AERONAUTICS

Vertically Rising Planes

Pilot literally lifts himself straight up into the sky in new planes of revolutionary design. Their successful use would eliminate need for large landing strips.

➤ THE NAVY has officially ripped the cloak of secrecy from two of its new fighter planes which sit on their tails and take off like rockets—noses pointed straight up.

The planes are the Convair XFY-1, built by the Consolidated Vultee Aircraft Corp. of San Diego, Calif., and the XFV-1, built by the Lockheed Aircraft Corp., Burbank, Calif.

The Navy said that the secret of these radical planes lies in the great thrust developed by contra-rotating propellers on the plane's noses. Powered by turbo-jet engines, the propellers generate more pull than the weight of the plane.

This permits the pilot to gun the engine and literally lift himself into the sky. After he is airborne, the pilot noses the craft over to fly horizotally at fighter plane speeds. To land, he noses the plane into the sky and slowly lowers his craft to earth tail first.

A special swiveling seat enables the pilot to sit straight up for the take-off, landing and flight positions of the airplane.

Although it revealed no performance characteristics of the planes, the Navy said they have been under construction for nearly three years. Experimental models now are being tested.

The XFY-1, built by Consolidated, has a delta wing. The corners of the wing and two large fins form a base on which the plane rests for its straight-up take-off. The Lockheed plane, the XFV-1, has a conventional wing with a mild sweep-back and stands on four fins.

The planes are moved on mobile platforms, but they also have small wheels.

The Air Force is said to have a similar project in the mill, but is saying nothing about it.

The new planes should have a tremendous impact upon military science if they measure up to expectations, it is believed. They would eliminate the need for large landing strips, and might be successfully operated from ships other than aircraft carriers.

Thus they could be spotted in strategic but out-of-the-way places to help guard this country. Their locations could be kept secret more easily since there would be no large landing facilities to give away their presence.

The first hint that such craft were being developed came early in February when a newspaper photographer, using a 13-inch telephoto lens, snapped long-distance pictures of a strange engine assembly being tested behind the walls at Convair's San Diego plant.

The Germans reportedly were working on similar craft during World War II. These Nazi experiments, however, revolved about a rocket-launched vertical take-off plane. It was not successful, and many pilots reportedly were killed as the planes went out of control.

The radically designed vertical take-off fighter planes are not the same as the Air Force convertiplanes designed for reconnaissance, although both types can take off and land vertically.

Convertiplanes depend upon a helicopter-type of rotor to lift them into the sky. Other propellers take over during normal flight. The planes do not rise nose-first, but rather in the flight position.

The Air Force recently announced the first such plane, the McDonnell XV-1. It has a large helicopter rotor, stubby wings and a pusher propeller mounted at the rear of the fuselage between a twin-tail assembly. (See SNL, Feb. 20, p. 115.)

Science News Letter, March 27, 1954

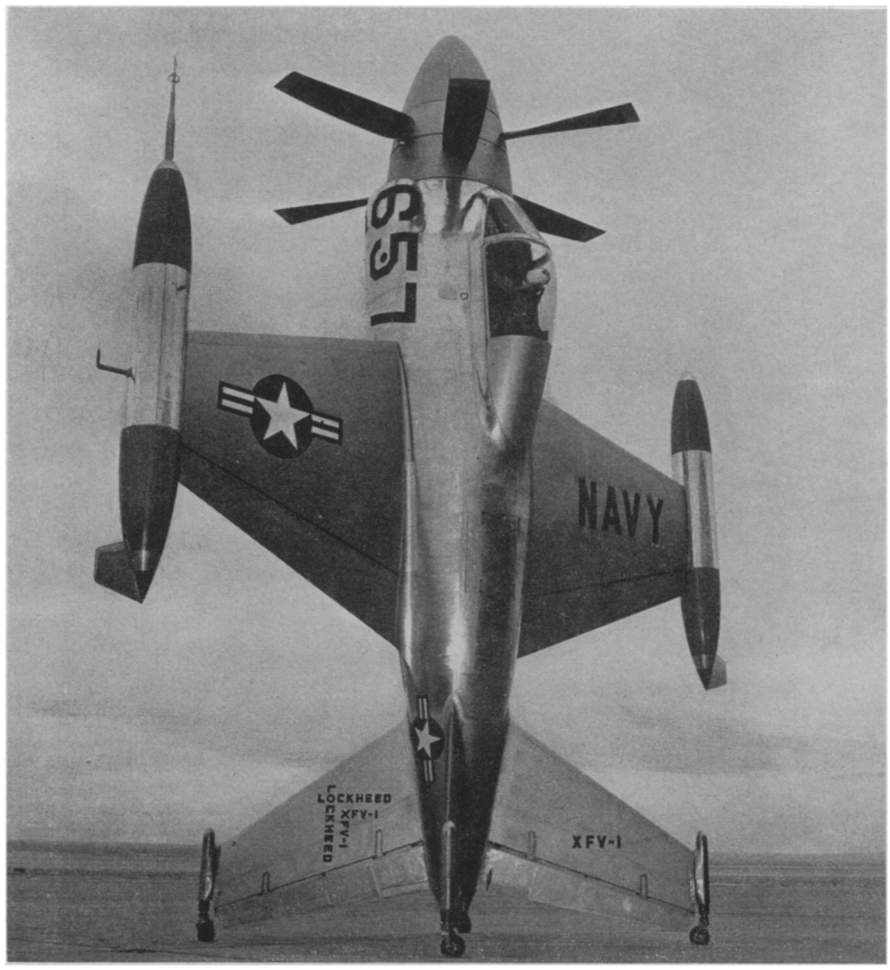
MEDICINE

Nobel Prize Winner Awarded New Honor

➤ THE NOBELIST who first isolated vitamin C, Dr. Albert Szent-Gyorgyi, will receive a new honor April 4, when he is given the 1954 Albert Lasker Award of the American Heart Association.

Now director of the Institute for Muscle Research, Woods Hole, Mass., Dr. Szent-Gyorgyi worked in Czechoslovakia, Hungary, Germany and England before coming to this country. He discovered actomyosin, the element that causes heart muscles to contract.

Science News Letter, March 27, 1954



STRAIGHT-UP TAKE-OFF—One of Navy's revolutionary new fighter planes shown in the position in which it is designed to take off and land. It is powered by turbo-jet engines equipped with contra-rotating propellers that generate more pull than the weight of the plane.