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COMISIÓN DE
INVESTIGACIÓN
DE ACCIDENTES
E INCIDENTES DE
AVIACIÓN CIVIL

Interim report EXT A-001/2012 Afghanistan

Accident involving an MD-83 aircraft,
registration EC-JJS, operated by SWIFTAIR,
at the Kandahar Airport (Afghanistan)
on 24 January 2012



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SUBSECRETARÍA

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Edita: Centro de Publicaciones
Secretaría General Técnica
Ministerio de Fomento ©

NIPO: 161-13-055-0

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Important notice

This document constitutes the interim statement envisioned in Article 16.7 of Regulation (EU) no. 996/2010 of the European Parliament and of the Council, as well as in paragraph 6.6 of Annex 13 to the Convention on International Civil Aviation. The statement includes the details of the progress of the investigation and the most important operational safety issues revealed to date. The information provided herein is subject to change as the investigation proceeds

Pursuant to the contents of Regulation (EU) no. 96/2010 of the European Parliament and of the Council and of Annex 13 to the Convention on International Civil Aviation, the investigation is purely technical in nature and is not intended to determine or apportion blame or liability. The investigation is being conducted without necessarily resorting to evidentiary procedures and for the sole purpose of preventing future accidents.

Consequently, the use of this information for any purpose other than to prevent future accidents may result in faulty conclusions or interpretations.

Abbreviations

ACMI	Aircraft, Crew, Maintenance & Insurance
AGL	Above Ground Level
ATIS	Automatic Terminal Information Service
ATPL (A)	Airline Transport Pilot License (Airplane)
ATS	Air Traffic Service
°C	Degree centigrade
CVR	Cockpit Voice Recorder
CIAIAC	Comisión de Investigación de Accidentes e Incidentes de Aviación Civil (Spain's Civil Aviation Accident and Incident Investigation Commission)
FA	Flight attendant
FDR	Flight Data Recorder
FL	Flight Level
ft	Foot
GPS	Global Positioning System
IAF	Initial Approach Fix
IMC	Instrumental Meteorological Conditions
ISAF	International Security Assistance Force
KIAS	Indicated airspeed in knots
Kt	Knot
lb	Pound
M, m	Meter
PAPI	Precision Approach Path Indicator
QNH	Altimeter subscale setting to obtain elevation when on the ground.
RNAV	Area Navigation
UTC	Universal Time Coordinated
Vref	Reference speed

DATA SUMMARY**LOCATION**

Date and time	Tuesday, 24 January 2012, at 04:00 UTC
Site	Kandahar Airport (Afghanistan)

AIRCRAFT

Registration	EC-JJS
Type and model	MD-83
Operator	SWIFTAIR

Engines

Type and model	Pratt & Whitney JT8D-219
Number	2

CREW

	Captain	First officer
Edad	38	30
Licencia	ATPL (A)	ATPL (A)
Total horas de vuelo	4,946	2,881
Horas de vuelo en el tipo	3,328	2,222

INJURIES

	Fatal	Serious	Minor/None
Crew			6
Passengers			85
Third persons			

DAMAGE

Aircraft	Substantial
Third parties	Runway threshold lighting

FLIGHT DATA

Operation	Commercial Air Transport - Scheduled - International - Passenger
Phase of flight	Landing

REPORT

Date of approval	28 February 2013
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1. SUMMARY OF THE EVENT

On Tuesday, 24 January 2012, a McDonnell Douglas MD-83, registration EC-JJS and operated by Swiftair, took off from the Dubai Airport (United Arab Emirates) at 02:08 UTC¹ on a scheduled flight to the Kandahar Airport (Afghanistan). Its callsign was SWT094 and there were 86 passengers (one of them a company mechanic), 3 flight attendants and 2 cockpit crew onboard.

Swiftair was operating this regularly scheduled passenger flight under an ACMI² arrangement with the South African company Gryphon Airlines.

The crew was picked up at its usual hotel in the emirate of Ras al Khaimah (United Arab Emirates) at 21:00 UTC. The aircraft was parked in the Ras al Khaimah airport and had to be flown empty to the Dubai Airport. This flight departed at 00:20 UTC en route to Dubai. Once there, an agent for Gryphon gave the crew the documentation for the flight to Kandahar.

They went through customs at the Dubai Airport, boarded the passengers and the cargo and refueled the airplane with enough fuel to make the return flight, a typical practice so as to avoid refueling in Kandahar.

The airplane took off from runway 30R at the Dubai Airport at 02:08 UTC on standard instrument departure RIKET2D and climbed to flight level FL290. The first officer was the pilot flying.

At 03:42 UTC, while over SERKA, they were transferred to Kabul control, which instructed them to descend to FL280. The crew reported its ISAF³ callsign to this ATS station, which allowed the aircraft to fly over Afghan airspace, and entered the new stipulated squawk code⁴.

Kabul control instructed the crew to follow radar vectors that took them to SODAS, at which point they were transferred to Kandahar control at 03:46 UTC. The crew reduced the airspeed to 250 kt above this point.

Kandahar approach cleared them for an RNAV (GPS) approach to runway 05, providing a direct vector to FALOD (the IAF⁵), and to descend to 6000 ft.

¹ The time zone in Dubai is UTC+4 hours and UTC+4:30 hours in Kandahar. Since the two airports are in different time zones, the reference time in this report is UTC (Universal Time Coordinated).

² Provides the service by supplying the Aircraft, Crew, Maintenance and Insurance.

³ International Security Assistance Force.

⁴ When entering the Kabul control area, an ISAF callsign must be used and a new squawk code entered in the transponder. These new data, as well as all relevant flight and customs information, is e-mailed to the captain by Gryphon the day before the flight.

⁵ Initial Approach Fix.

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The weather information provided on the ATIS⁶ "F" broadcast was runway in use 05, wind from 060° at 17 kt gusting to 24 kt, visibility 1200 m, scattered clouds at 2700 ft and broken clouds at 3000 ft, temperature 1° C, dewpoint -7° C and QNH 1018 mbar. This information was practically the same as that radioed to the crew by the Kandahar control tower a few minutes before landing: wind from 060 at 15 kt gusting to 21 kt.

They reached FALOD (IAF) under cloud cover (and thus in IMC⁷ conditions). They did not exit the clouds until 1500 ft before minimums which, for this approach, was an altitude of 3700 ft, or 394 ft AGL.

They established visual contact with the runway 500 ft above minimums and noted that they were a little right of the runway centerline. At that point the airplane was fully configured for landing with flaps 40 and a speed of Vref+5. The target speed associated with a landing weight of 136,000 lbs was estimated at 140 KIAS (135+5). The autopilot was engaged until the runway was in sight and the autothrottle until the landing.

Since the captain had more operational experience at the destination airfield, he decided to take over the controls and fly the last phase of the approach.

The PAPI⁸ was out of service, meaning they only had visual references to the runway and above the ground during the final part of the approach.

During short final they corrected the deviation from the runway centerline by adjusting their path from right to left.

They landed at 04:00 UTC. During the flare, the crew noticed the airplane was shifting to the left, threatening to take them off the runway, as a result of which the captain applied a right bank angle. This caused the right wing tip to strike the ground before the wheels made contact with the ground. The captain regarded the maneuver as a hard landing, although the first officer thought they might have struck the runway.

On exiting the runway, the airport control tower (which had witnessed the contact with the ground) ordered the crew to stop and informed them of the damage they had seen during the landing. They dispatched the emergency services (firefighters), which forced them to turn off their engines. Once it was confirmed that there was no fuel leak or damage to the wheels or brakes, they allowed the crew to restart the engines and proceed to the stand.

The wing contacted the ground some 20 m prior to the threshold, resulting in five threshold lights being destroyed by the aircraft.

⁶ Automatic Terminal Information Service.

⁷ Instrumental Meteorological Conditions.

⁸ Precision Approach Path Indicator.

The aircraft exhibited the following damage to its right wing: the last 3.6 m of the right wing (from section XRS 477 to the wingtip) was significantly bent upward. This entire area scraped along the ground, resulting in considerable scratches and tears in this section of the underside of the wing. The outermost leading-edge slat (number 5) was severely damaged, while the number 4 slat was scratched. As for the moving surfaces on the wing's trailing edge, the outermost aileron and its trim tab were heavily damaged, as was the outboard flap, though to a lesser extent. The wingtip and its lights also suffered significant damage.

According to the crew's statement, the passengers were not really aware of the contact between the wing and the ground and they were subsequently disembarked normally.

2. ANALYSES CONDUCTED

The flight data recorders were removed from the aircraft and sent to the CIAIAC for analysis. The CVR⁹ was not saved after the event and in the days following it, the aircraft was powered up to conduct maintenance tests, as a result of which the CVR continued recording during this time, which caused the recording from the accident flight to be lost.

The FDR¹⁰ had a perfect record of the flight and its analysis allowed investigators to reconstruct the approach until the impact of the wing with the ground.

A study of the flight personnel's records showed that the pilots had valid ATPL(A) licenses and ratings for the type of aircraft involved that had been issued by Spain's aviation authority. Both pilots also had valid medical certificates. The three flight attendants also had valid FA certificates, aircraft ratings and medical certificates.

The aircraft's documentation was in order.

An analysis of the aircraft's weight and balance revealed that the operation was within limits at all times.

No abnormalities have been detected in the documentation on the scheduled maintenance, which was conducted in accordance with the Maintenance Program.

3. STATUS OF THE INVESTIGATION

The investigation is focused on the operational aspects as these concern the type of approach made, the clearance and the crew's ability to execute it.

⁹ Cockpit Voice Recorder.

¹⁰ Flight Data Recorder.

