Boresight Calibration Report for

T-0027, Rhode Island

Method

Quantum Spatial uses Applanix CalQC to determine the sensor to IMU reference frame boresight angles. A rectangular pattern of perpendicular flight lines is flown over dense ground control for use as the calibration dataset. The CalQC software enables analytic aero-triangulation of image sensor data supported by ABGPS/IMU station control. It's adjustment model includes the ability to solve for angular offsets between image sensor reference frames and navigation instrument reference frames. The dense overlap between perpendicular flight lines and dense ground control used in the boresight calibration flight plan provide the redundancy needed to solve for the boresight angles as unknowns. The calculated boresight angles are applied during calculation of the direct-georeference exterior orientation for project imagery data. Final exterior orientation is solved during analytic aero-triangulation of project imagery data.

Results

The screenshot below from the CalQC software shows the final values for the DMC-131 as 0.6410, 0.6760, 5.3940.