

Chief Inspector of Accidents  
Accident Investigation Division  
Civil Aviation Department  
46<sup>th</sup> Floor  
Queensway Government Offices  
66 Queensway  
Hong Kong

**Accident Bulletin 3/2011**

Aircraft type:	Aerospatiale SA 315B LAMA helicopter
Registration:	B-HJV
Year of manufacture:	1972
Number and type of engines:	One Turbomeca Artouste IIIB turboshaft engine
Date and time of accident:	3 January 2011 at around 0558 hrs UTC (1358 local time)  Note : Hong Kong local time is UTC time + 8 hours
Place of accident:	Kau Lung Hang Lo Wai, Fanling, New Territories, Hong Kong
Nature of Accident:	The helicopter was conducting an underslung load operation on the hillside of Kau Lung Hang Lo Wai, Fanling. When the helicopter was setting down a load onto a work site located near an overhead high voltage electricity line pole, a sudden flash of fire occurred adjacent to the power cables below the helicopter. The generated sparks and smoke cascaded onto the ground, causing injuries to two ground workers.  After the accident, the helicopter climbed out of the site and returned to its base in Sek Kong. The underslung assembly and several items of the aircraft equipment were found to have been damaged.
Type of flight:	Aerial Work (Underslung Operation)
Persons on board:	Crew : 1      Passenger : Nil
Fatalities:	Nil
Serious Injuries:	Crew : Nil      Passenger : Nil Others : 1
Commander's licence:	Hong Kong Airline Transport Pilot's Licence (Helicopters)
Commander's experience:	8,766 hours (of which 4,023.8 hrs were on type)
Source of information:	Inspector's Investigation

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**Aircraft Accident involving  
the Aerospatiale SA 315B LAMA ( Registration Mark B-HJV )  
Underslung Load Operation on 3 January 2011**

1. Heliservices (Hong Kong) Limited (“Heliservices”) was engaged by a contractor of China Light and Power Limited to carry out an underslung load operation near Kau Lung Hang Lo Wai, Fanling on 3 January 2011. The operation involved the transport of netted loads of sand, water and cement from the designated staging area to a total of 10 work sites located adjacent to the “Fanling – Ting Kok Road No. 1 (FNL-TKR No. 1) 132 Kilovolts Overhead Line Circuit”.
2. The Company Loadmaster from Heliservices arrived at the staging area before 0500 hrs (1300 local time). On confirmation that all of the ground workers present at the staging area and work sites were ready, the helicopter commenced operation at around 0510 hrs (1310 local time). It took off from its base at Sek Kong and flew to Kau Lung Hang Lo Wai under Visual Flight Rules (VFR).
3. The underslung assembly used on the helicopter included a 100-foot “longline” connected to the helicopter cargo hook located underneath the helicopter. The longline comprised a high modulus Polyethylene rope and an electrical cable, shrouded in a protective nylon fabric jacket. Fitted at the bottom end of the long line was a remote-controlled hook. Loads could be unhooked and released by the pilot through the use of a push-button located on the left side of the collective control in the cockpit.
4. At 0513 hrs (1313 local time), the pilot advised the Air Traffic Control (ATC) that the helicopter had commenced the underslung operation. At the time, the weather over the northeastern part of the New Territories was generally cloudy with light to moderate wind coming from a northerly direction. The lowest cloud base was at around 2000 feet. Visibility was at least 5 kilometres.
5. The operation involving the move of the first 19 netted loads from the staging area to 3 different work sites was uneventful. The accident occurred at approximately 0558 hrs (1358 local time) in association with the unloading of the 20<sup>th</sup> load at the work site located downhill of Pole 9 of the FNL-TKR No. 1 Circuit.
6. Similar to the 19<sup>th</sup> lifting, the helicopter flew to the work site and hovered overhead the drop-off point to lower the load. When it was in the final stage of setting the load down, a sudden flash of fire occurred adjacent to the overhead power cables below the helicopter. The generated sparks and smoke cascaded onto the ground, causing injuries to two ground workers. Patches of fire were seen on the work site which were later extinguished by the ground workers.

7. After the accident, the helicopter climbed out of the site without the load and returned to its base at Sek Kong. The underslung assembly and several items of the aircraft equipment were found to have been damaged.
8. One ground worker sustained serious injury to the extent of second degree body burns. He was treated by the ambulance crew who arrived at the scene and was later sent to the Prince of Wales Hospital. The other worker suffered minor injuries. He was sent to the North District Hospital.
9. The Chief Inspector of Accidents has ordered an Inspector's Investigation into the circumstances and causes of the accident in accordance with the Hong Kong Civil Aviation (Investigation of Accidents) Regulations (Laws of Hong Kong, Chapter 448B). The investigation is being conducted by the Hong Kong Civil Aviation Department. The International Civil Aviation Organization (ICAO) has been notified in accordance with Annex 13 requirements. The Bureau d'Enquêtes et d'Analyses pour la Sécurité de l'Aviation Civile (BEA) which represents the State of Design and State of Manufacture of the helicopter involved has appointed an Accredited Representative to provide any assistance that might be needed during the investigation.
10. The accident investigation team conducted interviews with the pilot and witnesses to the accident. The flight documents, maintenance records, weather information, ATC recordings and environmental data were collected for investigation purposes. Further tests will be conducted on the various items of the aircraft equipment. The damaged underslung assembly will be analyzed and tested to assist in the determination of the circumstances and causes of the accident.
11. During the course of the investigation, should safety recommendations be necessary, they will be promulgated immediately.

**Issued on 1 February 2011**

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This Bulletin contains facts relating to the accident as determined up to the time of issue. The information must be regarded as tentative and subject to alteration or correction if additional evidence becomes available.