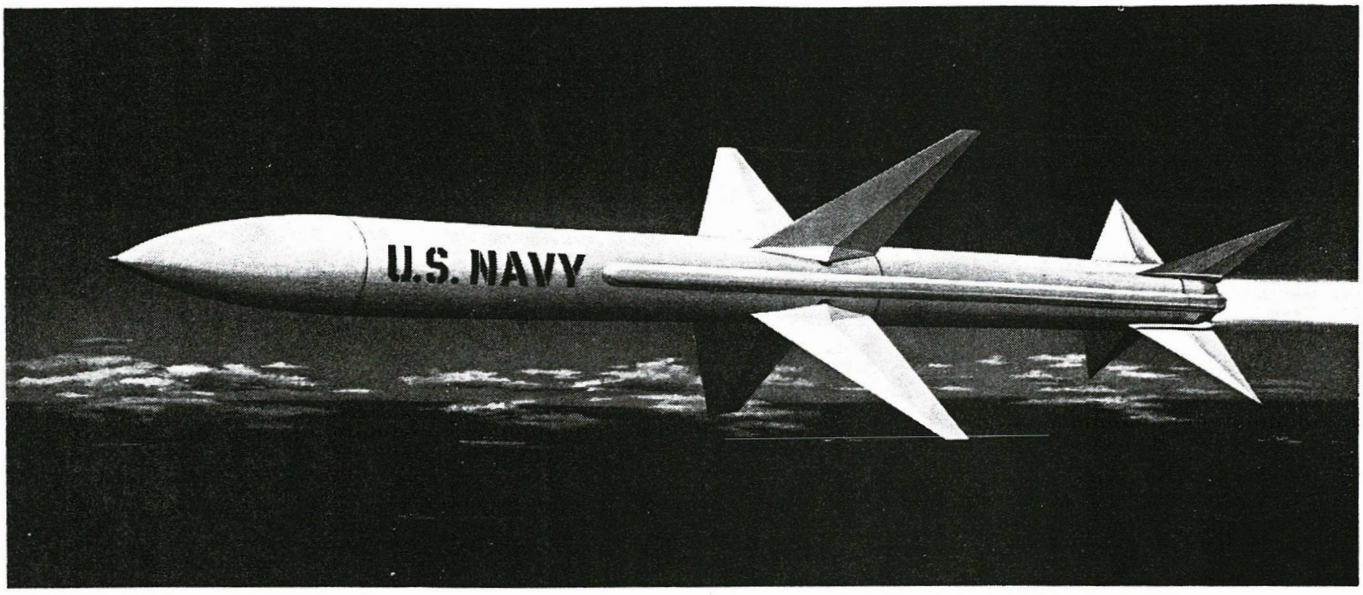
RAYTHEON SPARROW III



New Navy missile, now with Fleet, guides itself, out-thinks target.

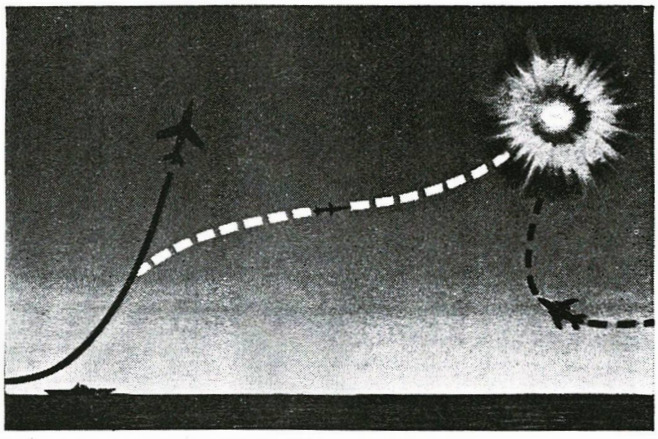
Sparrow III is tenacious, accurate, lightning-fast. It uses a unique "wide-angle" radar target seeker which permits Navy pilots to launch missile from almost any approach angle and still score a hit. Once locked on target, Sparrow III guides itself, flying at several times the speed of sound, and unerringly intercepts the hostile aircraft despite evasive action.

Now operational aboard Navy carriers, Sparrow III is slated for fighter squadrons throughout the Fleet. The missile is designed and produced for extreme reliability; has a powerful warhead and all-weather capability.

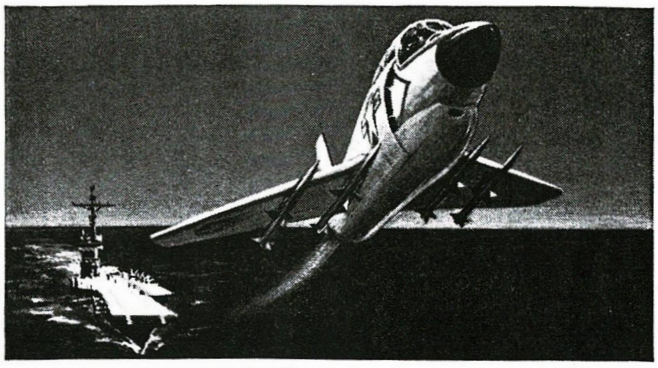
Raytheon is prime contractor for the Sparrow III, under the Navy's Bureau of Aeronautics. This new missile is another example of how the 37,000 men and women of Raytheon are contributing to national security.

RAYTHEON MANUFACTURING COMPANY,
Waltham, Mass.

Excellence RAYTHEON *in Electronics*



RAYTHEON SPARROW III weapon system employs new "wide-angle" radar. Navy pilot can launch missile from almost any angle and hit the target. Missile guides itself automatically, relentlessly destroys enemy aircraft in spite of evasive tactics.



NOW BEING DELIVERED to the Fleet, Sparrow III arms the latest Navy jet fighters. This new 12-ft. long, 8 inch diameter missile is rocket powered, highly reliable, has all-weather capability. It is extremely accurate and carries a powerful warhead.

THE AIRBORNE SERVICES

Sabres for NATO

Sabres of the J-47 variety, made surplus by the Sabre 5's now going into service with RCAF squadrons in Europe, are to be supplied to Greece and Turkey, it was announced recently by Defence Minister Brooke Claxton. Some of the Sabres replaced would be used to build up reserves, Mr. Claxton said, while the others, after complete overhaul, would be made available as mutual aid to other NATO nations.

The first 164 of these aircraft to be released have been consigned to Greece and Turkey, with 82 being allotted to each country, on the recommendation of the Standing Group of NATO. Physical delivery of the first 54 aircraft is expected to be completed by this autumn. It is expected that the jet fighters will be picked up in the U.K. following reconditioning there, presumably by The Bristol Aeroplane Company.

The 164 Sabres will be transferred to Greece and Turkey complete with a year's supply of spares, including a spare engine for each fighter. This will be a completely Canadian contribution. After the first year, supply of spares will be maintained as a joint Canadian-U.S. contribution. Canada will provide spares for the made-in-Canada elements of the Sabre and the U.S. will provide the remaining spares, including engine spares.

RCN Piaseckis

Three Piasecki H-25 helicopters were accepted by the RCN on May 17 at the Morton, Pennsylvania, plant of Piasecki Helicopter Corporation. These are the first Piasecki tandem helicopters to go into service with the RCN, though the RCAF is now awaiting delivery on the first of six Piasecki H21A Work Horse helicopters, a somewhat larger machine than the HUP.

The RCN's H-25's will be used to conduct ice reconnaissance and resupply of Arctic outposts from the Navy's new Arctic patrol vessel, HMCS Labrador, which is to be commissioned this summer. They will also be used for air/sea rescue work as well as ship-to-ship and ship-to-shore passenger transport.

The machines, which will be attached to helicopter squadron VH 21, were flown to Dartmouth, N.S., by Lt.-Commander George Marlow, Lt. Ian Webester; Lt. William James.

In addition to the three new H-25's, the RCN operates two Bell HTL-5's (47) and three Sikorsky HO4's (S-55).

•From Bell Aircraft Corporation at Fort Worth, Texas, has come a hint that the RCN's search for an anti-submarine helicopter may soon be ended. The report from Bell says that Commodore W. L. M. Brown, RN, Assistant Chief of Naval Staff (Air) and Chief of Naval Aviation for the RCN, recently wound up a tour of helicopter manufacturing plants in the U.S. at the Fort Worth company, where production is now under way on the Bell HSL, a new helicopter specially designed for anti-submarine operations of an aggressive nature.

Commodore Brown was accompanied on his tour by the DDP's Special Projects Officer, Walter Symmons, and also by Lt.Commander George Marlow. Marlow.

Pacific Airlift

The trans-Pacific airlift that the RCAF's 426 Thunderbird Squadron operated for almost four years, has ended, with the last round trip to Japan having set out from Montreal on May 29. During the period of operation, 426 North Stars made almost 600 round trips—1,200 Pacific crossings—and flew more than 13,000 personnel, including many wounded. Approximately 7,000,000 lbs. of freight and mail were carried in 34,000 hours of flying time.

The Squadron also chalked up an amazing safety record, with not a single life being lost, though two aircraft were written off in the last six months of the airlift.

In announcing the cessation of the operation, Defence Minister Brooke Claxton pointed out that: "Requirement for air transport support of the UN operations in Korea has decreased and there has been a lessening of the overall airlift operations over the northern route. In consequence, the USAF is reducing its facilities at Shemya AFB, in the Aleutians, which the RCAF North Stars have been using as a refuelling point. Unavailability of Shemya would make economic operation of the North Stars unfeasible over this run. Because of this, and the decreased requirement, the RCAF operation is being brought to an end.

"Canadian Pacific Airlines will continue, for the time being at least, to operate its scheduled airlift flights to Korea, under charter to the Canadian government, as part of the Canadian contribution towards the UN effort in Korea. Operating with DC-6B aircraft having a longer range than the RCAF North Stars, CPA can continue to operate over the route without utilizing Shemya as a refuelling point. CPA is currently flying 3½ round trips per week on the Korea airlift,

BIRD OF PREY: Now being placed in operational service with the USN are the Sperry Sparrow air-to-air guided missiles, shown here under the wings of a Douglas F3D Skynight. According to Sperry Gyroscope Company, which developed the Sparrow in co-operation with the USN Bureau of Aeronautics, the missile is rocket powered and fully maneuverable at supersonic speeds, yet light and compact enough to be carried in multiple units by fighter-type jet aircraft.

de Havilland Canada

THE AVIATION company in Canada with the most diversified line of activities must surely be The de Havilland Aircraft of Canada Ltd. What other firm in Canada can claim to be in production simultaneously on six different models of four distinct types of airplanes, not to mention an overhaul program which embraces not only a variety of commercial and military jet and propeller aircraft, but also aero engines, of both the piston and turbo jet variety?

The aircraft production program looks something like this:

- Beaver—being turned out as the DHC-2 commercial model for civil and government operators all over the world; as the L-20 military version for the U. S. Army and the USAF.
- Otter—current production is devoted mainly to the U-1A model for the U.S. Army; as the DHC-3, it is made for commercial operators.
- CS2F-1 Sentinel—on order for the RCN, with the possibility that production may later be extended, with the additional airplanes being allocated to Mutual Aid for distribution to NATO countries.

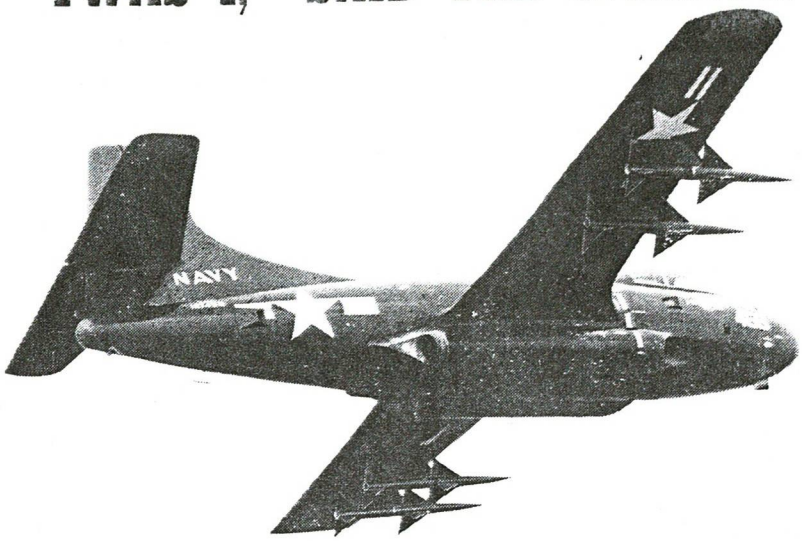
Although de Havilland Canada's year was marred by a four-month strike, this seems to have had little effect on the firm's operations financially; at least, if there was an effect, it was not reflected in the company's annual report covering the year ending Sept. 30, 1955. According to this report, DH Canada made a net profit of $375,281, compared with $121,935 for the previous year. P. C. Garratt, vice president & managing director, has described the outlook for 1956 as promising. He reports a substantial backlog of military and civil orders sufficient to ensure full-scale operations throughout 1956.

The strike, which came after a long period of harmonious industrial relations at DH Canada, set production back on all items, and it is expected that it will not be until late this year that everything will be caught up.

On the design and development side, de Havilland is concerning itself with the DHC-4, a twin-engined utility transport. It is also carrying on secret research and development work in the guided missiles field.

Repair and overhaul is performed on all the types of aircraft that the firm has produced over the years, including

"'TWAS I," SAID THE SPARROW



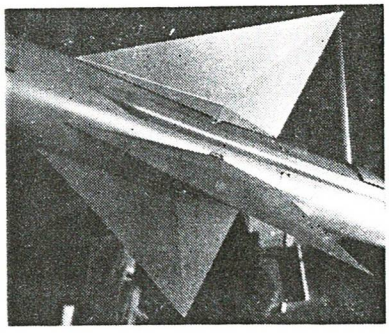
The Sperry Sparrow air-to-air guided missile has been adopted as a standard aerial weapon by the RCAF and is to be built in Canada by a three-company production group comprising: A. V. Roe Canada Ltd., which will administer the overall program; Canadair Ltd., which will build the airframes, and Canadian Westinghouse, which will make the electronic guidance systems.

According to reports, experimental work will continue on the Velvet Glove, with the object of keeping intact the guided missile research & development team that has been built up at Canadair and at CARDE.

A number of versions of the Sparrow have been developed, but it has not been revealed which one will be built in Canada. The model shown in the accompanying photographs is the Sparrow 1, which bears the designation AAM-N-2. Other models that have been mentioned are the Sparrow 2, AAM-N-3, and the Sparrow 3, AAM-N-6. Externally, all models are understood to be similar in appearance.

The Sparrow is approximately 8 ft. long and 6 in. in diameter. Maximum span is 2 ft. 3 in. The aerodynamic design embodies delta wings (right) and tail fins (lower L) in a cruciform arrangement. The movable wings are swept greater than the fixed tail fins, and both surfaces utilize double-wedge airfoil sections. Driven by a solid propellant rocket up to speeds said to be as high as Mach 3.0, the 275 lb. Sparrow is guided by a beam-rider system directed from the launching aircraft. A terminal homing system takes over control during the latter phases of an attack. Maximum range is approximately five miles.

The photo at top shows four Sparrows mounted on underwing racks on a Douglas F3D Skyknight. The Sparrow was originally developed by Sperry Gyroscope Co., working with the USN's Bureau of Aeronautics.



Aviation Week Photos.