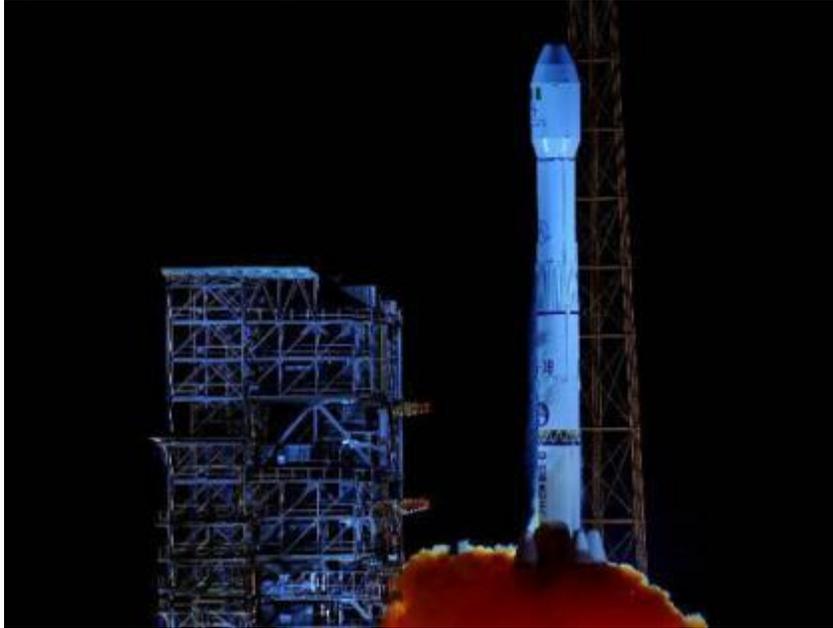


Chinese Hardware, Financing Changing Satcom Landscape

By [Peter B. de Selding](#) | Jan. 18, 2013



A Chinese Long March rocket lofting Nigeria's Nigcomsat 1R telecommunications satellite.
Credit: Xinhua photo

PARIS — More than three dozen developing nations have purchased telecommunications satellites in recent years or have begun early design work with a view to doing so, a development that carries the risk of destabilizing the global market for satellite bandwidth, according to industry officials.

Of these new entrants, nearly half have secured financing from China in return for using China's Long March rocket and the Chinese DFH-4 satellite platform.

China's initial entry into the commercial telecommunications market was characterized by barter arrangements with developing nations rich in natural resources coveted by China, with a satellite built and delivered in orbit in exchange for raw materials.

But the more recent deals suggest that China's in-orbit delivery offer, coupled with the increased involvement of the Export-Import Bank of China, is appealing to a wider group of nations.

The China Great Wall Industry Corp. of Beijing has promoted delivery-in-orbit arrangements out of necessity. U.S. technology export regulations for the past decade have made it impossible for

most U.S.-built satellite components to be exported to China, even if the U.S. hardware in question is embedded in a fully assembled satellite that will enter Chinese territory only in preparation for a launch.

U.S. and European launch service providers have long eyed China's Long March rocket warily, saying that they cannot compete with the Long March rocket on price, given the cost of Chinese labor. Satellite manufacturers more recently have occasionally pointed to a contract here and there that may have been available to them but for the combination of the Long March rocket and the DFH-4 bus.

China's rocket has won the endorsement of global insurance underwriters in the form of low insurance premiums. The DFH-4 platform had problems in its first contracts, but in the past couple of years appears to have overcome the initial glitches that caused in-orbit failures.

Now it is the turn of the world's commercial satellite fleet operators to feel the Chinese pinch, if only indirectly, through the bandwidth placed in orbit with coverage of the emerging markets that is the focus of the major operators including SES of Luxembourg, Eutelsat of Paris and Intelsat of Washington and Luxembourg.

SES Chief Executive Romain Bausch, in remarks here Jan. 15 to a space policy conference organized by Euroconsult, said the once-hot satellite bandwidth-lease market in Africa is already feeling the effects of inexpensive satellites being placed over the region and the downward pressure on transponder-lease prices.

A similar overcapacity could strike Latin America, which in the past couple of years has been perhaps the world's fastest-growing market for satellite bandwidth despite the slowdown in growth of the Brazilian economy. If the developing nations now weighing satellite telecommunications projects decide to move forward, Bausch said, the pressure on prices will extend to the Asia-Pacific.

"These nations don't pay in cash but in raw materials, so in fact the satellite has no cost," Bausch said, noting some of the early satellite projects with the Chinese in Venezuela and Nigeria. "These new operators will not have the same notion of competitiveness" as a company managed by shareholders insisting on profit.

The most recent confirmed Chinese in-orbit delivery agreement is with the government of Belarus, which in December signed a \$280.8 million loan agreement with the Export-Import Bank of China.

SES has 52 satellites in orbit, with six more under construction. Four of these are scheduled for launch in 2013. The company has refocused its effort in the past several years on the emerging markets, and Bausch said 90 percent of SES's new capacity — meaning the capacity that is not designed just to replace existing satellites — is directed at these markets.

Michel de Rosen, chief executive of Eutelsat, told the conference that Eutelsat is pursuing the same policy — Eutelsat purchased a satellite over the Asia-Pacific region and won rights to a

Brazilian orbital slot in 2012 — and is also concerned about the market effects of new national satellite operators with one spacecraft and little concern for profit and loss.

Eutelsat operates a fleet of about 30 satellites and has seven spacecraft under construction and scheduled for launch between 2013 and 2015.

De Rosen said his company plans to take a greater direct interest in Latin America. Up to now, Eutelsat's presence in that region has been through its minority shareholding in Spain's satellite fleet operator, Hispasat, which has made Latin America a principal focus of its activity.

Neither de Rosen nor Bausch disclosed any specific strategy for confronting the challenge of emerging-market satellite operators. The basic economics of satellite operations means that it is difficult to survive over the long haul with only one or two satellites. Some emerging-market national satellite operators — Star One in Brazil, Measat in Malaysia and Vinasat in Vietnam, among others — have made the transition to profitable operations and become successful regional businesses.

Instead of discussing how to adjust to markets whose satellite supplier base is not consolidating but proliferating, de Rosen sought to assure his audience, which included French government officials, of Eutelsat's European bona fides.

In the past 20 years, he said, Eutelsat — the world's third-largest satellite operator by revenue, after Intelsat and SES — has spent 93 percent of its satellite purchase budget in Europe. SES, he said, has relied on European satellite builders for just 20 percent of its capital spending.

Eutelsat has relied on Europe's Arianespace launch service provider for 52 percent of the company's launches in the same 20-year period, compared with 48 percent for SES.

Joining the Ranks

Around 40 developing nations have expressed interest in having their own telecommunications satellites in orbit. It is not yet clear whether all of them — including Armenia, Bangladesh, Colombia, Mongolia and Nepal — will proceed to an actual purchase. But the number of nations that have already either launched a satellite or are preparing one is large enough to have the major commercial fleet operators worried about overcapacity. Many of these nations have elected to buy a Chinese satellite with a Chinese rocket. Here is a list of nations that are joining, or have recently joined, the expanding group of commercial satellite operators:

Angola	Mexico*
Argentina	Nicaragua
Azerbaijan*	Nigeria*
Belarus	Pakistan*
Bolivia	Sri Lanka*
Democratic Republic of Congo	Turkmenistan
Kazakhstan*	Ukraine
Laos	Venezuela*

*Satellites already in orbit or preparing for launch