Unfall des Helikopters SA315B Lama, HB-XRA vom 22. Januar 2004 in Mergoscia-Busada, Gemeinde Mergoscia/TI Schlussbericht Nr. 1839

Kurzdarstellung

Es war geplant, vom Aufladeplatz in Mergoscia eine Reihe von Baumaterialtransporten für eine nahe gelegene Baustelle durchzuführen. Die Aussenlast wurde in Behältern transportiert, welche an der Schwerpunktklinke eingehängt wurden. Im Anflug zum Abladeort musste der Pilot zwei Transportkabel, welche der Versorgung von nahe gelegenen Bergweiden dienen, überfliegen.

Beim letzten Transport berührte die Aufhängeklinke eines der Transportkabel und verhängte sich darin. Der Helikopter wurde dadurch brüsk abgebremst. Ein Hauptrotorblatt schlug in den Heckträger ein, welcher sich nach unten verbog. Der unsteuerbar gewordene Helikopter stürzte ab, kollidierte mit dem Gelände, überschlug sich und klemmte dabei den Piloten in der Kabine ein.

Sicherheitsempfehlungen

Nr. 352: Das BAZL sollte überprüfen, ob Kabelkollisions-Warnsysteme für Helikopter basierend auf moderner Technologie einzuführen sind (analog FLARM).

Nr. 353: Das BAZL sollte überprüfen, dass nicht mehr genutzte Kabel abgebaut werden (z.B. durch jährliche Meldung und Gebührenerhebung).

Stellungnahme CASO (letzte Aufdatierung vom 08.09.2008)

Abstract of SPD-2005-21CH: Cable and Obstacle Issues

Background and SPD decision process

*The Safety Recommendations have been presented for consultation to the COSAR, the CASO's experts group for the **CO**nsultation of **SA**fety **R**ecommendations.*

There was consensus that not a single action but a variety of measures will improve the situation.

Based on the COSAR recommendations the CASO in an internal assessment decided to treat the three Safety Recommendations in one SPD covering in general:

- *The implementation of measures such as awareness campaigns and training sessions;*
- *The obstacle and cable life cycle and the data documentation process;*
- *Availability and ease of use of obstacle and cable data for onboard warning displays;*
- *The implementation of measures and devices such as onboard warnings and cable cutters, and*
- *The improvement of obstacle and cable markings.*

Outline

In order to improve Helicopter flight safety and to reduce the risk of obstacle and cable collisions, FOCA shall

- *Implement*
  - *awareness campaigns and trainings to increase the operators' urgency for continued safe operation in the cable and obstacle sensitive environment and*
  - *enhanced support during flight missions and daily briefings for specific local mission environment,*
- *Provide*
  - *an obstacle and cable life cycle process, containing the cable initial registry, decommissioning and de-registration by implementation of appropriate directives and mandates in support of the amended regulatory framework to reflect e.g. the revisited requirements and criteria of obstacles and cables for the obligation to register,*
  - *an obstacle and cable standards and documentation process, according to the data quality and integrity requirements stipulated in ICAO Annex 15, Amd 33,*
  - *leadership for an obstacle and cable process oversight and control (legislation) to ensure that all Cantons act as the responsible entities for administration, organization, and registration, decommissioning and data documentation;*
- *Promote and support the implementation of measures regarding*
  - *onboard warning displays (active and passive) and devices;*
  - *equipment and system interface requirement options and*
  - *cable cutters, whereas cable cutting devices shall be considered as a last resort of all the collision avoidance options available,*

and amend the regulation as appropriate to reflect any new or revised requirements

- *Implement improved obstacle markings,*
- *Provide a feasibility assessment prior to transposing the Swiss 'cable and obstacle measures' initiatives into the new obstacle and cable life cycle and cable and obstacle documentation process.*

Pre-Requisites, clarifications and applicability

The FOCA project UA33 which aims at the implementation of the requirements stipulated in ICAO Annex 15, Amendment 33, and the European CHAIN Program for ATM as part of the ECIP/LCIP framework are considered pre-requisites and shall form the framework of this SPD.

Furthermore FOCA shall evaluate equipment and system interface requirement options to permit straightforward installations of future onboard HEL obstacle and cable warning devices and displays.

A binding policy to grant a minimum set of interface requirements for certification (interfaces to the HEL, power supply, data encapsulation, etc.) shall be engineered by FOCA.

Options shall be investigated by FOCA to

- *include MIL obstacle and cable activities under the civil process; and*
- *provide all pertinent obstacle and cable information to CIV as well as MIL operators.*

Solutions to prevent from obstacle and cable collisions shall not only be based on a specific equipment but shall be based on a combination of prevention measures.

The applicability of the SPD shall be determined and formulated by FOCA such as to include all cables and obstacles falling under the criteria stipulated and considered as terrain obstacles for low level flight operations in Switzerland.

The applicability shall extend to

- *obstacle and cable owners being private individuals or corporations,*
- *commercial companies engaged in obstacle and cable dependant services and construction*

with their place of business in or outside of Switzerland.

Project Set-up and milestones

FOCA shall ensure the following target dates:

- *Implementation of awareness campaigns, trainings, enhanced support and daily flight mission briefings*
  - *Latest by the end of January 2009*
- *Implementation of obstacle and cable warning displays and devices such as FLARM or other active and passive devices, equipment and system interface requirement options and if proven through feasibility evaluation, cable cutting devices*
  - *Latest by the end of December 2009*
- *Implementation of the eTOD process for obstacle and cable data, obstacle and cable data standards and requirements, coverage of terrain, obstacle and cable data numerical requirements*
  - *Latest by the end of June 2012*
- *Implementation of the obstacle and cable life cycle process containing the transposed Swiss "cable and obstacle measures" initiatives*
  - *Latest by the end of 2013*

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