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

**OFFICE OF THE GOVERNOR OF GUAM KOREAN AIR 801  
INCIDENT REPORT SUMMARY**

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(11 pages)**

# **KOREAN AIR 801 INCIDENT REPORT**

## **Preamble**

**This investigation was initiated to document the Government of Guam's response to the crash of Korean Air flight number 801 on August 6, 1997, at Nimitz Hill, Guam. The purpose of this investigation is not to determine the cause of the crash, which will be the responsibility of National Transportation Safety Board in a subsequent report, but to set forth the circumstances and reactions of the agencies, departments and individuals who so professionally and bravely participated in life saving activities immediately following the crash.**

**This report will not address the following issues, which are the responsibility of various federal agencies.**

**Cause of the crash, which is the responsibility of the National Transportation Safety Board.**

**Operation of the glide scope, which is the responsibility of the Federal Aviation Administration.**

**Recovery operations after 11:00 a.m. on August 6, 1997, which are the responsibility of the U.S. Navy.**

## **Method of Investigation**

**Interviews were conducted by investigators of the Attorney General's Prosecution and Civil Divisions, and officers of the Guam Police Department. Additionally, this investigation was aided by a report of the National Transportation Safety Board concerning this crash and manuals from the Guam International Airport, Guam National Guard and Guam Civil Defense.**

**The focus of the investigation was to create an accurate time line of the first hours of the incident and to address questions raised concerning the rescue efforts. Those questions concerned fire suppression, command structure and activity of key members of the rescue team.**

**To that end, the following agencies have cooperated with the investigation in furnishing reports, logs and interviews of witnesses.**

**Governor Carl T.C. Gutierrez' Office  
Guam Police Department  
Guam Fire Department  
Guam International Airport Authority  
Guam Civil Defense  
Guam National Guard  
Commander Naval Forces Marianas**

### **Difficulties Encountered**

**A number of difficulties were encountered during the investigation. Tactical Operations Center tape recordings of radio transmissions were inadvertently recorded over the day following the crash. These recordings would have given invaluable evidence in establishing a time line and activities of various agencies, departments and individuals, not to mention the obvious historical value of such a recording. A log book established by the on-scene commander, Civil Defense Director Juan Rosario, was left at the command post when responsibility for the operation was transferred to the U.S. Navy at 11:00 a.m. This log cannot now be located.**

**It is noted that the U.S. Navy, which coordinated the federal rescue efforts, will not be preparing an after action report regarding the crash. Ground rules formulated by the U.S. Navy stated that all federal responders were effectively on official duty at the time and are to be afforded legal representation if interviews, which are voluntary, were conducted. Commander Naval Forces Marianas cooperated in the investigation and arranged for a number of key interview.**

**However, written questions submitted to the Andersen Air Force Base Legal Office have not been answered as yet due to review by U.S. Air Force Headquarters at the Pentagon. This report is being prepared without that input. Despite these difficulties, a thorough investigation was conducted.**

#### **Points of note:**

**TOC tapes were accidentally erased the day after the airplane crash.**

**A log book maintained at the command post has been lost.**

**The U.S. Navy is not preparing an after action report, and is limiting interview of participants.**

**The U.S. Air Force has not responded to written questions.**

## Summary of Investigation

Korean Air flight number 801 crashed upon final approach to the Guam International Airport at 1:42 a.m. on Wednesday, August 6, 1997. According to logs from the Guam CERAP, the last radio contact with Korean Air 801 was at 1:40 a.m. The Guam Police Department was first notified of a "lost aircraft" at 2:07 a.m., and Governor Carl T.C. Gutierrez was notified of the crash at 2:08 a.m. Guam Police Department dispatch advised units from the Agat, Agana and Tamuning precincts at 2:15 a.m. A number of the police officers were responding to an "orange glow" coming from the Nimitz crash site with the first officers arriving at about 2:25 a.m.

### THE SITE

Korean Air 801 crashed into an area approximately three miles from the Guam International Airport. The airplane crashed into a depression just below the Nimitz Hill VOR beacon site, a flattened, circular area with an access road leading from the channel ten area and Turner Road to the VOR beacon site. There is a metal gate at the intersection with Turner Road. The access road is a 10 foot wide paved road, with 8 foot shoulders on each side. A fuel pipe parallels the right side of the road as you enter the gate towards the VOR beacon site. This pipe was broken by debris from the Korean Air crash. The distance from the gate to the VOR beacon is 1.3 miles, and the closest fire station, the COMNAVMAR Federal Fire Department station is 1.6 miles from the gate.

As indicated, the area is a depression covered with dense vegetation including tall sword grass. No access roads are available from either the existing paved road or the VOR beacon site as indicated by the need to build a road into the crash site. This area is used regularly by hunters. Indeed, the only witnesses to the crash were two hunters who were driven back by the flames and explosion. Initial responders attempted to gain access to the airplane from the VOR beacon site as documented by PO III Raymond I. Rojas. According to his statement, the incline was so steep at that point that rescuers slide down as on a ski slope. He subsequently sent word to following rescuers to access the crash site from a point about 150 to 200 yards from the broken fuel pipe.

Weather reports from the National Weather Service (attached herein) indicate that from August 3-6, 1997, Guam received 1.37 inches of rain. The area of the crash had just received heavy thunder showers and the rainfall for August 6, 1997 alone was .84 inches. This resulted in significant amounts of mud and soft shoulders on the road leading to the VOR beacon site. This is significant in respect to rescue vehicles being able to reach, or at least approach the crash site.

Additionally, sunrise for August 6, 1997, is indicated on National Weather Service reports as being 6:08 a.m. Since the crash occurred at 1:42 a.m., and rescue operations began at about 2:34 a.m., the first three and a half hours of the rescue operations was conducted in the dark. National Weather Service reports indicate that there was cloud cover during those hours and rescuers and survivors indicate that light rain was falling

during those hours.

Finally, Turner Road, which leads to the VOR beacon site access road, is a narrow two lane residential street. Subsequent congestion was inevitable due to the number of vehicles, both official and private, responding to incident. Halsey Road, a five lane road, also became congested due to the backup on Turner Road. There is no easy solution to this congestion given the fact that first responders did not know the exact location of the downed aircraft and could not immediately formulate a plan for traffic control. Responders had to get as close to the area as possible in their vehicles in order to locate the downed airplane. However, once a command post was established, access to the site was controlled and congestion eased.

**Points of note:**

The area of the crash is a remote, heavily vegetated area with no access roads, making it difficult for rescuers to reach.

The weather contributed to the difficulty in rescue operations. It was overcast and rain had made the ground extremely muddy and slippery.

Rescuers had to first locate the aircraft, since no information was available from the airport tower as to where the airplane had crashed.

In locating the aircraft, rescue vehicles had to get as close to the site as possible, causing initial congestion in the area.

Once the command post was established, orderly access to site was maintained.

All previous airplane crash exercises have been planned for an accident at the airport.

### **THE RESPONSE**

Interviews of Guam Police Department officers and Guam Fire Department officers indicate that the first rescuers arrived at the gate to the access road at 2:25 a.m., and gained access to the site after cutting the lock off of the gate. The initial responding police vehicle, C-54, a two wheel drive Jeep, proceeded on the road leading from Channel 10 to the VOR beacon site encountering the broken fuel pipe and debris from the airplane. This vehicle, and police vehicle C-49, a sedan, were able to get by the broken fuel pipe and aircraft debris, and drive down to the monument. However, Guam Fire Department Engine #7, the first fire truck at the crash site, got stuck in the

mud attempting to drive around the same broken pipe and debris. It is noted that this fire truck is quite heavy and was carrying 500 gallons of water at the time. It sank up to its axle in the mud, effectively blocking the road to other traffic.

As indicated above, weather reports from the National Weather Service indicate that from August 3-6, 1997, Guam received 1.37 inches of rain. The area of the crash had just received heavy thunder showers and the rainfall for August 6, 1997, alone was .84 inches. This resulted in significant amounts of mud and soft shoulders on the road leading to the VOR beacon site. Subsequent police cars responding to the crash site, unable to get by the fire engine, parked behind and to the side of the engine. Two points should be noted. It was impossible for the vehicles to park on the shoulder of the road due to mud and a slight incline, and the vehicles were locked according to Guam Police Department procedures,

Efforts to remove engine #7 began immediately. Three tow trucks from the Ben Lujan Towing Service arrived at the scene, the first at 2:45 a.m., as indicated by interviews of a number of Guam Police Department officers who rode one of the tow trucks to the site of the crash. Interview of John Lujan, owner of the towing service, indicates that one of the tow trucks did remove engine #7 from the access road. Ray Roberto, the tow truck driver at the scene, states that engine #7 was removed at about 3:45 a.m. There is no documentation available to verify these times. A second tow truck removed a U.S. Navy fire truck from the evacuation area. This fire truck also was stuck in the mud, indicating the problem large vehicles were having driving at the site. The third tow truck was not utilized.

First responders had difficulty accessing the crash site due to the heavy vegetation and the sharp decline from the access road to the downed airplane. Interviews of Guam Police Department officers R.I. Rojas and Raul Chargualaf, the first officers to reach the VOR beacon site, indicate that entrance into the area was extremely difficult. The decline from the VOR beacon site was not only steep, but was also very slippery from the mud. Officer Rojas sent word back to following rescuers to enter the crash site at a point approximately 150 to 200 yards ahead of engine #7, a lesser decline from the road.

Once into the crash site, according to numerous interviews and reports of rescuers, rescue attempts were hindered by the darkness, black smoke and explosions that were occurring from the body of the aircraft. Rescuers constantly called out for survivors to assist. They risked their lives in pulling passengers from the body of the airplane amid fire and smoke and moving them away to safer areas. The rescuers literally tore the clothes from their backs to make bandages for the survivors and suffered cuts and abrasions from the sword grass and debris of the plane.

Evacuating the survivors was more difficult than accessing the crash site. Since there was no where for helicopters to land at the crash site, and their propeller wash was worsening the smoke and fire hazard, survivors had to be carried up the steep slopes to the evacuation area. In time, fire hoses were laid down the slope and these were used

to drag stretchers up the incline. This work was extremely difficult and tiring to the rescuers.

It is noted that first responders consisted of representatives from a number of agencies to include not only the Guam Police and Fire Departments, but U.S. Navy personnel and other volunteers.

Points of note:

Rescuers arrived at the scene at about 2:25 a.m.

The access road was blocked by aircraft debris and a broken fuel pipe.

A fire truck became stuck in the mud attempting to get around the broken pipe, but was removed by tow truck at 3:45 a.m.

Rescuers braved fire and explosion in order to pull survivors from the aircraft. They were hampered by the darkness, fire, vegetation, and mud.

Survivors had to be moved to an evacuation point away from the airplane as helicopters could hover over the plane for fear of spreading the fire.

#### THE COMMAND POST

It should be noted that the first responders showed particular initiative in establishing some form of command structure under difficult circumstances. These responders established a forward command post under the direction of Guam Fire Department Deputy Chief Ciriaco Sanchez and posted officers at the gate to document and limit access to the site. Additionally, Guam Fire Department Chief Gil Reyes established a command post at the gate and attempted to organize the various responding agencies into a cohesive command structure.

Civil Defense Director Juan Rosario arrived at the crash scene at 2:35 a.m. and assumed leadership of the command post. Initial discussion among the responders was the question of whose property the crash site rested upon. It was not until several hours later that the U.S. Navy declared that the crash occurred on military property and that the Navy was assuming command. However, Mr. Rosario assumed command at the time and directed the operation with the assistance of Guam Fire Chief Reyes.

It should be noted that a significant amount of coordination was required between the

civilian and military members of the command post. Obvious differences in command structure and philosophy had to be overcome for an effective command structure. It should be noted that both Governor Gutierrez and Admiral Janzcak were on the scene and that each was ultimately responsible for the activities of their respective agencies. Additionally, the United States Coast Guard, a component of the Department of Transportation, has in the past been the incident commander in a number of disaster exercises on Guam.

Complicating this situation is the problem of communication. The civilian and military components were on different and incompatible radio systems. Indeed, Admiral Janzcak was furnished radios by various components so that he could be in contact with his units. Radios had to be shared in the command post so that the various agencies could communicate. This communications difficulty must have contributed significantly to the effectiveness of the command post.

Points of note:

Initial responders established preliminary command structure at the scene.

Juan Rosario, Director, Civil Defense, became the on-scene commander from 2:35 a.m. until 11:00 a.m., when the U.S. Navy assumed command of the rescue operation.

A lack of compatible radio systems proved a detriment to the effectiveness of the command post.

### FIRE SUPPRESSION

The fire at the crash scene was a serious problem for the rescue effort. The aforementioned hunters who were in the area at the time of the crash, mention two separate explosions and flames that knocked them off of their feet and drove them from the area. Responding police officers describe an orange glow and black smoke that led them to the crash site and the smell of "kerosene" and "jet fuel" at the scene. According to U.S. Navy communications, the fire was put out at 5:00 a.m. with a reflash at 6:00 a.m., which was "under control" at 6:30 p.m. Both foam and water were available at the scene for fire suppression. However, due to the blocked access road and remoteness of the site, delivery of these agents was almost impossible. It was suggested at one point that water be dropped by water buckets from helicopters. This was also discounted by fire fighters as being a danger to the rescuers. In a decision made by Andersen Air Force Fire Chief Borges, and agreed upon by Guam Fire Department Chief Gil Reyes and Federal Fire Department Chief Felix Sablan, no fire suppression was used as it would have interfered with rescue operations.

Interviews of survivors, especially that of one Barry Small, indicate that a fireball blew through the cabin of the aircraft upon impact. Mr. Small surmises that the fireball was fueled by oxygen from the emergency canisters and by alcohol from duty free liquor on board. Regardless, the fireball was severe and probably caused many deaths and extensive burns among the passengers.

Interviews of the various fire chiefs at the scene indicates that both water and foam would have been inappropriate agents to fight the fire. Water would have spread to fire caused by fuel and foam would have caused further injury to those with burns and/or open wounds. Airborne water buckets would have pushed the toxic gases and smoke back down on the rescuers. Chief Felix Sablan, Federal Fire Department, stated that halon was the best agent to use on the fire, but there was no way to deliver the halon effectively. Deputy Chief Charles Taylor, GIAA Aircraft Rescue Firefighting, had suggested halon fire extinguishers be sent to the scene, but none ever was. However, Chief Sablan discounted the use of extinguishers as ineffective.

Finally, firefighting crash vehicles from the GIAA Aircraft Rescue Firefighting unit were restricted by FAA rules to the Guam airport. These vehicles would obviously have been valuable in fighting an aircraft fire, but could not be moved from the airport.

According to rescuers, most of the survivors were initially located away from the flames of the aircraft. P.O. III Rojas mentions in his report that, as one of the first people at the crash site, the first survivors were located 15 yards away on a small knoll. It is noted that the first rescuers arrived approximately 55 minutes after the plane had crashed. Interview of U.S. Navy commanders indicates that, if the fire was as intense as originally reported, fatalities caused by fire and smoke inhalation would have occurred before the rescuers arrived.

Senator Eduardo Cruz, MD, 24th Guam Legislature, and Dr. James Walker, chief of the emergency room at the Guam Memorial Hospital, were both on duty at the hospital on August 6, 1997. Both doctors indicate that extinguishing the fire immediately would have saved many more lives. However, it is noted that rescue operations did not begin until almost one hour after the crash. Those that survived the initial fireball had the best chance of survival. Neither doctor could criticize any decision to not extinguish the fire without further knowledge of the rescue operation.

**Points of note:**

Those passengers who died from the fire, more than likely succumbed to the fire ball created on impact as indicated by passenger Barry Small.

Fire suppression was hampered by the inability of fire trucks to access the crash site.

Fire fighters determined that the suppression of the

**fire may have endangered the rescuers and hindered the rescue operation.**

### **COMMUNITY RESPONSE**

**Community response to the crash was quite extensive and emotional. Both individuals and businesses volunteered their services to assist the rescue efforts and comfort the families of the passengers of the Korean Air flight. Contributions consisted of food, telephones and telephone services, computers, hotel rooms, vehicles, language services, and even blood for the survivors. Family members were met at the airport by counselors and given daily briefings by the Governor's office to keep them posted of current information.**

**However, it should be noted that the Government of Guam was not solely responsible for the recovery of the bodies from the aircraft. As of 11:00 a.m. on August 6, 1997, the U.S. Navy assumed jurisdiction and command of the crash site. At 2:30 p.m., James Hall, Director, National Transportation Safety Board, instructed by telephone call from Washington, D. C., that family members were not to be allowed at the site of the plane crash. They were to be limited to the beacon site as the closest approach to the downed airplane.**

#### **Point of note:**

**Community response to the crash was extensive and generous. Sympathy for the family members was profound.**

**Family members were kept informed daily by the Governor's office.**

**The U.S. Navy assumed responsibility for removing bodies from the crash site at 11:00 a.m. on August 6, 1997.**

**The National Transportation Safety Board limited access to the crash site by families as of 2:30 p.m. that day.**

### **MISCELLANEOUS**

**Governor Gutierrez was notified of the crash at 2:08 a.m. According to Guam Fire Department and Guam Police Department records, he arrived at the scene at 2:34 a.m. Substantial media reports document his actions in the rescue operations. Jesus Taitingfong, Federal Fire Department, stated in subsequent media accounts that Governor Gutierrez hindered rescue operations in an attempt to gain favorable**

publicity. However, investigation to date fails to reflect any intention on the Governor's part to do anything other than furnish assistance at the site.

Among the statements made by Fireman Taitingfong are that firefighters were forced to the side of the road to allow the Governor to drive to the crash site with his son and one of his daughters, and that Guam Police Department officers would not allow him and his crew into the crash site. Additionally, he claimed that a photographer, Eduardo C. Siguenza, was hired by Governor Gutierrez and was given liberal access to the crash site.

Interview of Federal Fire Department Chief Felix Sablan indicates that Fireman Taitingfong was not on duty at the time of the crash and that a recall of off duty firemen did not occur until 4:05 a.m. It is noted that Fireman Taitingfong stated that he was recalled at 3:00 a.m. Recalled firemen were to assemble at the COMNAVMAR fire station and were driven in teams of four to the crash site.

Guam Fire Department Chief Gil Reyes, in a written statement, indicates that Officer Taitingfong and his fire company arrived at the security gate shortly before sunrise. The National Weather Service reports that sunrise was 6:08 a.m. on August 6, 1997. Officer Taitingfong and his crew were allowed access to the crash site approximately 15 minutes later. Command Post commander Juan Rosario states that all vehicles were being stopped at the gate due to congestion at the site and that rescuers were required to walk to the crash site.

According to Guam Police Officer J.A. Benevente, he assisted the Governor in evacuating an injured Japanese girl from the scene. Officer Benevente states that he and the Governor left the crash site at about 4:45 a.m. enroute to Guam Memorial Hospital. They arrived at the hospital at 5:00 a.m. and did not return to the Nimitz Hill until 6:00 a.m. Consequently, Officer Taitingfong could not have observed the Governor as he indicated in his statements. According to Guam Police Department Officer C.D. Sulla, the period from 6:00 a.m. to until 7:15 a.m. was spent removing dead bodies from the wreckage. At about 7:15 a.m., instructions were received to discontinue removing bodies and the Governor and officers with him returned to the command post.

Interview of Eduardo C. Siguenza indicates that he heard of the Korean Air crash at 2:30 a.m. He did not arrive at the scene until 4:00 a.m. Approximately 20 to 30 minutes later he reached the command post and asked permission of Juan Rosario and Gil Reyes to enter the area and take photographs. He was given permission and proceeded to the crash site and began taking his pictures. Mr. Siguenza indicated that at no time did he hinder the operation of the rescue personnel. He stated that his camera was equipped with medium and long range lenses. He said that he took about 120 photographs.

Further, Mr. Siguenza stated that he is a free lance photographer for the Reuters News Agency, not employed by the governor, and that all of the photographs and negatives

were forwarded to Reuters, He does not know if any of them was ever published. He did not know that the governor was present at the scene of the accident until he bumped into him in the rough terrain.

Concerning other photographers at the scene, it is noted that interviews of the Governor's photographers Franklin Perez and Frank Salas indicate that Mr. Salas did not arrive at the crash site until 5:45 a.m. and was detained at the entrance gate for several minutes before being allowed to enter the crash site. Mr. Perez did not arrive at the crash site until 9:00 a.m., well after rescue operations had ceased. Neither photographer was available to take photographs of the Governor removing stretchers as the Governor had already departed and returned from Guam Memorial Hospital by the time Mr. Salas arrived at the scene. Additionally, since rescue operations involving survivors was essentially over by the time Mr. Salas arrived, and well over by the time Mr. Perez arrived, they could not have interfered with the rescue operations in order to photograph the Governor.

Although media coverage of the accident was extensive, media was not allowed into the crash site immediately. They would have had to wait for permission to be let into the site. Additionally, the original rescue operation for survivors was accomplished before sunrise. It would have been extremely difficult for still photographers to capture scenes prior to 6:00 a.m.

Points of note:

Neither Governor Gutierrez nor any photographers hindered the rescue operation.