



BLOODHOUND, the Bristol/Ferranti ground to air missile, one of a number displayed at the Farnborough show.

Iroquois at Farnborough

Billed as "the most powerful aero-engine yet announced in the world," Orenda's Iroquois was the centre of a good deal of attention at the Farnborough display and exhibition of the Society of British Aircraft Constructors.

Exhibition publicity quoted a recent statement by the Canadian Minister of Defence, the Hon. G. R. Pearkes. This gave the Iroquois' thrust at 28,000 lb. with reheat.

Prominent in the flying display were the Saunders Roe 53 research interceptor and the English Electric P.1B. Pilots were not allowed to break the sound barrier and so with these two aircraft, performance had to be strictly limited. The SR.53, powered by the Armstrong Siddeley Viper and the de Havilland Spectre controllable rocket, is said to be capable of speeds between 1,500 and 2,000 mph. The Viper turbojet is used for cruising but the rocket can be fired to give a rapid climb to high altitude or during interception.

Britain's guided weapons, including the recently unveiled Bristol/Ferranti Bloodhound, formed a major part of the static display. Other missiles featured included the Fairey Fireflash, de Havilland Firestreak, Armstrong Whitworth Seaslug and English Electric Thunderbird. The British industry has moved into the missile business in a big way, more than 400 firms participating.

Efforts in the commercial field

occupied a large slice of the exhibition. It is significant that more than 200 turbine-powered airliners are in service in the Western world — and all of them are British.

A comprehensive review of the display and exhibition obtained at first hand by the staff will appear in the November issue of Canadian Aviation.

English Electric's Thunderbird ground to air missile has been ordered for the RAF, according to a recent Ministry of Supply announcement. The missile had already been ordered for the British Army and "several hundred" of them have been fired on ranges in South Wales and Australia.

New Altitude Record

The third successive world altitude record to be claimed by the English Electric Canberra was set up a week before the Farnborough Show. The record breaking aircraft was fitted with twin Napier Scorpion rockets in addition to two Rolls Royce Avon turbojets. Piloted by Mike Randrup, Napier's chief test pilot, it reached a height of 70,000 ft. Previous record of 65,889 ft. was set up in 1955 by a Bristol Olympus powered Canberra.

To achieve the new record the plane climbed to 44,000 ft. on the Avons. The double Scorpion was then brought into action and was shut off when the record height was reached. At this altitude considerable skill was needed to control the aircraft since the critical Mach number (and its attendant sound

barrier effects) and the Canberra's stalling speed begin to converge. The margin between the stall and critical Mach number was about 15 mph. when the record height was reached.

Airliner Projects

Handley Page's research team have come up with a design for a "laminarized" airliner suitable for transAtlantic flight. They claim that it will be able to fly long range at a considerably reduced cost compared with currently operated or planned aircraft. The company has been working for some time on laminar flow, or boundary layer control: a technique controlling the flow of air over wings and tailplane so as to produce greatly increased lift.

Projected airliner would carry a payload of 30,000 lb. at a cruising speed of 85 to 95 per cent of the speed of sound. Its all-up weight would be about 200,000 lb. as against 280,000 to 300,000 for its conventional counterpart. Operating costs claimed show a 20 percent reduction.

A further design produced by the H. P. team is said to be capable of carrying a similar payload over a range of 5,300 miles. Its weight would be close to that of conventional transports, 290,000 lb., and its speed 590 mph. at 40,000 ft. Operating cost would be about 15 cents a short ton statute mile.

An even more ambitious design has been drawn up for a transport cruising at 90 percent of the speed of sound and capable of flying non-stop between Britain and Australia. Machine would be powered by four Rolls Royce Conways in underslung pods and would carry 120 passengers. Cost would be less than 15 cents a short ton statute mile.