

A Report on World Satellite Business Week 2019

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Overview

From September 9 to 13, 2019, the Euroconsult-sponsored World Satellite Business Week (WSBW) was held at The Westin Paris - Vendôme in Paris, France. This event is a comprehensive event for all-round space-related business and consisted of the following symposiums.

- 23rd Summit for Satellite Financing: Mainly

satellite communications-related business (from Sep. 9 to 11)

- 4th SmartPlane: Mainly satellite communications-related business as pertaining to aircraft (Sep. 9)
- 11th Summit on Earth Observation Business: Mainly involving business pertaining to Earth Observation (EO) (from Sep. 12 to 13)

Participants totaled about 1,000 for the three symposiums, with executives from the world's leading communications/EO satellite operators, launch service providers, and satellite manufacturers at the center. About 40 people from Japan participated, including executives from space business-related companies. As a feature of this symposium, there were many participants from investment banks and space-related media, and the number of people newly becoming involved in space-related business has increased.

The symposiums are carried out in the form of basic panel discussions, and there is no technical theorizing in the content—it's strictly business discussion. These are symposiums in which professionals in the realm of space business talk about business only.

In addition, outside the main events, one-on-one meetings can be held, and the event provides a chance for company executives to network in terms of human resources. This event serves as a place where the central players from all over the world in both Old Space and New Space can gather together, providing each business executive a chance to meet and talk with various people all at one place.

Impression & Analysis

(1) The Return of Satellite Communications and Earth Observation as Business Handled by Governments

Until a few years ago, companies involved in both New Space and Old Space said that focus

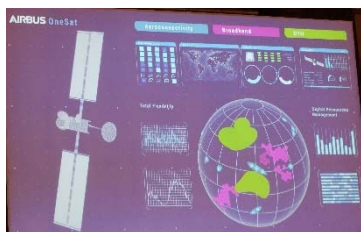
was being placed on commercial services being provided by the private sector instead of by national governments. However, this year, it appears that such a direction has changed. First, one panel consisting of satellite manufacturers from Old Space discussed the fact that orders for commercial geostationary communications satellites, which had been down the last two years, are picking up a little this year, but the future of this situation is not yet completely known. Since nobody knows where the market is headed exactly, most companies are at a loss when deciding how to invest in the future. For this reason, there seems to be the attitude of expecting orders from national governments along with a balance of projects for such governments, including lunar exploration, etc. Even during the panel discussing regarding major launch services, it seems that demand coming from various national governments is increasing.

In addition, the panel discussions involving small EO operators spoke about how those involved in the optical satellite panel and synthetic-aperture radar (SAR) satellite panel can, first of all, expect a market in which sales of data to national governments is possible. In the long term, while aiming for the commercial private market/value-added services market, those on the panel posited that, first of all, would it not be possible to even start a company without first getting a national government interested in buying your data? Although value-

added information services are important for all operators, of course development and external cooperation for such a purpose have been carried out, but such efforts have not yet come to fruition or results have not yet been seen. However, the panel went on to say that, despite this, the companies involved have not stopped providing value-added services, but that, in all honesty, the market involving national governments is absolutely necessary to be involved in for those in current management positions, while aiming for value-added services at the same time.

(2) Responding to Unseen Business Environments

Every year, this event acts as a venue at which each company involved in space-related business can introduce new products. Compared to a large HTS communication satellite that was shown here several years ago, the 702X (a small geostationary communications satellite), announced by Boeing this year, is small enough, at 1.9 tons, to target a niche market. In addition, software-defined satellites such as Boeing's 702X and Airbus Defence and Space's OneSat, etc., which have recently become popular, can naturally respond to changes in requirements after launch, taking into account changes in initial requirements for satellite development and usage after the start of operations. Now



that companies can no longer work with a business model covering the required time, at 15 years, for developing geostationary communications satellites, satellite development has entered an age where agile development is a necessity (such as by using a business model that can result in a completed product via repeated small-scale developments quickly and adaptively), which startups are good at. Thus, developing small geostationary and software-defined satellites is one business domain that large manufacturers can be involved in that can keep them competitive.

(3) Expectations for Japanese Startups Involved in Earth Observation

Every year at the WSBW seat at Euroconsult, we see several companies being commended for making great achievements over the past year. Also, since last year, the FinSpace summit event has been providing an opportunity for startup companies to have their sales pitches reviewed and recognized by expert judges from companies involved in investment in space, such as Space Resources in Luxembourg and Seraphim Capital in the U.K. Two Japanese companies involved in EO were given awards during this event. This marked the first time that multiple Japanese companies have won awards.



First, specifically, Japanese SAR satellite development/operator Synspec received the

"Strategic Transaction for EO Business Award."

The company was credited for its synthetic-aperture radar satellite development/launching by successfully procuring 8.67 billion yen in a Series A round of funding, with a cumulative procurement of 10.9 billion yen in its first 17 months since establishment.

Then, AxelSpace won and was awarded in the FinSpace category for the EO category.



The company has been already launched as a startup, and its plan to launch and operate four satellites (five in total) is highly anticipated.

Traditionally, Japanese space business-related companies have not been well-recognized in the global space business, but due to the efforts of these two companies and the awards won, that has changed. In any case, the space business is a global business. In the future, we would like to expect that Japanese companies will follow the lead of these two companies and become more recognized in the global world of the space business, with, of course, a global track record.

Main Discussions

(1) Satellite Communications

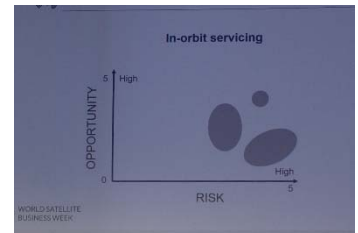
(2) Launch Services

(3) Major Satellite



Manufacturers

Onlookers were able to get an answer from panel members from major satellite manufacturers, such



as Airbus Defence and Space and Boeing, on where each topic of the discussions sit against the backdrop of expectation and risk. It seems that there are perceptions of risk regarding fully flexible and reconfigurable geostationary satellites, but most companies have high expectations for this segment. The topic of small satellite constellations was separated into both expectation levels and risk (mainly business risk), but expectations of risk for NanoSats and CubeSats was divided, and generally the expectation level is low. Opinions regarding on-orbit services were divided, with some companies having high expectations and others the opposite, despite high risk.

Also, with future competitiveness being the last topic of the discussion, mission flexibility in real time was once again rated as having the highest importance, but with low total costs and security improvements also being a focus.

(4) Ground System Services Business

Other Miscellaneous Comments

The author comes to Paris every year to participate in WSBW, but there is an ulterior



motive: Food! In the daytime, WSBW eventgoers can enjoy a full course at the conference for about two hours, while enjoying conversation with those around you, but at night, tasting the cuisine of Paris awaits you.

When in Paris, you must absolutely try the steak tartare, which consists of raw minced beef served with onions, capers, etc. Visitors can sometimes see menus in Parisian bistros and cafés that offer less-than-pleasant phrasing of hand-cutting the meat with a kitchen knife without using a mince machine. However, make no mistake—although the meat is a little uneven, the texture is soothing in such a way that you can feel the satisfaction of coming to Paris and enjoying a classic combination featuring a slightly heavier red wine and fried potatoes.

For those versed in Japanese cuisine, perhaps this dish is similar to a minced version of yuke Korean-style beef sashimi, which I have eaten before in Japan, or perhaps it would be like a raw Japanese-style hamburger steak with no mixture added?

In Japan, raw beef has become banned so as to help prevent cases of food poisoning, but

in France it's still OK—as France is still a traditional beef-cuisine paradise. In France, tartare steak is a popular dish, with thin slices of raw beef carpaccio. It is such a pleasure to embark on overseas business trips, allowing one to try cuisine that you simply can't find in Japan, my home country, or that can no longer found in restaurants there.

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