

## Attachment # 5C

Field Notes MEM November, 1997

# Operations Group Field Notes

## MEM

**Don Goodin, First Officer (reinterview)**

Lee Seham from FPA represented.

Started about 0830 CST.

He said it took about 5 and a half to 6 hours to go from ANC to EWR. They talked about their families and the Reno air races. He described the trip as routine. He said they could see the ground fairly well over Canada, which was unusual.

He was retrained recently because the sim instructor did not have a type rating. He did not notice any difference between his initial training on the MD-11 and his retraining. He said AST stands for advanced simulator training. He said there were no special areas of emphasis during his retraining.

He said he was not feeling fatigued during the accident flight and said that fatigue was not an issue.

He said he has flown the MD-11 since the accident flight, about 15 to 20. His first flight was flight 14 from ANC to EWR and the aircraft number was 610 and number one thrust reverser was inop. He landed in EWR on the long runway (4 R). He said that the use of 50 flaps was for shorter runways.

He said he has no reservations speaking up to a captain. He said he tries to state it in a manner that it is a suggestion. He used as an example of this, his suggestion during the accident flight on using *Max brakes versus Med brakes*.

Left Landing light inoperative. Bob switched it off and on. Turned off the right side to see if it was dark. Then turned the right side on. Left landing light was inop.

Said winds were 250 at 5 knots [on night of accident]. Said he was not aware of any indications of *erratic winds at EWR*.

He said they were not attempting a go around and he does not remember the FADEC bar being broached.

He said that about 20 feet the sink rate was starting to increase. He said it was not correct to describe the sink rate as high at this point. He did not use the IVSI to determine this, but it was more a seat of the pants feeling.

He was not riding the controls during the approach but had his hands near the yoke. He said he had his eyes out the window on the runway during the flare.

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He said control inputs seemed normal. He did not feel the control yoke hit him in the chest.

He said they are trained so that the pilot flying has one hand on the wheel and one hand on the throttle.

He said tail strike training emphasis is on avoiding a large pitch input – which he said would probably correlate with elevator inputs but he stressed pitch input. He said they are taught not to hit the tail and to keep pitch attitude at 7.5 degrees or less. Where he was sitting he did not get the sense that there was any unusual control inputs. After they touched down and went airborne, Bob's hands were on the throttle and yoke and he was going forward on both. He said they were still in the landing zone and still on the runway. He said the attitude did not look unusual to him.

He said they were not that far in the air. They touched down towards the end of the runway and they were coming back down still within the first 1/3 of the runway. He said they were concerned about the shortness of runway all the way down but they felt they had enough room to stop. He said he did not feel a bank developing between the first and second touchdown. He felt it was wings level during the bounce and at second touchdown. He said that he felt no difference between the first touchdown and the second touchdown.

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**Robert Freeman, Captain (reinterview)**

Lee Seham from FPA represented

Said it was an uneventful trip.

Said he listened to ATIS versus receiving it on ACARS he believes.

He said the first unusual event was the left landing light being burned out. Also, ATIS said left runway was closed; no reason stated.

He said he's used max brakes numerous times on this airplane -- uses it for slushy conditions and so-forth. He said it is not violent but a hard stop.

He does not remember any specific training on short field landing techniques.

He received tail strike awareness training some time during first officer training -- either initial or recurrent. He thinks he also received it during captain upgrade but cannot remember, but knows he has done it several times over the years. He feels the training was beneficial.

He said he remembers a pretty dramatic pitch up right at or shortly after the second touchdown. He does remember the pitch up and getting the nose back down to the ground [after first touchdown].

He said after the accident he completed a 709 ride with the FAA.

He said he's worn no-line bifocals for about 2 years.

He said he was trying to arrest the sink rate with the power. He said his perception of sink rate was from looking out the window not the IVSI.

Landing light out did not have a dramatic impact on his ability to detect sink rate and land the airplane. Right landing light was available. He said the view out the window looked like he thought it should. He cannot remember specifically landing with that light out before but certainly has landed at some time with a light inop.

He said there were no distracting lights that were in his eyes during the landing.

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### **Tom Nordberg, Flight Standards Check Airman (APD)**

Represented by Mark Hanson, FedEx Legal

DOB [REDACTED] 48 DOH Flying Tigers 4/1/73

Duty assignments S/O DC-8, S/O Check Airman, S/O B-747, S/O Check Airman F/O B-747, Capt. B-727, Check Capt. B-727, Capt. DC-8, Check Capt., Capt. MD-11, Check Capt.

Total flying time: 17,500 hrs. Total time in MD-11: 3000 hrs.

Official title at FedEx Flex Standards Specialist, MD-11 (APD)

He said that he first flew with the Capt. of the accident aircraft when he first check out as a first officer and was typed in the MD-11 on June 11, 1994. He was the check Capt. that was administering the up-grade PC check on October 29, 1996 when he issued an unsatisfactory grade to the Capt. of the accident aircraft. He said the unsatisfactory was given for a failed V<sub>1</sub> engine out procedure and for multiple engine failure procedures. He said that after two additional simulator session he was retested and did ok.

He added that the up-grade course was a short course if the pilot was moving from the right seat to the left seat of the same aircraft. He said that he checked the progress of the accident Capt. during his IOE and the reports were good. The accident Capt. has had two check rides sense his up-grade check.

He said the he (Tom Nordberg) was not qualified to teach Tail Strike Awareness training.

He said that during training it is the rule, not the exception, that pilots have trouble landing the MD-11, the MD-11 has a narrower than usual landing envelope and it must be kept in the envelope to make a successful landing.

He said that he observed no issued during the check that may have lead to the accident. He said that he had not heard any comments from other Check Capt. about the performance of the accident Capt.

**Attachment # 6**

**AWAS Data EWR**

07/30/97 22:35:31 5-MIN KEWR 310335Z 24007KT 10SM CLR 21/12 A3022 -250 58  
400 260/07 RMK AO2

07/30/97 22:40:31 5-MIN KEWR 310340Z 24006KT 10SM CLR 21/12 A3022 -250 58  
400 250/06 RMK AO2

07/30/97 22:45:31 5-MIN KEWR 310345Z 24006KT 10SM CLR 21/12 A3022 -260 58  
400 250/06 RMK AO2 SLP234 T02060122

07/30/97 22:50:31 5-MIN KEWR 310350Z 24006KT 10SM FEW250 21/12 A3022 -260  
58 400 250/06 RMK AO2 SLP234 T02060122

07/30/97 22:55:31 5-MIN KEWR 310355Z 25007KT 10SM CLR 21/12 A3023 -260 58  
400 260/07 RMK AO2

07/30/97 23:00:31 5-MIN KEWR 310400Z 24007KT 10SM CLR 21/12 A3023 -260 58  
400 260/07 RMK AO2

07/30/97 23:05:31 5-MIN KEWR 310405Z 24007KT 10SM CLR 21/12 A3023 -260 58  
400 260/07 RMK AO2

07/30/97 23:10:31 5-MIN KEWR 310410Z 25008KT 10SM CLR 21/12 A3023 -260 58  
400 260/08 RMK AO2

07/30/97 23:15:31 5-MIN KEWR 310415Z 25008KT 10SM CLR 21/12 A3023 -260 58  
400 260/08 RMK AO2

07/30/97 23:20:31 5-MIN KEWR 310420Z 25011KT 10SM CLR 21/12 A3023 -260 58  
400 260/11 RMK AO2

07/30/97 23:25:31 5-MIN KEWR 310425Z 25009KT 10SM CLR 21/12 A3023 -260 58  
400 260/09 RMK AO2

07/30/97 23:30:31 5-MIN KEWR 310430Z 25009KT 10SM CLR 21/12 A3023 -260 58  
400 260/09 RMK AO2

07/30/97 23:35:31 5-MIN KEWR 310435Z 25009KT 10SM CLR 21/12 A3023 -260 58  
400 270/09 RMK AO2

07/30/97 23:40:31 5-MIN KEWR 310440Z 25008KT 10SM CLR 21/12 A3023 -260 58  
400 260/08 RMK AO2

07/30/97 23:45:31 5-MIN KEWR 310445Z 25009KT 10SM CLR 21/12 A3023 -260 58  
400 260/09 RMK AO2 SLP237 T02060122 402780156

07/30/97 23:50:31 5-MIN KEWR 310450Z 25009KT 10SM SCT080 20/12 A3023 -260  
60 300 260/09 RMK AO2 SLP237 T02000122 402780156

07/30/97 23:55:31 5-MIN KEWR 310455Z 25007KT 10SM SCT080 20/12 A3023 -260  
60 300 260/07 RMK AO2

07/31/97 00:00:31 5-MIN KEWR 310500Z 26008KT 10SM SCT080 20/13 A3023 -260  
63 300 270/08 RMK AO2

07/31/97 00:05:31 5-MIN KEWR 310505Z 26008KT 10SM SCT080 21/12 A3023 -260  
58 400 270/08 RMK AO2

07/31/97 00:10:31 5-MIN KEWR 310510Z 25009KT 10SM SCT080 20/12 A3023 -260  
60 300 270/09 RMK AO2

07/31/97 00:15:31 5-MIN KEWR 310515Z 26009KT 10SM SCT080 20/13 A3023 -260  
63 300 270/09 RMK AO2

07/31/97 00:20:31 5-MIN KEWR 310520Z 26009KT 10SM FEW080 20/12 A3022 -250  
60 300 270/09 RMK AO2

07/31/97 00:25:31 5-MIN KEWR 310525Z 26007KT 10SM FEW080 20/13 A3022 -250  
63 300 280/07 RMK AO2

07/31/97 00:30:31 5-MIN KEWR 310530Z 27010KT 10SM CLR 20/12 A3022 -250 60  
300 280/10 RMK AO2

07/31/97 00:35:31 5-MIN KEWR 310535Z 27009KT 10SM CLR 20/12 A3022 -250 60  
300 280/09 RMK AO2

07/31/97 00:40:31 5-MIN KEWR 310540Z 27009KT 10SM CLR 20/12 A3022 -250 60  
300 280/09 RMK AO2



07/31/97 00:45:31 5-MIN KEWR 310545Z 27008KT 10SM CLR 19/12 A3022 -250 62  
 200 280/08 RMK AO2 SLP232 T01940122 10244 20194 50001

07/31/97 00:50:31 5-MIN KEWR 310550Z 26007KT 10SM FEW001 19/13 A3022 -250  
 65 200 270/07 RMK AO2 SLP232 FU FEW001 T01940128 10244 20194 50001

07/31/97 00:55:31 5-MIN KEWR 310555Z 27007KT 10SM CLR 19/13 A3022 -250 65  
 200 280/07 RMK AO2

07/31/97 01:00:31 5-MIN KEWR 310600Z 26009KT 10SM CLR 19/13 A3022 -250 65  
 300 270/09 RMK AO2

07/31/97 01:05:31 5-MIN KEWR 310605Z 25007KT 10SM CLR 19/13 A3022 -250 67  
 200 270/07 RMK AO2

07/31/97 01:10:31 5-MIN KEWR 310610Z 27007KT 10SM CLR 19/13 A3021 -250 67  
 200 280/07 RMK AO2

07/31/97 01:15:31 5-MIN KEWR 310615Z 27009KT 10SM CLR 19/13 A3021 -240 67  
 200 280/09 RMK AO2

07/31/97 01:20:31 5-MIN KEWR 310620Z 26009KT 10SM CLR 19/13 A3021 -240 67  
 200 280/09 RMK AO2

07/31/97 01:25:31 5-MIN KEWR 310625Z 26008KT 10SM CLR 19/13 A3021 -240 67  
 200 270/08 RMK AO2

07/31/97 01:30:31 5-MIN KEWR 310630Z 26007KT 10SM CLR 19/13 A3021 -240 67  
 200 280/07 RMK AO2

07/31/97 01:35:31 5-MIN KEWR 310635Z 26005KT 10SM CLR 19/13 A3021 -240 67  
 200 270/05 RMK AO2

07/31/97 01:40:31 5-MIN KEWR 310640Z 27005KT 10SM CLR 18/13 A3021 -240 70  
 100 280/05 RMK AO2

07/31/97 01:45:31 5-MIN KEWR 310645Z 27006KT 10SM CLR 19/13 A3021 -240 67  
 200 280/06 RMK AO2 SLP228 T01890128