



SUCCESS

COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT

AIR FORCE AGREEMENT Allows Ionospheric Research to Continue

CONTRACT

NUMBER:

USAF CRADA
2015-AFRL/RV-06

COMPANY

NAME:

University of
Alaska Fairbanks
Fairbanks, AK

TECHNICAL

PROJECT OFFICE:

Air Force
Research
Laboratory
Space Vehicles
Directorate,
Kirtland AFB, NM

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REQUIREMENT

Because of a recent Cooperative Research and Development Agreement (CRADA) between the Air Force Research Laboratory's (AFRL) Space Vehicles Directorate and the University of Alaska Fairbanks (UAF), more than twenty-five years of science and

atmospheric research will continue at the High Frequency Active Auroral Research Program (HAARP).

TECHNOLOGY TRANSFER

Although the Air Force will not be funding maintenance of the HAARP facility or other research efforts,

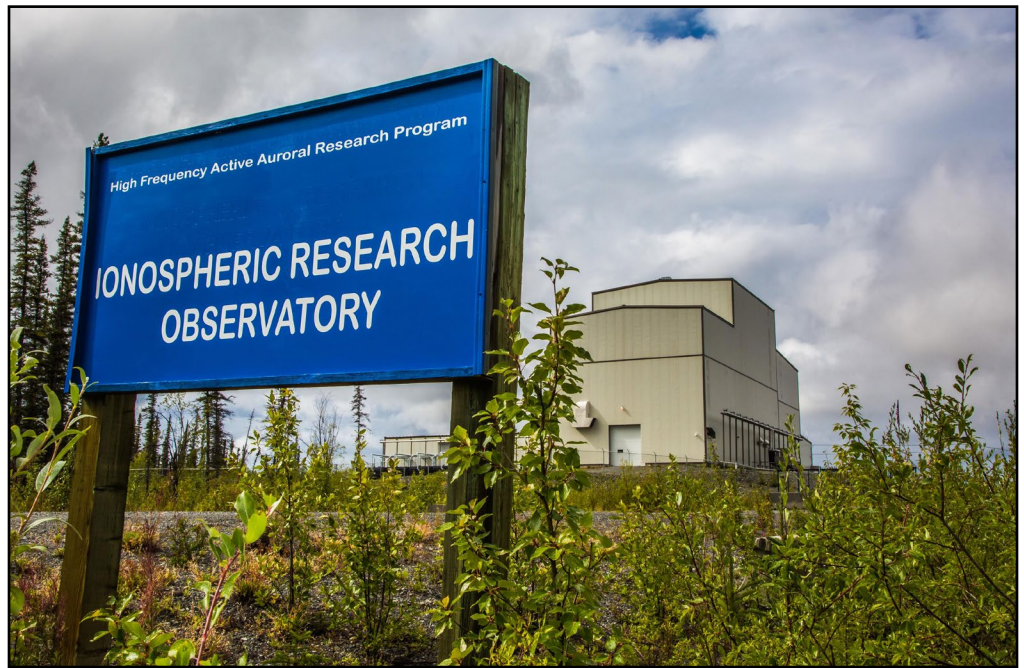


View of HAARP array with Mount Drum in the distance. (photo courtesy of Jessica Matthews)

this agreement allows ionospheric research to continue. UAF will maintain the facility and will be offered access to government-funded resources to continue existing ionospheric research.

“The objective of the joint Air Force and Navy HAARP was to conduct basic, exploratory, and advanced development research programs leading to the use of emerging ionosphere/radio science technology for next-generation systems by characterizing the physical processes produced in the ionosphere and space via interactions with high-power radio waves,” said Dr. Craig Selcher, senior research physicist and former Air Force HAARP program manager. “With the completion of these efforts for the Department of Defense on the horizon, handing the torch to the UAF Geophysical Institute allows for the continuation of the ground-breaking research that only the HAARP facility can perform.”

The HAARP facility is located in Gakona, Alaska, and includes a high-frequency radio transmitter that directs its energy upward into the ionosphere and space, as well as a suite of optical and radio diagnostics instruments. The research involves the space environment beginning at about 100 km altitude (~60 miles) out to tens of thousands of kilometers, far above the jet stream or the atmosphere that affects terrestrial weather.



On August 11, 2015, AFRL transitioned the HAARP research site to UAF. The Alaska State congressional delegation is working to transfer the research site to UAF and the remaining land back to the Alaska Native Corporation. (Photo courtesy of Todd Paris, University of Alaska Fairbanks)

PAYOFF

According to Dr. Robert McCoy, director of the Geophysical Institute at UAF, “HAARP is one of four active ionospheric facilities in the world and by far the most powerful and flexible. The first science campaign is planned for February 2017. Scientists around the world have been making proposals to government funding agencies to support research at HAARP.

“The unique attributes of HAARP are its demonstrated ability to create

ionospheric perturbations in a small region over the facility and stable, long-lived ionospheric layers even in the absence of auroral activity. Its superior location in the subarctic enables over-the-horizon radar experiments, and utilization of the ionosphere as a large antenna to generate extremely low-frequency waves for a number of applications.”

Linking technology with the mission and marketplace.

U.S. AIR FORCE TECHNOLOGY TRANSFER PROGRAM OFFICE

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