

Missile Defense Agency Anticipated Future Test Resource Requirements



To: Huntsville Aerospace Marketing Association

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Test Resources

- **Flight Test Resources**

- Used to collect telemetry and optical/RF signatures for post-test analysis & assessment
- Supports flight test safety
- Includes sea-based, land-based, and airborne sensors
- Sufficient for current midcourse and terminal engagements



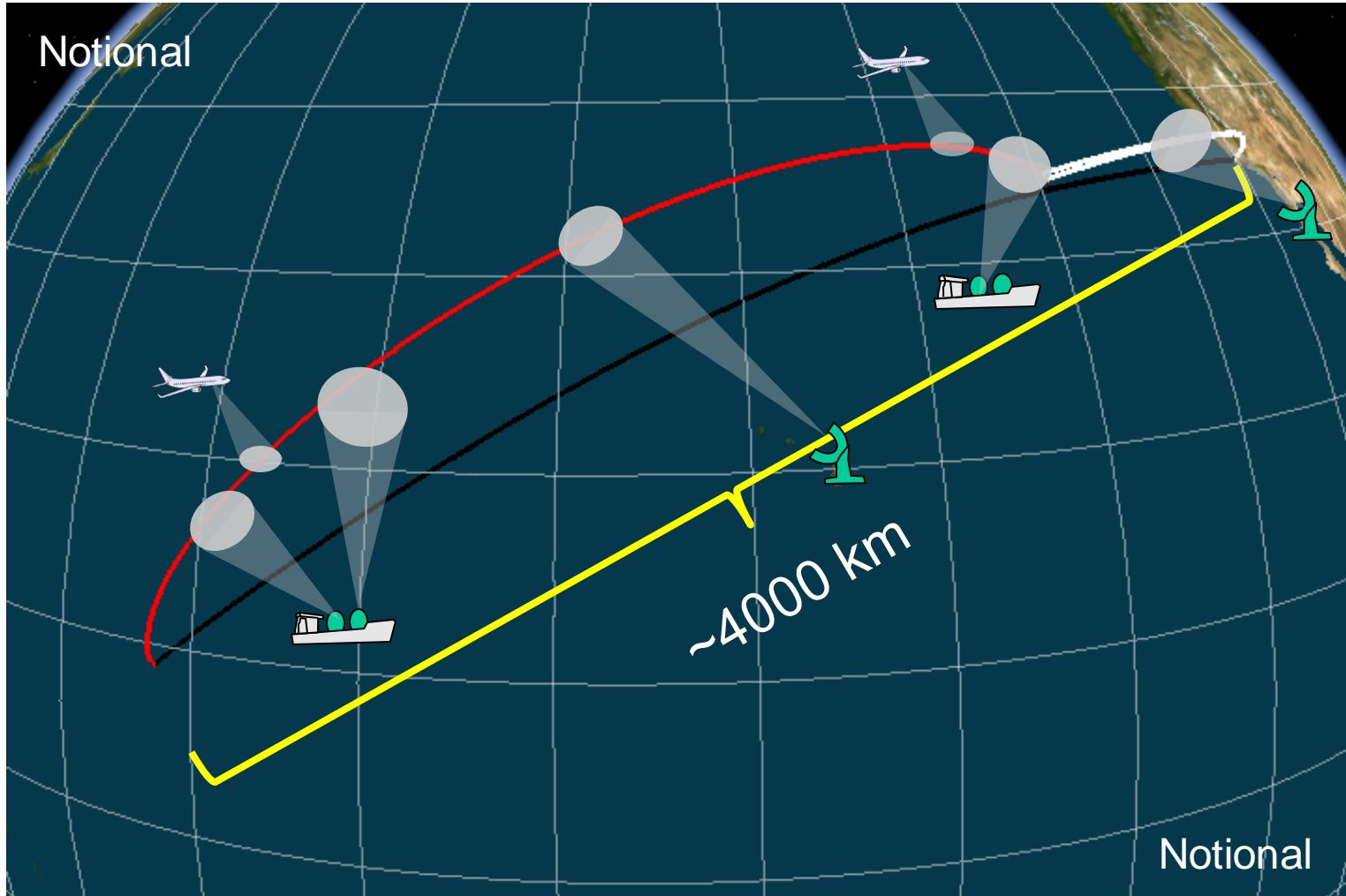
- **Ground Test Resources**

- HWIL labs and infrastructure used in ground testing, which provide the majority of the data supporting capability assessment
- Limited capability to rapidly reconfigure from strategic to theater architecture



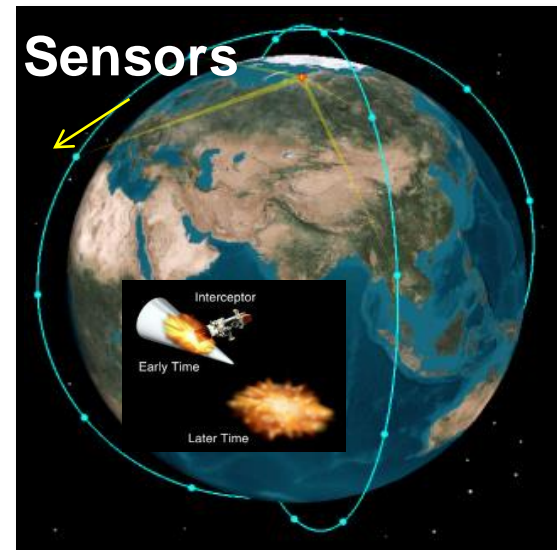


Notional Ground-Based Midcourse Defense Flight Test





Future Testing Requirements

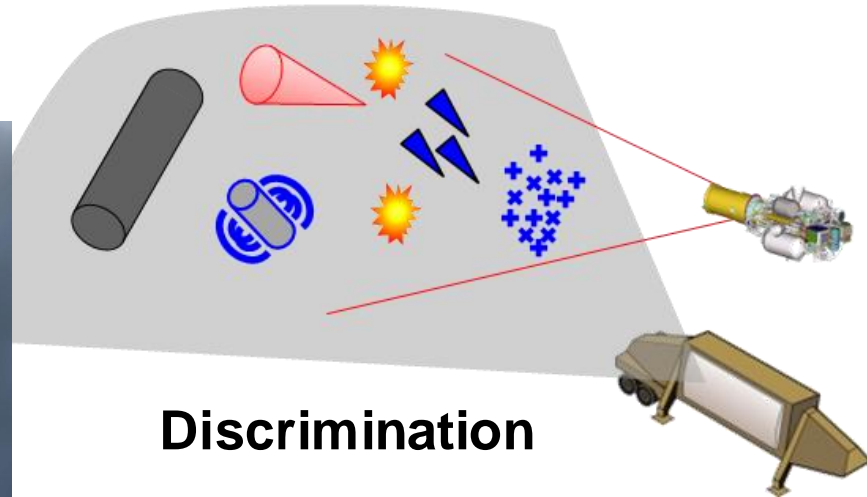


Sensors

Space Operations



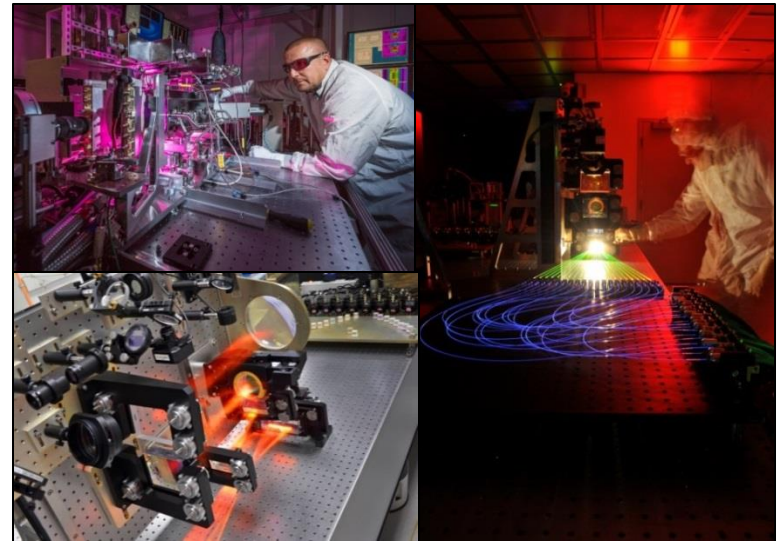
Hypersonics



Discrimination



Cyber



Laser Experiments



Anticipated Future Test Resource Requirements

• Flight Test

- Transition manned airborne optical sensors to unmanned platform and add telemetry
- Replace sea-based vessels (nearing end of life)...will need:
 - Smaller telemetry antennas that operate across multiple bands
 - Flight termination system transitioned to airborne platform
- Need low cost options to augment SATCOM
- Automate flight termination system





Anticipated Future Test Resource Requirements

- **Ground Test:**
 - Planning to increase ground test case volume by 1/3
 - Must have labs/infrastructure that are easily reconfigurable
- **Data Management**
 - Transition petabytes of data to cloud computing
- **Workforce**
 - Need workforce proficient in cyber security and testing, network engineering, test analysis, UAV planning and operations



