



# National Defense Industrial Association



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# Dramatic Expansion of ISR Capabilities

- ISR-TF established in 2008: Defense Secretary Robert M. Gates:

“My concern is that our services are still not moving aggressively in wartime to provide resources needed now on the battlefield.” This new Task Force will explore “more innovative and bold ways to help those whose lives are on the line.”

- Industry has done an exceptional job of producing technical solutions for a host of difficult requirements – SIGINT, HSI, FMV, GMTI

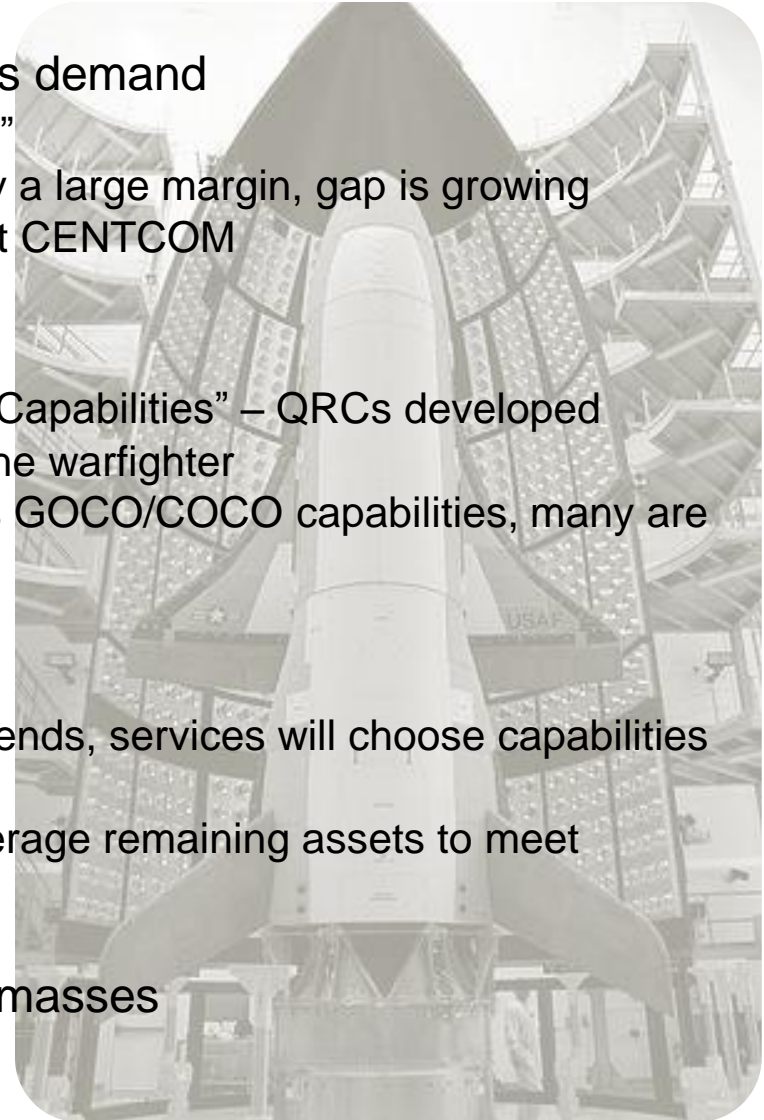


- Multi-Int platforms equipped with a plethora of sensors now collect multiple petabytes of raw data on a hourly basis
- Question is – are we getting the right information, adequately Exploiting that data and delivering good products to the user at the “Tactical Edge”

# Now, and into the Future



- Success breeds success and increases demand
  - ISR continues to be a “growth industry”
  - Global ISR demand exceeds supply by a large margin, gap is growing
  - Majority of our assets currently support CENTCOM
- Quick Turn, but enduring?
  - Many new assets are “Quick Reaction Capabilities” – QRCs developed to meet the immediate requirements of the warfighter
  - QRCs typically have limited lifelines as GOCO/COCO capabilities, many are “one of a kind”
- Long Term
  - As budgets decline and OCO funding ends, services will choose capabilities to transition into “Programs of Record”
  - Many may not survive, how do we leverage remaining assets to meet demand?
- Keep specific capabilities, yet feed the masses



Air Force X-37B, photo credit Boeing

# PED: an afterthought?



- Typically we tend to invest heavily in the “technical” solution: higher frame rates; full motion; more frequencies; chip out tracking; etc....
- Industry is very good at providing systems that collect lots of data, less focused on what has to be done with raw information
- Services often have limited force structure to properly Process; Exploit; and Disseminate (PED) the data collected
- QRCs typically deploy with an organic PED capability – usually with a yearly contract cost if the QRC continues to operate
- Timely; accurate; conclusive exploitation of collected information is critical to the warfighter
- We need to do a better job of providing a Comprehensive PED Architecture

# Process, Exploit, Disseminate



Looking for a needle in a haystack...



...in a haystack of needles

# Tool Kits



- As our technical ability to collect improves exponentially, industry must provide a means to “sift” data
- Automated systems, part of an integrated ISR architecture, must “alert” analysts and operators in real time
- Collection assets of all types must “tip-and-cue” other collection platforms or sensors to focus their capabilities at critical moments
  - Set critical alert conditions for high priorities
  - Volume – Anomaly Detection
  - Characterize Base-line Environment
- Reachback to linguists, specially skilled or technically proficient analysts is critical and they must be able to quickly locate specific data points
- Forensics often gives us an answer, after the fact – our systems need to be able to build that picture before or as it happens
  - Build stronger operational diverse pictures
  - System Engineering – Financing and Policy constraints need to be worked
- Industry needs to develop systems, including PED “tool kits”, that give our analysts a similar “Technical Edge” that we typically build into the hardware

# Wiki



- Security cannot be an “add-on” or an “after thought”
- As we create and build systems we need to think about access, how do we protect what we collect, process, exploit and disseminate?
- Where do we store it? How do we move it? What tells us when something seems to be “out-of-the-ordinary”?
- As communications technology improves: 4G; IPV6; Wireless systems of all types – how do insure that our secrets stay secret?
- Industry is our partner in this and we need to ensure that we are working toward a common goal



QUESTIONS ?