

HAARP - details of its capabilities from the main HAARP patent (4,686,605):

- 1) Can lift a portion of the atmosphere: "excitation of electron cyclotron resonance is sufficient to cause movement of a plasma region along said diverging magnetic field lines to an altitude higher than the altitude at which said excitation was initiated"
- 2) Move portions of the atmosphere: "rising plasma region pulls with it a substantial portion of neutral particles of the atmosphere which exist in or near said plasma region"
- 3) Causes energy waves in the ionosphere: "second radiation excites plasma waves within ionosphere "
- 4) Alters selected regions of the atmosphere: "This invention relates to a method and apparatus for altering at least one selected region normally existing above the earth's surface and more particularly relates to a method and apparatus for altering said at least one region by initially transmitting electromagnetic radiation from the earth's surface essentially parallel to and along naturally-occurring, divergent magnetic field lines which extend from the earth's surface through the region or regions to be altered"
- 5) HAARP uses barium as part of its wave-carrying plasma: "It has also been proposed to release large clouds of barium in the magnetosphere so that photoionization will increase the cold plasma density, thereby producing electron precipitation through enhanced whistler-mode interactions"
- 6) Charges or ionizes regions of particles in the atmosphere: "Sufficient energy is employed to cause ionization of neutral particles (molecules of oxygen, nitrogen and the like, particulates, etc.) which then become a part of the region thereby increasing the charged particle density of the region. This effect can further be enhanced by providing artificial particles, e.g., electrons, ions, etc., directly into the region to be affected from a rocket, satellite, or the like to supplement the particles in the naturally-occurring plasma. These artificial particles are also ionized by the transmitted electromagnetic radiation thereby increasing charged particle density of the resulting plasma in the region"
- 7) Causes oscillation (pulses) of energy at specific locations in the atmosphere: "Sufficient power can be applied so that the altered plasma can be trapped on the field line between mirror points and will oscillate in space for prolonged periods of time. By this embodiment, a plume of altered plasma can be established at selected locations for communication modification or other purposes"
- 8) Propagates selected frequency waves throughout the ionosphere: "The amplitude of the frequency of the main beam and/or the second beam or beams is modulated in resonance with at least one known oscillation mode in the selected region or regions to excite the known oscillation mode to propagate a known frequency wave or waves throughout the ionosphere"
- 9) Can be used to interfere with, or enhance, communications: "this invention provides the ability to put unprecedented amounts of power in the earth's atmosphere at strategic locations and to maintain the power injection level, particularly if random pulsing is employed, in a manner far more precise and better controlled than heretofore accomplished by the prior art, particularly by the detonation of nuclear devices of various yeilds at various altitudes....Thus, it can be seen that the disrupting effects achievable by this invention can be employed to benefit by the party who is practicing this invention since knowledge of the various electromagnetic waves being employed and how they will vary in frequency and magnitude can be used to an advantage for positive communication and eavesdropping purposes at the same time"

10) Weather modification: "Weather modification is possible by, for example, altering upper atmosphere wind patterns or altering solar absorption patterns by constructing one or more plumes of atmospheric particles which will act as a lens or focusing device"

11) Can change the molecular structure of locations in the atmosphere: "Molecular modifications of the atmosphere can take place so that positive environmental effects can be achieved. Besides actually changing the molecular composition of an atmospheric region, a particular molecule or molecules can be chosen for increased presence. For example, ozone, nitrogen, etc. concentrations in the atmosphere could be artificially increased. Similarly, environmental enhancement could be achieved by causing the breakup of various chemical entities such as carbon dioxide, carbon monoxide, nitrous oxides, and the like"

12) Transportation of material across the atmosphere: "Transportation of entities can also be realized when advantage is taken of the drag effects caused by regions of the atmosphere moving up along diverging field lines. Small micron sized particles can be then transported, and, under certain circumstances and with the availability of sufficient energy, larger particles or objects could be similarly affected. Particles with desired characteristics such as tackiness, reflectivity, absorptivity, etc., can be transported for specific purposes or effects"

13) The earth's magnetic field can be disrupted: "The earth's magnetic field could be decreased or disrupted at appropriate altitudes to modify or eliminate the magnetic field in high Compton electron generation regions.

14) Electrical fields can be created in the atmosphere: "High intensity, well controlled electrical fields can be provided in selected locations for various purposes"

HAARP - details of its capabilities from its inventor, Dr. Bernard Eastlund:

1) Telecommunications - mobile phones, Long haul communication

2) Atmospheric Heating - Controlled heating of specific atmospheric regions, Controlling electrical conductivity of atmosphere

3) Weather Research - Modification of steering winds, Modification of electrical patterns, Generation of acoustic and gravitational waves

4) Weather Research Applications - Heating of steering winds in mesocyclones and hurricanes, Modification of electrical patterns in mesocyclones, Generation of acoustic and gravitational waves (gravity waves can produce severe weather, and transfer energy which results in unstable cloud layers and weather behavior)

5) Applications discussed in the patents included destroying missiles, communications control and disruption, to modify weather, and to lift a portion of the upper atmosphere further out into space, where hopefully it would be able to deflect missile trajectories

Patents related to HAARP technology:

- US Patent 4999637 - Creation of artificial ionization clouds above the earth:
www.patentstorm.us/patents/4999637/fulltext.html

- US Patent 4712155 - Method and apparatus for creating an artificial electron cyclotron heating region of plasma:
www.patentstorm.us/patents/4712155/description.html

- US Patent 5777476 - Ground global tomography (CGT) using modulation of the ionospheric electrojets:
www.patentstorm.us/patents/5777476/fulltext.html

- US Patent 5068669 - Power beaming system:
www.patentstorm.us/patents/5068669/fulltext.html

- US Patent 5041834 - Artificial ionospheric mirror composed of a plasma layer which can be tilted:
www.patentstorm.us/patents/5041834/description.html