



# How the Owner Community can Help

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**Continued Operational Safety**

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**FAA Public Meeting  
Proposed Cessna 400 Series Wing Spar AD**

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# How the Owner Community Can Help

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- Accumulate Fleet Data
- Develop Alternative Methods of Compliance (AMOC)



# How the Owner Community Can Help

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- Accumulate Fleet Data
  - ▶ Airplane flight hours
  - ▶ Inspection results – especially anomalies
- FAA can use this information
  - ▶ Important to assess risk
  - ▶ Important to determine compliance time options

# How the Owner Community Can Help

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- Develop Alternative Methods of Compliance (AMOC)
  - ▶ Cessna strap is “a method” but not the “only method”
  - ▶ FAA will review all proposed AMOCs
  - ▶ FAA approval required for any AMOC
- Applicant “Shows compliance”
- FAA “Finds compliance”

# Alternative Methods of Compliance (AMOC)

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- Applicant works with FAA during the approval process
- Approval criteria the same for everyone
- AMOC must be justified with data
- FAA needs ample time for approval

# Alternative Methods of Compliance (AMOC)

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## Data normally needed for structural issues

- ▶ Loads
  - Air loads
  - Internal member loads
- ▶ Geometry
  - Use with loads to determine stresses
- ▶ Usage profile
  - Use with loads and stresses to build a “fatigue spectrum”
- ▶ Material properties
  - Static, fatigue, residual strength
  - Crack growth rates
  - Fastener allowables

# Alternative Methods of Compliance (AMOC)

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## Reports normally needed for structural issues

- ▶ Flight test results
- ▶ Ground test results
- ▶ Loads development methods
- ▶ Computer model validation
- ▶ Static, fatigue, crack growth analysis
- ▶ Inspection criteria
  - Inspection intervals
  - Inspection reliability for the application
  - Procedures
- ▶ Instructions for Continued Airworthiness

# Alternative Methods of Compliance (AMOC)

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## Tips for an efficient AMOC approval process

- ▶ Use Designated Engineering Representatives (DER)
- ▶ Develop a project plan
- ▶ Coordinate early and often with the Wichita Aircraft Certification Office (ACO)
- ▶ Clearly explain all aspects of compliance
- ▶ Provide all supporting data