

AERONAUTICS

# Six New Planes

The Axis will never see the XP-55 "Ascender" or the XP-77, but these planes will make important contributions to future warplane development.

## See Front Cover

► SIX PLANES that the Axis will never see have been stripped of a cloak of secrecy by the Air Technical Service Command. Although these queer-looking planes will never see combat they are now winged classrooms that will make important contributions to future warplane development.

Looking something like a modified flying wing or possibly a vulture in flight, the Curtiss-Wright XP-55 "Ascender" is a pusher-type plane with an Allison "1710" engine mounted in the extreme rear, and with heavy forward-firing guns in the nose to balance the weight of the engine. The pilot is sandwiched in the fuselage between the guns and the engine.

This pusher plane does not have the conventional rudder. In its place it has vertical stabilizers, like the flippers of an Arctic seal, near the tips of its swept-back wing to aid directional control. The XP-55 has two elevator controls in the extreme nose, which stick out like small wings.

Next on the list is the XP-77, the only all-wood fighter developed thus far in World War II, and built by Bell Aircraft. This plane was designed when the metal shortage loomed critical, as an alternative. It has a hollow-propeller shaft, like the Airacobra, to permit the use of a single forward-firing cannon.

This single-seater plane used a small two-bladed metal propeller with a spinner hub. Speedy and highly maneuverable, it was designed for possible use against the fast-flying, sharp-turning Jap Zeros. The main difficulty seems to be that the nose wheels are always coming off in landings. However, with this fault rectified, it might be developed into a highly satisfactory trainer plane. It certainly bears watching.

Flying Elephant might be a good nickname for the XP-56, a test-tube airplane developed by Northrop. With a stubby fuselage extending into an engine nacelle, this early attempt at the flying wing looks for all the world like a baby elephant flying with the aid of its big

ears. Large fixed vertical fins above and below the fuselage give the "Dumbo" a sausage-like appearance when viewed from one angle. Two three-bladed counter-rotating pusher propellers mounted on the same shaft are powered by a radial engine. The weight of the engine is concentrated in the wing's mid-section.

The XP-75, intended as a composite airplane and designed by Douglas Aircraft, was to use assembly parts already in production for other airplanes. It has P-40 "Warhawk" wings, P-51 North American fuselage, F4U landing gear, and a Douglas A-24 tail. The finished product is a completely new design, long and slender, with very thin wings and a peculiar rudder shape. A 3000-horsepower Allison engine drives the two three-bladed coaxial counter-rotating props.

McDonnell Aircraft of St. Louis designed the XP-67, a single-seat interceptor plane built for a battery of fixed can-

non. This plane has a nacelle design that permits a certain amount of forward thrust from a jet of exhaust gases.

The twin-boomed, bullet-shaped XP-54, designed by Bell Aircraft, looks something like a P-38, but is a pusher plane, with an extremely low-drag wing. It is one of the first aircraft to have a flush-riveted skin that gives it the same smooth appearance as the fender of a car. Called the "Swoose Goose," because of its inverted gull wings, the plane has a four-bladed prop driven by a Lycoming in-line engine.

First pictures of these unusual-looking aircraft were published in *Air Force*, the official publication of the Army Air Forces. The release of this information is the first step on the part of the AAF to fill in existing gaps with descriptions of experimental planes which have provided much of the valuable knowledge needed to keep American aviation ahead in the war. The picture of the XP-67 shown on the front cover of this SCIENCE NEWS LETTER was taken by an Army Air Forces photographer.

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Meat production in Canada in 1944 exceeded all previous records, meat slaughtered in government inspected packing houses is 20% greater than in 1943.



**"ASCENDER"**—This XP-55, a cross between a flying bomb and a long-necked goose, flies better than it looks. Tailless, its elevator controls are in the nose, and the rudder control is on the sweptback wing tips. Powered by the Allison 1710 engine, from the ground the plane appears to be flying backwards. Official U. S. Army Air Forces photograph.