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POWER

Air Force asks Diversified Technologies to upgrade power electronics of Cobra Dane missile defense radar

Cobra Dane is a ground-based, L-band, phased-array radar that provides mid-course coverage for U.S. Strategic Command's ballistic missile defense system.

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PETTIBONE, Ariz. – U.S. Air Force missile defense experts are continuing a long-term project to keep a 1970s-vintage strategic radar system up and running with affordable, advanced power electronics technologies.

[illegible] announced a $21.1 million contract late last month to Diversified Technologies Inc. in Bedford, Mass., for an upgrade to the AN/FPS-108 Cobra Dane radar.

Cobra Dane is a passive electronically scanned array installation at Shemya Island, Alaska, for missile defense early warning, missile treaty verification, and space surveillance. The radar, which has been in full and has a 95-foot diameter face, became operational in 1977.

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Diversified Technologies will build and factory test as many as 11 new transmitter groups for the Cobra Dane radar, as well as install and check out the first three production transmitter groups.

Cobra Dane is a fixed-based, L-band, phased-array radar that provides midcourse coverage for U.S. National Command Authority Ballistic Missile Defense System. The radar can detect sea-launched and intercontinental ballistic missiles, classify re-entry vehicles and other missile objects and track them early with enough accuracy to command to launch interceptors and update in-flight targeting data.

The contract to Diversified Technologies also calls for installation and checkout instruction and oversight of the Cobra Dane's second and third production groups and technical support of the system's final eight production transmitter groups.

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The Cobra Dane radar, which faces west toward the Russian Kamchatka Peninsula and Kura Test Range, operates in the 1215- to 1400-MHz frequency band. It sends data to the North American Aerospace Defense Command (NORAD) at Peterson Air Force Base. It can detect objects as far away as 4,000 miles.

In recent years Cobra Dane has taken on the role of tracking deep-space satellites as part of the Larger Space Surveillance Network and provides observation data to Agency command and control nodes.

On the contract Diversified Technologies will do the work in Bedford, Mass., and is slated to be finished by September 2025. For more information on contract Diversified Technologies on the at www.divtecs.com. The Air Force Life Cycle Management Center at www.aflcmc.af.mil.