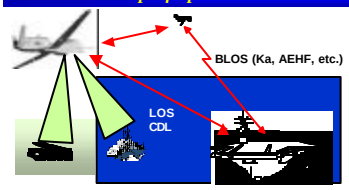
Navy Broad Area Maritime Surveillance (BAMS) UAV

Concept of Operations



Technology Description

- High Altitude, Long Endurance UAV designed to provide persistent Maritime Surveillance to Naval and Joint Forces within the emerging global command and control architecture
- Enhanced Battlefield Awareness
- Long dwell time in surveillance area
- Persistent revisit on targets of interest
- Multi-Intelligence sensors co-located on same platform
- Reduced cross-cueing and targeting timeline
- Enhanced Multi-Int, Multi-Domain (Air, Surface, Subsurface) cueing
- Long-dwell tracking of Targets of Interest
- 360 SAR / ISAR/ MTI RADAR
- 360 EO/ IR
- SIGINT
- Communications relay

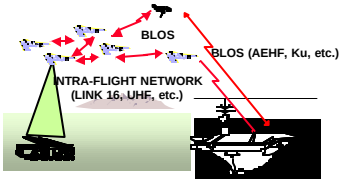
SSC San Diego Role

- Develop the C4I Support Plan
  - Interoperability and supportability
  - Determine specific and derived requirements
  - Identify shortfalls and recommend solutions
- Support the Analysis of Alternatives
  - Sensor and communications system trade studies
  - Payload performance modeling

***BAMS** – Flexible, Long-Dwell Maritime Surveillance*

Navy Unmanned Combat Aerial Vehicle

Concept of Operations



Technology Description

UCAV system, which can prosecute persistent, sea-based Surveillance / SEAD / Strike missions within the emerging global command and control architecture. Mature the technologies required for highly autonomous multi-vehicle control, dynamic mission planning, sensor fusion, and targeting.

SSC San Diego Role

Government Lead on Technical Support Team for C4I and Mission Control Systems Integration

- Automated, interactive mission planning and replanning
- Advanced communications and bandwidth mitigation

- **Individual teams supporting each KTR**

Capability / Value to Warfighter

Mission Effectiveness

- Reduced Cost per Kill
- Reduction in Manned Aircraft Losses
- Enhanced Battlefield Awareness

New Paradigm in Air System Affordability

- Reduced Acquisition Costs (URF<1/3 JSF)
- Dramatically Lower O&S Cost (>50% Reduction)

UCAV-N, Survivable Day-One Deep Strike and Surveillance

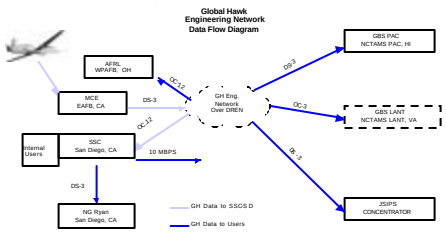
Global Hawk Communications

Technology Description

- Provides quick distribution of Global Hawk test data to forces afloat
- Provides access to Global Hawk test imagery during exercises, e.g., FBEs, JEFXs
- Demonstrates joint Navy/Air Force capability to pass and receive Global Hawk data

SSC San Diego Role

- Provide communications expertise and connectivity to pass GH data from the Mission Control Element (MCE), via SSC San Diego, to numerous joint users and GBS.
- Provide a special multi-level secure communications path for GH data distribution to a national systems user.
- Assist the development of GH imagery dissemination architecture for OEF and IRAQI FREEDOM.



Global Hawk Communications Development

SD 478, May 2003, SSC San Diego. Approved for public release; distribution is unlimited.