

ABSTRACT SUBMISSION FORM

Abstract submission closes on **DATE**. Late submission of an abstract may only be accepted subject to the discretion of the HUMS2017 Committee.

Title:

Maturation of the Health and Usage Monitoring System on Sikorsky's S-92® Helicopter

Authors: (Name, Organisation/Affiliation)

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Abstract (200 words max):

With the introduction of the S-92® Helicopter in 2004, Health and Usage Monitoring Systems (HUMS) became standard equipment on all Sikorsky Commercial and Military products. The journey began; during the next 12 years, the S-92® HUMS was matured, the value of its data grew, and today it has evolved into a key information source/decision support component for both operators and Sikorsky. This presentation will discuss the maturation process for traditional HUMS functions, i.e. vibration monitoring, give examples of pro-active component removals, and discuss non-traditional utilization of HUMS data. HUMS based tools/applications utilized by Sikorsky, including tools released to S-92 Operators, will be presented along with Sikorsky's process for supporting fleet operations. Sikorsky's success in obtaining FAA approved credits utilizing HUMS data will be discussed. The retirement time adjustment on the S-92® Main Rotor Hub is just one of many examples of how HUMS data can be used to increase component time on wing and improve aircraft availability. The presentation will end with a short discussion on Sikorsky's R&D activities to expand HUMS capability through the incorporation of advanced physical and virtual sensors.