

## Lots of space surveillance

U.S. and Australian militaries have agreed to place two key U.S. space systems in Australia.

A U.S. Air Force C-band space-surveillance radar—which can track up to 200 objects a day and help to identify satellites, their orbits and potential anomalies—is scheduled to move from Antigua in the Caribbean to Western Australia in 2014 and increase coverage of space objects in the Southern Hemisphere, the Pentagon said. In fact, the C-band—like the ARPA-Lincoln C-band Observables Radar on Kwajalein Atoll shown here—will be the first low-Earth-orbit space surveillance network sensor in that hemisphere and is designed to help track “high-interest” launches from Asia.

The other system is an “advanced” space-surveillance telescope designed and built by the U.S. Defense Advanced Research Projects Agency (Darpa),



NASA

according to officials, and is expected to boost space-surveillance capabilities for both nations.

The Darpa space-surveillance optical telescope (SST) is designed to offer an “order-of-magnitude improvement” over ground-based electro-optical deep-space-surveillance telescopes in search rate and the ability to detect and track satellites, they said. “The SST gives a wider field of view and can better detect

and track small objects at deep-space altitudes—about 22,000 miles above Earth’s surface—associated with geosynchronous orbits.”

The SST telescope, now in New Mexico, achieved first light in February 2011 and last August, Darpa completed its test and evaluation. Officials also said both countries are looking into a combined communications gateway in Western Australia to give operators access to Wideband Global Satellite communications.