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Interim statement A-034/2011

Accident involving an Agusta Bell
AB-412, registration EC-JRY,
operated by FAASA AVIACION, S.A.,
on 19 September 2011 in La Peza
(Granada-SPAIN)



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SUBSECRETARÍA

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DE ACCIDENTES E INCIDENTES
DE AVIACIÓN CIVIL

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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. 996/2010 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

°	Degree
CPL(H)	Commercial Pilot License (Helicopter)
FL	Flight plan
H/h	Hour(s)
km	Kilometer
LH	Left Hand
M1/#1	Engine 1
M2/#2	Engine 2
m	Meter
m ²	Square meter
NM	Nautical miles
RH	Right Hand
s	Second
TMA	Terminal Control Area
UTC	Coordinated Universal Time

DATA SUMMARY**LOCATION**

Date and time	Monday, 19 September 2011, at 11:25 local time
Site	La Peza (Granada)

AIRCRAFT

Registration	EC-JRY
Type and model	Agusta AB-412
Operator	FAASA AVIACION, S.A.

Engines

Type and model	P & W, PT6T-3B
Number	2

CREW

	Pilot in command	Copilot
Age	48	41
License	CPL(H)	CPL(H)
Total flight hours	5,427	3,056
Flight hours on the type	2,352	557

INJURIES

	Fatal	Serious	Minor/None
Crew	2		
Passengers	1		
Third persons			

DAMAGE

Aircraft	Destroyed
Third parties	1,000 m² of pasture land and trees

FLIGHT DATA

Operation	General aviation - Other - Positioning flight
Phase of flight	En route

INTERIM STATEMENT

Date of approval	25 July 2012
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1. SUMMARY OF THE EVENT

On 19 September 2011, an Agusta AB-412 aircraft, registration EC-JRY, took off at 10:22¹ from its base at the Sebastian Almagro aerodrome, in the town of Palma del Rio (Cordoba), en route to Alhama de Almeria (Almeria), where it was to join the firefighting forces stationed there.

The flight was conducted in two segments, the first (call sign FMA01) from the origin aerodrome to the Granada-Jaen Airport, immediately followed by the second (call sign FMA02) to the destination aerodrome in Alhama de Almeria. The crew was in contact with air traffic control during each segment. No emergency calls were made.

The aircraft flew for approximately 15 minutes after the activation of the second flight plan before it crashed to the ground, causing both the wreckage and the surrounding vegetation to erupt in flames. All three of the aircraft's occupants perished as a result of the impact.

The terrain where the accident occurred is uneven, with constant changes in altitude. The event took place at an elevation of 1,250 m in an area covered with trees.

Weather conditions were optimal for the flight.

2. CREW AND AIRCRAFT INFORMATION

The flight crew had the relevant licenses and ratings needed for the flight. The captain was seated in the LH seat at takeoff, and the copilot was in the RH seat.

The aircraft had a valid airworthiness certificate. It had 4,878 flight hours. Its two engines had 4,766 and 5,014 flight hours.

The last maintenance activities conducted as per the approved maintenance plan were:

AIRFRAME	SCHEDULED INSPECTION	DATE - FLIGHT HOURS
	300-h / 6-month	10/06/2011 - 4,802
	25-h	7/09/2011 - 4,862

¹ All times in this Interim statement are local. To obtain UTC, subtract two hours from local time.

ENGINE	SCHEDULED INSPECTION	DATE - FLIGHT HOURS		
	100-h	#1	19/08/2011	4,718
#2		4,966		
25-h 50-hr / 6-month	#1	7/09/2011	4,750	
	#2		4,998	

Also, on 13 September 2011, with 4,875 flight hours, the last maintenance entries made in the flight logs were corrected.

3. STATUS OF THE INVESTIGATION

Data from the air traffic control services and from the operator's fleet tracking system were used to determine that after takeoff, the crew contacted Seville TMA to confirm that its flight plan (FMA01) was instrumental. The aircraft climbed to FL 090, where it remained until it started its descent. When it was 10 NM from the runway 09 heading at the Granada-Jaen Airport, the crew was cleared to land. A few seconds after receiving this clearance the crew requested to do a "low approach", after which the second flight plan (FMA02), with destination Alhama de Almeria, was activated.

On that flight path, the aircraft climbed until it reached the foothills near the Quentar Reservoir. It then headed toward Tocon (Granada), situated at an elevation of 1,250 m. The flight path taken from Tocon to the accident site, 2.5 km further along, could not be determined as it was not recorded by the operator's fleet tracking system.

The aircraft was equipped with both flight data and voice recorders. They were found among the charred wreckage of the aircraft.

The outer covers of these recorders were damaged. A subsequent laboratory analysis revealed that the heat to which they had been exposed had damaged the recording media in both recorders, in particular the connections on the flight data recorder's solid-state memory and the magnetic tape on the voice recorder. This damage was eventually corrected.

The data recorded, along with the results of the on-site investigation, allowed investigators to determine with a high degree of confidence that the aircraft was on a heading of 060° when its tailcone impacted an elevated part of the terrain. In the 22 seconds following the impact, the aircraft, in a nose-up (~9°) and left bank attitude (~20°), made a 240° left turn reaching a high bank attitude of about -70° just before falling to the ground and coming to rest on its left side.

The analysis of the flight recorder data revealed that the airspeed, altitude, pressure altitude and outside air temperature readings were not properly recorded. The recorder, however, was verified to have been working properly, meaning the faulty data resulted from a circumstance foreign to the recorder itself.

The voice recording did not reveal the presence of a stressful or emergency situation during the period recorded.

The medical information received showed that the crew was not incapacitated during the flight.

4. TASKS REMAINING

The following are pending completion before the investigation concludes:

- a. Final analysis of the flight data recorder information, intended to evaluate the final minutes of the flight from an operational standpoint and to determine whether any aircraft systems malfunctioned.
- b. Investigate potential in-service faults of the helicopter's control systems.
- c. Based on these findings and of the final analysis of the recorded flight data, a decision will be made regarding whether or not to conduct a full inspection of the aircraft's engines, which were badly damaged during the accident.

The final report will be published at the conclusion of the investigation.

