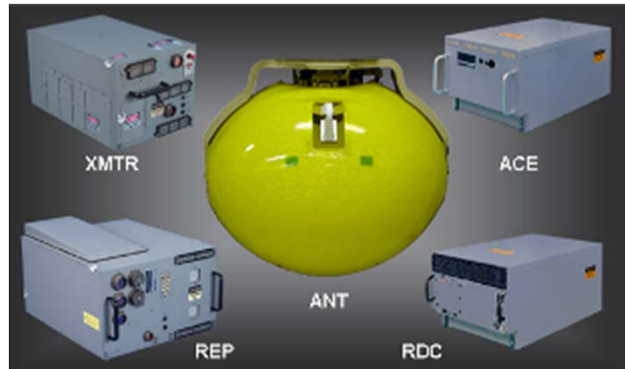


# **MMA-India SAR/Navigator Flight Test**

# APY-10(I) Radar (India P-8I)

## Starting Point:

APY-10 Radar for the P-8A



Modify APY-10  
Radar per Boeing  
Radar SCD

- New Capabilities
- Export Restrictions



*Boeing P-8I*

## APY-10(I) Radar for P-8I

- Modify APY-10 Radar for Export to India
  - Modify Radar navigator to remove accumulated carrier phase and revert to earlier, less sophisticated navigator
  - Remove Precision Targeting capability
  - Remove UHR ISAR capability
  - Remove 1 and 3 foot SAR capability
  - Limit performance to meet 30 meter SAR geo-location accuracy
- Add an Interleaved Weather Capability
- Add an Air-to-Air Target Detection / Tracking Capability

# Flight Test Overview

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- Raytheon contracted to demonstrate key requirements of the modified radar via flight test
- The Navigator and image generation for SAR and ISAR modes are tightly coupled and the primary reason for flight test
  - Less precise navigator is required by customer requirements
  - Imaging performance can only be demonstrated via flight test
- Sherman, TX area of operations
  - SAR imaging of flat and hilly land areas
  - Interleaving pilot and radar operator displays
- Gulf of Mexico area of operations
  - ISAR imaging of maritime targets of opportunity
  - Surface detection of maritime targets of opportunities
  - Data collection for Air to Air mode algorithm verification in blue water and light littoral areas
- McKinney, TX
  - Air to Air mode ground testing for detection of airborne targets of opportunity

Imaging performance can only be demonstrated via flight test

# Gulf of Mexico Flight Path (typ)



# Test Aircraft

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- Airborne Resources  
Convair C-131 B
  - military version of the Convair 340
  - Built for airborne electronics equipment testing
- Design of equipment required to install radar equipment is in work