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US working on lightning weapon

The US Air Force is working on developing a man-made bolt of lightning powerful enough to fry sophisticated computer and electronic components in weapons.

Researchers are looking at ways of putting so-called High-Powered Microwave (HPM) beams on aircraft and cruise missiles.

The short, intense burst of energy is intended to be lethal to electronics but have no effect on people.

Aerospace experts have suggested an experimental version of the weapon could be used in a war against Iraq, carried on a cruise missile or unmanned aircraft.

But the secrecy surrounding the use of these weapons would mean it could be some time before details are released to the public.

Millions of watts

"The low-collateral damage aspect of the technology makes high-power microwave weapons useful in a wide variety of missions where avoiding civilian casualties is a major concern," says the US Air Force on its website.

These weapons are particularly attractive as they could be used against suspected chemical or biological facilities in Iraq, without the danger of releasing dangerous toxins into the air.

On its website, the US Air Force says research in HPM weapons is "considerably advanced". But it added that scientists are conducting "critical experiments still needed to assess the feasibility of the technology for operational systems".

Much of the work into developing this next-generation weapon is being done at the High Energy Research and Technology Facility.

The \$9m lab is located in a canyon in the Manzano Mountains, part of the remote Kirtland Air Force Base in New Mexico.

Targeted microwaves

The technology behind HPM is based on that used in household microwave ovens.

But whereas a typical microwave generates less than 1,500 watts of power, the Air Force researchers are working with equipment that can generate millions of watts of power.

An HPM weapon would unleash a powerful electrical pulse that would burn up any electrical equipment, such as computers and communications systems.

"Scientists are exploring equipment and methodologies for generating high-power microwave energy and accurately propagating that energy to a target," says the US Air Force.

"Work is also ongoing on the feasibility and utility of placing compact high-power microwave systems aboard various Air Force platforms."

Aerospace experts say the research is well advanced and an experimental system could be placed on an unmanned drone or a cruise missile.

And US officials have hinted that new developmental weapons technology could be used in an attack on Iraq.

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