

# The Outlook

## A Running Commentary on Air Topics

### Speeding-up

**I**N last week's issue of *Flight* reference was made on this page, under the heading "Contracting to Expand," to the types of new aircraft being built by different manufacturers for the expanded R.A.F. Just recently a new type has been added to the experimental aeroplanes which in time will take their places as part of the flying equipment of our defence forces. This machine, designed and built by the Hawker company, is a single-seater fighter fitted with the Rolls-Royce Merlin engine, and incorporated in its design is every known aid to performance.

Following the lead given by designers of small civil aircraft, the Hawker designers have chosen the low-wing cantilever monoplane arrangement, which facilitates the use of a retractable undercarriage. The tail wheel also is retractable, and as the pilot is enclosed in a transparent cockpit covering there are no projections of any sort to detract from the speed. The Rolls-Royce Merlin, which follows standard Rolls-Royce practice in the matter of cylinder arrangement, makes for a very "clean" nose, and altogether the new machine is about as neat as it is possible to make it. Mr. P. W. S. Bulman, Hawker's chief test pilot, has made several flight tests, and these are said to have been entirely satisfactory.

It is rather the fashion to talk of the new fighters as 300-m.p.h. machines, not because this is necessarily the figure aimed at, but because it is generally held that, to be of any real use, they will have to do at least that speed. No one knows as yet, not even Mr. Bulman, what the new Hawker monoplane will do, but we gather that its movement is quite perceptible, even without the use of "sighting sticks"!

### "Selling" Air Travel

**I**N the course of his recent lecture on air transport (see *Flight* of November 7), Lt.-Col. Shelmerdine gave a number of possible explanations of the fact that the general public is not patronising the internal air services to any great extent. He did, however, fail to mention one very important reason.

Several times during the past year *Flight* has commented on the fact that the general public simply does not know how to use air services. For several very good reasons the business-man-in-the-street is almost entirely ignorant of the services that are available to speed up his movements from place to place. Anyone who has tried the experiment of asking friends and acquaintances, both inside and outside the aircraft trade, must have been appalled by the ignorance and indifference displayed.

The ordinary travel agencies are, of course, precluded from booking passages on or giving information concerning any air services other than those of Imperial Airways, Railway Air Services, and sundry foreign air lines with useful connections.

The individual operators cannot afford to advertise nationally, and, in fact, one hardly sees posters or pamphlets save at the various aerodromes.

Several very excellent time-tables can be purchased for a few pence apiece, but the existence of these is not always realised even by quite ardent air travellers. The number of telephone enquiries made through *Flight* alone gives a very fair indication of the prodigious ignorance of the general public.

For the present it remains, therefore, for interested persons, such as club members and people in the trade

itself, to carry out an extensive "go by air" campaign. Everyone who has the missionary spirit in this matter of flying should have a very fair knowledge of the routes and operating companies in this country, and should make a point of telling people about them.

### Instrument Segregation

**N**OTHING that will simplify the commercial pilot's work should be left undone, and the U.S. Bureau of Air Commerce is to be congratulated on making an effort to standardise the instrument panels of transport types. Pilots even of light aeroplanes know how difficult it can be for them when leaving one machine for another with a totally different panel lay-out.

The need, however, to us appears to be for more rigorous grouping or segregation rather than for standardisation. A great deal has been and is being done in this direction, but machines are still to be found with the most oddly disposed array of instruments. For reasons, no doubt, of installation simplicity, instrument panels are sometimes seen with the less necessary dials scattered magnificently among those of vital importance.

Surely the blind-flying instruments, the altimeter, the rate-of-climb indicator, and the air-speed indicator should always be grouped on a separate panel, which is so placed and arranged that the pilot has the least difficulty in re-focusing his eyes after glancing at the ground. Revolution indicators, temperature gauges and the like should themselves be grouped in order of importance, so that the pilot may see at once when one or other is showing a different reading during his occasional checks. The American system, whereby all the needles are horizontal at normal cruising speeds and heights, might, too, be copied here.

### Assault

**"O**NE man, one machine, one bomb" is a creed which has been in circulation for some years, but which has found no practical devotee. Its exponents maintain that a flock of small fast machines, with a pilot and a bomb apiece, could be usefully employed for making rapid attacks on enemy targets, particularly on troops.

The Americans have their "attack" machines—fast "ground strafers"—but they are two-seaters; the latest effort of the Curtiss Company in this field is, in fact, a twin-engined type, and may carry an even larger crew.

Italy is developing what she calls the *aeroplano d'assalto*, and a number of firms have built machines of this type. It appears that they are aiming at an aeroplane with a speed equal at least to that of the best two-seater fighters, carrying, should the nature of the target demand it, just the pilot and a single heavy bomb, or, for ground strafing, a heavy machine-gun armament, and perhaps small bombs. Later machines of the class are being stressed for dive bombing.

Presumably, when attacked by enemy fighters from which he could not fly away, the pilot of such a machine would be compelled to use it as a single-seater fighter, although handicapped by its size and weight.

It seems that these machines are being designed so that they may, if necessary, be converted into two-seater fighters or fast single- or two-seater reconnaissance machines.

Certainly the *aeroplano d'assalto* is an interesting type, and, being highly mobile and versatile, could obviously be used with great effect in guerilla warfare.