

# THOMAS JEFFERSON HSRR Order of Operations CHECKLIST

## Launches with Patch values in POSView

- ☐ ☐ ☐ Sounds speed sensors sent to manufacturers for Calibration?
- ☐ ☐ Sound speed comparison Cast after receiving back from manufacturer
- ☐ ☐ Static draft
- ☐ ☐ GAMS Cal
- ☐ ☐ ERDDM (Must be applied to the HVF before processing your MBES patch test data)
- ☐ ☐ Primary Lever Arm Calibration. (**Patch values in POSView set at Zero. Patch test and Primary Lever Arm Calibration operations can be conducted at the same time** if antenna lever arm values from the vessel survey are entered into posview. Conduct the post process Lever Arm Calibration in POSpac with the Patch test POS data. Export the SBET with the calibrated lever arms and use that SBET for the Patch test data. For this to work you must make sure the calibrated lever arms SBET is applied to the patch test data.)
- ☐ ☐ MBES Patch Test (See above note)
- ☐ ☐ Primary Lever Arm Calibration (**With patch test values entered into POSView. Patch test values in POSView will change the positioning of the antennas by rotating the IMU** to align with the TX of the sonar. This changes the starting orientation of the primary antenna lever arm)
- ☐ ☐ Reference surface
- ☐ ☐ Side scan cert
- ☐ ☐ LiDAR patch test
- ☐ ☐ Collect MBES and POS with set lever arms. Run MBES file, POS, and HVF through the Charlene offset tool and adjust TPU values as needed (**Very Important**)

## Ship with Patch values in SIS

- ☐ ☐ ☐ Sounds speed sensors sent to manufacturers for Calibration?
- ☐ ☐ Sound speed comparison Cast after receiving back from manufacturer
- ☐ ☐ Static draft
- ☐ ☐ GAMS Cal
- ☐ ☐ ERDDM (Must be applied to the HVF before processing your MBES patch test data)

☐ ☐ Primary Lever Arm Calibration (The Primary Lever Arm Calibration for the ship can take up to 4 days' worth of POS data in order to reach a Figure of Merit of 100%. Conducting a Lever arm Calibration after the MBES patch test may be more likely for ship operations. The ship does not need to be moving in order for a lever arm calibration to be done but it may require you to use more POS data. You can log POS data at the pier if needed.)

☐ ☐ MBES Patch Test (See above note) (For each sonar)

☐ ☐ Reference surface (For each sonar)

☐ ☐ Side scan cert

☐ ☐ Collect MBES and POS with set lever arms. Run MBES file, POS, and HVF through the Charlene offset tool and adjust TPU values as needed (Very Important)