

The High Frequency Active Auroral Research Program

HAARP

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HAARP Diagnostic Instruments

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The HAARP program has developed an extensive set of scientific research instruments useful for monitoring the Earth's geophysical and electromagnetic background. Information available from these instruments describes physical conditions in the ionosphere and magnetosphere that affect communication and navigation systems.

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Questions of a technical nature may be submitted via e-mail to:
infohaarp@haarp.alaska.edu

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These instruments serve an essential, diagnostic role during active ionospheric research, providing knowledge of local ionospheric conditions prior to, during and after research periods. Data collected from these instruments are processed and displayed at the site, allowing scientists to monitor results of ongoing experiments in real time.

Monitoring the outputs from these instruments on a day-to-day basis provides insight into the correlation between radio propagation conditions and certain geophysical processes. Currently available data products can be found on our [Data Index](#) page which provides a convenient access to some of these results. All of the following instruments are installed either at the HAARP Research Station or elsewhere in Alaska.

- All sky Riometer [About](#)
- Imaging riometer 8 X 8 Array
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- Induction Magnetometer [About](#)
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- Optics
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- Tomography Chain
 - Cordova -> Kaktovik
- VHF Radar (139 MHz)
- MUIR (Modular UHF Ionospheric Radar) [Photo](#)
- Ionospheric Scintillation Receivers
 - SATSIN (offsite)
 - GPS-NOVATEL
 - Total Electron Content
- Radio Background Receivers
 - Broadband ELF / VLF Receiver network.
 - SEE Receiver string.
 - HF to UHF Spectrum Monitor [About](#)
- HF 2-30 MHz High Angle Receiving Antenna [Photo](#)

Pioneering Ionospheric Radio Science Research for the Twenty-First Century



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