

Final

DMO (G.C. van Tricht)

15-02-2013

ALERT SERVICE BULLETIN

Raven flight behavior

DMO-ASB-RAV-003 issue 2 – February 15, 2013

De technische inhoud van dit document is goedgekeurd krachtens goedkeuring als Militair Type Certificaathouder Organisatie nr. MLA 21-1

The technical content of this document is approved under the authority of Military Type Certificate Holder Organization nr. MAA-NLD 21-1

Pub. Date: 15-02-2013

Pub. Nr.: DMO-ASB-RAV-003 issue 2

Number of pages: 1

1. Planning information

1.1 *Effectivity*

This document is applicable for the Raven B NLD MUAS program and describes a mandatory action. This ASB as considered an interim action. As the investigation progresses, we might determine that additional action is necessary.

1.2 *Reason*

During several flights unexpected flight behavior has been seen and or rudder servo failures are noticed which has several times resulted in an uncontrolled crash. This ASB is issued because evaluation of the the relevant information and the determined unsafe condition described previously is likely to exist or develop in other products of the same type design.

1.3 *Description*

Out of the analysis it has been concluded of 7 Action Item Work Sheets (AIWS) that one of those failures can be assigned to rudder servo failure. For several other ones this is suspected but further investigation is needed. Other causes of the unexpected behavior are assigned to hard wind (2 times) , pitot icing (1 time) and a broken rudder bracket (1 time) . Further it has been determined that from 4 of the tailbooms servo involved in the investigation it is possible to turn them into a locking position when turned by hand. After a while this locked position is dissolved and functions the tailboom servo as normal.

1.4 *References*

SFM 016650

MM 016650

1.5 *Publication affected*

See 1.4

Pub. Date: 15-02-2013

Pub. Nr.: DMO-ASB-RAV-003 issue 2

Number of pages: 2

2. Accomplishment instruction

In order to investigate in depth the servo behavior, more flight data has to be analyzed. Therefore it is needed to start flying under the following restrictions.

- Currency flights have to be made at the ASK in 't Harde.
- Flights have to be made under the supervision of 107ASbt / VKL.
- Flight data of all flight has to be collected and analyzed at the end of each day.
- More attention has to be given to the weather conditions and especially icing conditions has to be prevented.
- Furthermore the SFM will be changed. Par 1.4.4 will be changed into:

The AV can fly in temperatures between -29 and 50 °C and relative humidity up to 90%.

It is not allowed to fly the AV through clouds when the ground temperature is below 10°C and in rain exceeding 6.35 mm/h (light rain is allowed), in possible icing conditions or serious / critical icing conditions.

Flying during lightning within the range of 10 km is not allowed.

Pub. Date: 15-02-2013
Pub. Nr.: DMO-ASB-RAV-003 issue 2
Number of pages: 3