One way to nab a flying saucer

THE U.S. Air Force, which has chased down many a flying-saucer report, has long wished (in private) that it could build one. By last week, it was prepared to invest heavily to make hallucination become fact.

Experts have inspected a Canadian model "saucer," approved a more advanced design, hope within three years to have a prototype that can take off straight up, hover in mid-air and fly at mach 2.5 (nearly 2000 m.p.h. at sea level).

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

Frost, who lives in Toronto with his wife and son, helped to design wartime gliders, later the Vampire jet and DH-108 tailless jet. As chief design engineer for special projects at A. V. Roe Canada Ltd. (part of Britain's famed Hawker-Siddeley aircraft group) he worked on Canada's first home-built jet fighter, the CF-100.

Meanwhile, in a top-secret screened area at Avro's

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 deg. 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 a likely solution.

Curving one side of a nozzle will deflect a jet blast to follow the curved side. Working to this basis, 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

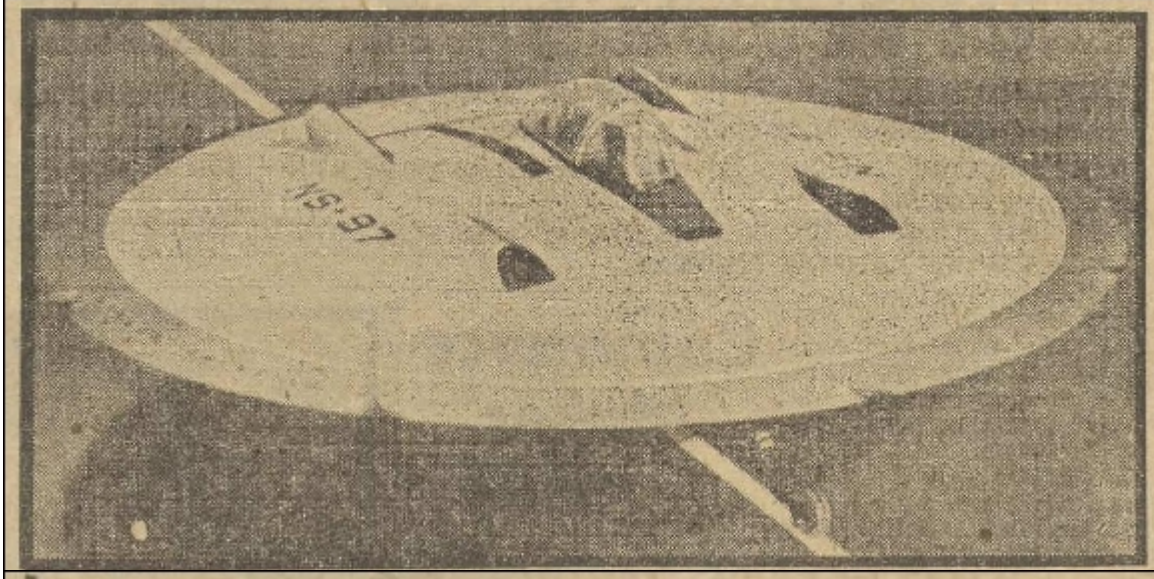
tubes, blasts would radiate to 180 exhaust ports all around the saucer's edge.

But the pilot would need some kind of moveable 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 saucer than from below it. This decreases air pressure on the top, causing the saucer to rise.

IF he rises as he is supposed to, the pilot would then rest 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 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 USAF's willingness to spend money on saucer-plane experiments results from a growing be-

lief that the Soviet Air Force may be ahead of the U.S. in this field.



◆ **EARLY EXPERIMENTAL** but man-working flying saucer which may now prove to be one step in the march from hallucination to established fact.