



Satellite Life Extension and GEO Fleet Management Opportunity

Presented to
**NASA Workshop on
On Orbit Servicing
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Approved for Distribution
ViviSat LLC

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ViviSat is an in-orbit satellite life extension service that provides operators and stakeholders a game-changing leap in financial and operating flexibility, business model options and risk mitigation possibilities.

- **Jointly owned by ATK (ATK: NASDAQ) and U.S. Space for In-orbit satellite servicing**
 - ATK is a heritage space system manufacturer with \$4.8B USD in revenue
 - U.S. Space team brings over 100 years of executive level experience in the management, operations, and financing of commercial and military space systems
- **ViviSat provides in-orbit mission extension and operations protection services that are flexible, scalable and capital efficient to manage fleet assets**
- **This briefing highlights...**
 - The specifications and capabilities of our Mission Extension Vehicle (MEV) with a video that shows how it works
 - Specific examples of how this service will add value to your fleet and customers
 - Case study that illustrates the potential value to your business

Who We are



ViviSat / U.S. Space

Role: Operating Entity

- Mission Management; Marketing, Legal, and Financial Lead

Corporate Background

- Significant access to private financing and venture capital
- Considerable footprint in Government, Press, and Capitol Hill

ViviSat Leadership Team

- Maj Gen (ret) Craig Weston, CEO/CEO U.S. Space – SMC, NRO & PEO experience
- Bryan McGuirk, COO – President Media & Enterprise Svcs. SES Americom, SVP SES World Skies
- Mark Piegza, CFO/CFO U.S. Space – tech, media, telecom investment banking; BofA; UBS
- Dr. Dany Harel, CTO/CTO U.S. Space – SVP and Chief Scientist, SES Americom



ATK

Role: Mission Prime (Spacecraft, Launch and Ground Segments)

Corporate Background

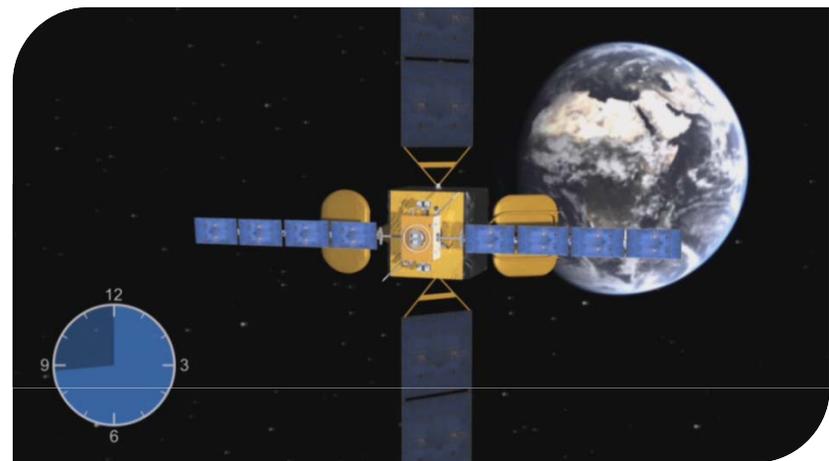
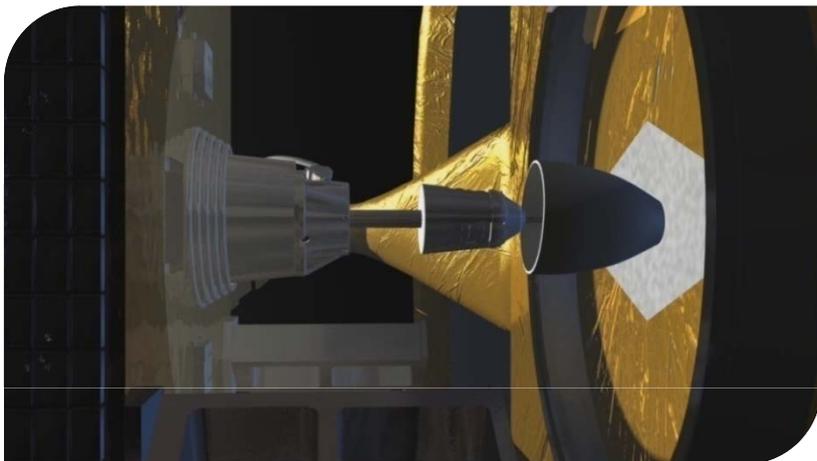
- 18,000 Employees; \$4.8B USD in Revenue
- 30+ years of satellite system experience

ATK Space Leadership Team

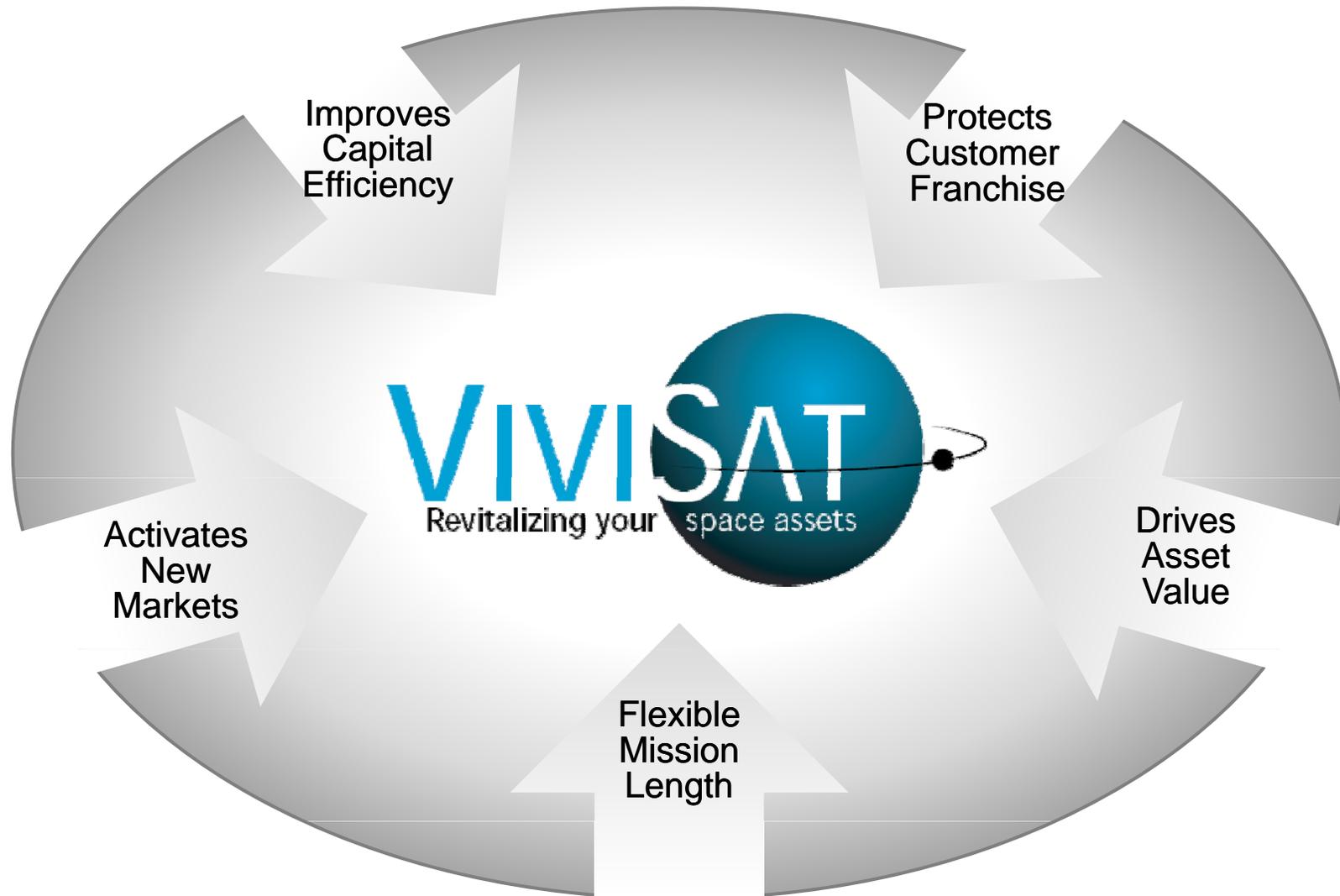
- Tom Wilson – VP & GM of Spacecraft Systems and Services
- Maj Gen (ret) Jim Armor – VP Strategy & Business Development
- Bob Vogt – VP Advanced Systems
- David Kang – VP Business Development



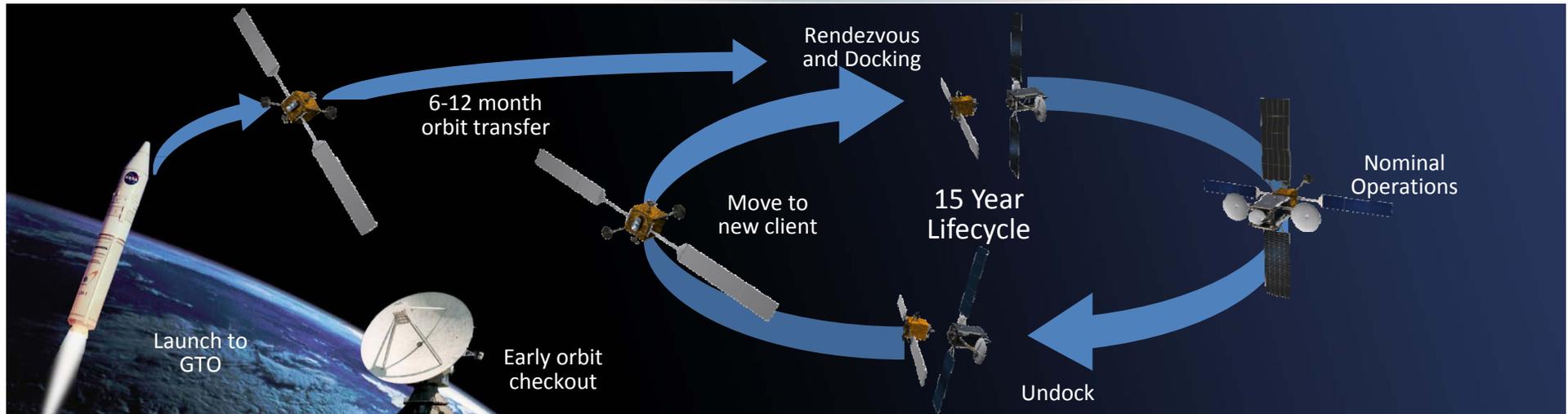
What We do – Satellite Life Extension



Value Proposition



Mission Extension Features



- **Rendezvous and dock without interruption to the client satellite**
 - Compatible with most GEO satellites - Multiple docking capability
- **Fleet Management**
 - **Life extension – Extend the life of satellites by several years**
 - Perform long term station-keeping and attitude control as needed
 - **Relocation**
 - Bringing into Use (BIU): Move client satellite to different orbital slot(s) or to a different orbit
 - De-orbiting – “Graveyard” satellites at the end of the satellite’s life
- **Rescue – Re-orbit satellites stranded in incorrect orbital slots**
- **Mission Assurance**
 - On-orbit “insurance” against launch and early mission failures
 - Protect vulnerable satellite missions with in-orbit backup or ready to launch backup missions

Summary



- ViviSat is jointly owned by ATK and U.S. Space for in-orbit satellite servicing
- In-orbit mission extension and operations protection services offer a flexible, scalable and capital efficient approach to efficiently managing fleet assets in the future
- ViviSat's MEV provides additional operational life for the vast majority of existing satellites
- In multiple ways, this service adds value to the GEO satellite industry
- ViviSat welcomes NASA as a catalyst to help drive the On Orbit Satellite Servicing Industry