

**Docket No. SA-520**

**Exhibit No. 3-A**

**NATIONAL TRANSPORTATION SAFETY BOARD**

Washington, D.C .

**Air Traffic Control Factual Report**

(12 Pages)

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**NATIONAL TRANSPORTATION SAFETY BOARD  
Office of Aviation Safety  
Washington, DC 20594**

**Group Chairman's Factual Report  
October 6, 2000**

**AIR TRAFFIC CONTROL GROUP**

**DCA00MA023**

**A. ACCIDENT**

**Location:** 2.69 miles north of Anacapa Island, California  
**Date:** January 31, 2000  
**Time:** 1621 Pacific Standard Time (PST) / 0021 Coordinated Universal Time <sup>1</sup>  
**Aircraft:** Alaska Airlines flight 261 (ASA261), Boeing MD-83, N963AS

**B. AIR TRAFFIC CONTROL GROUP**

**Chairman:** Mr. Scott J. Dunham  
National Transportation Safety Board  
Washington, D.C. 20594

**Member:** Mr. Lyle Mello  
Federal Aviation Administration  
Washington, D.C.

**Member:** Mr. Ed Haeseker  
Alaska Airlines  
Seattle, Washington

**Member:** Mr. Charles Mote  
National Air Traffic Controllers Association  
Tucson, Arizona

**Member:** Ms. Betty Bollert  
Alaska Airlines  
Seattle, Washington

**Member:** Captain Lew Richardson  
Air Line Pilots Association  
Seattle, Washington

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### **C. SUMMARY**

On January 31, 2000, at about 1621 PST, Alaska Airlines flight 261, a Boeing MD-83, N963AS, crashed into the Pacific Ocean approximately 2.69 miles north of Anacapa Island, California. The flight, from Puerto Vallarta, Mexico to Seattle, Washington with an intermediate stop in San Francisco, California, was operating under 14 Code of Federal Regulations (CFR) Part 121. All 83 passengers and 5 crewmembers were fatally injured and the aircraft was destroyed. Visual meteorological conditions prevailed at the time of the accident.

### **D. DETAILS OF THE INVESTIGATION**

The Safety Board go-team arrived at NAS Point Mugu (NTD) early on February 1, 2000. Mr. Mello and Mr. James Bedow of the FAA's Western-Pacific Regional Office were the designated FAA representatives assisting in air traffic control (ATC) data collection. After completion of administrative details the ATC group chairman contacted Lt. Robert Doheny, air traffic control officer at NTD, to determine whether NTD radar recordings could provide any data useful to the investigation. (NTD was the closest ATC radar facility to the accident site.) Lt. Doheny advised that NTD did possess radar information on ASA261, and offered to make it available to the Safety Board. The ATC group chairman then met with Lt. Doheny and his staff to review the data. Because of technical difficulties with NTD equipment that prevented complete extraction of the data, Lt. Doheny recommended that the tape be sent to NAS Patuxent River, MD., for analysis. The tape was surrendered to the ATC group chairman for that purpose. The group chairman also obtained controller statements from the two NTD controllers involved in coordination with Los Angeles Air Route Traffic Control Center (ZLA) sector 14 when ASA261 crashed.

The ATC group was formed at Port Huaneme, CA., in the evening of February 1, 2000, following the initial organizational meeting. As the majority of the information and all of the FAA controllers handling the accident flight were located at Los Angeles Air Route Traffic Control Center (ZLA), located about 100 miles away in Palmdale, CA., the group planned to travel to ZLA and begin interviews the following day. On February 2, the group arrived at ZLA and was briefed on the incident by Mr. Arthur Barton, quality assurance specialist, who described the chain of events leading up to the accident, explained the airspace, and identified the personnel involved. Based on group discussions, we decided to interview the radar controllers for sectors 30, 25, and 14, the radar associate assigned to sector 14, and the operational supervisors for areas E (including sector 30), and A (including sectors 25 and 14.) These interviews occurred on February 2 and 3, and are summarized below. The group also viewed a radar replay of the accident. Mr. Bedow was given an information request list, and the group reviewed training records for all the personnel involved in handling ASA261. Following the first day's interviews, the group returned to Port Huaneme to participate in the evening

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<sup>1</sup>All times are expressed in Coordinated Universal Time (UTC) unless otherwise noted.

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progress meeting. The group returned to ZLA on February 3 to complete interviews, and finished the day at the evening progress meeting at Port Huaneme. February 4 was reserved for preparation and completion of field notes, and the IIC released the ATC group on February 5, 2000.

## 1. History of Flight

According to information obtained by investigator Hector Casanova of the Safety Board's South Central Regional Office, ASA261 departed the Lic. Gustavo Diaz Ordaz International Airport, Puerto Vallarta, Jalisco, Mexico at 2137. Copies of flight strips obtained from PVR ATC show that the flight was routed MMPR PVR (Puerto Vallarta) J141 MZT (Mazatlan) UJ3 PPE (Punta Penasco) J93 JLI (Julian) direct LAX (Los Angeles) direct SFO (San Francisco), climbing to flight level 310. The ATC transcript provided by PVR ATC shows that the flight was initially also instructed to fly the Mazatlan Two departure procedure. After takeoff, ASA261 received radar vectors to intercept J141. At 2147, the Puerto Vallarta departure controller informed ASA261 that radar service was terminated and instructed the crew to contact Mazatlan Area Control Center (ACC). Communications between ASA261 and Mazatlan ACC are unavailable because the ATC voice recording was not retained by Mexican ATC authorities, but the facility reported that all services provided to the aircraft were normal.

According to FAA certified transcripts, Mazatlan ACC transferred ASA261's flight plan information to ZLA A22 (flight data) position at 2301, stating that the flight's route clearance was, "julian oceanside santa catalina san marcos j five zero one big sur san francisco land", and that the aircraft would be passing over Punta Penasco at 2331 at flight level 310. At 2316, Mazatlan ACC provided revised information to ZLA A-30, stating that the aircraft's route was now, "j five tijuana j one oceanside then uh santa catalina san marcos big sur san francisco landing", estimating arrival at the GOLFO navigation fix at 2331 at flight level 310.

ASA261 contacted the ZLA R30 controller at 2351, and was issued transponder code 2010. At 2355, the crew requested confirmation of their routing and was cleared to San Francisco via Tijuana direct San Marcos J501 Big Sur direct San Francisco at flight level 310. The crew acknowledged the clearance.

No further exchanges occurred until 0009:55, when ASA261 transmitted, "center alaska two sixty one we are uh in a dive here." The R30 controller requested that the crew repeat the message, and the crew responded, "(unintelligible) pitch." The R30 controller again requested that the message be repeated, and at 0010 the crew stated, "yeah we're out of twenty six thousand feet we're in a vertical dive --- not a dive yet --- but uh we've lost vertical control of our airplane." The controller acknowledged, and the crew then transmitted. "we're at twenty three seven request uh --- yeah we've got it back under control there <different voice in background> no we don't (unintelligible)." The R30 controller then asked the crew what altitude they wanted, and asked them to advise on

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their condition. At 0011 the crew responded, "two sixty one we're at twenty four thousand feet kinda stabilized --- we're slowin here and uh we're gonna uh --- do a little troubleshooting we'll can you give me a block between uh --- twenty and twenty five." The controller then gave ASA261 a block altitude assignment from flight level 200 through flight level 250.<sup>2</sup> The crew accepted the clearance and advised that they would be monitoring the frequency. At 0015, the R30 controller instructed the crew to change to frequency 126.52, which is used by ZLA sector 25.

The crew of ASA261 contacted ZLA sector 25 at 0015, reporting that the aircraft had a jammed stabilizer, that they were maintaining altitude with difficulty, and that their intention was to land at Los Angeles International Airport (LAX). The R25 controller issued clearance to LAX, and then asked the crew what they wanted to do. The crew requested descent to 10,000 feet and asked to stay out over the ocean while doing so. The R25 controller coordinated the descent and an assigned heading of 280 degrees with the ZLA D14 controller, who approved the heading and descent to 17,000 feet. At 0016, the R25 controller cleared ASA261 to fly heading 280, descend to 17,000 feet, and contact ZLA sector R14 on 135.5. The crew stated that they would need a block altitude, and acknowledged the frequency change. The R25 controller informed the D14 controller of the block altitude request.

There were no further communications between ASA261 and any air traffic control facility. At 0018, the R14 controller pointed out ASA261 as traffic to the pilot of Aero Commander N50DX, who reported the aircraft in sight. The R14 controller then informed N50DX's pilot that ASA261 was, "...having some pretty bad problems up there right now" and that the pilot should "keep your eye on him." At 0019, the R14 controller made a similar traffic call to Sky West flight 5154 (SKW5154). At 0019:39, the pilot of N50DX reported, "...that plane has started to do a big huge plunge." At 0019:55, the pilot of SKW5154 transmitted, "yes sir I concur he is uh definitely in a nose down uh position descending quite rapidly." At 0020:01, the R14 controller unsuccessfully attempted to contact ASA261. At 0020:20, the pilot of N50DX reported that ASA261 was inverted. At 0020:29, the pilot of SKW5154 reported that ASA261 was, "...definitely out of control," and a few seconds later transmitted, "he's inverted." At 0020:57, the pilot of N50DX reported that ASA261 had crashed. SKW5154 informed the R14 controller that ASA261 had impacted about 2 1/2 miles off the end of Anacapa Island.

Airspace at 8000 feet and below in the area of Anacapa Island is controlled by the Navy radar approach control facility at NTD. During the final descent of ASA261, the D14 controller coordinated with NTD to ensure that they were aware of the aircraft. The NTD controller reported observing ASA261 12 miles southwest of NTD descending through 5700 feet, and then 4600 feet. Immediately after N50DX reported that ASA261 had

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<sup>2</sup> A block altitude is an altitude assignment that permits an aircraft to operate between upper and lower limits. The limits appear in the assigned altitude field of ATC datablocks in the form LLLBUUU, where L and U represent digits of the lower and upper limits. As long as the aircraft is between those limits, its actual altitude is not displayed. Flight levels are measured in thousands of feet, referenced to standard sea level atmospheric pressure.

crashed, the D14 controller asked the NTD controller if the base had a helicopter available that could be launched. The NTD controller replied that there was an aircraft in the traffic pattern that could respond to the crash site.

Following the crash, the R14 controller asked the pilot of N50DX if he could orbit over the crash site. The pilot agreed to do so, descended, and was transferred to NTD approach control.

## **2. Personnel Interviews**

### **Samuel Leonard**

### **Sector 30 Radar Controller**

Mr. Leonard entered on duty with the FAA on February 17, 1988, and reported to ZLA on May 19, 1988 after completing initial training at Oklahoma City. He became fully certified on December 3, 1991, and qualified as a training instructor on June 25, 1992. Mr. Leonard also has 9 years of ATC experience with the US Navy at NAS Point Mugu, the Fleet Air Control and Surveillance Facility in San Diego, and aboard the USS Constellation, all with radar experience. Mr. Leonard has no pilot training or certifications.

Mr. Leonard first became aware of the problem encountered by ASA261 when the pilot stated that the aircraft was in some kind of a dive and descending through FL260. He acknowledged with a "roger", and made no other comment at that time because he thought that the pilots had their hands full. Mr. Leonard first observed the 7700 beacon code a few moments after the pilot reported that the aircraft was in a dive. The crew did not verbally declare an emergency.

Mr. Leonard and the D30 controller immediately began coordinating the emergency and descent with surrounding sectors. Sector 30 had earlier initiated a handoff to sector 25, but took it back with the /OK feature when the emergency happened. Sector 25 called to see why sector 30 had taken it back.

Mr. Leonard then asked the pilot of ASA261 what altitude he would like to maintain. The pilot asked for a block altitude and he issued him one. The block was entered as a hard altitude, not a temporary altitude. Because of this, Mr. Leonard could not see the actual altitude of ASA261, and did not see the aircraft leave the block while operating on sector 30's frequency. Mr. Leonard did notice the altitude field of ASA261's data block showing XXX<sup>3</sup> on the initial descent. No pilot reported seeing anything unusual.

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<sup>3</sup> Air route traffic control center computers perform reasonability checks on altitudes received from aircraft. When an aircraft appears to be changing altitude at a rate that is beyond the normal capabilities of the aircraft type, the software declares the altitude data unreliable and replaces the reported altitude with XXX.

A short time later Mr. Leonard told the crew of ASA261 to advise if they needed anything. The D30 controller then told Mr. Leonard that sector 25 wanted to talk to ASA261, so he put the aircraft on their frequency. After ASA261 left sector 30, Mr. Leonard observed a temporary altitude of 170 in the data block. He stated that he was trying to get caught up with the other traffic in the sector, but kept the data block for ASA261 displayed on the radar scope.

Mr. Leonard stated that ZLA controllers complete computer-based instruction (CBI) units about once a month. Emergency handling is one of the subjects covered, but he does not recall the exact content. Crew training is usually done during team breakouts and with CBI lessons. Face to face training is done by the operational supervisors. CBI lessons are done 1 on 1, you and the computer, with questions and an end of lesson self test. Team breakouts generally occur once a week.

**William Bigley**

**Sector 25 Radar Controller**

Mr. Bigley entered on duty with the FAA on September 26, 1989, and reported for duty at ZLA on December 26, 1989, after completion of initial training at the FAA Academy in Oklahoma City. Mr. Bigley became area rated on February 8, 1993, and was certified as a training instructor on October 5, 1995. He has no other ATC experience, and no pilot training or certificates.

He first became aware of ASA261 after he accepted the handoff from sector 30 and noticed the aircraft was on beacon code 7700, indicating an emergency. Sector 30 then took back the handoff. Mr. Bigley told the controller assisting him at the D25 position to find out why they did that. Mr. Bigley stated that at that time ASA261's altitude indicated flight level 236 (approximately 23,600 feet above mean sea level) and then a block altitude assignment appeared in the datablock. The D25 controller called sector 30 to see what they were doing. The sector 30 controller said that ASA261's stabilizer was frozen or broken. The D25 controller then instructed sector 30 to put the flight on sector 25's frequency because he thought sector 25 could probably do more for the aircraft. Sector 30 again handed off ASA261 and put the aircraft on sector 25's frequency.

When ASA 261 contacted R25, the pilot said that the stabilizer was frozen and that he would like to go to LAX. Mr. Bigley issued a clearance to LAX via direct SMO direct LAX. The pilot then said that he wanted to go over the bay, get down to 10,000 feet, and change the configuration to make sure he could control the aircraft. Mr. Bigley acknowledged and called sector 14 to advise them of what the pilot wanted. The D14 controller approved descent to 17,000 and on a 280 heading. Mr. Bigley issued ASA261 a descent to 170 and a heading of 280. The pilot responded that he generally needed a block altitude. Mr. Bigley told him that he could have this now, and issued a frequency change to sector 14 along with the current altimeter setting.

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Mr. Bigley has completed computer-based instruction refresher training on emergency handling, but does not recall the exact content. The area supervisor at the time of the accident was Terry Comstock, who assisted with coordination between the sectors. The D25 controller informed Mr. Comstock when ASA261's transponder changed to the emergency beacon code.

**Michael Grigsby**

**Sector 14 Radar Controller**

Mr. Grigsby entered on duty with the FAA in 1978 at Santa Barbara air traffic control tower (ATCT). He was employed as a Department of Defense controller at Lemoore Naval Air Station from 1981 to 1987, and returned to the FAA on August 30, 1987. Mr. Grigsby was assigned to Burbank terminal radar approach control (TRACON) until June 28, 1993, and has been assigned to ZLA since that date, becoming fully certified on April 26, 1996. He was certified as a training instructor on February 5, 1992. Mr. Grigsby has previous air traffic control experience in the US Marine Corps and US Navy, and possesses FAA commercial, multi-engine, and instrument ratings, but is not current.

Mr. Grigsby first became aware of ASA261 when he noticed an emergency 7700 code south of LAX. The D14 controller told him that the aircraft had some kind of vertical stabilizer problem. A short time later the D14 controller told Mr. Grigsby that ASA261 was descending, then that the aircraft was descending to 17,000 feet on a 280 heading. Mr. Grigsby stated that he knew that ASA261 was in a grave situation because of the emergency beacon code and the information about the stabilizer problem, but he does not recall the specific coordination.

Mr. Grigsby assessed the traffic in the sector and decided that 3 aircraft on the frequency could be a factor. He turned an American Airlines departure off LAX south to maintain separation from ASA261. Mr. Grigsby thought 2 other aircraft could have been a factor, but because ASA261 was having a control problem, he did not want to guess. Mr. Grigsby wanted the other aircraft to have visual contact with ASA261 and be able to maintain separation in case the crew lost control of the aircraft.

Mr. Grigsby believes that Terry Comstock, the operational supervisor, was behind him but doesn't know when he got there.

Mr. Grigsby does not recall giving any specific instructions to the D14 controller on what to do. While there were other aircraft in the sector, they were not in a position to conflict with ASA261, and Mr. Grigsby does not believe any other aircraft besides N50DX and SKW5154 saw the accident.

Mr. Grigsby stated that he had completed CBI units on emergency handling within the past 12 months. The content included obtaining location, altitude, pilot intentions, and the nature of emergency. Mr. Grigsby stated that there is no DYSIM (radar simulator)



emergency training done at ZLA now, but there had been some in recent years at other facilities.

N50DX was descended to 9000 feet in accordance with a letter of agreement between ZLA and SBA ATCT. When the pilot of N50DX reported the MD80 in sight, Mr. Grigsby wanted him to maintain visual contact in order to ensure separation and, in the event of an accident, to reassure any survivors that their position was known.

Mr. Grigsby stated that he was relieved from position a short time after the accident. He informed the group that sector 14 is mainly a departure sector, and owns a maximum altitude of flight level 230. Mr. Grigsby was not overly concerned that ASA261 had not called, because he had no imminent conflicts and thought it was better to leave the crew alone to handle the problem. Mr. Grigsby has worked other emergencies, but never a fatal accident.

### **Lawrence Shell**

### **Sector 14 Radar Associate**

Mr. Shell entered on duty with the FAA on March 6, 1984. He was fully certified in area A on May 9, 1987, and qualified as a training instructor on October 10, 1996. Mr. Shell has no other ATC experience or pilot ratings.

Mr. Shell became aware of the situation with ASA261 just before sector 30 called to point out the aircraft maintaining block altitude flight level 200 through 250. ASA261 was not in sector 14's airspace yet, but the datablock was displayed on the radar scope. Sector 25 reported that the aircraft was having some kind of pitch control trouble, but the exact nature of the problem was unclear to Mr. Shell. The word stabilizer was used but not well defined, and sector 25 did not provide any further information.

Mr. Shell stated that after the call from sector 25, he and the R14 controller were waiting for more information and guidance from the supervisor, and working the other aircraft in their airspace. Sector 25 then called to advise that ASA261 would be diverting to LAX. Mr. Shell was surprised that he had not heard that before, because he was expecting to. The sector 25 controller then told Mr. Shell that ASA261 would be descending over the bay, requesting lower altitude and a 280 heading. Mr. Shell said that he probably did not grasp the full extent of the emergency at that point. He was waiting for any useable information: the only thing we knew was that the aircraft wanted descent and a 280 heading. Mr. Shell believes that the descent to 17,000 feet was sector 25's suggestion, but said that he would have approved anything ASA261 asked for.

Mr. Shell tried to get ASA261 on to sector 25's frequency, but the pilot never called. The R14 controller tried to clear other aircraft out of the way, and moved an American Airlines departure from LAX to avoid a potential conflict. The R14 controller also pointed ASA261 out as traffic to SKW5154 and N50DX. Mr. Shell last recalls seeing the last altitude report from ASA261 at 17,900 feet. After that, one of the other aircraft

reported that ASA261 was in a “plunge.” Mr. Shell immediately called NTD to coordinate the descent. NTD advised they were watching ASA261 and they starting calling out altitudes. Mr. Shell recalls them reporting that ASA261 was below 8,000, and said that he was surprised that the aircraft had already descended 10,000 feet below the last altitude that he had seen. They called out a few other altitudes and Mr. Shell passed that information on to the supervisor. Soon after the call to NTD, other aircraft reported to R14 that ASA261 had struck the water. Mr. Shell requested search and rescue assistance from NTD, and then the pilot of N50DX volunteered to go orbit the crash site. NTD approved 5000 feet for N50DX, and Mr. Shell handed the aircraft off to them.

Mr. Shell stated that he has had CBI refresher training on emergencies within the last 2 years. ZLA has monthly CBI training, which is usually a refresher of FAA Handbook 7110.65, “Air Traffic Control”, and helps provide recall of the order. Mr. Shell has had no DYSIM emergency training since his initial training at ZLA.

**Terry Comstock**

**Area A Operational Supervisor**

Mr. Comstock entered on duty with the FAA on February 2, 1977. He became area rated on August 4, 1981, and has been an operational supervisor since about 1989. He also has three years of air traffic control experience in the US Navy.

Mr. Comstock took over supervision of Area A at approximately 2310 after receiving a relief briefing from Dean Barnes. Mr. Comstock was at the supervisor’s desk in the area when he overheard talk about an emergency from the D-side at Sector 25. He walked over to the sector and found the D25 controller coordinating with Sector 30 about ASA261. Mr. Comstock asked them what was going on. Mr. Garza (supervisory traffic management coordinator) then asked Mr. Comstock if he knew about ASA261. Mr. Comstock replied that he was trying to find out about the situation. The sector 25 controller then said that ASA261 wanted to go out over the water. D14 and 25 were coordinating that request, and Mr. Comstock heard them discussing descending ASA261 to 17,000 feet on a 280 heading to provide separation from an American Airlines departure off of LAX to Hawaii that was climbing to 16,000 feet. Mr. Comstock told the D14 controller to move the American flight to the south. Mr. Comstock is certified on Sector 14, and was trying to help the R14 controller. Mr. Comstock thought about the emergency procedures, number of people aboard, and fuel, and remembers Jim Miller, the Area E supervisor, standing behind him and talking about getting ASA261 to LAX. Mr. Comstock was trying to make sure that there was a lot of space around ASA261. The R14 controller issued traffic to a Skywest climbing to 11,000 feet en route to Santa Barbara. There were other aircraft in the area, and the R25 controller was issuing traffic calls about ASA261 to them. Mr. Comstock went to sector 13 to get weather information for LAX to decide which runways might be viable for ASA261, and also checked the coordination line for activity. There was none.

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Mr. Comstock considered sending ASA261 to NTD because they had a long runway, but the next thing he heard was the D14 controller saying that the aircraft was in a plunge. Mr. Comstock then went on the landline to NTD to start coordinating with them, but the D14 controller was already doing it. Then SKW5154 said ASA261 was inverted. Mr. Comstock saw the target change to a correlated primary, a plus on the scope, and then SKW5154 said "he just hit the water." Mr. Comstock told the D14 controller to try to get NAS Point Mugu to send assistance.

Mr. Comstock then acted to get the controllers relieved from the sector. Mr. Barnes came back to the area, and Mr. Comstock put him behind sector 14 for an extra set of eyes. The R25 controller was relieved from the position right away, within 5 minutes. The D25 controller wanted to stay on and complete some coordination, and was relieved about 10 minutes after the crash. Mr. Comstock told them to go out and take a walk or something and that they could meet with him later. Mr. Comstock stated that he controllers were doing everything they could, and that no supervisory intervention was needed.

Mr. Comstock stated that he is involved in a few emergencies a month, and that he believes the most recent emergency refresher training occurred within the last 3 to 4 months. DYSIM problems are only used for the re-certification process and the normal developmental training phases. There is emergency training in one phase that they bring up, but no recurrent DYSIM emergency training for controllers.

The Display System Replacement (DSR) transition to new radar displays has gone smoothly, with extra staffing provided through the use of overtime. Under DSR operations, sectors are normally staffed with 2 controllers.

**James Miller**

**Area E Operational Supervisor**

Mr. Miller entered on duty with the FAA on April 17, 1970. Since then, he has worked in the following facilities and regional staff positions:

- 1970 - 1975 Seattle ARTCC
- 1975 - 1983 Seattle TRACON
- 1983 - 1984 Seattle ARTCC
- 1984 - 1987 Phoenix TRACON
- 1987 - 1990 Edwards RAPCON
- 1990 - 1992 Los Angeles ARTCC
- 1992 - 1993 AWP-530
- 1993 - 1996 AWP-505
- 1996 - present Los Angeles ARTCC

Mr. Miller has a commercial pilot certificate, with multi-engine, instrument, and glider ratings. He also had 3 years ATC-related experience in the US Army.

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Mr. Miller became aware of the incident about 1 minute after the emergency upset, when the D30 controller told him that there was a problem with ASA261. He looked at the scope and saw the altitude around flight level 260, plus or minus a couple of hundred feet. The D30 controller then told Mr. Miller that ASA261 had lost vertical control. Mr. Miller stayed at the sector for a few minutes. It looked like the aircraft had stabilized and regained control. He informed STMC Garza about the problem and then went back to the sector to see what else could be done. Mr. Miller monitored sector 30 to ensure that the proper coordination was done, and to see what assistance the pilot needed. Mr. Miller stated that he knew the pilot was busy, and heard the pilot request the block altitude FL200-250. Mr. Miller continued to monitor the controller coordination, the issuance of the block altitude and the transfer of communication to Sector 25. Mr. Miller then walked down to the area A to brief the supervisor, Terry Comstock. Comstock already had some information on ASA261. Mr. Miller passed on what he knew, and then returned to Area E.

A few minutes later Mr. Miller returned to Area A and suggested that Terry see if a fighter could come from NTD and fly up for any assistance. Mr. Miller had no further role in the accident.

Mr. Miller does not recall how he heard about the crash, but believes Mr. Comstock told him about it later.

At ZLA, new controllers taking DYSIM training problems get some emergency training, but Mr. Miller doesn't know how exhaustive it is. There are emergency-related CBI lessons once in a while: some are specific and others, such as icing, are more general. Providing specific emergency training is difficult. Controllers handling an emergency normally follow pilot requests as part of the normal course of business. Mr. Miller stated that the center works an emergency or an event of one sort or another about every day.

### **3. Additional Information**

Radar data showing the flight trajectory of ASA261 was obtained from NAS Point Mugu, Southern California TRACON, Los Angeles ARTCC, and Santa Barbara ATCT. The Navy range radars at Point Mugu were not recording properly at the time of the incident, so only ATC radar recordings were available. Because of technical problems, NAS Point Mugu was unable to extract the radar data. This service was provided by support staff at NAS Patuxent River, and the resulting information was furnished to the Safety Board. All FAA and USN radar data was supplied to the Aircraft Performance Group for analysis.

In addition to radar data, the ATC group collected the following information that will be entered in the public docket (item 1 is also an attachment to this factual report):

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1. Los Angeles ARTCC ATC transcripts for positions A22/30, R30, R25, R25, D25, R14, and D14.
2. ZLA operations manager and STMC statements, accident/incident briefing sheet, FAA form 7230-4 Daily Record of Facility Operation, copies of ASA261 flight strips, event timeline, OSIC accident/incident checklist, FAA form 8020-3 Facility Accident/Incident Notification Record, Aircraft Accident/Incident Preliminary Notice.
3. ZLA controller position logs
4. NAS Point Mugu data retention advisory, controller statements, and chain of custody form for NAS Point Mugu ATC radar tape.
5. ZLA high and low altitude sector maps
6. Puerto Vallarta air traffic control transcript of communications with ASA flight 158 inbound to PVR, and ASA261 departing PVR.
7. Santa Barbara ATCT controller statements.
8. Southern California TRACON radar plots and tabular data
9. ZLA radar site locations
10. ZLA DSR control room sector layout
11. Contents of "Emergencies" CBI lesson presented 10/99 at ZLA
12. Facility certification times, navaids, radios, radars
13. Copies of controller statements completed by James Miller (OSIC-E), Lawrence Shell (D14), Michael Grigsby (R14), Terry Comstock (OSIC-A), Douglas J. Verseput (D25), William T. Bigley (R25), Samuel Leonard (R30), and Patricia B. Haughenberry (D30).



Scott J. Dunham  
ATC Group Chairman



Paul R. Misencik  
Chief, AS-30

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