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SATELLITE Markets & Research

MARKET BRIEFS

Executive summaries of market trends and opportunities in key market segments and regions worldwide

Latin America Highlights

- **According to Euroconsult's latest report issued the total satellite capacity usage increased at an 8% CAGR over 2009-2014, driven by growing requirements for satellite pay-TV (+1,600 channels), VSAT services (+50,000 VSATs), trunking and backhaul. Euroconsult projects total capacity leased to grow at a 10% CAGR over the next decade.**

- **Frost & Sullivan estimates the Latin American Pay TV market to reach US$ 30.91 billion in 2019.**

The Latin American Satellite Market

by Bernardo Schneiderman

Latin America continues to be a hot market for satellite communications. There is a growing market for C-, Ku- and Ka-band services for Broadcast, Internet, Backhaul, Government, Mobile Communications and Oil & Gas applications, among others.

The Economic Commission for Latin America and the Caribbean (ECLAC) has revised downward its economic growth projection for the region in 2015, forecasting a 1.0% increase (Instead of 2.5%) in the regional Gross Domestic Product (GDP), the United Nations organization said last April 2015.

Demand for satellite services in Latin America is being driven by new applications in vertical markets such as oil and gas and maritime, as well as in traditional Pay TV and broadband access. (image: satellitedirect.tv)

This revision reflects a global environment characterized by less economic dynamism than what was expected at the end of 2014. With the exception of the United States, industrialized countries have revised their growth estimates downward, and emerging economies continue to decelerate. The region is expected to keep economic growth at around the same level as in 2014 (1.1% according to the ECLAC's annual report. In the sub regions, ECLAC forecasts growth of nearly zero for South America, while Central America and Mexico should reach 3.2% and the Caribbean 1.9%.

The countries that will lead the region's expansion in 2015 will be Panama, with a 6.0% increase in its GDP, Antigua and Barbuda (5.4%), and Bolivia, Nicaragua and the Dominican Republic (5.0%) Beside the economics reports the latest Anatel (Brazil's regulatory board) satellite orbit slot auction last May came out with strong results: Telesat, Hispasat and UAE-based satellite operator YahSat were the winning bidders at the auction of satellite orbital slots. Brazil orbital slot auctions during the last two decades have historically been very positive. In 2014, Hispasat, SES and Eutelsat were the winner of the satellite orbit slots.

Telesat, which lost a year ago won two licenses (one Ka-Band and the other multiband), both at 63 degrees west.

YahSat, which lost last year's auction, won Ka-band rights at 20 degrees west longitude to serve Africa and Latin America. Hispasat's Brazil-based subsidiary Hispamar, won rights for Ka-band transmissions at 74 degrees west longitude in Ku-band.

The Anatel auction resulted in 183.7 million Brazilian reals equivalent of US$ 63.6 million, which was nearly 70% more than the minimum bidding floor set for each slot this year. Telesat paid about 90 million reals for its two licenses. YahSat, (represented by subsidiary Star Satellite Communications) paid 44.1 million reals. Hispamar paid 50.3 million reals for its slot. All satellites licenses are for 15 years, renewable for a second 15-year period. Each company will have four years to build and start operating the satellite with the risk of forfeiting the auction payment if it decides not to proceed.

According to Euroconsult's latest report issued April 2015 entitled Satellite Communications & Broadcasting in Latin America, the total satellite capacity usage increased at an 8% CAGR over 2009-2014, driven by growing requirements for satellite pay-TV (+1,600 channels), VSAT services (+50,000 VSATs), trunking and backhaul. Euroconsult projects total capacity leased to grow at a 10% CAGR over the next decade, translating to a total of over 330 Gbps of traffic flowing over satellite by 2024.

Anticipating strong growth in demand, operators have invested heavily in expansion satellites which will result in total regular capacity supply in Latin America to double by 2017 (from 2010 levels), while HTS capacity will increase eight-fold to over 370 Gbps by 2017.

"As supply additions are projected to outpace growth in demand, the average regular capacity fill rate should decrease from 80% in 2014 to 70% in 2017," said Nathan de Ruiter, Senior Consultant at Euroconsult and editor of the report. "The trend of falling fill rates is most profound in Ku-band, where utilization levels are dropping from 86% in 2010 to an expected 64% by 2017, causing serious concerns for oversupply." The risk of a temporary situation of oversupply is anticipated to place strong downward pressure on Ku-band capacity prices in the next three years.

Several fundamentals are supporting a strong increase in the future use of satellite communication services in Latin America:

The rising number of TV channels distributed over satellite with leading satellite pay-TV operators in the region diversifying into new geographic markets and the emergence of new platforms

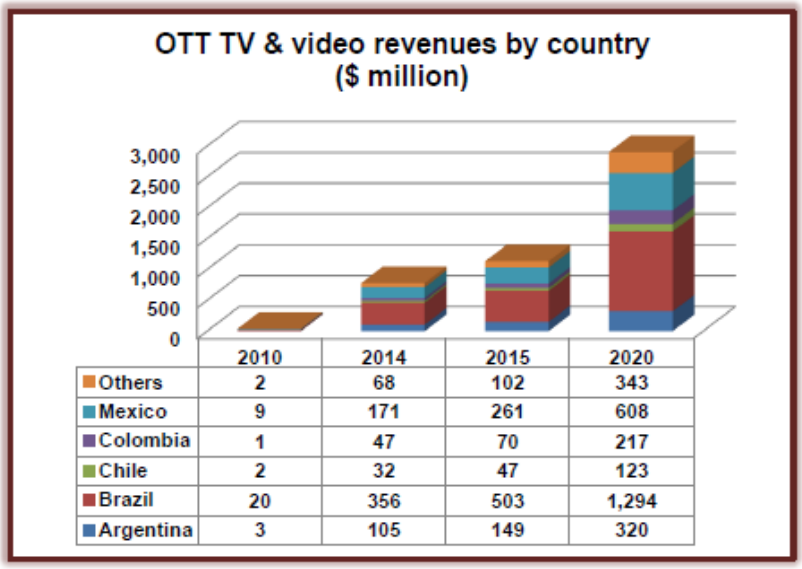
Latin America should maintain its leading role in Universal Service Offerings (USO) programs that include satellite connectivity solutions for rural regions.

The availability of HTS capacity and roll-out of cost-effective services should drive consumer broadband in populated countries such as Brazil in addition of Oil & gas, mining and corporate networks segments.

Mobile penetration keeps increasing along with the expansion of 3G and potentially 4G/LTE networks, which will create new market opportunities for cellular backhaul over satellite

Although demand is relatively equally distributed across the three sub-regions (Central America, Mexico, Caribbean; Brazil; Rest of South America), the two largest countries, Mexico and Brazil, are projected to represent more than half of total capacity demand by 2024. In the short to medium term, market growth will be hampered by the economic slowdown that should limit the progress of the middle class and may potentially cause instability or delays to government programs and funding. Furthermore, the analog switch-off process will somewhat temper the capacity additions from 2018 until 2022.

The major satellite operators that have established operations in Latin America include SES, Intelsat, Eultelsat, Telesat, Hispasat and Star One, among



	2010	2014	2015	2020
Others	2	68	102	343
Mexico	9	171	261	608
Colombia	1	47	70	217
Chile	2	32	47	123
Brazil	20	356	503	1,294
Argentina	3	105	149	320

Source: Digital TV Research

OTT TV and video revenues in Latin America will reach US$ 2.91 billion in 2020; up from only US$ 37 million in 2010 and the US$ 1.13 billion expected in 2015, according to a new report from Digital TV Research.

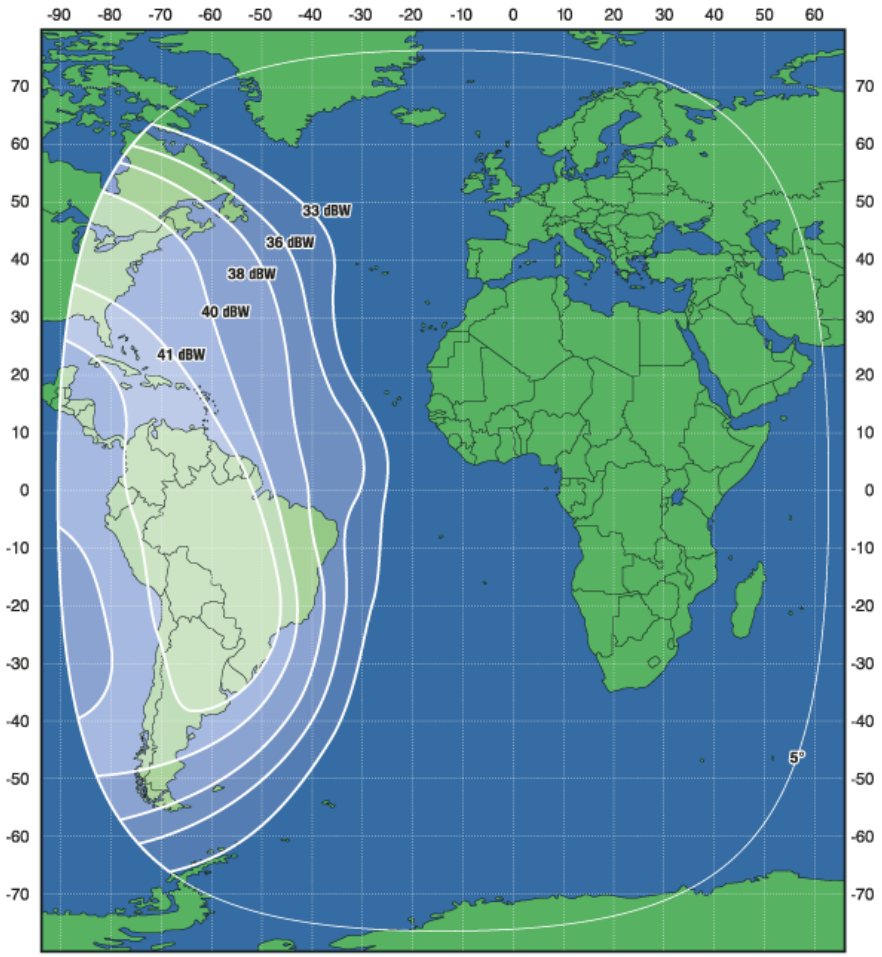
others. The Andean Community is providing a slot to SES. Eutelsat acquired Satmex of Mexico in 2014, renamed it Eutelsat Americas and is planning a rapid expansion of capacity in the region. Additionally Brazil now with Visiona (joint venture Telebras and Embraer) is building a new satellite for the Government and Defense that include X- and Ka-band payloads.

Bolivia contracted the manufacture of a satellite and launch service from China for a national telecommunications satellite program. Argentina just launched Arsat 1 last October 2014.

Hispasat, now more than ever, is determined to maintain its position in Latin America. It was the first to introduce a large Ka-band offering into the region with Amazonas 3. Hughes and EchoStar have access to a Brazilian orbital slot but have not yet begun construction of a new satellite for the slot because of a lack of partners for a direct-to-home satellite television business.

Another key development in the Latin American market was the announcement in the middle of 2014 by Hispasat and Intelsat of a cooperation agreement which will allow both companies to enhance their position in Latin America.

Hispasat and Intelsat have agreed to share the future use of the Brazilian-focused Ku-band capacity on Intelsat 34, which is scheduled to be launched in the second half of 2015, providing continuity of service and growth at the 55.5 degrees west orbital location. Since June 2014 Hispasat's Amazonas 1 satellite has been co-located with Intelsat's Galaxy 11 satellite, increasing resiliency and expanding resources available to the quickly growing direct-to-home television community that is hosted at that orbital location, including Brazilian pay TV operator GVT (Now own by Telefonica). Over the longer-term, Hispasat has procured capacity on the Galaxy 11 follow-on satellite, Intelsat 34, which is expected to launch during the second half of 2015. Hispasat and Intelsat will cooperate at 55.5 degrees west, continuing to build the momentum at this important Latin American video neighborhood. "Our collaboration with Hispasat, which we initiated earlier 2014, has been instrumental to building the momentum for media applications at this orbital location," said Intelsat President and CCO Stephen Spengler. "Their presence at this orbital location through Amazonas 1 today and on Intelsat 34 in the future, has enhanced both of our positions in the region."



The Russian Satellite Communications Company (RSCC) will be launching its Express-AM8 in the third quarter 2015 in the 14^{0}W orbital position. The high-powered satellite will provide much needed C– and Ku-Band capacity for the Latin American market. Pictured here is the footprint of its C-Band transponders. (image: RSCC)

In October 2014, Intelsat launched its Intelsat 30 satellite at the 95^{0}W aimed at expanding services in Latin America where the company already dedicates a quarter of its fleet. In 2013, 16 percent of the company's revenues came from this region. But now with Intelsat 30 and the next three spacecraft coming online: Intelsat 31, Intelsat 34 and the first satellite in the Intelsat EPIC EpicNG system, Intelsat 29e, the company is looking to focus in high growth segments that include media, cellular backhaul and mobility applications.

Governments in Mexico, Brazil and Argentina are implementing new satellite systems, mainly for government and defense and for programs bridging the digital divide. Venezuela and Bolivia has its own government telecommunications satellite. Colombia and the Andean group of nations are in various stages of development of their own systems.

The growing market for satellite

services in Latin America is attracting more new players in the region. One of them is the Russian Satellite Communications Company (RSCC) which is planning to launch its Express-AM8 satellite in the third quarter of 2015 which will have C-and Ku-Band capacity for the region. Andrey Kirillovich, Director of Projects and Integration of RSCC said that their new satellites that will be expanding to emerging regions such as Latin America will be optimized for applications with high demand such as cellular backhaul, comms on the move, TV distribution and contribution and corporate VSATs networks, among others.

The Pay TV Market

One of the key drivers for demand for satellite services in Latin America is the growing Pay TV market. The Latin American Pay TV services market is expected to continue its growth trajectory due to the rise in postpaid subscriptions for direct-to-home (DTH) TV. The demand for value-added services such as high-definition (HD) and video on demand (VOD) is further spurring market development. Innovative commercialization models including prepaid plans and multiple-play bundles add to market revenues.

New analysis from Frost & Sullivan, *Latin America Pay TV Services Market,* finds that the market earned revenues of US$ 20.43 billion in 2013 and estimates this to reach US$ 30.91 billion in 2019. The number of subscribers in the region will touch 86.1 million by 2019 from 55.9 million in 2013, hitting a household penetration rate of 57.9 percent. The study covers cable TV, DTH, multichannel multipoint distribution service and Internet protocol TV (IPTV).

"As customers increasingly expect higher video quality and content diversity, Latin American operators are expanding the line-up of HD channels at affordable prices," said Frost & Sullivan Information and Communication Technologies Industry Manager Renato Pasquini. "While some companies have already packed their portfolios with HD channels, others are speeding up the transition from standard-definition to HD to boost incremental revenues per user," he added.

"...One of the key drivers for demand for satellite services in Latin America is the growing Pay TV market. The Latin American pay TV services market is expected to continue its growth trajectory due to the rise in post-paid subscriptions for direct-to-home (DTH) TV..."

Operators are looking to combine voice, data, video and mobile services in bundles to lower service costs for their customers. However, the heavy taxes levied on pay TV services, especially in Brazil, and the low returns on network deployments in remote areas and small cities challenge operators' ability to offer convergent services.

The next era of pay TV will, therefore, coincide with the introduction of new network architectures that place content close to the user. As a result, video on demand (VOD) is likely to become one of the main modalities for consuming video, enabling a look and feel closer to Internet-delivered services than traditional content delivery. Hence, the over-the-top (OTT) segment, though currently not a threat, may eat into the market share of pay TV services depending on the quality of broadband offerings and attractiveness of content.

"In a bid to combat this, IPTV and a considerable number of cable TV providers will include VOD services on their set-top box by 2019," noted Pasquini. "The ensuing competition among cable TV, DTH and IPTV operators, especially in Brazil, Chile, Colombia and Mexico will improve the availability and quality of services, add value to service offerings, and enhance price points."

As sophisticated delivery models gain ground, broadening the geographic footprint of Pay TV services will take the Latin American market to the next level of competitiveness.

With Latin America's Pay-TV sector rapidly growing in both large and small countries of the region, the subscriber base of the seven largest markets will near 90 million over the next four years.

According to Dataxis' latest report, by 2018 pay-TV penetration in the region will be almost 60%, 4.6 times more than eight years ago.

Brazil, Mexico and Peru are set to see the greatest growth rates due to their relatively low rates of development. Argentina, Brazil, Mexico and Colombia will be the four largest pay-TV markets by number of subscribers, accounting for 85.1% of total subscribers in the region in 2018.

Dataxis forecasts that more than nine out of ten Pay-TV subscribers will be paying for a digital service by 2018, with direct-to-home (DTH) claiming 58.4% of total pay-TV subscribers. Digital cable will rank second with almost 30% of the total, while IPTV will account for just over 6%.

Dataxis research also shows that during the past five years a high concentration of business was registered by the ten largest pay-TV groups in the region, with America Movil and DirecTV being the two groups with the greatest growth rate in the period. By the end of 2014, pay-TV revenues in the seven countries covered will reach $21.45 billion, while by 2018 revenues are expected to top $25.1 billion. The latest Dataxis research shows that Latin America reached the 66.08 million Pay TV subscribers by the end of the third quarter of 2014. Thus, the region increased its user base by 1.2% in the quarter.

Brazil is the main country in Latin America with 19.4 million Pay TV subs and Mexico is placed second by exceeding the 16 million. The seven most

important markets of the region (the two previously mentioned plus Argentina, Colombia, Peru, Chile and Venezuela) represent more than 87% of the total number of subscribers.

The leading access technology in Latin America is Satellite TV with 32.6 million customers, while Cable TV is close with 31.6 million. Meanwhile, IPTV users already add up to 895,000, since its base increased by 9.2% during the third quarter.

HD TV

The number of HD channels in Latin America has seen constant growth over the past three years boosting the total number of HD subscribers across the region to 12.1 million as of Q2 2013.

A new report published by Dataxis reveals that the seven largest markets in the region – Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela – together counted 11.06 million HD subscribers as of Q2 2013, representing 91.6% of the region's total.

The report, "Evolution of HD Channel Offerings in Latin America", shows that Brazil accounted for 60.2% of total HD customers, followed by Mexico, Argentina, Chile, Colombia, Peru and Venezuela.

Furthermore, research by Dataxis identifies 164 HD channels with programming actively reaching viewers, as of October 2013. Of the total, 124 channels were distributed exclusively via pay-TV networks, while the remaining 40 were domestic FTA HD channels also available on pay-TV HD packages.

"Evolution of HD Channel Offerings in Latin America" also shows there were 60 pay-TV operators with an HD offer as of October, 2013, led by Brazil (with 15 HD operators); Argentina (with 12), Mexico (10), Chile (10), Venezuela (5), Colombia (4) and Peru (4).

Dataxis reports that Mexico has the highest average of available HD channels, followed by Brazil, Colombia, Argentina, Peru, Chile and Venezuela. Brazilian media group, TV Globo, produces the highest number of HD channels, followed by Time Warner, News Corp and DirecTV.

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Brazil

The largest satellite market in Latin America is Brazil where local and international operators provide capacity for all key segments. Among the local domestic license operators include Star One, Telesat do Brasil, Hispamar (a subsidiary of Hispasat) Eutelsat and forthcoming is Visiona entering the market in 2016.

During a Satellite conference in Brazil last September Mr. Eduardo Bonini CEO of Visiona informed that the first Geostationary Satellite Defense and Strategic Communications (SGDC) should be launched by Visiona, a joint venture between Embraer and Telebras, in 2016. Bonini, said that they have already started planning the launch of the second satellite, initially planned for 2019 "The second SGDC, in my view, should already begin to be planned and launched before 2019, because that is already showing first saturated capacity and will be released in 2016, "he said.

Another major satellite operator in Brazil is Hispamar, a subsidiary of Spain-based Hispasat Group, which plans to launch in two years, a satellite with capacity for Ku band and Ka band at 61˚ West orbital position. This orbital slot was chosen by the company to operate in the Ku-band BSS after winning the auction conducted by the Brazilian regulatory agency Anatel in July 2014. The satellite will be called Amazonas 5, which will complement the existing coverage of its Amazonas 3 satellite.

Hispamar also plans shortly to begin operating in Brazil another large satellite located in the 30˚ West orbital slot, and will expand Ku-band coverage. The satellite operator suffered a setback last July, with the information that the newly launched Amazon 4A (located at 61˚ West) will likely have affected his capacity as a result of an electrical fault, which will not affect the life of the satellite, but will require a decrease in the number of active transponders.

According to a Hispasat executive, the choice of Oi buy satellite capacity of SES to expand its DTH service has not affected relations between the companies. Oi is a minority shareholder (19%) of Hispamar side of the Hispasat, and Amazonas 3 now uses the satellite on its pay TV service through Media Networks. Elena Pisonero, CEO of Hispasat explains that Oi is currently the largest customer of Hispasat in Brazil and the operator will defend this position.

According to data presented by the counselor at the Latin American Congress Satellite, Brazilian satellites in 2011 amounted to a total of 196 equivalent transponders 36 MHz C-band, Ku-band 180 Ku-band and 200 Ka-band. "After the bids for 2011 and 2014, we will be in operation in 2019, 254 transponders in C-band, 354 Ku-band and 805 Ka-band, plus other 1394 Ka-band transponders of the Geostationary Satellite Defense and Strategic Communications (SGDC)," says the counselor for Anatel.

The Anatel counselor also notes that many operators have chosen to put more than one satellite at the same orbital position way to expand their coverage using a satellite rights already acquired and this may further increase the availability of satellite transponders in Brazilian market positions.

Eutelsat do Brasil announced during last year that they have concluded a 15-year contract with Hughes Network Systems do Brasil (Hughes), an EchoStar company, for the entire Ka-band capacity connected to the Brazil-

ian service area on the EUTELSAT 65^0 West.

Mexico

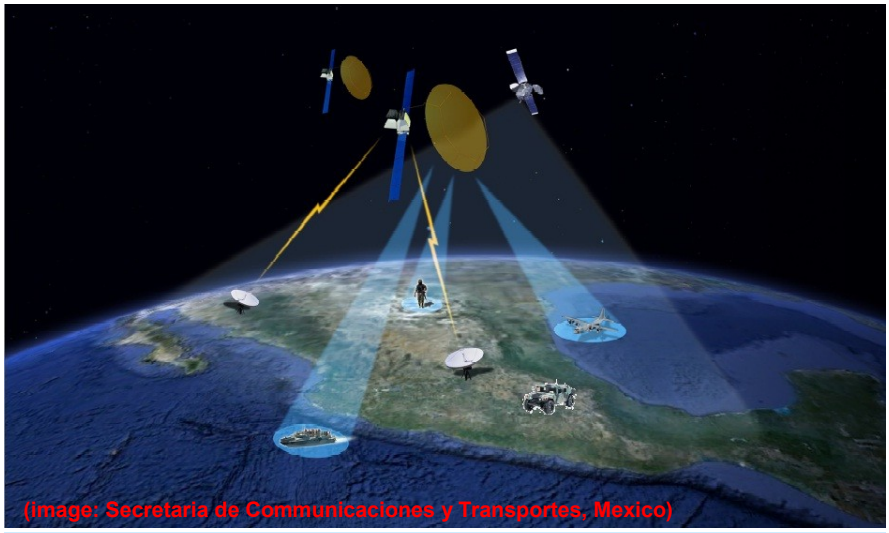
Mexico has two domestic satellite operators: Eutelsat Americas (former Satmex) and Mexsat (Part of the Government Program for Defense Security and Digital Divide program)

In anuary 2014 Eutelsat Communications announced closure of the transaction to acquire 100% of the share capital of Satélites Mexicanos, S.A. de C.V. (Satmex) having obtained all required government and regulatory approvals. The acquisition was closed with the value US$ 831 million and included Satmex three satellites at contiguous positions, 113° West (Satmex 6), 114.9° West (Satmex 5) and 116.8° West (Satmex 8) that cover 90% of the population of the Americas.

Additionally SATMEX 7 and SATMEX 9 are being built on a Boeing 702SP satellite bus, and the contract for launch will be on SpaceX Falcon 9 launch vehicle for paired launches with ABS 3A and ABS 2A in 2014 and 2015 respectively.

As a result of the acquisition, Satmex has been renamed Eutelsat Americas. Eutelsat Americas is aligning the names of current and future satellites to reflect Eutelsat's strategy of operating under a single brand. From May 2014, each satellite will follow the Eutelsat pattern of a number reflecting its orbital position and a letter indicating its order of arrival at that position. This logic will enable Eutelsat America's community of users to identify where a satellite is located in geostationary orbit and its chronology at the orbital position where it is located.

MEXSAT the Government satellite program will consist of three satellites, two ground sites, associated network operations systems and reference user terminals. MEXSAT will provide secure communications for Mexico's national security needs, as well as enhanced coverage for the country's civil telecommunications. Under the contract of US$ 1 Billion Boeing will deliver a complete turnkey satellite system comprised of Boeing 702HP geomobile satellites MEXSAT-1 and MEXSAT-2 and one extended C- and Ku-band satellite, MEXSAT-3, which will provide fixed satellite services from geosynchronous orbit is already in operations. Each Boeing 702HP satellite will supply 14 kilowatts of power through five-panel solar array wings that use high-efficiency, ultra triple-junction gallium arsenide solar cells. Both satellites will carry a 22-meter L-band reflector for mobile satellite services, complemented by a 2-meter Ku-band antenna.



The three-satellite MEXSAT constellation suffered a setback with the failed launched of MEXSAT-1 last May. However, the Mexican government has downplayed the impact of the failed launched with the upcoming launch in October of Morelos 3.

Boeing also is developing two ground sites in Mexico with advanced beam-forming flexibility to direct mobile user spot beams to government agencies operating in Mexico and its patrimonial seas, including the Pacific Ocean and Gulf of Mexico.

MEXSAT 1 was lost in a failure of the third stage of the Proton-M launch vehicle during May 2015. The Ministry of Communications and Transport (SCT) reported that both the satellite and the launch process were insured by the British firm Marsh Ltd. The policy is full coverage and in dollars, for 100% of manufacturing costs (US$ 300 million) and the launch (US$ 90 million).

As for services, the government said the portfolio will not be affected, since the Morelos 3 is scheduled to be launched next October 22 by Lockheed Martin, from Cape Canaveral, Florida, United States. "The Morelos 3 will give us both the complete service required by the Government, the SCT and other user agencies such as emergency services and connectivity in areas of difficult access," said Gerardo Ruiz Esparza, head of the SCT in press conference after the failure of the Centenario satellite.

Argentina

In October 2014, Argentina launched its domestic satellite Arsat 1 at the Kourou Space Cetner in French Guyana. The 6,576-pound Arsat 1 satellite launched is the first large communications satellite built in Argentina.

"After seven years working on the project over many hours of arduous teamwork, the first Argentine telecommunications satellite is in space," said Matias Bianchi, head of Arsat, Argentina's national telecom company and operator of Arsat 1.

Reportedly costing about US$ 250 million, the Arsat 1 satellite carries 24 Ku-band transponders to relay television broadcasts, data, voice links and Internet access across Argentina, Chile, Paraguay, Uruguay and parts of Brazil

and Bolivia, according to Arsat.

Argentina set up the Arsat company in 2006 to fulfill rights to orbital slots assigned by the International Telecommunication Union. Without new spacecraft to use orbital positions allocated by the ITU, Argentina was at risk of forfeiting rights to operate its own communications satellites.

Set to last 15 years, the spacecraft was built in Patagonia by INVAP, an Argentine high-tech contractor. INVAP is working on two more Arsat satellites, with the next one set for launch in 2015. "Arsat 1 is a legacy for us and for future generations in Argentina," Bianchi said. "It's not the end of a project but rather the beginning of a long story.

AR-SAT is a government-owned corporation which started operating in July 2006, AR-SAT has exclusive rights to operate and commercialize geostationary orbital position 81 degree West in Ku-band (North & South America) and C band (Hemispheric coverage). AR -SAT holds rights over the engineering and development of national satellites to be manufactured within the scope of the Communications' Argentine Geostationary Satellite Project, as started back in December 2007 upon the signature of a contract with an Argentine corporation named INVAP.

The national government transferred NAHUELSAT operational assets to AR-SAT. ARSAT 1 satellite development, production and integration was done in Argentina. AR-SAT has scheduled the launch of at least three geostationary satellites in geostationary positions 81 and 72 West starting with the ARSAT 1 launch in 2014**.** AR-SAT will upgrade and expand Benavidez Satellite Control Station.

Bolivia

Bolivia's first satellite was launched at the end of 2013. The satellite named Tupac Katari own by the Bolivian Government was launched on a Long March 3B rocket from the Xichang space center in southern China's Sichuan province. "Never again will we be incommunicado, as before when we were ... in the dark," said Bolivian President Evo Morales, who witnessed the launch at Xichang. Morales was the first foreign head of state to view a satellite launch from China.

The Tupac Katari satellite is based on the DFH-4 spacecraft bus developed by China Aerospace Science and Technology Corp. It is designed for a 15-year service life.

China and Bolivia signed an agreement for the construction and launch of Tupac Katari in December 2010. According to a press release issued by the office of President Morales, the project cost $302 million and was jointly financed by the Bolivian government and the China Development Bank.

ABE – Bolivian Space Agency is in charge of the Project and the target is to provide telecommunications services 3.3 million Bolivians living in rural areas without access. The satellite has 30 transponders, 4 just for television transmission (broadcast) and 26 for transmission and reception. ABE project was planned to eliminate the state of exclusion and disadvantage of Bolivians living in rural areas in relation to ICTs (Digital Divide), develop the country's infrastructure, and allow the benefits of ICT for the economy. Allow the improvement of the services provided by the state to the rural population (tele-education and tele-health).

With the Satellite the government is planning to establish a high-tech industry in the country, which will become a new generator of quality jobs for qualified personnel and will contribute to the growth of complementary measures such as the development of software industry, the installation of telecommunications terminals, telemedicine and tele-education in rural areas.

Venezuela

Venezuela has just signed an agreement in October 2014 with China Great Wall Industry Corporation ICGWIC) to build and deliver into orbit the country's third satellite, all with the help of Chinese technology.

The satellite will be named after the independence hero *Antonio Jose de Sucre*, although neither the Venezuelans nor the Chinese offered any details of regarding the satellite's cost or specific timeframe for the project. The agreement, which was inked at the presence of Venezuelan President Nicolas Maduro, was signed between the Venezuelan government and CGWIC, China's sole commercial satellite launch service provider. In addition, China will expand satellite technology transfer to Venezuela, Chinese President Xi Jinping said during his visit to Venezuela in July 2014.

Conclusion

The continued growth in demand for satellite services in the Latin American market has fueled intensifying competition among the satellite operators in the region. The operators that have already a presence in the region are embarking on expanding their fleet in the next few years. While individual countries are embarking on national satellite programs. The opportunities in the region have great potential—attracting new players and increasing competition.

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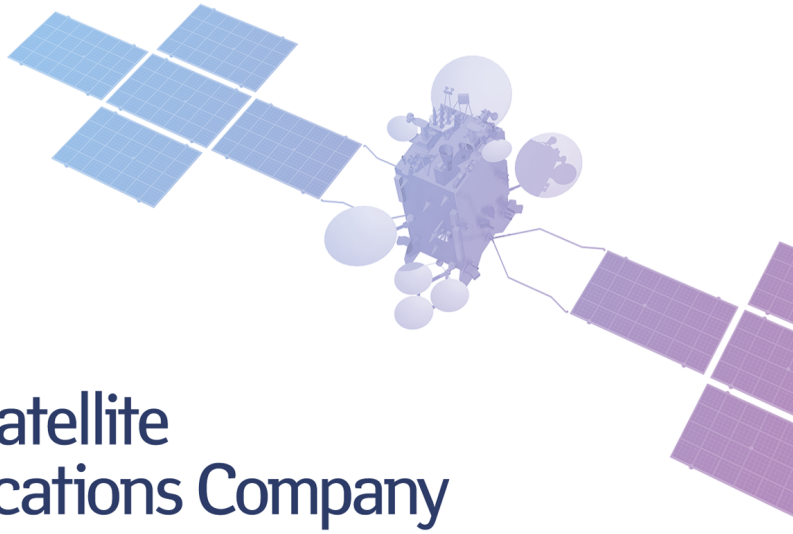

Russian Satellite Communications Company

Satellite Solutions for Latin America

Express-AM8 (14W) is to be launched in 2015

www.rscc.ru