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Interim report IN-045/2013

Incident involving an A-320 aircraft,
registration D-AICE, while on approach
to the Tenerife South airport (Spain)
on 11 December 2013



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DE ESPAÑA

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COMISIÓN DE INVESTIGACIÓN
DE ACCIDENTES E INCIDENTES
DE AVIACIÓN CIVIL

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COMISIÓN DE INVESTIGACIÓN DE ACCIDENTES E INCIDENTES DE AVIACIÓN CIVIL

Tel.: +34 91 597 89 63
Fax: +34 91 463 55 35

E-mail: ciaiac@fomento.es
<http://www.ciaiac.es>

C/ Fruela, 6
28011 Madrid (España)

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

ATC	Air Traffic Control
ATPL	Airline Transport Pilot License (Airplane)
CPL	Commercial Pilot License (Airplane)
DME	Distance Measurement Equipment
EGPWS	Enhanced Ground Proximity Warning System
FIR	Flight Information Region
Ft	Feet
GCTS	Tenerife south (Spain) ICAO code
GP	Glide Path
ILS	Instrumental Landing System
LT	Local Time
NM	Nautical Miles
UTC	Coordinated Universal Time
VHF	Very High Frequency
VOR	VHF Omnidirectional Range

DATA SUMMARY**LOCATION**

Date and time	11 December 2013 at 11:34 UTC ¹
Site	Tenerife South Airport (GCTS), Spain

AIRCRAFT

Registration	D-AICE
Type and model	A320-200
Operator	Condor Flugdienst GmbH

Engines

Type and model	CFM56-5A3
Number	2

CREW

	Pilot in command	Copilot
Age	48	36
License	ATPL (A)	CPL (A)
Total flight hours	10700	972
Flight hours on the type	4800	713

INJURIES

	Fatal	Serious	Minor / None
Crew			6
Passengers			121
Third persons			

DAMAGE

Aircraft	None
Third parties	None

FLIGHT DATA

Operation	Commercial air transport - Scheduled - International - Passenger
Phase of flight	Approach

REPORT

Date of approval	27 November 2014
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¹ All times in this report are in UTC, which is the same as local time (LT).

1. INFORMATION ON THE EVENT

The aircraft, with callsign CFG3228, was inbound from Hamburg and entered the Canaries FIR at 10:21 some five hours into its flight. ATC assigned the aircraft the standard terminal arrival route (STAR) TERTO6H, used for landings on runway 26 at Tenerife South. Shortly afterwards, as a result of weather conditions at the airport with lightning and shifting winds, the tower changed the runway in use from 26 to 08. Upon doing so, problems were detected with the ILS equipment. Another aircraft on final also reported to the controller problems with receiving the glide path (GP) on the new runway. Maintenance technicians who were dispatched to the location of the equipment confirmed that the GP and the DME on the ILS were not transmitting.

The aircraft was diverted from the initially assigned STAR to go around the south side of a storm system and continued on its approach so as to capture the localizer for the new runway. ATC then informed it that the glide path on the runway 08 ILS was inoperative, so the crew altered its initial plan to make an ILS approach and prepared to do a non-precision (LOC DME) approach to runway 08.

The crew, which was not informed that the DME on the runway's ILS was also inoperative, erroneously used as its reference distance to the touchdown point the VOR DME, callsign TFS, located along the coastline, 5.7 NM before the runway. With that reference distance, the crew started the final descent early with neither the crew nor ATC detecting the vertical deviation in the flight path.

While on final approach, at a radio altitude of about 435 ft and 6 NM away from the runway, the EGPWS issued a terrain conflict warning. The crew reacted by aborting the approach and, in light of the bad weather, opted to divert to Fuerteventura, where they landed without incident.

2. PROGRESS OF THE INVESTIGATION

The investigation evaluated aspects involving operations in the cockpit, the nav aids at the airport and air traffic control.

Interviews with the crew, the communications and an analysis of the data on the flight recorders were used to reconstruct both the flight path and the actions of the crew involving the navigation systems and the control of the aircraft. All of this was compared to the company's procedures, specifically to the standard practices for navigation and for monitoring approaches.

Investigators gathered information on the airport and on air traffic services as it pertains to the operation of nav aids, the handling of malfunctions and procedures for managing and conveying information on the status of said nav aids.

The investigation included a specific human factors analysis intended to determine those aspects that could have affected the crew's decisions.

3. NEXT STEPS

The investigation is complete and the final report will be published shortly.