Docket No. SA-521

Exhibit No. 11A

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D. C.

Maintenance Group Chairman's Factual Report

NATIONAL TRANSPORTATION SAFETY BOARD
NORTHWEST REGIONAL OFFICE
SEATTLE, WA 98188

OCTOBER 27,2000

MAINTENANCE GROUP CHAIRMAN'S FACTUAL REPORT

DCA-00-MA-026

A. ACCIDENT

Location: Rancho Cordova, California

Date : February 16, 2000

Time : 1950 Pacific Standard Time

Airplane: Emery Worldwide Airlines Flight 17, DC-8-71F, N8079U

B. MAINTENANCE GROUP

Chairman : Debra J. Eckrote
National Transportation Safety Board
Seattle, WA

Member : Jock A. Seals
The Boeing Company
Long Beach, CA

Member : Thomas M. Wood
Emery Worldwide Airlines
Vandalia, OH

Member : Hugh Seagraves
Air Line Pilots Association
Ft. Worth, TX

Member : Onofrio "Tony" Savino
Federal Aviation Administration
Louisville, KY

C. SUMMARY

On February 16, 2000, at 1951 Pacific standard time, a Douglas DC-8-71F, N8079U, registered to and operated by Emery Worldwide Airlines Inc. as flight 17 for the 14 CFR Part 121 scheduled cargo service from Sacramento, California, to Dayton, Ohio, crashed shortly after takeoff from Mather Field, Rancho Cordova, California, after the pilot reported that the flight was returning to land due to an extreme CG (center-of-gravity) problem. Visual meteorological conditions prevailed and an instrument flight rules flight plan was filed. The airplane was destroyed by impact forces and a post-crash fire. The three flight crew members were fatally injured.

D. DETAILS OF THE INVESTIGATION

On February 23-25, 2000, the Maintenance Group met at Emery Worldwide Airlines (Emery) corporate offices and main base of operations located in Vandalia, OH, to review the aircraft's maintenance records and company maintenance policy/procedures. During the review process, supporting documentation was utilized from the Douglas Maintenance Manual, Emery Worldwide Airlines Maintenance Policy & Procedures Manual (MPP), Illustrated Parts Catalog (IPC), Operations Specifications, and the Minimum Equipment List (MEL) Standard Practice. In addition, maintenance records from the Aircraft Maintenance Logbook; scheduled maintenance checks performed by Emery maintenance personnel and approved Emery contracted vendors; major repairs and alterations; Airworthiness Directives; weight and balance, and Supplemental Type Certificates were reviewed to determine the extent of maintenance performed on the aircraft during and after the most recent heavy maintenance (D Check) that was completed on November 17, 1999.

On March 29, 2000, the two former Federal Aviation Administration (FAA) Principal Maintenance Inspectors (PMI) from the Flight Standards District Office (FSDO) in San Jose, California, were interviewed to discuss FAA oversight of the Emery certificate from 1987 to December 1999. In December 1999, the certificate oversight was transferred to the Cincinnati, Ohio, FSDO.

On April 3-5, 2000, the Maintenance Group met again in Vandalia, to continue the maintenance review. During this review, the current PMI from the Cincinnati FSDO was interviewed to discuss the FAA's current oversight plans.

In addition, the maintenance group toured Emery's maintenance training department and discussed the training program, conducted maintenance personnel interviews, reviewed additional maintenance work cards from the last heavy maintenance check, and reviewed additional aircraft maintenance logbook entries.

1. Emery Maintenance Program

General Overview

Emery Worldwide Airlines, Inc. (Emery), is a subsidiary of Emery Worldwide/CNF Transportation, Inc. The company's original air carrier operating certificate was issued in 1987, as Air Train, Inc. and then renamed to Emery Worldwide Airlines in January 1990. The corporate offices were located in California, with the Hub operations located in Vandalia, Ohio. In 1990, the corporate offices also moved to Vandalia. Emery is the holder of Air Carrier Certificate Number RRXA558B, and is authorized to conduct air carrier operations pursuant to Title 14 CFR Part 121 under Supplemental rules.

Each of Emery's aircraft and their component parts, accessories, and appliances are maintained in accordance with specified time limits and cycles for the accomplishment of the overhaul, replacement, periodic inspection, and routine checks of the aircraft. Emery has established and maintains a system of continuing analysis and surveillance to continuously monitor the operational performance of the aircraft airframes, power plants, systems and components through the administration of a maintenance reliability program.

At the time of the accident, Emery operated 43 DC-8 aircraft, including the accident aircraft, and two DC-10 aircraft. Emery maintenance personnel totaled 309 full time mechanics; 18 part time mechanics; 38 casual mechanics; and 34 contract mechanics.

DC-8 Maintenance and Inspection Periods

The maintenance checks that Emery personnel perform are the Transit Check, Terminating Check, Service Check, and B Check. The heavy maintenance C and D checks were accomplished by contract vendors.

Emery-employed maintenance personnel perform scheduled maintenance checks on its aircraft at locations where personnel are available. Emery has established line maintenance stations along its routes of flight. The stations are classified as Class I, II, and III. Class I stations, located at Austin, Texas; Vandalia, Ohio; and Portland, OR, are staffed with Emery personnel. Each Class I station has available mechanics, facilities, equipment, and parts to perform both scheduled and unscheduled maintenance on all aircraft normally operating into the station. Class II stations, (21 stations located throughout the United States and one station in Mexico) are staffed with Emery personnel, but may not have full facilities, equipment, and parts to perform all scheduled or unscheduled maintenance. Class III stations (7 stations located in the United States and Mexico) are staffed with on-call maintenance personnel to perform both scheduled and unscheduled maintenance on all Emery aircraft normally operating to the station. All work performed at a Class III station is scheduled/controlled by Emery maintenance control.

The following describes the scheduled maintenance checks performed by Emery personnel:

Transit Check - accomplished at any location where Emery maintenance personnel are available, and upon arrival and prior to the aircraft departure on aircraft with more than two hours, and less than six hours of ground turn-around time. A transit check consists of a review of the aircraft maintenance logbook for discrepancies and deferred maintenance items; inspection and fluid level servicing of the engines; an exterior fuselage check to include the landing gear and wheels/brakes; an interior fuselage check, and the check for the completion of paperwork to reflect all inspection paperwork, non-routine maintenance, and deferred maintenance items. The last Transit Check was performed on February 15, 2000, at Fort Lauderdale, Florida, a Class II station. The aircraft total flight time was 84,439 hours, and 33,393 cycles. (Attachment A)

Terminating Check - accomplished at any location where Emery maintenance personnel are available, and upon arrival and prior to aircraft departure on aircraft with six hours or more of ground turn-around time, and if in the preceding 24-hours a higher check has not been accomplished. A Terminating Check includes all actions called for in the Transit Check, plus additional more in depth checks of:

switch position; circuit breakers; flaps; all fuel tank sumps; forward and aft lower cargo compartments; servicing of fluids; interior fuselage to include the cargo loading system components for presence and security, and a visual check of the forward and aft lower cargo compartments for cleanliness and damage. The last terminating check was performed on February 16, 2000, at Dayton, Ohio, a Class I station. The aircraft total flight time was 84,442 hours, and 33,394 cycles. (Attachment B)

Service Check - accomplished at any location where Emery maintenance personnel are available, and on aircraft with 24 hours or more on the ground. A service check includes all actions called for in the Transit and Termination checks plus additional and more in depth checks of: pressurizing the hydraulic system, deployment of the thrust reversers, the engine exterior; interior fuselage emergency lighting, fire warning, and smoke-detector systems; cargo loading compartment system (i.e. rollers, pallet locks, side rails and ballmat) for damage, security and general condition; and a post inspection engine run. The last Service Check was performed on February 15, 2000, at Salt Lake City, Utah, a Class II station. The aircraft total flight time was 84,434 hours, and 33,390 cycles. (Attachment C)

B Check - accomplished at specific stations where Emery maintenance personnel are assigned, and on aircraft in sequential segmented checks (B-1, B-2, B-3, and B-4) each 136 flight hours unless a "C" check is accomplished. The B Checks are the most in-depth level of maintenance that Emery-employed maintenance personnel perform. The segmented "B" checks includes all actions called for in the Transit, Termination, and Service Checks, plus additional and more in-depth checks of: left and right wings; main landing gear assembly, wheel well, door, and wing root; fuselage nose section; nose landing gear wheelwell area and tunnel; turbo compressor compartment; center fuselage external area; aft fuselage and empennage area; cabin area; time limited components; main aircraft battery; main cargo door; aircraft cleaning; flight controls lubrication; and engine run and pressurization checks. The cabin area inspection includes a check for the condition, operation and security of the cargo system locks, rollers, ballmats and restraints. As a result of this check, unlike the lower level checks, Emery produced non-routine maintenance cards for discrepancies identified during the B checks. The most recent B Check, a B-3,

identified two discrepancies that were found during the cabin interior inspection of the cargo systems. Those discrepancies were identified as:

1. 164 track rollers were worn beyond use. The rollers were replaced in accordance with Pemco maintenance manual 25-52-09.

2. Three each ball units missing on main cargo door ball mats. The units were replaced as required.

The mechanic who signed off the corrective action was a contracted Rampco Aviation employee. (see Contracted Scheduled Maintenance section of this report)

The last B-3 Check was accomplished on February 12, 2000, at Austin, TX, a Class I station. The aircraft total flight time was 84,428 hours, and 33,386 cycles. An Emery-employed inspector signed off the B-3 Check as "...complied with I.A.W. [in accordance with] EWA [Emery Worldwide Airlines] work cards. (Attachment D)

Contracted Scheduled Maintenance

Emery provided the maintenance group a listing of FAA approved repair/overhaul vendors that are contracted to conduct maintenance on Emery aircraft. The listing identifies four companies that perform "heavy maintenance" (i.e. "C" and "D" Checks) on Emery aircraft.

The C-check is accomplished every twelve calendar months. The last C-Check was accomplished, along with, the most recent D-Check completed on November 17, 1999, by Tennessee Technical Services, Smyra, Tennessee.

The D-Check is accomplished every twelve calendar years. A C-check will always be accomplished when performing a D-Check. The aircraft total flight time at the time of the D-Check was 84,050:36 hours and 33,180 cycles.

Emery defines a C-Check as: A high level check to insure the integrity and airworthiness of airframe, fluid quantities, security of components, operational checks of specified components, filter changes, lubrication, overhaul of specific components, systems checks and the accomplishment of principle structure elements (PSE) per the structural inspection document, or supplemental structural inspection document.

The D-Check is also defined as a high level check to include all of the same checks as described in the C-Check to include "overhaul of the aircraft."

Another contracted vendor on the list was Rampco Aviation Services of Charlotte, North Carolina. Emery personnel reported that Rampco provides the service of cargo bay preventative maintenance at stations located at Austin, Texas; Dayton, Ohio; Raleigh/Durham, North Carolina; and El Paso, Texas. This program was set-up to replace and repair cargo bay components before they became unserviceable. Emery reported that this program has reduced the number of discrepancies found during the Service, Termination, and B-Checks, which require an inspection of the cargo bay system. Rampco is required to concentrate their efforts on ballmats, pallet locks, rollers and roller trays, gil liners, side rails, side locks, and pallet stops. Emery personnel then perform a follow-up inspection at these stations prior to final sign-off of the work to ensure the quality and workmanship meet their demands. Emery reported that the average number of inspections performed by Rampco Aviation is 19 per week.

2. Aircraft Records Review

Aircraft Certification

The maintenance records indicated that a designated representative of Emery's maintenance department performed a Conformity Inspection to determine the airworthiness of the aircraft prior to purchasing the aircraft from Aero USA, Inc. The inspection was signed off on March 27, 1994, at Page Avjet, Fort Worth, Texas. The aircraft was placed on the Emery certificate on March 31, 1994, at an aircraft total flight time of 74,262 hours, and 29,086 cycles.

Airframe Information at Time of Accident

Registration #:	N8079U
Year Manufactured:	1968
Serial Number:	45947
Aircraft Total Time:	84,447 Hours
Aircraft Total Cycles:	33,395 Cycles
Last D Check:	11/17/99
Last C Check:	11/17/99
Last Transit Check:	2/15/00
Last Termination Check:	2/16/00
Last Service Check:	2/15/00
Last B Check:	2/12/00

Engine Information

Engine CFM56-2C-1 Position:	#1	#2	#3	#4
Serial Number:	92476	693130	692541	692440
Date Installed:	12/7/98	9/4/97	11/7/97	3/17/94
Time Since New (hours):	35,171	25,966	30,552	35,533
Cycles Since New (cycles):	11,192	9,099	11,258	13,917
Date Last Shop Visit:	11/18/98	8/30/97	9/16/97	3/17/93
Time Since Shop Visit:	1,635	3,891	3,670	10,185
Cycles Since Shop Visit:	868	1,888	1,786	4,308

Note: The total times and total cycles since installation are identical to the total time and total cycles since the last shop visit.

The combined C and D Check completed on November 17, 1999, accomplished engine inspections and were addressed on the C Check work cards.

The Aircraft Logbook entries from November 17, 1999, to the date of the accident indicated no significant engine write-ups.

Minimum Equipment List (MEL)/NON-MEL Procedures

Emery's Maintenance Policy & Procedures Manual provides the guidelines by which aircraft can be dispatched for flight operations with certain designated equipment items, as listed in the MEL/Configuration Deviation List (CDL), which may be inoperative without adversely affecting the airworthiness of the aircraft.

Emery defines Non-MEL as "items that have no airworthiness connotations, such as reading lights, window shades, corrosion to non-structural parts, galley equipment etc." These items have no set time interval to perform corrective action; however, Emery maintains a listing of the Non-MEL items in order to accomplish the related maintenance tasks at scheduled routine inspections. The deferral procedure is the same as for MEL items, except a category number and inoperative equipment placards are not required.

Minimum Equipment List (MEL)/Deferred Maintenance Items (DMI) Open At the Time of the Accident

At the time of the accident, the maintenance records

indicated that there was one open MEL item, and three open DMI items which Emery classified as non-MEL.

The first and second open non-MEL items were recorded by maintenance personnel in the Aircraft Maintenance Log, dated February 11, 2000, indicating that the cockpit fire extinguisher inspection, and the emergency locator transmitter inspection were due within 90 days.

The third open non-MEL item, and the one open MEL item resulted from a series of repeated write-ups entered in the Aircraft Maintenance Logbook beginning on January 25, 2000, when the flight crew reported that the captain's windshield was delaminated at the lower right corner. Although the discrepancy write-up did not indicate an inoperative window heat, the discrepancy was deferred per MEL 30-5(systems and sequence number 30-5, Ice and Rain Protection - Windshield Electric Heating), and a DMI number was assigned. The entry indicated that the corrective action was due by February 19, 2000, and that a placard was installed.

MEL 30-5 Operations Procedures state that, "May be inoperative provided flight is conducted in accordance with applicable AFM [Approved Flight Manual] Limitations." This item is a repair interval category C (Shall be repaired within 10 consecutive calendar days). Operations procedure limitations reference the Approved Operations Manual (AOM) for the observance of speed and altitude restrictions. A note for the 50/71 series aircraft: if the center, right or left windshield, clear-view panel and/or eyebrow window heat is inoperative:

1. Maximum speed permitted from sea level to 10,000 feet altitude is 245 knots indicated airspeed provided all glass panels are intact.
2. Maximum speed permitted from sea level to 10,000 feet is 235 knots indicated airspeed, if either the 3/16 inch outer panel glass or the 1/8 inch inner panel glass, or both are cracked.

After several repeated write-ups regarding the cracked windshield from flight crews, the windshield was eventually replaced. However, a non-MEL discrepancy remained open regarding time for sealant to cure around the windshield. MEL 30-5 also remained open at the time of the accident for the inoperative windshield heat.

90-Day Aircraft Maintenance Logbook Review

The Aircraft Maintenance Logbook was reviewed from November 17, 1999, (D-Check sign-off) to the day of the accident on February 16, 2000. During the review, the maintenance group identified two repetitive write-ups and one significant maintenance discrepancy.

One of the two repetitive write-ups was the crack in the left side windshield that resulted in an open MEL at the time of the accident.

The second repetitive write-up began on December 3, 1999, that reported that the numbers one and two transponders were not reporting the altitude. After several write-ups and deferrals, the discrepancy was corrected on December 28, 1999.

One significant maintenance discrepancy was identified on November 25, 1999, eight days and 30 hours after the D Check sign-off. The discrepancy, reported by the flight crew, indicated that the elevator required more back pressure than normal to flare the aircraft. Also "during the elevator check, C.G. (center of gravity) to 25.4%, zero fuel 23.3%." Maintenance personnel reported that they found that the left hand and the right hand elevator dampers were reversed. Maintenance personnel swapped the dampers and an operations check was reported as "good, no defects noted."

The maintenance group interviewed the mechanic and inspector who signed-off on the work. The mechanic reported that after completing a visual inspection and comparing the elevator assembly installation on N8079U with another DC-8-71, it was determined that the dampers were incorrectly installed, i.e. the left damper was on the right side elevator, and the right damper was on the left side elevator. Maintenance personnel verified the part numbers on the dampers (left side damper s/n: 1B-1, p/n: 5652380-505 and the right side damper s/n: 9812654NRC, p/n: 5652380-503) via the illustrated parts catalog. Maintenance manual 27-70-09 was used to remove and re-install the dampers in their correct positions. The final check, as stated in the maintenance manual (MM Chapter 27-70-09) and reportedly used by the mechanics was:

"Have an assistant slowly move the elevator full travel up and down while checking for interference or binding at the damper. This check will also reveal any binding in the

elevator operation in general. Binding or interference must be corrected if found to exist.'' Maintenance personnel reported that they did not find any binding and the work was inspected by an inspector and signed off. (Attachment E)

Further investigation by the maintenance group found that the elevator assembly had been exchanged at the last C/D-Check. The elevator assembly (dampers included) were removed from the aircraft by Tennessee Technical Services (TTS) personnel and sent to a repair station in Tucson, Arizona for overhaul. Another overhauled elevator assembly (with dampers included) was provided to TTS, and TTS personnel installed the elevator assembly on the aircraft. Several C-Check work cards (12) define the procedures for inspection/removal/installation and functional checks. Each of these work cards instruct the mechanic to use the applicable DC-8 MM, Chapter 27, when performing the work indicated on the work cards.

In a letter from TTS dated February 28, 2000, to Emery's Director of Quality Control, TTS reported that they were made aware of this problem in late November 1999. An internal investigation was conducted which confirmed that the dampers were initially installed on the elevators incorrectly at the overhaul facility. TTS then initiated corrective actions in the form of a Maintenance-Inspection Alert, and a briefing to all TTS Quality Assurance Inspectors.

The NTSB Airworthiness Group Chairman confirmed that the right hand elevator damper installation was correct (i.e. the damper crank and the drive link were both positioned/oriented correctly). Only the section outboard of the damper was recovered from the left hand elevator. The left hand side damper was presumed destroyed by the post-crash fire.

Airworthiness Directives

Emery's Maintenance Policy & Procedures (MP&P) Manual stated that all AD notes applicable to company aircraft and equipment will be listed on a master AD list. When asked to provide an AD compliance list, Emery produced a list of AD's and the subject of the AD for the DC-8 series aircraft. The format of the information provided columns for the compliance information, however, that information was not given. The maintenance group was provided with a

"Terminated" AD manual, and a "Repetitive" AD manual for review to determine if the applicable AD's were complied with.

Emery reported that when an AD is completed and there is no further action required (terminating), Quality Assurance will review the completed AD and file it in the applicable Terminated AD Manual. The repetitive AD's are to be entered on the Aircraft Maintenance Forecast. This forecast is to insure proper monitoring of the next due date for the repetitive inspection. It is the responsibility of Production Planning to inform the Maintenance and Inspection Departments when an AD is due for compliance. The MP&P also stated that, "Repetitive AD's with an inspection interval compatible with existing check periods may be incorporated into the appropriate check package (A, B, C, or D check) by the Quality Control Department." Note: although the MP&P identifies an "A" check, Emery reported that they no longer perform "A" checks for the DC-8 aircraft). The maintenance group found that there were no AD references regarding the cargo loading system.

Cargo Compartment

The maintenance group reviewed the Emery work cards from the last C/D check completed on November 17, 1999. The group found that C Check work cards 5205 - Main Cabin Inspection, and 5206 - Cargo Loading System Inspection/Service, and D Check work card 5201D - Main Cabin Inspection, identified the guidelines used by TTS to inspect the cargo compartment and loading system.

Each work task identified on the work cards was stamped as signed-off by a TTS inspector. Non-routine work cards generated from the C Check work cards identified on each task item the mechanic sign-off who performed the work. Each non-routine work task also has two entries for the inspector sign-off stamp. One entry is entitled "entered by:" and the other entry is for the final inspection stamp for the work accomplished. On all of the non-routine work card tasks, each entry was stamped by an inspector except for one to an "entered by:" block. The work accomplished, however was stamped as completed.

Work card 5206 identified inspection/servicing to nine areas of the cargo loading system. The areas of inspection included:

1. Inspect roller trays for cracks, damaged or missing rollers, bad roller bearings and bent roller shafts.
2. Inspect side restraints for damage.
3. Inspect spring type restraints (bear traps) for proper locking and damage.
4. Inspect transfer mats assembly.
5. Remove all retainers, springs and roller balls from transfer mats.
6. Clean retainers, springs and roller balls with solvent. Check that rollers move freely.
7. Lubricate ball units, folding locks and other operating mechanisms with a light coat of silicone base lubricant WD-40.
8. Reassemble springs, rollers and retainers in transfer mats.
9. Install adjustable side restraints on LT. Side of cargo loading systems.

As a result of the inspections, several non-routine work cards were generated for the long roller trays, short roller trays, transfer mats, and the "bear trap" (cargo lock) restraints. The non-routine work accomplished for the restraints were to clean all restraints as needed. Oil and replace rollers in accordance with DC MM 51-20-0. All locks were checked for positive locking, general condition, and cleaned. Repairs were accomplished where needed.

Major Repairs and Alterations for the Cargo Loading System

Emery provided the maintenance group the Major Repairs and Alterations (Form 337) from 1994 to current date. The Federal Aviation Administration provided the entire historical file of Form 337's since the date of manufacture, to include the standard airworthiness certificates and supplemental type certificate information. The file was reviewed to determine the extent of major repairs and alterations performed on the aircraft to the cargo loading system.

The file obtained from the FAA indicated that on March 21, 1968, the standard airworthiness certificate identified the aircraft model as a DC-8-61, with Pratt and Whitney JT3D-3B engines. On July 18, 1983, the aircraft was altered for the installation of CFM56-2-C1 engines with nacelles and pylons and a modified back-up structure in the existing wings. The airworthiness certificate was amended to indicate that the aircraft model had changed to a DC-8-71.

In April 1993, AeroUSA, N.Y. (the registered owner) had the aircraft altered from a "DC-8-71 to a DC-8-71F in accordance with the DC-8-71F cargo conversion GPA FAA Project No. _NM-100___32 (numbers unreadable)." FAA approval of the detail design was disclosed on Douglas Drawing SPO8010001, Rev C and all sub-drawings which are a part thereof provided on four "Statement of Compliance with the Federal Aviation Regulations" FAA Forms 8110-3. Aeronavali, Napoli, Italy, performed the alterations. Alerations included the following:

1. The fuselage structure was replaced and/or reworked from Station 70 to Station 450, longeron No. 1 to longeron No. 31 on the left side to accommodate an 85 x 140 inch upper cargo door from Station 130 to Station 270 left side. The main cabin floor structure was replaced and/or reworked from Station 8 to Station 1766 to accommodate PEMCO cargo handling system.

2. Incorporated under PEMCO cargo handling system STC #1327NM.

STC #1327NM indicated that the design change was for DC-8-61F/-63F models for the installation of a heavy duty Universal Pallet System in accordance with FAA approved PEMCO Engineers, Inc. Master Drawing List No. 50045-1 "F" change dated January 28, 1982, or later FAA approved revision. The Description of Work Accomplished page of the Form 337 identified all of the sub drawings and the Designated Engineering Representatives (DER) who were responsible for the engineering modifications to incorporate this STC for the DC-8-71 series aircraft.

On March 29, 1994, Page Avjet Corporation, Fort Worth, Texas, performed a modification of the main cargo compartment side rails in accordance with Lopez and Associates, Inc. Dwg. # 93-0225, Rev. C dated November 24, 1993, which was approved via FAA Form 8110-3 and the DER. This modification, to modify the height of the existing side rails, was accomplished at the time of Emery's conformity inspection sign-off and subsequent addition of the aircraft to Emery's certificate on March 31, 1994.

Weight and Balance

Non-routine maintenance work cards from the last D Check dated November 17, 1999, by Tennessee Technical

Services, indicated that the aircraft's weight and balance was calculated during this check. The sign-off for the work accomplishment was dated November 11, 1999. (Attachment F)

3. Federal Aviation Administration Oversight

The Federal Aviation Administration reported that the oversight of Emery's certificate was assigned to the San Jose, California, Flight Standards District Office (FSDO) since 1987. In December 1999, the certificate oversight was reassigned to the Cincinnati, Ohio, Flight Standards District Office, due to the location of Emery's corporate offices and main base of operations.

On March 29, 2000, the two former Principal Maintenance Inspectors (PMI), from the San Jose FSDO were interviewed. The first inspector was assigned PMI duties of the Emery certificate in 1990. The second inspector took over the PMI certificate oversight in 1997, when the first inspector was promoted. During the interviews, it was learned that since 1987, Emery's fleet of aircraft and operations has grown from four DC-8 aircraft in 1990, to 43 DC-8 aircraft and two DC-10 aircraft in February 2000.

From 1990 to the certificate transfer, both inspectors reported that they had at various times, an assistant PMI assigned. From early January 1999, to the certificate transfer, there were no assistant PMI's assigned. The inspectors reported that various geographic resources from other FSDO's were also utilized to accomplish oversight responsibilities at stations where Emery operated.

The current PMI in the Cincinnati, Ohio, FSDO, was interviewed on April 3, 2000. The PMI reported that prior to the certificate transfer, he and his two assistant PMI's participated in an "outbrief" with the inspectors in the San Jose FSDO, to familiarize them with the Emery certificate oversight responsibilities. It was also noted that a Regional Aviation Safety Inspection Program (RASIP) was conducted in January 2000, to evaluate the condition of the certificate at the time of the transfer.

The Federal Aviation Administration (FAA) was asked to provide the maintenance group with the most recent National Aviation Safety Inspection Program (NASIP) report, and all Regional Aviation Safety Inspection Program (RASIP) reports since the last NASIP. The FAA provided the most recent

NASIP report dated June 8 to June 26 1992, and three RASIP reports dated June 12 to June 23, 1995; February 1 to February 5, 1999; and January 18 to January 28, 2000.

Each of the inspections were conducted to determine if the operator was in compliance with all appropriate Federal Aviation Regulations, approved company procedures and policies, and other written FAA guidance. The 1999 RASIP focused the inspection on the cargo handling to include: loading and unloading of Unit Loading Devices (ULD) ensuring proper restraint, serviceability, marking, and compliance with Emery's loading manual, the original equipment manufacturer's manual, applicable FAA regulation and standards. The 2000 RASIP was conducted to evaluate the condition of the certificate at the time of the certificate transfer.

At the time of these inspections, the FAA identified several areas in which Emery was not in compliance with company policies and procedures. Some of the findings noted during the most recent RASIP in January 2000, reported that: manuals were not updated, and in some cases, the manual instructions were not followed; there was no AD compliance list; no traceability on C Check cards for non-routines; Emery needed to enhance the training program to include more formal training courses. The inspection team also noted the repeated write-ups in the aircraft maintenance logbook and attributed it to the lack of training. The logbook pages also did not state a reference for compliance and lacked detailed descriptions of the work performed.

The special emphasis on the cargo handling operations which the team inspected in February 1999, noted areas of non-compliance with company aircraft loading manuals and procedures. The team also noted areas of improvement for the training program. The report further identifies the corrective actions, which EWA immediately addressed or addressed soon thereafter.

Since the certificate transfer to the Cincinnati FSDO, the PMI reported that as of September 2000, all of the RASIP and NASIP discrepancy findings have been addressed.

Debra J. Eckrote
Maintenance Group Chairman

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