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This document is a translation made by SHK of the original response in Swedish to the safety recommendation. In case of discrepancies between this translation and the Swedish original text, the Swedish text shall prevail in the interpretation of the response.

Introduction

Over a fairly short period in 2015 and 2016, a number of more or less serious near accidents occurred within the Helicopter Wing. A decision was made centrally that focused efforts relating to flight safety within helicopter operations were needed.

In 2016 and 2017, four flight safety seminars have been held with broad participation from the Helicopter Wing and operating command. The seminars, and the work between them, have been focused on a central list of measures comprising 10 points and a local list of measure with 9 points:

Central 10-point list (Chief of Staff Swedish Air Force):

- 1. Reformulate and develop the current operational limitation.
- 2. Establish a working group/project to follow up old recommendations, conclusions, etc., analysing the situation and necessary measures and giving suggestions regarding implementation.
- 3. Ensure that we have a procedure for how post holders (AH) participate in the preparations of major activities, such as exercises and missions.
- 4. The PUF function of HKP shall be aligned with fixed wing.
- 5. The analytical capacity within OP flight safety division shall be ensured.
- 6. The content of the flight safety plan shall be found in mission statements.
- 7. Produce a balanced production plan, including OPEVAL, for the helicopter operations relating to the years (2016)–2018.
- 8. Produce training documentation on flight safety and production for clients and carry out information and training measures.
- 9. Produce documentation/measures for actions that promote a flight safety culture.
- 10. Plan and carry out flight safety seminars at HKP every six months. At these seminars, the points above shall be followed up and each AH shall give a flight safety report to the FVC.

Helicopter Wing's 9-point list:

- 1. Analyse/complete documentation on flight operations.
- 2. Review ambition levels for the activities of the current and following year.
- 3. Complete the methodology and documentation for management of continuous air worthiness.
- 4. Establish squadron commander planning.
- 5. Analyse and discuss the concept of sliding norms.
- 6. Analyse and review the roles of commander/first officer.
- 7. Review administrative load.
- 8. Develop a method for briefings in preparation for large exercises or new activities.
- 9. Requirement of OPEVAL training for OPEVAL activities.

Some of the items on the list have been completed while work remains to be done on some, and others will remain on the list for a long time to come as they are an important part of the process of running FM.

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Generally speaking, the efforts have had a great impact on the operation, which is reflected to some extent in the following comment from FLYGI's inspection of the Helicopter Wing 01/06/2017–02/06/2017:

"The programme of measures that have been produced by VL and by L VL following the serious near accidents that took place in 2015 and 2016 are starting to have the intended effect. The main items that remain to be improved are linked to the central deviations previously identified. They relate to proactive work with flight safety, constant improvement efforts, post holders' impact on production commitments and the development of training plans. VL has produced a plan to deal with these points. FLYGI therefore sees no new deviations, but will continue the follow-up of previously identified deviations."

During the latest seminar, in October 2017, it was also decided that this seminar series should be completed and the work be continued in regular processes.

Recommendation RM 2017:02 R1

Evaluate and develop the management, follow-up and monitoring of activities involving HKP 14.

Measures taken:

After analysis at HKV PROD FLYG OP, the responses to recommendations R2 and R3 are considered to also cover recommendation R1.

<u>Planned measures</u>:

See responses to R2 and R3.

Timeframe:

See responses to R2 and R3.

Responsibility of:

See responses to R2 and R3.

Recommendation RM 2017:02 R2

Set up the organisation so that the local flight operations commander for HKP 14 has a realistic possibility to act according to their post-holding role.

Measures taken:

The Helicopter Wing has introduced a method where the risk analysis in preparation for major exercises is presented to the air station commander in the presence of the local flight operations commander.

The Helicopter Wing has analysed its organisation and proposed certain changes based on the conclusions of that analysis. A number of changes are made in regard to local flight operations commanders, which gives them better chances of taking action in their role:

- The current two local flight operations commanders are increased to three, with one stationed at each operational location.
- Organisationally, the local flight operations commanders are transferred from A5 in the wing staff to the Flight Section under A3. This allows them to be more involved in ongoing activities and gives them greater possibilities to influence events.

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Planned measures:

The new organisation is planned to be introduced on 1 January 2018.

Timeframe:

Completion in Q1 2018

Responsibility of:

VL.

Recommendation RM 2017:02 R3

Set up the organisation and the staffing requirements so that the flight safety section (FlygSäk) can support the accountable manager and post holders with competencies corresponding to the helicopter area of responsibility.

Measures taken:

As of Q2 2017, the new HKP administrator at FlygSäk is a helicopter pilot with experience of squadron leadership in the HKP4 system in marine operations and ground operations in Sweden and Afghanistan on the HKP16 system. HL HKP currently describes flight operations on HKP16.

Planned measures:

HL HKP at FlygSäk is planned to be trained on HKP15 and to also have flying duties on this type at the Helicopter Wing, signed up for an introduction course during Q2 2018. As of 2018, HL HKP will also be given an opportunity for simulator flying duties on the HKP14 system.

Analysis of possible needs for one more HL HKP at FlygSäk.

Timeframe:

Q2 2018 for training on HKP15.

Q4 2018 for completion of analysis regarding the need for another HL HKP at FlygSäk.

Q4 2018 for simulator flying duties on HKP14 for the current HL HKP at FlygSäk.

Responsibility of:

VL

Recommendation RM 2017:02 R4

Develop procedures to improve crew cooperation for an optimised use of HKP 14 in order to increase safety when flying at low altitude for example.

Measures taken:

Crew cooperation is now an important part in the production of all new procedures.

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Planned measures:

Review and, if need be, develop the procedures for crew cooperation during low-altitude flight with HKP14.

Review and, if need be, develop our use of the terms CRM and MCC in our manuals in order to create a uniform nomenclature.

Timeframe:

Completion in Q2 2018 of both planned measures.

Responsibility of:

CF

Recommendation RM 2017:02 R5

Develop the instructions for settings of Emergency Height.

Measures taken:

An initial review of the instructions has revealed minor discrepancies.

Planned measures:

Review of FOM-A and FOM-B in order to harmonise values for the settings of Emergency Height.

Review of FOM-A and FOM-B as well as UtbA/UtbB in order to develop the instructions for the settings of Emergency Height.

Timeframe:

Completion in Q2 2018 of both planned measures.

Responsibility of:

CF

Recommendation RM 2017:02 R6

Develop the process for publishing flight operations manuals so that no quality flaws occur.

Measures taken:

Following a review of the existing process, it is found to be adequate, but not sufficiently resourced, to maintain and develop FOM to the extent required to avoid the risk of quality flaws.

Planned measures:

LSS is commissioned to solve the staffing of FOM administrators to 100% according to the given mission.

Analyse the possibility of adding another post at HKV PROD FLYG OP for a FOM administrator.

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Analyse the possibility of reinstating the position of FOM administrator from LSS to HKV PROD FLYG OP.

Timeframe:

Q2 2018 for LSS to resolve the staffing of FOM administrators to 100% according to the assigned mission.

Q4 2018 to analyse the possibility of adding another post at HKV PROD FLYG OP for a FOM administrator. This is dealt with in the work to establish the flight staff.

Q4 2019 to analyse the possibility of reinstating the position of FOM administrator from LSS to HKV PROD FLYG OP. This is dealt with in the work to establish the flight staff.

Responsibility of:

VL

Recommendation RM 2017:02 R7

Establish developing instructions regarding criteria and limitations for the use of the AFSC system's various modes on the HKP 14.

Measures taken:

An initial analysis has been conducted at HKV PROD FLYG OP.

Planned measures:

Continue to analyse and, if need be, develop FOM-B and UtbA/UtbB in regard to the criteria and limitations of the AFSC system.

Timeframe:

Q2 2018

Responsibility of:

CF

Recommendation RM 2017:02 R8

Establish procedures that lead to an increased standardisation of the use of checklists.

Helicopter pilots are taught in basic training how and why they must handle checklists. This is then further developed during their continued flight training and during training in CRM, where checklist management is an important part.

FOM-A Helicopter has established procedures for how checklists are to be used, and for all helicopter types there are further instructions in FOM-B.

Measures taken:

An initial analysis has been conducted at HKV PROD FLYG OP.

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Planned measures:

Continued analysis of FOM-A Helicopter, which will be clarified with the aim of reducing the risk of misunderstandings.

<u>Timeframe</u>:

Q2 2018.

Responsibility of:

CF

Recommendation RM 2017:02 R9

Introduce requirements for instrument flight competence on the helicopter type in question.

FOM stipulates that all crew members shall have the necessary training to carry out their current mission. It is the responsibility of each individual to check that training according to applicable regulations has been completed, but it is also the responsibility of the person making the decision on flying (BOF) to verify this.

The goal is for all pilots to have the required competence, but during certain stages of training there may be variations.

Measures taken:

An analysis has been conducted at HKV PROD FLYG OP.

Planned measures:

None.

Timeframe:

None.

Responsibility of:

CF