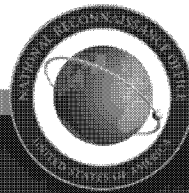


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Partnering with Commercial Enterprises to Solve Existing and Emerging Security Challenges

Pete Muend

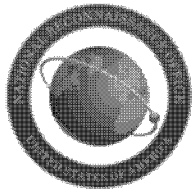
Director, Commercial Systems Program Office
Geospatial Intelligence Systems Acquisition Directorate
National Reconnaissance Office
10 September 2019



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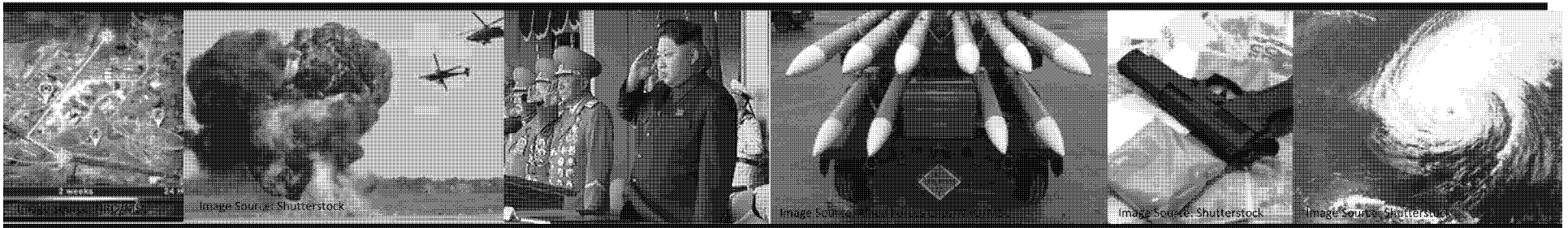
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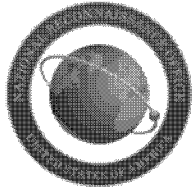
EVER-INCREASING DEMAND FOR SPACE-BASED GEOINT MISSION SUPPORT

- Neutralize terrorists
- Warn of enemy attacks
- Combat proliferation of Weapons of Mass Destruction
- Counter Improvised Explosive Device threats
- Combat drug trafficking
- Support natural disaster/humanitarian aid response
- Support cybersecurity



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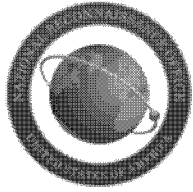
NEW CHALLENGES

- Demand signal growing – everyone wants GEOINT!
- Demand signal evolving – not just electro optical imagery
- Space is a more contested environment than ever

***Security Challenges + Customer Demand = Need for
Increased Innovation, Resiliency, and
Responsiveness***

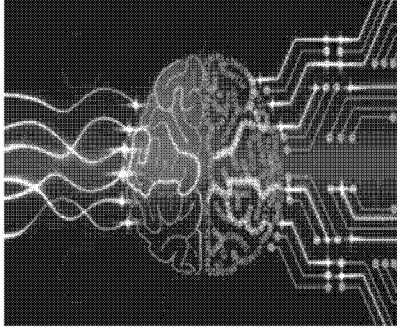
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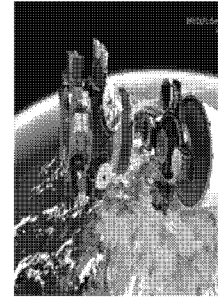


ENABLING COMMERCIAL TECHNOLOGIES...

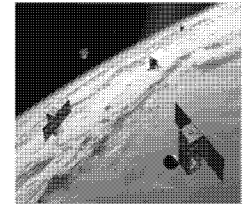
Automation



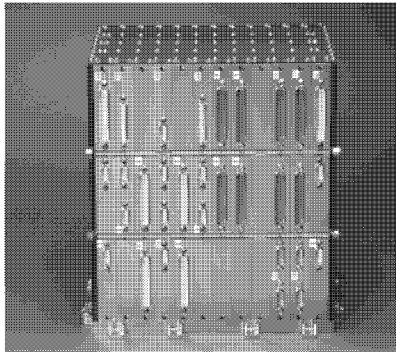
**Machine Learning/
Artificial Intelligence**



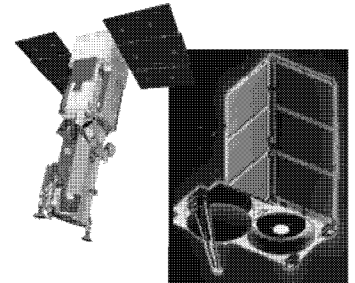
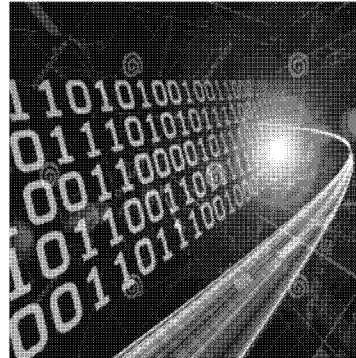
Affordable Space Launch



Cloud Services



Speed of Delivery



**Robust Commercial
Imagery Capabilities**

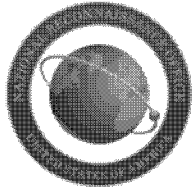
*Images courtesy of
BlackSky Global (top),
DigitalGlobe (middle),
and Planet (bottom)*

Image Source: Shutterstock

...ARE TRANSFORMING HOW WE DO BUSINESS

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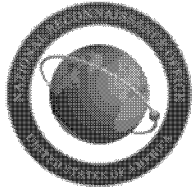


COMMERCIAL IMAGERY ACQUISITION STRATEGY

- *“Buy what we can; only build what we must.”*
- Driven by GEOINT Functional Manager’s validated requirements
 - Reflects substantial increase in requirements that can be satisfied by commercial-class systems
- Grounded in NRO’s commitment to take full advantage of legacy and emerging commercial imagery capabilities
 - Satisfy mission needs
 - Maximize efficiency and effectiveness of overhead architecture
- Create an integrated architecture of national and commercial constellations with diverse capabilities for global and regional collection and rapid revisit.

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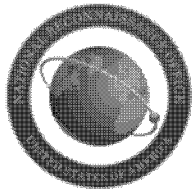
COMMERCIAL IMAGERY STUDY CONTRACTS

- Goals
 - Verify stated performance and gain confidence in future capabilities
 - Enable architecture analysis to validate requirements
- Approach
 - Contractors demonstrate imagery collection
 - Global and regional area
 - Data delivery latency
 - Geolocation
 - User-specific downlink

 - NRO validates assertions via modeling/simulation

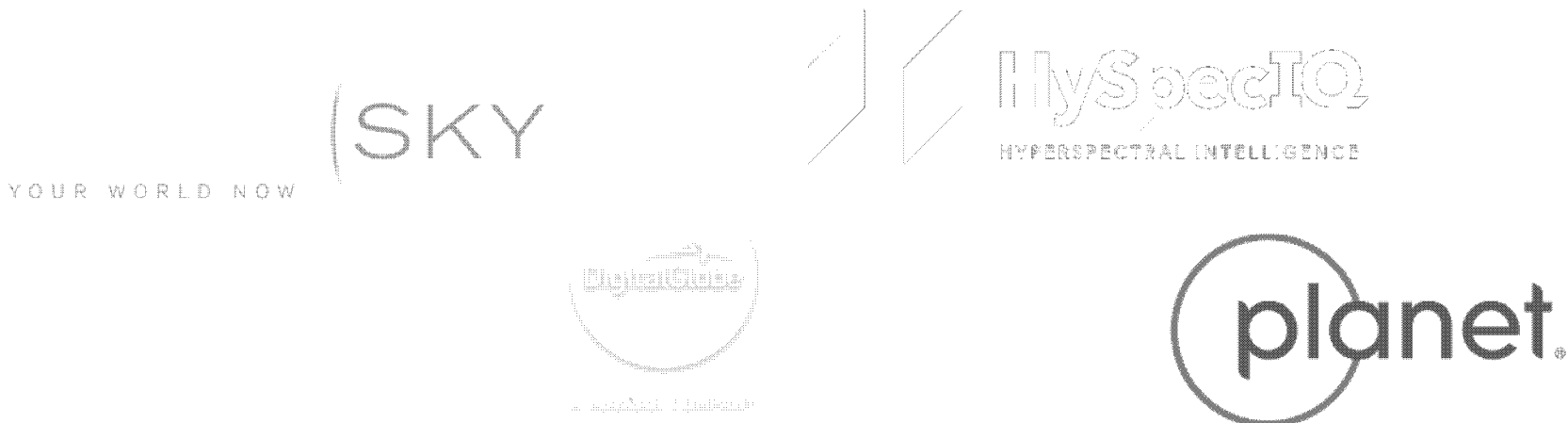
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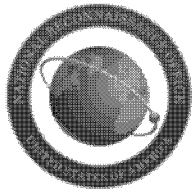
MISSION SUCCESS DEPENDS ON COMMERCIAL PARTNERSHIPS

- ✓ August 2018: Awarded EnhancedView Follow-On contract to Maxar (DigitalGlobe)
- ✓ January 2019: Issued Request for Information for Expanded Commercial Imagery Capabilities
- ✓ May and August 2019: Award of Commercial Imagery Study contracts
- ✓ By End of 2019: Award 1-2 additional study contracts



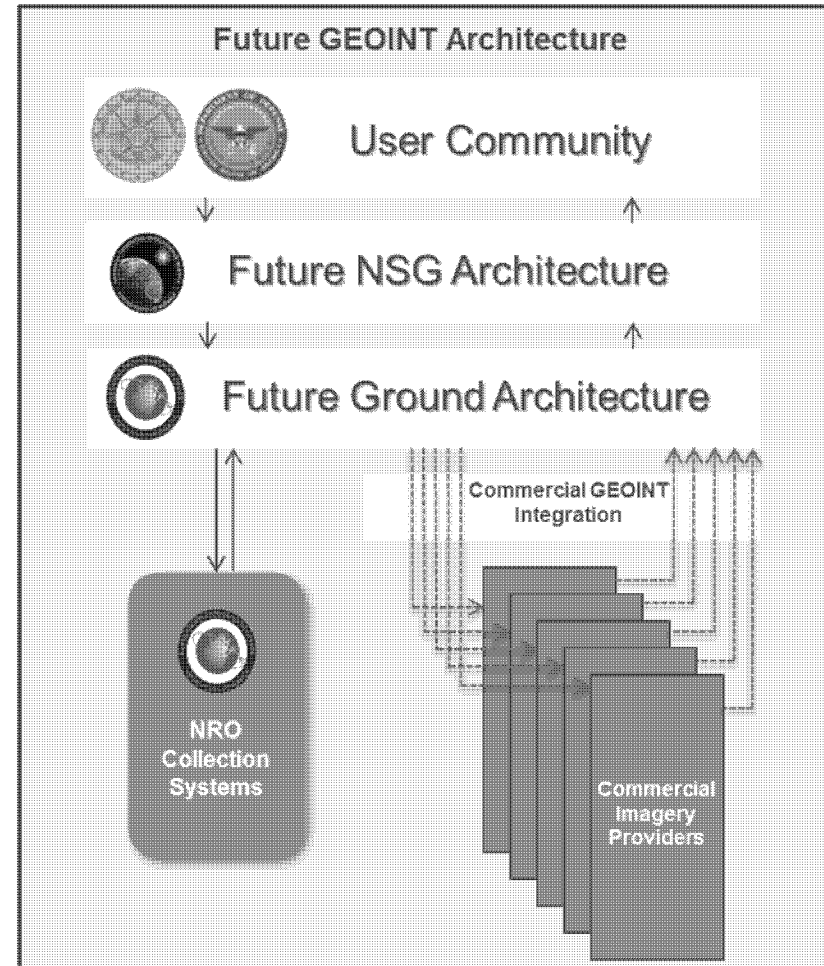
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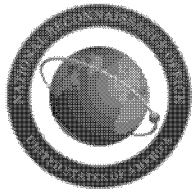
AN INTEGRATED GEOINT ARCHITECTURE

- Enterprise integration of national and commercial GEOINT systems will result in acquisition efficiencies and operational synergies
- Part of operational tasking and dissemination system; moving from stove-piped demos to scalable operations
- Retains shareability of commercial imagery
- Ability to incorporate emerging vendors and diverse phenomenologies



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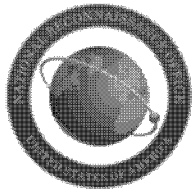
EXTERNAL INTERFACE CONTROL DOCUMENT (EICD)

- Goal: Create a modernized, scalable external data interface specification
 - General interface for agile integration of data sources outside of NRO systems
 - Includes both commercial electro-optical (EO) and non-EO providers

- Scope
 - Governs messaging interfaces between NRO and commercial providers for ordering/tasking, feasibility, status, and catalog data
 - Identifies performance parameters
 - Tailorable specification based on contracted capabilities, including both taskable and non-taskable systems

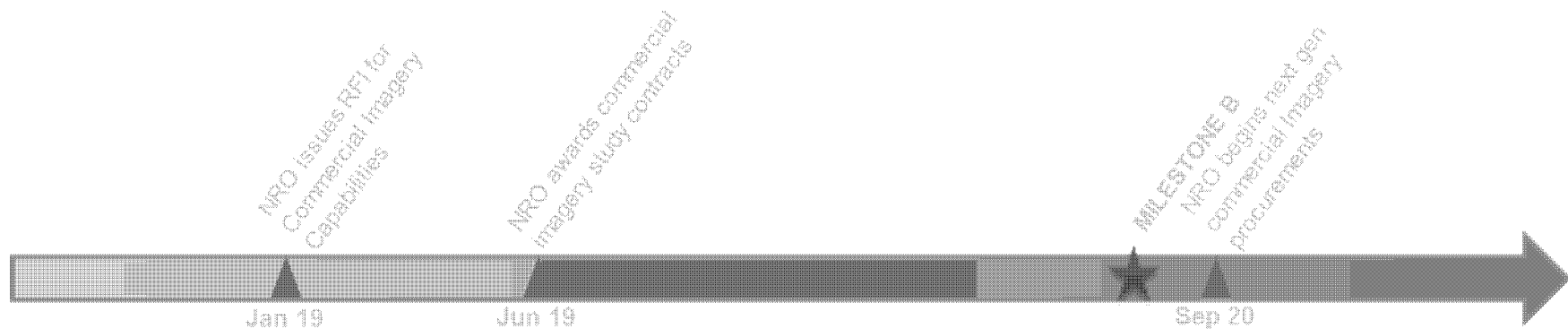
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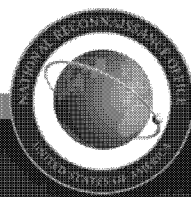
WHAT'S NEXT?

- Studies and market research will inform next phase (2020+) of acquisition
- Landscape includes both
 - Highly competitive space with multiple providers/phenomenologies who complement and supplement each other and national systems
 - Space where a single provider may be best qualified to satisfy requirement (s)
- Unique, flexible contract arrangements, i.e. one size does not fit all
- Continued transparency to signal demand that will help sustain and grow U.S. commercial remote sensing industry



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Supra Et Ultra



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