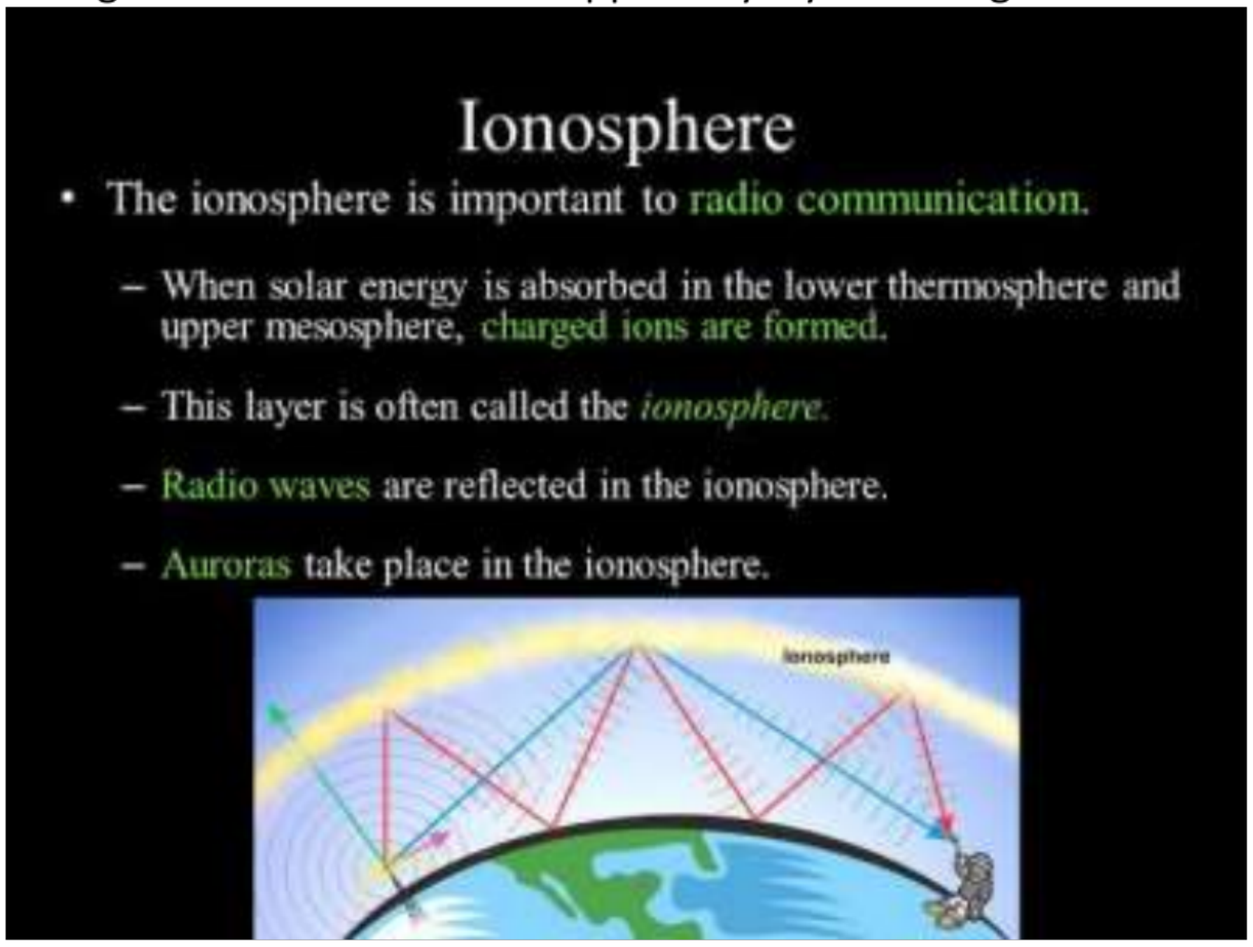
Detonate atomic weapons in outer space

The target was the ionosphere which is key to world communications

Operation Argus (27 August to 9 September 1958 over the South Atlantic Ocean) would detonate atomic weapons in outer space, creating an artificial radiation belt in Earth's magnetic field that would supposedly fry incoming Soviet warheads in flight.



A key player in Argus was America's latest satellite, Explorer 4.

67 nations came together to explore and study the planet that they all shared, in a spirit of complete scientific openness and collegiality. But as its builder, the physicist James Van Allen, knew quite well, Explorer 4's true purpose would be to study the effects of Argus.

The pentagon's secret was leaked and became public

[The Atlantic MARK WOLVERTON](#) **NOVEMBER 24, 2018**

1962:Project Starfish

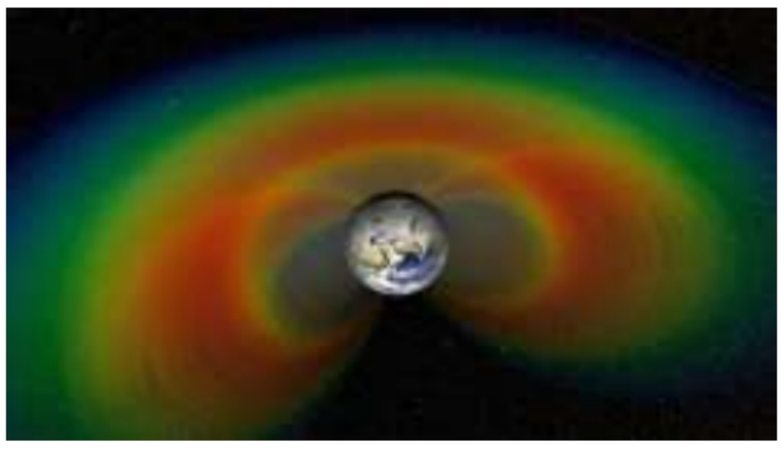
A series of tested Nuclear explosions which seriously damaged the Van Allen Belt. "One kiloton device, at a height of 60 km and one megaton and one multi-megaton, at several hundred kilometers height" (K.H.A., 29 June 1962)

One immediate effect of the blast was a huge aurora seen for thousands of kilometers around.

In Hawaii it blew out hundreds of streetlights, and caused widespread telephone outages. Other effects included electrical surges on airplanes and radio blackouts.

Through nuclear explosions they created an artificial aurora

A **Van Allen** radiation **belt** is a zone of energetic charged particles



If there were no belts, the earth would not have a magnetic field.

When they are testing the ionosphere it starts at 70km up to 300km and total disappearing at 1000KM

The pulse of electrons from the Starfish Prime detonation damaged at least six satellites (including one Soviet bird), all of which eventually failed due to the blast. Other satellite failures at the time may be linked to the explosion as well.

In 1981, "a series of passes over a network of five ground based observatories" in order to study what happened to the ionosphere when the Shuttle injected gases into it from the Orbit Maneuvering System (OMS). They discovered that they could "induce ionospheric holes" and began to experiment with holes made in the daytime, or at night over Millstone, Connecticut, and Arecibo, Puerto Rico. (Advanced Space Research, Vo1.8, No. 1, 1988).