

MORE COMPANY S.B. NO. 105 Rev. 0

## **SERVICE BULLETIN**

## **NOVEMBER 14, 2024**

## PT6A TURBOPROP ENGINE ALTERNATE VIBRATION ANALYZER

- 1. <u>Planning Information</u>
  - A. Effectivity

Applies to PT6A engines using the MORE ICA's and PT6A engines using the following MORE STC's: SE000EN PT6A-21, -27, -28 PT6A-38, -41, -42, -42A SE00001EN PT6A-34, -34AG, -34B, -36, -114, -114A, -116, -135, -135A SE00002EN PT6A-6/C20, -20, -20A, -20B SE00003EN PT6A-11, -11AG, -15AG, -110, -112 SE00004EN SE00006EN PT6A-45A, -45B, -45R PT6A-25, -25A SE00010EN SE00011EN PT6A-25C MORE ICA's written for PT6A engines

- B. <u>Concurrent Requirements</u> None.
- C. <u>Reason</u>

To provide an additional functionally equivalent but non-identical substitute for the Chadwick-Helmuth 192A Spectrum Analyzer, the DSS Microvib II, and the ACES GEN II. The analyzers may not give exactly the same results, but the limits defined in the MORE ICA Manuals do not change.

D. Description

The DynaVibe GX3 Analyzer with DynaVibe MORE Report feature included. This system introduces new functionality that is not available with the Chadwick-Helmuth 192A as follows:

- 1. The Chadwick-Helmuth 192A measures the frequency range from 150 cycles per minute to 900,000 cycles per minute. The DynaVibe GX3 measures frequency range from 150 cycles per minute to 1,200,000 cycles per minute.
- 2. The DynaVibe GX3 can measure IPS, mils, and G's. The DynaVibe GX3 can measure IPS and G's in two measurements, faster than the Chadwick-Helmuth 192A can measure IPS alone.
- 3. The DynaVibe GX3 measures both frequency and vibration amplitude more accurately than the Chadwick-Helmuth 192A.



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- 4. The horizontal scale (frequency) on the Chadwick-Helmuth 192A is logarithmic, and the frequency on the DynaVibe GX3 is linear, making the job of interpreting the vibration survey less difficult.
- 5. Easily transfer DynaVibe GX3 MORE Report files across the internet.
- 6. Propeller balancing algorithms on standalone hardware systems are provided by the DynaVibe GX3 Aircraft Analyzers.
- E. <u>Compliance</u> This alternative is optional.
- F. <u>Approval</u> Federal Aviation Administration has reviewed and approved the technical contents of this Service Bulletin, Revision Original.
- G. <u>Weight and Balance</u> None.
- H. <u>Electrical Load Data</u> Not Changed.
- <u>Software Accomplishment Summary</u> No additional software, database or program required. The DynaVibe MORE Report is included at no charge provided in Excel Format.
- J. <u>References</u>

Comply with MORE Program Vibration Survey with DynaVibe GX3 Application Note Part Number RPX-ATA-MO-GX3-01.

K. <u>Publications Affected</u>

The following MORE Company, Inc. STC's and ICA's are affected: PT6A-21, -27, -28 SEOODEN PT6A-38, -41, -42, -42A SE00001EN SE00002EN PT6A-34, -34AG, -34B, -36, -114, -114A, -116, -135, -135A SE00003EN PT6A-6/C20, -20, -20A, -20B PT6A-11, -11AG, -15AG, -110, -112 SE00004EN PT6A-45A, -45B, -45R SE00006EN SE00010EN PT6A-25, -25A PT6A-25C SE00011EN MORE ICA's written for PT6A engines

- L. Interchangeability and Intermix ability of Parts Not applicable.
- 2. <u>Material Information</u> DynaVibe GX3 Aircraft Analyzer.



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- A. <u>Industry Support Information</u> Not Applicable.
- B. <u>Material Availability</u> The DynaVibe GX3 Aircraft Analyzer can be purchased from RPX Technologies online store at <u>www.rpxtech.com</u> or contact Steve Sennett-Technical Sales Manager at 405-714-2516 or 1-833-268-7653 email <u>steve@rpxtech.com</u>
- C. <u>Manpower</u> Not applicable.
- D. <u>Material Necessary for Each Engine</u> Not applicable.
- E. <u>Reidentified Parts</u> None.
- F. <u>Tooling Availability</u> Not applicable.
- 3. Accomplishment Instructions

Comply with DynaVibe GX3 MORE Application Note Part Number RPX-ATA-MO-GX3-01 to collect data. Download data using the feature that is enabled by use of the DynaVibe MORE Report.

A. Additional Information

A different bracket and vibration sensor is used with the DynaVibe GX3. The MORE STC and ICA Manuals specify the use of Chadwick-Helmuth 192A brackets 6752 or 6752-1. The DynaVibe GX3 uses vibration sensor A-DV-KIT-H-REQ, DynaVibe High Frequency Accelerometer Kit and high frequency bracket A-DV-BRKT-B07. No alternative mount option is recommended.

B. <u>Records Keeping Requirements</u>

The print outs provided by the DynaVibe MORE Report are a suitable replacement / substitute for the Chadwick-Helmuth 192A Red and Green cards, DSS Microvib II MORE Reports and ACES GEN II ACES MORE Reports.