Milbank

Space Business Review

Special Edition - Top Ten Space Business Stories of 2019

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#1 - C-Band Repurposing Finds Purpose

C-Band Alliance members Intelsat, SES and Telesat advocate their vision for re-purposing C-band satellite service spectrum for terrestrial mobile broadband applications in support of 5G deployment in the United States as Eutelsat withdraws; the FCC decides ultimately to pursue a public auction, setting the stage for global action.

#2 - LEO Constellations Advance Above and Beyond

Amazon announces plans to develop and deploy Kuiper, a 3,236-satellite broadband constellation; Iridium achieves the 75-satellite mark in deployment of Iridium NEXT; LeoSat shutters after its investors decline further funding; OneWeb raises another \$1.25b in equity funding led by SoftBank, Grupo Salinas, Qualcomm and Rwanda and deploys the first six satellites for its constellation; SpaceX raises an additional \$1.33b in equity and launches 120 Starlink satellites for its planned 4,400-satellite broadband constellation; Telesat closes a \$400m notes offering and receives Canadian government support for its planned broadband system, including a commitment to purchase up to \$600m CAD of capacity over 10 years.

#3 - Launch Services Count Down

ABL Space Systems attracts a strategic investment of undisclosed value from Lockheed Martin Ventures; Blue Origin scores a landmark order from Telesat for multiple launch services for Telesat's LEO broadband system using the New Glenn launch vehicle; Relativity receives launch services orders for its Terran 1 3D-printed launch vehicle, including from Telesat, mu Space, Spaceflight and Momentus; Vector files for Chapter 11 bankruptcy.

#4 - Public and Private Transitions

AsiaSat de-lists from the Hong Kong Stock Exchange; Avanti de-lists from the London Stock Exchange; Inmarsat is privatized (again) through a \$3.4b acquisition by a private equity joint venture equally-owned by funds advised by Apax Partners, funds advised by Warburg Pincus, Canada Pension Plan Investment Board and Ontario Teachers' Pension Plan; Virgin Galactic becomes the first publicly-traded commercial human spaceflight business through its merger with Social Capital Hedosophia, resulting in shares of the company being traded on the New York Stock Exchange.

#5 - Space Insurance Re-set

Loss events strain the space insurance market as losses cancel out accumulated premiums and Swiss Re exits; Maxar's WorldView-4, Intelsat's Intelsat 29e and China Satcom's Zhongxing-18 are declared total losses after on-orbit anomalies and the UAE loses FalconEye 1 in a launch failure.

#6 - Orbital Debris Awareness and Satellite Servicing

Astroscale receives a contract under the Sunrise Project for active debris removal in LEO; SpaceLogistics deploys MEV-1 to provide life-extension services to Intelsat-901 and other GEO satellites; Momentus raises \$25.5m in its Series A round; seven European nations agree to invest \$74.3m in a project to develop a commercial space debris removal service.

#7 - Maxar Reinvention

Maxar unifies DigitalGlobe, SSL and Radiant Solutions under the Maxar brand, closes a \$1b notes offering, concludes the \$291m sale and leaseback of its Palo Alto real estate and announces the sale of MDA to a consortium of financial sponsors led by Northern Private Capital for \$1b CAD.

#8 - New Playbook for IFC

Analysts forecast consolidation among IFC providers as more aircraft are connected and associated revenues are predicted to rise with greater availability spawning increased demand.

#9 - Key Commercial Satellite Orders

Airbus: Inmarsat GX7, GX8 and GX9, MEASAT-3d, SPAINSAT NG I and NG II; Northrop Grumman: Arctic Satellite Broadband Mission system (2 satellites); Maxar: an undisclosed GEO 1300-class communications satellite; Thales Alenia: EUTELSAT 10B, Nilesat-301, SATRIA; Tyvak: two small LEO S-band satellites for EchoStar.

#10 - Key Commercial Launches

Arianespace Ariane 5: EUTELSAT 7C, Intelsat 39, GSAT-31, GX5, SaudiGeoSat 1/Hellas Sat 4, T-16; Arianespace Soyuz: 4 O3b satellites, 6 OneWeb satellites; ILS Proton: EUTELSAT 5 West B, MEV-1; ISRO PSLV: an Astrocast satellite, four Lemur satellites, 20 Dove satellites; Long March 3B: Zhongxing 2D, 6C and 18; Long March 11: 5 Zhuhai-1 satellites; Russian Proton: Yamal-601; Rocket Lab Electron: Global-3, Global-4, Palisade; SpaceX Falcon 9: JCSAT-18/Kacific-1, Nusantara Satu, Amos-17, 10 Iridium NEXT and 120 Starlink satellites; SpaceX Falcon Heavy: Arabsat-6A.

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