

## AFGROW Workshop 2022

# AFGROW Future Development

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# Workshop 2022 To Do List (Incomplete)

Scale: 10 most important

- Validate a filled hole correction for part-through cracks (10)
- Bearing solution for corner crack(s) at a countersunk hole (9) (Recommend 3 c/s depths)
- Add Predict Preferences to Status View (8.5)
- ~~Add a check box to put output in the same file as input. Also, allow the same file names for each type. (9)~~
- Add a stiffened panel solution? (8) (Bulging factors)
- Spectrum Severity Comparison (7)
- Ability to read uncounted data in the Spectrum Manager (6)
- Ability to use beta correction with a weight function solution (5)
- Incorporate Effective width in the bearing beta calculation (5) (Add check box to update bearing load case width)
- Make changes to allow the use of spectra with three load channels (5)
- Combining exceedance curves (4)
- Implement the Morrow mean stress equation in the AFGROW initiation module (TBD )
- User Defined Mean Stress Correction (TBD )
- Incorporate a new version of FASTRAN in AFGROW (need \$ and a interested party)

# Spectrum Manager Future Development Plans

- Spectrum Cycle Counting (Rain Flow ASTM E1049 and Range Pair) User Discretion (own risk) (7)
- Working with counted and uncounted spectra (6)
- Exceedance curves associated with damage codes
- Visualization of damage codes

# Other Requests

- Add the ability to use mm in model geometry input
- Implement the full r/t range for the corner crack/through crack at hole solution option in AFGROW
- Update advanced single corner crack solution with the latest FE data
- Update advanced double corner crack solution with the latest FE data
- Add advanced oblique through crack solutions
- Access retardation metadata via COM Interface
- Develop ANSYS workbench plugin that can use AFGROW material models to enhance ANSYS crack growth analysis capabilities

# Additional Suggestion

- Create a white paper showing how to use Spectrum and K Filtering capability with A-10 information for a wing and fuselage