Drones for Facility Inspection

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Problem Statement

- Procedures for annual inspection of crane rails and other overhead structures rely heavily on visual assessments
- Currently performed by a technician using a Mobile EWP or riding on the crane
- Generally limited to timeframes where there are no active crane operations.
- A drone-based inspection performed prior to tag out of a crane can be performed without interrupting time-sensitive construction activities.
- It can also provide valuable situational awareness to a technician before beginning elevated work, identifying work hazards and major defects before a technician puts themselves at risk.

Benefits / Business Impact

- Expand the utilization of drones for common work processes across three participating shipyards: BIW, EB, NASSCO
- Demonstrate drone use to support performance of an inspection within shipyard environment
- Develop guidelines for future drone technology insertions in other industrial processes.

Benefits / Business Impact

- Reduced setup times, increased flexibility, and equipment speed.
- Ease demand for EWP staging and technicians qualified for high work, leaving them available for other emergent responsibilities.
- Provide an alternative to high work. Reduce exposure to risks pervasive in industrial environments, such as slip hazards or falling objects during high work operations, or radiological exposure.
- High resolution, standardized equipment will improve quality of data collected for analysis by facilities engineering teams



Image 1: Skydio tested in 9 Series 05 April 2022



Image 2: Crane Rail Visual Inspection