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Report A-003/2020

Accident involving MS 892 E-150 aircraft, registration SP-IKY, on 17 January 2020 at the aerodrome of the El Berriel (Gran Canaria, Spain)



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Notice

This report is a technical document that reflects the point of view of the Civil Aviation Accident and Incident Investigation Commission (CIAIAC) regarding the circumstances of the accident object of the investigation, and its probable causes and consequences.

In accordance with the provisions in Article 5.4.1 of Annex 13 of the International Civil Aviation Convention; and with articles 5.5 of Regulation (UE) n° 996/2010, of the European Parliament and the Council, of 20 October 2010; Article 15 of Law 21/2003 on Air Safety and articles 1., 4. and 21.2 of Regulation 389/1998, this investigation is exclusively of a technical nature, and its objective is the prevention of future civil aviation accidents and incidents by issuing, if necessary, safety recommendations to prevent from their reoccurrence. The investigation is not pointed to establish blame or liability whatsoever, and it's not prejudging the possible decision taken by the judicial authorities. Therefore, and according to above norms and regulations, the investigation was carried out using procedures not necessarily subject to the guarantees and rights usually used for the evidences in a judicial process.

Consequently, any use of this report for purposes other than that of preventing future accidents may lead to erroneous conclusions or interpretations.

This report was originally issued in Spanish. This English translation is provided for information purposes only.

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Abbreviations

ARC	Airworthines review certificate
GCLB	ICAO code for the aerodrome of El Berriél
h	Hour
LT	Local time
HP	Horse power
kg	Kilogram
kt	Knot
m.	Meter
PPL(A).	Private pilot license (airplane)
VFR.	Visual flight rules

Synopsis

Operator:	CANAVIA LÍNEAS AÉREAS S.L.U.
Aircraft:	MS 892 E-150, matrícula SP-IKY
Date and time of accident:	17 January 2020; 13:00 LT
Site of accident:	Aerodrome of El Berriel (Gran Canaria, Spain)
Persons on board:	One pilot, one passenger, no injuries
Type of flight:	General aviation – private
Phase of flight:	Landing – landing run
Flight rules	VFR
Date of approval:	29 July 2020

Summary of accident

On Friday, 17 January 2020, aircraft MS 892 E-150, registration SP-IKY, with two occupants on board, suffered an accident during landing at the aerodrome of El Berriel (Gran Canaria, Spain).

The investigation has determined that the cause of the accident was the incorrect completion of the approach and landing maneuver due to excessive speed, resulting in abnormal runway contact which caused various damages to it.

1. FACTUAL INFORMATION

1.1. History of the flight

On Friday, 17 January 2020 at 08:30 h, aircraft MS 892 E-150, registration SP-IKY, took off with two occupants on board from El Berriel aerodrome, for a private flight with a stopover at La Gomera airport.

The aircraft went to La Gomera airport, where it arrived at 10:30 a.m., and after a 30-minute stopover, it headed back to El Berriel, reaching the airfield at 1:00 p.m. During the landing maneuver, there was abnormal contact with runway 07, leading to the collapse of the nose leg and damage to the propeller.

Both occupants were uninjured and exited the aircraft by their own means.

1.2. Injuries to persons

Injuries	Creew	Passengers	Total in the aircraft	Others
Fatal				
Serious				
Minor				
None	1	1	2	
TOTAL	1	1	2	

1.3. Damage to aircraft

As a consequence of the accident, the nose leg collapsed and the propeller blades were damaged.

The images in Figure 1 show the damage caused to the aircraft after landing on runway 07.



Figure 1. Damage to aircraft SP-IKY

1.4. Other damages

No other damage occurred.

1.5. Personnel information

The pilot, of Spanish nationality and 35 years of age, had a PPL (A) license issued by the Spanish Aviation Safety Agency on October 23, 2018 and a Class 1 medical certificate valid until December 9, 2020.

According to the information provided, he had 125 hours of total experience, of which 16.5 hours were on the SP-IKY aircraft.

1.6. Aircraft information

The aircraft MS 892 E-150, registration SP-IKY and serial number 12238, was manufactured in 1973 and registered in the Civil Aircraft Registry of the Republic of Poland on June 17, 2009. The last ARC had been issued on 8 July 2019 valid until June 20, 2020, with the aircraft at that time having 3036 flight hours.

It is a single-wing, low-wing aircraft with a maximum take-off mass of 980 kg and equipped with a 150 HP Lycoming 0.320.E 2A engine and a metallic twin-bladed propeller.



Figure 2. Instrument panel aircraft SP-IKY

Figure 2 includes an image of the aircraft's instrument panel.

According to the pilot's operation manual, slats are deployed automatically.

The indicated speed at touch-down must be 100 km / h (54 kt).

The final approach can be made with the slats deployed, in which case the flaps can be retracted or extended at the following speeds:

- retracted flaps: 125 km/h (67 kt)
- extended flaps 30°: 120 km/h (65 kt)

1.7. Meteorological information

AEMET has five automatic stations located in the municipality of San Bartolomé de Tirajana, which recorded average winds of between 8 and 16 km / h in the time of the event.

There was no cloudiness, reduced visibility, or any other significant weather phenomenon.

1.8. Aids to navigation

Not applicable. The flight was performed under visual flight rules.

1.9. Communications

Not applicable.

1.10. Aerodrome information

El Berriel aerodrome (GCLB) is located in the municipality of San Bartolomé de Tirajana (Gran Canaria). It is an aerodrome of restricted use that has a paved runway of orientation 07/25, length 800 m and width 20 m. Its elevation is 25 ft.

1.11. Flight recorders

The aircraft was not equipped with a conventional flight data recorder or a voice recorder for the flight deck. The applicable aeronautical regulations do not require the installation of any type of recorder for this type of aircraft.

1.12. Wreckage and impact information

The landing was made on runway 07 of the aerodrome, leaving the aircraft stopped there after the front train collapsed, as shown in Figure 3.



Figure 3. SP-IKY aircraft after the accident

As a consequence, the front axle and propeller were damaged.

1.13. Medical and pathological information

Not applicable.

1.14. Fire

There was no fire in the aircraft or in the environment.

1.15. Survival aspects

Not applicable.

1.16. Tests and research

1.16.1 Information provided by the pilot

The pilot indicated that at 08:30 h they took off from the El Berriel aerodrome and headed for the La Gomera airport, where they arrived after 2 h of flight, and where they made a 30-minute stopover. After solving a series of communication problems, for which they were forced to reset the radio and use the spare headphones on the aircraft, at 11:00 h they began the return flight.

After arriving at the El Berriel aerodrome and after complying with the checklists, they approached runway 07, being initially stabilized and with a head wind, but with gusts of wind from the left. During touchdown and due to the crosswind, the plane bounced on the runway, so they made a motor and air maneuver and another traffic circuit, in order to make another approach on the same runway 15° of flap was selected at a speed of 160 km/h. In the final stretch, full flap was selected at about 150 km/h, and the touchdown began with stable speed without slats. After touching down, the slats were automatically deployed and the plane rose, which together with the gusts of crosswind caused it to descend and rebound again, causing the nose leg to collapse and damage to the propeller when it collided with the pavement.

After carrying out the emergency procedure, the aircraft was abandoned, and the platform security personnel and the emergency services appeared. No personal injury occurred.

1.16.2 Aircraft examination

It was observed that the nose leg had been deformed due to the impact suffered in the touchdown, as well as that there had been damage to the propeller blades due to contact with the pavement.

It was also verified that the flaps were activated in the landing position, as well as that the control surfaces operated correctly.

1.17. Organizational and management information

Canavia Lineas Aereas is a training center with approval number E-ATO-172 by the Spanish CAA. It has been operating at El Berriel aerodrome (Gran Canaria) since 2009.

1.18. Additional information

Not applicable.

1.19. Useful or effective investigation techniques

Not applicable.

2. ANALYSIS

According to the available information, the aircraft took off from the El Berriel aerodrome with two occupants to make a flight with stopover La Gomera airport and destination the same aerodrome. The pilot indicated that the subsequent landing on runway 07 of the El Berriel aerodrome was frustrated in a first attempt due to gusts of wind, and in the second attempt, damage to the landing gear and propeller occurred, as the slats of the aircraft were deployed at the time of taking.

According to meteorological information, the conditions were not limiting for the flight, with winds of maximum intensity of about 16 km / h in the vicinity of the aerodrome.

In the subsequent examination of the aircraft, no deficiency was detected that could have influenced the accident, and the pilot did not report any technical related issue.

As there are no recorders, the speeds reached by the aircraft during the landing maneuver are unknown. According to what was indicated by the pilot, in the final section of the second approach the speed was 150 km/h with flaps extended, that is, 30 km/h above that indicated by the operation manual of the pilot for the deployment of slats. According to this, an incorrect approach was carried out, with excess speed, being likely that the touchdown was also made above the speed established in the manual, which caused the abnormal contact of the aircraft with the runway.

Also, according to the operation manual, slats are deployed automatically in the pick-up maneuver at an indicated speed of 100 km/h. It is therefore likely that, at the time of first contact with the runway, the aircraft rebounded, slowing sharply, causing the slats to deploy. After this, it rose due to the impact suffered, producing the second abnormal contact with the runway, which in turn led to the collapse of the nose leg and damage to the propeller when it collided with the pavement.

3. CONCLUSIONS

3.1. Findings

- The pilot and aircraft documentation was valid and in force at the time of the accident.
- The aircraft took off from El Berriel aerodrome, to make a flight with a stop at La Gomera airport and destination the same aerodrome.
- During the subsequent landing at El Berriel aerodrome, an abnormal contact of the aircraft with the runway occurred, which led to the collapse of the nose leg and damage to the propeller.
- The occupants of the aircraft were not injured.

3.2. Causes

The most likely cause of the accident was the improper approach and landing maneuver due to excessive speed, causing abnormal contact of the aircraft with the runway that caused various damages to it.

4. SAFETY RECOMENDATIONS

None.