded, and DELTA are placed on C-141s. C-141s depart as they are loaded. First two mission capable helicopters refuel from contingency fuel bladders brought in by the fourth MC-130. They proceed back approximately half way to Tehran with additional ammunition should it be required by DELTA or additional lift is required. They also serve as SAR aircraft in the event a helicopter is forced down. Following is the parking plan for Manzariyeh.

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RECOVERY AIRFIELD AIRCRAFT PARKING PLAN

NOTE: DRAWING AND AIRCRAFT NOT TO SCALE

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2145Z - One KC-135 ART with two USN F-14s and two A-6s are to be on station in the northern end of the Persian Gulf. The two F-14s are air-to-air configured to protect the KC-135 and take action against high threat aircraft only. The two A-6 TRAM aircraft are air-to-ground configured for close air support. They are launched from a deck alert posture at a time to coincide with Delta entering the compound unless previously requested by COMJTF. The CAP aircraft join over the NIMITZ with a KC-135 ART [redacted] which has been fueled enroute and proceed to station in the northern Persian Gulf in the vicinity of 29-00N/49-00E. CAP aircraft and the KC-135 ART are maintained on station with relief aircraft provided until completion of the operation, after all US forces are extracted. Relief KC-135 tanker fuel is to keep the CAP aircraft at full fuel so they can depart station full, enroute to provide RESCAP support to Delta. CAP aircraft are to depart station when support is requested by Delta and proceed to the vicinity of Tehran approximately 375 NM from station, where they can remain overhead for two hours at altitude and for 0+45 minutes at low altitude. Communications paths have been established between Delta and the JTF for relay to the KC-135 and the CAP aircraft. An S-3 aircraft is also positioned in the Persian Gulf as a backup HF/UHF relay. Backup KC-135s from [redacted] and CAP aircraft are available in order to maintain CAP on station in the northern Persian Gulf even if CAP aircraft are vectored on a RESCAP mission to the vicinity of Tehran. The mission route was planned as follows:

(C) 2215Z - MC-130s depart Manzariyeh and AC-130s depart the area and conduct air refueling enroute back [redacted] using essentially same route.

(C) 0330Z - C-141s arrive [redacted] Emergency medical facilities are available. Fresh C-141s with air crews are on standby to fly former hostages and wounded [redacted]

0425Z-0459Z - MC and AC-130s arrive at [redacted]

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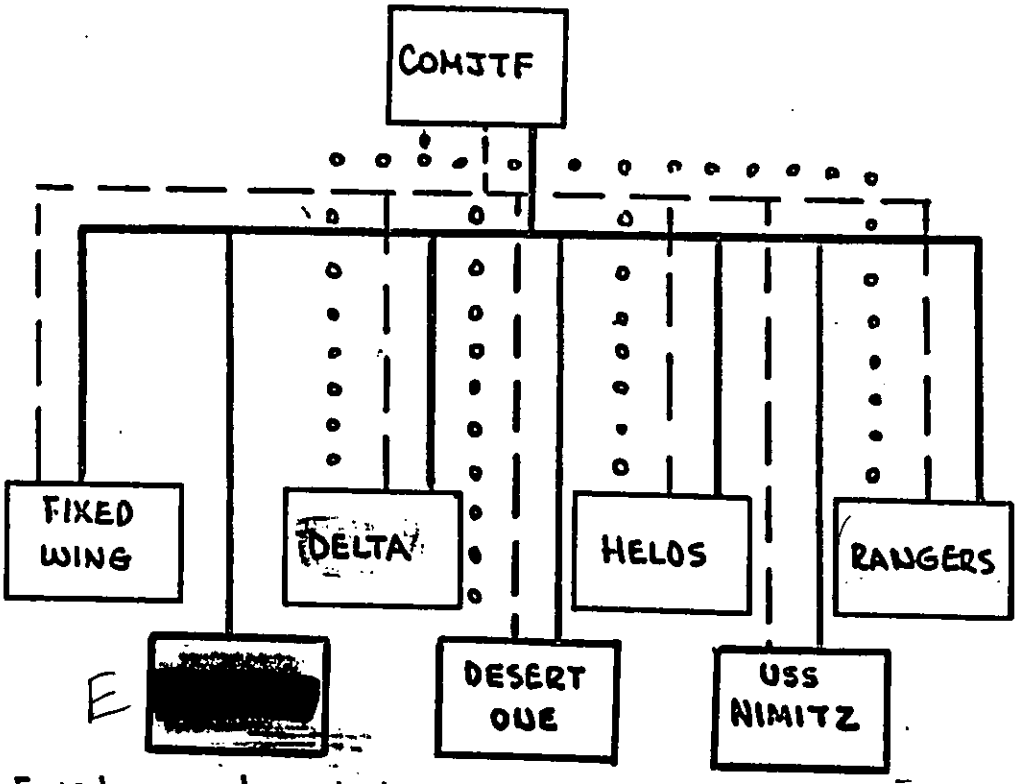
COMMAND AND CONTROL

[redacted] Command and control was discussed at length during the 16-17 Apr conference. COMJTF with his staff, located at [redacted] would be in direct contact with CJCS as the interface with the NCA. COMJTF had been given full authority to conduct the operation in accordance with the plan. The channel to CJCS was available to obtain on request, consultation, guidance or decisions from higher authority. No calls were required unless the operation was becoming unmanageable.

[redacted] (U) COMJTF had adequate communications to all forces. Depicted on the next page is a simplified schematic.



NOTE: Fixed wing elements had PSC-1 available when colocated with either Delta or Ranger forces

— UHF SATCOM (WSC-3/PT-25)

°° UHF SATCOM (PSC-1)

-- HF RADIO

(U) COMJTF, Major General Vaught, USA, would remain at [redacted] until the MC-130s departed for Manzariyeh for night two.

(TS) Deputy COMJTF LTGEN Gast, USAF, flies [redacted] with DELTA. DCOMJTF goes [redacted] to monitor that operation, interface with the [redacted] if required, to serve as COMJTF in the event COMJTF can not transmit, and to provide consultation from a separate vantage point. He remains there until the first MC-130 returns from Desert One and then proceeds [redacted] to be in place 4 hours prior to COMJTF's departure the next day for Manzariyeh.

(S) Colonel Kyle, USAF, located at [redacted] and aboard the first MC-130 to depart for Desert One to be the overall operational commander at the Desert One refueling site. Under his command are CCT Commander [redacted] the Road Security Force Commander [redacted] and the DELTA Commander, Colonel Beckwith, USA. Command of the helicopter flight, commanded enroute by LTCOL Seiffert, USMC, comes under Colonel Kyle as the helicopters approach for landing.

(S) (U) The Desert One Commander is to have command of the entire force at Desert One until the helicopters depart. The Desert One Commander reports only to COMJTF.

(U) Once the helicopters take off for the DELTA drop off point the DELTA commander is in command throughout the intervening period up to the point where the helicopters land at Manzariyeh. The helicopter flight commander is, of course, responsible for the safety and security of his helicopters, but he is under the operational control of the DELTA Commander.

(S/NF) COMJTF will retain command enroute to Manzariyeh during the airfield extraction operation (Phase III) and during the remainder of the mission bac[redacted] DCOMJTF serves as a backup in the event of communications problems.

(U) In every case there was designated succession of command, by name and by position, in the event the commander was incapacitated.

FORCE READINESS

(U) A premission conference was conducted to examine all aspects of the mission. COMJTF reviewed force readiness: the men, machines, and equipment. The air crews were judged to be qualified and competent. All were healthy and mentally prepared. Mission profiles would not exceed demonstrated performance. The aircraft were in good condition. One helicopter aboard the NIMITZ was still out of commission but parts were on the way. Maintenance aboard the NIMITZ was considered excellent. DELTA was prepared and all equipment was ready. Their plans were complete but they were flexible should late intelligence dictate changes. The Rangers were well prepared for the mission.

CONTINGENCY REVIEW

(U) ~~(S)~~ The criteria for mission execution were reviewed: A favorable pre-launch weather forecast is required for the entire period of the mission. Any reservation would be a basis for delay until weather conditions were suitable. Intelligence and OPSEC were essential. The force must be in place, rested and ready.

~~(S)~~(U) Once the force launched and up to a certain point, there was time to utilize spare aircraft and continue. There were firm criteria for minimum numbers of mission capable C-130s and helicopters throughout the mission profile and if the minimum number was not available the mission would be aborted.

(U) ~~(TS)~~ COMJTF, his staff, and commanders concluded that once all aircraft were well within Iranian airspace, the mission should not be aborted short of four pre-determined reasons. First, if there were valid indications that the mission had been compromized resulting in loss of surprise. Second, if part of the DELTA force were denied continued participation in the mission due to an aircraft emergency abort or accident. Third, if the minimum numbers of mission capable helicopters (6) were not available at Desert One. Fourth, if for any unforseen reason, continuation would create a significantly high risk to the security of the rescue force. It would not be wise to proceed when the probability was high that the force would be captured or killed.

~~(TS)~~(C) The rationale for this judgement was that if the

operation were aborted once well within Iranian airspace, the mission would probably be compromised. Return [redacted] and the NIMITZ, followed by launch on a subsequent night when all conditions were favorable would surely lead to delays and compromise. Either friendly countries, the Iranians, or the Soviets might detect the force and its intent. Under those circumstance there would not be a second opportunity - at least not with this plan.

(S) (PS) [redacted] Accordingly, the force was determined to continue the mission once it was well underway. Individual, component, and joint training, combined with a strong command, control, and communication system provided the redundancy and flexibility required to enable the force to make judgements and respond to contingencies. The two night, three phased plan offered sufficient flexibility. The force had concentrated on contingency and "what if" drills for months. If problems developed (they had in training) it was up to each commander to deal with them, request guidance, consultation or assistance as needed, and make every effort to continue to the point where mission completion was no longer feasible. The contingencies included enemy reaction, equipment failure, changing weather and even "hard luck". The JTF had confidence that mission

(C) [redacted] The warning system was responsive and the force would [redacted]

OVER-ALL ASSESSMENT

(U) The conferees were fully knowledgeable of the challenges ahead and the importance of the mission to the hostages and the United States. These were sobering thoughts but the group judged that their plan was feasible. They had been ready for several weeks but they were more ready than ever before. Their confidence was high.

(U) The Joint Chiefs of Staff had supervised mission planning from the beginning. On 16 Apr COMJTF, DCOMJTF, and the commander of the ground rescue force briefed them on the plan, intelligence, and force readiness. The Joint Chiefs of Staff approved the plan and determined it was militarily feasible. That evening COMJTF, DCOMJTF, and the commander of the ground rescue force briefed the President with members of the National Security Council present. At the conclusion the President approved the plan and stated deployment flow should proceed with 24 Apr as the planning date for execution.

(TS) On 16 Apr COMJTF notified all forces to prepare to move to a new training location in the desert and to be prepared to conduct an extended exercise. On the same day JCS notified SHAPE, EUCOM, MAC, REDCOM, and SAC that four AC-130s, three EC-130s, and four MC-130s would deploy [redacted] The forces would be used for [redacted] The notification also included support of [redacted] Warfare exercise throughout Europe and the Middle East on going at that time. Three MC-130s were moved from [redacted] arriving on 16 Apr to conduct joint training [redacted] At this point the [redacted]

(TS) On 16 Apr an advance contingent of JTF personnel including JCSE, [redacted] the JTF Communications Officer; two weather officers; the JTF [redacted] Liaison Officer; and a DELTA advance party deployed [redacted] Arriving on 17 Apr this group activated the JTF HQ Command Center, initiated classified weather traffic, and coordinated JTF base support requirements.

(TS) On 17 Apr the helicopter detachment composed of 48 personnel departed MCAS Yuma under cover of darkness aboard a dedicated MAC C-141. [redacted]

[redacted]

Flight plans were filed indicating that the flight was enroute to Norton AFB, CA. At Norton, the aircraft was parked in a remote area of the base and all servicing occurred well clear of most base operations. Members of the JTF remained in proximity of the aircraft while refueling and crew change occurred. Following further stops at Hawaii, Guam, the [redacted] the aircraft landed [redacted] at approximately 0800 on 20 Apr. [redacted] the helicopter detachment was subsequently flown aboard NIMITZ by Navy CH-46 helicopters.

~~(TS)~~ The JTF evaluated friendly, Iranian and Soviet [redacted] Plans were formulated and executed to spread aircraft movements [redacted] for example was identified early in the program (Dec 79) as a probable special operating location or staging base. [redacted] This force was supported by C-141, and C-130 airlift, to include C-5s from time to time. An [redacted] CONUS based MC-130s inflight refueled across the North Atlantic non-stop to [redacted]

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A,E [redacted] then flew through Europe to [redacted] A JTF planner deployed to Europe [redacted]

A,E to watch for signs that the movement aroused suspicions and to [redacted] EC-130s [redacted] were routed across the mid-Atlantic

E [redacted] and through the Mediterranean.

E (TS) The PACAF aircraft deployed on 15 Apr 1980 [redacted] (one was in CONUS and deployed from Norton AFB through

E Europe [redacted] training 17 and 18 Apr with TF-70 operating in the Arabian Sea. One MC-130 moved from [redacted] on

G 19 Apr 80 under the command of the [redacted] and established advanced liaison for JTF at this location. On

E 20 Apr 80, two additional MC-130s were moved into [redacted] making a total of three MC-130s on station. [redacted]

A,E selected a remote part of the airfield to park aircraft and set up his tent city (BARE BASE). The north end of the [redacted] runway was blocked off for C-130 use. [redacted]

A, [redacted] SAC was directed to

E increase their tanker presence [redacted] by 18 Apr in support of E-3A training and exercises in the Mediterranean Sea area. [redacted]

(TS) By 18 Apr the MAC airlift began. It was carefully scheduled to maintain a flow of in and out aircraft and

A,C [redacted] and to avoid cause for speculation [redacted]

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(C) 19 Apr marked the gradual but carefully scheduled and monitored movement of mission aircraft [redacted] One of the JTF/J-3 members was in place to monitor movements and to work with the [redacted] The [redacted] was informed that a build up [redacted] was in progress and it was of special importance. [redacted] COMJTF and staff deployed [redacted]

B,E

of the AC-130s, they were flown in non-stop using in-flight refueling from the CONUS [redacted] This schedule was designed to [redacted] to enable at least 48 hours for crew rest and physiological adjustment. [redacted] They transited [redacted]

A,B

[redacted] over water should any Air Traffic Clearance (ICAO Procedures) problems develop enroute through a particular international region.

(C/NFD) Through the period 19-23 Apr the forces moved. By late 23 Apr the following mission aircraft and Air Force personnel were either in place [redacted]

E

[redacted]

4 AC-130s/4MC-130s/3 EC-130s

[redacted] KC-135s

2 C-141s

1 C-130 for logistics support

[redacted] Total aircraft and approximately 228 crewmembers - [redacted] plus 236 maintenance personnel.

Three EC-130s and one MC-130 departed in radio silence from

E [redacted] They landed at [redacted] hours and 30 minutes later, proceeding down [redacted] This deployment was [redacted] as a support element for the [redacted] On 20 Apr 80, MAC C-130 airlifted the communications support element of four personnel into [redacted] enabling secure communications via satellite with NIMITZ, [redacted] Contingent numbered [redacted] personnel with three flight crews plus spare overhead, and Hurlburt/Keesler element numbering [redacted] personnel (total [redacted]. Four aircrews plus overhead crewmembers were included in this group as well as [redacted] maintenance personnel. A three man intelligence team was on the scene plus two flight surgeons and one medical technican positioned at this location. Two Pentagon liaison officers, on special assignment [redacted] were JTF primary contacts to work out details of support between the [redacted] and government officials. They acquired unique support from local airfield complex resources.

(C/18) Four MC-130s and three EC-130s were in place with a total complement of [redacted] organic personnel. More support was needed and this was provided by a MAC C-130 from [redacted] The C-130 made at least one and sometimes two flights per day.

[redacted] The major staff elements within the JTF HQ [redacted] were J-1 through J-4 and J-6. Other elements operating at the J-staff level were the weather support element [redacted] The J-1 element provided

administration support to the staff. The J-2 element was made up of two officers from the J-staff and also included [redacted] The J-3 element included specialists in helicopter operations as well as C-130, C-141, and KC-135 operations. The J-4 section primarily provided support for JTF activities [redacted] The J-6 element was composed of JCSE assets as well as JTF communications staff officers. The weather element was composed of the JTF Weather Officer, an assistant Staff Weather Officer (satellite meteorologist), a USAF Weather Officer [redacted] and the tactical weather communications and satellite facilities. [redacted] These staff elements were all positioned in the Command Center under the supervision of the JTF Chief of Staff.

(S) On 24 Apr two C-141s with DCOMJTF and DELTA flew [redacted] arriving mid-afternoon. [redacted] and DELTA slipped [redacted] and were transported to special tents. The C-141s returned [redacted] later that evening. At approximately 0630Z (1030L), one MAC C-130 arrive[redacted] with [redacted] Rangers which would accompany the insertion force and perform the road block and security function at Desert One. One jeep and two Kawasaki KLX 250 motorcycles (dirt bikes) were also offloaded as part of their mission equipment.

(C) KC-135 tanker and C-141 airlift were deployed for support [redacted]

(U) By midafternoon on 24 Apr the forces were in place, all aircraft were operational. The deployment schedule had gone well and there was no indication that OPSEC had been lost.

INTELLIGENCE

Intelligence regarding the status of the Iranian Armed Forces, Gendarmerie, Police and Pasdaran had not changed - if anything, conditions in the country had become more unstructured and chaotic and the capabilities of Iranian forces even less. [redacted] Unless spotted directly by Pasdaran or a Gendarmerie post, the probability of getting to the AMEMB compound wall undetected was high. Intelligence indicated that [redacted] There was a high degree of confidence in these locations; not only were they singled out by the weight of evidence over the last several weeks [redacted] Even as the rescue force was preparing for their pre-dawn launch [redacted] these reports together with independent J-2 [redacted] evaluations were passed to the DELTA S-2, who was going in with the force.

(U) (S) ~~LTG~~ Security forces were believed to number up to 200 in the immediate area of the compound, with approximately [redacted] Concen-

trations of security were identified [redacted] and other locations on the north and northwest edges of the compound. Perimeter security was at a low point just prior to mission launch. Several of the sandbag positions along the wall, for instance, were unoccupied and deteriorating.

SUMMARY

(U) ~~(TS)~~ To summarize, the total JTF had progressed from a near zero capability in early Nov 79 to one of high capability on 24 Apr 80. On 24 Apr, COMJTF assessed JTFs status as never more ready to perform the mission as on 24 Apr. Confidence had grown gradually but surely during the planning and training cycle. The chart on the next page illustrates confidence growth. As planning evolved and operational concepts changed, rehearsal results improved, intelligence and communications improved, employment bases became available, Desert One became available, and confidence increased towards an all time high. Confidence factor is reflected on a scale of one to ten. The factor of ten reflects COMJTFs assessment of the JTFs ability to perform the mission - rescue the hostages - on 24 Apr as contrasted to near zero on 4 Nov 79. The confidence factor at the conclusion of the third rehearsal (Nevada), on 4 Feb 80, as an example, was about four compared to ten on 24 Apr.

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COMJTF

CONFIDENCE FACTOR (SCALE 1 TO 10)
OF ABILITY TO ACCOMPLISH THE MISSION
(TOTAL JTF SUPPORT)

1 2 3 4 5 6 7 8 9 10

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4 NOV - HOSTAGES TAKEN INSTRUCTED TO DEVELOP PLAN
12 NOV - JTF FORMED PER VERBAL ORDER CJCS
18 NOV - HELICOPTER OPTION BEGINS
20 NOV - HELO DEPLOYMENT DIRECTED - 4 PSC-1s AVAILABLE FOR MISSION
28 NOV - HELOs ARRIVE ABOARD CARRIER

NOVEMBER

3 DEC - FIRST EXERCISE (YPG)
7 DEC - FIRST AIRLAND REFUEL HELOs
10 DEC - PT-25 UHF SATELLITE CAPABILITY
11 DEC - SUCCESSFUL DROP OF BLIVETS
15 DEC - AIR ROUTE ANALYSIS
17 DEC - 1st REHEARSAL - AIRLAND REFUEL HELOs FROM MC-130
20 DEC - NIGHT BLACKOUT LANDING CONFIDENCE

DECEMBER

10 JAN - [redacted]
11 JAN - SUCCESSFUL DROP 33 BLIVETS
15 JAN - 2nd REHEARSAL (NFV)
16-19 JAN - MAINB MANZARIYEH SCENARIOS PHOVEN (RANGERS)
20-24 JAN - JTF STAFF VISITS CARRIER
23 JAN - 6 HELOs ABOARD NIMITZ
28 JAN - DEVELOPED C-130 BENSON REFUEL SYS

JANUARY

4 FEB - 3rd REHEARSAL (NFV)
15-16 FEB - SUCCESSFUL AIRBORNE TACSAT TEST
16 FEB - [redacted]
23 FEB - 4th REHEARSAL (YPG)

FEBRUARY

3 MAR - RH-53 UHF TACSAT TEST
10 MAR - [redacted]
19 MAR - PREPOSITIONING OF EQUIPMENT
21 MAR - AC-130/DELTA FINALIZE SUPT.
24-29 MAR - JTF STAFF VISITS NIMITZ
26 MAR - 5th REHEARSAL (YPG & NFV)
27 MAR - C-141 DEVELOP BLACKOUT LANDING
[redacted]

MARCH

7 APR - DECISION TO USE DESERT ONE
8 APR - AIRDROP OF BLIVETS FROM C-141 A & B
12 APR - DECISION TO USE [redacted]
14 APR - TAYO EX - REHEARSE DESERT LANDING & NEW REFUEL TECH
15 APR - DEPLOYMENT OF FIRST FORCES
21 APR - LAST CONUS FORCES CLOSE
24 APR - MISSION EXECUTE

APRIL

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Nothing Withheld

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Divides I - II

Divides II - III

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SECTION II

CONFIDENTIAL

MISSION EXECUTION

(S) (TS) This section of the report describes events and JTF actions during the execution of the rescue mission. The period covered begins at 1030Z 24 Apr 80 and continues through aircraft launch, operations enroute and at Desert One, mission abort at Desert One, withdrawal of the force [redacted] and evacuation of DELTA, helicopter crews and the injured [redacted] on 25 Apr 80.

CLASSIFIED BY DIRECTOR, J-3
REVIEW ON 25 JUNE 2000
REASON: 5200.1R, 301c6

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E [redacted]

~~(TS)~~ The first of two C-141s arrived [redacted] E [redacted] On board were the Deputy Commander of the Joint Task Force (DCOMJTF), the Commander of DELTA, and approximately half of the ground rescue force. The C-141 made an engines running off load at the south end of the field [redacted] out of view of the main base complex. The DELTA force [redacted] AE [redacted] erected at a designated holding area adjacent to the aircraft in which they would fly to Desert One. At 1115Z, the second C-141 [redacted] landed and off loaded the remainder of Delta.

~~(TS)~~ DCOMJTF proceeded to the communications tent and began preparations to assume a back-up command and control role utilizing the secure TACSAT terminal. He also reviewed launch plans for Night 1 and Night 2 as well as alternate plans for use of residual C-130 assets [redacted] E (three EC-130s and two MC-130s) should they be needed for contingencies on Night 2.

~~(TS)~~ By 1200Z, final loading of equipment was in progress for the lead MC-130, scheduled to depart [redacted] E. The Ranger jeep, four motorcycles (two Ranger, two CCT), and the portable TACAN were included in the mission cargo. The aircraft also carried two sheets of aluminum planking to be used under the main gear tires should a C-130 break through the desert crust and become stuck at the refuel site. Due to the high temperature and lack of cooling equipment [redacted] E [redacted] passengers were not scheduled to embark until

just prior to engine start. Camouflage nets, supporting systems, [redacted] were stowed aboard the other two MC-130s for transfer to the helicopters at Desert One.

(U) The fuel trucks made one final circuit of the flight line at 1215Z to top-off all wing tanks and fuel bladders at the six thousand gallon limit. This was done to prevent venting of fuel due to heat expansion during the hottest part of the day.

(C) At 1230Z, final crew briefings were underway for the crew of the lead MC-130. Of particular interest was the latest intelligence data received from the Helicopter Detachment Intelligence Officer aboard NIMITZ. [redacted]

Weather, transmitted from [redacted] was briefed as good, with no significant factors that would effect operations other than high clouds in the vicinity of Desert One. Navigators and Electronic Warfare Officers went over their charts one last time to ensure that preselected routing and terrain following altitudes [redacted] and afforded fuel conservation. Radio operators studied the CEOI in company with two DELTA TACSAT radio operators scheduled to fly in the lead MC-130 and in the number three EC-130.

USS NIMITZ - 1045Z

(U) At sea aboard NIMITZ, preparations were underway in anticipation of the execution order. Earlier that day an incident had occurred in the hangar deck which caused concern.

(U) At approximately 0715Z, a helicopter crewman inadvertently activated the hangar deck overhead fire control dispensing system. Before the fire fighting systems could be shut down, parts of five of the RH-53s had been wetted with foam.

(U) Quick response by both the helicopter crews and ship's maintenance personnel prevented this incident from causing any damage. Within 30 minutes all aircraft had been thoroughly washed with clear water and were being inspected for possible corrosive damage. No such damage was found but it was decided to bring the helicopters to the flight deck 20 minutes earlier than planned in order to have more 'run-up' time prior to launch. (None of the material failures that occurred on the mission could be attributed to this incident).

(U) The Helicopter Detachment began formal mission briefings for all pilots at approximately 1100Z. The Operations Officer reiterated the basic plan to ensure a full understanding by all pilots. The communications procedures were rebriefed.

(~~S~~) While the Operations Officer briefed, the detachment Intelligence Officer was putting the finishing touches on his presentation. The daily weather message was not

scheduled to be transmitted from JTF headquarters until 1200Z. Consequently, the Intelligence Officer had arranged for the NIMITZ's weather section to provide a general weather summary which had been prepared for the ship and its embarked Carrier Air Wing. When the weather report [redacted] arrived, the two products plus an earlier route profile forecast were used by the S-2 during his briefing. The thrust of these separately prepared reports was almost identical. The only area of difference was the ship's summary which included mention of a 'possibility of blowing sand' in some desert regions. This product was a general forecast item for all of Iran without specifically stating where the blowing sand might occur (the ships's meteorologist was not aware of the mission). The weather provided [redacted] was much more detailed for the mission route and highlighted the actual mission area.

[redacted] The intelligence briefing was concise. There had been no significant changes in the intelligence picture since the previous night. Pilots were told that there were no known Soviet or Iranian ships or aircraft in the area. [redacted] shown on large DIA graphics which had been posted in the Ready Room since the unit's arrival on 20 April. There were three different graphics; [redacted]

[redacted] DRAFT [redacted]

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[redacted] The charts were prepared on 1 April 1980. Each showed [redacted] Detailed analysis by DIA and mission Electronic Warfare Officers indicated that due to terrain masking and other propagation factors approximately 100 NM of the mission flight path could possibly be covered by this radar at high altitude (over 18,000 feet MSL). This was a conservative estimate. [redacted] and were checked to insure validity of the graphics. This had been periodically provided to aircrews during training and this information was briefed daily to the helicopter pilots aboard NIMITZ.

(U) The weather portion of the brief was detailed and elicited several questions. The weather was described as favorable with no significant headwinds or visibility problems. High clouds were forecast at altitudes of 10,000 plus feet and the possibility of thunderstorms in mountain areas to the west of the planned route was discussed. A weather map and the morning satellite photo were used during the briefing to show frontal systems and cloud cover patterns.

(S) The areas of principal concern for pilots were

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temperatures and density altitudes. The best available information [redacted] was provided. This indicated that the helicopters could expect temperatures on the order of 27-30 degrees Centigrade at Desert One with somewhat cooler trends further north at the Transfer Point/ Hide Site and in Tehran.

(U) The S-2 concluded his remarks with a final discussion of escape and evasion (E&E) tactics and an injunction to aircraft commanders to ensure that each crewman had all required E&E materials. They had been presorted by type and were available in the ready room. Specific guidance was provided on carrying personal effects. Each participant was directed to carry his military identification card, identity "dog" tags, and a symbol of his rank or branch of service which he could affix to his flight suit or uniform in the event that capture appeared likely. All members of the unit were directed to have positive identification that showed they were US Armed Forces personnel.

(U) It was at this point that the question of other personal effects surfaced. Since the helicopter crews were in the unique position of departing from one location (NIMITZ) and returning to CONUS via [redacted] some concern was expressed regarding the security and timely return of items such as cameras, credit cards, etc. The DCOMJTF for Helicopter Operations decided to allow pilots and crewmen to carry those items which would not provide any more information than was already on the identification cards. Cameras were permitted only so long as they were either empty or contained unexposed film. Several pilots who had cameras with film already loaded

clicked off the remaining pictures and removed the exposed cassettes. Aircraft commanders were responsible for checking each member of their crew to ensure that all was in order prior to leaving the Ready Room.

(U) This completed the formal briefing activity and crews assembled by aircraft for final instructions from individual pilots. No information was available that would preclude planned mission launch.

(U) ~~(S)~~ The helicopter communications equipment was given a final check. Helicopter #1 was equipped with one secure WSC-3-~~UHF TACSAT~~ for inflight use and one PSC-1 UHF and one PT-25 UHF manpack TACSAT terminals for ground use. Only four other helicopters had ground use UHF TACSAT PT-25s; two additional PT-25s had been found inoperative and were left behind. Seven of the eight helicopters were also provided portable unsecure voice HF radios for emergency use. An earlier recommendation by the DCOMJTF for Helicopter Operations to remove the KY-28 NESTORS (secure voice encryption devices) from each of the helicopters, having been approved by COMJTF, had by this time been implemented. This left the helicopters without a secure UHF or VHF capability.

E [redacted]

(C) Meanwhile, [redacted] COMJTF reviewed the status of his forces. All aircraft were in commission.

(S) A message was received from NIMITZ describing an additional plan to divert attention from the mission launch and recovery operations. [redacted] This would reduce suspicion of a special event. Fortunately, the bulk of the Soviet Navy's Indian Ocean Squadron was involved in an [redacted] The Helicopter Detachment S-2 had been working closely with CTF-70 Flag Intelligence at sea. [redacted] This welcome news removed a previous concern about detection of the C-130 launch. All other intelligence information was favorable for mission execution.

(S) By 1150Z, the JTF Weather Officer had delivered the mission forecast for transmission. The short range forecast was for a weak frontal system to move out of eastern Iran

late on the 24th and into Afghanistan on the morning of the 25th. Daytime low level clouds and isolated thunderstorms were expected over central Iran. Thunderstorm activity would continue but dissipate over the southern mountains west of the helicopter track during the evening, with high cirrus cloud blowoff over the central portion of the entire route. This general forecast was in addition to a detailed route weather message transmitted at 0810Z to the NIMITZ and at 0825Z [redacted] which specifically addressed the various aircraft flight paths. Facsimiles of the above weather messages are provided on the following three pages.

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~~CONFIDENTIAL~~

[redacted]

~~TOP SECRET~~

SUBJ: FORECAST SUPPORT XIX - JUNE (U)

1. (U) ~~(TS)~~ VALID 23/1400Z TO 24/0100Z APR 80 (002-2000FT AGL)

A. WINDS/TEMPS (MEAN/MAX/MIN) /CLOUDS/VISIBILITY/WEATHER

	WINDS	TEMPS	CLOUDS	VSBY/WX
TT-HH	24005	28/29/20	CLEAR	5/HAZE
HH-XX	24005	28/29/20	"	"
XX-CC	24005	23/27/20	"	7/NONE
CC-EE	24005	23/27/20	"	"
EE-DD	26012	23/28/19	SCTD CIRRUS	"

REVERSE LEG SEGMENTS FOR RETURN TRIP.

B. HAZARDS. TURBULENCE/ICING/THUNDERSTORMS.... NONE.

C. FORECAST ALTIMETER SETTINGS. TT..2975 DD..2965 TT..2978.

JT
#0113

NNNN

DRAFT ~~CONFIDENTIAL~~

~~TOP SECRET~~

~~CONF~~

V-181

TOP SECRET

DRAFT

CONFIDENTIAL

SBN 8195
ZNY TTTT
DTG 241153Z APR 80
FM SITE ALPHA/JC
TO JCS
NIMITZ/WELO DET
[redacted]

~~TOP SECRET~~
WEATHER ANALYSIS FOR MIDDLE EAST - 24 APR 1980
WEAK DISSIPATING FRONTAL SYSTEM FROM E CENTRAL IRAN
ACROSS PERSIAN GULF INTO CENTRAL SAUDI ARABIA. DAYTIME
LOW LVL CLDS & ISOLATED THUNDERSTORMS ACROSS E CENTRAL
IRAN. ISOLATED THUNDERSTORMS OVER SOUTHERN ITALY DISSIPATING
EARLY EVENING. CLEAR SKIES OVER REMAINDER OF MIDDLE
EAST EXCEPT FOR JET STREAM CIRRUS ACROSS N EGYPT
INTO N SAUDI ARABIA. BLOWING DUST ACROSS S EGYPT
ASSOCIATED WITH COLLAPSING FRONTAL SYSTEM THAT EXTENDS
N ACROSS SYRIA & CENTRAL TURKEY WITH LITTLE OR
NO CLOUDINESS. THERMAL LOW DEVELOPING IN WEST CENTRAL
SAUDI ARABIA.
SHORT-RANGE FORECAST FOR MID-EAST: 24-25 APR 80
WEAK FRONTAL SYSTEM MOVES EASTWARD OUT OF IRAN
WITH ISOLATED DAYTIME THUNDERSTORMS & LOW LVL
CLDS 24-25TH. HIGH PRESSURE MOVES INTO IRAN
24-25TH FOLLOWED BY WEAK FRONTAL BOUNDARY. MOUNTAIN
AREAS FROM PERSIAN GULF TO CASPIAN SEA ALONG IRAQ-IRAN
BORDER EXPECTED TO HAVE ISOLATED THUNDERSTORMS AFTERNOON-
EVENING 24TH WHILE S 1/2 IRAN CLEAR TO PARTLY CLOUDY
UNDER HIGH PRESSURE INFLUENCE. STRONG HIGH PRESSURE
CENTER IN LIBYA MOVING INTO EGYPT & W 1/2 MID-EAST
BEHIND THIS LATTER WEAK FRONT.
LONG RANGE OUTLOOK FOR MID-EAST: 26-30 APR 80
WEAK FRONTAL SYSTEM ACROSS CENTRAL IRAN WILL MOVE
NE THROUGH IRAN 26-27TH. HIGH PRESSURE DOMINATING
MAJORITY OF MIDDLE EAST UNTIL HEAT STORM SYSTEM APPROACHES
EGYPT & SE MEDITERR-NEAN ON 27TH. THIS STORM WILL
TRACK NE 27-30TH WITH LOW PRESSURE CTR OVR NE
IRAN WITH FRONTAL SYSTEM BACK ACROSS S& IRAN
INTO N CENTRAL SAUDI ARABIA.
WIND/TURBULENCE FORECAST FOR IRAN & PERSIAN GULF
IRAN: NW 1/2 SFC WINDS SW-NW 10-15 KNOTS WITH GUSTS
TO 20-30 KNOTS ASSOCIATED WITH STRONG SFC GRADIENT. LIGHT
-MOD TURB SFC -8000 FT UNTIL 1-2 HOURS AFTER SUNSET.
WINDS DECREASING MAGNITUDE NIGHT OF 24TH. S 1/2 IRAN SE-SW 5-10 KNOTS.
NO TURBULENCE.
PERSIAN GULF: SFC TO 1500 FT AGL WINDS SOUTHERLY
(SE-SW) 5-15 KNOTS. NO TURBULENCE.
SITE ALPHA OBS: 23RD MIN/MAX 65/100F WINDS
LIGHT & VARIABLE. HIGH CIRRUS CLOUD COVER. 24TH MIN
73F. SFC WINDS NW 10-15 KNOTS. 3 MILES BLOWING DUST (BD).
SITE ALPHA FCST: CLEAR SKIES TO HIGH CIRRUS CLOUD COVER.
SFC WINDS NW 10-15 GUSTING TO 25 KNOTS. SLD DURING
DAYLIGHT HOURS. WINDS DECREASING AFTER SUNSET.
TEHERAN OBS: 23RD MIN/MAX 57/92F. CLOUDY SKIES
WITH THUNDERSTORMS OVER MTNS. SFC WINDS LIGHT
AND VARIABLE. MIN TEMP 39F ON 24TH.
TEHERAN FCST: CLEAR TO PARTLY CLOUDY SKIES 24TH.
THUNDERSTORMS OVER MTNS. GUSTY SFC WINDS DURING
DAY (WESTERLY 2710 GUSTING 20-30 KNOTS) MAX TEMP
81F.
GT
#3135

DRAFT

~~CONFIDENTIAL~~

~~TOP SECRET~~

Y-182

DRAFT

KC 1

Relay

[illegible]
DTG 24[illegible] APR 80
FM SITE ALPHA/[illegible]
TO MINITZ/HELO DET
BT
~~TOP SECRET~~
FORECAST SUPPORT MIN - JUNE (U
1.(U)~~(TS)~~ VALID 24/1730Z TO 25/0330Z APR 80 (000-
2000 FT AGL)
A. WIND/TEMPS (MEAN/MAX/MIN)/CLOUDS/VISIBILITY/WEATHER

	WINDS	TEMPS	CLOUDS	VSBY/WX
XX-CC	32010	25/29/22	CLEAR	7/NONE
CC-EE	32010	24/25/21	BRKN CIRRUS	
EE-DD	32010	23/25/19	BRKN CIRRUS	
DD-FF	29010	19/20/13	CLEAR	
FF-HH	26005	16/16/11		
HH-YY	26005	YXJYXPO		
YY-OO	26005	16/17/10		
OO-UU	26005	16/15/11		

B. HAZARDS. TURBULENCE/ICING/THUNDERSTORMS.... NONE
C. DENSITY ALTITUDE
XX..PS 2600 DD..PS 4500 HH..PS 4100
2.(U)~~(TS)~~ FORECAST FOR SPECIFIED LOCATIONS.
A. HIDE 24/2000Z TO 25/1600Z.
MIN TEMP 15 C/54 F
MAX TEMP 29C/ 84 F
CLEAR SKY TO HIGH THIN CIRRUS. NIGHT WINDS CALM TO
VRBL AT 5 KNOTS. AFTERNOON WINDS SE - SW 5-10
KNOTS. GUSTS 15 KNOTS.
B. CITY 25/1600Z TO 26/0330Z
MAX TEMP 27C/51F AT 18Z. MIN TEMP
19C/65F. NIGHT WINDS CALM TO SE-SW 5 KNOTS.
CLEAR SKY TO HIGH CIRRUS BLOWOFF FROM
THUNDERSTORMS OVER MTNS.
BT
#0155

NNNN

MESSAGE 05 RECEIVED.

TOGER RAC DE RED BARN GO TO VOX FOR OSL
NNNN

RGR OSL AT 0755Z IMI OSL AT 0755Z AND THE NEXT
TIME PLS TO LET ME KNOW SO I CAN CLEAR THE TELETYPE KKK

DRAFT

~~TOP SECRET~~

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(S) (TS) At approximately 1225Z, COMJTF was given a complete weather briefing. Others present at this briefing included the Chief of Staff, Weather Officer, Ranger Battalion Commander, KC-135 Commander, Assistant J-3 (Helicopter), and [redacted] The Iranian - who had two decades of flying experience in his homeland - indicated that it was unlikely the weather could be any better. COMJTF announced his decision to launch. The execute order was transmitted at 1250Z.

(TS) Approximately half-an-hour later, [redacted] confirmed previous reports which [redacted]. JTF J-2 personnel validated this judgment and the information was immediately transmitted to DELTA [redacted]

(TS) the execute order was received at 1300Z. The intelligence officer passed out last minute escape and evasion instructions and proceeded to sanitize all crew-members of their personal effects. "Dog" tags and ID cards were all that was carried by C-130 aircrews other than some personal US currency. The aircraft were inspected for unauthorized and sensitive material. Two navigator crew members were designated to carry cameras with official USAF film inserted for documentary purposes. (DELTA had been sanitized

(TS) At 1310Z the pilots of the remaining five C-130s were at the briefing tent reviewing takeoff, join-up, and enroute procedures. Since the EC-130s lacked terrain following equipment and relied on OMEGA for navigation, they were to be led to the desert refueling site by the MC-130s equipped with more sophisticated navigation and radar systems. Rotating beacons in the vertical stabilizers of all aircraft had infrared caps placed over bulbs. With night vision goggles, EC-130 crews had an IR beacon to follow thus facilitating trail formation flying. The plan called for the second MC-130 to lead an EC-130, followed by the last MC-130 leading the other two EC-130s. Take-offs were to be sequenced behind the lead aircraft for each group.

(TS) The lead MC-130 crew was warming up avionics equipment and making final inertial navigation system alignment at 1330Z. At 1335Z the aircraft was loaded. Passengers included

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A [redacted] DELTA personnel, [redacted] Rangers, [redacted] USAF combat controllers, the C-130 Commander, and the Desert One Commander.

A Also onboard were DELTA's medical officer, and two Farsi-speaking Americans [redacted] (including aircrew) plus the jeep and four dirt bikes. Aircraft floors were lined with mattresses as opposed to webbed seats to allow personnel to rest enroute.

E (PS) At [redacted] the lead MC-130 had all engines running and commenced taxi. The back-up MC-130 went through the same start up sequence and followed to the end of the departure runway. This procedure was designed to ensure that another aircraft was immediately available - engines running - as a spare to transfer passengers, load and crew. A delay of no more than 15 minutes was anticipated if such action was required. All take-offs were on the [redacted] foot concrete runway [redacted] Ground radio communications with the

E tower were not used. The two man US advance liaison team was positioned in the tower to control [redacted]

A activities, leaving the JTF free to operate as desired. At 1405Z, the MC-130 launched on schedule. Take-

E off was reported [redacted] using the secure ground TACSAT radio. The mission was underway.

(U) (TS) At approximately 1400Z the eight RH-53s were brought to the flight deck on NIMITZ using both aft elevators. Visibility was approximately 3-4 miles in light haze and no other ships were in sight. As soon as the individual helicopters were positioned on the flight deck and unfolded, [redacted] began installing the Palletized Inertial Navigation System (PINS) in each aircraft. These navigational aids had been initialized [redacted] earlier in the day and maintained "on power" to ensure that accurate position was being constantly updated. Simultaneously, each aircraft commenced engine run-ups and systems checks.

(U) During the run-up period, the flight leader in helicopter #1 discovered that the pilot's spotlight - a mission essential item for inflight signaling - was inoperative. The spotlight was replaced within about 10 minutes and all other systems checked out normally. All aircraft were full systems capable as the NIMITZ turned roughly parallel with the Iranian coast.

(U) (TS) The carrier increased speed to 30 knots and the helicopters commenced lift-off on schedule at 1505Z. In less than two minutes, all eight were airborne in near total darkness. At launch, NIMITZ was located approximately 58 NM from the planned coastal penetration point. As the flight joined up in a wide sweeping port turn and disappeared from sight, the helicopter communications officer on board the NIMITZ reported the launch via secure radio to COMJTF.

LEAD MC-130 ENROUTE - 1415Z

E (c) ~~(TS)~~ Following an uneventful take off, the lead MC-130 proceeded on a [redacted] course into [redacted] About 180 NM out, the aircraft turned [redacted] ntercept the course which would be flown to penetrate the Iranian coast. Altitude was maintained at 500-1000 feet above the ocean surface. Numerous commercial ships were observed as they transited the shipping lanes to and from the Straits of Hormuz and the aircraft track was varied as necessary to avoid overflying visible shipping. As expected, there was considerable overwater haze. This helped to conceal the aircraft, or at least prevent identification as anything more than a C-130. The aircrew was alert for inbound helicopter traffic as the coast-in point approached. Both helicopter and fixed-wing flights had coordinated their routes and timing prior to launch. According to plan the RH-53s were scheduled to cross the coast at 1530Z, at an altitude below the MC-130. The aircrew did not see the helicopters at coast-in; several helicopter pilots reported later they had seen the C-130 aircraft.

E (c) ~~(TS)~~ It was dark by 1451Z, civil twilight in the [redacted] Moon and stars were clearly discernible. MC-130 Electronic Warfare Officers (EWO) had conducted an in-depth study of Iranian radar capabilities associated with the planned route of flight. [redacted]

B. [redacted] Results showed an aircraft altitude of [redacted] coast-inbound

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absolutely safe from normal propagation of known Iranian operational radars. This study confirmed the JTF J-2 intelligence analysis.

(U) ~~(TS)~~ After crossing the Iranian coast at 1527Z, the pilot adjusted his altitude to 2000 feet AGL. The aircraft crossed the first major ridge line [redacted] and climbed to 3000 feet AGL soon thereafter. This approximate altitude (6,000 feet MSL) was maintained on the remainder of the flight to Desert One. The selected profile was still clear of [redacted] over [redacted]. By flying the modified (relaxed) terrain following profile, fuel was also conserved. The aircrew began to observe a high overcast cloud deck at about 1630Z which screened out most of the 68% moonlight illumination. Approximate location at this point was 29-22'N/ 58-53'E. An obstruction to downward visibility occurred which was initially interpreted as a combination of darkness and lack of ground definition of the sand dunes below. The fact that there was an obstruction to visibility was not verified until the next ridge line was crossed and the hills could not be seen at distances beyond 1/2 to 1 mile.

(U) ~~(TS)~~ The safety pilot was standing behind the aircraft commander. He reported to the Desert One Commander - who was positioned just behind the two navigators - that NVG visibility with the ground was deteriorating due to some unknown phenomenon. The Desert One Commander acknowledged this information and moved to the left pilot's side window and peered out, noting a hazy milky condition. He then returned to the nav-

igator's position and cross checked the Forward Looking Infrared (FLIR) picture which showed the ground clearly. Within 10-15 minutes (1645Z), the aircraft was back into a relatively clear area again. The phenomenon, later identified as suspended dust, had no effect on the MC-130 aircrew. The Desert One Commander did not consider the visibility problem of significant consequence to report to JTF although he had considered doing so. The aircraft therefore continued on toward Desert One maintaining radio silence.

(U) ~~(TS)~~ The MC-130 encountered a second dust area 10 minutes later (1700Z) but broke clear within 15 minutes (1715Z). The FLIR again gave no indication of a visibility restriction. The Desert One Commander did not feel there was sufficent meteorological data observed to warrant breaking radio silence to alert the JTF of a potential weather problem. Professional judgement on board was that the helicopter pilots could make it through this reduced visibility area. The helicopter commander was the best person qualified to decide whether or not to abort because of the reduced visibility phenomenon. Based on previous experience working with the helicopter crews, the Desert One Commander determined that to recommend an abort would be unjustified. At approximately 1700Z the helicopters were approximately 120 NM into Iran and 80 - 90 NM south of the suspended dust. By approximately 1715Z, the C-130 was in the clear, headed for Desert One, some 50 minutes away.

Five C-130s Take - Off 1505-1527Z

E ~~(TS)~~ [redacted] the remaining C-130 aircrews and support personnel were preparing for the mission. The second MC-130 was to airlift [redacted] DELTA personnel (including support personnel) plus equipment, and the third MC-130, [redacted] DELTA personnel (including support personnel) and ~~two Marine Corps~~ POL personnel who would operate the blivet bladder system. Each of the EC-130 fuel bladder aircraft had only their crew complement of ten plus four USAF POL specialists. No extra passengers or aircrew were carried. All personnel were absolutely required to perform some aspect of the insertion/rescue mission.

A

( ) (U) ~~(TS)~~ At 1450Z the remaining five C-130s were starting engines and taxiing out to make good their assigned take-off times of:

MC-130	#2	1510Z	
			Flight of two
EC-130	#[redacted]	1511Z	
MC-130	#3	1517Z	
EC-130	#2	1518Z	Flight of Three
EC-130	#3	1519Z	

(U) ~~(S)~~ There were two problems incident to the departure of the remaining C-130s. The first was limited parking and taxi space. The second was the gross weight of the aircraft. [redacted] The

A,B [redacted] The normal max gross weight for C-130 aircraft is 155 thousand

pounds and Emergency Wartime Planning Weight is 175 thousand pounds. Consequently initial taxi and takeoff required slow movement with minimal turning to keep stress on landing gears and airframes manageable.

(~~TS~~) The MC-130 aircraft taxied as briefed but the EC-130s were out of order because of parking location. There was some confusion getting the three EC-130s to the end of the runway. This caused the third MC-130 to takeoff seven minutes late. Since the first EC-130 was not in position to take off after MC-130 #2, he waited and took off last after EC-130 #3 and flew in a formation of four with MC-130 #3 as lead. There was some problem during join up, but the formation was intact as they approached the Iranian coastline and the flight progressed as scheduled. Over the A, E [redacted] the flight received several threat signals from RWR gear [redacted] These signals were assumed to be coming from the NIMITZ Battle Group - a supposition which was later confirmed.

HELICOPTERS ENROUTE - 1510Z

~~(TS)~~ While the last five C-130s were launching [redacted] the helicopter formation was proceeding toward Iran. Visibility was about three miles in light haze. No shipping was observed enroute to the coast and an altitude of [redacted] above the water was maintained. At about 1525Z, several helicopter aircrews spotted a single black C-130 which passed low overhead flying at about 250 knots in the same direction. The lead helicopter pilots noticed that their PINS and OMEGA were giving slightly different position indications. Consequently, they visually lined-up on the MC-130's direction of flight since both the fixed-wing and helicopter elements had approximately the same coast-in point.

~~(TS)~~ At 1540Z the eight helicopters crossed the coast in a tight line astern formation [redacted] Visibility gradually improved and the flight assumed its normal formation of ~~Section~~ "V". This formation had been preplanned for portions of the flight which did not pass near populated areas or known Gendarmerie posts. Conversely, when such areas were approached, the flight swung into an echelon to place the maximum number of helicopters away from the threat. Throughout mission planning, it had been clearly recognized that there was a need to balance the requirement to stay low for navigational purposes against the possibility of aural or visual detection from the ground. As with the C-130s, radar was considered a threat only for the early portions of the flight. Known Iranian

radars should not detect the mission [redacted]. The requirement to remain within visual ground contact was governed by visual navigational criteria rather than security constraints.

(~~TS~~) It should be noted that several helicopter pilots had discussed the Iranian radar threat with [redacted] aboard the NIMITZ who had some knowledge of the radars but was not involved in flight operations. [redacted] Still, a seed had been planted among the helicopter pilots, probably erroneously, that Iranian capabilities might be better than anticipated. This information may have influenced some of the pilots to be reluctant to exceed 1,000 feet AGL later during the mission profile while flying in the dust phenomenon.

(U) (~~S~~) The helicopter flight crossed the coast approximately four nautical miles west of the intended penetration point and corrected course to reach the first turn point. At this stage, the flight was about 10 minutes behind schedule partially due to flight join up procedures and also the launch positioning of NIMITZ some 8-10 NM further to sea than had been planned.

(U) The flight leader experienced divergence in readings

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between PINS and OMEGA. Neither system could be properly updated. One was providing good latitude data while the other appeared to be functioning correctly for longitude only. On aircraft #6, the OMEGA was slightly inaccurate but PINS remained solid. Helicopter #6 also found that his electrically powered transfer system for internal tank number two was inoperative. Fuel could be transferred manually after the helicopter reached Desert One. In helicopter #7, pilots noted that the master caution light periodically flickered and the number one fuel light came on and off but this was not of major concern. Aircraft #8 observed an intermediate gear box chip warning light shortly after crossing the coast. Since the gear box had been recently changed, the pilots concluded the light was probably caused by fine metal filings rather than a bonafide gear chip and was disregarded. All indications discussed were minor in nature and had no bearing on the conduct of the flight. At this point the flight had been in the air for about an hour and a half and formations were being maintained as planned.

HELICOPTER #6 LANDS - 1705Z

(U)~~(S)~~ At approximately 1700Z, helicopter #6 received a dual Blade Inspection Method (BIM) warning. When the warning was received the formation was approximately 140 NM inside Iran and flying over a large dry lake bed. Standard emergency procedures for dual BIM indication call for decreasing aircraft speed to 80-90 kts and immediate landing. The BIM indicator is designed to warn pilots of a loss of nitrogen pressure in the extruded aluminum rotor blades; i.e., impending blade failure due to loss of spar integrity. The pilot consequently broke formation, turned on his upper infrared rotating light beacon to indicate intentions to land and descended to the soft lake bed. While the crew of #6 exited the aircraft, the plane captain physically inspected the blade and its external BIM indicator. Helicopter #8 landed in accordance with his prebriefed role as enroute mission SAR. The blade fault indication was visually confirmed ~~with the~~ external indicator and since #6 was no longer airworthy, the crew and all classified material were transferred to #8. Within 10 minutes, #8 was airborne again although now flying as a single unit.

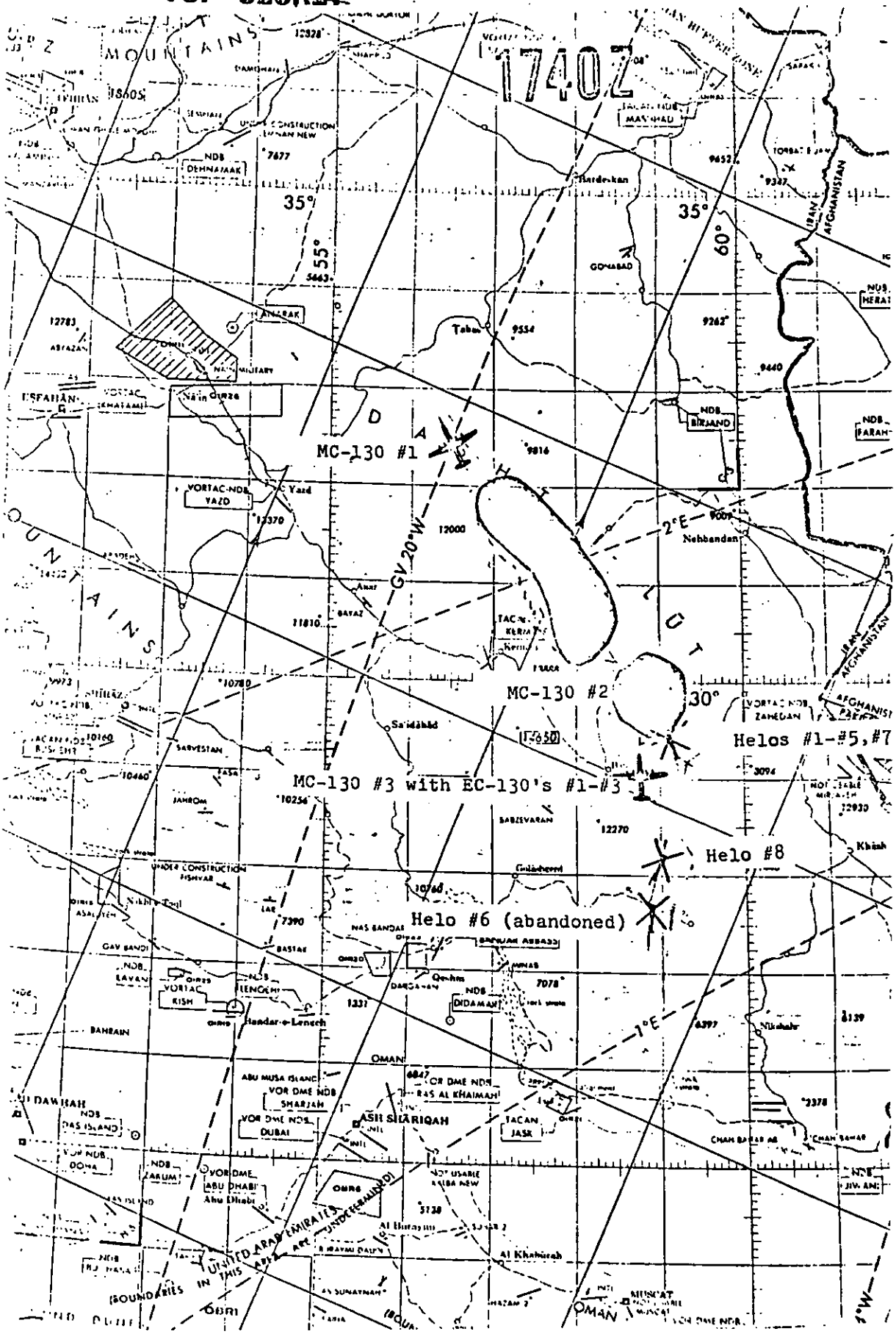
(U)~~(TS)~~ When #6 and #8 descended, the flight leader reported via secure TACSAT radio to COMJTF that two helicopters were landing. Aboard the NIMITZ the general area of the downed aircraft was plotted as just north of the lake bed. This position was within the range of the Marine CH-53D SAR aircraft which had been prepositioned aboard NIMITZ the previous day from the Amphibious Ready Group embarked in USS

OKINAWA. Radio silence was pre-briefed to mean that situations were manageable and emergency assistance was not required. Not having received a message which would justify external support, the SAR remained on standby station aboard ship.

(U) ~~(TS)~~ At approximately 1740Z, the helicopter flight had just passed turnpoint #4, some 230 miles inland, and was on course along the final long leg to Desert One. The flight then consisted of #1, 2, 3, 4, 5 and 7 in formation with #8 about 40NM behind. Except for the loss of #6, the mission was proceeding well.

(U) ~~(S)~~ It was at about this point that pilots began to notice a strange murky cloud-like phenomenon. One described it as "Los Angeles smog without fumes" another said it was like "a wall of talcum powder". The flight had just completed one of its echelon right formation areas and was somewhat spread out in transition back to section "V". As the helicopters entered the reduced visibility regime the lead MC-130 was some 160 NM north of the main helicopter formation and 100 miles from Desert One. (See attached chart for approximate aircraft locations at 1740Z)

~~TOP SECRET~~ DRAFT



DRAFT ~~TOP SECRET~~

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[redacted] 1600Z

(U) Darkness fell [redacted] about one hour later than in [redacted] Staff actions associated with contingency situations continued but it was difficult to concentrate on anything but the enroute mission aircraft.

1600Z [redacted]

(U) When the report of two helicopters landing was received at approximately 1710Z, COMJTF and his staff assessed the situation. Similar incidents had occurred during rehearsals and the helicopter designated to pickup the downed crew had landed with them. This was part of the contingency planning. There was no reason to modify the mission.

C-130s APPROACH DESERT ONE - 1730Z

(TS) At about 1730Z, 120 miles out from Desert One, the [redacted] positioned himself behind the co-pilot of the lead C-130 so he could assist in directing the pilot [redacted] with verbal comments. A second CCT NCO [redacted] This system, especially developed for the mission, was positioned on top of the circuit breaker panel at station 245 just below the cockpit overhead escape hatch. [redacted]

(TS) While the lead MC-130 was nearing Desert One, three KC-135s launched (one ART - two nonrefuelable) [redacted] between 1737Z and 1836Z for the EC-130 egress refueling point, 120 NM southeast of the Iranian coast. Tankers were to be on station 2330-0030Z with a capability to off-load 8,000 to 10,000 pounds of fuel to each returning EC-130. It was determined that should the C-130s be required at Desert One longer than one hour and fifteen minutes and still refuel eight helicopters, they would require inflight refueling enroute

200

[redacted]

(~~TS~~) MC-130 #2, and MC-130 #3 with EC-130s #1, #2, and #3 in formation were now (1740Z) about half way between the Iranian coast and Desert One. They too were encountering conditions of limited visibility. The aircraft commander of MC-130 #3 was initially concerned about his four ship formation integrity; however, major problems were not encountered. The visibility was such that for about 30 minutes #3 had no visual contact with the ground or horizon (except for TF radar & FLIR) flying between 1000 and 2000 feet AGL. Even though #3 could not see the ground or horizon, he could still see the other aircraft in formation with him. The visibility improved considerably about 45 minutes (1835Z) out from the LZ.

(~~TS~~) At 1805Z, the lead MC-130 (#1) commenced a low level FLIR pass over the landing zone to ensure that the runway was free of obstacles and the adjacent roadway was clear. Both the landing strip and the highway were easily discernible through the night vision goggles as the aircraft passed over. This procedure proved well advised as a lone truck was seen proceeding east on the road toward Tabas.

[redacted] the pilot to land just to the right, then roll out [redacted] the far end (080-085 heading). To do otherwise might cause the C-130 to impact on a shoulder of the roadbed, which could produce disastrous results.

(~~TS~~) The pilot executed a planned 'go around' procedure

[redacted]

ensuring the truck was well out of the area. The FLIR turret was retracted so that the aircraft landing gear could be lowered, and the aircraft turned to downwind leg for landing. The aircraft turned base in a box pattern but when on final had to execute a second 'go around' because the MC-130 was too close-in for a safe line-up. A second box pattern was flown and the landing accomplished at 1810Z. The touchdown was hard but the landing roll was normal. The aircraft stopped in about 3500 feet, and off loaded the road block team, CCT, and DELTA Upon leaving the aircraft the Desert One Commander directed the radio operator to send the arrival message to JTF. It was soon discovered that the WSC-3 radio system was inoperative due to damage from the hard landing. Therefore the arrival message went out at 1856Z using the aircraft non-secure HF radio for the single CEOI codeword transmission. A portable TACSAT was not included as part of the equipment on this aircraft.

(U) The security force was tasked with ensuring that no Iranian personnel or vehicles entered or observed operations at Desert One. If this could not be prevented, security team members were to detain personnel and bring them out of Iran. Any such detainees would be returned the second evening. The force was divided into two groups. The Security Force Commander [redacted] comprised the element which would block access to the landing area from the east. A Farsi linguist was part of this team. The second [redacted] security element, responsible for the western area, also included a US military interpreter.

(U) As the aircraft taxied to a stop, the Security Force

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Commander was one of the first men on the ground. Looking westward, he immediately saw a large vehicle traveling toward him. Followed closely by another member of his team, he proceeded quickly to the center of the road which bisected the landing area. By this time he could recognize the oncoming vehicle as a passenger bus and attempted to flag it down. The bus driver blinked his lights at the men in the road and appeared to increase his speed. In response, a M203 40MM grenade and CAR-15 carbine rounds were fired over the bus. The projectiles did not strike the vehicle but the action was sufficient to cause the driver to stop.

(U) ~~let~~ When the Security Commander boarded the bus he found 43 passengers (men, women and children) in addition to the driver. Through his interpreter, he directed the passengers to disembark and remain quiet. He emphasized that no one would be harmed if they followed instructions. While the Iranians began leaving the bus, the security force commander saw a flash and fire further to the west. This was the result of a second vehicle incident involving the western area blocking team.

A (S) [redacted] began to assist the security team in managing the bus passengers. A short time later, the [redacted] assumed full responsibility for the bus and its passengers. [redacted] exercised detainee handling techniques in which they had trained extensively. Control of the passengers was positive and complete throughout the time they were detained.

(U) LET The leader of the second security team had deplaned from the aircraft's rear ramp and moved quickly to a position about 200 meters to the right rear. He was joined by a second team member who was riding one of the four motorcycles carried on the mission for use at the refuel site. The two men saw the headlights of the bus and observed the weapons fire. Without waiting for the remainder of the western team, they jumped onto the motorcycle and proceeded toward their preplanned position to ensure that no other vehicles entered the landing area.

(U) LET As the two security force personnel traveled down the dirt track, they met another set of headlights moving in their direction at high speed. They swerved the bike to the south side of the road and the leader ran to the center and began waving his arms at what appeared to be a small fuel truck. As in the case of the bus, the tanker truck displayed no inclination to halt. The team leader fired several rifle shots in the air but the vehicle kept coming. He then fired directly into the front of the vehicle knocking out one headlight. Almost simultaneously, the other team member fired his M-72 LAW at the vehicle's right front. The rocket propelled projectile struck the ground just below the truck's front wheels and exploded setting the vehicle on fire. The team leader ran across the road to the north side and saw another small truck that had been following the now burning tanker. The driver of the first vehicle had jumped from the cab and ran to his trailing companion who was in the process of executing a "U" turn. The security team leader directed his companion to chase the second truck on

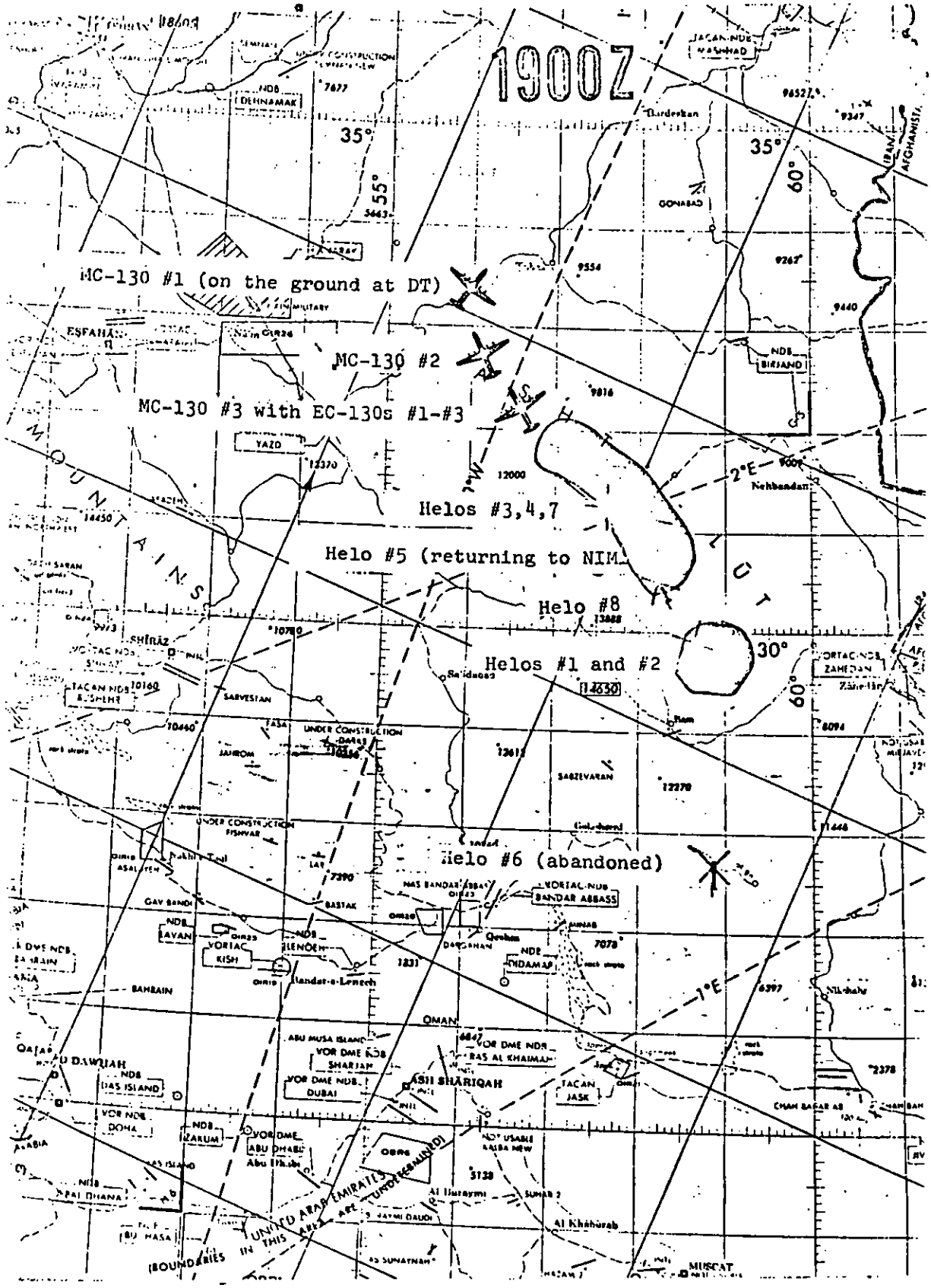
his motorcycle and attempt to stop it. Shortly after he left in pursuit of the truck, two additional security force personnel arrived. One was dispatched on a second cycle to join in the chase while the other remained at the blocking position. The two cyclists were unable to overtake the escaping truck which headed westward toward Aliabad at an extremely high rate of speed. The truck apparently turned off the main road onto an intersecting track and was lost from view. Both of the cyclists then returned to the western blocking position. This sequence of events was reported to the Security Force Commander who by now had arrived with additional security force members.

~~(S)(TS)~~ The Desert One, DELTA, and Security Force Commanders assessed potential mission compromise and came to the conclusion that the operation should proceed. Their rationale was that the truck occupants could not have seen or heard the C-130 and that the landing was therefore undetected. The tactics employed by the two vehicles suggested a well rehearsed plan to evade Iranian government security forces and there was a high probability that the trucks were engaged in some sort of illegal activity such as smuggling. Thus it seemed unlikely that they would report the incident to anyone in official authority. (There is no intelligence information to indicate occupants of the truck ever made a report.)

(U) No other vehicle approached the landing zone during the next four hours while US forces were at Desert One. Had the first MC-130 landed fifteen minutes later, the refueling operation would have had the Iranian desert completely to itself. (For disposition of aircraft at this point see following page)

~~TOP SECRET~~

DRAFT



DRAFT

~~TOP SECRET~~

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(c) (~~TS~~) By 1900Z, two landing strips (North/South) had been resurveyed and lighted by the CCT. The Desert One Commander was standing beside the CCT Commander in the road as the next MC-130 (#2) made his approach. It was obvious from the aircraft's heading that he was not on the final approach course. He was observed to cross the flaming fuel truck on the north side of the road at a 20 degree angle to the runway. The pilot quickly realized his erroneous heading and executed a go-around without CCT intervention. He then made a tight box pattern and landed successfully on the second try at 1915Z. The aircraft rolled out and offloaded the 51 passengers at the 4,000 foot mark. He was then marshalled in a left turn to the north side of the runway facing oncoming traffic to await the landing of other aircraft. It was apparent that the burning tanker truck was very near to the final approach landing course of the north runway. This made use of NVGs difficult because of the "Blooming" effect from excess light on the image intensifier device (white out). Pilots later reported it was very difficult to see the runway lights on the north side of the road. MC-130 #3 landed without difficulty at 1917Z on the south LZ, and discharged his 30 passengers and their support equipment. The EC-130s orbited the field and sequenced themselves for landing at their appointed times. MC-130 #3 was marshalled to the south side of the east end of the south strip and began setting up his three blivet refueling system to be used as a back-up to the EC-130 tankers. There was a short delay while DELTA moved the helicopter camouflage nets from the MC-130s which had just landed. The second

and third MC-130s were being moved off the LZ into the parallel area as EC-130s #2 and #3 landed. A CCT member broke radio silence to advise the third MC-130 to expedite moving off the south side clear zone, to make room for a landing aircraft. At this point there were five C-130s on the ground. (MC-130s #1-3, EC-130s #2,3). As planned, the lead and #2 MC-130s launched at 1924Z and 1925Z to relieve congestion and returned [redacted] The Desert One Commander began to use DELTA's secure PT-25 radio which was set-up in the road to communicate with JTF. At 1955Z he reported LZ weather conditions to JTF as high thin scattered clouds with visibility 3-5 miles, light surface winds.

The last EC-130 (#1) orbited directly over the LZ while MC-130 #1 and #2 launched to ensure he would not conflict with their departure routing on the return leg. The pilot then entered downwind and made two approaches to the north LZ, past the burning POL truck, finally landing on the third try at 1930Z. The light from the fire also obscured his view on final approach. After landing the CCT marshalled him to his fuel off load position. All three tankers were now on the ground along with the one MC-130 back-up fuel aircraft. (See chart, on following page). Three 150 foot refueling hoses were laid out behind each tanker by the four man mobile POL team aboard each EC-130. A Mobile Fuels Detachment from MacDill AFB provided the NCOIC and leader of the POL crews. The loadmaster on each tanker directed POL activities of his respective aircraft, and maintained interphone contact with the cockpit. All personnel participating in this activity wore NVGs and worked under total black out conditions. The POL crews

DESERT ONE PARKING PLAN

APPROX NOT TO SCALE

manned pumps and hoses while CCT personnel stood by to taxi helicopters to their appropriate refuel point. The well rehearsed plan was for POL specialists to hand the refueling nozzle to the helicopter crew chief to accomplish the actual refueling. The entire refueling operation to pump 1,700 gallons to each helicopter and load DELTA would take no more than 40 minutes. The Desert One Commander called COMJTF at 1925Z, to report the incidents with the three vehicles, and then again at 1940Z to confirm that Desert One was prepared to receive the incoming helicopters.

HELICOPTERS ENCOUNTER DUST 1740Z

(U) ~~(S)~~ At 1740Z the formation of six helicopters entered the first area of dust. Visibility through the NVGs had decreased to 300-400 meters and was getting steadily worse. Helicopters #1 and #2 were flying a tight section at approximately 800 feet AGL with the second helicopter slightly above and behind. Rotor tip separation was 15-20 meters. Helicopters #3 and #4 were still closing formation about 1,000 meters astern. Numbers 5 and 7 were tucked in tight, 100 meters behind and slightly above #3 and #4. All aircraft were making approximately 130 knots in negligible headwinds. Buffeting, other than that normally associated with crossing high terrain features, had not been encountered. Five more minutes of flying produced the first major crisis of the helicopter mission. The Flight Leader in helicopter #1 completely lost visual contact with both the ground and the remaining members of the flight.

(U) ~~(S)~~ At about 1745Z the Flight Leader decided to return to a clear area in order to assess the situation and to consider an alternate profile for the mission. Upon executing his turn he informed COMJTF of the visibility problems on secure TACSAT radio which was not receivable by the other helicopters. Helicopters #1 and #2 landed in a relatively dustfree desert area and transmitted their status to COMJTF at 1823Z (COMJTF did not receive the transmission). Meanwhile, the remainder of the flight (#3, 4, 5 and 7), continued through the dust toward Desert One. Number three was now flying the lead in the four helicopter formation.

(U) On the ground the Helicopter Flight Leader considered the situation. There were now 14 aircraft well within Iranian airspace. Mission abort at this stage would likely lead to mission compromise. He knew that helicopters #6 and #8 had landed earlier. He also concluded that the rest of the flight had not observed his turn and were still inbound to the refuel area. Hoping that the dust problems were localized, he elected to relaunch and not call for a weather abort. At 1845Z, 20 minutes after take off, he advised COMJTF that he was again enroute and that at least six helicopters were enroute to Desert One.

The helicopters had now been flying in instrument meteorological conditions (IMC) on and off for over an hour in a totally unexpected phenomenon which the pilots had never experienced and which was unforecast. The dust hung in layers at varying altitudes. While in the worst of the dust, some of the pilots ascended to as high as 5,000 feet AGL and some descended to less than 50 feet above the ground, but they could not break out of the regime which one pilot equated to "flying inside a bottle of chocolate milk". Each pilot felt that the ambient air temperature had increased and while there was still no wind or buffeting, most were experiencing episodes of vertigo. Helicopter #3 was still leading with #4 as wingman, #5 and #7 were fading in and out of visual contact both with the first section and with each other. There were long periods during which no one could see the ground although they knew that a major mountain

range with peaks of 9,000 - 11,000 feet was off to their left and that they would be required to negotiate a mountain pass near Darband, some 95 miles southeast of Desert One. (U) ~~(C)~~ While flying in formation, aircrews adopted similar flight procedures during penetration of the dust. While one pilot wearing NVGs flew the aircraft and maintained visual reference on the other aircraft, the other pilot monitored the instruments, navigated and performed other duties. These extremely demanding flight conditions contributed to the beginnings of fatigue.

(U) ~~(S)~~ Two aircraft in particular were having problems. At approximately 1850Z, helicopter #2 had experienced a failure in the second stage hydraulic system which powers the number one Automatic Flight Control System (AFCS) servo and the second stage of the primary flight control servos. In peacetime, loss of second stage hydraulics is a "land as soon as possible" emergency. The aircraft must be cautiously flown with only one primary hydraulic system because any rapid control manipulations could cause the remaining pump to cavitate, resulting in control lockup. While the pilots were mindful of this situation, they suspected that the failure was caused by a hydraulic leak which could be repaired at Desert One. Rather than land, they elected to continue. Helicopter #5 also had several serious problems. The co-pilot wearing NVGs suffered from persistent vertigo. In the cargo compartment, the DCOMJTF for Helicopter Operations considered substituting himself for the co-pilot but did not

do so since he was not fully qualified in the RH-53. The aircraft then began to experience partial flight instrument failures.

(U) Shortly after take-off from the NIMITZ, helicopter #5's TACAN became inoperable. As early as 1630Z, the pilot of #5 also detected a minor unsolicited yaw input from the Automatic Flight Control System. This was irritating but did not pose real safety problems under the then-prevailing visual flight conditions. During the initial period of reduced visibility, #5 and #7 flew as a section attempting to maintain only that degree of separation necessary for safety. When the dust thinned, the sections would tighten up and when it became worse, prudence dictated greater distances between rotors. At about 1855Z, #5 and #7 were almost parallel with 100 meters lateral separation when visibility was suddenly reduced to near zero and the co-pilot who was flying the helicopter suffered another episode of vertigo. The pilot of #5 noticed his precessing attitude indicator was falsely displaying the roll/pitch of the aircraft and that the heading indicator was frozen. The OMEGA was down and PINS appeared to be about 5 NM off. In the midst of these distractions, #5 lost visual contact with all the other aircraft.

(S) (U) Knowing that helicopter #7 was somewhere off his port wing, #5 executed a descending spiral to starboard in hopes of finding some identifiable terrain feature. At 75 feet AGL indicated, the ground was still obscured by the dust. Not wanting to chance going any lower and being unsure of his exact location, the aircraft commander faced a difficult decision. He knew that he was more than 150 miles from Desert

One and still had to navigate through the mountain pass at Darband. He had lost contact with the rest of the aircraft but assumed that at least six were still enroute to the refuel area. He tuned in Darband VOR but was unable to get a signal. Consulting with the DCOMJTF for Helicopter Operations and the co-pilot, he discussed the options. They could climb in hopes of finding the top of the dust cloud and perhaps get some kind of visual fix on a distant terrain feature. Alternatively, they could turn back toward the coast with the aid of PINS until they were back out of the dust when they could again navigate visually. The TACAN was inoperable so he would not be able to use the portable TACAN at Desert One to make an approach. The aircraft's heading indicator was also out of commission. The pilot concluded he could not navigate accurately enough to clear the mountains in the reduced visibility. The three aviators then discussed the possibility of turning back.

(U) ~~(S)~~ The pilot computed fuel required to return to the NIMITZ and determined that he might not have enough to get back to the coast. The idea of trying for Pakistan was considered and discarded because it would result in mission compromise. The aircrew knew that the Marine CH-53 SAR helicopter was standing by on NIMITZ and that the Navy would pick them up if they went down in the water. Based on these discussions, the aircraft commander favored returning to the ship. The other two agreed. At approximately 1900Z, #5 turned back toward NIMITZ. The radio operator was requested to use the portable secure PT-25 (designed for ground operations) but could not because of the size of the antenna and cabin constraints. At 1946Z helicopter #5

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initiated the first of several unsecure HF radio calls to advise COMJTF and the NIMITZ of his return to the carrier.

(U) The pilot in helicopter #3 did not see #5 turn. When visibility improved somewhat #5 was simply gone and the formation was reduced to three RH-53s. About half an hour before losing sight of #5, the pilot of #3 had seen other aircraft flying at about the same altitude further to the west. He identified them as four C-130s flying parallel to his track at about twice his speed. This formation was MC-130 #3 which was leading the three EC-130 fuel aircraft. At the time, lateral visibility was 1-2 miles in moderate dust. The C-130s were visible for about 30 seconds. Even this brief contact, however, raised helicopter #3's confidence in his navigation. As at the coast-in point, the C-130s did not see the helicopters.

(U) (18) At about 1905Z, helicopters #3, 4, and 7 began a long climb to clear the high ground south of Darband. At 8,000 feet MSL, the dust was still present so the flight went another 1,000 feet higher (maximum terrain altitude in this vicinity is 9,000 feet). Approximately 90 NM south of Desert One the dust began to abate. Visual contact with terrain was reacquired through the NVGs on some occasions. As the aircraft descended however, they continued to run into patches of reduced visibility between 100 and 1,000 feet above the desert. Finally, a positive lock was gained on the Desert One TACAN at about 30 nautical miles out.

E(c) [redacted] 1740Z

E (~~1745~~) [redacted] it was difficult to monitor TACSAT transmissions by helicopter #1. This was due in part to propagation and the less efficient TACSAT installed on the E helicopter. DCOMJTF [redacted] was, however, better able to monitor transmissions and frequently relayed. When the Helicopter Flight Leader reported reduced visibility, the Chief of Staff consulted the JTF Weather Officer. The Weather Officer was questioned about the reduced visibility but he had insufficient data on which to base any judgement.

(~~1745~~) Twenty minutes after taking off from the desert (1845Z), the Helicopter Flight Leader reported he and #2 were airborne, enroute to the refueling site, and would be low on fuel when they arrived. JTF headquarters had not received the report that the two had landed and this report created concern regarding the number of helicopters available. It was not clear whether six or seven helicopters were still operational. At 1948Z, the Helicopter Flight Leader requested weather at Desert One. In response, JTF tasked the Mission Weather Officer to prepare a new forecast for the remainder of the flight from Desert One to the hideout site. Having evaluated the latest satellite imagery C (1503Z) and later observations [redacted] the Weather Officer transmitted at 2018Z a message of high cirrus clouds E and surface winds, variable at five knots. At 2020Z [redacted] amplified the weather forecast given to helicopter #1 with Desert One's report of high overcast and five miles visibility. The latter report provided assurance to the Flight Leader that

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the weather at Desert One was suitable for mission continuation. Helicopter #5 enroute to NIMITZ at this point did not hear this transmission. (Helicopter #5 did not have a TACSAT radio suitable for airborne use).

[redacted] During this period, the attention of the staff was temporarily diverted from the helicopters when it was reported at 1925Z that the first MC-130 had landed at Desert One and that the security element had stopped the bus. Although some apprehension was expressed about the incident, it was generally believed that the situation was still under control. Of greater concern was the escape of the pickup truck driver and the driver of the truck that had been destroyed shortly after the bus incident. [redacted] An assistant J3 was tasked to continually compute time/distance factors to determine the ability of the helicopters to arrive at the hide-site prior to daylight. It was determined that they were still within the operational envelope.

(U) Realizing that the MC and EC-130s would be required to remain on the ground longer than originally envisioned, another officer was tasked to compute their fuel status and

to advise the COMJTF when they had to get off the ground in order to make it back to the tankers.

E [redacted] During the course of these events, two medical evacuation C-141 aircraft which had been deployed earlier [redacted] submitted a routine secure radio report that they had arrived.

HELICOPTERS CONTINUE - 2000Z

(U) By 2000Z, helicopters #3 and #4 with #7 in trail had crested the last mountain spine and were nearing the landing zone. Approaching from the southwest, generally along the same track that the C-130s had used, they first spotted the burning gasoline tanker truck and then the runway lights. According to plan, #3 was to refuel from the northernmost EC-130 along with #1 and #2. Helicopters #4, #5, and #6 were scheduled to refuel from the other EC-130 north of the road with #7 and #8 hooking-up on the single EC-130 on the south side. Helicopter #3 angled his approach to bring himself into refueling position behind the northernmost EC-130 by ground taxi. Shortly after putting the helicopter on the ground at 2022Z, the nose wheel struck one of the ruts left by the C-130 during its landing. The impact bent the nose gear cam and deflated both tires. At that time the helicopter was traveling at about five knots and under positive direction of a ground controller equipped with lighted wands. Since the nosewheel was no longer steerable, the pilot lifted the helicopter into a shallow orbit above the dust cloud, lined up on the northernmost refueler, and made a straight in air taxi approach.

(U) Helicopter #4 air taxied under ground control to the center spot behind the same refueler. The depth of the loose sand on the northern most airstrip was deeper than expected. This condition resulted in the helicopter pilots being required to actually lift off the ground and air taxi rather than ground taxi. Meanwhile, #7 came straight into

position behind the lone EC-130 parked south of the road. There was less loose sand on the south LZ surface than on the northern side of the road and the pilots could ground taxi. According to the plan, the helicopters should have been taking off for the DELTA transfer point at about this time. In fact, only half of the necessary force had arrived. Three others (#8, #1, #2) were still 30-40 minutes out.

E [redacted] 2035Z SECRET

E (U) At JTF headquarters [redacted] COMJTF was concerned with the time sequencing of events that had thus far transpired. He knew that two helicopters had landed in the desert and that one (#5) was returning to the NIMITZ. He also recognized that there were three helicopters at Desert One and that #1 and #2 were enroute. This gave a total of six known helicopters -- five of which were apparently mission capable. He suspected that at least one more helicopter was enroute to the refuel site since nothing had been heard from the pair that had landed in the lake bed at 1710Z, but he could not be sure. At 2042Z, COMJTF asked Desert One Commander to consider the possibility of trying to go on with less than the planned minimum of six. Perhaps a combination of actions to reduce weight on the helicopters and the lower than forecast temperature could enable five helicopters to lift DELTA. Shortly after this conversation, helicopter #8 arrived over the refuel area with the crew of helicopter #6 onboard.

(U) At 2050Z helicopter #8 landed at the refuel site and positioned behind the northern most EC-130. The crew of helicopter #6 deplaned. The plan was for any crew whose helicopter did not make it to Desert One to be flown out in the C-130s once refueling was completed. The only exceptions to this guideline were the pilots of helicopters #1 and #3, the Flight Leader and the Operations Officer. When the Operations Officer learned that #6 was no longer in the mission and #5 was returning to the NIMITZ, he recognized that both

of the helicopters originally scheduled to make the pick-up at the Iranian Ministry of Foreign Affairs were out of the picture. He decided that he would recommend that helicopter #3 assume the MFA pick-up role.

(U) (S) At 2058Z, helicopters #1 and #2 approached Desert One from the east, executed a left orbit and commenced landing. Helicopter #1 lined-up on the inboard EC-130 north of the road. There were no other helicopters refueling there. He could see #3 in the position where he was originally scheduled. As in the earlier case of #3, as soon as #1 began to taxi he struck a landing rut which rolled one of his nose tires off its rim. Helicopter #2 landed south of the road and ground taxied to position behind his refuel C-130 without difficulty.

(U) (S) Helicopter #1 immediately began refueling. The DELTA Commander was concerned because of the lateness of the hour. He went to #1 and asked if he could continue. Meanwhile, the Desert One Commander arrived. He had just spoken with COMJTF who had discussed launching four helicopters while the other two were refueling and then have the last pair fly to the transfer point after they refueled. Desert Commander advised COMJTF that six helicopters were in position and the plan was to launch within 40 minutes. It was now about 2110Z.

(S) (U) ~~(C)~~ It would take over two hours of additional flight time to the transfer point. Since Morning Nautical Twilight would come shortly after midnight zulu time (0016Z), there was scant probability of reaching the rendezvous site in total darkness. Still, Civil Twilight (the condition of

last darkness desired for landing) would not occur until 0122Z and thus it seemed that while the transfer point might not be made in total darkness, it was still likely that the helicopters would arrive before daylight. The Helicopter Flight Leader and the DELTA Commander agreed that they should proceed. DELTA personnel began moving from their staging area in the road to each of the six helicopters (Actual parking arrangement is shown on following page).

(U) There were now a total of nine aircraft with engines running at Desert One. The C-130 fuel situation was becoming near critical because of the elapsed 90 minute ground time. The Desert One Commander had already authorized the C-130s to draw 1000 gallons of fuel which had been carried in for the two helicopters that did not arrive and this alleviated the problem to a degree. Additionally, at 2112Z he had requested that the KC-135s on station remain as long as possible in case the C-130s needed to refuel on the outbound flight.

(U) The helicopters were all turning except for #2. Immediately upon landing, it had been shut down so that the crew could determine the exact cause of the aircraft's inflight hydraulic failure. Two of the crewmen climbed to the top of the aircraft and opened the inspection panels which permit entry to the accessory gearbox. The area was covered with hydraulic fluid which appeared to have come from the area of a jam nut atop one of the hydraulic lines leading to the primary servo's second stage pump return. Further inspection disclosed that the second stage pump had failed because of fluid starvation and was completely burned out. In normal daylight

DESERT ONE PARKING — ACTUAL
N
EC-130 #1
EC-130 #3
EC-130 #2
MC-130 #3
1
2
3
4
7
8
APPROX. NOT TO SCALE

situations, the second stage pump can be replaced in about 45 minutes. But, there was no spare pump available and even if one had been brought along, there was no time to change it. The force was down to five mission capable helicopters.

(U) (~~S~~) The co-pilot of helicopter #2 walked across the road to inform the Helicopter Flight Leader. On the way he informed the DELTA Commander. By this time DELTA had finished loading and was waiting only for refueling to be completed. The Desert One Commander climbed into the cockpit of #2. He was informed by the pilot that the aircraft had an abort condition. He then went to #1 where the Helicopter Flight Leader verified that #2 was not safe to fly, particularly with 20 troops and their gear. The Desert One and DELTA Commanders concluded that there were only five helicopters capable of continuing. They discussed whether there was any way to scale down the assault force and still do the job. The DELTA Commander said no. The plan called for a minimum of six operational helicopters. There was no margin to proceed with fewer; every man, piece of equipment, and all munitions were essential. Both men were bitterly disappointed. It was now 2120Z and lead elements of the force had been in the Iranian desert for over three hours.

(~~S~~) (~~TS~~) As the DELTA Commander began directing his troops to deplane and board the EC-130s, the Desert One Commander spoke with [redacted] the secure radio. He reported that they were down to five helicopters - the mission abort point and were standing by for guidance. COMJTF requested him to consult with the other Commanders on the concept of continu-

ing with five helicopters. There would be contingency fuel at Manzariyeh. Perhaps five helicopters could reduce their weight to the extent required to enable them to lift DELTA out of Desert One. If needed, some of the helicopters could refuel at Manzariyeh on the second night and set up a shuttle between the embassy and Manzariyeh. The Desert One Commander replied that it was not feasible and requested guidance. He also requested guidance on disposition of the bus passengers. COMJTF directed him to standby while he consulted with higher headquarters. Meanwhile the ground forces at Desert One were instructed to rig helicopter #2 for destruction and to disable the bus. Within a few minutes after talking with Washington, COMJTF relayed the decision to Desert One that the mission was to be aborted (2202Z). All operational helicopters would fly back to NIMITZ. Members of the security force would destroy #2 and sanitize the area as best they could before departing with the C-130s. The bus passengers would be released. The DELTA Communications Officer [redacted] of the decision.

(U) ~~(C)~~ The mission which had consumed tens of thousands of man hours in planning, training, and rehearsals had been defeated by a combination of mechanical problems and unforseen weather phenomenon. A mood of great disappointment prevailed over the landing zone as the recovery actions began. To aid in controlling the recovery, COMJTF imposed Minimize at 2218Z.

(U) ~~(S)~~ Helicopter #3 was refueled and ready to launch for

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the return flight. To their right rear, helicopter #4 had sufficient fuel to complete the rescue mission but needed more fuel to return to the NIMITZ. EC-130 #1, the aircraft from which they had been refueling, was now fuel critical itself. The Desert One Commander decided that the EC-130 would have to leave at once. Consequently, it was necessary to reposition helicopters #3 and #4 to enable the C-130 to use sufficient power to taxi for take off. The CCT instructed #3 to make a left 270 degree taxiing movement to reposition behind #1 and #8 helicopters. Helicopter #3's crew had straightened the nose wheel cam assembly and the pilot hoped he would be able to ground taxi. If not, he intended to lift above the inevitable dust cloud caused by rotor wash, orbit the landing zone and set-down as directed. At approximately 2220Z, helicopter #3 began to lift. Immediately the aircraft was engulfed in the anticipated dust and the pilot lost sight of the CCT. The EC-130, which had been approximately 60 degrees right of helicopter #3's nose, was lost from view. Through his night vision goggles, the pilot could see nothing but the faint outline of the controller whom he took to be stationary. In fact, the controller was moving to the right, away from #3, to get out of the downwash caused by the rotors. The helicopter lifted, drifted to the left and then right and collided with the EC-130. A loud "whack" was heard and an instantaneous fire ensued, engulfing the EC-130's left wing and cockpit areas and the rear of the RH-53.

A (S) The DELTA [redacted] and 43 personnel

were sitting on the empty bladders in the cargo compartment of the tanker at the time of impact. They felt two jolts to the airplane and saw fire at the forward door and flight deck area. One loadmaster initially got the right rear paratroop door halfway open so the force could start evacuating. Another loadmaster opened the left door but was met by a sheet of flames and immediately closed the door. Only the right rear door remained available for evacuation. The evacuation was rapid but orderly and was completed in approximately one minute. The third pilot and the radio operator were the only two of seven persons on the flight deck of the burning C-130 to escape down the stairway and out of the rear before the galley collapsed blocking the exit. Both sustained varying degrees of burns from the flaming fuel. The third pilot stated that he saw none of the other five crewmembers trying to get out through the flight deck exit. It is not known whether they were in shock, incapacitated, or blocked by fire. Apparently, none attempted to exit the aircraft through the right cockpit window. The two who survived barely got out in time by escaping aft through the flames.

(U)~~(S)~~ By this time, the entire left side of the EC-130 was in flames and the fire was rapidly advancing from forward to aft inside the cargo compartment. Large quantities of small arms ammunition were starting to "cook off" and demolitions were burning and exploding. The WSC-3 JCSE radio operator on EC-130 #3 reported to COMJTF that a helicopter had crashed into a C-130 (22222).

~~(S)~~ One of the three aircraft loadmasters of EC-130 #1

assisted passengers to the exit where he found an Air Force POL specialist injured and disoriented. He picked the airman up, jumped from the burning wreckage and led him to safety. One of the DELTA team leaders had been sitting near the forward bulkhead when the accident occurred. While awaiting his opportunity to exit, he heard cries for help from the EC-130 radio operator who was incapacitated by his burns. Disregarding his own safety, the DELTA member returned to the conflagration and dragged the injured crewman to the rear of the aircraft. He was then overcome by the intense heat and smoke. He jumped from the EC-130, called for help and directed others to the wounded crewman. The DELTA member and the injured crewman were the last two persons to leave the aircraft.

(U) The DELTA [redacted] marshalled the survivors and directed them to the remaining C-130s. The DELTA Deputy Commander and the Security Element Commander boarded the remaining MC-130 at the other end of the south parking area after insuring that no DELTA personnel were left on the ground at Desert One.

(U) The radio operator from EC-130 #3, the tanker parked adjacent to the flaming wreckage of EC-130 #1, had observed the Marine helicopter pilot struggling to crawl away from the inferno. He ran from his aircraft into the area of flames and exploding ordnance to grab the burned man and escort him to the safety of EC-130 #3. In the process he found the co-pilot of helicopter #3 and also escorted him to safety avoiding the C-130's turning propellors.

(U) There were many acts of heroism and personal risks

C-130

of life to get comrades safely out of the catastrophic accident. Only superiorly trained and disciplined individuals could have survived such a holocaust without experiencing a greater loss of life.

(U) Meanwhile, helicopter crews in #4, #8 and #1, approximately 30-50 meters to the rear of the burning wreckage, shut down engines and evacuated their aircraft as they were in grave danger of being consumed by the flames or injured by exploding ordnance and debris. The crew of helicopter #7 on the south side of the road was also directed to shut down and board the C-130.

(U) The CCT immediately marshalled EC-130 #3 through a right 180 turn and taxied the aircraft to a safe distance from the fire near the edge of the road. The Desert One Commander rounded up all helicopter crews evacuating their aircraft and directed them onto the C-130s.

The Desert One Commander called the CCT together in the road and set up an emergency command post. He directed the CCT members to insure no aircraft departed until cleared. He told the Commander of the CCT to check each aircraft for space and to equitably distribute the passengers. Concern was expressed that the road block team was still out on the point, and immediate action was taken to ensure they had been recalled and boarded the C-130s (The CCT had earlier taken action to ensure that the previously removed specialized runway lighting system was onboard the C-130 along with the TACAN). The Desert One Commander told all CCT members that cool, calm thinking was of the essence to ensure no mission person-

nel - living or dead - were left behind. Unfortunately, the fire from the two burning aircraft was so intense that it was impossible to recover the bodies trapped inside.

(U) A discussion ensued between the Desert One Commander, the C-130 Force Commander and the Commander of the CCT concerning what risks were involved in destroying the helicopters abandoned adjacent to the three extraction C-130s.

It was mutually agreed that the helicopters were too close to the C-130s to risk purposely setting fires or exploding ordnance. No delay fused ordnance was available to allow detonation after the C-130s cleared the area. There was not enough runway to taxi the C-130s away a safe distance, then blow up the helicopters. The Desert One Commander made the decision to leave them intact where they were. He directed the CCT to launch EC-130 #2, then MC-130 #3, and EC-130 #3 last.

(U) The first EC-130 directed to takeoff taxied for line-up which required a large amount of power due to aircraft weight and soft sand on the desert crust. Large dust clouds occurred. On takeoff roll, the pilots had difficulty seeing chemlites used by the CCT as replacements for the battery lights that had been removed earlier. Consequently the C-130 angled across the south LZ on take off. Two aircraft crossed the road at about 50 knots speed, creating even more dust from the soft shoulder. This action increased takeoff roll and caused the pilots to lift the aircraft off at maximum effort take off speed. Once the landing gear was raised the aircraft accelerated to

a point where flaps could be raised and acceleration to climb speed achieved.

(U) ~~LS~~ When the dust settled, the Desert One Commander loaded the CCT onto the last aircraft, took one last look around, and got aboard. The first EC-130 departed at 2240Z and the last aircraft at 2246Z. Lead elements of the Task Force had been on the ground for four hours and 36 minutes (1810Z-2246Z), and had undergone a bitterly disappointing and harrowing experience. Fourteen minutes later (2300Z) helicopter #5 landed safely aboard NIMITZ.

~~(S)~~ ~~TSI~~ The C-130s did not fly formation on the way back

A, E [redacted] EC-130 #2, the first to depart, lost oil in one engine and had to feather the propellor shortly after take-off. This reduced his cruise speed resulting in the other C-130s passing him enroute home.

~~(S)~~ ~~LS~~ At 2246Z the Desert One Commander radioed to JTF that in-flight refueling would not be required, and that the KC-135s could be released. The residual of the 1000 gallons each aircraft onloaded from its bladders at Desert One had

E provided enough fuel to get the flight back [redacted]

A total of [redacted] KC-135 tankers had been launched from [redacted]

E [redacted] upport the TACAIR RESCAP and C-130 post mission refueling phase. [redacted] standard tankers provided fuel for two ART model KC-135s. The first ART arrived on station at 2108Z. It was drogue configured for USN aircraft which were on standby for RESCAP. The other ART and [redacted] standard tankers, all boom configured were in orbit by 2330Z to cover the delayed C-130 withdrawal from Iran airspace. Additionally one

standard and one refuelable tanker launched from strip alert at [redacted] provide backup support for possible US Navy RESCAP activity but were recalled. All tankers commenced returning to base at 0030Z at the direction of DCOMJTF after it had been positively determined their fuel would not be needed.

(U) At 2252Z, the Desert One Commander recommended a Navy TACAIR strike on the helicopter location using napalm with the accident fire as a target center.

(U) The Desert One Commander riding in EC-130 #3 transmitted results of the initial casualty survey to JTF via WSC-3 at 2321Z. The figure was somewhat in error due to aircrews not being counted in some cases but was reported as follows: MC-130 #3 had [redacted] persons on board, with one injury. EC-130 #2 had 47 persons, with one minor injury, and EC-130 #3 had 62 personnel, two major burns, one minor and one in shock.

Communications by this point had become more critical and difficult. Calls to obtain information on the status of helicopter crews competed with calls associated with the mishap at Desert One, planning for refueling and RESCAP. The secure TACSAT net was at that stage used considerably. Some stations [redacted] appeared to be better situated to receive and relay calls than others. Frequently calls were not received; some due possibly to propagation, others to competing activities. In spite of the need for relay and repeats, required information was exchanged with the exception of Desert One's report at 2130Z that the crew of #6 helicopter was present. This was to cause concern and confusion within the JTF.

(TS) Upon report of the accident and many potential casualties, COMJTF alerted the two MEDEVAC C-141s positioned [redacted] These aircraft had been E prepositioned [redacted] for the night two extraction mission. The MEDEVAC force had one WSC-3 equipped C-141 and was directed through the JTF Net Control System to launch E [redacted] Takeoff was at 25/0001Z for the [redacted] E Emergency MEDEVAC clearance was obtained [redacted] MAC was also alerted to scramble a C-9 E specially equipped with a burn package [redacted]

(U) ~~(TS)~~ The request for tactical air support to destroy the helicopters and EC-130 left at the Desert One was relayed to CJCS by COMJTF who recommended that it not be approved. After consultation with the NCA, CJCS advised that this action was not to be undertaken. Destruction could lead to loss of US or Iranian lives. Further loss of lives could seriously threaten the safety of the American hostages in Tehran. No further action was taken.

C (~~S~~) (TS) Amidst this discussio[redacted]

[redacted] The C-130s cleared Iranian airspace on 25/0100Z, about 20 minutes after the beginning of Morning Nautical Twilight. DELTA medics administered first aid to the burned aircrew members and comforted them as best they could, E perhaps saving two lives. MC-130 #3 landed [redacted] at 0158Z, followed by EC-130 #3 at 0200Z, and EC-130 #2 at

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E, A 0213Z. The two C-141 MEDEVACS landed [redacted] While waiting to board the C-141s the burned crewmen were treated by the two USAF flight surgeons. They were able to treat the burns, ease the more painfully injured, and generally stabilize the patients for transfer to the C-141s.

(U) (S) DCOMJTF met all returning aircraft to get a precise headcount and ensure there were only eight missing personnel. This was efficiently and accurately accomplished. (Despite this, the Iranian Government later repeatedly stated they had nine bodies.)

[redacted] The first C-141 departed with injured personnel at 0315Z followed by the second C-141 at 0335Z with DELTA, Rangers, and helicopter aircrews. The C-141s flew directly

E across [redacted] The C-9 from Germany landed five minutes prior to the C-141s arriving at 0803Z. Once refueled the C-9 airlifted the burn patients to

E [redacted] dditional C-141s arrived [redacted] to airlift DELTA, Rangers and helicopter pilots to CONUS.

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SECTION III

MISSION EVALUATION

(U) The purpose of this section is to evaluate the preparation for, and the execution of, the hostage rescue mission. The evaluation addresses the events as they occurred and provides an assessment of the planning, training and, where appropriate, execution of those events.

CLASSIFIED BY DIRECTOR, J-3
REVIEW ON 25 JUNE 2000
REASON: 5200.1A, 301c6

Nothing withheld

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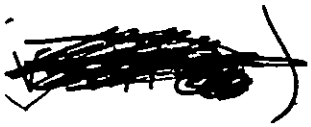
Divides I - II

Divides II - III



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THE PLAN

(TS) Mission execution began with a single MC-130 departing [redacted] enroute to the desert refueling site (Desert One) in Iran. Onboard this aircraft were the Desert One Commander, the Commander of the Hostage Rescue Force (DELTA), a portion of the DELTA Force, a Site Security Element and a Combat Control Team to provide marshalling assistance to aircraft at Desert One during the refueling operation. The purpose of this flight was to land at Desert One, establish security and prepare a landing zone to receive the subsequent aircraft. The MC-130 was scheduled to land at Desert One at 1810Z. One hour after the MC-130 take-off, eight RH-53Ds were scheduled to launch from NIMITZ, positioned approximately 50 NM off the Iranian coast in the Arabian Sea. These two separate flights of aircraft, proceeding at different altitudes, and using similiar routes, were to cross the coast at about 1530Z. Between 1510Z and 1517Z, two additional MC-130s and three EC-130s were scheduled to [redacted] The MC-130s had the remainder of the rescue force onboard and the EC-130s were configured to ground refuel the RH-53Ds. These aircraft were scheduled to arrive at Desert One between 1910Z and 1925Z in anticipation of arrival of the helicopters at 1930Z. The first two MC-130s were scheduled to depart Desert One as soon as the second had been unloaded in order to relieve congestion at the site. Upon arrival at Desert One the helicopters were to be marshalled by the CCT to predetermined positions behind the EC-130s and refueling initiated. Simultaneously with the refueling, loading of personnel and equipment on the helicopters was to be completed.

(U) (S) The helicopters were to be on the ground at Desert One for approximately 40 minutes, departing at 2010Z for the remainder of their mission.

E (U) (TS) At 1737Z, three KC-135s were to depar[redacted] provide air refueling support for the C-130s over the Arabian Sea, if required, during their egress.

(U) (S) While enroute to the refueling site, the C-130s and RH-53s were under the command of their respective flight leaders. Upon landing at Desert One all forces were under the command of the Desert One Commander. Upon departure from Desert One the helicopters were under the operational control of the DELTA Commander.

(TS) Although a final decision to execute the mission had not been made by the COMJTF, planned actions were initiated to support anticipated mission execution on 24 Apr. By 24/1115Z the ground forces were inplace [redacted] Mission briefing for the helicopter aircrews on the NIMITZ began at 1100Z while the MC/EC-130 aircrew briefings started at 1200Z. At approximately 1225Z COMJTF received a final briefing which included the status of deployed forces and the latest weather forecast. At 1250Z, COMJTF issued the execution order for the rescue mission.

(S) At 1405Z the first MC-130 departed [redacted] and in radio silence. One hour later, the eight RH-53Ds departed NIMITZ, on schedule maintaining radio silence. The remaining MC/EC-130s began take-off on schedule. However, the first EC-130, because of positioning of the aircraft on the ground, was unable to take-off in proper sequence and fly in formation with MC-130 #2. The flight was rearranged by using short, secure UHF radio transmissions, EC-130 #1 joined MC-130 #3 and the other two EC-130s as a flight of four for the ingress route.

(S) The first MC-130 crossed the Iranian coast on schedule followed by the eight RH-53Ds which were ten minutes behind schedule because of the aircraft carrier's position at take-off and helicopter rendezvous procedures. The helicopter flight made up this time and was back on schedule within two hours.

(TS) At approximately 1630Z, the lead MC-130 encountered an area of reduced visibility which persisted for about

fifteen minutes of the flight. During this period, an observer could not maintain visual contact with the ground using night vision goggles. At approximately 1700Z, the aircraft entered another area of reduced visibility which also lasted for about fifteen minutes. The Desert One Commander was advised of the phenomenom and he considered notifying COMJTF. However, after observing that the FLIR was not affected he determined that he was unable to judge the limitations of the visibility, the cause of the phenomenom or the impact it would have on the helicopter operations. Therefore, he elected not to make a radio transmission which he felt would have been of questionable value.

(U) ~~(TS)~~ At about 1700Z, the aircrew of helicopter #6 observed the illumination of the Blade Inspection Method warning light which is cause for immediate landing. Using prebriefed procedures, the pilot landed. Helicopter #8, as prebriefed, followed #6 to a landing to recover the aircrew, if it became necessary. After visual confirmation of a mechanical indicator of possible rotor blade failure, the crew retrieved their classified material and boarded helicopter #8, which continued the mission. The incident was observed by the crew of the lead helicopter who notified the Helicopter Flight Leader. He observed that prebriefed procedures for an inflight abort were being carried out, notified COMJTF of the landing by secure radio and proceeded for the refueling site.

E [redacted] three KC-135s departed [redacted]

(U) ~~(TS)~~ At about 1740Z, the six RH-53Ds remaining in the formation first encountered the area of reduced visibility.

They continued on course attempting to maintain visual reference to the ground. After a few minutes the leader observed the visibility to be near zero and elected to reverse course and return to an area where he could land, consult with the members of his flight and arrive at an alternative course of action. He was not aware that the crews of helicopters #3,4,5 and 7 had lost visual contact with him and did not see him turn. As a result, four aircraft continued enroute as a formation. At 1808Z the Helicopter Flight Leader advised COMJTF by secure TACSAT radio that the flight visibility was near zero and that he had lost sight of the other aircraft. At 1823Z the Helicopter Flight Leader transmitted that he and his wing man had landed. Neither COMJTF nor the lead C-130 heard the latter transmission.

(U) The Helicopter Flight Leader waited on the ground for the other members of his flight for about fifteen minutes. He then elected to resume the mission and at 1845Z notified COMJTF that he was airborne (he had been airborne approximately 20 minutes ~~at~~ this point) and that six aircraft were enroute to Desert One.

(U) During this period, the lead C-130 had landed at Desert One (1810Z). Immediately after landing, as the security force was being deployed, an Iranian bus with 44 people onboard approached the scene. The security force stopped the bus and detained the passengers without injury. Very shortly after that a fuel truck was observed approaching, followed by a pick-up truck. The truck driver refused to stop which caused the security force to take action to disable the truck. The truck caught fire and the driver escaped to the pick-up truck. The pick-up reversed course and sped away. Although the security force pursued, the pick-up truck escaped.

(TS)(U) Because his secure radio was disabled during the landing of the C-130, the Desert One Commander elected to transmit a single codeword over unsecure HF radio to indicate he had landed. He then directed actions necessary to receive the remaining C-130s and RH-53Ds.

(U) At 1845Z, seven helicopters were still proceeding toward Desert One in three elements. Helicopters #3,4,5, and 7 were leading in a single formation. Number 8, with the crew of #6 aboard, was flying alone and #1 and #2 were now about forty minutes behind the first element.

(U) (TS) At about 1850Z, the pilot of helicopter #5 lost visual contact with the remainder of the first flight. Knowing that #7 was on his left side, he made a right turn and descended to establish horizontal and vertical separation. Unable to establish visual reference to the ground, the pilot attempted to continue the mission. However, several of his instruments and navigation aids were inoperative or erroneous. His TACAN radio was inoperative making it questionable in his mind whether or not he would be able to locate Desert One. He was unable to receive the VOR navigation aid at Darband. His heading indicator was inoperative inhibiting his ability to navigate through the mountain pass ahead. He had determined that his PINS had earlier been observed to be approximately 5 NM in error. After about ten minutes in this situation, and concerned over his ability to enter the mountainous terrain ahead in the visibility conditions experienced, the pilot of #5 elected to abort the mission unannounced and returned to NIMITZ.

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(U) ~~(TS)~~ During the same period, unknown to the Helicopter Flight Leader, helicopter #2 began to experience a loss of hydraulic pressure in the secondary hydraulic stage which powers part of the flight control system. Normally an abort item, the pilot elected to continue to Desert One to determine if the system could be serviced or repaired.

~~(TS)~~ At about this time (1915Z), the five C-130s began to arrive at Desert One, unload personnel and equipment, and to prepare to receive and refuel the helicopters. C-130s #1 and #2 departed Desert One on schedule and secure communications were established between Desert One and COMJTF. The Desert One Commander reported to COMJTF that he was ready to refuel the helicopters.

(U) ~~(TS)~~ The pilot of helicopter #5 was now concerned as to whether or not he had sufficient fuel to reach the NIMITZ. Unable to use the secure TACSAT radio he was transporting (which was not installed for airborne use), he elected to notify the NIMITZ of his situation on unsecure HF radio. This transmission, approximately fifty minutes after the abort decision, was not received by COMJTF or the Helicopter Flight Leader.

(U) ~~(TS)~~ At 1955Z, COMJTF received a report from Desert One that the weather was good, and this information was passed to the Helicopter Flight Leader over secure TACSAT radio. Since the other helicopters were not equipped for TACSAT the information was not heard by the pilots of the other helicopters.

~~(TS)~~ (U) At 2022Z, (45 minutes behind schedule) the first three helicopters (#3,4 and 7) began to land at Desert One and were marshalled to refueling positions. The nose tires on helicopter #3 deflated as he taxied across a rut in the sand caused by C-130 tire marks making it necessary for the pilot to hover-taxi into position.

( )

(TS) (U) At 2042Z, COMJTF directed the Desert One Commander to consult with the DELTA Commander to determine whether or not the mission could be continued with only five helicopters. He also directed that no action be taken to proceed.

(TS) (U) By 2050Z, helicopter #8 had landed and was being refueled. The DELTA Commander began preparations for loading his equipment on the four helicopters. COMJTF requested that the Desert One Commander consult with the other unit leaders to determine the advisability of launching the four RH-53Ds with the remaining two to follow as soon as they could be refueled. However, the Desert One Commander replied that helicopters #1 and #2 were landing and that they would launch all six in about forty minutes (2150).

(U)

~~(TS)~~ At this time, the Desert One Commander was concerned about the fuel remaining in the C-130s. He had earlier directed the transfer of fuel from the refueling bladders to the C-130's internal systems. However, C-130 #4 had refueled three helicopters and because of the delay was low on fuel.

(U)

~~(TS)~~ After landing, the pilot of helicopter #2 shut down

his engines to determine the cause of his hydraulic malfunction. A leak was discovered in the vicinity of a jam nut which had depleted system fluid and caused the hydraulic pump to burn out. Unable to repair the system, the pilot notified the Helicopter Flight Leader that his aircraft was not capable of continuing the mission. At 2120Z COMJTF was notified that helicopter #2 was not mission capable.

(U)

(~~TS~~) At 2130Z, COMJTF again requested that the Desert One Commander consult with the other commanders to determine whether or not the mission could be completed with five helicopters, stating that additional fuel would be available at the final destination. The Desert One Commander replied (at 2135Z) that it was not feasible and recommended mission abort and that all mission capable aircraft return to their launch points. Following consultation with authorities in Washington,COMJTF ordered the mission abort at 2202Z and destruction of helicopter #2. He also directed that the detainees be released and their bus disabled. Upon receipt of this order, the Desert One Commander directed that personnel and equipment be reloaded on the remaining C-130s. It was also determined that helicopter #4 would require additional fuel for the return flight to NIMITZ and that C-130 #4 was critically low on fuel.

(U)

(~~TS~~) The Desert One Commander directed the CCT to move helicopters #3 and #4 so that C-130 #1 could depart and helicopter #4 could obtain additional fuel from another tanker. Helicopter #3 began moving at approximately 2220Z. It collided with EC-130 #1 and both aircraft were engulfed

in flames. Three crewmen were trapped in the cargo compartment of helicopter #3 and five crewmen were trapped in the cockpit of the EC-130. The eight crewmembers perished. All other personnel evacuated the two aircraft. Munitions on the burning aircraft began to explode, endangering the remaining aircraft and personnel. (Inasmuch as the determination of the cause factors of the accident is the responsibility of an on-going Mishap Investigation Board, this report will not address those factors).

[redacted] All helicopters were shutdown and evacuated and EC-130 #3 parked next to EC-130 #1 was immediately moved to a safer location. The Desert One Commander directed that all personnel load on the remaining C-130s and ordered a sweep of the area to insure that there were no survivors left behind. The Desert One Commander was not aware that classified material had been left in some of the helicopters. Between 2241Z and 2246Z, the three C-130s departed Desert One. While enroute, the Desert One Commander surveyed the injured personnel and reported their status to COMJTF. E COMJTF alerted two MEDEVAC equipped C-141s at [redacted] E [redacted] to proceed [redacted] and evacuate the survivors. He also requested a C-9 aircraft equipped to treat burn patients be dispatched [redacted].

[redacted] At 2240Z, NIMITZ launched two SAR helicopters to assist helicopter #5 should it not be able to reach the ship. At 2300Z, helicopter #5 landed on the NIMITZ with an estimated six minutes of fuel remaining.

[redacted] Between 0158Z and 0213Z, the three C-130s landed at

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E [redacted] and plans were initiated to cross-load the personnel to the C-141s. The two C-141s arrived at 0228Z. The first departed at 0315Z with the injured and a portion of the DELTA force and the second departed at 0335Z with the remaining personnel. At this time DCOMJTF reported that five USAF and three USMC personnel were missing and presumed dead.

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THE EVALUATION

(U) The evaluation of the hostage rescue mission, as it was executed is presented in chronological phases. In each section, those events, decisions and actions taken relevant to that specific phase of the operation are addressed. Each section is divided into four parts: First, chronology of the events of that phase is provided for background purposes; Second, questions relative to events that occurred, actions that were taken, and decisions/judgements made are posed; Third, a discussion of the factors bearing on those questions is provided; and, Fourth, evaluations of the actions taken and decision/judgements are made.

(U) Finally, a summary evaluation of the hostage rescue mission is provided.

Background: (U) It has been noted that the ultimate force size and composition was constrained from the outset by a lack of trained forces, special operations equipment and intelligence. These constraints inpacted upon planning, training and execution of the rescue mission.

Question: (U) How was the JTF constrained during mission planning, training and execution.

Discussion:

(S) On 4 Nov 79 the only component of the US Armed Forces ready to participate in CT operation was the US Army Special Forces Operational Detachment Delta. [redacted] and [redacted] personnel. At this time, Delta was trained to operate in a permissive environment.

[redacted] Army Ranger battalions, [redacted] were also available. Each of these light infantry battalions had approximately [redacted] and had limited counter-terrorist (CT) training [redacted] but not of the magnitude or complexity that confronted the JTF.

(U) The limited number of in-flight refuelable MC-130s (7), four were stationed in PACOM, and AC-130s (5) imposed a constraint that was only slightly alleviated by the incorporation of EC-130s in the JTF. However, the EC-130s lacked the low-level, sophisticated navigational systems installed in the MC-130s.

(U) (TS) Initially there were sufficient qualified air crews for the MC-130s (10) and AC-130s (11). However, the acquistion and necessary manning of the EC-130s by Special Operations crews heavily taxed this pool of talent. This would have been especially evident during the second night of the planned mission.

(U) (S) The lack of an acceptable long range helicopter and qualified crews were a major constraint upon planning and the subsequent operation. Selecting and training helicopter crews and developing operational techniques and procedures was a time consuming task.

(U) (TS) The standard rudimentary navigation equipment installed aboard the helicopters was not adequate for the envisioned long range, low level flight profiles. An attempt to overcome this deficiency was made through the acquisition and installation of PINS and Omega system.

(4) (TS) Lack of sufficient tactical and airborne satellite capability required the force to develop their own systems.

(U) (TS) Only four engineering development manpack satellite terminals existed in Nov 79. These units were incompatible with existing fixed, mobile and shipborne UHF terminals. Identification and modification by Delta of ten commercial Motorola PT-25s provided an interim capability suitable for the mission.

(U) (TS) Fixed wing aircraft tasked were not equipped with UHF SATCOM. By developing a hatch-mounted antenna/WSC-3 package, four C-130 and one C-141s were equipped. Lack of Dorne-Margolin antennas and WSC-3 transceivers prevented each aircraft from being equipped with its own SATCOM terminal.

(4) (TS) Helicopters lacked UHF SATCOM. Little useable data was available on SATCOM on board helicopters, which required the JTF to conduct its own experiments. The mission was executed before a fully useable SATCOM package could be developed. Due to this and the shortage of WSC-3 units, only one helicopter was equipped.

(U) (TS) The PARKHILL secure voice used with the tactical satellite terminals degraded voice quality. Consequently, many transmissions required repeats.

(4) (TS) A suitable high altitude airborne radio relay capability was lacking. Current platforms are not configured to provide automatic relay of UHF transmission.

4 (TS) Not all MAC and SAC aircraft involved were capable of secure HF or UHF. Airborne transmissions involving tanker aircraft were made in the clear.

(U) (TS) Each unit except Delta lacked a suitable, reliable squad radio for use with perimeter defense or other intersquad communications.

(U) (C) Pr[redacted]aints that affected intelligence operations [redacted] BOWL included:

B, C (TS) Extremely limited in-country HUMINT assets [redacted] This problem persisted throughout the Nov-April timeframe, although a small capability was eventually established. [redacted]

B, C (TS) [redacted]

B, C (TS) [redacted]

B, C (TS) [redacted] This problem was not resolved for 60-90 days.

(U) (TS) The limited availability and extreme difficulty in locating FARSI-qualified linguists adversely inpacted upon the JTF.

(U) (TS) Severe restrictions on coordinating hostage data and political strategies with DOS were imposed. In addition, DOS was extremely reluctant to cooperate or pass data to DOD.

(S) Weather Observations. Surface observations are the heart of any weather forecast. Because of a return to the basic Islamic faith, more and more observations are NOT being taken and transmitted during prayer time and at night. This leaves only eight to ten locations transmitting every three hours during nighttime and only one station (Tehran) providing 24-hour coverage. The upper air data in the region was of poor quality. Unfortunately, even with [redacted] the JTF still possesses poor area [redacted]

coverage. The Defense Meteorological Satellite Program (DMSP) has deteriorated recently to only once a day (during daylight) data capture at the 1/2 to 1/3 nautical mile resolution. The DMSP is forecast to go.out completely within two months leaving only usable data from the NOAA SIX and a portion of the Tiros N at a two to four nautical mile resolution. A new DMSP is officially scheduled for launch on 1 July 81; however, it could easily be delayed at least six months. The degradation of satellite data severely handicaps any forecasting effort.

[redacted] (U) (SEC) Lack of experience in Middle East forecasting was an initial problem. However, this situation has improved over the last nine months. Forecasting major weather changes has become better in the winter than the summer. Because of satellite data problems, forecasting small scale phenomena (less than 2500 square miles) is very hard; especially when trying to forecast the occurrence of blowing sand/dust. A wide variation in data quality and quantity have created questionable climatological information.

[redacted] (TS) The lack of identified forward launch bases perplexed planners until shortly prior to forward deployment. Requests to inquire about the possibility of establishing or the establishment of launch sites [redacted] were denied for political reasons. [redacted]

E

[redacted] (TS) The distance [redacted] to the target and associated factors compounded planning, imposed heavier demands on logistical support requirements and increased risks.

(U) (S) The lack of a fund cite or project code continually impeded JTF initiatives. Impediments ranged from placing JTF personnel on TDY to procurement of equipment necessary to support the JTF.

(U) (S) The inability of the JTF to acquire a secure training site precluded the assembly of the various JTF components at a single installation and posed a constant operational security problem. This also precluded close, daily coordination between the TF components.

[redacted]

[redacted]

Evaluation: The JTF was provided almost unrestrained use of available resources. However, there were serious constraints in the lack of trained forces, intelligence (to include weather), modern equipment in both type and quantity, forward operating bases near Iran and secure training area/bases in CONUS. Though the JTF was able to overcome some constraints such as communications requirements and circumvent others (no secure training area), this made training more difficult and impacted on planning and on the speed of force preparation.

LAUNCH DECISION

BACKGROUND:

(U) [redacted] At 1225Z, COMJTF received a final briefing on weather, disposition of forces and intelligence prior to arriving at the final decision to execute the hostage rescue mission.

QUESTION:

(U) Was the launch decision appropriate?

DISCUSSION:

(U) The decision to launch was based on favorable intelligence information, a suitable weather forecast, command and control elements in place, communications operable, all aircraft mission ready, and mission forces in place. All of the preplanned criteria were met. There were no elements of information available which should have caused a delay or modification to the plan.

EVALUATION:

(U) The decision to launch was appropriate.

PREMISSION BRIEFINGS

BACKGROUND:

(U) At sea aboard NIMITZ, the helicopter detachment began formal mission briefings for all pilots at approximately 1100Z. The Operations Officer reiterated the basic plan to ensure a full understanding by all pilots. Communication procedures were rebriefed.

(TS) While the Operations Officer briefed, the Detachment Intelligence Officer finalized his presentation. The daily weather message was not scheduled to be transmitted from JTF headquarters until 1200Z. Consequently, the Intelligence Officer had arranged for the NIMITZ's weather section to provide a general weather summary which had been prepared for the ship and the embarked Carrier Air Wing. When the weather report [redacted] arrived, the two products plus an earlier route profile forecast [redacted] were used by the Intelligence Officer during his briefing. The thrust of these separately prepared reports was almost identical. The only area of difference was the ship's summary which included mention of a "possibility of blowing sand" in some desert regions. This comment was a general forecast item for all of Iran without specifically stating where the blowing sand might occur (the ships's meteorologist was not privy to the mission). The weather [redacted] was much more detailed and highlighted the actual mission area.

(U) (TS) The intelligence briefing was concise. There had been no significant changes in the intelligence picture since the

previous night. Pilots were told that there were no known Soviet or Iranian ships or aircraft in the area.

[redacted] shown on large DIA graphics which had been posted in the Ready Room since the unit's arrival on 20 Apr. There were three different graphics: [redacted] The charts were prepared on 1 April 1980. [redacted]

(C) The helicopter detachment S-2 concluded his remarks with a final discussion of escape and evasion (E&E) tactics and an injunction to aircraft commanders to ensure that each crewman had all required E&E materials. Specific guidance was provided on carrying personal effects. Each participant was directed to carry his military identification card, identity "dog tags", and a symbol of his rank or branch of service which he could afix to his flight suit or uniform in the event that capture appeared likely. All members of the unit were reminded that they should have positive identification that they were American armed forces personnel. It was at this point that the question of other personal effects surfaced. Since the helicopter crews were in the unique position of departing from one location (NIMITZ) and returning to CONUS

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E via another [redacted] some concern was expressed regarding the security and timely return of items such as cameras, credit cards, etc. The DCOMJTF for Helicopter Operations decided to allow pilots and crewmen to carry those items which would not provide any more information than was already on the identification cards. Cameras were permitted only so long as they did not contain exposed film. Aircraft commanders were responsible for checking each member of their crew to ensure that all was in order prior to leaving the Ready Room. (Although not specifically addressed in this briefing, the pilots had frequently been briefed that in situations short of "threat to life" classified information and communications equipment was to be removed from any aircraft left in Iran).

[redacted] At 1230Z, final crew briefings were underway for the E C-130 crews [redacted] Of particular interest was the latest intelligence data received from the Helicopter Detachment Intelligence Officer aboard NIMITZ. C [redacted] C [redacted] Weather, transmitted [redacted] E [redacted] was briefed as good, with no significant factors that would affect operations, other than high clouds in the vicinity of Desert One. Navigators and Electronic Warfare Operators reviewed their routing one final time to ensure preselected routing and terrain following altitudes [redacted] A [redacted] afforded fuel conservation.

E (PS) [redacted] the USAF Intelligence Officer also passed out last minute escape and evasion instructions and proceeded to sanitize all crewmembers of their personal effects. "Dog tags" and ID cards were all that were carried by C-130 aircrews other than some personal US currency [redacted] The aircraft were inspected for unauthorized and extraneous sensitive material. Two navigator crewmembers were designated to carry cameras with official USAF film inserted for documentary purposes. (DELTA had been briefed and sanitized [redacted]

E [redacted]

QUESTION:

(U) Were premission briefings adequate and did both helicopter and C-130 aircrews receive the same information regarding intelligence, operations and communications?

DISCUSSION:

C [redacted]

Detailed analysis by DIA and mission Electronic Warfare Officers indicated that due to terrain masking and other propagation factors approximately 100 NM of the mission flight path could possibly be covered by this radar at high altitude (over 18,000 feet MSL). This was a conserative estimate. [redacted]

C [redacted] This had been periodically provided to flight personnel during training. Information was briefed daily to pilots once they arrived at their deployment sites.

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EVALUATION:

(U) (S) Briefings were structured to support the mission. The briefings provided to mission participants the same information on radars, communications, weather and air order of battle. There is no evidence that the content or context of information provided to any one part of the force was different or lacking from that provided to the others.

WEATHER

BACKGROUND:

(U) COMJTF had established a mission execute weather criteria which included: a cloud ceiling of not less than 10,000 feet MSL; visibility of not less than five miles; not more than a 15 knot headwind component; no more than light turbulance; and a small risk that the situation would change during the duration of the mission. The weather forecast provided to COMJTF, DCOMJTF and the aircrews satisfied all of these criteria. However, during the mission, the aircrews encountered a reduction in visibility later determined to be suspended dust.

(U) (S) This unforecast phenomenon had no effect on the ability of the MC/EC-130s to navigate to Desert One. The helicopters had planned to navigate by visual reference with the ground using NVG's at low altitude. The reduced visibility seriously impeded their progress, causing all to be late arriving at the refueling site. When compounded by the loss of visual contact with the other aircraft and mechanical failures which would not support further flight in the area of reduced visibility, the aircrew of helicopter #5 decided to abort.

QUESTIONS:

1. (U) Should COMJTF and the weather forecasters been aware of the unforecast phenomenon?

2. (U) (C) Should planning have provided for a reconnaissance aircraft to precede the mission?

3. (U) (C) Should the lead ~~MC-130~~ have been tasked to conduct reconnaissance and report significant unforecast flight weather conditions?

4. (U) Should planning have stipulated specific weather abort or modified route criteria and should it have developed specific weather abort or avoidance procedures?

5. (U) Was there sufficient basis for the Desert One Commander to report flight conditions to COMJTF?

6. (U) Should COMJTF have initiated action to further assess the situation after being informed that the visibility was reduced to zero.

DISCUSSION: (U)

Question 1. (U) Should COMJTF and the weather forecasters have been aware of the unforecast weather phenomenom? Mission weather had always been a prime subject and a great deal of emphasis had been placed on forecasting. Weather had not always been favorable during rehearsals and, in the interest of peacetime safety rules a mission abort had occurred during a mission rehearsal because of weather. COMJTF and his staff had high confidence in the select team of Air Weather Service (AWS) personnel and the resources provided to them. The forecasts for the mission had been provided to COMJTF on an almost daily basis and had been verified the next day. During Jan, the daily forecasts and verifications revealed periods of forecast uncertainty and occasional misses which could have led to an inappropriate mission execution decision. Subsequently, forecast accuracy improved during the spring as the weather team increased their knowledge of Iranian climate and the forecast experience level rose.

(C)(TS) AWS climatology studies and data availability surveys had been conducted. All available data and appropriate resources were brought to bear on the mission. COMJTF and AWS fully recognized that there were no reliable weather reporting

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stations in the proximity of the helicopter route. This was of concern and it caused the forecasters to exercise special attention in developing mission forecasts. The weather briefing provided on 24 Apr was well within the execution criteria. The afternoon meteorological satellite imagery (1053Z) used in the briefing depicted a clear sky with well defined terrain along the portion of the helicopter flight route later affected by suspended dust. An experienced senior [redacted] who was very familiar with weather conditions in this area of Iran stated that the weather looked good and he saw nothing to worry about.

(U) The Commander of AWS conducted an extensive post mission analysis to determine the validity of the mission forecast. His conclusions were that, except for the dust phenomenon, all features of the forecast for Iran were verified. AWS noted that one could speculate that a down rush of air from forecast (and actual) thunderstorms 30-60 miles to the west could have been of sufficient magnitude to lift and spread fine powdery dust into the air along the route of the helicopters. The AWS also noted that none of the available weather reporting stations spread across central Iran indicated the presence of widespread suspended dust or restrictions in visibility. AWS concluded that this occurrence was a very localized phenomena. To forecast such an event, and its spatial and temporal extent with any degree of reliability is beyond the state of the art.

(U) At the request of the Joint Staff, the National Weather Service (NWS) conducted an independent assessment of the weather support provided by AWS for the mission. The NWS group consisted of the Chief, Scientific Services Division, Western Region; Chief Scientist of the Satellite Applications Group, National Environmental Satellite Service; and a highly experienced consultant of the office of the Federal Coordinator for Meteorology. AWS provided data to the group concerning planning, weather forecast, and post mission verification. The NWS group found that the logistical and technical preparations were adequate. They also noted the lack of weather reporting stations. The NWS group concluded that the support provided by the AWS was professionally planned and executed. NWS also stated that the dust phenomenon was probably caused by the down rush of air from the thunderstorms 30-60 miles to the west of the helicopter route. Their report concluded by stating that the forecasts were as accurate as the data available and the state of the art in meteorology permitted.

(C) Although extensive planning and forecasting had been accomplished by a select team for this mission of special importance, it remains a fact that weather forecasting is not yet a perfect science. Meteorological satellite visual imagery prior to (24/1053Z) and after (25/0729Z) the mission did not indicate the presence of the suspended dust phenomenon. In the [redacted] during the mission (24/1503Z) the area of suspended dust was masked by Cirrus clouds which blocked observation [redacted] of the phenomenon. This particular region in Iran did not have operable reporting stations either

prior to or during the mission. Observations of the current state of the atmosphere form the basis for forecasts: thus the absence of observations makes forecasting extremely difficult; further, the inability to verify forecasts without observations prohibits knowing whether forecasts are good or not. In the instance that occurred on 24 Apr, the state of the art of meteorology did not enable AWS to be aware of the probability of occurrence of the suspended dust phenomenon. It is probable that if the mission had not been executed on 24 Apr the JTF would not have known that the phenomenon had occurred. If such was the case, it may occur more often than known. Assistance from personnel indigenous to the area, or the existence of more historical data than was available or retrievable may have enabled AWS and the JTF to have had a greater appreciation for the phenomenon. The Joint Staff pursued the idea concerning assistance from indigenous people, both during the planning stage and in retrospect after the mission. OPSEC precluded conducting an effort to locate Iranian meteorologists who might have resided in the United States or elsewhere outside Iran. The sole AWS unit in Iran prior to the revolution operated a solar observatory and did not provide routine weather observations or forecasts. Those AWS officers assigned to the MAAG in Iran performed staff functions and did not prepare weather forecasts for the country.

(S) In Jun 80 the Joint Staff questioned the Deputy Federal Coordinator for Meteorological Services and Supporting Research concerning the availibility of knowledgable individuals familiar with forecasting weather in Iran. [redacted]

[redacted] who had headed a group under contract to establish a meteorlogical service for the Iranian military, stated that there is no known available resource with weather forecasting experience in Iran, either—Iranian or otherwise in NWS, that could have been used for the hostage mission.

(U) (C) In retrospect, it may be concluded that the JTF and AWS could not totally recognize the limitations to accurate forecasting in this area as caused by the lack of reporting stations along the helicopter routes. Had COMJTF and his staff fully recognized these limitations, and the implication thereof, more consideration may have been given to planning for the lead C-130 to perform a weather reconnaissance on the route the helicopters would fly.

Question 2: (U) (S) Should COMJTF have provided for a weather reconnaissance flight to precede the mission? COMJTF did not elect to specifically task the lead MC-130 aircrew or Desert One Commander to make a weather report on unforecast weather during their route to Desert One. This judgment was based in part on the JTF concept which called for operations in radio silence except for preplanned progress reports, for emergencies of a serious nature, or if a complex situation developed which required the commanders to consult with COMJTF. The judgement was also based on the JTF orientation toward the conduct of the mission: once the force was launched and entered Iranian airspace the mission should continue to successful completion. The mission would be aborted only if preplanned criteria could not be met or unpredictable events made mission continuation infeasible. This is not to say

certain weather conditions would not be reported by the Desert One and helicopter commanders or that they would not recommend weather aborts. Sustained clouds, enroute thunderstorms, moderate to heavy turbulence, a severe sandstorm or a headwind component of over 15 knots were weather conditions that the Desert One Commander and the Helicopter Flight Leader would readily recognize as a condition that could cause abort. Not appreciated, however, was the need to evaluate the grey area of determining inflight visibility at night. As a result of high confidence in the accuracy of weather forecasts, the JTF did not consider inflight visibility to be a potential problem area. Even if COMJTF had had previous knowledge that unforecast events such as the dust phenomenon could occur and not be observed as development occurred, it would have been unwise to schedule a premission weather reconnaissance flight. Operations security would have been jeopardized significantly. Furthermore, there is no indication that a weather reconnaissance aircraft flying over the route in afternoon hours would have encountered the suspended dust phenomenon.

Question 3: (U) (e) Should the lead MC-130 have been tasked to conduct visual reconnaissance and report significant unforecast flight weather conditions? The JTF could have tasked the Desert One Commander aboard the lead MC-130 to report any weather or inflight conditions that would have significantly affected helicopter mission performance. Alternatively, a qualified helicopter pilot could have been tasked to be aboard the MC-130 to observe and report appropriate weather and flight conditions. Either of these alternatives could have been employed flying the MC-130 profile as flown or to have flown the exact helicopter routes at 500 to 1,000 feet above ground level (AGL).

(U) (S) Had the lead C-130 been specifically tasked to fly and report on the helicopter mission profile, the aircrew might have judged the visibility condition to have been to restrictive for helicopter operations (flight visibility restriction was more severe on the helicopter profiles). Had a qualified mission helicopter pilot been aboard as an observer and specifically directed to report significant unforecast conditions such as visibility restrictions, he would have probably reported the marginal operating conditions. The value of such a report to COMJTF and the helicopters is speculative. COMJTF would not likely have decided to abort the mission. The mission had progressed too far to make a subjective judgement at this point. A premature abort would have delayed the mission for at least 24-72 hours while the JTF waited for favorable conditions to reinitiate the rescue mission. Under these conditions there would be substantial risk that the mission would be compromised either by discovery of the #6 helicopter in the desert or by Iranian, Soviet, or third country intelligence.

(U) (S) It is possible that a report might have enabled COMJTF and the Helicopter Flight Leader to be more prepared to deal with the dust or alter the route to minimize exposure to it if such a route could have been provided. (Even if the lead C-130 had considered an option to determine an alternate route there was not sufficient fuel available to establish a search pattern, and still accomplish the mission at Desert One.) The helicopters could not significantly change the route at this stage and there would have been little basis to climb unless the report could have included the altitude of the top of the phenomenon. A timely report could have enabled COMJTF to modify the policy which called for silence

on unsecure radios. But this is speculative because of OPSEC considerations. If the proper information could have been included in a report, it is possible that it would have alerted the Helicopter Flight Leader so he could have restructured the formation to optimize their capability to penetrate an area of reduced visibility. The helicopters could have then proceeded in more manageable flights of two with operable navigation aids in each flight.

Question 4: (U) ~~(S)~~ Should planning have stipulated specific weather abort or procedures to modify route criteria and should it have developed specific weather abort, or avoidance procedures? The helicopter pilots had experienced weather conditions during training rehearsals which required an abort. That decision was not questioned in the training environment. Crews trained and repeatedly demonstrated the ability to navigate in reduced visibility using night vision goggles. However, they were not equipped to fly in clouds for extended periods at low level in mountainous terrain. The RH-53 did not have nor could it be modified in time to have the necessary equipment required for navigation under these conditions. Radar and FLIR equipment would be required. Had the lead C-130 encountered thunderstorms enroute, extended low clouds, or a sandstorm it would have been reported. Depending on the severity of the conditions reported the mission could have been aborted or the route profile altered. Similarly the helicopters would not have continued, once they encountered thunderstorms, low clouds, a sandstorm, or turbulence. Any of these conditions experienced on a prolonged basis would have caused the Helicopter Leader to recommend an abort. Criteria for abort based on inflight visibility are always subjective, and in particular

for this mission. What matters for these helicopter pilots is sufficient, if only infrequent, visual contact with the terrain through the night vision goggles to verify that they are on course and to determine progress during the mission profile. It is not feasible to pre-establish a firm criterion. If one was set, it could cause a premature abort or a situation where the pilots might feel compelled to continue beyond their individual capabilities. This group was highly trained and competent. For this mission, exacting inflight visibility criteria or procedures would not have been helpful nor desirable. The visibility criteria that could have been applicable would have been to identify any reduction in visibility that would have precluded safe refueling at Desert One or would have exceeded the capabilities of individual pilots to negotiate the route.

(U)

Question 5: ~~(S)~~ Was there sufficient basis for the Desert One Commander to report inflight conditions to COMJTF and the Helicopter Flight Leader? Given the flight conditions he observed during the mission, he cannot be faulted for the judgement he made. He was unable to define the conditions and the effect they would have on the helicopter pilots ability to navigate in them. The mission guidelines for minimum essential communications was another factor in not making a report of questionable value to COMJTF.

Question 6: ~~(TS)~~ Should COMJTF have initiated action to further assess after being informed that the visibility was reduced to zero? [redacted]t was difficult to monitor secure TACSAT transmissions by helicopter #1. This was due [redacted] to propagation and the less efficient TACSAT carried

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on the helicopter. DCOMJTF [redacted] was however better able to monitor transmissions and frequently relayed. When the Helicopter Flight Leader reported reduced visibility at approximately 1805Z, the JTF Chief of Staff immediately consulted with the JTF Weather Officer. The Weather Officer was questioned about the reduced visibility but he had insufficient data on which to base any judgement. COMJTF [redacted]

E [redacted] did not receive the report made by helicopter #1 that he had landed leading to an erroneous assumption that he was still enroute. It is not known if propagation precluded voice reception, but in any event the fact that the Helicopter Flight Leader had landed was not known by COMJTF until the Helicopter Flight Leader reported at 1845Z that he was airborne and enroute. (He had been airborne for for 20 minutes at this point). The JTF staff queried the Flight Leader on the status of the other aircraft and he replied that he assumed that at least six were enroute to Desert One. (He could not be sure of the status of the two helicopters that landed approximately one hour and forty-five minutes earlier). COMJTF did not have the knowledge of the geographical extent of the dust phenomenom nor did he have information on the location and status of the other four helicopters. Since there were no other reports of visibility problems, COMJTF assumed that the dust phenomenon was localized. At 1910Z JTF Headquarters queried the Flight Leader on his status and he responded that he was still in reduced visibility conditions and was proceeding to Desert One. The Flight Leader requested the Desert One weather conditions which were provided, followed by several communications pertaining to estimated time of arrival at Desert One for the Helicopter Flight Leader and arrival times of helicopters #3,4,7, and 8. During these events COMJTF assumed that since the Flight Leader made no other calls, no further assistance was required. CONFIDENTIAL

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(S)(U) Upon receiving the reports that the Helicopter Flight Leader had encountered reduced flight visibility and was again enroute to Desert One, COMJTF could have begun a dialogue with the Flight Leader to obtain more information on the extent of the visibility reduction and status of other helicopters. This would have required modification to communications procedures as several transmissions would have been required on unsecure radios. Factors to consider were, extent of visibility problems, the absence of reports from other helicopters (through the Flight Leader) that they required assistance or guidance and the trade off for the highly undesirable possibility of communications compromise.

EVALUATIONS:

1. (U) Expert opinion is that the weather forecasts were as accurate as the data available and the state of the art in meteorology permitted. Therefore, neither COMJTF nor the forecasters should have had reason to suspect that such a localized phenomenon would exist.

2. (U) (C) A weather reconnaissance aircraft preceding the rescue mission could have compromised the mission. Since late afternoon weather satellite photography showed crisp sharp terrain features along the route where the dust was later reported, it is questionable as to whether or not it would have been detected.

3. (U) (C) The lead MC-130 could have been tasked to conduct reconnaissance and report significant unforecast conditions. Such a report may have better prepared the Helicopter Flight Leader for penetration into the area and would most likely have provided a warning to COMJTF prior to receiving the Helicopter Flight Leader's call that he had encountered zero visibility.

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4. (U) The Desert One Commander or the Helicopter Flight Leader would have recommended an abort in the event unforecast significant weather that would have known impact on helicopters such as thunderstorms, sandstorms, sustained clouds, turbulence or severe headwinds had been encountered. However, for a mission of this type and importance, establishment of specific weather abort criteria for inflight visibility could cause a premature abort or a situation where pilots might feel compelled to continue beyond their individual capabilities.

5. (U) (S) The Desert One Commander assessed the visibility situation he observed, in context with the weather criteria he thought necessary for helicopter operations and decided that there was no basis for an alert to the phenomenon.

6. (U) A report by the lead C-130 of the existence of the phenomenon to COMJTF could have alerted him and his staff earlier to problems which might impact on the mission. While the actions he might have taken are speculative, he would have had the opportunity to prepare alternative courses of action and modify communications procedures to enable exchange of more information. Such a report would have possibly alerted the Helicopter Flight Leader to begin considering an alternative plan or flight profile.

7. (U) (S) Had COMJTF modified COMSEC procedures more information could have been shared by COMJTF, the Helicopter Flight Leader and the Desert One Commander. This would have reduced stresses at Desert One and provided more time to prepare for helicopter arrivals. It would have been known immediately when helicopter #5 aborted his flight and when helicopter #2 indicated he would require maintenance actions at Desert One. The unknown is whether the unsecure radio calls would have compromised the mission.

COMMUNICATIONS

BACKGROUND:

(U) From the onset, it was recognized that the major communications problem would be to provide a means of positive, secure two-way communications between COMJTF at his deployed headquarters location and the operational forces during the entire time the force would be in Iran.

(U) Access to UHF satellite communications was considered essential to provide the reliability and quality needed for this mission. HF voice had previously been the only means of providing long distance communications with aircraft and operating forces deployed at great distances. HF would not provide the connectivity and reliability that would be essential for this mission but would be used as a secondary means if the UHF satellite system failed.

(U) A portable satellite terminal was required to provide discrete communications between COMJTF, the DELTA Commander, the Ranger Commander and the Helicopter Commander. In early November, it was determined that a newly developed radio, the PSC-1 would satisfy this requirement. However, since this radio was still in engineering development, only four models were available. While this number was sufficient for this net, a problem still existed: the PSC-1 was not compatible with the non-portable WSC-3 TACSAT radios available to some of the other mission elements.

(U) By December DELTA had identified a new portable radio which held promise for use as a satellite terminal although it was not designed for such use by the manufacturer. This radio,

the PT-25, was satisfactorily tested as a satellite terminal. In addition, it was compatible with the PARKHILL encryption device, which was the only secure voice device available in sufficient quantities to meet mission needs. The portable PT-25 was compatible with TACSAT WSC-3 and permitted all JTF command elements to participate in a common tactical command and control net. Ten PT-25's were purchased and modified. From that point on, they played prominently in the training and planning for support of the ground operational forces. (The four PSC-1s were retained to provide the COMJTF and the three operational commanders with discrete, redundant voice communications.)

(U) Operating the PT-25 and PSC-1 with various antennas while airborne in MC-130 and RH-53 aircraft proved the feasibility of direct, secure SATCOM communications using these radios. A series of experiments and modifications led to the development of a hatch-mounted antenna system that, when combined with the WSC-3, worked effectively from fixed wing aircraft. Eventually, four C-130 hatches and one C-141 hatch were modified to provide the essential airborne satellite capability for the projected fixed wing force. A solution to the helicopter configuration was more elusive because the antenna used successfully on fixed wing aircraft for the WSC-3 could not be accommodated on the helicopter. Eventually, a compromise system consisting of an existing UHF blade antenna was adopted. Although not as reliable nor effective as the fixed wing system, its performance was considerably better than that which could be expected from onboard HF radios for long distance communications. Portable ground TACSAT terminals were to be provided to seven of the helicopters for use should they be separated or otherwise be required to land.

(C) A radio operator, familiar with the equipment and proficient in working with PARKHILL, was assigned to each TACSAT terminal to increase the probability of copying marginal transmissions. Use of a radio operator required that all voice traffic be passed from the sender to the operator who would transmit the message. Incoming messages would be passed to the intended recipient. Accuracy of transmission content is sometimes lost using this procedure, consequently operators were not used at all times or at all locations. Previous deployments to the Persian Gulf area had indicated propagation problems could be expected between sunset and sunrise. Each of the airborne and ground forces was to have available TACSAT terminals for airborne and ground use along with portable HF radios for backup.

B (S) The JTF [redacted] was supported by two TACSAT terminals for use with deployed forces and [redacted] terminal accessing the Defense Communications System for connectivity to Washington. This link was backed up by another TACSAT terminal with direct access to the Pentagon.

QUESTIONS:

1. (U) Did the communications capability meet the essential needs of the mission as planned?

2. (U) Was the communications support flexible enough to meet the demands of the JTF once unforecast and unexpected situation occurred?

DISCUSSION:

(U) (TS) As finally deployed, one secure airborne satellite system was provided to the Helicopter Flight Leader, the AC-130 flight, the C-141 flight, the EC-130 flight and two for the

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MC-130s which were to operate from two locations. It was envisioned that except for the helicopter flight, the satellite equipped aircraft would relay to and from other flight members pertinent information using NESTOR (KY-28) secured air to air communications. The JTF decided not to use the KY-28 on the helicopters. The helicopter pilots would use their UHF/VHF radios only for bonafide emergencies and the KY-28 would impede short, crisp emergency transmissions. The lead helicopter would use the secure WSC-3 TACSAT for essential reports required by COMJTF and to request assistance. Sixteen reports were specifically directed for the mission. Only six were required on Night 1. Any additional transmissions would be dictated by circumstances and made at the discretion of the commander concerned.

(TS) By 24 Apr five fixed stations had been established and were operational - JTF HQ, JTF Relay, USS NIMITZ; [redacted] Airborne SATCOM terminals on fixed wing aircraft had been checked and were ready. On board the NIMITZ final checkout of airborne and portable TACSATs had detected two inoperable PT-25 units. This meant only five helicopters would have ground TACSATs.

(S) Both the MC-130/EC-130 aircraft enroute [redacted] to Desert One and the helicopter flight from the NIMITZ used available communications systems to make required reports or as necessary to meet other requirements. In addition all of the fixed and afloat stations made calls as necessary on the secure TACSAT net to insure the operational status of the network or to pass information relative to the progress of the mission.

Question 1: [redacted] (U) Did the communications capability meet the essential needs of the mission as planned? Five mandatory reports were required during the mission. All were transmitted and received.

Question 2: (U) Was the communications support flexible enough to meet the demands of the JTF once unforecast and unexpected situations occurred? As established in the operating instructions, radio silence procedures over unsecure radio were imposed on all elements once the mission execution order was given. This silence could be broken only under the following conditions:

(1) Transmission of required reports(using codewords);

(2) To transmit emergency or distress traffic; and,

(3) Absolutely minimum essential air-to-air traffic enroute.

The need to maintain strict COMSEC was endorsed by NSA. As (U) indicated by NSA, the risk of detection rises, in terms of propagation flukes taking signals to unexpected points, with every transmission.

(U) Transmission over the secure WSC-3 and PT-25 radios was permitted when the commander concerned considered it necessary. The force used the secure TACSAT net when it was essential. However, with the unforecast weather, followed by the decision to abort at Desert One and the subsequent crash, the frequency and diversity of calls on this single net grew substantially. This increase in dialogue now accentuated what had been previously minor inconveniences. The degradations in voice quality resulting from the use of PARKHILL, propagation problems, operating from manuevering airborne platforms, prototype manpack terminals and the inexperience of some of the equipment users led to frequent

repeats and occasional garbled calls. In spite of these inconveniences the systems and procedures served to provide for an acceptable level of information exchange. In contrast, had the JTF been required to rely on HF, little real time command and control would have been possible.

EVALUATION:

(U) The communications capability met the essential needs of the mission as planned.

(U) The communications support was sufficient to meet the unexpected demands of the mission and the JTF, but the quality did not enable JTF Headquarters to receive real-time information. Two important messages were not received; the call from the Helicopter Flight Leader that he had landed, and the call from Desert One that the crew from helicopter #6 was at Desert One.

ENROUTE TO DESERT ONE

BACKGROUND:

~~(TS)~~ (C) The execution order was transmitted to the forces at 1250Z. At 1405Z the lead MC-130 departed [redacted] enroute to the refueling site (Desert One). One hour later eight RH-53Ds departed NIMITZ. These aircraft were scheduled to arrive at the Iranian coast at 1530Z. Between 1518Z and 1527Z the remaining MC/EC-130s departed [redacted] in two flights.

(U) (S) At 1630Z, the lead MC-130 entered an area of reduced visibility where visual contact with the terrain could not be maintained through the NVGs. The flight passed thru the area in approximately fifteen minutes. The pilot reported this to the Desert One Commander who observed the phenomenon and noted that it was not visible on the FLIR. He considered reporting the situation to COMJTF, but not knowing what the phenomenon was or the visibility at the altitudes being flown by the helicopters, he decided not to make a radio transmission. At about 1700Z, the MC-130 encountered another area where visibility was reduced for approximately fifteen minutes.

~~(S)~~ (U) At 1700Z, the pilot of helicopter #6 observed the Blade Inspection Method Warning Light illuminate indicating possible main rotor blade failure. According to pre-briefed procedures, he turned on his upper rotating beacon (signifying an emergency landing), reduced airspeed and landed. Helicopter #8 had been tasked to pick-up the crew of any aborting aircraft. He observed the beacon and accompanied

accompanied #6 to a landing. The crew in the lead helicopter saw the two aircraft leave the formation and informed the Helicopter Flight Leader who, in turn, notified COMJTF by secure radio that two aircraft had landed.

(U) At 1737Z, [redacted] KC-135s took-off [redacted] to provide refueling support to the MC/EC-130s, if required during egress.

(U) At about 1740Z, the helicopters entered the area of unforecast reduced visibility. The Helicopter Flight Leader attempted to maintain visual reference to the ground for navigational purposes. When the visibility deteriorated to near zero, the Flight Leader elected to reverse course, return to clear air and land so he could consult with his flight and develop an alternative plan. He transmitted a message to COMJTF that he had landed. The Flight Leader was not aware that four of the aircraft (#3,4,5 and 7) did not see him turn and had continued on course.

(U) At 1810Z the lead MC-130 landed at Desert One.

(U) By 1845Z seven helicopters were enroute to Desert One in three elements. A flight of four (#3,4,5 and 7) was in the lead, helicopter #8 (with the crew of #6) was about 30 minutes behind the leading flight and helicopters #1 and 2 were about 15 minutes behind #8. All were in the

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areas of reduced visibility.

(U) About 1850Z, the pilot of helicopter #5 lost visual contact with the other aircraft in the flight. Knowing that #7 was on his left, he immediately turned right and descended to establish horizontal and vertical separation. At one point he attempted to land but could not see the ground at 75 feet AGL. He was unable to regain visual reference with the terrain for navigational purposes. His TACAN was inoperative which caused him to doubt his ability to locate Desert One since he assumed visibility would also be bad at Desert One; he was unable to receive the VOR navigation aid at Darband; a failed Heading Indicator seriously degraded his ability to navigate through a mountain pass ahead; his PINs had earlier been noted to be approximately 5 NM in error; and he had no knowledge of the extent of the dust phenomenon. Therefore, the pilot elected to abort and return to NIMITZ.

(U) Simultaneously, unknown to the Helicopter Flight Leader, helicopter #2 was beginning to experience a loss of hydraulic pressure in the secondary stage which powers part of the Flight Control System. Normally cause for abort, the pilot elected to continue to Desert One where he would attempt to have the malfunction corrected. This information was not passed to the Helicopter Flight Leader.

(U) Between 1910Z and 1920Z the five MC/EC-130s landed at Desert One on schedule and began preparations to receive and refuel the helicopters. MC-130s #1 and #2 departed Desert One at 1924Z.

(U) Helicopter #5 did not have a secure radio installed for use inflight. By 1946Z, he was concerned that he did not have sufficient fuel to return to the carrier and elected to notify NIMITZ by unsecure HF radio. COMJTF, DCOMJTF, the Desert One Commander, and the Helicopter Flight Leader did not receive this transmission and were unaware helicopter #5 had turned back. (This information was relayed to COMJTF by another facility at 1951Z.)

(U) At 2022Z, the first three helicopters landed and refueling operations began. Helicopter #8 arrived at 2050Z. Helicopters #1 and #2 landed at 2101Z whereupon it was determined that #2 was not mission capable. Five mission capable helicopters were on the ground and six were required to continue the mission.

QUESTIONS:

1. (U) Did the planning and training overemphasize radio silence to the extent that necessary radio transmissions were not made?

2. (U) Were there adequate procedures to insure recovery of aircrews of downed helicopters?

3. (U) Were the helicopter pilots overly concerned with the requirement to remain at low altitude to avoid radar detection?

4. (U) Were the additional navigation aids (PINS and OMEGA) installed on the helicopters adequate for mission success?

5. (U) Was there a valid basis for the judgement that eight aircraft were sufficient?

6. (U) What were the probabilities that the required number of helicopters would remain operational at the refueling site (Desert One), and the helicopter hide out?

7. (U) Assuming that eight would provide a high probability of mission success, why were not more placed on board the aircraft carrier and flown on the mission as additional insurance?

8. (U) What additional actions could have been taken to increase helicopter reliability?

9. (U) Should an operations analyst or maintenance analyst have been able to predict the failure?

10. (U) Were the items selected to be in the helicopter cross country kit adequate to support the mission?

11. (U) Were the helicopter pilots adequately trained to perform the mission as planned?

DISCUSSION:

Question 1: (U) Did the planning and training overemphasize radio silence to the extent that necessary radio transmissions were not made? Throughout planning and training the JTF had worked extensively to maintain OPSEC. The single and most

overriding principle that would determine mission success was the ability of the force to train for months, deploy over a period of a week, hold in position for a few days, penetrate deeply into a hostile country, and then remain undetected for 36 hours during mission execution so as to arrive at the American Embassy and enter under conditions of total surprise. Radio silence, particularly unsecure radio silence was a major factor in the OPSEC success the JTF did enjoy. All elements equipped with secure radios did use those radios when required to make mandatory reports or notify COMJTF of significant developments. Of the helicopters, only #1 had a secure radio adapted for use in flight.

(U) ~~(C)~~ Had the Desert One Commander determined that the phenomenon was of grave importance and a report of the inflight visibility conditions was necessary, he could have done so on his secure TACSAT radio without significant risk of compromise. He did not send a report for other reasons discussed earlier.

((U)) (C) Except for helicopter #5, the helicopters did not use unsecure radios. They elected not to transmit because silence meant that the mission was proceeding. Silence also indicated that there were no emergencies that warranted a transmission. Each of the pilots was encountering difficult flight conditions and these conditions thoroughly taxed their abilities. None of them felt, however, that the situation warranted radio transmissions and resultant possibility of mission compromise. An exception, was when

helicopter #5 decided to turn back after he lost critical navigation instruments. His helicopter was not configured for secure inflight TACSAT. After some time, he elected to use his unsecure high frequency radio to report to the NIMITZ that he was returning - this was an urgent message because there was doubt that he had sufficient fuel to return.

(S) (U) COMSEC was an important factor to the Joint Task Force and was essential to mission success. Emphasis was so great that the helicopter crews conducted premission execution training almost entirely without the use of radios. It was the intent of the helicopter crews that the first night's operation would be conducted using radios only for an emergency situation. There were times during the transit from launch to Desert One that radio transmissions could have provided valuable information that may have had an impact on the conduct of the mission. As an example, had the Helicopter Leader called for the flight to join him when he landed, a modification to the existing flight composition might have resulted. (There are no indications number five would have proceeded even had he known of the weather at Desert One. As discussed elsewhere in the report, helicopter system failures made continuation infeasible.) Had all concerned known of delays in helicopter arrival times and the fact that number five turned back and number two might not be able to continue, additional time would have been available in the event alternate plans were to be discussed. Lack of information available to some and not shared with others hindered mission execution. It is noted

that policy prohibited transmissions on nonsecure radios except in emergency situations. The helicopter pilots complied with this procedure. Had a greater variety of problems been shared and had the helicopters been equipped with secure UHF or VHF and had these radios been used, the mission may have progressed differently. The unknown is the degree of compromise that would have occurred had these items been discussed on the radio.

(U)
Question 2. (S) Were there adequate procedures to insure recovery of aircrews of downed helicopters? At approximately 1700Z the pilots in #6 helicopter observed the Blade Indicator Method warning light illuminated. The light indicates a possibility of impending main rotorblade failure which, if it occurs, results in catastrophic failure of the helicopter. In accordance with the flight manual instructions and mission criteria the pilots turned on their upper rotating beacon, a signal that they intended to land, and landed in an isolated lake bed. Helicopter #8 was the designated helicopter to pickup crews from disabled aircraft and he automatically followed #6. The crew chief of #6 helicopter reported that a separate mechanical indicator on one of the blades also indicated impending failure. They transferred classified material to #8 and continued to the refueling site. They did not destroy aircraft #6. The JTF's premission guidance was to not destroy abandoned helicopters enroute because they did not wish to draw attention by fire or explosion of the abandoned helicopter.

(U) This procedure for downed aircraft and pickup by another helicopter had been validated during rehearsals, on at least two occasions.

Question 3. (U) Were the helicopter pilots overly concerned with the requirement to remain at low altitude to avoid radar detection? Concern of possible radar detection was allegedly a factor for at least one of the pilots. [redacted]

C [redacted] (the helicopter detachment S-2 was not aware of the discussion, and would have corrected the information had he known of it). Each of the pilots made an individual decision that he should fly the profile at the altitude they had trained at for many months. The fact that six helicopters arrived, although late, (one returning because of weather and faulty instruments) supports their procedures and abilities as highly trained pilots to navigate in this environment.

(U) (S) The information concerning Iranian radars which was briefed to the helicopter crews was the same as that briefed to the C-130 crews. After passing the first mountains there was virtually no threat of radar detection up to the service ceiling of the RH-53D. The perception of a greater threat by one pilot was without factual basis.

Question 4: (U) (S) Were the additional navigation aids (PINS and OMEGA) installed on the helicopters adequate for mission success? The PINS and OMEGA were useful aids to low level navigation but were not considered to be sufficiently reliable and accurate to enable navigation using them alone without terrain references. Confidence in the PINS and OMEGA, when known to be accurate, was of such a nature, as

to be an aid to navigation on this mission. PINS is adversely affected by low airspeeds (below 70 knots) and high angles of bank.

(U) One can speculate on the advisability of their individual decisions to attempt to remain at low altitude in the dust rather than climbing to higher altitudes and continuing onward employing the heading, time and distance procedure for navigation with PINS and OMEGA as an aid. Mission debriefings indicate that five of the PINS and three of the OMEGA systems were considered by the aircrews to have been sufficiently accurate for navigation.

Questions 5,6 and 7: (U) Was there a valid basis for the judgement that eight aircraft were sufficient? What were the probabilities that the required number of helicopters would remain operational at the refueling site (Desert One), and the helicopter hide out? Assuming that eight would provide a high probability of mission success, why were not more placed on board the aircraft carrier and flown on the mission as additional insurance? To answer these questions, it is necessary to address several areas: the history of these specific aircraft; the failures experienced on the mission; and an analysis of RH-53D abort data to determine the probabilities of mission success. There were eight RH-53D's on the NIMITZ. Throughout the planning process the JTF assessed and reassessed the number of helicopters required on board the carrier. It was the collective judgement of the helicopter detachment and JTF Staff that eight would be sufficient to provide the desired number of

mission aircraft and flying spares. The JTF had closely tracked the condition of the helicopters and the US Navy had applied special programs and procedures to insure they would all be in top condition and all would be mission capable. The JTF sent helicopter detachment representatives to inspect the aircraft on two occasions, the last being three weeks prior to deployment of the crews to the NIMITZ. The Detachment Maintenance Officer went on the last trip. While on board the NIMITZ he worked closely with the HM-16 helicopter squadron Maintenance Officer who had deployed with the squadron on 20 Nov 79. Working together, they developed a special list for maintenance inspections. The HM-16 Maintenance Officer developed a checklist that called for inspection, repair, or change of items, as appropriate, to assure that any parts and components subject to failure received a critical review. The aircrews and maintenance officer came aboard the NIMITZ on 20 Apr 80. They inspected and flew their assigned aircraft. One helicopter, #8 in the flight, had been non-mission capable for several weeks, but maintenance personnel corrected the discrepancies in time for the aircraft to be flown by the mission aircrew. This aircraft, #8, performed well during the mission. All pilots were completely satisfied with their aircraft. Except for helicopter #8, each of the other seven helicopters had averaged over 24 hours of flight time per month for the previous two months and had flown numerous flights where the duration of the mission was four hours. The pilots stated they were in the best condition of any they had flown.

(U) All eight helicopters departed NIMITZ on schedule. Two hours after takeoff #6 helicopter landed and was abandoned because of an unsafe rotor blade indication. Approximately two hours prior to landing at Desert One helicopter #2 lost hydraulic pressure in the secondary hydraulic flight control system. The pilots continued the mission expecting to be able to repair the aircraft at Desert One. Upon landing at Desert One, the crew chief and hydraulics man found an extensive leak in the vicinity of a jam nut, on the second stage return line of the forward flight control servo (located outside the aircrew and cargo compartments). This failure allowed hydraulic fluid to leak from the system. Since the number two hydraulic pump requires fluid for cooling, the result was a burned out and inoperative pump. There was no pump available to replace it, a spare had not been included in the cross-country kits since the pumps seldom fail. If one had been available, it could not have been changed and serviced in time to enable the aircraft to continue and arrive at the hideout before daylight.

(U) About three hours and 45 minutes after take off, helicopter #5 experienced failure of critical navigation and flight instruments. The pilots determined that mission continuation was not feasible or safe in the environment encountered and returned to the NIMITZ. After landing on NIMITZ, it was determined that a blower cooling motor had failed. This blower cools the power supply. It in turn failed due to overheating, rendering the primary heading indicator

inoperative. Upon #5's return to NIMITZ HM-16 maintenance personnel found one duffle bag and two flight jackets positioned next to the air cooling intake. Had these items been in this position during flight, they would have severely restricted airflow. It cannot be determined with certainty whether or not they were in position during flight. A highly experienced USN RH-53D pilot was the aircraft commander and his crew chief, also USN, was highly experienced in the RH-53D. During training briefings of helicopter aircrews, this aircraft commander had stressed the importance of the cooling intake remaining free of obstructions. It is highly unlikely that they would have permitted the items to be in position at preflight inspection and subsequent flight. The consequences were well known by all crew members and, therefore, they would not likely have positioned the items during flight.

(C) (~~PS~~) To insure a high degree of mission success it was determined that a minimum of five operational helicopters would be required to extract the former hostages and rescue forces from the two helicopter landing zones (HLZ) in Tehran. This number was based on the numbers of people to be lifted (a total of [redacted] and the lift capabilities of the RH-53D's given the probable temperatures and density altitudes in Tehran during this time frame. There was an alternative plan to be employed should there have been less than five RH-53D's available for the extraction. However, this entailed probable refueling of one or more RH-53D's at Manzariyeh and returning to the HLZ to extract the remaining personnel. Because this action would take in excess of one hour, it would

have placed those remaining at the HLZ at extreme risk. Given the requirement to have five operational helicopters for the extraction, it became necessary to examine RH-53D abort data to determine aircraft reliability and mission requirements at various stages of the operations. Three sets of failure data are available.

(U) (C) First, pre-flight and in-flight abort data for the entire fleet of 30 RH-53's for the period of 1 Jul 78 through 31 Dec 79 were examined. It was determined that the pre-flight abort data, expressed in terms of aborts per 100 flight hours, was not useful. However, the fleet average of 3.3 in-flight aborts per 100 hours did provide useful data.

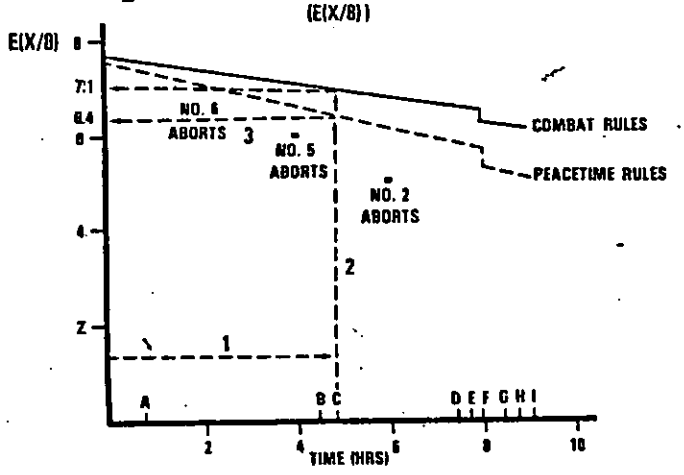
(U) (C) Second, maintenance records from the NIMITZ for the forty-five days immediately prior to mission execution indicate that the seven aircraft that were operational during this period experienced a pre-flight abort rate of 6.3 per 100 flights and an in-flight abort rate of 3.8 per 100 hours. However, the in-flight abort rate was reported to have been skewed upward because of a high number of pre-mission maintenance flights. Therefore, for the purposes of this analysis, pre-flight abort rates from the NIMITZ and fleet-wide in-flight abort rates were used.

(U) (C) Third, each abort experienced aboard the NIMITZ during the above forty-five day period was investigated to determine if the failure would cause abort during execution of this particular high priority mission. Of these 13 pre-flight and in-flight aborts, six were determined to be associated with equipment which would not compromise flight safety or mission

success. Therefore, a derived "combat" pre-flight abort rate of 3.8% and an in-flight abort rate of 1.9% were computed. In the subsequent analyses these abort rates will be referred to as "combat" rates while the combination of the NIMITZ pre-flight and the 18 month fleet in-flight abort rates will be referred to as "peacetime" rates.

(U) To address the three questions above, four statistical methods were used. The first approach involved computing the expected numbers of aircraft available at various points in the mission using the two abort rates cited above (Figure 1). Given eight aircraft on board the NIMITZ and utilizing the combat abort rates, the planner could expect to have seven mission capable aircraft depart Desert One and six complete the mission at Manzariyeh. Using the higher peacetime abort rates, the planner could expect to have six mission capable aircraft depart Desert One and five at Manzariyeh. The actual aborts experienced by the helicopter force are plotted for information at the times they became known to COMJTF. The second method (Figure 2) involved determining probabilities that at least five helicopters would be available at the completion of the mission at Manzariyeh given various numbers available for launch at the NIMITZ (assumes crews available).

EXPECTED NUMBER OF RH-53D TO ARRIVE MANZARIYEH
GIVEN 8 RH-53D ARE PROGRAMMED TO LAUNCH FROM NIMITZ
(E(X/8))



PLANNED RH-53D CHRONOLOGY

A— CROSS COAST
B— ARRIVE DESERT ONE
C— DEPART DESERT ONE
D— ARRIVE DROP OFF
E— DEPART DROP OFF
F— ARRIVE/DEPART HIDEOUT
G— ARRIVE STADIUM
H— DEPART STADIUM
I— ARRIVE MANZARIYEH

FIGURE 1

[redacted]

PROBABILITY OF AT LEAST 5 RH-53Ds REACHING MANZARIYEH
GIVEN 6, 7, 8 OR 9 ARE PROGRAMMED TO LAUNCH FROM NIMITZ
$P_m(P(5/X))$

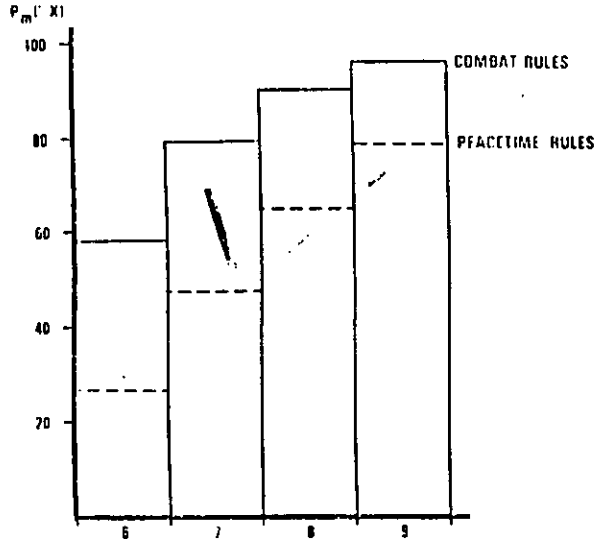


FIGURE 2

A, B

NC-300

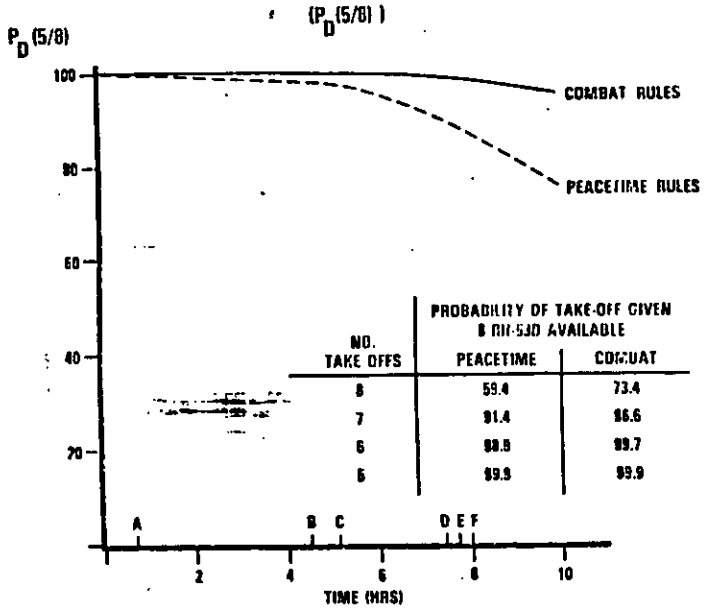
(U)

(U) This figure shows that with eight aircraft available, the probability of at least five completing the mission is 90% using combat criteria and 65% using peacetime abort rates. If the number available is increased to nine, the probabilities increase to 96% and 79% respectively. Similarly, if only six had been available, the probabilities of five completing the mission would have been reduced to 58% and 27%.

~~TOP SECRET~~

PROBABILITY OF AT LEAST 5 RH-53D ARRIVE A DESTINATION AS A FUNCTION OF TIME GIVEN 8 RH-53D TAKE-OFF

$(P_D(5/8))$



NO. TAKE OFFS	PROBABILITY OF TAKE-OFF GIVEN 8 RH-53D AVAILABLE	
	PEACETIME	COMBAT
8	59.4	73.4
7	91.4	96.6
6	98.5	99.7
5	99.9	99.9

PLANNED RH-53D CHRONOLOGY

A- CROSS COAST
B- ARRIVE DESERT ONE
C- DEPART DESERT ONE
D- ARRIVE DROP OFF
E- DEPART DROP OFF
F- ARRIVE HIDE OUT

FIGURE 3

(U) (U) The third approach (Figures 3 and 4) involves computation of the probabilities that at least five mission capable

RH-53D's would be available at the hide-site given that either eight or seven (mission abort criteria) actually take off from the NIMITZ. Given eight take off, the planner would have a confidence of 87% (peacetime) and 98% (combat) that at least five mission capable RH-53D's would be available at the hide-site if the mission went according to schedule. The 90 minute delay experienced on the mission would reduce this to ~~78%~~ (peacetime) and 96% (combat). If only seven had launched on the mission, there would have been a confidence level of ~~93~~% and 92% that at least five mission capable helicopters would be available at the hide-site.

~~TOP SECRET~~

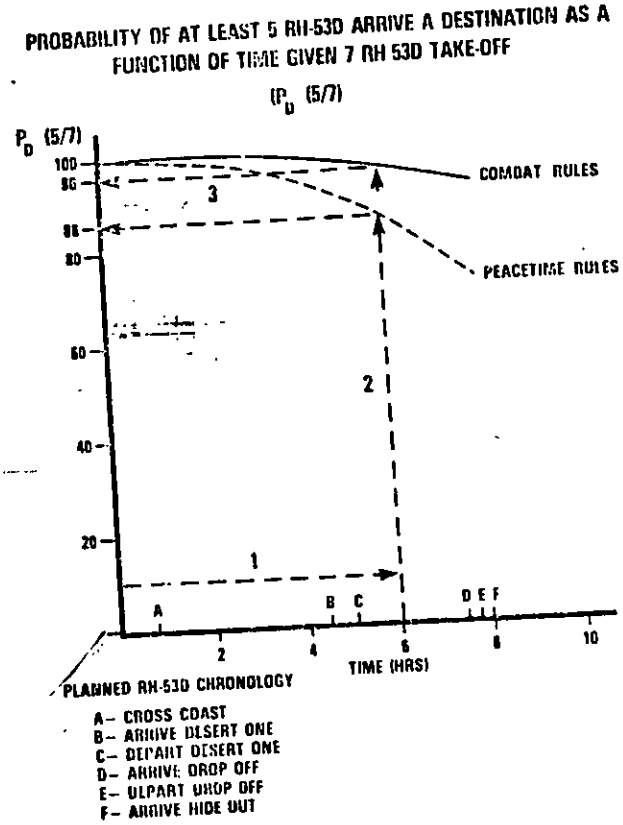


FIGURE 4

(4) (C) Figure 4 can also be used to derive expectations subsequent to the abort of one aircraft. For example: If eight

aircraft are airborne and one aborts with six hours remaining on the mission, the planner still has an 86% and 96% expectation that at least five will complete that mission.

~~TOP SECRET~~

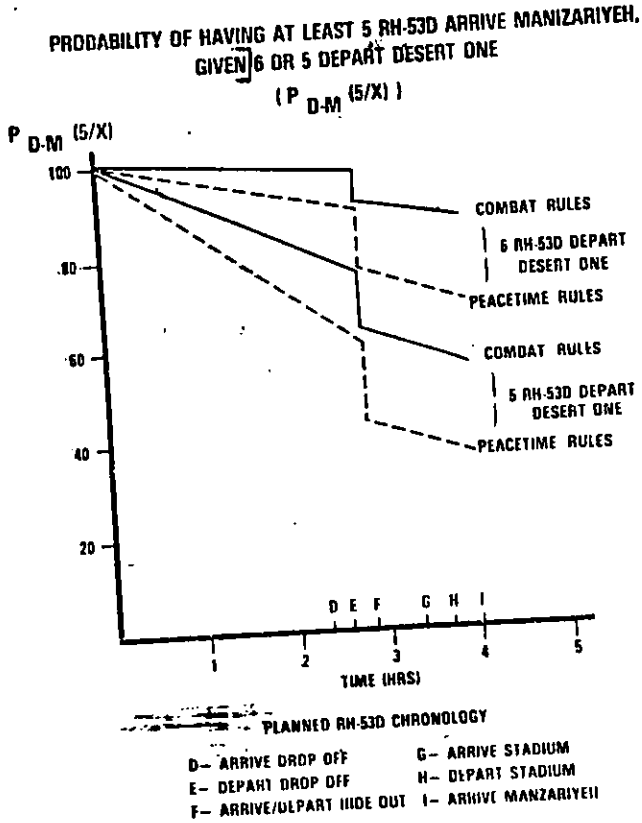


FIGURE 5

(U) (~~TS~~) The fourth methodology (Figure 5) involved determining the probabilities of having at least five mission capable helicopters arrive at Manzariyeh given six or five depart Desert One. If six depart Desert One, there would be a 70% and 87% probability that at least five would complete the rescue mission. If only five were launched the probabilities decrease to 36% and 56% that all five would complete the operation.

(U) Based on analysis of the available RH-53D abort data, it can be concluded that there was a valid basis for the judgement that eight aircraft were sufficient to complete the mission.

(U) The analyses of the available data indicate that with eight aircraft launching from the NIMITZ, there was an 86% (peacetime) and 96% (combat) probability that at least six mission capable helicopters would depart Desert One and an 87% and 98% probability that at least five would arrive at the hide-out site.

(U) The JTF determined that eight helicopters were required on the aircraft carrier to provide high assurance for mission success. The JTF also determined that seven mission capable helicopters would provide sufficient airborne redundancy. A minimim of seven mission capable helicopters were required to meet criteria for the mission execution decision. To gain further assurance for mission success, the JTF had established a firm criteria which required that a minimum of seven be mission capable as the formation crossed the Iranian coast. This procedure provided high assurance of at least six at Desert One. If at least seven were not mission capable at the coast, the mission would be aborted. Though there would be some risk of compromise, as a result of an abort at this point, it was the JTF's judgement that the mission could be regenerated during the following days as weather and other conditions permitted.

(U) An analysis of the planning factors was conducted by an independent team of analysts. They stated that from an analytical perspective, available data indicate that with

eight aircraft launching from the NIMITZ there was a high probability (96% using combat rules) that at least six mission capable aircraft would depart Desert One. The analysts also stated there was a 88% probability that six would depart Desert One if seven were launched.

(U) Two of the helicopters, #2 and 6, had mechanical failures which demanded abort under combat rules regardless of weather conditions. There was less than a 4% probability that more than two aircraft would abort in flight, prior to departing Desert One, once eight had been launched from the NIMITZ.

(U) When the pilots of #5 lost visual contact with other helicopters in the flight, mechanical failures they had experienced became cause for an abort. Helicopter #5 was capable of proceeding to and beyond Desert One had the enroute weather been as forecast or had the unforecast restriction to visibility been less severe.

(U) Statistically an additional helicopter launched from the NIMITZ would have increased the probability of six mission capable aircraft arriving at Desert One by less than 3% (combat rules). For a ninth helicopter to have changed events on 24 Apr 80, it would have had to proceed to Desert One. Planning requirements for EC-130s at Desert One would have probably increased from three to four in order to transfer fuel to nine helicopters and have sufficient contingency fuel at Desert One to accomodate unplanned delays.

(U) In retrospect nine helicopters would have been more desirable on 24 Apr but there was no data to suggest to the planners that an additional mission capable helicopter was required on the NIMITZ. Given the high probabilities of mission success with eight helicopters, the JTF would not likely have scheduled nine to Desert One as a trade off to the risk of compromise caused by increased operational exposure and the added logistic effort to support the ninth helicopter.

(U) Question 8. (C) What additional actions could have been taken to increase helicopter reliability? In assessing the failures that occurred during the mission, there are no identifiable additional maintenance actions which could have been taken which would have precluded the failures. Those unique actions which were taken (i.e., removal of dust screens, inspection of hydraulic pumps, premature replacement of time-change items, etc.) had no identifiable impact on the mission. Using the combat pre-flight abort data there would be a 73% probability of all eight RH-53D's taking off. Maintenance performed on the eight mission RH-53Ds was adequate in all respects. Special maintenance procedures in the form of additional check lists, which included extensive inspection procedures, were accomplished to the satisfaction of the mission maintenance officer. Mission pilots felt the aircraft were in excellent material condition. The aircraft had been flown as necessary to exercise the dynamic components and to verify/evaluate maintenance actions. Special supply support was also provided. Eight mission ready RH-53Ds launched from NIMITZ on time for the rescue mission. The fact that all eight RH-53Ds did takeoff and fly for two hours attests to the maintenance effort expended toward the success of the mission.

Question 9. (U) Should an operations analyst or maintenance analyst have been able to predict the failure? From an analytical perspective, it would be highly improbable that an operations or maintenance analyst could, with any degree of confidence, predict either the types or numbers of failures encountered on this mission.

(U) There was no correlation between mission related material failures/non-failures and hours flown by individual RH-53Ds since deployment or in the previous month. Aircraft #3,#4 and #8, with relatively low flight hours since deployment were also mission ready at the refuel site. Aircraft #1 and #7 with relatively high flight hours were also mission ready. Conversely, of those aircraft that aborted, #2 and #5 had high time while #6 flight time was relatively low.

(U) There was no correlation between mission related material failures and component life remaining. All components on all aircraft were within allowable operating criteria, as a result of log book inspection, and generally averaged 60.5% of life remaining. Individually, average component percentage of time remaining per aircraft was as follows: #1-62%, #2-56%, #3-58%, #4-63%, #5-65%, #6-48%, #7-65% and #8-67%.

(U) In addition, the analyst cannot predict the synergistic effects of unrelated events and the ultimate outcome on the mission. For example, with respect to helicopter #5, TACAN failure did not cause the abort. Flight instrument failure did not cause the abort. The reduced visibility did not cause the abort. Loss of visual contact with the flight did not

cause the abort. Taken independently, each of these events had a low probability of occurrence. Taken collectively, they caused a decision to abort this flight and a subsequent mission abort. In fact, had any one of these events not occurred, it is likely that helicopter #5 would have continued on the mission, arriving at Desert One as a mission capable aircraft.

Question 10. (U) Were the items selected to be in the helicopter cross country kit adequate to support the mission? Cross-country parts kits were placed on helicopters #1, 3 and 7 (formation section leaders). The kits contained parts, components, hydraulic fluids and servicing units. The kits carried were provided for the purpose of making expeditious repairs primarily during the start cycle. Items that were preculiar to the Auxiliary Power Plant (APP) such as Ignitor Plugs (Spark Plugs), "p" Leads (Spark Plug Wires), Excitors (Coil), etc., were carried. Nose Gear Box (NGB) Oil Cooler Fan Belts, Engine Ignitors and various other small items were also carried. These are items that can be changed quickly without the addition of peculiar or special tools other than a Crew Chief's normal tool kit. The kit is compact and light and can be easily stowed without taking up valuable space while having a weight factor of a few pounds (5-10). None of the items take more than a few minutes to change and primarily relate to getting an aircraft turned up. Based on experience, the detachment judged these to be those items which were the most likely to be needed on the mission. Weight and space considerations precluded taking parts and components not expected to be needed during the mission.

(U) It should be noted that the secondary stage hydraulic pump has a relatively low incidence of failure. In this specific incident, the pump failure was the result of a loss of fluid in the system. While the area in which the leak occurred was identified, the specific cause of the leak was not (i.e., failure of the jam nut or a fracture of the tubing). In any event, repair would have required replacement of that item as well as the pump. Therefore, even if a secondary stage hydraulic pump had been included in one of the cross-country kits, it is unlikely that the necessary component to repair any specific leak could have been anticipated.

(U) The failures on helicopters #6 and #5 could not be remedied by spare parts. It is impractical to carry and replace a main rotor blade. The power supply could not be changed enroute due to the access door to the failed component being located on the aircraft floor beneath internal auxiliary fuel tanks.

Question 11: (U) Were the helicopter pilots adequately trained to perform the mission as planned? During training, the helicopter pilots developed a high capability to fly formation in blacked out conditions. The planners had determined that a single formation was preferable to separate flights. A single formation would reduce noise exposure and possible detection compared to separate aircraft in trail. Observers on the ground would not likely report one aircraft (only a well-trained observer could aurally detect a large formation) but might report a string of separate and succeeding aircraft. Pilots were also trained to navigate and operate individually in the event it became necessary. The pilots had flown an

average of approximately 110 hours of night operations during training for the mission, much of it while navigating individually. They were prepared to go alone, if necessary.

(S) From the outset, the helicopters planned to fly at low level. This procedure was adopted after training test results showed that aural detection was less likely at low altitudes. The aural envelope was considerably smaller compared to that when flown at higher altitudes. But the major reasons for low altitude navigation was to take advantage of the enhancements to navigation offered by the night vision goggles. The ability of the pilot to see navigation check points and flight obstruction through the NVGs is directly affected by altitude above ground level, slant range, ambient illumination, and in-flight visibility. The NVGs adequately provide visual information in two dimensions (horizontal and vertical), but provide far less in the third dimension of distance and depth perception. Flight at low altitudes, therefore, offsets low illumination and flight visibility problems. During training and rehearsals the helicopter pilots had made numerous approaches and landings to waiting C-130s for refueling. Most of the landings and refuelings had occurred on hard surface while training for another refueling option. But pilots from all aircrews had been present during one exercise where four helicopters refueled on a desert dry lake bed. They had high confidence in their abilities and in the plan. Early in the planning process, it was determined that the Iranian radars and air defense system was not very effective. At that time (Dec 79), it was felt that the helicopters should remain at low altitudes [redacted] from takeoff until beyond the first

mountain range, approximately 60 miles inside Iranian air space, and then they could fly up to 2,000 feet AGL at little risk enroute to the refueling area. Later this estimate was updated to 5,000 to 6,000 feet AGL beyond the mountain range. The radar data was briefed to the helicopter and C-130 aircrews.

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EVALUATIONS:

1. (TS) (U) The evaluation is that the planning, training and procedures of this mission did not overly emphasize radio silence procedures and were consistent with NSA recommendations. NSA recommended minimum secure and unsecure transmissions. Communications procedures were compatible for VMC flight but less so for flight in the poor visibility encountered. When unexpected weather and inflight equipment malfunctions were experienced, continued adherence to radio silence procedures degraded the helicopter pilots' ability to proceed as planned. Had the procedures been modified when the dust was encountered, either by COMJTF or the Helicopter Flight Leader, the formation may have proceeded in a more structured manner and planning could have been adjusted as necessary.

(U) 2. [redacted] The procedures established to recover downed aircrews were validatd in training and on the rescue mission. In addition, the aircrews were prepared to evade and await rescue should an emergency landing not be observed by helicopter #8.

3. [redacted] (U) Although possible radar detection was allegedly a factor for at least one of the pilots, each of the pilots made the individual decision that he should fly the profile at the altitude at which they had trained for months. The fact that six arrived, although late (one returning because of faulty flight instruments), supports their procedures and abilities in this environment.

4. (U) [redacted] The PINS and OMEGA were useful aids to low level navigation but were not considered to be sufficiently reliable and accurate to enable navigation using them alone

without terrain references. Confidence in the PINS and MEGA, when known to be accurate, was of such a nature, as to be an aid to navigation on this mission. PINS is adversely affected by low airspeeds (below 70 knots) and high angle of bank.

5, 6, 7, and 8. (U) The evaluation is that the planning factors used by the JTF were valid. The mechanical failure rate of the helicopters on the mission was exceptionally high and unpredictable. A ninth RH-53D on board the NIMITZ would not have altered the outcome unless it was scheduled to launch and fly the mission to Desert One. There are no known additional actions that the US Navy or the JTF could have taken to further increase helicopter reliability. The mechanical failures, compounded by unforecast weather resulted in mission abort. The absence of the weather phenomenon or one less mechanical failure could have enabled the force to proceed.

9. (U) It would be highly improbable that an operations or maintenance analyst could, with any degree of confidence, predict either the types or numbers of the failures encountered on this mission.

10. (U) The items selected to be in the helicopter cross-country kit were adequate to support anticipated requirements of this mission. Additional parts in the cross-country kit would not have enabled maintenance personnel to remedy the malfunction which occurred and continue the mission on schedule.

11. (U) The pilots were adequately trained to perform the mission as planned and demonstrated the ability to contend with the unforecast conditions encountered.

OPERATIONS AT DESERT ONE

Background:

(TS) At about 1730Z, 120 NM from Desert One, the CCT Commander positioned himself behind the co-pilot of the lead MC-130 to assist [redacted]

(U) (S) Before landing the MC-130 made a low-level FLIR pass to ensure that the runway was clear of obstacles and the road in the immediate vicinity was free of traffic. A single truck was observed and landing was delayed until the truck was clear of the area.

(U) (TS) At 1810Z the C-130 landed. The touch-down was hard and the WSC-1 secure radio was disabled.

(U) (TS) As soon as the MC-130 parked, security teams with Farsi speaking personnel assigned were deployed to secure the road at either end of the landing zone. Almost immediately, a bus was observed approaching from the west. The security team stopped the bus and detained the driver and 43 passengers. A few minutes later two trucks approached from the west. The first, a fuel truck, refused to stop and the security element was required to fire at the truck and in front of the vehicle, causing the truck to catch fire. The driver fled to the following pick-up truck which made a U-turn and left the area at high speed. The security elements pursued the pick-up by motorcycle, but could not overtake it and the truck and drivers escaped.

(U) (TS) When the Desert One Commander discovered that his secure radio was disabled and that the DELTA Commander's secure radio was on another MC-130, he elected to broadcast a single codeword over an unsecure HF radio to inform COMJTF of his arrival. This call, at 1856Z, was not received directly by COMJTF, but was immediately relayed by another facility.

A (TS) During this time, the CCT resurveyed the two landing zones and installed [redacted] portable TACAN navigation radio to aid subsequent aircraft in locating Desert One. DELTA personnel began to unload their equipment.

(TS) At 1915Z, MC-130 #2 landed and discharged 51 passengers. Two minutes later, MC-130 #3, followed by EC-130s #1 and 2, landed [redacted] off-loaded 32 personnel and their supporting equipment. Because of congestion in the landing zone, EC-130 #3 was not scheduled to land until MC-130s #1 and 2 departed E [redacted] At 1924Z, the two MC-130s took-off and the third EC-130 landed and taxied to his refueling position next to EC-130 #1 on the north side of the road. As preplanned, all aircraft engines were to remain running while on the ground at Desert One.

(U) (TS) By 1925Z, the DELTA Commander's secure radio (which arrived on MC-130 #3) was set up and secure voice communications were established with COMJTF. (There was also a secure radio installed on EC-130 #3.) At this time the incident with the vehicles was reported to COMJTF.

QUESTIONS:

1. (U) (S) Was there adequate reconnaissance of the Desert One area?

2. [redacted] (U) Were there adequate procedures to intercept and detain persons trafficing the road at Desert One?

3. (U) (S) [redacted] Desert One secure and unsecure communications sufficient?

4. (U) Why were the engines of all aircraft kept running during the refueling operations at Desert One?

5. [redacted] (U) Were the command relationships at Desert One clearly defined?

DISCUSSION:

Question 1. [redacted] Was there adequate reconnaissance of the runways at Desert One? [redacted]

It was possible that there were some undetected obstacles in the landing zone. [redacted]

C [redacted]

[redacted]

C

[redacted]

C

[redacted]

C

[redacted]

Question 2 (PS) Were there adequate procedures to intercept and detain persons trafficing the road at Desert One? The Commander of the security force and his team were among the first to deplane. Almost immediately they observed a vehicle approaching from the west. (The FLIR was retracted during landing which precluded the aircrew from detecting this vehicle with the sensor while in the landing pattern. The narrow field of view of the NVGs also impaired lateral visibility.) The

A security team [redacted] tried to flag down the vehicle but it would not

[redacted]

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stop. Shots were fired overhead and it stopped. The vehicle was a bus containing 44 men, women, and children who were detained. A motorcycle team immediately deployed to the west and east to block the road approaches. The two man team sent to the west encountered a fuel truck with a pick-up truck following closely behind. The fuel truck driver would not stop when they tried to flag him down. Shots were fired into the engine and left front wheel area and the truck burst into flames. The driver jumped into the pickup which had made a U-turn and departed to the west at high speed. Two security men on motorcycles gave chase but could not maintain contact. The Iranians apparently turned down a side road, turned off their lights and hid in the hills to the west.

(U) ~~(S)~~ The Desert One Commander, Commander of the security force, and Commander of DELTA discussed the incidents with the vehicles. They came to the conclusion that truck drivers had not seen the MC-130 and the driver would not have known foreigners were involved in the incident.

(U)
~~(TS)~~ It was determined that the bus passengers would remain in custody and be flown out as planned for this contingency.

~~(TS)~~ Although Desert One was the only suitable site in the area that provided the flexibility necessary to satisfy the fuel

and distance requirements, the road was troublesome. Months of reviewing all available data and consultation with Iranian and American personnel who might know of some other suitable landing area had been fruitless. The JTF had determined that they must be prepared to deal with vehicles that might enter the refueling area. Estimates were that two to four vehicles might pass through during the entire operation. However, there were no other suitable landing areas to be found within a 150 mile diameter area which would enable the helicopters to meet fuel requirements. These considerations led the JTF to include a security force to control ground access at Desert One during the refueling process. The security force had been trained in desert conditions and was judged to be prepared to deal with contingencies of the type encountered. The JTF J-2 had also conducted studies on the Iranian Armed Forces, Gendarmerie, and National Police [redacted] The JTF made the judgement that most, if not all incidents would go unreported and little action would be taken that could compromise the mission because of the breakdown in the Iranian social and armed forces structure. Desert One was located in a remote area of Iran, a feature that added confidence in selecting it for the refueling operations.

C

(TS [redacted]

C

(U) (S) The immediate encounter with the bus and two other vehicles surprised the force. They had anticipated being able to observe vehicle traffic which might be on the road during the MC-130 approach to Desert One and land after the vehicles passed through. This was not the case; the bus arrived in the vicinity of the landing area almost immediately after the MC-130 completed its roll-out.

(U) (C) The driver and passengers were detained without injury and loss of life was avoided. Apprehension of the other vehicles was not as successful. The security team responded rapidly and probably performed as well as could be expected under the circumstances. There was no loss of life on either side. Action by the two drivers that escaped indicates that they had major reasons to avoid apprehension by Iranian law enforcement. The performance of the road security force and subsequent judgement concerning compromise were satisfactory.

(U) (S) The tactic of observing the LZ during a preparatory FLIR pass had been rehearsed during exercises. It can be speculated that more extensive overflight along the axis of the roadway would have detected the bus (and possibly the fuel

truck) and would obviously have resulted in delaying aircraft landing until the area was clear.

(U) The requirement to retract the FLIR turret in order to lower the nosegear, limits the ability to monitor ground activity during final traffic pattern maneuvers and landing. Use of NVGs is an adjunct to but not a substitute for FLIR. Not only are NVGs limited in range but their telescopic field of view decreases overall effectiveness when used from a relatively fast moving platform. In hindsight a more protracted airborne road reconnaissance probably would have detected at least one of the vehicles which intruded into the landing area.

(S) JTF J-2 had evaluated the likelihood of some indigenous vehicle traffic at Desert One as "moderate to high" [redacted] concluded that as daytime temperatures increased more night activity along the road should be anticipated. Mission personnel trained accordingly and were prepared to deal with intruders. It is unfortunate that three vehicles arrived in such a short span of time. However, their sequencing was - and remains - outside the scope of predictibility. No other Iranian vehicles approached Desert One during the next four hours.

(U) (S) Had the road security team been afforded the time to establish the roadblock posts, they would have been better prepared to control vehicle access. The security force did, however, respond rapidly, and demonstrated considerable flexibility and ability by apprehending the bus.

Question 3. (U) (TS) Were Desert One secure and unsecure communications sufficient? The lead MC-130 had a secure WSC-3 TACSAT radio installed. The DELTA Commander had a secure portable radio which was transported on MC-130 #3 and would be available for the Desert One Commander's use upon departure of MC-130 #1. A second secure TACSAT radio would also be available on EC-130 #3. Therefore, when the TACSAT radio was disabled during the hard landing, the Desert One Commander was unable to communicate with COMJTF or other elements by secure means from 1810Z until the landing of MC-130 #3 at 1917Z.

(U) The absence of this capability severely inhibited the flow of information between the Desert One Commander and COMJTF. After determining that he had only unsecure communications available, the Desert One Commander directed the transmission of a single codeword to indicate that he had landed. This transmission was not received directly by COMJTF but was relayed by another source. Since there was to be no response to clear text radio calls, the Desert One Commander could not know whether or not COMJTF had received the message. (COMJTF did receive the message)

(U) (~~TS~~) Upon arrival of MC-130 #3 at 1917Z the DELTA Commander's secure portable radio was set-up and secure communications were established at 1925Z, five minutes before the scheduled arrival of the helicopters. Throughout the remainder of the mission, secure communications were maintained between COMJTF and Desert One.

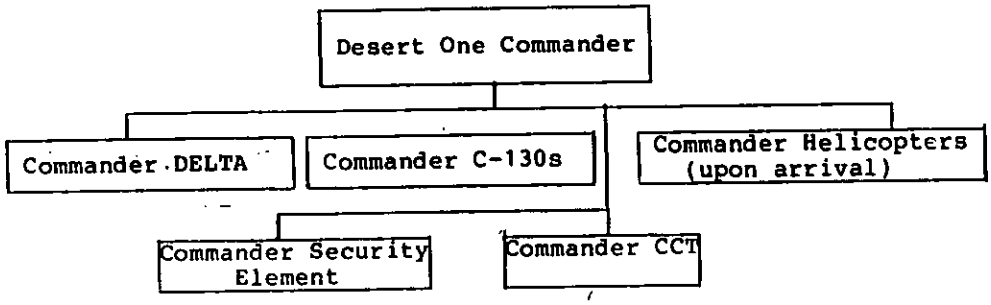
Question 4. (U) [redacted] ~~(S)~~ Why were the engines of all aircraft kept running during the refueling operations at Desert One? It was determined early in the planning of the rescue mission that the helicopters would keep their engines running during the refueling operation, regardless of the manner of the refueling. While under certain conditions the RH-53D can sustain flight on one engine, it cannot take-off with one engine inoperative. In addition, refueling aircraft with their engines running is a routine practice for RH-53D's.

(U) ~~(S)~~ When it was decided that the EC-130s would refuel the helicopters on the ground, it was also decided their engines would remain running. This procedure was adopted to avoid the potential for a restart malfunction at Desert One. A C-130 could not take-off at Desert One on three engines.

Question 5. [redacted] ~~(S)~~ Were the command relationships at Desert One clearly defined? All participants in the operation had a clear understanding of the chain-of-command. COMJTF designated Colonel Kyle as overall commander at the Desert One refueling site and responsible for all personnel present. Subordinate elements such as the helicopter detachment, C-130s, DELTA, and CCT each had its own organic command

structure. While Colonel Beckwith of DELTA held the same military rank as Kyle, he was responsible to the Desert One Commander for the performance of his unit only. The same held true for [redacted] of the C-130s. Lieutenant Colonel Seiffert of the helicopters, [redacted] of the Security element and [redacted] of the Combat Control Team, were all of lesser grade but equal in the organizational structure. The following graphic depicts the organization for Desert One Operations:

A



EVALUATIONS:

1. [redacted] Although the sand and dust conditions on the surface experienced by the rescue force [redacted]

2. (S) The procedures developed for the detection, interception and detention of vehicles trafficing the road were basically adequate. However, more specific prelanding road surveillance procedures within the constraints of known Gendarmerie outposts would have afforded a level of confidence that there were no vehicles on the road that would arrive before the C-130s could land and fully deploy the security force. Even though the encounters occurred before the security force was fully deployed, they responded quickly and effectively. There is no evidence that the escape of the individuals compromised the mission.

3. (U) (S) The failure of the TACSAT radio on MC-130 #1 during landing denied the Desert One Commander the use of secure communications until arrival of MC-130 #3. This inhibited the flow of information between command elements.

4. (U) The decision to keep all engines operating while at Desert One was appropriate and eliminated a possible cause for an aircraft not to depart from the refueling site.

5. (U) The command relationships at Desert One were clearly defined and understood by all participants. All forces were under the operational command of the Desert One Commander while at the refueling site.

THE ABORT DECISION

BACKGROUND:

(U) (~~TS~~) At 2101Z, the Desert One Commander reported to COMJTF that there were six helicopters on the ground. It was subsequently determined that helicopter #2 was not capable of continuing the mission and this was reported to COMJTF at 2120Z. At 2130Z COMJTF recommended that the Desert One Commander consult with the other unit leaders to determine if the mission could be continued with only five operational helicopters. The Desert One Commander replied at 2135Z that he had consulted with the others and that it was not feasible to continue. He recommended that all aircraft return to launch points and requested guidance on the bus passengers. After consultations with CJCS, COMJTF, at 2202Z, directed the Desert One Commander to abort the mission, destroy helicopter #2, disable the bus, and release the bus passengers.

QUESTIONS:

1. (U) Should COMJTF have directed that the mission be continued with only five helicopters?
2. (U) Should COMJTF have directed that helicopter #2 continue the mission with a known failed secondary hydraulic system?

DISCUSSION:

Question 1: (U) (~~S~~) Should COMJTF have directed that the mission be continued with only five helicopters? During mission planning several mission abort criteria were established. Given the requirement to extract approximately 200 personnel (including former hostages, rescue force, and helicopter

crews) from Tehran and the helicopter lift capability at the expected temperatures and density altitudes, it was determined that five RH-53Ds would be required for the actual rescue mission. Because of fuel and lift requirements to complete the mission, six would be required to depart Desert One. All aircraft would be operating near maximum gross weights.

(U)
(S) Each RH-53D would be transporting approximately 5,000 pounds of personnel and equipment. Each individual and his equipment had been weighed to insure an even load distribution. To continue the mission with five helicopters from Desert One would have required either a reduction in the DELTA force, elimination of required equipment, or, a reduction of fuel from the helicopters.

(U)
(S) A reduction in the DELTA force was not feasible in that specific multiple tasks were assigned to each individual and every member of the team would have been needed in order to complete the mission. Similarily, leaving behind any substantial amount of equipment would have seriously jeopardized DELTA's ability to continue the mission.

(TS) The fuel being carried by the RH-53Ds was only sufficient
(U)
to complete the mission to Manzariyeh as planned with minimum reserves. If fuel had been off-loaded at Desert One, it would have been necessary for the helicopters to fly from the hide site to Manzariyeh for refueling before extracting the force from Tehran. This would have delayed the extraction and significantly increased the risks.

(U) (TS) Further, departing Desert One with only five helicopters would subtantially reduce the probability of having five operational the second night. With less than five available, it would have been necessary to establish a shuttle operation between the HLZ and Manzariyeh with refueling at Manzariyeh. Since the round trip would require more than one hour, those left behind at the embassy compound or stadium would have been at extreme risk.

Question 2: (U) Should COMJTF have directed that helicopter #2 continue the mission with a known failed secondary hydraulic system? Although helicopter #2 had been flown for about two hours with a failed secondary stage hydraulic system, it is not prudent to postulate that it could have continued. Operating at, or near, maximum gross weights could result in maximum demands being placed on the primary flight control hydraulic system. If this occurs, with the secondary system inoperative, the likely result is cavitation of the hydraulic pump and a subsequent loss of flight controls which has catastrophic consequences. Further, failure of the primary hydraulic system in flight would result in rendering the flight controls inoperative.

EVALUATIONS:

1. (U) The decision to abort the mission when a pre-established mission abort criterion was reached was prudent.

2. (U) A decision to direct helicopter #2 to continue the mission with a known failure involving the flight control system would have endangered the lives of the crew and ground rescue force on board that aircraft and would have jeopardized the remainder of the mission.

DEPARTURE FROM DESERT ONE

BACKGROUND:

(U) At 2135Z, the Desert One Commander recommended to COMJTF that the mission be aborted and that all aircraft and personnel be returned to their launch points. COMJTF directed the Desert One Commander to standby for a decision on the abort. At this time, the DELTA Commander began to cross-load his personnel to the four remaining C-130s in anticipation of the mission abort. At 2202Z, COMJTF transmitted the abort order to the Desert One Commander. Helicopter #2 was to be destroyed and the bus passengers were to be released after the bus was disabled. It was determined that helicopter #4 would require additional fuel to return to the NIMITZ. Therefore, the Desert One Commander directed that the CCT reposition helicopters #3 and #4 so that helicopter #4 could receive more fuel from another EC-130 and to permit EC-130 #1 to depart. At about 2223Z, while moving to another position, helicopter #3 collided with EC-130 #1 and both aircraft were engulfed in flames. The 44 DELTA personnel and all but five EC-130 crewmen trapped in the cockpit evacuated the EC-130 #1. The pilot and co-pilot of the helicopter escaped from their aircraft.

(U) The commander of the DELTA personnel on EC-130 #1 marshalled the survivors to the remaining three MC/EC-130s.

(U) The helicopter pilots shut down their engines and evacuated their aircraft.

(U) The CCT Commander immediately directed EC-130 #3 to move to a safer location.

(U) The Desert One Commander directed the helicopter crews to board the C-130s and then set up an Emergency Command Post. He told the CCT Commander to insure the C-130's loads were evenly distributed, that none should take-off until so ordered, and initiated a sweep to insure that no personnel were inadvertantly left at Desert One.

(U) (S) At 2240Z, the Desert One Commander directed EC-130 #2 and MC-130 #3 to take-off. Because of the soft sand and heavy gross weights the pilots were required to take-off at the minimum possible airspeed. After the dust settled from these take-offs, the Desert One Commander surveyed the scene , boarded the last EC-130 and at 2246Z directed the pilot to take-off.

QUESTIONS:

(U) 1. (U) Subsequent to the collision of the RH-53D and the EC-130, was there positive control during the emergency evacuation of the Desert One refueling site?

2. (U) Why were the five remaining helicopters not destroyed?

3. (U) (S) Why was classified information not removed from the helicopters?

DISCUSSION:

Question 1: (U) Subsequent to the collision of the RH-53D and the EC-130, was there positive control during the emergency evacuation of the Desert One refueling site? Subsequent to the accident there was certainly an opportunity for confusion and chaos. However, such was not the case as the Desert One Commander and the personnel under his command adapted to the

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dynamics of the situation and exercised positive command and control on the scene.

(U) On EC-130 #1 the passengers were loaded and doors were closed in anticipation of take-off. Immediately after the collision and the observation of flames in the cockpit, one loadmaster opened the right cargo door to permit evacuation of the aircraft. Another loadmaster opened the left door, but closed it immediately when he observed the flames. The DELTA personnel exited the aircraft in a rapid but orderly manner through the single door. At personal risk, DELTA personnel and the loadmasters from the burning EC-130 assisted injured from the aircraft.

(U) The radio operator of EC-130 #3 initially notified COMJTF over secure radio after observing the accident. When a second radio operator saw the pilot of helicopter #3, walking toward the propellors of EC-130 #3, he left his aircraft and escorted the dazed pilot to EC-130 #3. While escorting the pilot, he saw the co-pilot near the fire and led him to safety.

(U) The Desert One Commander quickly established an Emergency Command Post and took positive actions to minimize the risk of further death and injury and to insure that no one was inadvertantly left at Desert One. The helicopter crews in close proximity to the fire and explosions took immediate action to have their aircraft shut down and evacuate crews to a safe distance and assemble. There, the Desert One Commander directed them to board one of the remaining C-130s.

(U) The Desert One Commander also took action to insure that the Security Force had been recalled and directed a sweep of the area. Recovery of the bodies on the burning aircraft was not possible.

Question 2: (U) Why were the five remaining helicopters not destroyed? Consideration was given to destroying the five remaining helicopters. However, munitions with delayed fusing were not available and directing personnel to return to the vicinity of the collision while munitions were exploding would have increased the probability of additional injuries. Destroying the helicopters could have imperiled the take-off of the C-130s in the confined space available.

(U) [redacted]

Question 3: ~~(U)~~ Why was classified information not removed from the helicopters? Classified information was left on the three helicopters in the vicinity of the accident. However, when the Desert One Commander directed the crews of these helicopters to board a C-130, he was not aware that classified information remained on some of the aircraft. Even had he known of the situation, there is no evidence that he would have endangered the lives of the helicopter crewmembers by having them return to the area of the exploding munitions. All classified information except one route map on helicopter #7 was removed from the two helicopters (#2 and #7) on the south side of the road.

EVALUATION

1. (U) Subsequent to the accident, the Desert One Commander continued to exercise positive command at the scene, insuring the evacuation of all survivors and minimizing risks of additional injury or death.

2. (U) Destruction of the five remaining helicopters could have jeopardized additional personnel and the departure of the three C-130's.

3. [redacted] (U) Recovery of the classified material left in the three helicopters in the proximity of the exploding munitions, could have resulted in additional casualties.

RECOVERY OPERATIONS

BACKGROUND:

(TS) Upon receipt of the initial notification of the accident and recognizing the potential for many casualties, COMJTF (at 2230Z) directed that two MEDEVAC equipped C-141s at [redacted] take-off and proceed [redacted] and evacuate the rescue for [redacted] He also requested that a C-9 MEDEVAC aircraft equipped to treat burn patients (on routine standby status in Germany) be dispatched [redacted]

(TS) The C-[redacted] had been pre-positioned [redacted] The C-141s had reported on the ground at 1950Z and the crews had to be recalled from their quarters.

(S) At 2241Z, the Desert One Commander directed that EC-130 #2 and MC-130 #3 take-off and return [redacted] After their departure, he made a final survey of the scene, boarded EC-130 #3 and ordered the pilot to take-off. Airborne, he reported to COMJTF via secure TACSAT radio that the three C-130s were airborne and would not require refueling to reach [redacted] this time he recommended to COMJTF that the helicopters be destroyed by TACAIR. He then began to survey the casualties. The C-130s returned [redacted] separately.

(S) Shortly after take-off, one engine on EC-130 #2 had to be shut down because of a loss of oil.

(S) At 2321Z, the Desert One Commander provided an initial casualty report which indicated [redacted] three aircraft with two major burn victims, three other injuries and one person in shock. DELTA medics were administering to the injured. At 2341Z, the initial casualty report was up-dated.

(TS) At 25/0001Z, the C-141s departed [redacted]

(TS) MC-130 #3 landed [redacted] at 0158Z, followed by EC-130 #3 at 0200Z and EC-130 #2 (with one engine shut down) at 0213Z. Each aircraft was met by DCOMJTF for a precise headcount to ensure that there were only eight missing personnel. Plans were initiated for cross loading the personnel to the C-141s.

(TS) The C-141s arrived [redacted] 0228Z. Two USAF Flight Surgeons began immediate treatment of the more seriously injured personnel to stabilize them for transfer to the C-141s. At 0315Z, the first C-141 took off with the injured and some Delta personnel. The second C-141 departed at 0335Z with the remainder of the rescue force and DCOMJTF. At this time, DCOMJTF reported that five USAF and three USMC aircrew members were missing and presumed dead.

(S) At 0803Z, the MEDEVAC C-[redacted] landed at [redacted] Five minutes later, the C-141s landed and, as soon as the C-9 could be refueled, the injured were evacuated to [redacted] Subsequently, the remainder of the rescue force was returned to CONUS.

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QUESTION:

(U) There are no questions concerning the adequacy of the actions taken by COMJTF and DCOMJTF in response to the accident and evacuation of the rescue force.

DISCUSSION:

A, E (TS) The two MEDEVAC C-141s had been pre-positioned at [redacted] One of the aircraft was equipped with a secure radio. At 1950Z, it was reported to E COMJTF that the C-141s were on the ground [redacted] The aircrews departed for their quarters, but some personnel remained on the aircraft and monitored the secure radio. R When COMJTF directed their movement [redacted] some of the crewmembers were able to initiate pre-flight actions while the others were responding to recall. This expedited their takeoffs and greatly reduced their response times.

(TS) The response of the MEDEVAC C-9, with provisions to treat burn patients, was timely. Inasmuch as the aircraft E arrived [redacted] before the C-141 with the injured personnel, no further comment is required.

(4) (C) There was some initial confusion in the casualty reports received by COMJTF. COMJTF had not received an earlier report that the crew of helicopter #6 had arrived at Desert One. The Desert One Commander was not aware that, when he polled the three C-130s after takeoff, some did not include their own crewmembers in reporting persons on board.

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This initial confusion was soon clarified and an updated casualty report was provided to COMJTF.

(U)
(S) COMJTF relayed the Desert Commander's recommendation, that the helicopters be destroyed by tactical air strike, to Washington. COMJTF's recommendation was that this not be approved. Washington authorities concurred with COMJTF and the air strikes were not directed.

EVALUATON:

(U) The actions taken by the JTF subsequent to the accident and takeoff from Desert One were timely and reflected a professional reaction to an unanticipated event.

EVALUATION SUMMARY

(U)

1. (U) A lack of personnel trained for this type operation and a secure location to train such a force, insufficient inflight refuelable MC and AC-130 aircraft, no suitable long range, heavy lift helicopters, insufficient tactical and airborne satellite radio capability, lack of intelligence (especially HUMINT), unreliable and incomplete weather data, paucity of available forward launch bases and no operational funding cite all were constraints that adversely impacted on notonly developing rapid response force but also constrained developing the force that eventually attempted the mission.

2. (U) Based on the information available, the decision by COMJTF to execute the hostage rescue mission was appropriate.

3. (U) Briefings were structured to support the mission. The briefings provided the same information to all participants. There is no evidence that the context of information provided to one part of the force was different or lacking from that provided others.

4. (U) It was, and remains, beyond the state of the art in meteorology to predict, with any degree of accuracy, a localized suspended dust phenomenon such as that encountered on the mission in an area of limited or nonexistant reporting stations.

5. [redacted] (U) A weather reconnaissance aircraft preceding the mission could have compromised the mission. Since late afternoon, weather satellite photography showed crisp sharp terrain features along the route where the dust was later reported, it is questionable as to whether or not it would have been detected and reported in time to influence the mission outcome.

6. (U) The lead MC-130 could have been tasked to conduct reconnaissance and report significant unforecast conditions. Such a report may have better prepared the Helicopter Flight Leader for penetration into the area and would most likely have provided a warning to COMJTF prior to receiving the Helicopter Flight Leader's call that he had encountered zero visibility.

7. (U) Minimum observed inflight visibility criteria for the mission could have been established. However, at night, using night vision goggles, it would be difficult to determine when the minimum conditions existed. This could cause a premature mission abort based on a subjective judgement, or lead to a situation where pilots might feel compelled to continue beyond their individual capabilities.

8. (U) The secure communications capability and support were adequate for the planned mission. However, the degradations in voice quality, which were caused by several factors, inhibited the ability of COMJTF to exercise realtime command and control when mission demands overtaxed the system.

9. (U) Strict adherance to radio silence procedures after encountering unforecast conditions may have impeded the flow of information between command elements and interjected an element of uncertainty into the conduct of the operation.

10 (U) There was a valid basis for the judgment that eight helicopters launching for the mission would provide a high expectation that the required number would complete the mission.

11. (U) The helicopter pilots were adequately trained to perform the mission as planned and demonstrated the ability to contend with the unforecast conditions encountered. Six successfully negotiated the route, attesting to their preparation for the mission.

12. (U) The abnormal, unprecedented and unexplained mechanical failure of three out of eight helicopters during less than thirty seven total hours of flight (an average of 4.5 hours per helicopter) was the primary cause of the mission abort. All other contentious issues including the unforecasted suspended dust had been sucessfully overcome.

13. (U) Positive command and control was exercized at the Desert One at all times.

14. (U) The items selected to be in the helicopter cross-country kits were adequate to support the anticipated requirements of this mission. Additional parts in the kits would not have enabled maintenance personnel to remedy the malfunctions which occurred and permit the mission to continue as scheduled.

15. (U) The decision to abort the mission when a preestablished mission abort criterion was reached was prudent.

16. (U) With the exception of one map, the classified materials left at the scene were in the helicopters that were in the immediate vicinity of the fire and explosions. After the emergency evacuation of those aircraft, it would have been extremely hazardous to attempt to retrieve this material. This could have resulted in additional casualties.

17. (U) The actions taken by the JTF subsequent to the accident were timely, and responsive to the situation.