

Above: Latest version of the evergreen Fairley Firefly, the A.S. 7, which is a specialized anti-submarine airplane and, below, the Handley Page Marathon T. 11 navigational crew trainer.

## Rugged Individualists Yet Trend to Uniformity

WHEN the aviation historian comes to write the history of British aircraft manufacture and design over recent years, he may well single out for attention not so much the marked differences between designers, as the great progress they have made towards uniformity. For the standardization of aircraft parts is surprisingly one of the greatest achievements in an Industry which is so noted for the rugged individualism and originality of its designers.

From the early wood and wire days of aviation, when every bit of the aeroplane was made to its own

individual design, until well on in the 1930's, the range of parts which was standard in all aircraft was remarkable for its narrowness. Today, nearly all aircraft have a great deal of equipment in common, from large components to thousands of nuts, bolts and rivets.

This remarkable progress, begun only in 1938, is the result of a deliberate Industry policy aimed at standardizing design wherever it is advantageous to do so. Members of the Society of British Aircraft Constructors, whether building aircraft,

engines, or parts and accessories, have all worked towards the goal.

Regular monthly meetings are held under the auspices of the Society, and at present there are over 6,000 SBAC standard parts which have been designed and accepted by the Industry, ranging from rudder bars and control column assemblies to the "plumbing" and electrical wiring.

Not one of these standards is the result merely of one man's brain-wave, which it is piously hoped everyone else will accept. On the contrary, every single SBAC standard is approved by the Industry.

All Industry standards are correlated with those required for Service aircraft, and with the standards developed by the British Standards Institution, whose aircraft activities are controlled by the Industry.

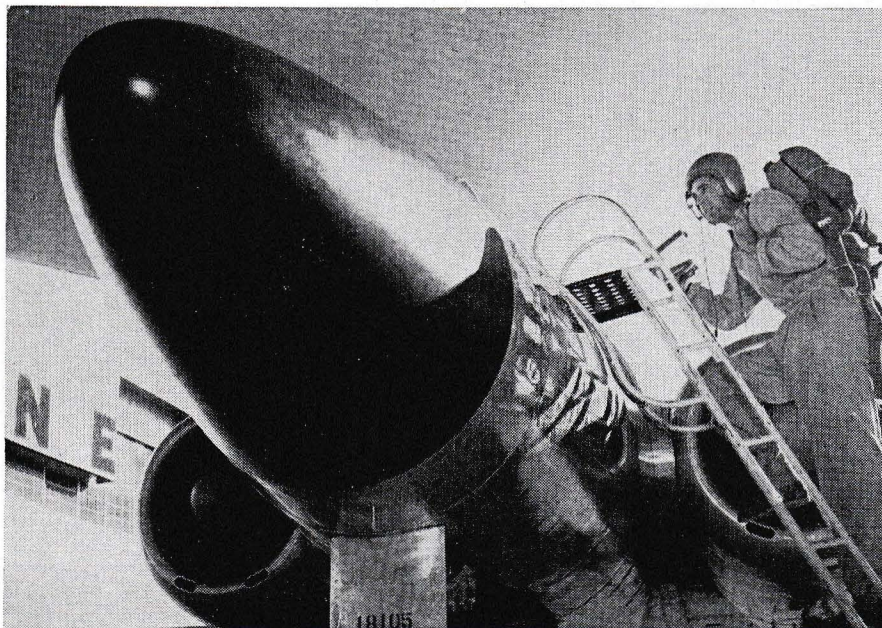
Many foreign Industries, too, follow these SBAC standards, and the Industry is working towards the development of international standards for civil aircraft. It is far more economical for overseas manufacturers to adopt standard equipment whenever possible because development costs are eliminated.

The work is still going on. One of the most important tasks at present facing the Society is the implementation of the Unified Screw Thread, which is accepted for all threaded parts by the Armed Forces of Canada, the United States, and Great Britain. The enormous difficulties inherent in this change are gradually being overcome.

The value of standardization has been proved over and over again since 1938, but perhaps most significantly among the Air Forces of NATO nations. Ground crews of these "international" squadrons must be able to keep up swift servicing and repair facilities in forward airfields, well away from the home factory. And the narrower the range of spares needed in what by its nature must be a hybrid force, the better.

Similarly, merchant airliners operating along the world's air routes must be ensured of a prompt supply of spare parts—clearly made easier if they are standard.

There are other less obvious advantages of standardization—among them easier expansion of production in an emergency, and cheapness. An early example of the latter was a gun site lamp holder, which, when a standard size was accepted, could be produced in very large quantities and in plastic; the result was a drop in price from 15 shillings to fourpence. Other economies may not be so spectacular but they are there, nevertheless.



CANADIAN JET RIGGED IN U. S.—Canada's new twin-jet fighter CF-100 being tested at Wold-Chamberlain Field, Minneapolis, prior to installation of U. S.-built automatic control equipment for precision, all-weather interceptor flying. Minneapolis-Honeywell's chief of aircraft operations, Bob Whempner (above) collaborated with AVRO technicians on installation of Honeywell yaw axis control system, fuel measurement system and rocket temperature indicators.