NATIONAL TRANSPORTATION SAFETY BOARD
Office of Aviation Safety
Washington, D.C. 20594

June 7, 2006

Group Chairman's Factual Report

HUMAN PERFORMANCE

DCA06MA010

A. ACCIDENT

Operator:	Flying Boat, Inc. dba Chalk's Ocean Airways
Location:	Miami Seaplane Base (X44), Miami, Florida
Date:	December 19, 2005
Time:	1439 eastern standard time[1] (est)
Airplane:	Grumman Mallard G-3T, N2969

B. HUMAN PERFORMANCE SPECIALIST

Malcolm Brenner, Ph.D.
National Transportation Safety Board

Working with the Operations Group:

Kenneth L. Egge, Group Chairman
National Transportation Safety Board

Adalberto Munet
Federal Aviation Administration

Alex Larsen
Chalk's Ocean Airways

C. SUMMARY

On December 19, 2005, at 2:39 pm eastern standard time, a Grumman Mallard G73T, N2969, operated by Flying Boat Inc. as Chalk's Ocean Airways flight 101, crashed into a shipping channel adjacent to the Port of Miami shortly after takeoff. The aircraft, a seaplane, had departed from the Miami Seaplane Base (X44), and took off from the shipping channel with 2 crew and 18 passengers

[1] All times are Eastern Standard Time based on a 24-hour clock, unless otherwise noted. Actual time of accident is approximate.

(including 3 infants). The scheduled flight was destined to Bimini, Bahamas, operating under the provisions of Title 14 Code of Federal Regulations Part 121. The seaplane was retrofitted with Pratt & Whitney PT-6 turboprop engines. Witness and video recordings indicated a fire on the right wing and showed the wing separating prior to impacting the water. All 20 occupants suffered fatal injuries. Visual meteorological conditions prevailed at the time of the accident.

D. DETAILS OF THE INVESTIGATION

The Human Performance Specialist served as a member of the Operations Group during the field phase of the investigation. To supplement information obtained during this phase, the Human Performance Specialist coordinated interviews with the captain's husband and three former company pilots and reviewed additional relevant documents.[2] This report focused on background and medical issues for the accident pilots and pilot views of company maintenance.

1.0 BACKGROUND OF THE PILOTS

1.1 Captain

The captain, age 37 years, was hired by Chalk's Ocean Airways (Chalk's") on 3/10/2003. On 8/24/2005, she became company Director of Safety (in addition to her flying responsibilities). According to her husband, the captain first dreamed as a young girl of becoming a Chalk's pilot when she saw a company airplane fly overhead. She was thrilled when the company hired her as a pilot. However, according to the husband, the glamour of the Chalk's job had faded and the captain began applying for jobs at other airlines in the months before the accident. Other company pilots described the accident captain as a pilot with excellent skills and judgment who was always upbeat.

According to the company chief pilot, the captain had not been subject to any disciplinary problems and had received informal commendations from other pilots and passengers. FAA records showed a history of no aviation accidents or violations for the captain. A search of the National Driver Register found no history of driver's license suspensions or revocations. The captain held a valid Florida driver's license with a history of no recent automobile accidents or violations.

Company records indicate that the captain was off-duty on Monday 12/12 through Friday 12/16. During this time, she and her husband bought a sailboat (after six years of planning) and delivered it from Naples along the west coast of

[2] Summaries of interviews with company employees are provided in the Operations Group Chairman Factual Report of April 21, 2006, Attachment 1. Summaries of the interviews with the accident captain's husband and three former pilots are attached to this report, along with a copy of a resignation letter provided by one of the former pilots.

Florida to their home at Boynton Beach, Florida on the east coast. They arrived home exhausted on Thursday night, according to the husband, and the captain slept all day Friday. On Saturday 12/18 and Sunday 12/19, the captain flew regular passenger sequences in the accident airplane. According to the first officer of the Saturday trip, the airplane flew normally[3] and the captain appeared to be in a good mood. They resumed flying early on Sunday morning, following a layover at a hotel, and the captain appeared rested.

On Monday 12/19, the captain's first flight was scheduled to depart in the morning but was delayed by a low fog layer that prevented flying. She was forced to wait in the Ft. Lauderdale terminal and, according to the chief pilot (who was also waiting to depart), talked about a recent boat trip she had taken with her husband. She seemed "her usual upbeat self," friendly, smiling and alert. The weather improved sufficiently to permit flying and the accident airplane departed about 1305 to the Miami seaplane base, the first company flight to depart Ft. Lauderdale.

1.2 First Officer

The first officer, age 34 years, was hired by Chalk's Ocean Airways on 4/15/2005. Other company pilots described him as a likable and helpful person, happy to work for the company, who had good pilot skills for his experience level.

According to the company chief pilot, the first officer had not been subject to any disciplinary problems. FAA records showed a history of no aviation accidents or violations for the first officer. A search of the National Driver Register found no history of driver's license suspensions or revocations for the first officer.

According to company records, the first officer worked every day from Thursday 12/15 through the accident day and was scheduled to be off-duty for the following four days. The accident trip was his first pairing in the December schedule with the accident captain and, according to a company representative, may have been his first flight with her. A company maintenance manager observed the first officer about 0620 to 0625 on the accident morning conducting a pre-flight inspection of the accident airplane and stated that the first officer looked normal and energetic. The same manager greeted the first officer in the terminal about 1300 when the first officer was getting ready to depart. He described the first officer as having a neat appearance and being friendly and happy.

[3] The accident airplane came out of maintenance for the Saturday trip. According to the first officer, the crew conducted an operational check flight that lasted about 15-20 minutes prior to the start of passenger service in which all systems were checked and the airplane felt "tight, solid, with no abnormals." During revenue service, the accident airplane performed normally and the captain commented that the airplane came out of maintenance in good shape. The first officer indicated that the airplane showed no unusual vibrations and that no fuel, oil, or hydraulic fluid leaks were observed.

2.0 MEDICAL FACTORS

2.1 Captain

According to FAA records, the captain held a valid First Class Medical Certificate issued 9/27/2005 with the limitation "holder shall wear corrective lenses." The medical record listed the pilot's distant vision as 20/30 in each eye corrected to 20/20, and her near vision as 20/30 in each eye corrected to 20/20. The FAA medical certificate listed the pilot's height as 5' 11" and weight as 130 lbs.

According to her husband, the captain was healthy and very strong. In the last 12 months, however, her medical condition had suffered as she was more stressed by work demands.

Toxicology tests were performed by the FAA Civil Aeronautical Institute (CAMI) on fluid specimens obtained posthumously from the captain. A vitreous specimen was negative for ethanol, and urine and blood specimens tested negative for a wide drug screen that included major drugs of abuse.[4] The urine specimen, but not the blood specimen, tested positive for diphenhydramine[5].

2.2 First Officer

According to FAA records, the first officer held a valid First Class Pilot Medical Certificate issued 1/31/2005 with the no limitations. The medical record listed the pilot's distant vision as 20/20 and near vision as 20/30 in each eye. The FAA medical certificate listed the pilot's height as 6' 1" and weight as 250 lbs.

Toxicology tests were performed by the FAA Civil Aeronautical Institute (CAMI) on tissue specimens obtained posthumously from the first officer. Liver and muscle specimens tested negative for alcohol, while liver and kidney specimens tested negative for on a wide drug screen with the exception that both were positive for quinine.[6]

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[4] The drugs tested in the post accident analysis included (but were not limited to) marijuana, cocaine, opiates, phencyclidine, amphetamines, benzodiazapines, barbiturates, antidepressants, antihistamines, meprobamate, and methaqualone.

[5] Diphenhydramine is an anti-histamine used in non-prescription sleeping aids. It is not quantified in CAMI results unless a substantial quantity is present.

[6] Quinine is found in tonic water and is not quantified in CAMI results unless a substantial quantity is present.

3.0 PILOT PERCEPTIONS OF COMPANY MAINTENANCE

Interviews with current and former Chalk's pilots indicated that there had been recent pilot morale issues due to concerns about company maintenance and airplane events. In August 2004, all company captains met with the Director of Operations to raise pilot issues about maintenance, including concerns about visible cracks and degraded rivets (recessed, smoking, or missing) on some airplanes. In December 2004, a company flight experienced an in-flight emergency when an elevator cable broke during climb-out from an airport. In January 2005, and February 2005, company flights experienced in-flight engine failures. Three captains (out of six captains in the company) resigned from the company during this period. All three had experienced in-flight events or had raised concerns about the quality of maintenance, and only one of these captains had arranged an alternate job.[7]

Several current pilots interviewed by the investigation indicated that pilot morale had improved in the months before the accident and that the company appeared to respond to earlier problems with improved maintenance efforts. The company chief pilot stated that no pilots had mentioned to him any serious recent concerns about maintenance. However, according to her husband, the accident captain was concerned before the accident that the aircraft at Chalk's were not well maintained.[8]

[7] Interviews with these captains are summarized in Attachments 2 to 4, and a resignation letter provided by one of these captains is provided in Attachment 5.

[8] According to the husband, the accident captain felt that the company did not spend money on the airplanes, that pilots were having close calls that were becoming more frequent, and that she would squawk maintenance problems that would not be fixed.

Attachment 1
Interview Summary

Interview: Mark Marks, Husband of Captain
Date: December 21, 2005
Location: telephone interview
Time: 2100 EST

Investigation member present was Malcolm Brenner (NTSB).

During the interview, Mr. Marks stated the following information:

The captain ("Michele") worked methodically for her aviation career and Mr. Marks observed her progress from her first solo to the present. Mr. Marks is not a pilot although he helped her study and attended all her pilot tutoring sessions with other pilots.

Around the time of the accident, she was working schedules of four to five days in a row and was exhausted. She typically awoke for work at 0430, and he typically awoke with her and prepared coffee that she drank before leaving. She had a one-hour commute to work. In the wintertime, she normally got home between 2030 to 2100 and was asleep by 2230. She was exhausted by this schedule and just did not have any free time. Winter was a rough time.

Her last off-duty period before the accident consisted of four days that ended on Friday, December 16, 2005 . During this time, they bought a sailboat (after six years of planning) and delivered it from Naples along the west coast of Florida to their home at Boynton Beach, Florida on the east coast. Michele was the real sailor in the family. They sailed through rough water and were exhausted by the end of the trip. Michele slept all day on Friday, December 16, 2005, the day after they returned from the sailing trip, and then began her work cycle again. She flew the "B" line on Saturday, December 17, 2005, the "A" line on Sunday, December 18, 2005, and the "D" line on Monday, December 19, 2005. She was scheduled to fly the "A" line on December 20, 2005. He last saw Michele on the morning of December 18, 2005, when she left home for work.

Mr. Marks is a marine biologist, a professor of zoology, who works with white sharks and has participated in television documentaries. Michele, who did volunteer work at an aquarium, had seen a documentary on the Animal Planet television network in which he participated. She visited South Africa in 1998 and took a course he was presenting. He met her when she arrived at the class and, ten days later, asked her to marry him. They had been married 8 years.

Michele grew up in Long Island. Her parents owned a sailboat and, at 6 or 7-years-old, she saw the Chalk's Airways Mallards fly overhead and dreamed of being able to fly those airplanes. Later, while working as a CFI and pilot for an executive jet company in Arizona, she read an article about a female pilot who was a Chalk's captain and company chief pilot. Michele contacted her, and established a good rapport with her. With her encouragement, Michele applied and received a job offer from Chalk's. Michele was ecstatic, and they moved quickly to Florida where she began working for the company. The Chalk's people were like idols to her.

There was no bravado in her professional actions. She was serious as a professional pilot and Mr. Marks respected her integrity. She was beginning to assert herself as captain. By the time of the accident, however, the glamour of the Chalk's job was over and Michele wanted to leave for another flying job. She was relatively low paid, was becoming physically tired, and was not enjoying the job anymore. Although she felt a loyalty to Chalk's and liked the Director of Operations, she began applying for jobs at other airlines in the months before the accident. Seaborne Air, a Part 121 seaplane operator based in the Virgin Islands that flew Twin Otter airplanes, offered her a pilot job on two occasions during this period. Michele had to decline both offers reluctantly, because she was unable to move to the Virgin Islands as rapidly as the company needed her in each case. In one case, they wanted her to start in only five days.

Another pilot, named Grady, had worked previously at Chalk's and now works at Seaborne. Grady was a first officer with Michele who upgraded early to captain, completed his type rating in the airplane, and left the company shortly afterwards due to safety and maintenance concerns. During the initial period of training for first officer, Grady and his wife lived in the same apartment complex as the Marks'.

Michele was concerned that the aircraft at Chalk's were not well maintained and that the company did not spend money on the airplanes. Every day she spoke about today's problem with the airplane: maybe a clogged filter, sometimes something more detailed. Michele was becoming scared and talked about maintenance concerns all the time. They were having close calls that were becoming more frequent. She would squawk problems that would not be fixed.

Michele was healthy and very strong. On their honeymoon, they backpacked for three months amongst many of the nations National Parks. In the last 12 months, however, her medical condition had suffered as she received less sleep and was more stressed by work demands. She just began smoking, biting her nails, and felt like she was rushed. She was flying back-to-back flights and sometimes had difficulty finding time for even toilet breaks between flights.

In the last 12 months, her financial situation improved somewhat when she upgraded to captain. Her pay was not great, but they were able to move into a better apartment as a result of her upgrade. In the last 12 months, her personal situation was unchanged. They really enjoyed the new boat and she was in a positive frame of mind.

Attachment 2
Interview Summary

Interview: Jai Guidry, Pilot, Chautaugua Airlines
Date: February 1, 2006
Location: telephone interview
Time: noon EST

Investigation members present were: Malcolm Brenner, Pocholo Cruz, Ken Egge (NTSB), and Dave Avery (FAA)

During the interview, Mr. Guidry stated the following information:

His date of hire with Chalk's Ocean Airways was April 2002 and his last day with the company was Christmas 2004. He loved working for Chalk's and it will always be his favorite job. He was raised in South Louisiana and always considered himself a seaplane captain. At Chalk's, the people and the island destinations were good and everyone liked the company. They were airplane people. His only criticism was that they could pay more money. He left Chalk's because he always wanted to fly jets. He was able to obtain a job with Chautaugua Airlines through a connection with a friend.

Maintenance at Chalk's sometimes left something to be desired. Sometimes, following a write-up of an item like a VOR [VHF navigation receiver] or GPS, maintenance would ask the pilot whether he could fly with the problem so that it could be deferred. It was an aggravation thing. Mechanics would say that "we don't have the parts" and that repairs would take a few days.

He was a captain at Chalk's from October 2003 until he left. While captain, he participated in a meeting between all captains and the Director of Operations (DO) to bring up issues that mattered to the pilots. First officers were deliberately excluded from the meeting, which happened on August 25 or 26, 2004. One topic discussed was that pilots should not be encouraged to take overweight airplanes. Because of the high empty weight of the airplanes, 9,400 pounds, pilots were required to leave fuel behind to take a large number of passengers. "Rampers" were not always honest about cargo weight, saying 200 pounds when the actual weight may have been 250-300 pounds. The pilots proposed stripping extra paint to save weight. Another topic discussed was stress cracks and recessed rivets. Pilots expressed concern about extending engine MELs [Minimum Equipment List] and that there were too many extensions. It was legal but they did not like the extensions. There were at least five captains involved in organizing the meeting. They wanted to know something was being done for their safety.

The DO appeared to be genuinely concerned. He said he would look into the concerns and invited suggestions. He said he would get back to them and told them not to worry. Pilots were told that the airplanes were fine and would be examined. The pilots had talked to the DO in the past, on a daily and individual basis, but a number of small things came to a head and prompted the group meeting.

Regarding stress cracks and recessed rivets, Captain Guidry recalled that at least one airplane (out of the three flown by the company at that time) had cracks in the paint and recessed rivets. The cracks were at the wing root around the engine. Pilots were told that it was normal and there was nothing to worry about.

On November 29, 2004, subsequent to this meeting, an airplane experienced a failure of the elevator cable in flight. Pilots did not express concern about such an event, since they just did not think of something like this happening and never saw it coming.

He was captain on the flight in which the elevator cable failed. They were departing from Nassau with 16 passengers, leveled at 1,000 feet altitude, when the elevator became non-responsive. He declared an emergency and asked for fire trucks, figuring that they would belly land. However, he returned to Nassau and landed using elevator trim, and had enough control to flare so it turned out to be a smooth landing. They found that the elevator cable was fully frayed and cut in half.

Unknown to Chalk's, he had completed a job interview at Chautaugua Airlines shortly before this event and received an acceptance letter from Chautaugua one day before. On the same day as the event, he completed 1,000 flight hours as PIC in turbine equipment (a significant experience landmark for resume experience). He resigned from Chalk's that day, giving the company a formal two-week notice. In his case, he did not resign because of maintenance issues but because he had another job.

Two other pilots, Eric Weber and Grady Washatka, left Chalk's soon after.

Company relations with the FAA were absolutely great. The POI and his assistant were friendly.

He experienced a gear failure in Ft. Lauderdale.

The meeting with the Director of Operations, and a subsequent meeting with the DO and senior maintenance manager, Tracy Perkins, happened in August 2004.

He did not know whether cracks were apparent on more than one airplane. The company said they would do inspections. Juan, who worked in maintenance for the company for 30 years and could build the airplane, stated along with the DO that the cracks were superficial. When Juan and the DO said the cracks were no problem, he believed it. They directly addressed the problem.

The airplanes experienced chronic fuel leaks. Most often, these occurred at the vent behind where the wing meets the fuselage and there was often fuel coming out there. Once, when they flew to Panama City to escape from an incoming hurricane, the owner was on board and complained of a diesel smell. Captain Guidry told the owner that they needed to fill up the tanks but the owner said not to put that much fuel on. Captain Guidry always wrote up everything, especially toward the end of his tenure at the company. Things either got fixed or they were deferred.

He was sometimes dissatisfied with the response by maintenance, as when they closed an item with “could not duplicate on ground” or ”Ops checks OK.” These types of problems led to the DO meeting.

Airplane N142PA was the one that had the elevator cable snap. It was his understanding that, after the event, the company replaced all cables with plastic protected cables.

January 5, 2005 was his first day working for Chautaugua.

He remained knowledgeable about maintenance work on the airplanes by reviewing write-ups for the last 30 days and conducting an airplane walk-around before every flight.

He did not know whether repainting took care of the visible cracks cited by the pilots since he did not remain long enough with the company to see whether the cracks reappeared.

“Rampers” did not use the correct weights for baggage before the pilots complained. Soon after the meeting with the DO, the company began using actual weights and “rampers” began asking the pilots how much weight they could take; therefore the problem was addressed and fixed.

They estimated passenger weights by adding up all adult passengers and multiplying by a standard weight. Children were given a different standard average weight. Lap children (infants) were assigned a weight of zero pounds. Pilots would always crosscheck to the confirm number of passengers on board. The captain would board the airplane first and start the right engine. The first officer would be the last person on board and he would count passengers to compare with the manifest form. There was a fine of $10,000 per person from

the customs service for any passenger not listed on the manifest form; therefore, an accurate passenger count was a high priority.

The accident captain served as his first officer, and the accident first officer was a friend. He understood that the accident captain was excellent when she was upgraded. He could visualize the accident flight and what happened, since Watson Island to Bimini was a direct line, straight and level, and there should have been no undue stresses on the wing. Therefore, he believed that no pilot could have saved the accident airplane.

Following the elevator cable event, he wrote a narrative letter of what happened. The DO had instructed him to write the letter.

After the pilot meeting with the DO, pilots were told not to be concerned about cracks. He did not see the maintenance records to confirm that inspections were done. It is highly possible the pilots wrote up cracks and rivets after this.

To his knowledge, there were no fuel leaks anywhere other than at the vents. He remembered them sealing the tanks. He experienced in-flight vibrations from time to time, usually related to the elevator. Pilots would not take an airplane that they felt was unsafe.

DO Rogers said that the pilot concerns about cracks would be addressed, and Tracy Perkins told him that the cracks were of no concern.

He worked previously for a FAR Part 135 operator so Chalk's was his first FAR Part 121 operation.

The pilots did not get together as a group before their meeting with the DO. The meeting with the DO, where plots got together as a group, was unusual. He had never heard of this type of meeting happening before.

Attachment 3
Interview Summary

Interview: Eric Weber, Pilot, Focus Airline
Date: February 2, 2006
Location: telephone interview
Time: 1100 EST

Investigation members present were: Malcolm Brenner, Pocholo Cruz, Ken Egge, Bill English (NTSB)

During the interview, Mr. Weber stated the following information:

His date of hire with Chalk's was April 2001. He was hired to fly the Twin Otter airplane, upgraded to the Mallard seaplane as a first officer for 6 months and, beginning in May 2003, as Mallard captain. He resigned from Chalk's on February 22, 2005, and his resignation involved issues of maintenance.

He experienced three in-flight engine failures, was aware of two in-flight elevator failures involving other company pilots, and had concerns about zero fuel weight issues and the overall condition of the airplanes.

His first engine failure occurred on August 24, 2003 when he was a relatively new captain. He was departing Paradise Island, Bahamas when he experienced a partial failure of the #2 engine. It involved a surge on the fuel control unit, a momentary loss of power, and a spontaneous return to about 50% power. He landed at Nassau International Airport, advised the company and completed an occurrence report for Bahamas authorities. Maintenance personnel replaced the engine fuel control unit.

The second event occurred on January 16, 2005. He was flying airplane N2969, returning to Ft. Lauderdale from Paradise Island at 1,500 feet beneath weather, when the left engine had a slow bleed-off of power for 15 seconds. He landed at South Bimini Island on runway 27 and shut down. The engine had a broken P_3 line. He completed a company flight irregularity and hazard report and also submitted a NASA ASRS report. Company mechanics came to the island and fixed the line.

The third event occurred on February 12, 2005. He was flying from Ft. Lauderdale to Paradise Island in airplane N2969 when, climbing through 8,900 feet, the #1 engine suddenly stopped. He had just commented to the first officer how well the engine was running. They subsequently landed on runway 9 at Bimini. The compressor section of the engine had disintegrated. A new engine

was installed the next day. He took several days off from work, thought about things, and resigned from Chalk's.

A few months before this last event, an event involving an in-flight elevator cable failure had occurred on another flight flown by a different flight crew. The cable failed at 2500 feet and the pilots had no control of the elevator. The company replaced the failed part. A second failure occurred prior involving a rear turnbuckle failure at V1 and a different crew.

Prior to all these events, the pilot group held a meeting with the Director of Operations (DO), Raj Nair, to discuss concerns. The group's main concerns were that all airplanes were re-weighed and all of the airplanes had gained about 300 pounds and could only carry limited fuel and bags as a result, and that some airplanes showed cracks on the skin and recessed and smoking rivets. This meeting with the DO involved only captains, although it followed from an earlier pilot meeting that included both captains and first officers, most of the pilot group, in which pilots raised these concerns among themselves. The captains decided to approach management themselves without first officers present.

The DO seemed concerned and said he would discuss the issues with maintenance. Maintenance replaced some rivets and indicated an intension to replace smoking rivets. Later, they stripped down about 230 pounds weight from one airplane. Captain Weber indicated he was somewhat satisfied with the results of the meeting with the DO, although he hoped for quicker action on the issue involving airplane weight.

Following the event involving the snapped elevator cable, the company held a meeting for all pilots that included the DO and senior maintenance managers. All pilots were concerned about the elevator after this event, and the company indicated that elevator cables would be replaced every two years even though they were not subject to a life limit. There was another meeting for all pilots several months later after a captain, Grady Washatka, resigned after raising concerns with management.

There was a big pilot concern about fuel leaks and why they were happening. For example, airplane N142PA had occasional fuel leaks. The company told them that the leaks involved the sealant in the fuel tank. There was no pilot issue concerning in-flight vibration since the airplanes flew pretty well. The pilot issue about zero fuel weight began when the company increased assumed passenger weight from 155 to 165 pounds, so an airplane with a full passenger load could only carry 300 pounds of bags.

Pilots generally dealt officially with the DO, but also spoke on a daily basis with senior maintenance people (Tracy or Luis) since it was a small company. The pilots also worked through the chief pilot, but no chief pilot was present at

the first meeting with the DO because of a recent change in chief pilots and the new chief pilot (Rebecca) being out sick.

As a result of the meeting with the DO, pilots did a walk-around with sheet metal mechanics on the day following the meeting to look at all three airplanes for evidence of wear. The mechanics explained that they would start replacing rivets and that all rivet problems were within limits. There was no particular concern with one airplane over another. Concerning fuel leaks, the mechanics indicated that they would reseal the fuel tanks (a 24-hour fix as far as Captain Weber was aware).

Airplane N142PA showed evidence of fuel leaks and Captain Weber once saw a leak under the seam of the right wing. The fuel cocks had a tendency to go bad. The tanks were drained, resealed, and 24 hours later, refueled. Airplane 130 had no problem with leaks.

Captain Weber was unhappy that, even after the meeting with the DO, it took the company a long time to begin correcting the airplane weight problem. The pilots had unhappy passengers every day and it was never corrected.

Captain Weber did not know how the company dealt with the three engine failures. He prepared company reports and wrote to NASA. He did not report the events to the FAA.

He was not aware of the frequency of repair schedule.

The company never used contract maintenance. If an airplane broke in Bimini, the company sent its own mechanics there.

Most fuel leaks that he saw were located at the seam of the right wing on a regular rivet line under the right tank, while other leaks were at the wing root. There was a pocket where the wing and fuselage meet, where the fuel cock is located, and fuel leaks were generally in that area. It was difficult to determine the location of the actual leak as fuel pooled and ran down this area. He had actually seen dripping fuel during preflight inspection, usually in a puddle on the ground in the wheel well region.

For weight and balance calculations at Chalk's, all bags were hand-weighed and a standard weight was used for passengers. He and other captains tried to provide a legal and realistic weight and balance calculation. With full flights, they could only take about 300 pounds of bags so he and two other captains actually stood outside with a calculator to verify weights. The gate agent would check in with the manifest and give them a number, then the first officer would compute the weight and balance based on provided bag weights and passenger count.

Airplane 130 stopped flying, about October 2004, because they did not have two engines for it.

Pilots taxied the Mallard with gear down for stability in rough seas or windy conditions. This procedure allowed them to keep the power up without getting water into the engines.

He completed his G73T type rating at Chalk's.

He had heard about an event in which a Chalk's captain lost a wingtip by hitting a bridge abutment, but this happened before he joined the company.

They were provided training on how to "step turn" the airplanes.

Toward the end of his employment, he was not satisfied with the procedures on deferred items. There were many minor items that would be deferred a long time. DME, GPS, and other non-necessity items took a long time to fix.

Overall, the quality of maintenance at Chalk's left something to be desired. When he first came to Chalk's, he was impressed with maintenance. There were three full crews of 12 mechanics working round the clock. There were many mechanics and the maintenance operation looked clean. When he left, they had 6 to 8 mechanics for the whole fleet. Maybe 3 to 4 mechanics during the day, 3 to 4 at night, maybe only a day and night shift.

His total flight time was about 4,600 hours, of which 2,600 were as pilot-in-command (PIC) and 1,700 of these hours were in the Mallard. He was a Mallard captain for two years. He now worked for Focus Air, flying as a first officer in the B-747. He had become a "secretary" as much as a pilot (since the airplane was so automated).

He was a flight instructor at ComAir.

He left Chalk's because of maintenance concerns. He did not have another job lined up at the time he resigned.

When he was a first officer, the DO was Jim Wagner. When Jim Wagner resigned, Roger took over as DO. "Jim was a stand-up kind of guy." Mr. Weber started seeing deterioration in maintenance several months after Roger took over. There were no major maintenance issues prior to Roger.

Pilots did not see much of the company owner. Mr. Weber did not know if the owner had any operational control over the airline.

Attachment 4
Interview Summary

Interview: Grady Washatka, Pilot, Seaborne Express Airline
Date: February 2, 2006
Location: telephone interview
Time: noon EST

Investigation members present were: Malcolm Brenner, Pocholo Cruz, Ken Egge, Bill English (NTSB). During the interview, Mr. Washatka stated the following information:

His total pilot flight time was about 3,000 hours, of which about 300 hours were as Mallard pilot-in-command (PIC). He worked as a pilot for Chalk's Airlines from March 2003 until he resigned from the company, solely due to maintenance issues, effective February 11, 2005.

Airplane maintenance seemed good at Chalk's when he started but, by the time he resigned, there were recurrent problems and concerns among the pilot group. These included five in-flight engine failures, two instances of elevator cable failures, and hydraulic problems during a period of about two years.

Fuel leaks were also a problem. Once, airplane 142 had a fuel leak at the right front wing root consisting of a steady stream of fuel in front of the wheel well. He was one of the first pilots to observe it and he completed four write-ups about it during a period of three days. Fuel was leaking right next to the sump but the sump, itself, was not leaking. Finally, one morning, it appeared that the leak stopped. However, he learned subsequently from another pilot who had been his first officer during the flights on which he "squawked" the problem (Robert Lutz) that the leak reappeared after two flight legs and that the first officer found a rag stuffed in the fairing next to the sump. Captain Washatka was upset when he heard this. He and first officer Lutz talked with the Director of Operations (Roger Nair) about this, indicating that a rag had been found in the airplane and questioning how maintenance was fixing problems. This happened in early January 2005, and Captain Washatka refused to fly the airplane. The DO said he was sure that the rag was a mistake and not deliberate and that they would fix it.

Prior to this meeting with the DO, Captain Washatka had been involved in another maintenance problem concerning a torque fluctuation. One morning, while flying airplane N2969, he experienced a torque fluctuation on the left engine during rotation. The engine instrument showed a 4 to 6 psi drop and he felt the airplane yaw. He pulled the power back and the problem went away. He wrote up the problem, maintenance worked on it but, in an acceptance flight, he

found the problem unchanged and rejected the work. This happened three times, with him conducting three acceptance flights and refusing to approve the maintenance work after each flight. The DO flew with him on the third acceptance flight and, after Captain Washatka rejected the work, the DO accepted it and flew the airplane on the line.

In January 2005, several weeks after the fuel leak event, the DO called Captain Washatka into his office to express his concern about the difficulties that Captain Washatka was having in his dealings with maintenance. The DO indicated that Captain Washatka would receive disciplinary action because of these difficulties, either by being downgrading to a first officer or by being given time off. Captain Washatka returned the next day and gave the DO his letter of resignation along with a five-page letter outlining his concerns with maintenance.

Things were OK during his first five months on the line, but his relations with the company deteriorated after the torque fluctuation event. He could talk comfortably with maintenance people at first, then the relationship became more adversarial and, finally, confrontational. After the torque fluctuation event, he could see and feel an adversarial relationship.

Other pilots had issues with maintenance as well. Earlier, the pilot group had called a meeting with the DO, centering on three issues: 1) weight, and the need to make the airplanes lighter; 2) the general state of the maintenance department, including many unresolved issues; and 3) the presence of smoking rivets, missing rivets, cracks, and wear on the wing in airplane 2969. The group went to the hanger with the DO and performed an inspection from a ladder that found numerous cracks and rivet problems. The DO said he would go to the sheet medal mechanics and get these cracks and rivet problems fixed and this appeared to be accomplished. The large cracks they saw got at least a doubler, while other cracks may have been patched.

Mechanics complained that they never had parts.

At some point, the airplanes began to break down. There were hydraulic leaks and he experienced the same leak six times in a five-day period. There were several engine failures and failures of the elevator cables. He would bring an airplane in with write-ups and the mechanics would say they do not have the parts to fix them but the write-up would be signed off the next day.

He was hired in March 2003 and upgraded to captain in August 2004. Around September or October 2004, the maintenance operations appeared to start degrading and the mechanics began to complain. A mechanic said that, as of October 2004, they were not allowed to buy parts for the rest of the year. In the final 6 to 8 months that he worked for the company, he saw more recurrent problems. Maintenance staff was cut back, especially on the night shift when inspections were performed. His relationship with maintenance managers was

initially good. They were receptive, and he could ask questions. As first officer, he was welcomed and could watch maintenance work. But in the last few months the mechanics got confrontational about write-ups. At least this is what he heard from the DO, since the mechanics never told him this directly.

On Airplane N142PA, he had two write-ups for fuel leaks in two days. He did not recall how maintenance signed them off. His first officer, who was flying with another captain the next day, found a rag stuffed in the fairing from wing to fuselage.

Regarding MEL and deferred items, he did not know whether one airplane had more difficulties than another.

Airplane N2969 was the focus of concern for structural issues. The other two airplanes did not show the same level of wear.

He would rate maintenance as a "3" at the time he left, on a 1 to 10 point scale (where "10" was the best).

He was concerned about transporting people in the airplanes due to maintenance issues.

There was not a high management turnover. When he started, Roger was the DO. Bill Jones left as general manager just after he resigned, and there was no management turnover during his tenure at the company.

He had no direct knowledge of why maintenance degraded, but heard hearsay of maintenance people talking about money becoming tight.

The chief pilot was not available in the office at the time of the first pilot meeting, so the pilots spoke with the DO as the person next in line of command. The DO said he would talk with the maintenance manager and sheet metal people about the cracks and rivets issues. At the time, Captain Washatka was satisfied with the proposed fix although he was not satisfied that it took a meeting to accomplish it.

Concerning his experience in the fluctuating torque event, he performed three acceptance flights after maintenance worked on the problem and he was unsatisfied. It seemed only slightly better after maintenance efforts, only 2-3 psi. The DO, who came with him on the third acceptance flight, asked his opinion. Captain Washatka said it was still broken and the DO said he was "not sure those guys can fix anything." However, the DO approved the work despite Captain Washatka's opinion.

Captain Washatka stated that he did not notice smoking rivets on airplane 2969 until other pilots pointed them out. The wing was flexing a little. The other

two airplanes did not show these problems, although there was maybe one small crack in another airplane.

Pilots were able to keep the airplanes within gross weight limits but it meant leaving many bags behind. With a full load of 17 passengers, there was only enough residual weight to allow them to carry bags for about four passengers and the remaining luggage had to come on a later flight. This was difficult for customer relations, especially since some of the passengers were regular customers that the pilots got to know. Pilots used actual weights of bags but average weights for passengers. They kept carry-ons to a minimum due to limited storage space in the airplane.

Pilots would taxi in the water with the landing gear down if it were very windy so the airplane would take less spray in the props and be more stable. The landing gear did not really take a beating. It was a normal condition for the airplane to taxi in the water, not excessively rough, and water landings were usually smoother than land. The ramp at Paradise Island had a notch at low tide that would cause a rough taxi.

He personally did not experience any engine failures or primary flight control failures and did not experience any abnormalities that required reporting. He did not contact FAA with concerns about maintenance since he did not have any direct evidence of problems but simply his personal concerns based only on what he saw and heard.

At Seaborne, all pilots had good relations with maintenance personnel. There were 15 pilots, three flying airplanes (Otters) and two more being rebuilt. Pilot flight times were comparable to those at Chalk's. The number of mechanics was greater than the number of pilots, allowing several shifts of maintenance. The company appeared to be really well run.

Michelle Marks (the accident captain) was exploring the possibility of taking a job at Seaborne but she could not afford the move. Captain Washatka did not know her views on maintenance at Chalk's.

Attachment 5
Captain Washatka's Resignation Letter [9]

January 13, 2005

Dear Mr. Nair:

Please allow me to begin this letter by saying thank you so much for the wonderful opportunity to become a seaplane pilot, and even above and beyond that, to have given me the privilege of becoming a Chalk's pilot. I will always cherish the experience for the rest of my life, and I hope not to lose touch with the Chalk's family.

I came to Chalk's knowing that it was not going to be the smoothest operation in the world, and that 60-year-old airplanes tend to break quite often. In fact, that was a good portion of the reason why I embraced the opportunity to come to Chalk's. I grew up flying war-era aircraft and could not believe that this chance had presented itself to me. I had also spent the past two years doing nothing but training for emergencies and constantly thinking of contingencies and plans of action in the event of equipment failures. That is what we're trained for as pilots, and I knew that Chalk's would be a place where I could test my abilities and get excellent on the job training available nowhere else. By the nature of spending approximately one fourth of my flight time instructing in a Seminole flying around on one engine, the idea of an engine failure was far from scary to me.

I thoroughly enjoyed my first seven months at Chalk's. On my first day of OE I learned what being *launched* meant and absolutely loved it. Where else is it somewhat normal to end up 60 feet off the deck 10 knots below full flap stall speed (with only partial flaps in)? At Chalk's I have learned how to fly effectively while being truly outside the envelope. It is quite an amazing experience if you really think about it. On my first day on the line with a line captain, I was with Captain Rebecca Diamond, and I went swimming before the day was done. At the end of my second day on the line, the same gear wouldn't come out of the hole and I ended up in the water again. By the end of that second day I knew Chalk's was the perfect place for me. This was truly a place where you were not only encouraged but also required to think outside of the box. For the next few months I reveled in the fact that after numerous hydraulic, electrical, mechanical, and other failures, I had not only been trained in almost every failure imaginable, but actually had experience with them. Chalk's has given me the tools, ability, confidence, and experience to deal with almost any survivable situation that can happen in an airplane.

With this ability, however, comes responsibility: responsibility not to overestimate one's abilities, responsibility to not at any level, no matter how small,

[9] Captain Washatka provided this letter to the NTSB on May 16, 2006. According to Captain Washatka, he gave the original copy to the Chalk's Director of Operations and Chalk's General Manager just prior to his resignation from the company.

compromise the safety of a flight. If there is something wrong with an aircraft, regardless of whether you can 'deal with it' or not, you have a moral and professional obligation to not fly with it. No matter how small that oil leak is coming from the nacelle, you don't know when it will get worse, where it's coming from, or what it's going to affect. Leaks don't get smaller. No matter how small that fuel leak is, you don't know how bad it can get, where it's coming from, or where it might ignite. No matter how sure you are that your small hydraulic leak is not a factor, it may get larger, and if it gets larger it could cause a total hydraulic failure. While a total hydraulic failure will not stop you from landing in Miami instead of FLL, it is an unnecessary risk, and there is no telling when it will needlessly endanger lives. No matter how prepared you are to deal with a slow to spool engine and how many times you've done it, you never know when that apparently failing FCU is going to cause the engine to refuse to spool, or just give its last spurt of fuel altogether.

Over the past year I have personally seen the maintenance department and programs at Chalk's decline steadily and sharply. "Questionable" parts have become much more common. I have heard numerous times "we'll just have to make up a tag for an old part back there because we don't have any." I have repeatedly heard directly from the mechanics that they don't have the ability to fix a write-up yet it's always signed off the next morning. Our maintenance staff during the day and at night has been cut quite extensively even though to my recollection we are operating the same number of aircraft we have been for most of my time here, and these airplanes certainly aren't getting any younger. We have been operating without any mechanics trained in avionics for months now. I believe the best way to portray the state of our maintenance department is simply to share a few of my experiences, most of which are from the past month. I stress before I begin describing these experiences that most of these experiences mentioned are my personal experiences, and there are three other captains who undoubtedly had similar experiences during the past month.

- N2969's DME has been inoperative since November 6 of 2004. It has been MEL'd at least five times since then. Three of those times were in December. If you take into account that it's a 10-day MEL, it equates to the entire month of December. Every time the DME is signed off, it's never fixed. Not being able to fix a DME after two months is unacceptable.
- N2969 came out of maintenance December 12, 2004 with oil leaking from the left engine. It was written up at least six times by December 31 and was still not fixed. Not being able to find an oil leak after it's been written up six times in less than three weeks is unacceptable.
- On December 18, 2004 I had the right main gear down line on the main actuator leak on N2969. This in itself is not unusual, just a small hydraulic leak. The same line, however, again leaked twice on the 23rd, and once on the 24th, 28th, and 31st. That happens to be 6 times during a period of two weeks. When maintenance cannot fix a hydraulic leak after five tries in under two weeks, it is unacceptable.

- A few months ago N2969 had a series of three total hydraulic failures involving the same line in the engine nacelle within a month and a half. Luckily, two of these three failures were just before or just after landing so they did not burn up the hydraulic pumps. When the new captain is the only one to suggest that we inspect that batch of lines, something is seriously amiss.
- When the same fuel leak on N142PA is written up four times within three days you might think that maintenance may try to fix the leak. The next day, however, as the captain wrote up the fuel leak for a fifth time he found a rag jammed into the space where the fuel is coming out. Having a fuel leak written up five times in four days is unacceptable. Finding a rag stuffed into the airplane where there's a fuel leak is criminal.
- I can't even count how many times the nosewheel shimmy has been written up in N2969, but I know it was written up at least three times by myself, and three times by other pilots within a week. After being written two more times the following week it still did not get fixed until you yourself, the Director of Operations, took it back and wrote up "Nosewheel has violent high-speed and low-speed shimmy." That is a total of nine write-ups for the same item within two weeks. Not fixing a nosewheel shimmy until the scissors crack and the Director of Operations writes it up is unacceptable.
- N2969's #2 engine did not want to start in the mornings after it came out of inspection on the 12th of December. This did not happen every morning; however, it was written up at least two times on different mornings on which it didn't want to start in the next week and a half. There were other times it happened when the pilot simply conferred with the mechanics over the problem. The mechanics' solution every morning was simply to turn the boost pump on and attempt consecutive starts without clearing the engine between the starts. Usually on about the third of fourth attempt, the engine would start with muffled explosions of extra fuel between the primary and secondary fuel nozzles firing. The mechanics would then sign off "Normal engine start performed." This is unacceptable on numerous levels, not the least of which being the fact that this is not a normal start. This was obviously a fuel pressure problem as evidenced by the fuel pressure gauge during attempted starts. This was supported by the fact that the fuel pressure gauge had been written up as "twitchy" in flight twice, once December 13th and once December 28th. The possible correlation between the two was mentioned to the mechanics yet both times the "twitch" was written up, the sign off was "fuel pressure transmitter replaced". This is unacceptable. I mentioned the fuel pressure problems to our General Manager upon him asking me why I was shaking my head as the mechanics *attempted* to start the engine later on the 28th. He promptly asked the Director of Maintenance about it, and the reply was yet again unacceptable. The Director of Maintenance said (and yes this is a direct quote), "Yeah, we're having priming problems on that one. We need to go in and tighten up all of the lines." Knowing what the 3 week

old problem is after it has been written up numerous times and still refusing to fix it is unacceptable. Refusing to fix it yet signing it off is criminal.

- On December 27th, 2004, during a Part 91 flight returning from Paradise to Ft. Lauderdale, I personally showed our Chief Inspector a torque fluctuation of 4-5 PSI during take-off on N2969's #1 engine. Upon arriving in Lauderdale I wrote this fluctuation up. The next morning the sign-off was that they could not duplicate it on the ground. This would usually be acceptable, however, I had told the mechanic that he would not be able to duplicate it on the ground because I had just tried to duplicate it on the ground. This lack of respect for a Captain's write-up is unacceptable. The next morning, however, I took the airplane considering it may have been a fluke when it happened. I took off on the 501 and returned when it started fluctuating just after rotation. It was still between a 3 and 5 PSI oscillation. I wrote it up again noting in the write-up that I could hear the power changes produced by the engine. Ignoring the fact that I could hear the oscillations, they load tested the torque gauge and said the torque gauge was fine and signed it off. Signing an item off twice consecutively without repairing anything is unacceptable. I, however, humored them and asked for a mechanic and a test flight. The Director of Maintenance agreed to come with me on a test flight. Upon completion of this test flight, the Director of Maintenance volunteered that he saw the fluctuation and added that he saw the Ng and the prop bouncing around a small amount also and said (yes this is a direct quote), "I think we have an air leak." I was happy because I believed they would fix it. Once we returned to the hangar, the Director of Maintenance along with another mechanic and the Chief Inspector proceeded to swap the torque gauge, which they had previously checked and affirmed was operating normally. Of course, they did this rather than fix the actual problem. This is highly unacceptable, especially so due to the positions of the people involved. This shows an extreme lack of respect for the Captain and his determination that this airplane should be fixed.

This lack of respect for the pilots seems to run rampant through the entire company also; it's not just the mechanics. I would like to address this lack of respect for the other pilots and me. It has come to my attention that you have insinuated to at least one of the pilots that I am scared of the aircraft. I would like to make it very clear that this is not the case. I can see how it may appear to you that I am afraid, but you are simply misinterpreting my actions. I am not afraid of these airplanes. In fact, I trust these airplanes far more than any other airplane I have ever flown. They are truly tanks in the sky, and it is absolutely amazing as to the beating that they can withstand, and do withstand daily. As for my being afraid of mechanicals, I have been quite adequately trained and have extensive experience in dealing with mechanicals, and they do not bother me in the least.

My experience, however, is not the first time that it has been said that a pilot was scared of an aircraft. It has come to my attention that when Captain Guidry had his in flight elevator failure you said you believed he had gotten water in his bilge and was simply scared of the aircraft rather than there being anything wrong. After that you grabbed your headset and said that you were going to have to fly that airplane out of Nassau for him. After hearing the description of the incident from Jai when he was on the ground, I do not understand how anyone could assume that nothing was wrong with it. None of his reactions tended to indicate fear, yet fear is what was assumed. This ongoing assumption that the pilots have no idea what they're doing is ridiculous and must stop. It is completely unacceptable.

I can see, however, why you would mistake my actions for fear. You mistake my actions for fear because most people do not stand up for themselves when challenged. I am not that person though. I will not compromise my integrity to fit anyone else's agenda. I believe that I have a responsibility to my passengers to give them a safe airplane. Often they are paying roughly twice the price of other airline tickets to fly on us. I feel they deserve at least half the level of safety they would get at another airline, don't you? They are currently not getting that at Chalk's. My actions as of late, my write-ups, and my refusal to fly broken aircraft, are not driven by fear but driven by a respect for myself and a respect for my passengers. That respect for myself is also the reason that I will not stand idly by while blatant disrespect is shown for my fellow pilots or me, no matter whether the source of this disrespect happens to be my boss, the Director of Maintenance, or anyone else.

When the captains state that something is not right with the aircraft, and we write it up, whether it is a mechanical failure, a leak, or simply a faulty indication, we have determined that it needs to be fixed. Not only do we deserve the respect of having this write-up repaired properly, but we also deserve not to be questioned on our decision in the first place. There is no one in the company that has the right to override the write-up and decide that the aircraft is safe to fly anyway. Once an item is written up, action must be taken. Lack of action is unacceptable. Asking the captain if he is comfortable flying the aircraft without fixing the problem is unacceptable. If the captain were comfortable with the problem and did not think that it needed to be fixed, he would not have written it up in the first place. Yet the most common reaction to any write-up that cannot be fixed quickly at Chalk's is for the mechanic to ask the captain if he will fly the aircraft anyway. The second most common action taken is for the mechanics to sign off that an aircraft is fixed knowing that it is not actually fixed. This is exactly the course of action that was taken repeatedly with the torque fluctuation problem noted above, and the fuel leak also mentioned above. The negligence shown by the management of this company not realizing that this is an ongoing problem is inexcusable.

Delayed maintenance, ignored maintenance, and lack of maintenance on our aircraft has caused an alarming trend to develop that has been all but ignored by the maintenance department and management altogether. When I arrived at Chalk's I was told that we had an average of one engine failure per year. I thought that this sounded rather high; however, I accepted that the type of operation we have at Chalk's most likely causes more fatigue and wear on the aircraft than a landplane operation. One engine failure per year is not what I have seen since I have been at Chalk's. We had four engine failures within the period of a year. The number does not sound particularly alarming

until you realize that this equates to 133% of our fleet within a year. I would be very surprised to find any other airline in the United States that would believe even half of that percentage acceptable. I simply cannot imagine Delta, FedEx, United, Chautauqua, Gulfstream, or any other airline still operating after having a year during which every single airplane they operated had an engine failure. If an airline did manage to still operate after a track record as such, you would think their maintenance department would go under extreme scrutiny. At Chalk's this has not been the case. Instead, the pilot force seems to have been the only object of scrutiny. Insinuating on any level that the pilots are in any way responsible for a single one of those engine failures is ridiculous. Much more alarming than the percentage of engine failures that we have had in a year is the number of elevator failures that we had in a period slightly longer than a year. Most people forget but we actually had two elevator failures in just over a year. The first one happened upon rotation, however, so it was quickly forgotten, as the plane was never airborne during the ordeal. When 67% of your fleet has elevator failures in just over a year it is completely and utterly unacceptable. The most incredible thing about our elevator failures is that there is still no one being held accountable. When it comes to Jai's recent elevator failure, there has been action taken, but the core problem has still not been addressed. Yes, we are now changing all of our control cables every 12 months instead of changing them upon inspecting them and finding they need replacement. Why, though, were they not inspected properly in the first place? Every single mechanic during every single 80-hour inspection of the cables did not see the obvious corrosion on the cable. This is blatant neglect. Every single Inspector that signed off this RII item also missed it. This is criminal negligence. Why was this overlooked? There is no excuse for overlooking corrosion on a control cable no matter how difficult a particular place on that cable is to inspect. I say, "no matter how difficult a particular place on that cable is to inspect," because that is the excuse we were given. We were told that the break in the cable was a very difficult place to inspect. I have seen it, and it is not a difficult place to inspect. It is obviously just too much bother for our mechanics to remove the seventeen screws on the panel covering that section of the control cables. Why has no one been held accountable for such an egregious oversight that endangered lives? If no one is held accountable, not only do we have no guarantee that it won't happen again, but we should also expect it to happen again. Nothing has changed.

We captains collectively came to you, the Director of Operations, in late August and voiced our concerns as to the state of our maintenance department, and the airline in general. The first concern addressed was the weight of the aircraft. We wanted to ensure that something was being done to increase the amount of bags we were capable of carrying, because with the weight of the aircraft leaving bags behind was inevitable. Constantly leaving bags behind is bad business. Even though we were assured steps were being taken to decrease the weight of the aircraft, we have seen no progress on the matter. The next concern addressed was the numerous cracks and missing rivets in the wings of the aircraft. These cracks and missing rivets had been there for quite some time and whenever the mechanics were questioned about them, their response was either, "Yeah, we know about that," or simply, "Yeah, that's okay." Why the mechanics were unwilling to do necessary and important maintenance on the aircraft is beyond me. Why did it take the captains' calling the Director of Operations into a meeting to get these cracks and missing rivets fixed? This is unacceptable. The final issue addressed in the meeting was

much the same as this letter. It was the overall status of the maintenance department. As I have mentioned, the maintenance department seemed then, and still seems, both unwilling and unable to fix broken aircraft. You, the Director of Operations, assured us during this meeting that all of these issues would be remedied in short order. They have not. We were then assured during a second meeting at the end of November by you (the Director of Operations), Luis Carrillo (our Chief Inspector), and by Bill Jones (our General Manager) that our concerns were being addressed. They still are not.

In closing, I would like to say that I truly do love this company. I bring attention to these problems for just that reason. There are some that would say (and have said) that it seems as if the pilots obviously do not care about the company and are trying to bring it down. Exactly the opposite is true. We love this company and we are trying to avoid the inevitable disaster that will ensue if these issues are not addressed. If we did not care about the company we would simply turn in our resignations instead of attempting to correct the situation. I am not suggesting we magically transform the Mallards into aircraft that do not break; they are nearly sixty years old and they will always have problems. I am simply suggesting that we fix the aircraft when they do break, and improve our preventative maintenance, which is obviously sadly lacking. I am suggesting that we respect the passengers that choose to fly on our aircraft and give them the safe and legal flight that they deserve. I sincerely hope that Chalk's not only survives but also thrives well into the future. I realize, however, that the company's financial well-being is not worth my career, my integrity, and first and foremost should never come before our passengers' safety.

Sincerely,

Grady J. Washatka

On January 16, 2005, three days after drafting this letter, we had another engine failure. This now brings our total to 5 engine failures, or 167% of our fleet in less than a year and a half.