HAARP- WEATHER CONNECTION

WEATHER MODIFICATION RESEARCH WAS DISCUSSED IN THE EASTLUND ARCO PATENTS

INTRODUCTION

THE ARCO PATENTS

The science of weather modification is in its infancy. When the ARCO patents were written in 1984, the only scientific approach was salting clouds with silver iodide. One of the reasons weather modification is not a science is that scientists have made what they considered to be reasonable assessments of the relative size of forcing technologies (such as wind generators, microwave heaters, or explosions) and determined that the large size of weather systems make it useless to attempt to change weather patterns with human intervention.

The energy turnover of a storm system can be related to an equivalent power through the rainfall rate. The various severe storm categories are related to the total electric power consumption of New York City in the table below:

<table>
<thead>
<tr>
<th>Category</th>
<th>Power Level</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMALL THUNDERSTORM</td>
<td>10</td>
<td>New York Cities</td>
</tr>
<tr>
<td>LARGE THUNDERSTORM</td>
<td>1000</td>
<td>New York Cities</td>
</tr>
<tr>
<td>MAJOR STORM SYSTEM</td>
<td>10000</td>
<td>New York Cities</td>
</tr>
<tr>
<td>HURRICANE</td>
<td>100,000</td>
<td>New York Cities</td>
</tr>
</tbody>
</table>

The power levels required for the ARCO antenna to create MEV electrons and defeat a missile attack by the Soviet Union was estimated to require generation of a power equivalent to 100,000 New York Cities for a time period of 20 minutes.

Dr. Eastlund was aware that these power levels were equivalent to the power in such big systems and also comparable to the local energy in the stratosphere of the polar jet stream, which comes near the Prudhoe Bay ARCO installation. For that reason, two of the patents included suggestions for weather modification. (See figure above.)

In U. S. Patent 4,712,155 Eastlund states,"In one embodiment of the invention, electron cyclotron resonance heating is carried out in the selected region at sufficient power levels to allow the plasma to generate a mirror force which forces the charged electrons of the altered plasma upward along the force line to an altitude which is higher than the original altitude. As the plasma moves upward, other particles from the atmosphere at the same altitude as the selected region move horizontally into the region to replace the rising plasma and to form new plasma. The kinetic energy developed by said other particles as they move horizontally is on the same order of magnitude of as the total zonal kinetic energy of stratospheric winds known to exist at altitudes equal to the region being altered. Since there is evidence that these stratospheric winds may be linked to certain weather patterns on earth, the present method may be used to affect similar patterns."

In U. S. Patent 4,686,605 Eastlund states, "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."

IS HAARP THE RIGHT SIZE?

HAARP is not nearly as big as the systems envisioned in the original ARCO patents. However, this led Dr.
HAARP is not nearly as big as the systems envisioned in the original ARCO patents. However, this led Dr. Eastlund to further investigate how to influence severe weather by artificial means. The Thunderstorm Solar Power Satellite was one of the results of this reasoning. Another approach is to produce plasmas in the atmosphere and utilize various properties of those plasmas for surgical heating of sensitive areas of storms.

HAARP AND GRAVITY WAVES

Gravity waves have received much attention over the last 5 years as an important initiator or cause of some severe weather phenomena.

HAARP and Generation of Gravity Waves

- No Papers from the HAARP Research Have Directly Investigated the Generation of Gravitational Waves.
- However, the Present Power Level of 3.6 Megawatts CW, the Antenna is Broadcasting at a vertical flux level of 2.1 x 10^{-3} watts/m² over a circle of radius about 30 km. This power level is comparable with levels considered significant by Gossard, 1962.
- Sofko and Huang have measured Gravity Wave Generation from Joule Heating associated with solar flare events in the polar regions. (Sofko and Huang, Geophysical Research Letters 27, No. 4 pp 485-488 February 15, 2000)