

Ground System Architectures Workshop

Leaping into New Space:
How to Leverage and Integrate
with Traditional Aerospace

February 26–29, 2024
Renaissance Los Angeles Airport Hotel
Classified Session—February 29, 2024

Working Group A Outbrief**Opportunities and Challenges of
Leveraging “New Space” into
“Traditional” Environments****Donald Sather,
The Aerospace Corporation****February 29, 2024**



Session Goal

- *Understand the types of services that are available from “New Space” and develop ideas of how they can be leveraged and integrated into legacy/traditional space systems and acquisition processes*



Presenters/Panelists

- Gerry Simon, Parsons Corporation
- William Stanton, NASA Goddard



Key Points (1/2)

- Since legacy space is government dominated most recommendations are addressed toward the government
 - *Acquisition/Contracting processes at all spacefaring agencies need to be reviewed for what is “agency tradition” and what is actually required by the FAR and mission*
 - Streamline where possible to better align with commercial vendor practices
 - Examine reviews, CDRLs and DIDs for value and relevance when procuring new space offerings
 - *Where possible unify acquisition and mission assurance processes across agencies*
 - *Consider allowing commercial new space companies to tailor some traditional mission assurance related specs to start a dialog*
 - Offer these tailored specs for future new space efforts
 - *Focus mission requirement formation on what is available in new space vs “clean slate” design*
 - *Focus on **system** capability/reliability vs component*
 - *Look at mission acquisition and contracting from a new space vendor perspective*
 - *Update CAPE cost models to reflect new space realities*
 - CAPE significantly overestimating “should cost” leads to cancellation of cutback of system assets to traditional space numbers

Key Points (2/2)

- *Hold a forum with new space vendors for suggestions on how to become a smarter buyer*
- *Create a database that tracks failures of specific new space products across the USG to help assess product performance*
- *Use of common standards across agencies is vital so commercial industry will respond to them*
 - In order for this to work **all** PMs need to either have horizontal integration become part of their mission or performance assessment or both
- *Government needs to understand value of new space intellectual property and data rights, especially to new startups, and negotiate rights before contract award*
- *Clear articulation of cyber and mission assurance expectations needs to be made at the time of RFP and codified in contracts*
 - DevSecOps environment and cyber schemas need to be defined by RFP
- New space vendors need to “flex” a bit on offerings and practices or they may find a limited legacy customer base

Conclusions

- Traditional space **needs** will not disappear as the Government has specific missions and needs that are not commercially viable
 - *Government needs to identify & develop a long term strategy to ensure niche needs are met long term*
- Government should look to new space for products and services that are commercially viable that meet mission needs
 - *Should consider tailoring “mission needs” to what is commercially available where appropriate*
 - *Partner with commercial new space where appropriate*
- Vendor lock-in is a valid choice for some missions – must be carefully weighed
- For horizontal integration to occur it must be implemented at the program level
 - *Needs to become a mission requirement and/or a performance evaluation criteria – accountability is key!*
- Bridges can be built between legacy and new space but open communication and dialog are required
 - *Government will need to re-examine acquisition/contracting processes to refine them*
 - Understand what is “agency tradition” vs what the FAR actually requires