



TECHNICAL INFORMATION LETTER

TIL N° T-139-24-001

T-169-24-001

T-189-24-002

DATE: February 26, 2024

REV.: /

To: Leonardo Helicopters products
Owners / Operators / Service Centres

SUBJECT: HUMS TVM Thresholds Refinement Update

Helicopters Affected: All AW139/AW169/AW189 with HUMS systems installed

References

[1] T-139-22-022 dated 10 March 2022 - HUMS TVM Thresholds Refinement Update.

[2] T-169-22-002 dated 10 March 2022 - HUMS TVM Thresholds Refinement Update.

[3] T-189-22-003 dated 10 March 2022 - HUMS TVM Thresholds Refinement Update.

Dear Customer/Operator,

With the present letter Leonardo Helicopters (LH) is pleased to inform our Customers and Operators about the review of the AW139/AW169/AW189 Transmission Vibration Monitoring (TVM) thresholds and their learning limits that has been recently completed.

The thresholds review process is a key part of the Health and Usage Monitoring System (HUMS) / Monitoring and Diagnostic System (MDS) enhancement that is performed during the Controlled Service Introduction.

TVM thresholds have a crucial role within the TVM system influencing the monitoring capability and system reliability. The new set of thresholds released is aimed to minimize the number of false Alerts, improving the system accuracy. Please also refer to the previous communications at Reference [1], [2] and [3] for more details about the improvements and changes that a new set of thresholds is providing.

No actions are required on Operator side to take the advantages introduced by the new set of TVM thresholds. New limits are already embedded in Heliwise and will be used for the computation of the arisings of all the upcoming datasets downloaded into the Ground Station. LHD will monitor the new set of thresholds over a period of six months to confirm their effectiveness and implement any additional improvements that may be deemed necessary.

HUMS TVM Thresholds Refinement Update

Specific tests and data reliability simulations highlight a reduction of Alert Rate of at least twenty percent, especially for Helicopters equipped with the LHD Family HUMS. Thresholds previously modified to manage specific vibrational profiles on in-service monitored components will not be updated in case their value would result to be above new thresholds.

Following the implementation of the new set of thresholds, in case of a new TVM arising, Operators are kindly asked to follow the applicable Fault Isolation procedures available in the applicable maintenance documentations and, if indicated in the procedure, to open the corresponding Query through "Heliwise Query Management" for new thresholds evaluation.

Finally, LH is pleased to communicate to our Customers and Operators covered by the HUMS Full Support Service that the management of the thresholds will be performed by the LH HUMS Support Team.

Should you need any additional information, please do not hesitate to contact the LH HUMS Support Team at hums.mbx.aw@leonardo.com mailbox.

Yours Sincerely,



Marco D'Adamo
Leonardo Helicopters
Customer Support, Services & Training
Head of Product Support Engineering