

## SERVICE BULLETIN

MARCH 13, 2024

### PT6A TURBOPROP ENGINE ALTERNATE VIBRATION ANALYZER

1. Planning Information
  - 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
SE00001EN	PT6A-38, -41, -42, -42A
SE00002EN	PT6A-34, -34AG, -34B, -36, -114, -114A, -116, -135, -135A
SE00003EN	PT6A-6/C20, -20, -20A, -20B
SE00004EN	PT6A-11, -11AG, -15AG, -110, -112
SE00006EN	PT6A-45A, -45B, -45R
SE00010EN	PT6A-25, -25A
SE00011EN	PT6A-25C

MORE ICA's written for PT6A engines
  - B. Concurrent Requirements

None.
  - C. Reason

To provide a functionally equivalent but non-identical substitute for the Chadwick-Helmuth 192A Spectrum Analyzer. The two systems may not give exactly the same results, but the limits defined in the MORE ICA Manuals do not change.
  - D. Description

The ACES GEN II Analyzers covering ACES Model 2021 Cobra II, ACES Model 4041 Viper II, ACES Model 4041E Viper 2E and ACES MORE Report feature enabled by use of a license code named MORE.

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 ACES GEN II measures frequency range from 150 cycles per minute to 1,200,000 cycles per minute.
    2. The ACES GEN II can measure IPS, mils, and G's. The ACES GEN II can measure IPS and G's in two measurements, faster than the Chadwick-Helmuth 192A can measure IPS alone.
    3. The ACES GEN II 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 ACES GEN II is linear, making the job of interpreting the vibration survey less difficult.
5. Easily transfer ACES MORE Report files across the internet.
6. Propeller balancing algorithms on standalone hardware systems are provided by the ACES GEN II Aircraft Analyzers

E. Compliance

This alternative is optional.

F. Approval

Federal Aviation Administration has reviewed and approved the technical contents of this Service Bulletin, Revision Original.

G. Weight and Balance

None.

H. Electrical Load Data

Not Changed.

I. Software Accomplishment Summary

No additional software, database or program required. A one-time activation of the MORE license is required to produce the ACES MORE Report directly from ACES Systems.

J. References

Comply with ACES MORE Application Note Part Number 11-308-0328.

K. Publications Affected

The following MORE Company, Inc. STC's and ICA's are affected:

SE000EN	PT6A-21, -27, -28
SE00001EN	PT6A-38, -41, -42, -42A
SE00002EN	PT6A-34, -34AG, -34B, -36, -114, -114A, -116, -135, -135A
SE00003EN	PT6A-6/C20, -20, -20A, -20B
SE00004EN	PT6A-11, -11AG, -15AG, -110, -112
SE00006EN	PT6A-45A, -45B, -45R
SE00010EN	PT6A-25, -25A
SE00011EN	PT6A-25C

MORE ICA's written for PT6A engines

L. Interchangeability and Intermixability of Parts

Not applicable.

2. Material Information

A. Industry Support Information

Not Applicable.



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- B. Material Availability  
The ACES GEN II Aircraft Analyzers can be purchased from ACES Systems Inc. ACES Corporate Office, 10737 Lexington Drive, Knoxville, TN 37932 USA phone number: 865-671-2003 email: sales@acesystems.com.
  
  - C. Manpower  
Not applicable.
  
  - D. Material Necessary for Each Engine  
Not applicable.
  
  - E. Reidentified Parts  
None.
  
  - F. Tooling Availability  
Not applicable.
3. Accomplishment Instructions  
Comply with ACES MORE Application Note Part Number 11-308-0328 to collect data. Download data using the feature that is enabled by use of the MORE license code under the license name MORE to obtain the "ACES MORE Report".
- A. Additional Information  
A different bracket and vibration sensor is used with the ACES GEN II. The MORE STC and ICA Manuals specify the use of Chadwick-Helmuth 192A brackets 6752 or 6752-1. The ACES GEN II uses vibration sensor 1460 or 991D-1 (69-100-0075) and high frequency bracket 1472 or 22-430-0057. Alternative mount option is 22-430-0056 and is compatible with the same vibration sensor 1460 and high frequency bracket 1472.
  
  - B. Records Keeping Requirements  
The print outs provided by the ACES MORE Report are a suitable replacement / substitute for the Chadwick-Helmuth 192A Red and Green cards.