

**DOCKET NO: SA-517**  
**EXHIBIT NO. 16F**

**NATIONAL TRANSPORTATION SAFETY BOARD**  
**WASHINGTON, D.C.**

**COMNAVMARIANAS**  
**NAVY LESSONS LEARNED KAL FLIGHT 801 CRASH**

**By: Lawrence Roman**  
**(30 pages)**

COMNAVMARIANAS CORRESPONDENCE ROUTE SHEET

2<sup>nd</sup> deck  
9. right  
Security  
Access  
M. Johnson  
Gray

From: Commander U.S. Naval Forces, Marianas (N5)  
To: Commander, USCINCPAC Joint Training Branch /J382/  
Via: (1) Flag Secretary (N003)  
(2) Chief of Staff (N01)  
(3) Commander U.S. Naval Forces, Marianas (N00)

Subj : NAVY LESSONS LEARNED KAL FLIGHT 801 CRASH

Encl: (1) Navy Lessons Learned

1. Enclosure (1) is forwarded for your information.

ACTION CONTROL NUMBER: 898-97  
FILE NAME: KAL80\*.\*

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1. (U) SOURCE DOCUMENT REFERENCE ID: (59133-28113)  
GROUP SEQUENCE NUMBER: (00001)  
SUBMITTED BY: COMNAVMARIANAS, LTJG HANSEN, 344-9289,  
671 344-9289.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS: KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE : SHORTAGE OF MEDICAL SUPPLIES
5. (U) Observation:  
A shortage of medical supplies (e.g. IV fluids, minor procedure  
kits, oxygen, etc.) for the Mass Casualty Team Supply Carts was  
noted in various patient care areas.
6. (U) Discussion:  
The problem was caused by the unavailability of funding for  
those items. Records show a list of supplies necessary for  
adequate stocking of Mass Casualty Supply Carts was placed on  
order.
7. (U) Lesson Learned:  
Supply runners were tasked with gathering and borrowing needed  
supplies from Materials Management Department and other care  
areas throughout the hospital.
8. (U) Recommendation:  
Stock and maintain required items in their appropriate carts  
upon receipt.  
  
Rotate required items out 9 months prior to expiration using an  
exchange system with the Supply Department.
9. (U) Comment:  
Additionally, as survivors were treated some items were  
necessarily shipped in from off island to augment Naval Hospital  
Guam's stocks. Specialty doctors and other medical personnel  
were needed to sustain medical treatment and mortuary  
requirements.

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1. (U) SOURCE DOCUMENT REFERENCE ID: (27553-58722)  
GROUP SEQUENCE NUMBER: (00002)  
SUBMITTED BY: COMNAVMARIANAS, LTJG HANSEN, 344-9289,  
671 344-9289.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97,
3. (U) KEYWORDS : KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE: MEDICAL STAFF RECALL SYSTEM
5. (U) Observation:  
Many staff members, including some of the CO/XO Special  
Assistants, did not receive calls in a timely manner, and some  
not at all.
6. (U) Discussion:  
The existing standard operating procedures (SOP) did not provide  
the duty crew with sufficient guidance for conducting a rapid  
mass casualty recall. As personnel start coming in they were  
instructed to call all the people they knew ASAP.
7. (U) Lesson Learned:  
Disaster can strike 24 hours a day and recall bills need to be  
updated at least monthly.
8. (U) Recommendation:  
Review and update recall SOP as necessary.  
  
Provide specific guidance for use by all key members of the  
recall bill.  
  
Each director (including the CO/XO) shall have 2 alternates  
designated in the recall bill who will perform the departmental  
duties for them in their absence. In turn, each department head  
shall have 2 alternates designated to do the same at the  
departmental level.  
  
Monthly departmental recall bill shall be routed through  
respective directors instead of going straight to the Chief of  
the Day's desk. The directors should ensure they have a complete  
recall roster with them at home.
9. (U) Comment:  
COMNAVMARIANAS is studying the possibility of buying an  
automatic dialing system (such as used in the Army OPS

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Center/Pentagon) to facilitate mass casualty recall bills. The time spent recalling all personnel is very time consuming and could/may delay treatment of patients or response to disaster.

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1. (U) SOURCE DOCUMENT REFERENCE ID: (90136-69244)  
GROUP SEQUENCE NUMBER: (00003)  
SUBMITTED BY: COMNAVMARIANAS, LTJG HANSEN, 344-9289,  
671 344-9289.
2. (U) NICKNAME : KAL FLIGHT 801 CRASH , DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS : KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE: INSUFFICIENT COMMUNICATION EQUIPMENT
5. (U) Observation:  
Upon initiation of the Mass Casualty Receiving and Treatment  
Plan, team captains were instructed to pick up hand held radios  
at the Chief of the Day's office. During this disaster there  
were not enough radios to go around. Some team captains needed  
radios more than others, but did not get them. Additionally, the  
hospital did not have the proper communication equipment to  
communicate with the incoming helicopters.
6. (U) Discussion:
7. (U) Lesson Learned:  
To alleviate the situation, everybody was instructed to use the  
telephone as the first and preferred method of remote  
communication. Messengers were also used to relay messages.
8. (U) Recommendation:  
Radios should be labeled for who they should belong to during a  
casualty (real or exercise)  
  
Purchase additional radios.  
  
Provide cellular phones to the Medical Response Team deployed to  
the site, and to any other remote operations with crucial need.  
  
Establish communications connections so medical personnel in  
helicopters can talk with emergency room personnel, on the  
ground coordinators at scene, or inflight medical enroute to  
hospital.
9. (U) Comment:

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1. (U) SOURCE DOCUMENT REFERENCE ID: (24345-61905)  
GROUP SEQUENCE NUMBER: (00004)  
SUBMITTED BY: COMNAVMARIANAS, CAPT WIGGINS, 339-2126,  
671 339-2126.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS: KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE : CHAPLAINS' AREAS OF COVERAGE NOT CLEARLY DEFINED
5. (U) Observation:  
Force Chaplain was called from quarterdeck on the morning of the  
crash and was told to "go help the chaplain at the hospital" .  
Other chaplains went to the crash site immediately upon hearing  
about the crash.
6. (U) Discussion:  
At the time of the accident/crash chaplains from 5 different  
commands and 3 different military components responded to the  
accident based on their commanders' assessment of the situation.
7. (U) Lesson Learned:  
The Guam region must have a consolidated religious support plan  
for mass casualty events to facilitate the notification of  
survivors and family members of the situation.
8. (U) Recommendation:  
COMNAVMARIANAS Force Chaplain work with Defense Disaster  
Coordination Officer' (DCO) in assigning Chaplains and Religious  
Program Specialists (RP) to various sites.  
  
Assign a Public Affairs Office representative to the Chaplains'  
Team in order that releasable information can be provided to the  
Chaplains for use to enhance their services.
9. (U) Comment:  
KAL officials did not have a family assistance program and NTSB  
officials did not arrive for 2 days. Notification procedures  
fell to hospital and military officials who treated the  
survivors, and received the human remains until the NTSB Family  
Assistance Team arrived from Washington, D. C.

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1. (U) SOURCE DOCUMENT REFERENCE ID, (24345-45786)  
GROUP SEQUENCE NUMBER: (00005)  
SUBMITTED BY: COMNAVMARIANAS, LT BRADFIELD III, 366-6422,  
671 366-6422.
2. (U) NICKNAME : KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS: KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (u) TITLE: HELICOPTER COMMUNICATIONS WITH GROUND CREW NOT  
ESTABLISHED

5. (U) Observation:  
On-scene Helicopter Combat Support Squadron Five (HC-5) aircraft  
was not able to establish communications with ground personnel  
at the crash site.

6. (U) Discussion:  
In an effort to save time and speed up rescue operation aircraft  
crew provided ground personnel on site with UHF radios. Upon  
delivery of one patient to the Naval Hospital (NAVHOSP), medical  
personnel retained the aircraft's rescue litter. This could have  
been prevented if proper communications were established  
beforehand.

7. (U) Lesson Learned:  
On crash site communication is necessary to fully facilitate  
the rescue efforts, however, no one other than a designated  
crash air support coordinator should have communication with the  
air rescue team to avoid confusion at the crash site.

8. (U) Recommendation:  
Establish a VHF frequency for ground communications with air  
support assets. Assign an air support coordinator to effect that  
communication. Limit the number of personnel who can talk to air  
support assets.

COMNAVMAR purchase portable UHF/VHF radios for use by military  
forces in support of rescue efforts.

Additional cots need to be loaded at the TRIAGE site for further  
air support rescue efforts.

Mass casualty drills should continue on a more frequent basis to  
ensure communications, fire fighting, and Command and Control  
issues are standardized, practiced and utilized.

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9. (U) Comment:

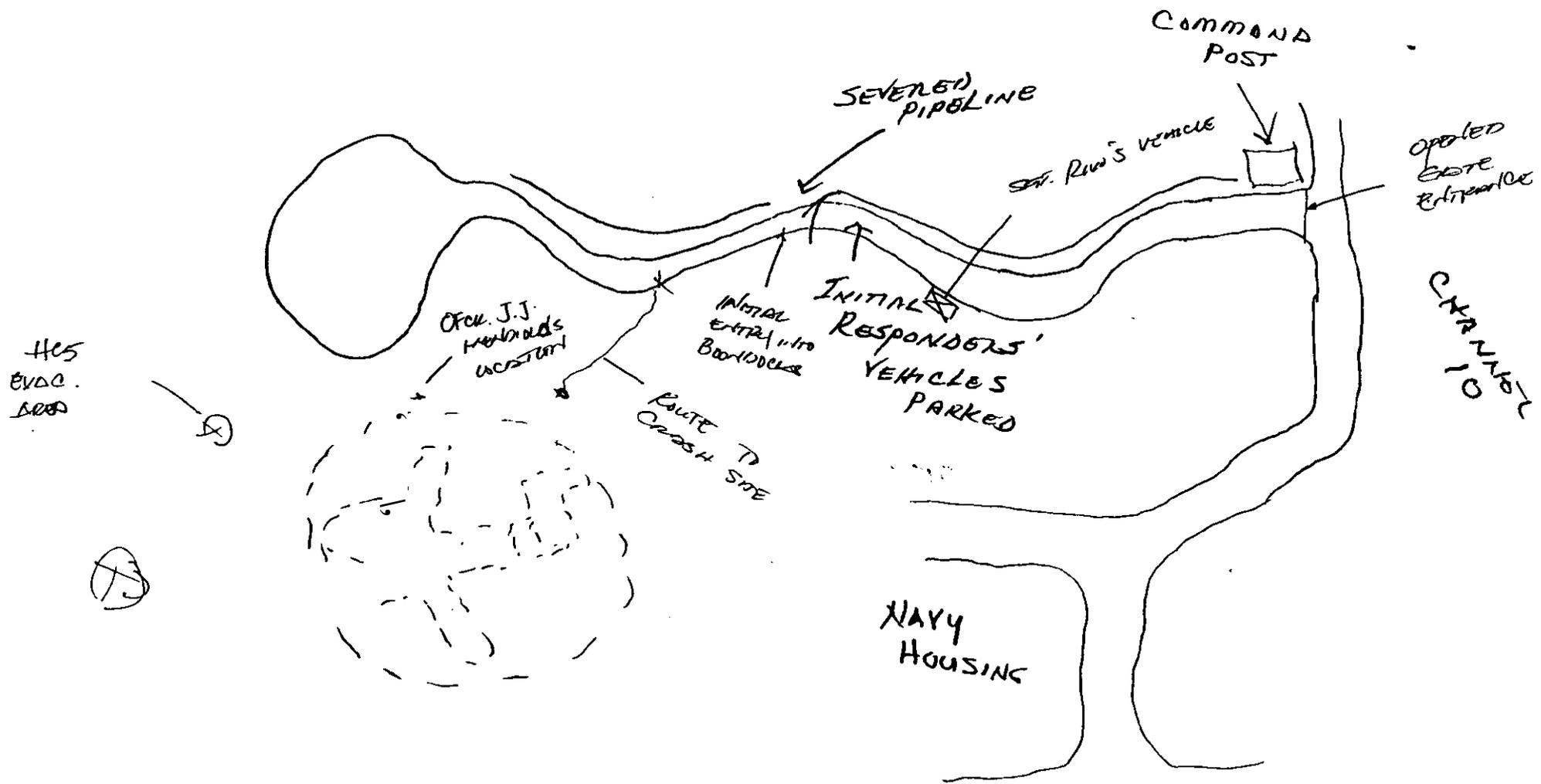
Almost everyone wanted to talk to the helicopter, and most communication was handled by telephone to the HC-5 operations dispatcher which was very effective. At times the HC-5 operator became overwhelmed with requests to communicate with helo pilots and medical personnel aboard. Communication with helos must be constrained to prevent confusing directions to the pilot.

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INITIAL RESPONDER'S VEHICLES  
 GFD FIRE ENGINE #7  
 GFD RESCUE #1  
 GFD RESCUE #2  
 GFD OPERATIONS CHIEF  
 GFD DEPUTY CHIEF  
 GPD PATROL CAR  
 GPD PATROL CAR

John P. FWA  
 8/25/97  
 2:25pm  
 #399  
 8/25/97



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1. (U) SOURCE DOCUMENT REFERENCE ID: (24345-95902)  
GROUP SEQUENCE NUMBER: (00006)  
SUBMITTED BY: COMNAVMARIANAS, CDR LYNCH, 339-9251,  
671 339-9251.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS: KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE : FORCE JUDGE ADVOCATES NOT CONSULTED IN A TIMELY MANNER

5. (U) Observation:

The immediate issue of posse commitatus arises whenever the military is used in support of civil law enforcement or civil emergencies. In KAL flight 801 disaster, civilian fire and rescue as well as Navy and Air Force personnel were used to secure the site.

6. (U) Discussion:

Staff and Judge Advocates should be consulted as soon as possible to begin evaluation of legal issues to include posse commitatus, assistance to foreign companies and governments, liability for services and service members; liaison with other Federal agencies (Dept. of State, Dept. of Justice) , and security among others.

7. (U) Lesson Learned:

Judge Advocates maintained constant monitoring of the situations throughout the humanitarian relief operations. Close liaison was also maintained with the U.S. Attorney's Office and the Dept. of State to preclude potential international embarrassment for the U.S. Government relative to issues concerning the remains of the crash victims.

8. (U) Recommendation:

Judge Advocates should be integral members of any disaster preparedness team. They should be included in all operational decisions. Ensure Judge Advocates keep their operational law chain of command fully advised to the highest level.

Judge Advocates should, as soon as possible, determine identity of insured, insurance companies, local and foreign attorneys involved to ensure they are invited to negotiations sessions for contracted support of recovery efforts.

Judge Advocates, once engaged, should be prepared to the sole

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federal attorney(s) engaged in the operation.

9. (U) Comment:

From a Defense Disaster Coordinating Officer's (DCO) perspective, it is essential to withdraw military forces from human remains recovery efforts and crash debris removal phase as soon as possible. The Judge Advocates' role is essential to this withdrawal of forces. Civilian companies must be contracted, security forces assigned, using the carrier's (in this case KAL's) funding, at the same time those contractors must work for the DCO to facilitate the remains recovery efforts.

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1. (U) SOURCE DOCUMENT REFERENCE ID: (11319-44490)  
GROUP SEQUENCE NUMBER: (00007)  
SUBMITTED BY: COMNAVMARIANAS, CDR SATTERLY, 339-7053,  
671 339-7053.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS: KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE: LACK OF LOGISTICAL SUPPORT
5. (U) Observation:  
There was a lack of logistical support during first hours of the  
KAL flight 801 disaster. Facilities/Environment (N4) and Supply  
(NE) representatives were not assigned to the site at the onset  
of disaster.
6. (U) Discussion:  
During the first days of disaster, N4 coordinated effort for  
providing camp lighting, fuel, water, refuse, porta-pots, pest  
control, and scheduling meals. N4 also coordinated Seabees  
efforts to provide site drainage and extended roadway, ordering  
all necessary gravel.
7. (U) Lesson Learned:  
Environmental, funding/meals support, water and human  
necessities are essential to all disaster recovery efforts. In  
the extremely hot environment of Guam, water, meals and human  
support facilities will be needed within an hour or 2 of the  
rescue efforts.
8. (U) Recommendation:  
N4 and NE representatives should be trained to respond and  
provide onsite support to the on-scene commander. N4 is  
knowledgeable of the transportation and facility self-help  
assets within COMNAVMAR, and capabilities of Naval Construction  
Force. N8 knows contracting support, along with both the Public  
Works Center and Officer-In-Charge of Construction support. N4  
officers are also qualified Seabee Combat Warfare Specialists,  
trained in contingency operations, emergency medical procedures  
and camp support.
9. (U) Comment:  
None

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1. (U) SOURCE DOCUMENT REFERENCE ID: (11319-81329)  
GROUP SEQUENCE NUMBER: (00008)  
SUBMITTED BY: COMNAVMARIANAS, CDR SATTERLY, 339-7053,  
671 339-7053.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS : KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE: INSUFFICIENT COMMUNICATION
5. (U) Observation:  
Insufficient communication between various command and control  
(security, operations, seabees, etc.) , leading to delays,  
miscommunication, and excess communication traffic on the nets  
available (cell phone and VHF radios). Also, there was a lack of  
telephone directories on site leading to delays and unnecessary  
communications in attempts to obtain phone numbers and points of  
contact.
6. (U) Discussion:  
In this time of limited funding, there was insufficient  
communications equipment for all the personnel assigned to the  
initial rescue effort.
7. (U) Lesson Learned:  
Supply (N8) should implement an emergency contract to obtain  
augmenting equipment for such emergencies. Everyone concerned  
was urged to bring their own telephone/recall directory.
8. (U) Recommendation:  
Establish communication plan and gear, including a dedicated  
Facilities/Environment (N4) net. This net should be dedicated to  
coordinating environmental, transportation, logistics, and  
self-help response.  
  
Ensure disaster preparedness lockers are stocked with phone  
books and command directories to be used by Crash Site Command  
and Control.
9. (U) Comment:  
None

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1. (U) SOURCE DOCUMENT REFERENCE ID: (11319-88120)  
GROUP SEQUENCE NUMBER: (00009)  
SUBMITTED BY: COMNAVMARIANAS, LCDR C. MAUER, 339-6127,  
671 339-6127.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS: KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE: ON-SCENE COMMANDER NOT IDENTIFIED IMMEDIATELY
5. (U) Observation:  
Seabees from the Naval Mobil Construction Battalion Forty  
(NMCB-40) often received conflicting guidance from the different  
agencies on site namely: Guam Civil Defense, National  
Transportation Safety Board (NTSB), COMNAVMAR Crash Site Duty  
Officer, Medical Officials, and Air Force Officials.
6. (U) Discussion:  
Guam Civil Defense was on-scene agency handling the initial  
rescue efforts, As requested, Navy and Air Force assets  
responded to the crash site. At that time, some confusion ensued.  
concerning which agency would assume command of the scene.  
Additionally, the Guam Civil Defense Director and his staff  
failed to open their command center in a timely fashion adding  
confusion to the rescue efforts.
7. (U) Lesson Learned:  
Guam's rescue response assets were limited in fire, rescue and  
emergency response capabilities. When military augment forces  
are assigned they must remain in an augment capacity to Guam  
Civil Defense.
8. (U) Recommendation:  
The DCO must liaison closely with the Guam Civil Defense Agency  
Command Center to Command Center. Hold update briefs at a  
predetermined time and location, at least hourly on the first  
day and daily until the effort is over. Present should be one  
representative from each command/unit/agency participating in  
the recovery effort. If the On-Scene Commander is a rotational  
position both incoming and offgoing watchstanders should be  
present for a well coordinated turnover.
9. (U) Comment:  
While Guam Civil Defense and the military components  
periodically practice disaster recovery scenarios---most are

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oriented towards the expected tropical cyclones (typhoons) and major earthquake. Our most recent aircraft accident exercise was held at the Guam International Airport in April 1997, and a great success. While that exercise helped this effort, the remote area of the crash site required many assets not utilized in an airport crash, complicating this crash rescue effort.

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1. (U) SOURCE DOCUMENT REFERENCE ID: (11319-12303)  
GROUP SEQUENCE NUMBER: (00010)  
SUBMITTED BY: COMNAVMARIANAS, LCDR C. MAUER, 339-6127,  
671 339-6127.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS : KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE: ACCESS OF ESSENTIAL PERSONNEL AND EQUIPMENT DELAYED BY  
SECURITY CHECKS
5. (U) Observation:  
Several security check points, although necessary due to the nature of the incident, often had trouble determining who had permission to access the crash site. Several times, the entire Naval Mobil Construction Battalion Forty (NMCB-40) crew stood idle as they awaited the delivery of an important piece of equipment or part which was being delayed by security checks.
6. (U) Discussion:  
At one time, over 500 people were trying to gain access to the crash site which was in a remote highly inaccessible area. Many of these individuals were political entities, family members, and other non-essential observers.
7. (U) Lesson Learned:  
Screening individuals who should have access to the crash site was a time-consuming and tedious effort which could have been better done by an individual's agency, vice military security or eventually the commercial security company contracted.
8. (U) Recommendation:  
Have pre-made numbered security badges/priority coded on the ready for this type of disaster. Issue controlled number of badges to authorized commands/agencies that are participating in the rescue effort. Publish a list including those unit's block of badge numbers for the security posts to have on hand. Allow personnel with security badges to escort unbadged personnel as required to accomplish their assigned mission.
9. (U) Comment:  
Access to the site was severely limited by its remoteness and the narrow access road near the site. The on-scene commander must control entry to prevent overcrowding and blocking of the access points.

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1. (U) SOURCE DOCUMENT REFERENCE ID: (11319-74915)  
GROUP SEQUENCE NUMBER: (00011)  
SUBMITTED BY: CONNAVMARIANAS, LCDR C. MAUER, 339-6127,  
671 339-6127.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS : KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE : SAFETY HAZARDS AROUND CONSTRUCTION EQUIPMENT IGNORED
5. (U) Observation:  
Too many people were allowed to walk in close proximity of the  
construction equipment, posing a hazardous situation.
6. (U) Discussion:  
Most construction equipment are large, not exact or fluid in  
movement and can pose significant danger to personnel who are  
generally unfamiliar with equipment operations. When  
construction equipment is operating, especially under load, the  
area of operation must be completely clear of unnecessary  
personnel. Considering the narrow site, constant rain, difficult  
terrain and slippery conditions, the constant disregard for  
requests to keep the area clear made for a potentially  
disastrous situation. Naval Mobil Construction Battalion Fortv  
(NMCB-40) personnel had to constantly police the area themselves.
7. (U) Lesson Learned:  
On-scene commander must assign equipment spotters and security  
personnel to maintain a clear zone around equipment operations.
8. (U) Recommendation:  
The On-Scene Commander must allow the experts to define the safe  
operating requirements for their portion of the mission. He must  
also provide support and authority to the unit's Officer-in  
Charge in the assurance that everyone heeds those requirements.
9. (U) Comment:  
The equipment operating areas and the remains recovery areas  
were both in a single access area which limited maneuvering  
room. Both equipment operations and recovery could not take  
place concurrently if rescue personnel were to remain safe.  
Conflicts in priorities were often seen. On-scene commander must  
control the efforts.

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1. (U) SOURCE DOCUMENT REFERENCE ID, (11319-46768)  
GROUP SEQUENCE NUMBER: (00012)  
SUBMITTED BY: COMNAVMARIANAS, LCDR J. LEHNER, 339 7026,  
671 339-7026.
2. (U) NICKNAME : KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS : KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE: RESPONDERS UNABLE TO COMMUNICATE WITH EACH OTHER USING  
RADIO EQUIPMENT
5. (U) Observation:  
During the search and rescue efforts the various agencies  
involved were unable to coordinate responses with equipment and  
personnel. At various rescue sites communications between  
agencies was accomplished by yelling instructions and requests  
back and forth.
6. (U) Discussion:  
All of the rescue and recovery agencies, civilian and military  
components use different frequencies to communicate. During  
rescue or disaster recovery efforts a common frequency  
necessarily must be assigned to all agencies.
7. (U) Lesson Learned:  
A single frequency is necessary to effective communications.
8. (U) Recommendation:  
Continue and possibly speed up efforts to design and build a  
centralized emergency communications center to house 400 MHz  
systems for military police and fire and 800 MHz civilian police  
and fire capabilities. Additionally, provide radio equipment  
that can communicate directly with helicopters. The same  
capabilities also needs to be available in the command center at  
COMNAVMAR (CNM) . The CNM command center should be used as the  
command post for any emergencies of significant magnitude  
involving multi-agencies in the future.
9. (U) Comment:  
None

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1. (U) SOURCE DOCUMENT REFERENCE ID: (15389-90178)  
GROUP SEQUENCE NUMBER: (00013.)  
SUBMITTED BY: COMNAVMARIANAS, LCDR RODRIGUEZ, 339-4286,  
671 339-4286.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS : KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE: MANPOWER REQUIREMENTS DEFINITION
5. (U) Observation:  
After initial rescue actions were completed by the end of the first day, emphasis shifted from rescue to the recovery of human remains and wreckage removal.
6. (U) Discussion:  
This gruesome work effort was conducted in extreme weather condition by several hundred volunteers. Initially, manpower requirements from participating commands were not clearly defined/tasked, creating confusion.
7. (U) Lesson Learned:  
An organizational structure was established which involved representatives from the logistics groups, staff civil groups, and security groups, along with a formal tasking delineating required support. This was essential in setting up a routine that allowed for smooth operations at the site.
8. (U) Recommendation:  
Use formal methods to follow up on initial taskings to any organization to minimize confusion. Provide representatives from those military organizations, to form an on-scene staff.
9. (U) Comment:  
None

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- 1 (U) SOURCE DOCUMENT REFERENCE ID: (11319-74915)  
GROUP SEQUENCE NUMBER: (00011)  
SUBMITTED BY: COMNAVMARIANAS, LCDR C. MAUER, 339-6127,  
671 339-6127.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS : KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
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(NMCB-40) personnel had to constantly police the area themselves.
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place concurrently if rescue personnel were to remain safe,  
Conflicts in priorities were often seen. On-scene commander must  
control the efforts.

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1. (U) SOURCE DOCUMENT REFERENCE ID, (28380-18364)  
GROUP SEQUENCE NUMBER: (00014)  
SUBMITTED BY: COMNAVMARIANAS, LCDR RODRIGUEZ, 339-4286,  
671 339-4286.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS : KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE: RELOCATION OF ORIGINAL BASE CAMP
5. (U) Observation:  
A decision to establish a base camp was made since rescue of survivors and recovery" of remains were expected to be a prolonged effort, only to be ordered later to relocate base camp.
6. (U) Discussion:  
An initial base camp was established at the Federal Aviations Administration (FAA) navigational beacon on the day of the crash. This effort involved the establishments of several tents, a temporary morgue, communications capability and a field kitchen to feed 200-300 volunteers doing work. Due to the need of the FAA to maintain the operation of the navigational beacon the decision was made to relocate the base camp to a nearby location. The personnel in charge at the scene did not have a full understanding of the importance of the navigational beacon to the overall operation of the airport, therefore they based their decision on setting up the base camp on accessibility considerations only.
7. (U) Lesson Learned:  
Need to talk to the FAA and airport operation control personnel to ensure safe and continuing flight operation.
8. (U) Recommendation:  
Personnel in charge at disaster scenes need to request/be provided the information on what effects the crash had on surrounding equipment, structure and facilities, so as to prevent having to conduct massive relocation of supporting elements.

As part of the initial response, personnel at the rear should conduct a concerted review with all applicable organizations (civil defense, etc.) to determine if any operational limitations exist due to the location of the emergency.

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9. (U) Comment:  
N o n e

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1. (U) SOURCE DOCUMENT REFERENCE ID: (46966-92501)  
GROUP SEQUENCE NUMBER: (00015)  
SUBMITTED BY: COMNAVMARIANAS, LTCOL FULTS, 366-5287,  
671 366-5287.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS: KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE: UNAVAILABILITY OF FOOD FOR NIGHT SHIFT
5. (U) Observation:  
For the first 3 nights of the disaster there were no formal  
arrangements made by either Navy, Air Force, or volunteer  
organizations to provide food or beverages for night shift  
workers (20) .
6. (U) Discussion:
7. (U) Lesson Learned:  
The first night, I called USAF 36th Services Squadron to bring  
box lunches. When they came, they wanted to charge folks \$3.50  
per box. This was not appropriate. As On-Scene Commander, I  
authorized the boxes to be given to night shift workers free of  
charge - it was the right thing to do. The next night, to avoid  
the same problem, I called the Navy galley (which was already  
closed) to provide the meals. They brought folks in to make  
sandwiches and did not charge for food. Navy also provided meals  
for the third night.
8. (U) Recommendation:  
Procedures be put in place so food and beverage operations are  
automatic for all shifts.  
  
Commanders Contingency Funds, or other pre-arranged funding  
source, be available for food and beverage provisions for  
responses to unexpected contingencies such as aircraft accident  
scenes.
9. (U) Comment:  
On the first day, there was much confusion as to who would  
retain the lead (Government of Guam or Military) for the  
recovery operations and security. It was late in the day when  
this matter was resolved. It took a bit of time to take over  
command and control of all site operations when the

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determination was made.

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1. (U) SOURCE DOCUMENT REFERENCE ID: (46966-07358)  
GROUP SEQUENCE NUMBER: (00016)  
SUBMITTED BY: COMNAVMARIANAS, LTCOL CLEMENTS, 366-5287,  
671 366-5287.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS: KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE: QUICK RESPONSE OF CHAPLAINS
5. (U) Observation:  
The early involvement of chaplains with both the Search and Recovery Team (SRT) as well as the Critical Incident Stress Management (CISM) process greatly facilitated the chaplains' being able to effectively work.
6. (U) Discussion:  
The Chaplains very early established their credibility with the troops by their extensive presence at the crash site
7. (U) Lesson Learned:  
The provision of CISM debriefing/counseling each day with each group of rescue and then search and recovery personnel working at the crash site seemed to enable our personnel to avoid a massive outbreak of emotional trauma. The chaplains met with each Navy, Air Force, as well as Army and Army National Guard person working at the crash site to provide the opportunity for the individual to ventilate his feelings about what he had seen during the course of the day. The initiation of CISM debriefing/counseling on the first day of the crash rescue and search/recovery efforts was highly significant, in that, from the very beginning, our personnel had the opportunity to daily "decompress" emotionally from the day's experience.
8. (U) Recommendation:  
Make the Chaplain team an integral part of all recovery planning and efforts.
9. (U) Comment:  
None

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1. (U) SOURCE DOCUMENT REFERENCE ID: (46966-29526)  
GROUP SEQUENCE NUMBER: (00017)  
SUBMITTED BY: COMNAVMARIANAS, MAJ BUELT, 366-5287,  
671 366-5287.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS: KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE : PRESERVATION OF EVIDENCE
5. (U) Observation:  
Search and Recovery Teams (SRT) did a great job of balancing the  
need to recover remains with the need to preserve evidence for  
the investigation team.
6. (U) Discussion:  
While recovery of the remains is a high priority, the clues in  
the wreckage may be crucial in preventing another mishap. The  
National Transportation Safety Board (NSTB) investigators were  
pleased with the care we took to preserve and document evidence.  
Despite the huge effort of personnel during the rescue and  
recovery phases of the operation, the only injury that required  
treatment was one minor hand laceration. The potential for  
injury was there, but people did things smartly. The presence of  
mobile command post was a great help. Cellular phones are also  
great for outgoing calls and for people who are away from the  
command post.
7. (u) Lesson Learned:  
The survey team from 36th Civil Engineer Squadron (36 CES) did a  
great job of setting up a grid reference system for the SRTS and  
NTSB. Use of computer-aided design system was an excellent way  
to track locations of the remains and aircraft wreckage.
8. (U) Recommendation:  
A grid reference system is a must for mapping the aircraft  
wreckage for preservation of evidence and identification of  
remains.
9. (U) Comment:  
None

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1. (U) SOURCE DOCUMENT REFERENCE ID: (79483-24235)  
GROUP SEQUENCE NUMBER: (00018)  
SUBMITTED BY: COMNAVMARIANAS, MAJ BUELT, 366-5287,  
671 366-5287.
2. (U) NICKNAME: KAL FLIGHT 801 CRASH, DATE OBSERVED, 09/23/97.
3. (U) KEYWORDS: KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE : LACK OR ABSENCE OF EYE WASH STATIONS
5. (U) Observation:  
"Water buffaloes" were the only available source of water in the  
site.
6. (U) Discussion:  
Without the presence of ample supply of water and the absence of  
eyewash station there was a risk from biological and infectious  
diseases Initially, hand washing and other-means of reducing or  
controlling biological and infectious hazards were not stressed  
as much as they should have been. Although Korea is not a third  
world nation, the victims of the KAL flight 801 were potential  
sources of infectious diseases such as tuberculosis. The water  
buffaloes were used for hand washing but it took a while to put  
soap at the hand washing station to provide even the simplest  
control. The use of latex gloves did not take away the need for  
proper hand washing. Disposable coveralls were used, but  
personnel certainly risked contamination when they removed their  
own coveralls.
7. (U) Lesson Learned:  
Recovery of remains is a bio-medical hazard operation, and  
medical personnel must be at the scene to train and advise  
rescue personnel on handling remains.
8. (U) Recommendation:  
Ensure Public Health or trained medical personnel evaluate the  
adequacy of controls we used to reduce the health hazards. If  
procedures were inadequate, develop new procedures.  
  
Consider using decontamination procedures similar to those used  
for chemical and biological warfare decontamination and/or  
on-site showers for personnel who have direct contact with human  
remains.  
  
Consider testing (for tuberculosis, for example) for individuals

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exposed during the operation.

Develop a briefing on methods of reducing biological and infectious disease hazards. Ensure all workers with exposure receive brief.

9. (U) Comment:

All rescue workers were screened during a post-recovery individual medical debriefing. Many personnel were then inoculated for hepatitis-B and tetanus to preclude possible infection. Personnel who were exposed in any manner, have been advised to report for medical care upon notice of any unusual Symptoms or signs of infection resulting from the rescue/recovery efforts.

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1. (U) SOURCE DOCUMENT REFERENCE ID: (23884-75457)  
GROUP SEQUENCE NUMBER: (00019)  
SUBMITTED BY: COMNAVMARIANAS, CAPT SPRAGUE; 339-3207,  
671 339-3207.
2. (U) NICKNAME : KAL FLIGHT 801 CRASH, DATE OBSERVED: 09/23/97.
3. (U) KEYWORDS: KEYWORDS WILL BE ADDED BY THE APPROPRIATE NLLS  
MANAGEMENT SITE.
4. (U) TITLE : STATE DEPARTMENT SUPPORT NECESSARY TO INTERNATIONAL  
INCIDENT

5. (U) Observation:

Two days after the KAL 801 crash, the (Republic of Korea) ROK sent senior diplomat Tae Hyun Yoo, Director General, Overseas Residents and Consular affairs Bureau, Ministry of Foreign Affairs (equivalent in rank to DoD Assistant Secretary), to oversee the Koreans' crisis management team on site. However, according to ROK sources, when family members of Korean victims became increasingly dissatisfied with and hostile toward ROK operations in Guam, a political decision was made to send in a much more senior officer to deal with the families in order to demonstrate a high level of ROK involvement and concern. Ambassador Byong Hyon Kwon, formerly the ROK foreign minister, arrived in Guam shortly thereafter, and began to make increasingly demanding and aggressive requests of the American side.

6. (U) Discussion:

The National Transportation Safety Board (NTSB) and COMNAVMARIANAS therefore requested that the Department of State send an appropriate diplomatic representative to Guam to deal with Ambassador Kwon. In response, State dispatched Wayne G. Griffith, Minister Counselor for Consular Affairs and Consul General at U.S. Embassy Tokyo, to Guam on August 18. Mr Griffith's personal Senior Foreign Service rank of Minister Counselor equivalent to an O-8, made him an appropriate interlocutor for the senior members of the Korean delegation, and he thereafter acted as liaison and filter for the great majority of our dealings with Ambassador Kwon and Director General Yoo. The ROK representatives seemed pleased to have a senior American diplomat on site, and, although there continued to be friction and occasional differences of opinion between the two sides, both volume and emotional pitch dropped substantially, and the resulting operational relationship was professional and harmonious.

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7. (U) Lesson Learned:

State Department is a necessity in all mass casualty situations when a foreign government is a party to the situation.

8. (U) Recommendation:

Assign a State Department representative (of some senior capacity) to liaison with diplomatic entities of foreign nations.

9. (U) Comment:

None

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