

FEDERAL MINISTRY OF AVIATION



SUMMARY OF ACCIDENT

REPORT

ADC AIRLINES (LIBERIA) 5N-BBE-DC-9-31

18 AUGUST 1994

AT

JAMES SPRIGGS PAYNE AIRFIELD

MONROVIA, LIBERIA

MINISTRY OF TRANSPORT
BUREAU OF CIVIL AVIATION
MONROVIA, LIBERIA

The Honourable Minister of Transport
Ministry of Transport
Monrovia, Liberia

Honourable Minister,

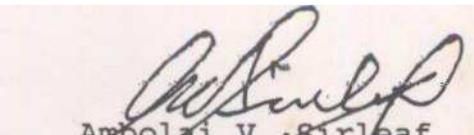
I have the honour to submit the Final Reports and Findings of the investigation into the Accident of Aviation Development Company (ADC) Airlines, Inc. DC-9-31 5N-BBE which occurred on 18th August, 1994 at about 1158 UTC at the James Spriggs Payne Airfield.

The investigation was conducted by The Directorate of Civil Aviation, Ministry of Transport, Liberia, as the State of Occurrence and being responsible for the Investigation. In the discharge of this, we were assisted by Mr K. K. O. Sagoe, Head of the Accident Investigation Bureau, Federal Ministry of Transport and Aviation, Nigeria. Mr Sagoe's assistance was invaluable during the course of this investigation.

Our thanks and appreciation to all who assisted in any form or manner to the outcome of this investigation.

Kind regards.

Sincerely,



Ambolai V. Sirleaf
Director of Civil Aviation

OPERATOR:

AVIATION DEVELOPMENT COMPANY. ADC AIRLINES
(LIBERIA) INC.

AIRCRAFT TYPE Mc DONNEL - DOUGLAS DC-9-81

NATIONALITY: NIGERIAN

REGISTRATION MARKS : 5N-BEE

PLACE : JAMES SPRIGGS PAYNE AIRFIELD

DATE AND AUGUST 18, 1994
TIME AT 11.58 UTC

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SYNOPSIS

The aircraft was on a scheduled flight from Banjul to James Spriggs Payne Airfield, Monrovia, Liberia via Lungi International Airport, Sierra Leone.

The approach was normal. The aircraft appeared too high as it crossed the runway threshold at about 150 feet and landed at about 3,000 ft from the threshold. The landing was hard and the Aircraft bounced. Deceleration was poor breaking action because of the wet runway. The aircraft maintained a speed of close to 80 knots as it ran off the end of the runway.

The aircraft went into a depression 7 feet deep off the end of the runway for a distance of 390 feet before coming to rest in sand. The landing was at 1158 UTC.

The accident was notified to the DCA at 1230 UTC on August 18, 1994 and the investigation began the same day with representatives from Nigeria as the state of registry and the Directorate of Civil Aviation Liberia, as the state of occurrence. The Investigator-in-charge was the Acting Director of Civil Aviation, Liberia.

Further notification was made to the FAA as the state of manufacture and McDonnell Douglas as manufacturer of aircraft on 19th August through the United States Embassy near Monrovia.

FACTUAL INFORMATION

On 18th August 1994, ADC flight 018, a DC-9 5N-BBE, a Nigerian registered aircraft operated on behalf of ADC Airlines (Liberia) made a scheduled flight from Banjul, the Gambia via Lungi, Freetown, Sierra Leone, on to James Spriggs Payne Airfield, Monrovia.

The aircraft, piloted by Captain Sunday Arome (PIC) and Co-Pilot Mathias Dramou took off from Lungi International Airport at about 1120 hrs UTC and approached Spriggs at about 1150 hrs with seventy-four(74) passengers and eleven (11) crew on board.

A visual approach was carried out using the GPS as a guide. The aircraft was aligned with the runway centre line at about 8nm out. According to the PIC, the aircraft broke cloud at about 1000 feet and the Oil Refinery and the fuel dump, were positively identified at 5nm.

When the aircraft was about 4nm away from the threshold of RWY-23, it had descended to 400ft. The RWY was sighted at about 2.5nm, the aircraft crossed the threshold of RWY-23 at a slightly high altitude of about 150ft.

A hard touch down was however made at about 3000ft from the threshold. The spoilers were said to have deployed automatically and the pilots applied full brakes with reverse thrusts on both engines. The aircraft crossed the threshold of RWY-05 at a speed of about 80kmts.

Due to a sharp depression at the end of the threshold of RWY-05, the aircraft entered the seven foot depression, with a great shock before a final stop at 390 feet. All eight-five (85) souls on board were successfully evacuated with few minor injuries. The aircraft burnt to'ashes due to the lack of fire fighting trucks.

1.2 INJURIES TO PERSONS

<u>INJURIES</u>	<u>CREW</u>	<u>PASSENGERS</u>	<u>OTHERS</u>
Fatal	Nil	Nil	Nil
Serious	Nil	Nil	Nil
Minor	2	1	Nil

1.3 DAMAGE TO AIRCRAFT

Destroyed (total loss of aircraft). The aircraft was totally burnt.

1.4 OTHER DAMAGE

The accident caused no damage to third parties.

1.5 PERSONNEL INFORMATION

1.5.1 Pilot-in-command-Captain Sunday Arome (Nigerian)	
Age	41
Pilot's licence	ATPL 1194
Medical Expiry Date	21 Feb. 1995
Total Flight time	7, 486 hrs.14min.
Total on Type	688 hrs. 20 min.
Total last 90 days	110 hrs.
Total on Type last 90 days	40 landing
Hours on duty prior occurrence	4 hrs.
Hours offduty prior to work period	12hrs.

1.5.1 RATINGS

- (a) Part 1 Single & Multiengines land places
- (b) Type Cessna 150, PA-28, B-737, BAC one-eleven Cessna 310, Cessna 414, B-707, DC-8,DC-9 F-27

1.5.2. CO-PILOT

Mathias Dramou (Guinean)	
Age	36
Pilot's licence	CPL-4222
Medical Expiry Date	9 Nov. 1994
Total Flight time	2264 hrs.
Total on Type	1,056 hrs.
Total last 90 days	150 landings
Total on Type last 90 days	150 landings
Hours on duty prior occurrence	3 hrs. 50 min.
Hours off duty prior to work period	12 hrs.

RATINGS

- (a) Part 2
- (b) Type B-737, DC-9

1.6 AIRCRAFT INFORMATION

Manufacturer	Mc Donnell Douglas
Aircraft Type	DC-9-31
Year of manufacture	1968
Serial Number	45872
Certificate of Airworthiness	No. 848 valid until the 13th July 1995
Total Airframe time	62,484 hrs. 20 min.
Airframe Time since overhaul	146 hrs. 58 min.
Engine Type (2)	Pratt & Whitney JT8D-7
Maximum allowable take off weight	105,000 lb
Recommended Fuel Types	JET A-1
Maximum Landing Weight	98,000 lb
Landing Weight at Occurrence of Accident	97,000 lb
Centre of Gravity at Landing	Within limits
Flap Position at Landing	50 degrees
Actual reference Landing Speed	155 Knots
Scheduled Reference Landing Speed	127+15-142 Knots

1.7 POWER PLANT

	#1	#2
Manufacturer	Pratt & Whitney	Pratt & Whitney
Type	JT8D-7	JT8D-7
Serial number	656901	657303
Total time since new	34,641 hrs 10 mins.	53,424 hrs.05 mins
Cycles	40,894	51,412

1.8 METEOROLOGICAL INFORMATION

At the time of the accident, conditions at Spriggs at 1130 and 1200 hours UTC were as follows:

At 1130 hrs.	Wind	Calm
	Visibility	9 km
	Cloud	5 st 200 ft. 8sc 1200 ft.

	TT	24°C
	QNH	1014-rnb, 2-9.96 in.
	QFE	1013 mb, 29.94 in.
	Ceiling	1200
At 1200 hrs.	Wind	Calm
	Visibility	6 km
	Cloud	5 st 200 ft 8 sc 1200 ft
	Weather	Light rain
	TT	24 °C
	QNH	1014 mb, 29.96 in.
	QFE	1013 mb, 29.94 in.
	Ceiling	1200

1.9 AIDS TO NAVIGATION:

NONE

1.10 COMMUNICATION:

VHF two way communication was maintained. First contact with Spriggs Tower on 118.7 MHz was at 1136 UTC at point Matru FL230 with ETA 1155.

1.11 AERODROME INFORMATION

1.11.1 GEOGRAPHICAL LOCATION:

The James Springs Payne Airport is located at 06° 1 7'N Latitude and 10° 46'W Longitude.

1.11.2 RUNWAY PARTICULARS:

- | | | |
|-----|-----------------------|------------|
| (a) | Length | 6,000 ft |
| (b) | Width | 100 ft |
| (c) | Load-bearing strength | 114,0001 b |
| (d) | Elevation | 25' ASL |

Due to light rain on the day of the accident the RWY was wet with patches of standing water.

1.11.3 FIRE COVERAGE

Not available at the material time.

PERSONNEL:

There were no firemen at the airport during the accident.

EQUIPMENT:

There were no fire extinguishers nor a fire fighting vehicle at the time of the accident

1.12 FLIGHT RECORDERS:

(a) The CVR:

The aircraft was carrying a serviceable cockpit voice recorder. (b)

The FDR:

The flight data recorder was serviceable and gave usable readings.

1.13 WRECKAGE AND IMPACT INFORMATION:

The A/C did not impact with any object on the landing run. At the end of the runway, as it overran the right main wheel hit a disused light fixture and then plunged down a seven (7) foot slope. The landing gear and nose wheel, collapsed and the A/C came to rest about 390 feet from the end of runway05 in the sand.

1.14 MEDICAL AND PATHOLOGICAL INFORMATION:

No formal medical tests were carried out on the crew members. However, their bearing and posture do not reflect persons influence of drugs.

1.15 FIRE:

When the A/C came to rest, smoke was observed by eye-witnesses some five (5) minutes later from the left engine and about five minutes (5) later, fire was seen from the same engine. This fire destroyed the aircraft. The left main landing gear may have punctured the fuel tanks. This is .another source of the fire. The fuel spillage from the port side of the aircraft may have resulted from the punctured tanks.

1.16 SURVIVAL ASPECTS:

All eighty-five (85) souls on board survived. Evacuation was prompt all doors and slides were used.

1.17 TEST AND RESEARCH:

No tests or research were carried out.

1.18 STATEMENT BY CREW AND EYE-WITNESSES:

The following points emerged from the statements given by the crew and eye-witnesses.

(A) PILOT - Captain Sunday Arome

A visual approach was carried out with the aid of the Aircraft airborne GPS. Aligned with centre line about 8 NM out. Broke cloud at-about 1000 feet and a fuel dump (about 5 NM) was positively identified. Reached MDA (400) at about 4 NM. Sighted runway at about 2.5 NM. Crossed R/W 23 threshold slightly high at about 100 feet. Touch down was hard. Spoilers deployed automatically. Full pedal brakes applied with reverse thrusts on both engines. Rate of deceleration was low (poor braking action). Crossed end of runway at about 60 kts. Sharp depression on the ground after made matter worse before final stop. Evacuated successfully. Very few minor injuries.

PILOT'S ASSESSMENT OF THE CAUSE (S) OF THE ACCIDENT

The touch down was done slightly beyond the 1000 foot point coupled with poor braking action.

(b) CO-PILOT- Mathias Dramou

After landing and during landing run, the aircraft, in spite of maximum braking and maximum reverse, the aircraft did not decelerate beyond 75kts. The aircraft reached the end of the runway with high speed and went into the depression with a very hard knock. The aircraft shortly after that caught fire. All the seventy-four (74) passengers and eleven (11) crew members were evacuated successfully. The aircraft burnt to ashes due to the lack of fire fighting coverage.

CO-PILOT'S ASSESSMENT OF CAUSE(S) OF THE ACCIDENT:

Aquaplaning of aircraft on wet runway.

(c) **SUMMARY OF EYE-WITNESSES ACCOUNTS:**

All eye-witnesses interviewed said the A/C appeared to have been too high when sighted over the runway and touch-down was made at about 2,000 to 4,000 feet from the end of runway-23. The A/C was observed to have bounced once after what appeared to have been a hard landing.

2.0 ANALYSIS

2.1 GENERAL:

The flight crew, Captain Sunday Arome and Co-Pilot Mathais Dramou, were properly certificated and qualified for the flight.

Though no formal medical tests were carried out on the crew members (The Captain and Co-Pilot), their bearings and postures did not reflect persons:under the influence of drugs.

The aircraft had a valid Certificate of Airworthiness and, the Center of Gravity at landing was within limits. The aircraft was maintained in accordance with applicable regulations and established maintenance procedures.

The Captain was aware of the wet Runway, based on the weather report. He arrived at the Threshold of Runway-23 at a speed of about 155kts and, with an altitude of about 150'.

The touchdown was done at about 3000' from the Threshold. The aircraft could not be stopped on the runway remaining.

In view of these findings, the Accident Investigating Team examined the operational and human performance factors related to the flight, to determine why the Captain decided to land the aircraft about 3000' beyond the Threshold of a rather short and wet runway.

2.2 WET RUNWAY COEFFICIENT OF FRICTION

Whenever a runway is wet, the coefficient of friction between the a/c tires and the runway surface is reduced from that of a dry runway. This reduction in the coefficient of friction can be as much as 30 per cent, thus resulting up to 30 percent increase in the distance required to stop the aircraft.

2.3 HUMAN FACTORS

The evidence indicates that the crew possess some experience on the DC-9 aircraft and, in operating the aircraft into the James Springs Payne

Airfield. Because of the level of their experiences, they should have anticipated and be prepared for the presence of water on the runway to decide whether or not to continue the landing -having crossed the Threshold at a height of about 150' and with a speed close to 155 kts.

Nevertheless, the Accident Investigating Team believes that certain aspects of the operation of the aircraft were deficient.

Looking at the before landing checklist' we have:

- (a) No smoking on
- (b) Ignition on
- (c) Gear.....Down, 3 Greens
- (d) Aunuciator panel Checked
- (e) Spoilers.....Armed
- (f) Flaps/Slats.....(degrees) deep blue light.

The transcripts of the conversation within the cockpit indicated that a request for putting down the gear was made by the Captain and, the normal cockpit sounds associated with this process were clearly heard.

But nowhere in the transcript was a formal read-out of the checklist found in the normal challenge-and response format. However, when flap 50° was called, the Co-pilot responded with 'DEEP BLUE LIGHT'; which is a semblance of the last item in the 'before landing checklist'.

The Team of Investigation is of the opinion that this deviation in the checklist procedure may have caused the crew to omit the checking of the annunciator panel and, the arming of the spoilers.

The transcript also revealed that the First Officer was first to have the field in sight shortly after which the supernumerary Captain on the jump seat spotted the field, and the field was very close and to the right of the aircraft by the time the Captain, who is also the pilot on the control, spotted the field.

The culmination of an excessive threshold speed, excessive height above the threshold and, the probable evidence of having the spoilers unarmed, all present a case for missed-approach.

In the circumstances, the decision of the commander to continue the landing is clearly a major contributory factor in the accident.

The inaction of the spoilers probably explains why the aircraft bounced to a height of about 20' after the initial touch-down. This bounce further denied the aircraft a significant braking distance.

The fact that the aeroplane over-ran the runway at a speed of 80 kts has been explained by the above mentioned factors.

Analysis of the Flight Data Recorder (FDR) indicate the final descent from the NDA to touch-down was at a rate of 1,375ft/min. This is on the high side and clearly demonstrates a pilot forcing himself to land on the field at all costs.

3.1 FINDINGS

1. The flight crew were properly certificated and qualified to fly the aircraft.
2. The flight crew possess experience in operating the aeroplane in general, and have landed on the James Sprirrgs Payne Airfield several times.
3. The accident was survivable because the aeroplane was not subjected to excessive 'G' forces.
4. The aircraft was properly certified and maintained in accordance with applicable regulations and established procedures.
5. The a/c arrived over the threshold at a height of about 150' and at a speed of 155 kts. The scheduled V Ref. is 127kts. Fifteen (15) kts can be accounted for by company's instructions. There is evidently an excessive speed of at least ten (10)kts. That the Captain should have bled off before the threshold.
6. After the threshold, the a/c descended at a rate of 1375ft/min until the point of touch-down.
7. The a/c ran off the end of the runway at about 80kts and plunged down a seven (7) foot depression. This caused the collapse of the left main gear, that further punctured the adjoining fuel tank. This caused the spillage of fuel and the fire.
8. The a/c was successfully evacuated of passengers and crew.
9. There were three (3) minor injuries - two crew members and one (1) passenger.
10. The a/c burnt and was completely destroyed because of the lack of fire fighting coverage at the airport at the time of the accident.
11. There were no landing and navigation aids at the airport at the time of the accident.
12. it was observed that the surface of the runway was in a very poor condition and an urgent resurfacing must be implemented, especially in the first 2000' of runway- 23.

3.2 PROBABLE CAUSE

3.2.1 The probable cause of the accident lies in the decision of the commander to continue to land the aeroplane in a situation that clearly calls for a missed approach.

3.2.2 The contributory factors are the excessive height and speed over the threshold of the runway and, the subsequent high rate of descent to touchdown.

4. RECOMMENDATION

(a) Navigation and landing aids must be made available at the James Spriggs Payne Airport. These facilities must be commensurate with the type of aeroplane using the field.

(b) The requirement for fire fighting coverage up to category seven must be urgently established at the airport.

(c) In view of the type of aeroplane operating into Spriggs Payne Airport, it is considered to be an added safety factor, if the runway length were extended by 1000' .

(d) Attention must be give to the urgent need to carry out the resurfacing of the runway, more especially the first 2000' of runway-23.

(e) It cannot be over-emphasized that crew members must comply with the use of approved check-lists in configuring the aircraft for each phase of a flight

- | | | |
|----------|----|------------------------------------|
| Appendix | 1. | <u>CVR TRANSCRIPT</u> |
| Appendix | 2. | <u>FDR READOUT</u> |
| Appendix | 3. | <u>PHOTOGRAPHS AND EXPLANATION</u> |

INTRA-COCKPIT COMMUNICATION

<u>TIME & SOURCE</u>	<u>CONTENT</u>
0000:	
CAPT	Considerably the Visibility (laughter) if it does not work Bo we should just finish this approach and go it will be clear after some time this their rain is on and off
0002:29	CREW Take Over
0002:55	CREW Flaps
0003:06	
CAPT	ask them for eh Monrovia to get in touch

AIR -GROUND COMMUNICATION

<u>TIME</u> <u>SOURCE</u>	<u>CONTENT</u>
0000:00 ATC	Go down 3000 ft report the airport in sight surrounding Visibility has reduced considerably.
0000:16 COPILOT	OK 3000 ft ONH
0000:14 ATC	Roger ONH 1014
0000:00	
COPILOT	Thank you
0003:13	
COPILOT	Monrovia this is ADC 018 what is tower observation of Visibility?

<u>INTRA- COCKPIT COMMUNICATION</u>		<u>AIR -GROUND COMMUNICATION</u>	
<u>TIME & SOURCE</u>	<u>CONTENT SOURCE</u>	<u>TIME</u>	<u>CONTENT</u>
		0003:18	
		ATC	Six Kilometres less
		0003:21	
		COPILOT	Copied
0003:23 CAPT	Flaps 15		
		000:25	
		ATC	From the apron you can just about see the threshold off runway 23.
		0003:29	
		COPILOT	Say again
		0003:32	
		ATC	From the apron we can just about see the threshold off runway 23.
		0003:36	
0003:37 CREW	Ok	COPILOT	Ok
0003:57 CAPT	Thisus not working again		

<u>INTRA- COCKPIT COMMUNICATION</u>		<u>AIR -GROUND COMMUNICATION</u>	
<u>TIME & SOURCE</u>	<u>CONTENT</u>	<u>TIME & SOURCE</u>	<u>CONTENT</u>
0003:59 COPILOT	We have ground contact		
0004:17 COPILOT	226		
0004:19 CAPT	 Yea		
0004:31 SUPER	The whole of this place is beautiful laughter.		
0004:33 CAPT	just to in there and back out again		
0004:35 CAPT	We are going to enter cloud again and continue now		
0004:43 CAPT	gear down		
0004:46 SUPER	 looking fine away		
0004:49 CAM	(sound of wind)		
0005:09 HOSTESS	 cabin set for landing		

<u>INTRA- COCKPIT COMMUNICATION</u>		<u>TIME &</u>
<u>TIME</u>	<u>CONTENT</u>	<u>SOURCE</u>
0005:10		
CAPT	Thank you	
0005:12		
CAPT	Flap	
0005:13		
CAPT	carry on nav 1	
0005:24		
SUPER	still have 15 flaps	
0005:27		
CAPT	flaps 25	
0005:28		
COPILLOT	flaps 25	
0005:50		
CAPT	flaps 30	
0005:58		
CAPT	We are going down to the MDA	
0005:59		
COPILLOT	Yeah	
0006:		
COPILLOT	1000 ft	

AIR -GROUND COMMUNICATION
CONTENT

<u>INTRA- COCKPIT COMMUNICATION</u>		<u>AIR -GROUND COMMUNICATION</u>	
<u>TIME & SOURCE</u>	<u>CONTENT</u>	<u>TIME & SOURCE</u>	<u>CONTENT</u>
0006:01			
CAPT	What height is the MDA		
0006:03			
COPILOT	MDA is 400 ft		
0006:09			
COPILOT	Crossing 1000 ft		
0006:14			
COPILOT	this approach should be flap 15 eh		
0006:16			
COPILOT	Yeah		
0006:19			
CAPT	tell him we are final		
		0006:21	
		COPILOT	eh 018 is final runway 23 we'll call you runway in sight.
		00006:25	
		ATC	roger
0006:28			
SUPER	let him give us clearance		
		00006:33	
		COPILOT 21	018 is final runway 23

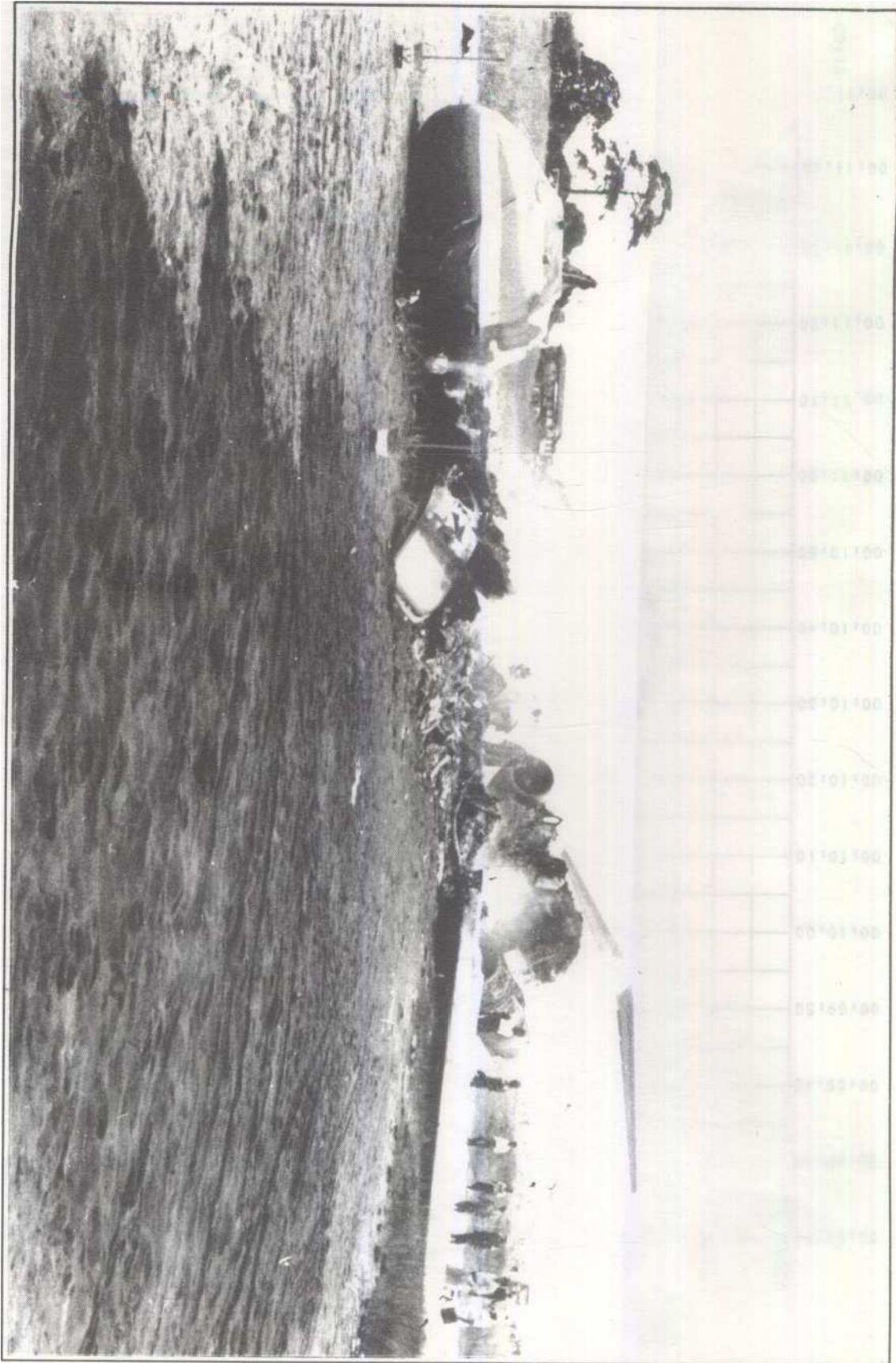
<u>INTRA- COCKPIT COMMUNICATION</u>		<u>AIR -GROUND COMMUNICATION</u>	
<u>TIME</u> <u>SOURCE</u>	<u>CONTENT</u>	<u>TIME &</u> <u>SOURCE</u>	<u>CONTENT</u>
		0006:37	
ATC			do you have the landing lights on?
		0006:39	
		COPILOT	confirm
		0006:40	roger continue approach
		ATC	
0006:45			
CAPT	Too early to go down I haven't gone over the contact point yet.		
0006:52			
SUPER	so we are just coming over the fuel dump		
0006:58			
SUPER	on track dead on track		
0007:00			
CAPT	dead on track		
0007:02			
COPILOT	go it right first time		
0007:09			
SUPER	dead on track		
0007:15			
CAPT	flap 50		

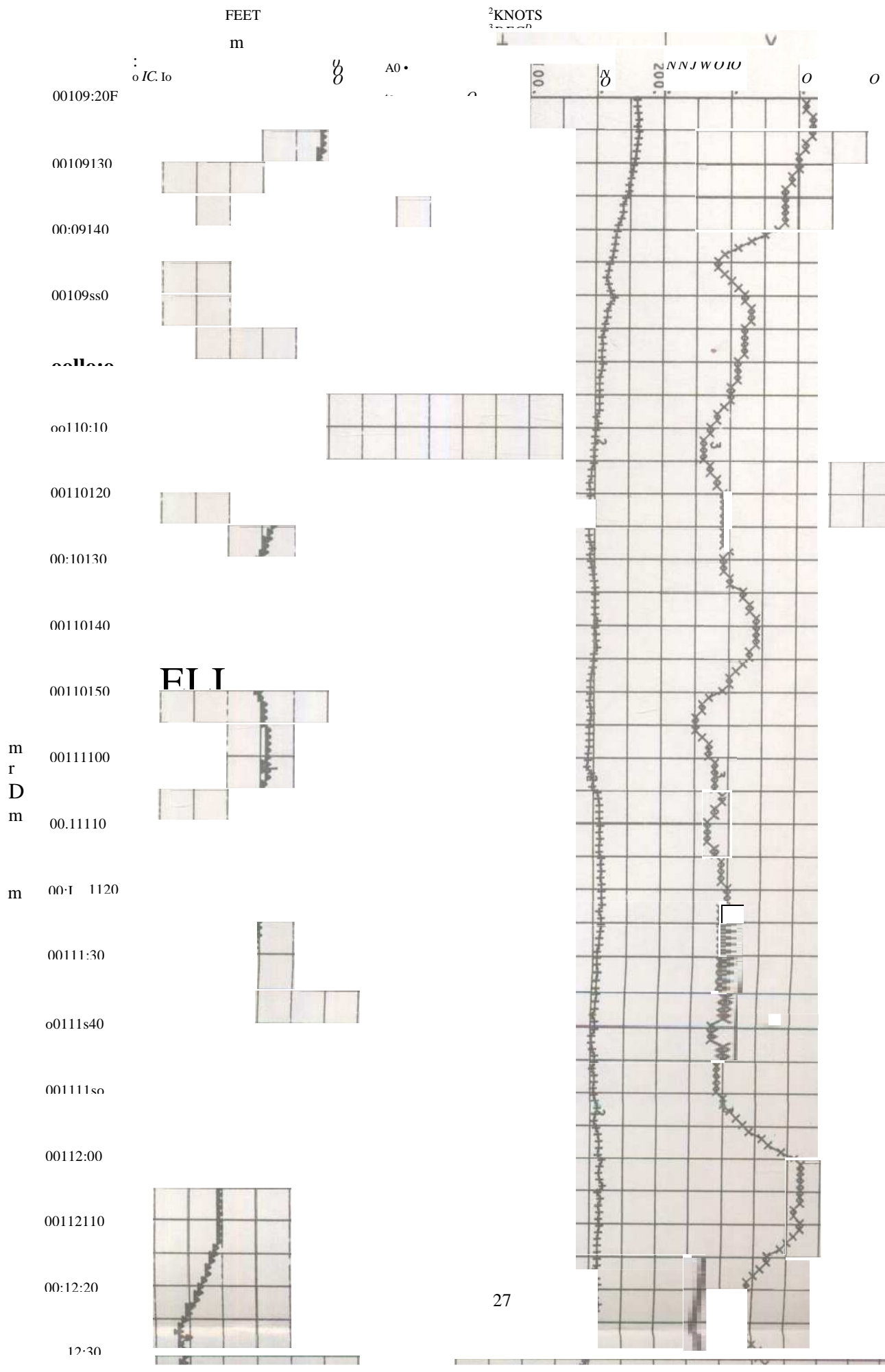
<u>INTRA- COCKPIT COMMUNICATION</u>		<u>AIR -GROUND COMMUNICATION</u>	
<u>TIME & SOURCE</u>	<u>CONTENT</u>	<u>TIME & SOURCE</u>	<u>CONTENT</u>
0007:17 COPILOT	deep blue light		
0007:43 COPILOT	400		
0007:46 SUPER	we are on course I have the field slightly to the left		
0007:50 CAPT	yeah		
0007:51 CAPT	that's good		
0007:55 COPILOT	you have it		
		0007:56 ATC	18 do you have the runway in sight
		0008:01 COPILOT	have it
0008:02 CAPT	don't have it		
0008:04 SUPER	we are just coming very close look at it right here		

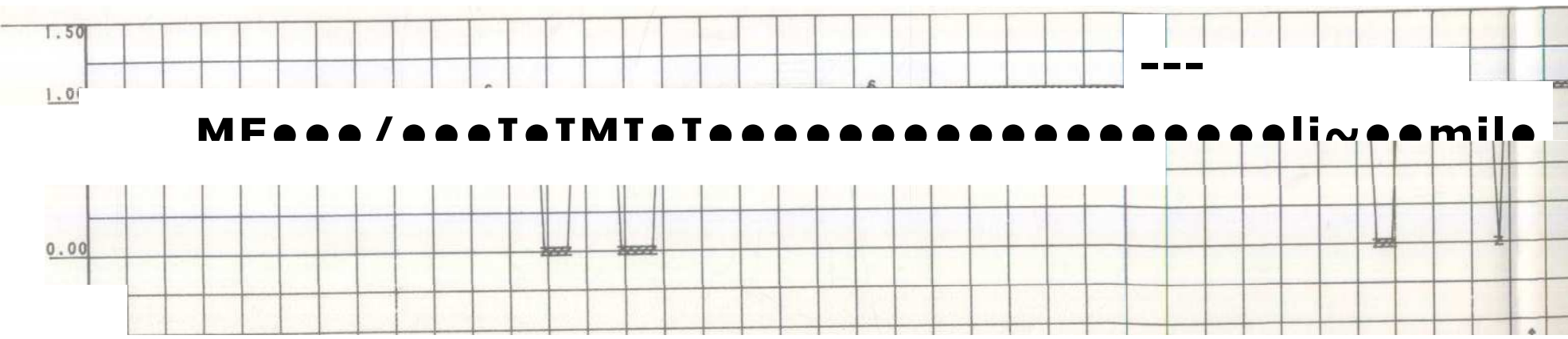
<u>INTRA- COCKPIT COMMUNICATION</u>		<u>AIR -GROUND COMMUNICATION</u>	
<u>TIME & SOURCE</u>	<u>CONTENT</u>	<u>TIME & SOURCE</u>	<u>CONTENT</u>
0008:07			
CAPT 0008:08	I got it		
SUPER 0008:08	OK		
CAPT	runway		
		0008:11	
		COPILOT 0008:14	short final runway in sight
		ATC 0008:21	Are you sure, anyway continue approach
		ATC	I say I guess you are too high a little high anyway clear to land
0008:25			
COPILOT 0008:30	stop that stage		
CAM	(Sound of aircraft banging on ground a couple of times)		
0008:4			
CAPT	eh eh eh eh shit shit shit		

<u>INTRA- COCKPIT COMMUNICATION</u>		<u>AIR -GROUND COMMUNICATION</u>	
<u>TIME & SOURCE</u>	<u>CONTENT</u>	<u>TIME& SOURCE</u>	<u>CONTENT</u>
000:57 CAM	big bang		
0009:02 CAPT	Shit I'm finished		
0009:04 CAPT	eh eh evacuate		

U O H O *clearly destroyed* - 2 3





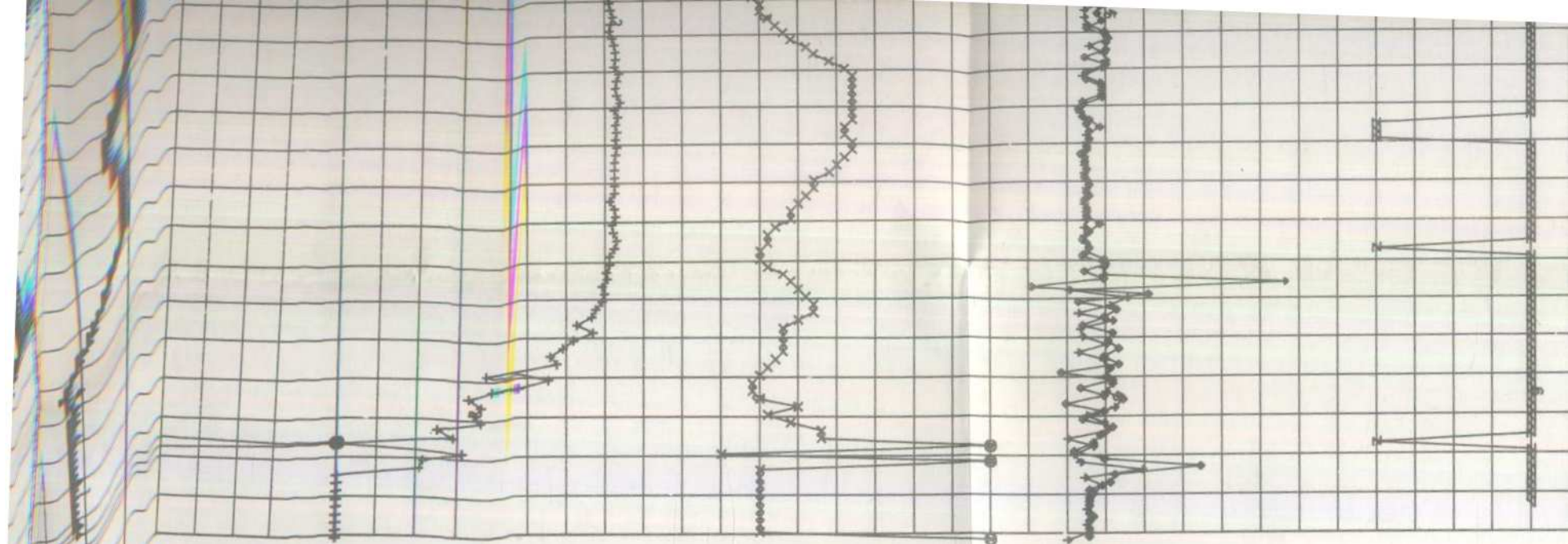


MF... / ...TMTT... ..li~emile

**MOMMEME
N**

MEMO
I ~ . w M o w . ~

MENOMONEE MEMO ON



NATIONAL TRANSPORTATION SAFETY BOARD
OFFICE OF RESEARCH AND ENGINEERING
WASHINGTON, D. C.

LOCATION:	SPRIGGS PAYNE AIRFIELD, WONROY	RECORDER Y/Y: F800
DATE	18/8/94	RECORDER S/N: 272
AIRCRAFT:	DC-9-30, SN-68E	(DENT. NO. : -
OPERATOR:	ADC AIRLINES	REPORT NO. : -
FLT. NO.:		