

They do have Christmas at Thule—but the trees are imported from New Jersey.

Arctic Sentinels

A PHOTO REPORT BY CHRISTOPHER GIERLICH

IT sits on the barren northwest coast of Greenland, a forlorn outpost in the Arctic expanse. Here, winter storm winds rip through at 200 miles an hour. Temperatures drop to -85 degrees Fahrenheit. Nighttime darkness can last three months. Brazen Arctic foxes, known as "Archies," scavenge for food.

Thule AB, 700 miles north of the Arctic Circle, is an Air Force installation like no other. The 2,600-acre site has a Ballistic Missile Early Warning System (BMEWS) radar, some 360 Americans, 1,000 Danes, and a few low-rise buildings.

And almost nothing else.

Thule is desolate, a snow-covered end of the Earth. Nothing except squat scrub bushes grows in the bitter Greenland cold. Even the base's Christmas trees must be brought in by airlift. Each December, Reserve USAF pilots donate Christmas trees and fly them from McGuire AFB, N. J., to Thule, where they quickly go up in dormitories and work sites.

As the 180 or so local USAF personnel see it, Thule is a vision of Hell frozen over. There is a 10,000-foot-long airstrip, but almost nobody comes. Once a week, C-141 resupply airplanes shuttle between Thule and McGuire. Only pilots experienced in Arctic operations are permitted to make the trip.

The C-141 flights provide a life-support system for the USAF personnel and 180 US civilian contractors, who are based in the High North to keep watch on Soviet ballistic missile launches taking place on the other side of the pole. The "eyes" of this operation are the crews who man USAF's newly upgraded BMEWS radar.

With permission from Denmark—it has sovereignty over Greenland—USAF deployed its first BMEWS ra-



Lt. Cindy Sorenson, an operational planner for the 1012th ABG Security Police Division, unloads fresh pine trees donated by Air Force Reserve pilots at McGuire AFB, N. J. McGuire flies supplies to Thule twice a week; the Christmas tree mission began in 1987.



dar to Thule in 1961. The upgraded version, which Raytheon installed at a cost of \$110 million and now helps maintain, is a two-sided, electronically steered, phased-array sensor that can do a vastly better job of detecting, tracking, and assessing ICBM launches than could the three mammoth radar dishes that made up the old system.

It is also far more reliable. The older BMEWS radar was "down" an average of fourteen minutes a day; the newer one is out of action fewer than fourteen minutes a month. What's more, the new radar performs its task while using only seventy-one percent of its total sensing capacity, and power usage has been cut by eighty percent.

The two BMEWS panels send their powerful radar beams deep into the skies and space above the Soviet Union. The numerous elements of the panels make a faint popping noise as the system's sophisticated computer selects and fires them individually.

Inside the Missile Warning Operations Center, work is carried out by four crews of four. Two additional qualified radar crews are kept on standby. Occasionally, a crew will be forced to pull a twenty-hour shift because storms prevent relief from arriving.

The MWOC's computer terminals display a circular graphic showing sensors as they fire. Few fire at any given time, and the pattern seems to be random, with three or four flickering symbols appearing and disappearing every few seconds, to be replaced by another small flock. Crew members speak of "fencing in" a launched object with radar beams, with the computer determining the trajectory, arc, and impact point of the object as it breaks the "fences."

The Ballistic Missile Early Warning System's phased-array radar (above) emits faint popping sounds as its radar panels fire in the quiet of the Arctic night. The moonless night lasts for three months; unlike many Americans stationed at Thule, Lieutenant Sorenson enjoys the dark season and hopes to remain at Thule "indefinitely." Below, an inquisitive Arctic fox, or "Archie," watches as Lieutenant Sorenson delivers another Christmas tree (right). The foxes are quite numerous at Thule and not at all shy.





Thule's control tower (top) commands a view of much of the base. Few flights other than the supply flights from New Jersey arrive on Thule's 10,000-foot runway. A much busier scene is the Missile Warning Operations Center (above), where crews of the 12th Missile Warning Squadron monitor the BMEWS radar.

"We often get a 'heads up' concerning [launch of] a satellite, but not always," reports one Air Force officer. "The Russians provide the best drills for our crews when they fire an unannounced ICBM test."

A sudden, unexpected Soviet rocket launch within the Thule BMEWS "field of view" concentrates the crew's attention as they seek to verify the authenticity of information being reported by the computer. The crew is allotted one minute to determine if a threat is real.

BMEWS also receives "space watch" assignments. This entails daily tracking of some of the 19,676 cataloged objects in orbit. The computer matches a suspect object's track with a "known-object" trajectory. It is followed closely until a match is found or until the object is determined to be nonthreatening and is cataloged.

The USAF contingent at Thule AB is a part of Air Force Space Command, based at Peterson AFB, Colo. On site are the 12th Missile Warning Squadron of the 1st Space Wing; Detachment 3 of the 2d Satellite Tracking Group, 2d Space Wing; and a Host Base Support Unit of the 3d Space Support Wing.

Danish personnel living on the base perform all essential services and maintenance as contractors to the US government. The Danes treat Americans as the guests that they are and keep apart from the Americans on base. Some anti-American sentiment can be found. One large barrier to closer relations is the fact that US servicemen and -women stay only for one year. That is long enough for most Americans. ■

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