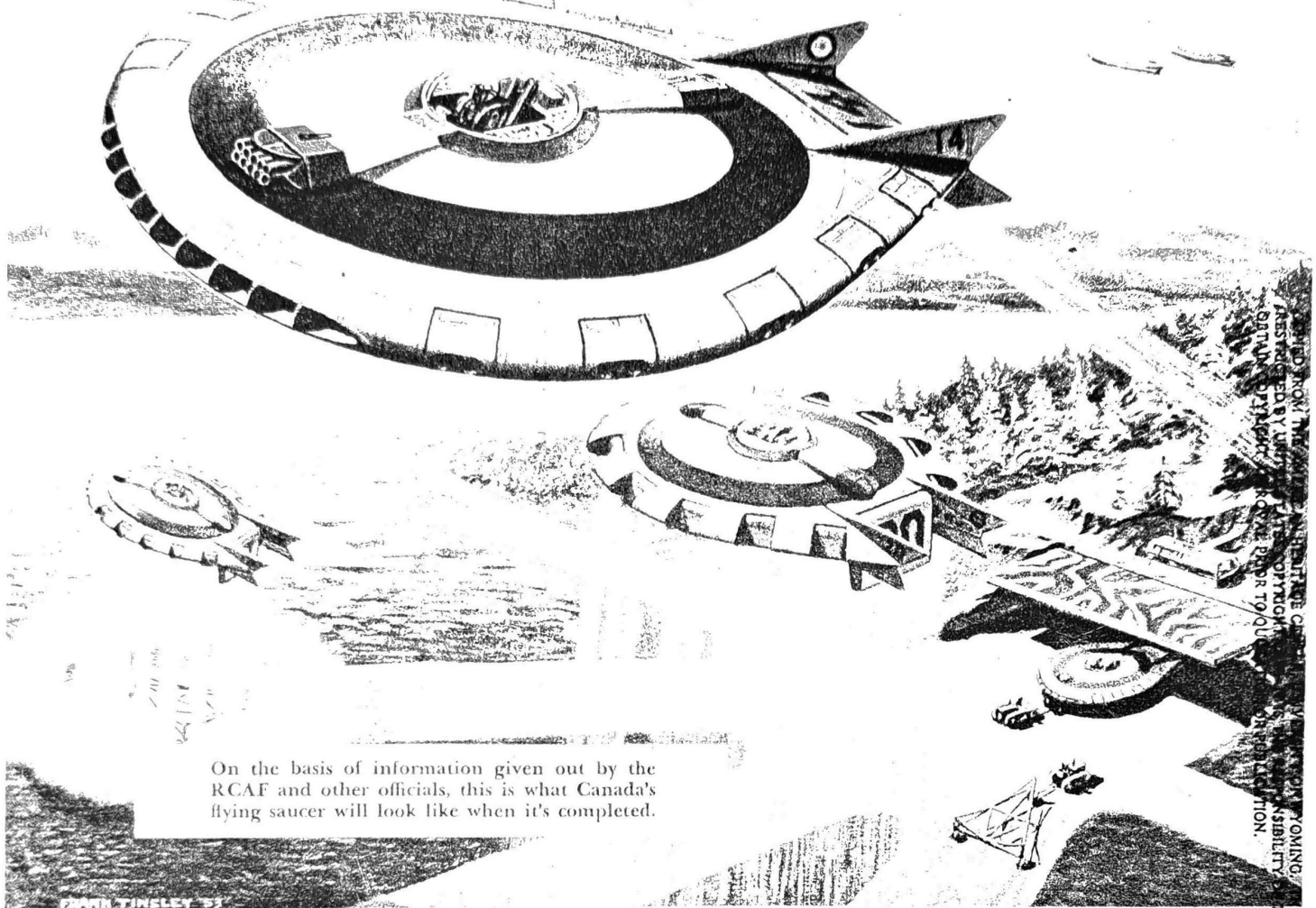


Canada's Flying Saucer



On the basis of information given out by the RCAF and other officials, this is what Canada's flying saucer will look like when it's completed.

Canadian scientists, after working for years under the most stringent military security, have designed a flying saucer—one which they say will leave the earth vertically and fly horizontally at speeds in the region of 1,500 miles an hour.

The goal of their research is to provide the Royal Canadian Air Force with a long-range, high-altitude, heavily-armed, supersonic fighter able to operate without the benefit of conventional airfields in the vast and vulnerable reaches of Canada's northland.

So far, the flying saucer has been proved only in the laboratory. But the research behind the blueprints has been so painstakingly thorough, according to one high government source, that no doubt remains that an aircraft of this radical concept is rapidly approaching reality.

The project has, in fact, reached the point where a full-scale wooden mockup is being built in a heavily-guarded section of the nation's largest aircraft plant. Smaller models have enabled engineers to conduct exhaustive wind tunnel

by James Hornick

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tests, the results of which have never been disclosed.

The Canadian scientists have designed an almost-circular aircraft 40 feet in diameter in which the pilot is seated inside a plastic bubble. Around him, several hundred times a minute, revolves a powerful gas turbine of unconventional design.

The saucer's rim remains stationary. Air is sucked through inlets on the rim's forward surfaces and blasts of hot air are ejected through combustion chambers along the remaining perimeter and out the "tail"—a flat surface to the rear which is the craft's only control.

The swiftly revolving engine produces a gyroscopic effect so great, according to the designers' mathematical calculations, that it took several months to devise an efficient control system. Their success with this problem is attested by the claim that the saucer, as presently envisaged, can perform 180-degree turns without changing altitude.

For take offs the saucer utilizes a simple tripod under-carriage which is left behind on the ground. Like a sky-

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FROM THE
THE RESEARCHER TO

"Cavalier for More" Jan 54

At last—a real flying saucer, nobody's dream or hallucination.

Developed by the Canadian Air Force, it will revolutionize flying

rocket it soars into the air with sheer brute force, except that in this case the force is generated not by rocket propulsion but by a gyroscopic form of lift. Landings are made on a tough underbelly.

In Ottawa, Canada's capital, an official of the Canadian Defense Department had this to say about the saucer:

"The Royal Air Force is very keen on the project and suggested Canada should see it through to final development. It contains so many revolutionary features that the cost may be very high, but it would clinch Canadian prestige in the scientific world."

A spokesman for the British Air Ministry, which had studied the Canadian plans, told newsmen:

"This craft is so revolutionary that if it flies, anything now in the air becomes obsolete."

A colleague described the project as "coming closest to what everyone is looking for—a war plane independent of runways or carriers because it takes off vertically and is still able to fly at terrific speed."

In a statement to employees carried in the Avro Canada Ltd. plant newspaper, President Crawford Gordon, Jr., announced:

"For obvious reasons, neither the employees of Avro Canada nor the general public can, nor do I think they expect to be kept informed of what this or any other [aircraft] company is doing in the way of advanced design and development affecting national defense."

"All Avro has to say is this: like all aircraft companies that want to stay in business, we are directing a substantial part of our efforts toward new ideas and advanced designs. Like other firms we have a number of such projects under way. One of our projects could be said to be quite revolutionary in concept and appearance."

"That is all Avro Canada is going to say about this project now or in the future whether it proves to be practicable or whether it does not. Whatever the outcome, it must remain a secret."

The basic principle of operation of the saucer on which the Canadians are working was described by a Toronto consulting engineer.

"In the turbo-jet," he said, "compressed air passes from the front of the engine to the fuel and emerges as gas at the rear. In a flying saucer the compressed air comes from the center and passes through vanes to a fuel chamber encircling the rim like a doughnut."

"Exhausts on either side of the saucer eject the gases, giving the craft great push. By varying the direction in which the exhausts are pointed the craft can be made to go up and down."

"Mind you," he cautioned, "I said the principle is simple. Actually, the detailed engineering problems are definitely complicated. It will be years before a flying saucer can pass from the theoretical stage into actual flight."

Major General Roger Ramey, USAF operations chief in Washington, said:

"The Canadian project apparently has 'mass'; in other words it has substance. And our investigations so far show that whatever caused saucer reports was insubstantial—like electronic phenomena."

This, in the view of Ottawa officials, is the question to be decided: whether a country with the limited financial resources of Canada (population of 15,000,000) should proceed single-handedly with an engineering job which, by all reports, has not been attempted by any of her wealthier, more populous allies.

In its present state, according to the experts, the Canadian saucer could be ready to take to the air in two to 10 years—depending on the amount of money and the number of high-ranking engineers assigned to the task.

The need for such an unusual aircraft is evident with one cursory glance at a map of the Canadian Arctic. Airfields along the tundra belt are almost non-existent. Those in use by the Royal Canadian Air Force and commercial airlines are predominantly of the short-runway type, inaccessible to present-day jet fighters which require longer distances for takeoff and landing. A straight-up, straight-down saucer could operate in any area dictated by tactical necessity.

The main research is being directed by specially selected teams from Canada's National Aeronautical Establishment, the Canadian Defense Research Board, Air Force Headquarters at Ottawa and Avro Canada Ltd., a private company with substantial facilities for aircraft and gas turbine production at Malton, a suburb of Toronto.

Behind this program is a theory recently explained by Dr. Omond M. Solandt, wartime member of Britain's Army Operational Research Group and now chairman of the highly secret Canadian Defense Research Board.

"Military research in Canada," Dr. Solandt said, "must be limited to a relatively small number of projects. In selecting fields for research the Board attempts to choose ones of particular importance to the Canadian services and in which the work can be more effectively done in Canada than elsewhere."

"The Board has always regarded a new idea as a unique resource and consequently has backed important new ideas arising in Canada. It is a natural corollary... that we should try to concentrate our effort on the more speculative research and development that is likely to produce major improvements."

Avro Canada Ltd., to which Dr. Solandt has entrusted several phases of the saucer project, is one of the main segments of Canadian defense production.

It is at the Avro plant that the wooden mockup of the saucer is being constructed. Experts in the fields of electronics and armament are anxiously awaiting its completion. For, once they have something more tangible than blueprints to work with, they can advise the government as to the variety, weight and probable effectiveness of fire power that can be installed.

Only in the past few months has Avro even conceded the existence of a saucer project; previous enquiries were always answered with blanket denials.

Little detailed information, therefore, has emerged about Canada's venture into the aeronautical future. But if what information we have is reliable—and I'm satisfied that it is—Canada is on its way to making the most revolutionary advancement in aviation history. •