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HAARP frequently asked questions (FAQ) are available <u>here</u>. In addition:

## Q1: Why is ionosphere research important to the world?

NASA has an outstanding webpage linked <u>here</u> that provides both visual and textual description of the ionosphere, and it's importance. In addition:

- Extreme space weather can have numerous impacts on modern technology and daily life here on Earth. This includes interference with GPS satellites, electronics on spacecraft and radio communications, particularly in the polar region.
- Severe space weather can also interfere with power grids, induce corrosion-causing electrical currents in oil and gas pipelines and pose health risks for astronauts.
- Space weather is difficult to study because many complicated interactions take place. The sun, the solar wind, Earth's magnetic field, and Earth's atmosphere all interact with one another in extremely intricate ways.
- Research conducted at HAARP helps fill in gaps in our knowledge of near-Earth space. This allows scientists to make better space weather predictions, which can help mitigate the effects of severe space weather.
- New research at HAARP may also improve systems to help satellites avoid collisions and advance remote sensing technologies for near-Earth asteroid detection.
- In addition to scientific applications, HAARP has also been used for creative and artistic purposes. On several occasions, HAARP has supported the creation of "transmission artwork", in which radio transmissions are used as a medium for artistic projects.

## Q2. Social media posts claim that HAARP controls the weather by using radio waves. Is this possible?

Response taken directly from the <u>HAARP FAQ</u> page, re-printed below.

Radio waves in the frequency ranges that HAARP transmits are not absorbed in either the troposphere or the stratosphere—the two levels of the atmosphere that produce Earth's weather. Since there is no interaction, there is no way to control the weather. The HAARP array (called the lonospheric Research Instrument) is basically a large radio transmitter. Radio waves interact with electrical charges and currents, and do not significantly interact with the troposphere. Further, if the ionospheric storms caused by the sun itself don't affect the surface weather, there is no chance that HAARP can either. Electromagnetic interactions only occur in the near vacuum of the rarefied, but electrically charged region of the atmosphere above about 60-80 km (a little over 45 miles), known as the ionosphere. The ionosphere is created and continuously replenished as the sun's radiation interacts with the highest levels of the Earth's atmosphere.

## Q3. Is there any connection between the work HAARP is doing and natural disasters ?

No, see above answer. There is only one HAARP site (in Gakona, Alaska), and it operates approximately 2-4 times a year. University of Alaska Fairbanks research campaigns run similar to the Department of Defense model, where groups of scientists collaborate to conduct interactive ionospheric research. A typical research period may last one to two weeks and up to four such campaigns may occur each year. The HAARP program also provides dates and times of research campaigns available <u>here</u>.

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