UCLA HIPAS OBSERVATORY
(High Power Auroral Stimulation)

Located 25 miles east of Fairbanks, Alaska

The HIPAS facility is directed by the UCLA Plasma Physics Laboratory, and is engaged in the study of the ionosphere through the use of high power radio transmissions.

Current Projects at HIPAS:

- ELF/VLF (Extremely Low and Very Low Frequency) electromagnetic (EM) generation by the absorption of Radio Frequency (RF) power in the arctic ionosphere including ion cyclotron excitation.
- LIDAR active NA layer fluorescence and monitoring modified by RF ionosphere heating as new communication scheme.
- Laser breakdown studies - New project
- Plasma Torch.
- Incoherent Scatter Radar - New project using 88 ft. diameter antenna at NOAA Gilmore Creek site 34 km SW of HIPAS as the receiving antenna with transmitter at HIPAS.
- Remote Sensing.
- Radio Frequency Ionospheric Heater.

Background photo of aurora by Jackie Pau looking east from the HIPAS bunkhouse. 1 min. exposure, f/2.8 on ASA 200 color print film.