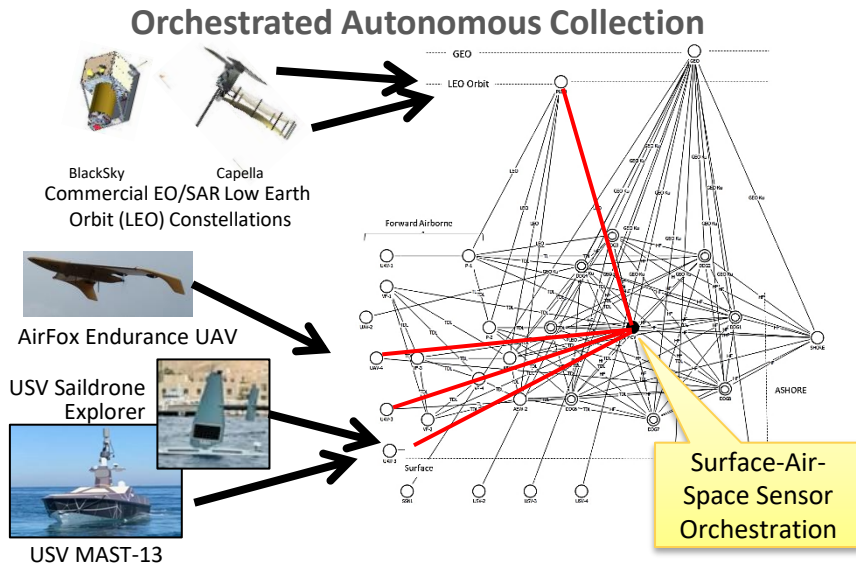


Orchestrated Autonomous Maritime Collection



Problem Statement

- **PROBLEM:** Department of the Navy (DON) Science and Technology (S&T) Strategy seeks to apply sensors from seabed-to-space to enable Distributed Maritime Operations.
- **SOLUTION APPROACH :** We will develop and evaluate alternative approaches to integrate Autonomous Vessels/Vehicles and space-based sensor collection (Commercial EO and SAR) to enhance maritime domain awareness. Automated vessel detection, cross-cueing and surveillance will be evaluated.

Impact

- **Contribution:** Assure feasibility and fundamental limits of space-air-surface IAS sensor coordination.
- **Impact:** This will demonstrate the role of fused sensor information by coordinating unmanned sensor/platforms with space collection for Distributed Maritime Operations (DMO)
- **Success Measurement:** Measures of surveillance Performance and Effectiveness will quantify the Utility of these advanced concepts and concept of operations

Transition

- DON Science & Technology Strategy for Intelligent Autonomous Systems IAS (2021) seeks distributed and persistent sensors to enable Distributed Maritime Operations.
- Next steps to transition will be with Task Force 59 (Unmanned-AI Integration) and TF Hopper (SURFOR) to plan afloat experiments with commercial satellite collection: Sources of continued support and collaboration include: NIWC-PAC; TF 59 and ONR.