

## CORRESPONDENCE . . .

of a Mk 8 diving earthwards, the second of one inverted, presumably at the top of a loop. If an artist was asked to paint such impressions I am confident he would produce them the same way-up as those reproduced in *Flight*. Any prints which may eventually find their way into frames will probably not have captions telling how and why, and I feel, therefore, they will always be seen in the same position as they made their debut in *Flight*.

On this same flight I also photographed the Mk. 8 in close formation with us, climbing at a sustained angle of 35 deg. To have printed the resulting picture with the aircraft level (as I saw it) and the horizon set at 35 deg would have given no impression of climbing at all! So you see, Mr. Lynch, although as a photographer I appreciate your remarks, I think you will agree it depends largely on what one is trying to convey when producing air-to-air photographs; the position of the aircraft relative to the horizon helps considerably towards "telling the story" and, therefore, it seems quite reasonable for the horizon to be indicated, as nearly as possible, in its normal position. RUSSELL ADAMS, Research Dept., Hucclecote, Glos. Gloster Aircraft Co., Ltd.

I CANNOT agree with Mr. Will Lynch in his criticism of what are perhaps the finest air-to-air photographs that I have seen for a long time in *Flight*.

Having done some flying myself and not quite, though very nearly, being a "landlubber" I can only say that I was extremely impressed by the past-vertical attitude of the Meteor 8. In this position, the impression is vividly and startlingly given of all the drama attending a vertical dive. Mr. Lynch's suggested position reduces the photograph to that of a Meteor flying straight and level, with the horizon displaced; and, again, if we turn upside down the picture of the Meteor flying inverted, we get precisely the same result.

If we constantly follow Mr. Lynch's suggestion, we should get nothing but an interminable array of aircraft in straight and level flight, with horizons draped, sometimes, at unconventional angles, but I personally prefer photographs like those secured by Mr. Adams in the position in which they were rightly put.

Wilmslow, Cheshire.

G. P. GASS.

## Memories of the Sidestrand

WHEN ease of maintenance is discussed, mention is seldom made of the aircraft which, in my experience, was the most easily maintained of any produced during the last twenty years—the Boulton-Paul Sidestrand. Mention by Mr. R. E. Bishop in his paper (quoted in *Flight* for March 9th) of hinged instrument panels, etc., recalls that the Sidestrand solved this problem in an even more satisfactory manner by hinging the whole of the front-gunner's cockpit so that the instrument panel could be tackled from the back without disturbing the panel itself. This had the advantage that all leads and pipes remained *in situ*, with no danger of fouling them, and work could be done at the rear of the instruments with ease. The same aircraft embodied engine gates, secured by two taper bolts, which permitted swinging the engine out and made the fitter's job on all the gadgetry behind the engine so much easier and less blasphemous. When it is remembered that this was the age of engines backing up to within about six inches of fixed and solid fireproof bulkheads, the boon to the fitter can be imagined.

Admittedly, engine gates could not be used (nor are they necessary) for jet installations, and might not now be practicable with other engine types, and instruments have multiplied and may now be housed in pressurized cabins; but it is surely the principle behind these innovations (in that day), which is important. By and large, Boulton-Paul were in advance of other manufacturers in the provisions for ease of maintenance—in some cases, 20 years in advance. Performance was not sacrificed to give this, either, for the Sidestrand, although a bomber, was faster than some of the fighters in service at that time, and, even against faster fighters, the then phenomenal fire-power of front gun, upper rear gun, and downward-firing rear gun made a close formation virtually invulnerable—at least, with camera guns. In its bombing role, the Squadron which used it won the annual Sassoon Trophy almost as a matter of course.

Many will remember the aerobic displays of the Sidestrand against fighter attack at the old Hendon pageants; however, although the Sidestrand did these stunts, I do not claim that this represented one of its roles, but I do know that the fuselage arrangements were such that the cross-bracing wires slackened by the aerobatics during each performance could be adjusted readily from within the fuselage without undue contortion even

on my part. Then, as now, I was over six feet tall and proportionately stalwart.

Although the Sidestrand was subject to the usual R.A.F. periodic inspections, the airframe actually went 120 hours without need for attention, with two exceptions. One was the replacement of snapped flying wires, the Sidestrand's sole really bad habit. This might happen at any altitude, but was most prevalent near the ceiling (about 19,000 feet!), and pilots became mildly worried only when two flying wires on the same side were broken. The other minor snag was in the oleo legs, which, for some peculiar reason best known to the designer, carried the oil chamber above the air chamber, with a diaphragm between, with the result that leaking legs were not uncommon, although the result was not serious.

The graceful fuselage lines of the Sidestrand were destroyed in its successor, the Overstrand, by the fitting of the first power-driven gun-turret in the nose—and I had the doubtful honour of receiving the first aircraft so fitted. I can still remember that my life was soured by the fact that I had to service and operate this turret by trial and error (much error), without benefit of instructions or drawings, and the turret was not, to say the least, without the teething troubles which might be expected. Perhaps this clouded my judgment, but I never had the feeling for the Overstrand which I had for its predecessor, even though the oleo legs had been reversed to place the air chamber over the oil chamber. In another direction, that of aerobatics, the Overstrand was not as satisfactory, especially in looping. The fact that she lost some 1,000 feet in a loop was discovered by Sgt. Pilot Reddick (now, I believe, Wing Commander), who began his first loop at an altitude of some 1,050ft, and spent the next few moments with the stick irremovably in his belly, praying for the aircraft to come out of the loop. The odd fifty feet saved him, and a very demoralized corporal in the front turret.

H. R. BUNN, M.B.E., A.R.Ae.S.,  
Isleworth, Middlesex. Squadron Leader.

## Elephantasy

I READ with some despondency in your March 23rd issue that B.O.A.C. had refused to transport two elephants. Bearing in mind the uneven distribution of the world's elephant population it seemed a niggardly action. One form of transport should augment, not retard another.

It is this attitude that, in my opinion, will bring disrepute upon our airlines.

Transporting elephants by air is quite a simple operation. First, charter a torpedo-carrier aircraft. Then fit harness on the barrel of the animal and clip the harness to the torpedo racks. The elephant is now in a state of suspension.

Two men must accompany the beast, his mahout to reassure him and a Corporation employee to reassure the mahout. A warm suit of pyjamas and special goggles should be fitted on the animal, plus four roller-skates to ensure a safe landing if he stretches his legs.

Concerning your suggestion that apprehension about the transportation of elephants by air had been engendered by the behaviour of one of them on the British railway system, I put it to you, Sir—what would you do to the present British Railway system if you were an elephant?

Middlesbrough, Yorks.

THE MISSIONARY.

## FORTHCOMING EVENTS

April	7.	R.Ae.S. (Portsmouth): "Aircraft in Future Warfare," by Air Marshal Sir Robert Saundby, K.B.E., C.B., M.C., D.F.C. A.F.C.
April	8.	British Interplanetary Society (Manchester): Film Show.
April	12.	R.Ae.S. (Reading): "Flying Boats," by H. Knowler, F.R.Ae.S.
April	13.	R.Ae.S.: "The Berlin Air Lift," by A. Cdre. J. W. F. Merer, C.B.
April	13.	Guild of Air Pilots and Air Navigators: Annual General Meeting.
April	18.	Aero Golfing Society: Instone Cup Meeting.
April	18.	Institute of Transport: Informal Luncheon. Speaker: Sir Miles Thomas, D.F.C.
April	18.	R.Ae.S. Graduates: "Training of Aeronautical Engineers." (Discussion: chairman, Marcus Langley, F.R.Ae.S.)
April	21.	Institute of Navigation: "Dynamics of Space Flight," by A. C. Clarke; "Interplanetary Navigation," by Dr. R. d'E. Atkinson.
April	25.	R.Ae.S. Section Lecture: "Flight Refuelling and the Problem of Range," by C. H. Latimer Needham, M.Sc., F.R.Ae.S.
April	25.	R.Ae.S.: Film Show, Londonderry House.
April	26.	R.Ae.S. (Preston): Annual General Meeting.
April	27.	R.Ae.S.: "High-speed Research in the Aerodynamics Division of the N.P.L.," by J. A. Bevan, M.A. (Cantab.), A.F.R.Ae.S. and D. W. Holder, D.I.C., A.C.G.I., B.Sc. (at Manchester).
May	4.	R.Ae.S.: Third Louis Bleriot Lecture, by Sir Frederick Handley Page, C.B.E., F.I.Ae.S., Hon. F.R.Ae.S. (in Paris).
May	14.	R.Ae.S. Garden Party, White Waltham.
May	16.	Aero Golfing Society: Flight Cup Meeting, St. George's Hill.
May	19.	Bomber Command Night, Royal Albert Hall.
May	20.	Northamptonshire Aero Club: At Home.
May	25.	R.Ae.S.: 38th Wilbur Wright Memorial Lecture by Sir Richard Fairey, M.B.E.