

Space Business Review

A monthly round-up of space industry developments for the information of our clients and friends.

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ECHOSTAR PLACES \$1.5B BOND OFFERING

On July 20, **EchoStar Corporation** (EchoStar), through its subsidiary **Hughes Satellite Systems Corporation**, placed an offering of \$1.5b in senior notes. The offering is divided between \$750m aggregate principal amount of 5.25% senior secured notes due 2026 at an issue price of 100% and \$750m aggregate principal amount of 6.625% senior unsecured notes due 2026 at an issue price of 100%. EchoStar plans to use the net proceeds from the offering for capital expenditures, working capital and other general corporate purposes.

AIRBUS, SAFRAN FINALIZE LAUNCHER JV

On June 30, **Airbus Group SE** (Airbus) and **Safran S.A.** (Safran) announced that their 50/50 joint venture, **Airbus Safran Launchers**, is now fully operational, bringing to a close the strategic initiative contemplated under the December 2014 agreement between the companies. The joint venture combines Airbus' launch vehicle manufacturing experience with Safran's expertise in liquid and solid rocket propulsion in an effort to advance further French, German and other European interests in the launch vehicle industry, with a focus on development of the next generation **Ariane 6** launch vehicle, expected to make its first flight in 2020. Airbus Safran Launchers has 8,400 employees in France and Germany and sits atop a corporate structure counting 11 subsidiaries and affiliates, namely APP Aerospace Propulsion Products B.V., Arianespace S.A., Compagnie Industrielle des Lasers CILAS S.A., Eurockot Launch Services GmbH, EuroCryospace, Europropulsion S.A., Nucleudes S.A., PyroAlliance S.A., Regulus, Sodern S.A. and Starsem S.A. In order to obtain its 50% interest in the joint venture, Safran agreed to make an economic equalization contribution of approximately \$836m.

SSG PLANS NANOSAT CONSTELLATION

On July 26, small satellite company **Sky and Space Global (UK) Ltd.** (SSG) announced that it is planning a constellation of 200 nanosatellites that will provide narrowband communications services globally. The constellation's first three 'pilot' satellites are scheduled to launch as a rideshare on an **Indian Space Research Organisation Polar Satellite Launch Vehicle** in the second quarter of 2017; its 'operational' satellites are slated to follow with deployment by **Virgin Galactic, LLC** using the **LauncherOne** launch vehicle beginning in 2018.

PLANET SELECTS ROCKET LAB

On July 12, **Rocket Lab Ltd.** (Rocket Lab) announced that it was selected by **Planet Labs, Inc.** (now known as Planet) to perform at least three dedicated launch services using the **Electron** launch vehicle, with at least 20 satellites expected to launch on each mission. Planet intends to use the Electron launch services, which are scheduled to begin in 2017, to expand and replenish its existing on-orbit fleet of **Dove** satellites. With more than 100 satellites already launched, the Dove constellation is capable of supporting a variety of commercial and humanitarian applications. Rocket Lab unveiled Electron, a two-stage, 16-meter rocket designed to launch small satellites for roughly \$5m, in 2014. Although Electron has not yet flown, the earlier portion of the launch vehicle's manifest is nearing full capacity with this latest procurement by Planet and earlier procurements by **Spire Global, Inc.**, **Moon Express, Inc.** and **NASA**.

APT AGREES TO INVEST IN CHINA HTS JV

On July 23, regional satellite operator **APT Satellite Holdings Limited** (APT) announced that it established a joint venture with **Beijing Shipping**, a unit of the Chinese government's **China Transport Telecommunication Information Center**, Chinese investment firms **Guo Xin** and **Shenzhen Hao Chuang** and Chinese investor **Mr. Pang Lixin** to develop a global mobility broadband satellite network. The new company, called **APT Mobile Satcom Ltd.** (APT Mobile) and capitalized at \$214m, is owned 42.3% by APT, 23.9% by Beijing Shipping, 14.1% by each of Guo Xin and Shenzhen Hao Chuang and 5.6% by Pang Lixin. APT invested \$90m for its share and also agreed to provide an orbital slot at market value. Expected to procure, deploy and operate three high-throughput satellites over Asia, Europe, Africa, the Middle East and Latin America, APT Mobile will focus on serving the aeronautical and maritime markets.

STUDIES FORECAST INDUSTRY GROWTH

Euroconsult expects 20 new countries to begin investing in their first space program by 2025; **Northern Sky Research** projects that the global market for commercial satellite ground equipment will grow to \$11.5b by 2025; and, during the next 10 years, 1,935 remote sensing satellites will be manufactured, according to **Forecast International**, and the manufacturing and launch market value of small satellites will reach \$22b, according to Euroconsult.