

TODAY *World Events in Review*

Now they're making a flying saucer

TIME

The U.S. Air Force, which has batted down many a flying-saucer report, has long wished (in private) that it could build one.

By last week the Air Force was prepared to invest heavily to make hallucination come true.

Air Force men have inspected a Canadian model saucer, approved a more advanced design, and hope within three years to have a prototype that can take off straight up, hover in mid-air, and fly at nearly 2000 m.p.h. at sea level.

Its designer: John C. M. Frost, 35, a tall, shy Briton with a passion for flowers and flying saucers.

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Frost, who lives in Toronto with his wife and son, helped to design wartime gliders, later the Vampire jet and DH108 tailless jet.

Meanwhile, in a top-secret screened area at Avro's Malton plant, he designed flying saucers — at least one 40ft. model, with a flattened end and spindly undercarriage.

This model, quickly nicknamed the "Praying Mantis," was designed to take off at a 40-degree angle after a short run.

But Frost wanted a vertical take-off—which is quite a trick.

Even such a powerful jet engine as Pratt and Whitney's J-57, with about 10,000lb. of thrust, can barely lift its own weight vertically.

After countless wind-tunnel tests, Frost finally found what he thinks is a solution in an aerodynamic principle known as "the Coanda Effect."

Rumanian - born Henri Coanda, 68, a successful inventor who lives in Paris, designed a primitive turbine-engine plane in 1909

**One-engine plane in 1909
and a scale-model saucer
in 1947.**

But his great contribution to the art of making flying saucers was the principle he discovered in 1937: Curving one side of a nozzle will deflect a jet blast to follow the curved side.

Around the Coanda Effect, Avro's Frost created a startling design shaped like a saucer, 40ft. in diameter, with a squat jet engine in the middle and a bubble cockpit perched above.

From the engine's 35 burner tubes blasts would radiate to 180 exhaust ports all around the saucer's edge.

To apply the Coanda Effect the pilot needs some kind of movable control over one lip of each exhaust.

To take off he would set these controls to deflect the blasts downward.

The downblasts carry

along with them more air from above the plane than from below it.

from above the plane than from below it.

This decreases air pressure on the top, causing the saucer to rise.

If he rises as he is supposed to do, the pilot would then reset the exhaust controls for normal jet flight.

He could fly in any direction by choosing the appropriate set of burners in his circular power plant.

So that he would always be facing forward the cockpit would rotate automatically as the craft changed direction.

Fantastic as Frost's saucer sounds, it may not be the first.

The U.S.A.F.'s willingness to spend money on saucer-plane experiments results from a growing belief that the Soviet Air Force may be ahead of the U.S. in this field.