

WLNG FST Engineering Completion

WLNG FST Extreme Weather Analysis

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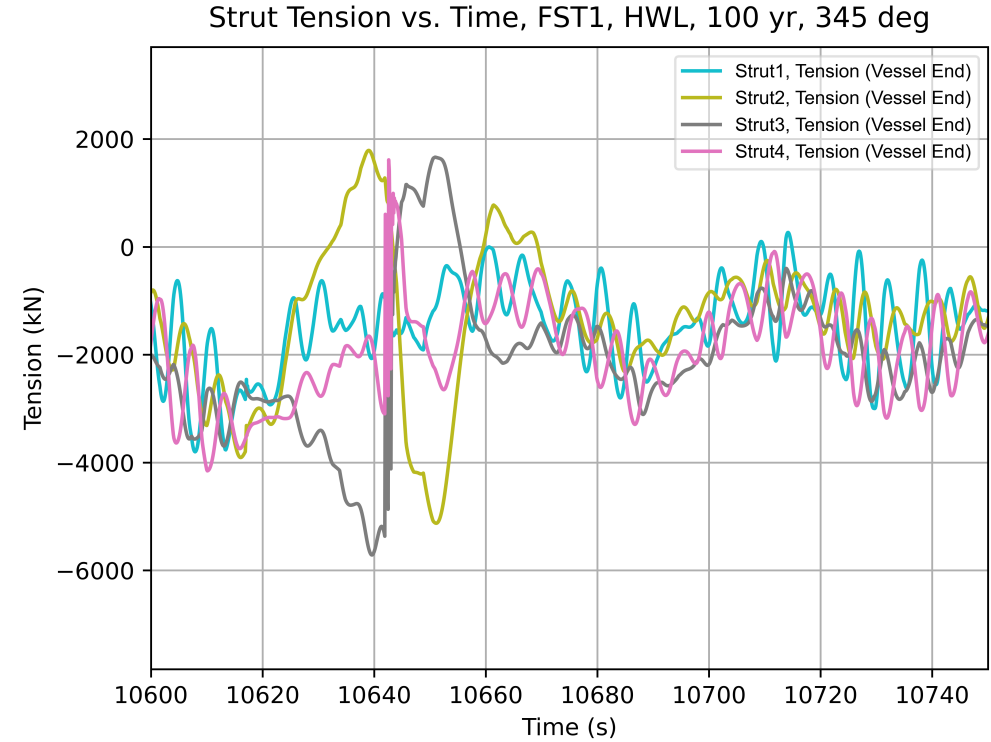
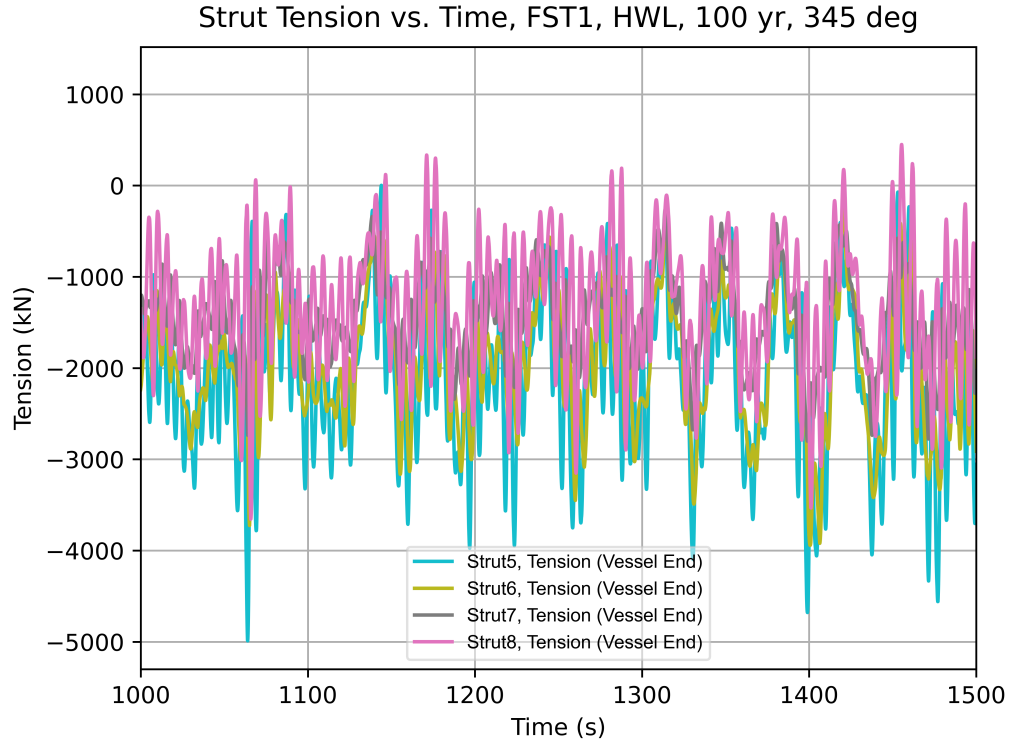
Introduction

- FST analysis for WLNG

Methodology

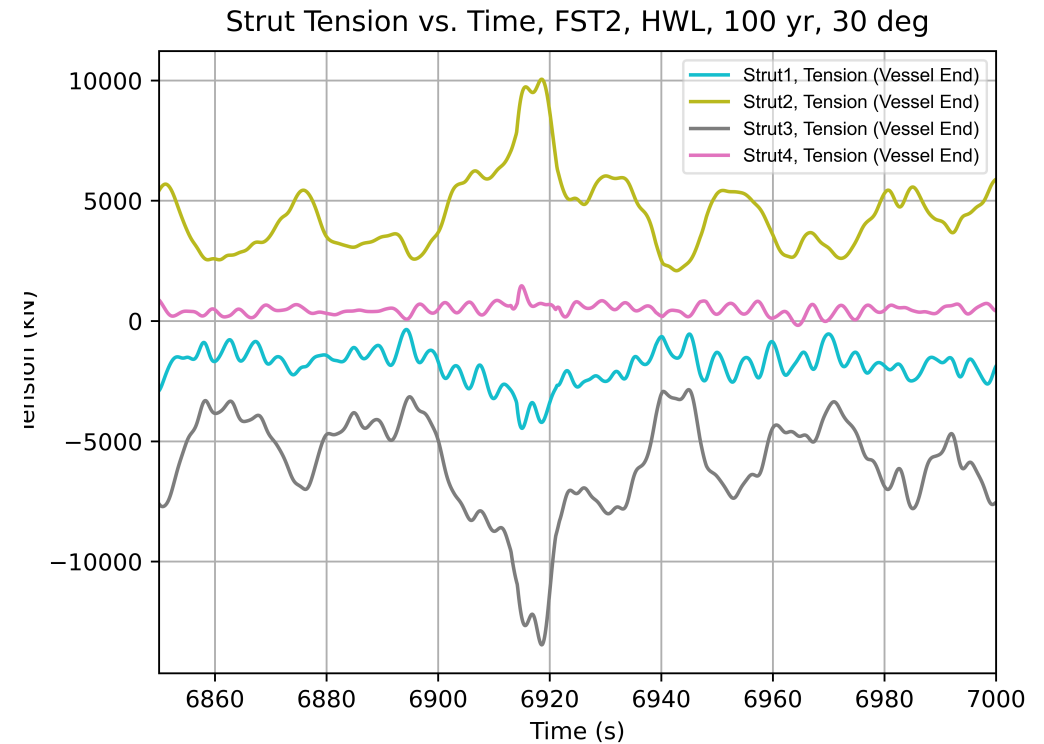
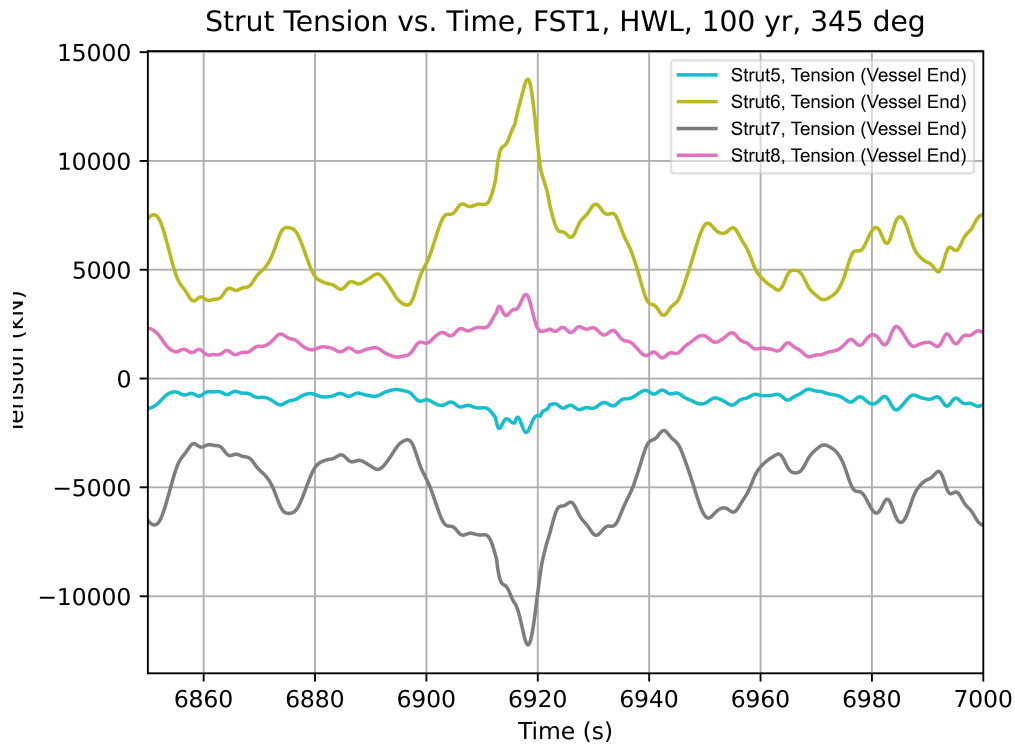
- TBA

FSTs, 100yr, LWL - Force Timetrace



- The struts are in sync
- Results in lower strut forces when compared to HWL results

FSTs, 100yr, HWL - Force Timetrace



- The 2 struts are locked FST in yaw position
 - Results in high forces
 - Low roll compared to LWL response
 - Comparable heave motions with LWL response
- This yaw-locking result trend is similar to what was obtained in AQWA

FSTs, 100yr Discussion

- 100yr, HWL has yaw-locking effect potentially due to force coefficients used
- Perform sensitivity analysis on force coefficients with yaw = 0
- Determine whether yaw-locking effect is realistic due to prevailing external non-dynamic forces (e.g. wind, current, wave etc.)

Way Forward

- 100 yr FSTs only
 - Perform sensitivity
- 5 yr FSTs with LNGC
 - Will get this running after few more insights in 100 yr analysis

Conclusions

- TBA