



China Commits to Building Global Satellite Communication Network by 2023

OE Watch Commentary: China has announced that it will begin construction of a low-earth orbit (LEO) communication satellite constellation with the goal of building a global communication network. The constellation, dubbed Hongyan (鸿雁) or Wild Geese, will eventually provide global cell phone coverage, even in remote areas. The system will also include automatic identification systems (AIS), allowing more precise monitoring of ships and aircraft and improving safety. China Aerospace Science and Technology Corporation (CASC; 中国航天科技集团) plans to complete the system by 2023. CASC affiliates have also partnered with international clients such as Thailand's Kasetsart University to help develop the technology. China's pursuit of a lower-cost, network of LEO satellites follows its success in building geostationary communications for a number of countries, including Pakistan, Nigeria, Venezuela, and Bolivia.

The accompanying transcribed excerpt from *CCTV*, a Chinese government broadcaster, included an interview with Zhang Hongtai, Director of the China Academy of Space Technology, the research arm of CASC. Hongtai argued that the satellite system has a number of advantages over current ground-based internet connections. In particular, they are able to more effectively reach remote areas and do not require as much physical infrastructure, including base stations in remote areas. This is even more important in the context of creating redundant networks that work in parallel with existing internet connections. Currently, 99 percent of internet traffic is transmitted over fiber optic cables, which can be disrupted by natural disasters (especially earthquakes, which have been known to damage cables on the ocean floor) or in times of conflict.

However, CASC's system will be joining an already-crowded field; many similar systems already exist or are planned. The Iridium satellite constellation, for example, has been active since the late 1990s. Planned systems include SpaceX's 12,000-satellite constellation, slated for completion in the mid-2020s. **End OE Watch Commentary (Wood)**



“By 2020 we want to build a network of six linked satellites to prove the system works.”

*- Zhang Hongtai,
Director of the China Academy of Space Technology*

Source: “鸿雁星座系统今年发射首颗星 未来手机上网信号无死角 (Hongyan Satellite System Will Launch First Satellite This Year - In the Future Cellphones Will Not Lose Internet Signal),” *CCTV*, 10 March 2018. <http://m.news.cctv.com/2018/03/10/ARTIX4psuzAaIt3USfXBQdMQ180310.shtml>

Zhang Hongtai, Director of the China Academy of Space Technology: “By 2020 we want to build a network of six linked satellites to prove the system works, and then by 2023 increase the system to 54 satellites to have global data coverage. After the system reaches 270 satellites, we will have global broadband capability, with applications in six fields including voice telecommunication.