



Russia and China Help Egypt's Space Industry Move Forward

OE Watch Commentary: Egypt considers itself the Arab pioneer in a number of fields, among them space exploration. Having recently lagged behind wealthy Gulf monarchies in this domain, the Egyptian government has begun relying on Russia and China to kick-start its space industry, as highlighted in the accompanying excerpts from local media.

In October 2018, Russia's Space agency Roscosmos announced that in late December Egypt's third remote sensing satellite (EgyptSat-A) will be launched on a Soyuz rocket from Russia's Baikonur Cosmodrome in Kazakhstan. The satellite is a replacement for EgyptSat-2 (2014), which failed prematurely. Egypt's first remote sensing satellite, the 160-kilogram mini-satellite EgyptSat-1 (2007), failed three years into its projected five-year lifetime. The much larger EgyptSat-2 (1050 kilograms) was a joint project between Russia's RKK Energiya (RSC Energia) and Egypt's National Authority for Remote Sensing and Space Sciences (NARSS). Many of EgyptSat-2's components were assembled in Egypt and its failure was especially acute: expected to remain operational for 11 years, it was lost the year after its launch.

In addition to the upcoming launch of EgyptSat-A, which some media sources claim is a Russian-built "warranty replacement" for EgyptSat-2, the Egyptian government recently established a new R&D government entity under the authority of the president called the "Egyptian Space Agency." The agency's aim is "to push Egypt forward in the area of space and satellite technology serving the country's national security," according to the accompanying passage from *Egypt Today*, published in late 2017 (following parliamentary ratification of the new agency's establishment law). The Egyptian Space Agency's headquarters on Cairo's outskirts are envisioned as a future launch site for Egypt's home-made satellites as well as those from other countries, particularly African ones. The new agency's first project, a domestically designed and manufactured satellite, quickly fell behind schedule, but was given a boost when in August 2018 the Chinese government agreed to provide Egypt with a \$45 million grant to fund a project "[aimed] at transferring Chinese technology in the satellite sector to serve the purposes of research projects and remote sensing," according to Egypt's minister of investment and international cooperation.

Egypt has no shortage of uses for a remote sensing satellite. In addition to civilian uses for agriculture, planning/development and resource exploration, the Egyptian government has a list of priority hotspots to monitor, including the vast desert borders with Libya and Sudan, the Sinai Peninsula, the oil and gas-rich Eastern Mediterranean, and Ethiopia's Grand Renaissance Dam.

End OE Watch Commentary (Winter)

"...This project aims at transferring Chinese technology in the satellite sector to serve the purposes of research projects and remote sensing..."

Source: "Space City would contribute 10% to Egypt's GDP," *Egypt Today*, 26 December 2017. <http://www.egypttoday.com/Article/2/38422/Space-City-would-contribute-10-to-Egypt-s-GDP>

During the session, Parliament's Education and Scientific Research Committee submitted a 25 page report about the law, saying that the law aims to push Egypt forward in the area of space and satellite technology serving the country's national security. The agency will be affiliated to the president and will be mainly responsible for drawing up a national space technology program within the next few years.

Source: "Egypt, China sign grant for 'EgyptSat-2' worth \$45M," *Egypt Today*, 13 August 2018. <http://www.egypttoday.com/Article/3/55899/Egypt-China-sign-grant-for-%E2%80%98EgyptSat-2-worth-45M>

Egypt and China signed Monday a grant worth \$45 million for the construction of the satellite EgyptSat-2 for remote sensing applications...

The Ministry of Investment clarified in a statement that this grant comes to perfect the satellite collection project's grant which amounted to \$23 million, in cooperation with the Chinese Space Administration. [Egyptian Minister of Investment and International Cooperation Sahar Nasr] said that this grant affirms the strength of the strategic relationship with China especially in information technology and scientific research sector. "This project aims at transferring Chinese technology in the satellite sector to serve the purposes of research projects and remote sensing," she noted. She emphasized the importance of cooperating with China in this field in light of the establishment of the Egyptian space agency.

Source: Ahmed Megahid. "Egypt pinning hopes on new reconnaissance satellite to help military with border controls," *Arab Weekly*, 2 September 2018. <https://the arabweekly.com/egypt-pinning-hopes-new-reconnaissance-satellite-help-military-border-controls>

A new reconnaissance satellite will help Egypt monitor its huge border areas, assisting the military in responding to security threats, especially from Libya and Sudan, experts said. The satellite, built by the Russian national rocket and space corporation Energia and expected to be launched November 22 from Russia's Baikonur Cosmodrome in Kazakhstan, will provide important images and data about border areas. "The images will show what is happening on the borders very clearly," said Mahmoud Hussein, chairman of the Egyptian National Authority for Remote Sensing and Space Sciences, the national space agency... "The presence of an advanced reconnaissance satellite will help the security establishment detect such infiltrations easily," said Khaled Okasha, a member of the Supreme Anti-Terrorism Council, an advisory body of the Egyptian presidency. "The utilisation of space technology is indispensable if we hope to overcome threats to our security."