

AIR FORCE ORDERS PLANE PROPELLED BY ATOMIC ENERGY

**Craft Is Expected to Be Huge
With an Unlimited Range
and Very High Speed**

WORK ON 'ENGINE' BEGUN

**Officials Indicate Years Will
Be Needed for Development
Before First Flight**

By HAROLD B. HINTON

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WASHINGTON, Sept. 5—The Air Force announced today that it had awarded a contract for the development of an airplane to be propelled by a nuclear reactor.

The announcement that it is considered opportune to start work on an airplane frame capable of carrying the extremely heavy weights likely to be involved suggested that work on an atomic power plant had possibly progressed faster than officials originally believed. None would offer an estimate when the completed airplane might be expected to fly, but most officials indicated that it would be a matter of years.

The Navy announced two weeks ago it had let a contract for a submarine to be propelled by atomic energy. Such a craft presumably would have unlimited range and high speed, and similar characteristics would be expected of an atomically driven airplane.

Work on the nuclear power plant for the aircraft is being performed by the General Electric Company. A contract for development of a suitable airframe to carry it has been let to the Consolidated Vultee Aircraft Corporation, San Diego.

Work May Be Done in Texas

The work is expected to be done at the company's plant in Fort Worth, Tex., where the largest airplane now flying in the world—the B-36 bomber and its cargo version known as the C-99—was developed and put in production.

While there are no official estimates of the weight-carrying capacity an atomically propelled airplane would have to possess, it probably is in excess of that of the B-36, which can take off with a maximum load of about 350,000 pounds.

Empty, the B-36 weighs about 130,000 pounds, including conventional or jet engines. Thus, there exists a theoretical "useful" load capacity of about 220,000 pounds. Six conventional engines of the type that have been used to power the B-36 weigh about 40,000 pounds. These, of course, would not be present in the atomically powered model.

Estimates of the probable weight of a nuclear reactor, with the heavy shielding necessary to protect the crew from the heavy heat and radiation, have run as high as 100,000 pounds.

The B-36 can carry a maximum load of 84,000 pounds in bombs, though the performance for which it was designed envisaged the transport of 10,000 pounds in bombs for a distance of 5,000 miles, and traveling another 5,000 miles away from the target.

Since the probable shape of the nuclear power plant has not been disclosed, there were no guesses today regarding possible structural problems in building an airplane to contain it. It was regarded as probable, however, that such problems would substantially increase

Continued on Page 18, Column 1