



COPY Nr:

MINISTÉRIO DAS OBRAS PÚBLICAS, TRANSPORTES E COMUNICAÇÕES  
GABINETE DE PREVENÇÃO E INVESTIGAÇÃO DE ACIDENTES COM AERONAVES  
GPIAA

AIRCRAFT INCIDENT SUMMARY REPORT

*In accordance with Annex 13 to the International Civil Aviation Organisation Convention, Chicago 1944, Council Directive 94/56/EC, 21<sup>st</sup> NOV 1994, and article 11<sup>th</sup> n° 3 of Decree-Law n° 318/99, 11<sup>th</sup> AUG 1999, the sole purpose of this investigation is to prevent aviation accidents. It is not the purpose of any such accident investigation and the associated investigation report to apportion blame or liability.*

<b>Date/Time:</b> 2008 / 07 / 16 @ 19:37 UTC <sup>1</sup>	<b>Proc. Nr.:</b> 23 / SUM / 08
<b>Operator:</b> Helibravo Aviação	<b>Type of Incid.:</b> Operational
<b>Id. of aircraft:</b> Eurocopter, AS350B2, s/n 1825, reg. D-HAUP	
<b>Local:</b> 1NM South of Ribeira de Pena (41.30.25N 007.48.15W)	
<b>Type of flight:</b> Air Work (Fire Fighting)	<b>Phase of flight:</b> Transition
<b>People on board:</b> Crew- 1 Pax- 5	<b>Injuries:</b> Nil
<b>Aircraft Damage:</b> Light damages on a main rotor blade, windshield, antenna and fuselage	

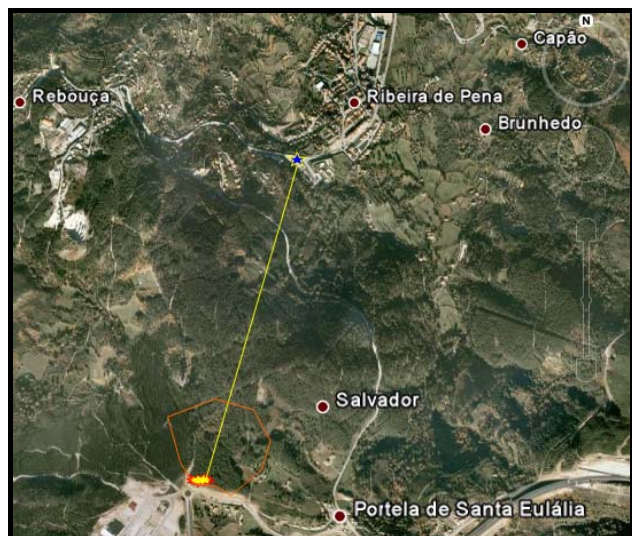
## 1. Factual Information

### 1.1 History of Flight

On the 16<sup>th</sup> of July 2008 evening, there was a forest fire spreading in the skirts of Salvador, Ribeira de Pena.

The helicopter, Eurocopter AS350B2, D-HAUP, stationed at Ribeira de Pena, took-off at 18:29, carrying on board a team of five men from a special forest fire-fighting group.

After disembarking the team, the pilot performed an area reconnaissance trip, looked for water supply sources and performed seven water droppings on the fire, till it was considered extinguished, and picked up the team, from signalled point on picture nr. 1



Picture Nr. 1

<sup>1</sup> - All times referred in this report, unless other stated, are UTC times. By that time of the year, local time in Portugal was equal to UTC + 1 hour.

During take-off sequence, when transiting from hover to climb phase, the helicopter hit a power line and suffered an electric strike.

Due such strike one of main rotor blade became damaged, together with right hand side windscreen, a radio antenna and left side fuselage (*picture nr. 2*).



Picture NR. 2

As aircraft flight characteristics were not adversely affected, the pilot continued flying to base station (1 ½ NM approximately) where he landed safely at 19.40.

## 1.2 People on Board

There were six people onboard the helicopter, five firemen from special forest fire-fighter group (GIPS) and one male, 51 years, Brazilian pilot, with following references:

References		Flying Experience	
Type of License:	CPL(H)	Total:	± 2 000H00
Expiry Date:	2008-11-29	Last 30 days:	04H24
Last Medical Examination:	2008-05-29	Last week:	03H05
Restrictions/Limitations:	VDL	Last day:	01H11

Being an aircraft with German registration, the pilot got a License validation from German Authority (LBA) allowing him to fly this and other Germany registered helicopters, in service with Helibravo.

## 2. Analyses

The pilot has been detached to Ribeira de Pena, integrated in the flying support group for forest fire-fighting. He performed before some other mission, in same area, having certain knowledge of obstacles he could find during operations. That same day he performed some water droppings in that zone and, consequentially he was aware of the presence of electric lines.

On transition phase, from hover to route flying, the pilot manoeuvred in order to face the sun, which, because it was near sunset and the sun was close to the horizon, limited pilot's visual capacities for distinguish the cables. When he saw them, he was too close to avoid the power line. At that stage he couldn't avoid collision and subsequent discharge.

Because it was a medium voltage power line (< 20kVa), cable section was small and aircraft damage has been reduced to a minimum, without interfere with normal flight handling characteristics, allowing the pilot to go back to base without problems.

After checking the records it has been ascertained that pilot never exceeded flight times and rest periods during his operation with the company and so we didn't consider accumulated fatigue or stress as a contributory factor for his misconcentration.

### **3. Conclusions**

Once back to station, in Ribeira de Pena, the aircraft followed a thorough investigation, in accordance with manufacturer's Aircraft Maintenance Manual nr. 05.53.00.609.

All damaged parts were replaced and the aircraft returned to service.

Lisbon, 25<sup>th</sup> of March 2009

The Investigator In Charge,



António A. Alves

ESTÁ CONFORME O ORIGINAL

