Aerial Common Sensor

Agenda

• Purpose
  - System Description/Deployment
  - Subsystem Capabilities
  - Modernization Plan
  - Summary
Provide an Information Briefing on the Airborne Reconnaissance Low, Multifunction (ARL-M) Intelligence Collection System
ARL is a Theater/Joint Land Force Airborne SIGINT/IMINT system capable of providing near real-time indications/warnings, targeting and support to OOTW/Force Projection Operations.

**Mission Equipment**

- COMINT
  - Super Hawk COMINT/DF
  - SRE
  - Precision Targeting (FY01)
- IMINT
  - FLIR
  - IR Line Scanner
  - Daylight Camera
  - MTI/SAR Radar
- Reporting
  - LST-5 SATCOM/LOS
  - ARC-210
  - JTT-3 (FY99)
Aerial Common Sensor
ARL Units Worldwide

Current Program
- C1, C2 - COMINT Only, SOUTHCOM
- I-IMINT Only, SOUTHCOM and EUCOM Occasionally
- M1, M2 - IMINT (incl. WAMTI/SAR) COMINT Capable - Korea
- M3 - Full Multi-Function - Korea (Oct 97)
- M4, M5 - Full Multi-Function (JSAF COMINT) (FY99)
- Approved Upgrades
  - JSAF SIGINT (6 Systems) (FY01 - 03)
  - CTT/H3 (FY99)

Total CINC Requirement
- USARPAC Requirement = 6 ARL With MTI/SAR (Working Document)
- US SOUTHCOM Requirement = 9 ARL-M
- EUCOM

Current Plan Does Not Meet CINC Demand
Aerial Common Sensor
ARL-M Capabilities

- FLIR: Daylight Imaging System
- MTI Radar
- ESM/COMINT
- Synthetic Aperture Radar
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- CINC SOUTH Message - 29 Jan 93: “... ARL ... Collects, Processes, and Disseminates COMINT and IMINT in Real Time to Ground Deployed Units ...” “... One of it’s Real Values ... Unlike Other Collection Platforms, Host National Observers are Allowed on board Without Restriction. The Systems are Exceeding Original Expectations ...” “... I am Looking Forward to Having (ARL) in Theater ... This Timely and Badly Needed Capability ...”

- CG, 18th Abn Corps Message - 01 Sep 94: “... (ARL) is Ideally Suited to Enhance ... Force Projection ... of the XVIII Abn Corps” “... Capable of Supporting Forced Entry and Follow on Combat Operations ...” “... ARL is One of the Most Impressive Collection systems ...” “... Recommend This System be Reviewed to Enhance the Intelligence Acquisition Capability of Other Units Throughout the Army ...”

- USFK J2 - 8 Oct 96: “Our Bottom Line is That ARL-M has Added Tremendous I&W Capability to This Command”.

- GEN Barry McCaffrey Ret. - 28 Aug 96: “ARL is a Miracle Asset With Tremendous Capability”.

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Aerial Common Sensor

- ARL
  - Operational MTI Capability in Less Than 9 Months
  - Integration of Multi-INT Payloads on a Single Small Self Contained Platform
  - Extensive Leverage of Commercial Technology to Rapidly Meet Tactical Operational Requirements
Aerial Common Sensor
Modernization Glide Path

- CDL
- JSAF
- Interoperability
- CHALS-X Capability
- JTT-3

Today

- CDL
- Connectivity
- Sensor Upgrades
- Interoperability

GR/CS

IPF

- Processors
- Modular/Scalable
- Common Software
- Connectivity

ACS Prototype

Demos

Exercises

ACS Objective System

Common Concept can Provide Integrated Approach
Aerial Common Sensor

Summary

- ARL (System 4,5) Fielded to USFK in Less than 9 Months
- ARL is a Model for Streamlined Acquisition
- ARL Provides the Joint Land Force Commander With Near Real-Time, Multi-Intelligence for C2I