

## **INFORMATION LETTER**

**GEN-25-161** 

25 March 2025

TO: All owners and operators of Bell Helicopters

SUBJECT: INTRODUCTION AND APPROVAL OF GE'S NEXT GENERATION ROTOR

ANALYSIS DIAGNOSTIC SYSTEM (RADS-NG)

The purpose of this Information Letter is to achieve complete distribution of the attached supplier document introducing the next generation of Rotor Analysis Diagnostic System (RADS-NG) that can be used on Bell helicopters.

For any questions regarding this letter, please contact GE Aerospace.



19/02/2025

# TO: All owners and operators of the Rotor Analysis Diagnostic System (RADS-AT)

# SUBJECT: Introduction and Approval of GE's Next Generation Rotor Analysis Diagnostic System (RADS-NG)

GE Aerospace is pleased to announce the Rotor Analysis Diagnostic System (RADS) upgrade which builds upon 30-years of field proven reliability, accuracy, and repeatability of Rotor Track and Balance (RT&B) measurements. The RADS-NG will replace RADS-AT (Advanced Technology) as GE Aerospace's portable vibration diagnostics solution for vehicles where permanent installation of a permanent fit system is not practical or where it is used to supplement existing systems.

Following joint trials between Bell and GE Aerospace RADS-NG is now approved for use on Bell helicopters.



Figure 1: RADS-NG System Overview

The Rotor Analysis Diagnostic System - Next Generation (RADS-NG) offers:

## 1. Faster Performance

Faster measurements and instant diagnostic recommendations as adjustments are updated.

## 2. Refreshed User Interface

An **intuitive graphical user interface**, familiar to RADS-AT users. The Windows-based application includes logical workflows and easy-to-understand displays to ensure the process is smooth and easily followed by operators, regardless of experience level

#### 3. Enhanced Features



An enhanced diagnostic editor with powerful features **allows users to propose adjustments and evaluate** the predicted and actual effects instantly with clear visuals on polar, bar and line charts.

Improved dynamic measurement capability. **Vibration is simultaneously measured** and provides a high degree of performance and measurement accuracy.

Plus, the addition of:

- Sensor test and recording features.
- Summary Data export in .csv format.



Figure 2: Enhanced UI - Track Chart

# Compatible with existing RADS-AT applications:

The refreshed solution consists of a new compact Data Acquisition Unit (DAU) and a powerful new user-friendly experience with the Control and Display Unit (CADU) implemented as an app on a COTS rugged device (Figure 3). The RADS-NG DAU is designed to offer maximum re-use and minimal change to end users. The internal circuitry of the unit aligns with GE Aerospace's Health and Usage Management System (HUMS) and Flight Data Recorder (FDR) product lines in an effort to mitigate future obsolescence. The unit is smaller than the legacy DAU but of a similar weight owing to its machined aluminum chassis which should improve durability. All connectors on the front panel are of the same type as RADS-AT to offer compatibility with existing cable sets. A second tracker connector has been added on the front panel in parallel with the multi-channel tracker output for twin rotor applications and the strobe connector, fuse and tracker mode switch have been removed, with the latter now being implemented via the CADU application. In addition, we retained the system's configuration flexibility and adaptability so that Bell can design and update configurations tailored to their own products and fleets. The system allows the use of existing RADS-AT adaptor kits.



Full specifications and purchase quotations are available from <a href="mailto:RADS.sales@ge.com">RADS.sales@ge.com</a> upon request.

Customers who already have a suitable COTS device may also use them with RADS-NG so long as they can install the CADU application upon it. The recommended minimum specification for a customer furnished device is:

- Windows 10
- 1920x1080 screen resolution
- 1.6 Ghz, 8 Gb RAM
- Touchscreen,
- Ethernet via RJ-45 connector



Figure 3: RADS-NG CADU

# **Configuration Files**

RADS-NG configuration files will be available from <a href="https://www.bellcustomer.com/RADS">https://www.bellcustomer.com/RADS</a> alongside existing RADS-AT Configurations. Users with a GE Aerospace provided account will also be able to access the new RADS-NG User Manual, Application Notes along with the RADS-AT User Manual here:

https://connectedaircraftsupport.geaviation.com/support/solutions/articles/43000537123-rotor-analysis-diagnostic-system-rads-ava-

To obtain a GE RADS Support portal send a request to <a href="RADS.support@ge.com">RADS.support@ge.com</a> along with the following details:

- Company Name
- Name & Title



- Email Address
- Address
- Phone
- Operated Fleet

Or click the following link RADS Freshdesk Account Request.

# **Continued Support of RADS-AT**

RADS-NG will replace RADS-AT. RADS-AT contains obsolete parts and is therefore no longer available for purchase. However, GE Aerospace will continue to offer repair and support for this RADS-AT. Support for RADS-AT will end when GE Aerospace are no longer able to source parts for the system. We will endeavor to repair RADS-AT systems sent to us unless the repairs is deemed uneconomical or requires replacement of an obsolete part. At this time we do not have a forecast date for the end of RADS-AT support, and plan to continue support for the system as long as it is economically viable.

If you have a RADS-AT system please contact <u>RADS.repairs@ge.com</u> for repair enquiries, including calibration, and <u>RADS.support@ge.com</u> for general support.

## **Get in Contact:**

Enquiries related to RADS-NG should be directed as follows:

- For Sales (inclusive of spares and training) please email <a href="mailto:RADS.Sales@ge.com">RADS.Sales@ge.com</a> or call +1-616-600-3825
- For Repairs and calibration please email <u>RADS.Repairs@ge.com</u> or call +1-727-532-6606
- For general Technical Support and enquiries please email RADS.support@ge.com or call +44 7584 112603
- For access requests to the RADS GE Portal please email RADS.support@ge.com call
  +44 7584 112603 or click the following link RADS Freshdesk Account Request