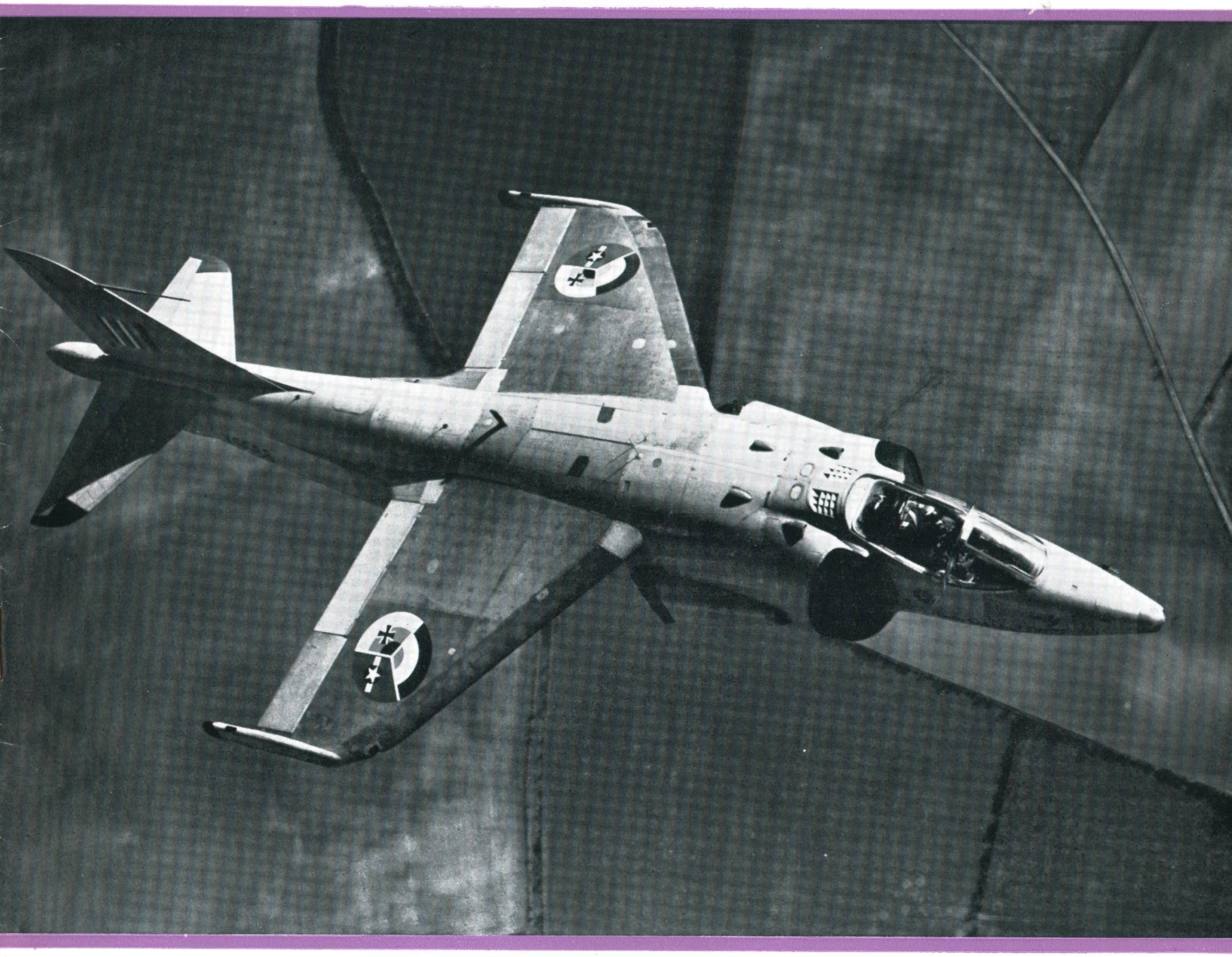
THE ROYAL OBSERVER CORPS

RECOGNITION

Journal

and R.O.C. GAZETTE



Vol. 6 AUGUST 1964 No. 8

KNOW YOUR OWN—

A General Test

Apart from an Observer Corps training requirement to obtain proficiency in aircraft identification, it is surely a point of personal pride for every observer to know by sight the aircraft types of his own country. If after this test (solutions appear on the cover) you find that you lack this general knowledge, you are advised to refer to back copies for identification lessons.

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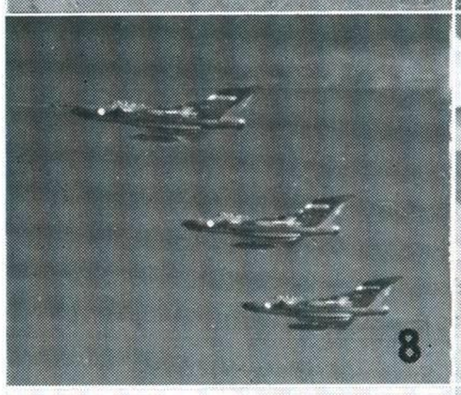
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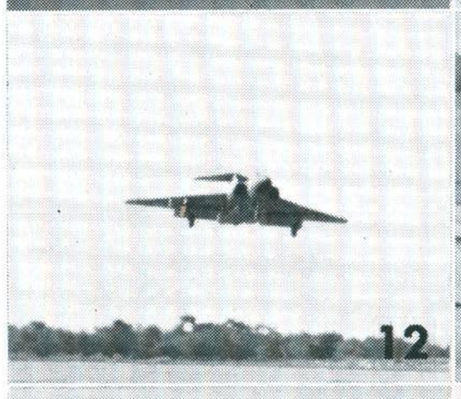
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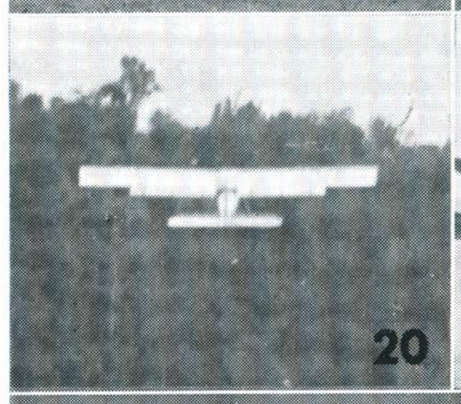
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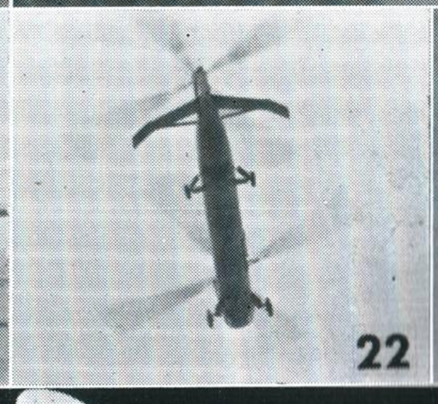
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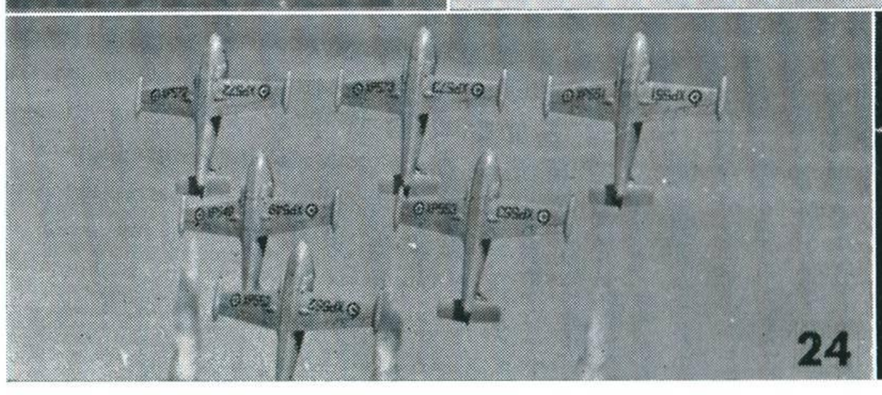
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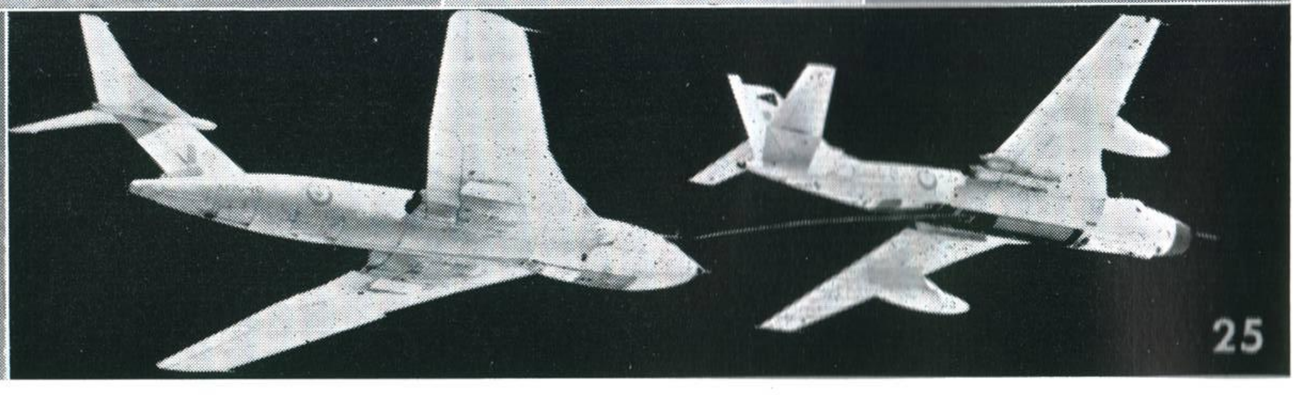
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AUGUST 1964 Vol. 6 No. 8

THE ROYAL OBSERVER CORPS

RECOGNITION JOURNAL

AND R.O.C. GAZETTE

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* *Identification Lessons*

ONCE AGAIN

What's in a name?

For identification purposes the ideal name is one that is short, easily pronounced, significant and not easily confused with any other aircraft type name. In practice the official service name is normally accepted with certain reservations.

The British Services learnt in the First World War that there was something in a name. The Admiralty, when adopting the "Class Ship" method for aircraft, called the R.F.C.'s Sopwith Single-seat Scout the Sopwith 9901 after the serial number of the prototype, but later both naval and military authorities adopted Sopwith's simple and effective name—the Pup. Names are always more effective than designations, but the Royal Aircraft Factory during that war persisted in designations for its designs. It was once stated in an official handbook that the R.E.8 was known as the Reconnaissance Experimental No. 8, which is as realistic as saying that the N.A.A.F.I. is *known* as the Navy, Army and Air Force Institute. In fact the R.E.8 was generally known as the Harry Tate, thus there was an unrealistic official name suggesting experimental for an aircraft produced in its thousands and the accepted name of a famous music hall comedian which did nothing to enhance the R.E.8's reputation as a Service aircraft.

Fortunately, most British service aircraft have names which are functionally and aesthetically good. A difficulty is when to name. It is a pity to waste a good name on a machine that may not go further than the prototype stage, on the other hand when an aircraft is well known at its early stage such as the Blackburn NA39, it takes a little time to get used to its service name Buccaneer. And by what name will the T.S.R.2 be known in service?

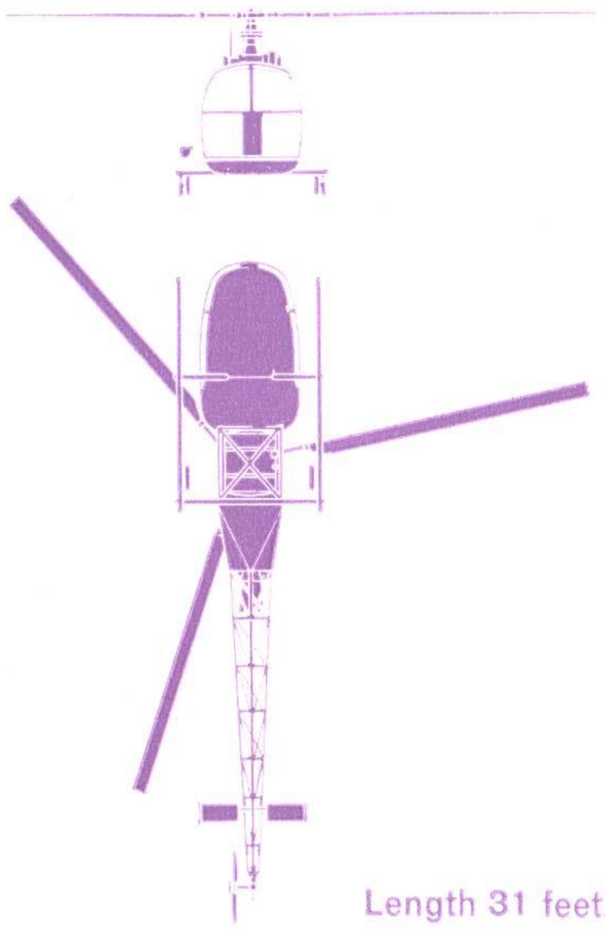
Our Allies' problems seem a little more involved than ours. The Sikorsky S-58 produced in this country by Westland is the Wessex whether used by the Royal Navy or the R.A.F.—a name alliterative with, and symbolic of, Westland. But the Sikorsky S-58 built in America is Seabat in the U.S. Navy, Seahorse in the U.S. Marines and Choctaw in the U.S. Army.

Since it is not usually possible to know the user Service in practical reporting, this helicopter is reported by its designation H-34. That a name is preferred to designations is evident from nicknames given by the personnel of Ellyson Field early in 1962 before the new system of designating was announced. There, the Sikorsky S-58 helicopters used were of the HSS-1 and HUS-1 types and were invariably known as Hiss and Huss.

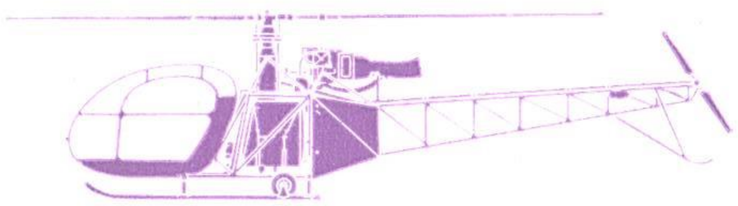
Now, Hiss and Huss are short and easily pronounced, but unofficial nicknames can bring confusion. Moreover, these nicknames are liable to be used as the official Tripartite names —which are accepted by N.A.T.O.—for new Russian helicopters.

Once a name is used, whether officially or unofficially, it tends to stick. The adoption by B.E.A. of their own names did not prove a success. Another case; in 1942 an Air Ministry Order promulgated the name Bisley for an improved version of the Blenheim and within weeks cancelled the new name in favour of Blenheim Mk. V—but, Bisley stuck. Misnomers are difficult to rectify.

Identification reporting is not said to be a prime consideration in naming aircraft, but it is a matter that should be given some serious thought. That is the responsibility of a few—the responsibility of the many, the readers, is to keep in mind, whenever there is doubt, the *Journal* name which gives the correct reporting name for the British Services.



Length 31 feet.

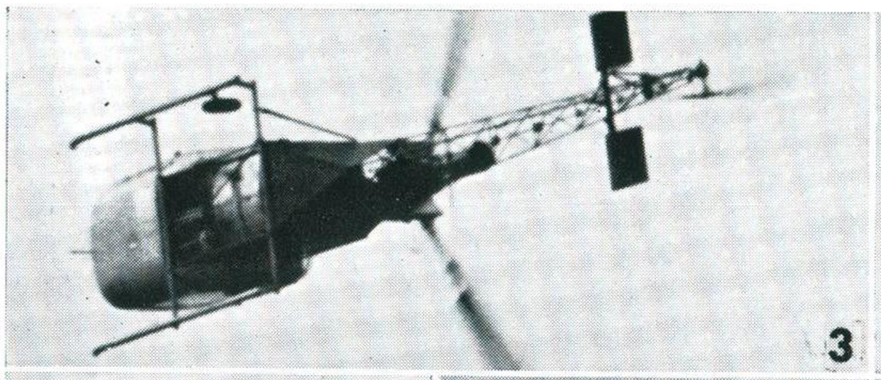


ALOUETTE II

Over a thousand Alouette helicopters are on order of which 888 were delivered up to the beginning of 1964. Apart from the French Forces who ordered 365, this French helicopter has been supplied to 32 other countries, including a small number for British Army use.

It is produced in two versions, the Sud Aviation SE3130 and SA3180 with only minor visual differences in the engine form. However, variations do occur with either version concerning the tail-skid and the undercarriage which may be of the skid or wheel type. Stretcher panniers or flotation gear may be fitted.

To learn to identify the Alouette II work to the instructions on page 124. Solutions on the cover.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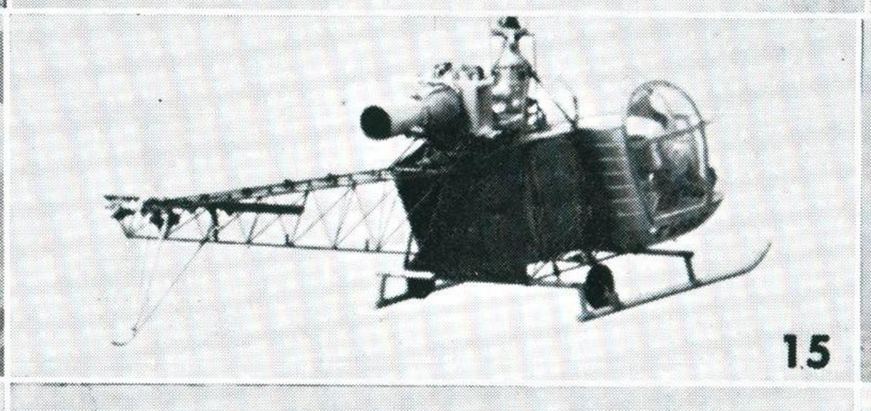
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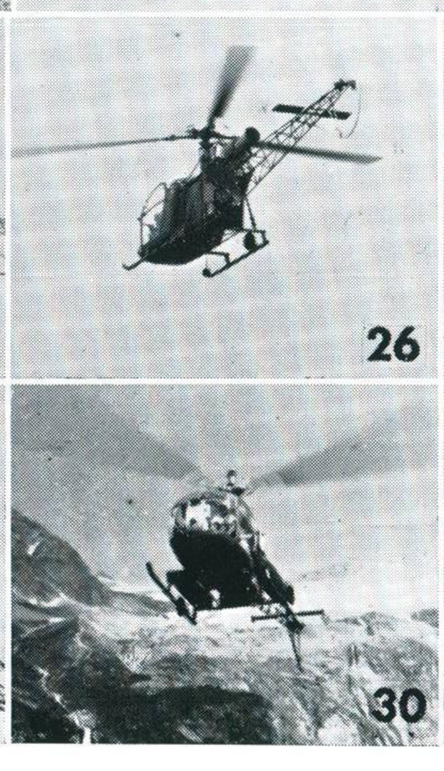
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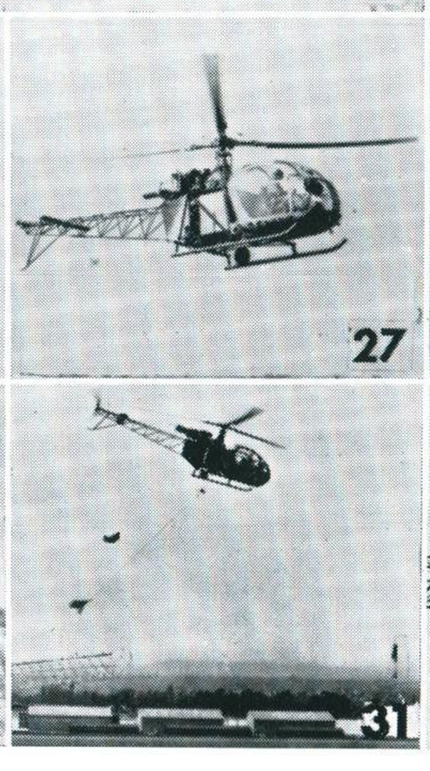
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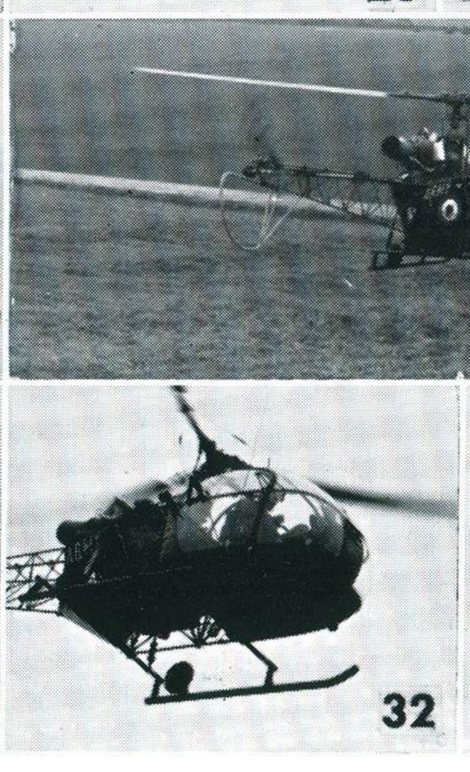
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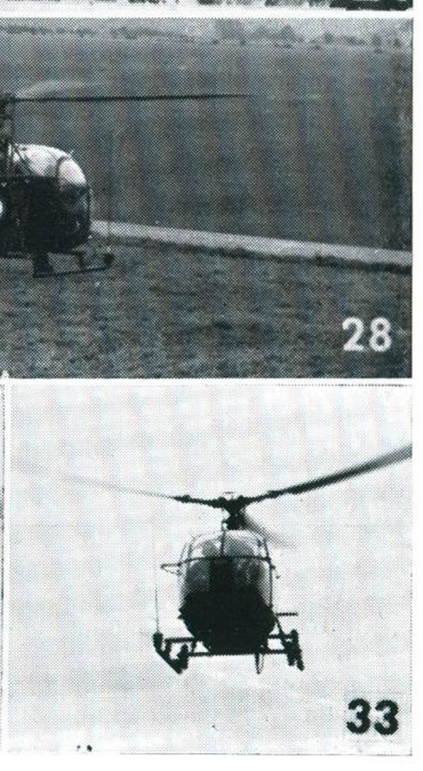
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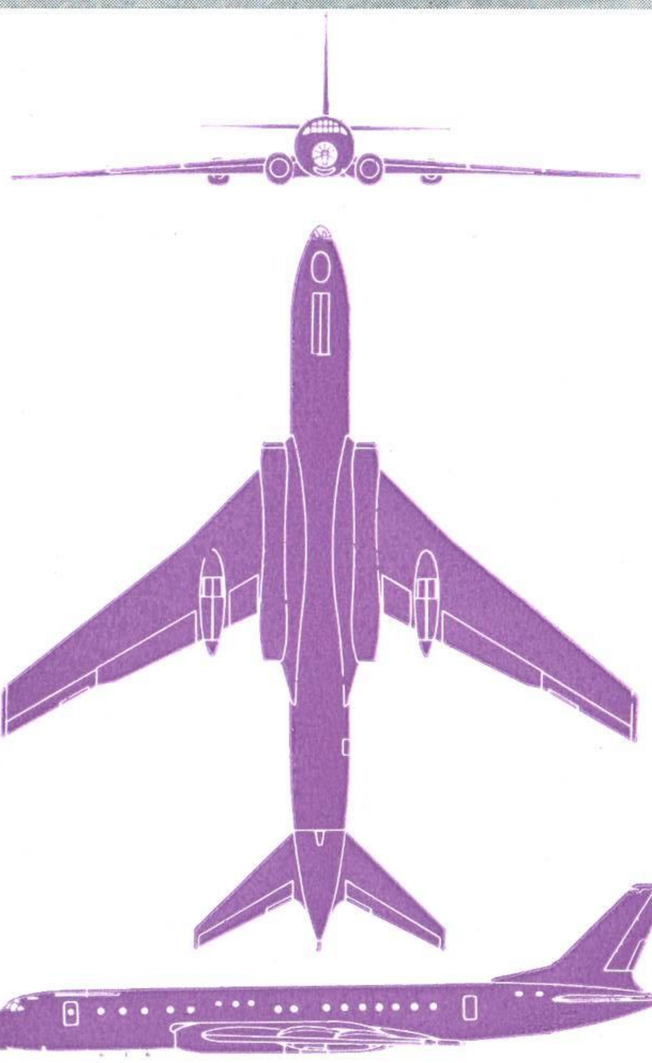
Span 113 feet.



CAMEL

The Tu-104 Camel is a Russian jet that is not infrequently a spotting possibility over an ever-widening sphere, including the United Kingdom.

This airliner has been produced in several versions since the prototype, shown in the key view below, first flew in 1955. The initial Tu-104s with accommodation for 50 passengers were followed by Tu-104As with revised seating for 70 passengers without any overall dimensional changes. However, for the latest 100-seat version, the Tu-104B, the fuselage has been lengthened by four feet.

A smaller version of the Tu-104 Camel, the Tu-124 Cookpot, is in use mainly on Soviet internal air routes.

For Camel identification work to the instructions on page 124. Solutions on the cover.

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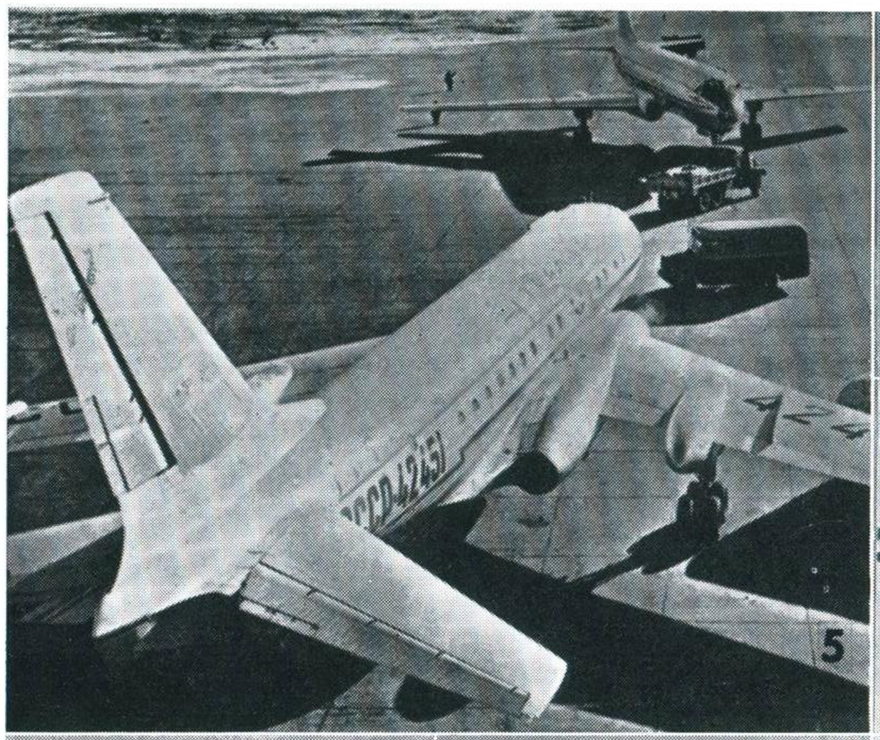
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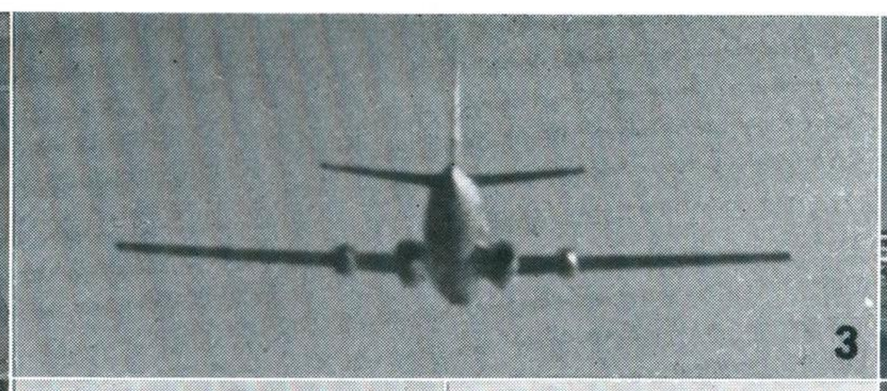
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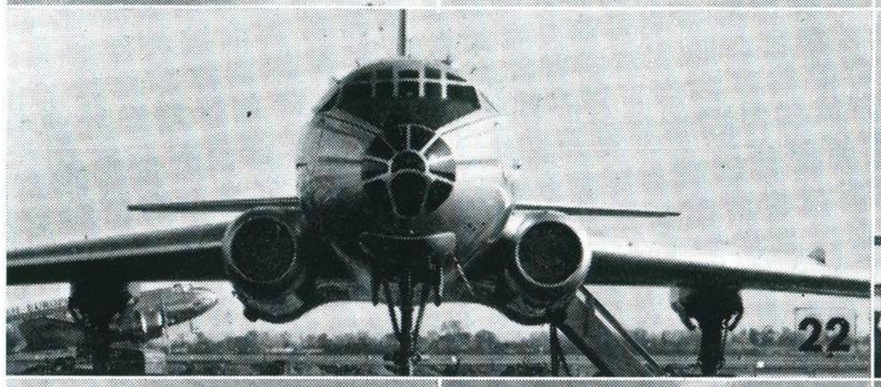
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COMET

A REFRESHER

Since the main versions of the Comet, the 2, 4, 4B and 4C vary in size, disproportionally too, from 108 to 115 feet in span and from 96 to 118 feet in length, as well as leading edge fuel tanks being exclusive to the 4 and 4C models, you are invited to refresh your memory on salient Comet features. Lesson Instructions on page 124. Solutions on the cover.

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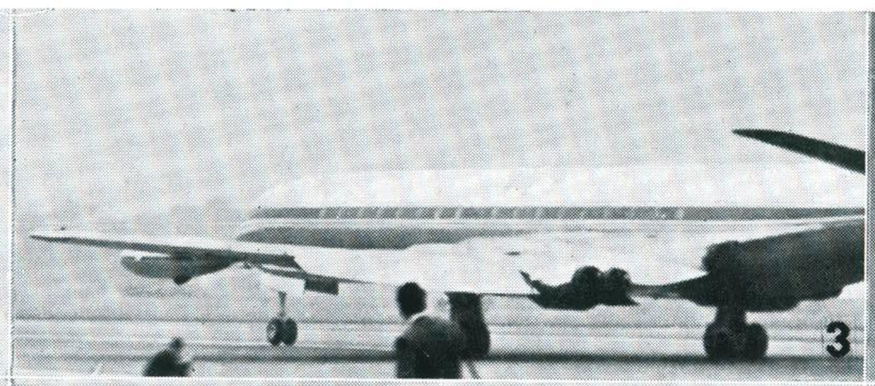
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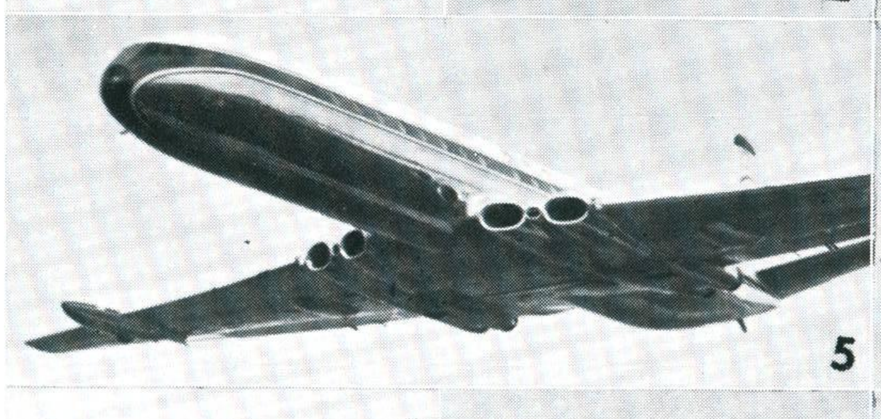
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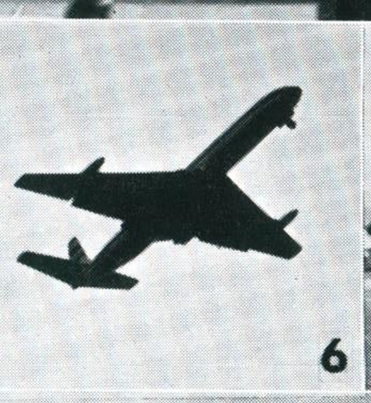
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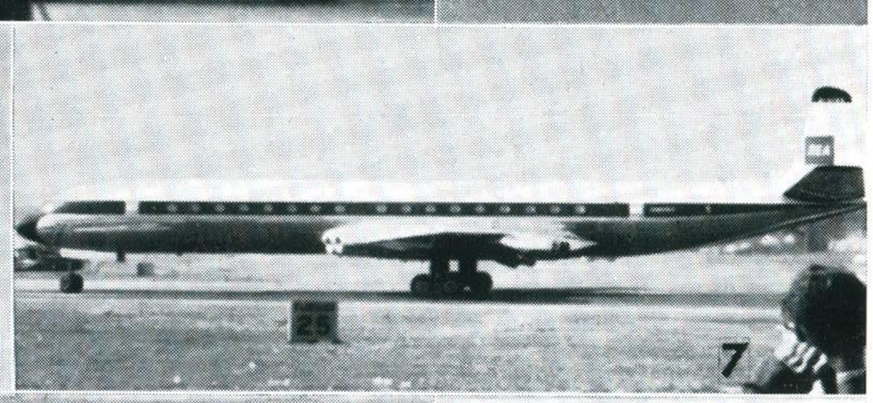
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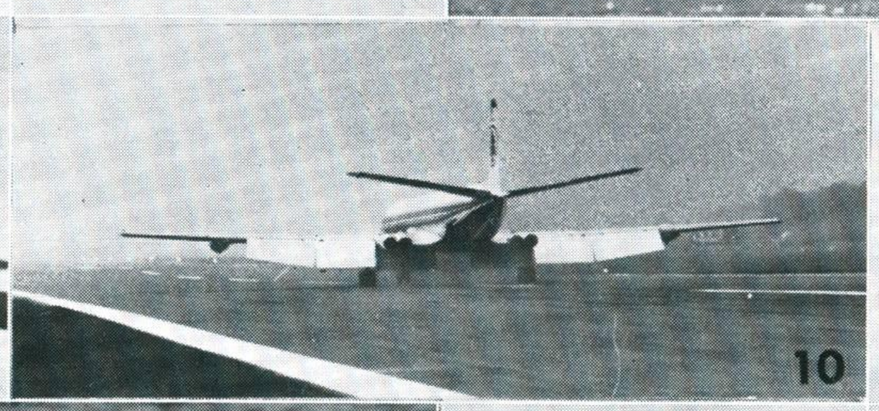
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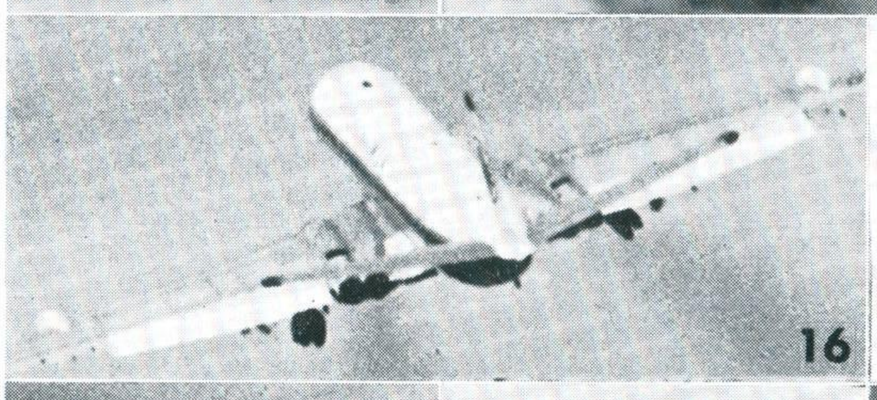
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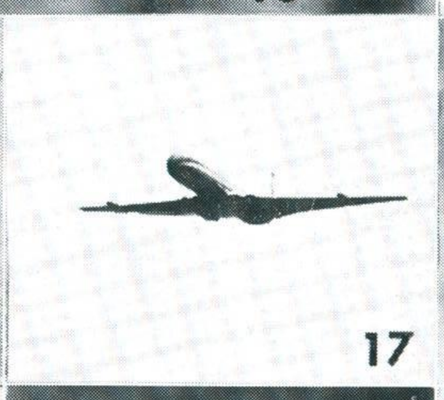
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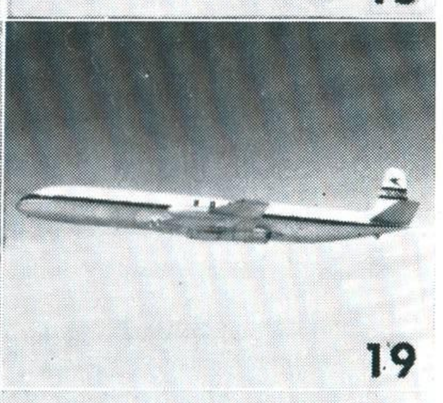
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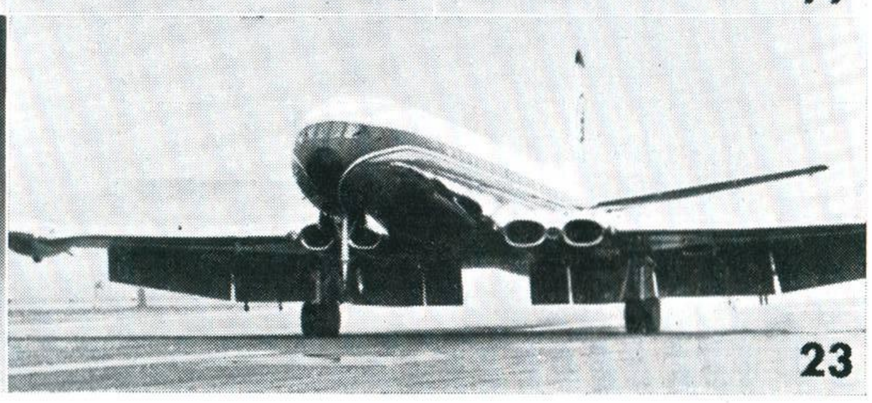
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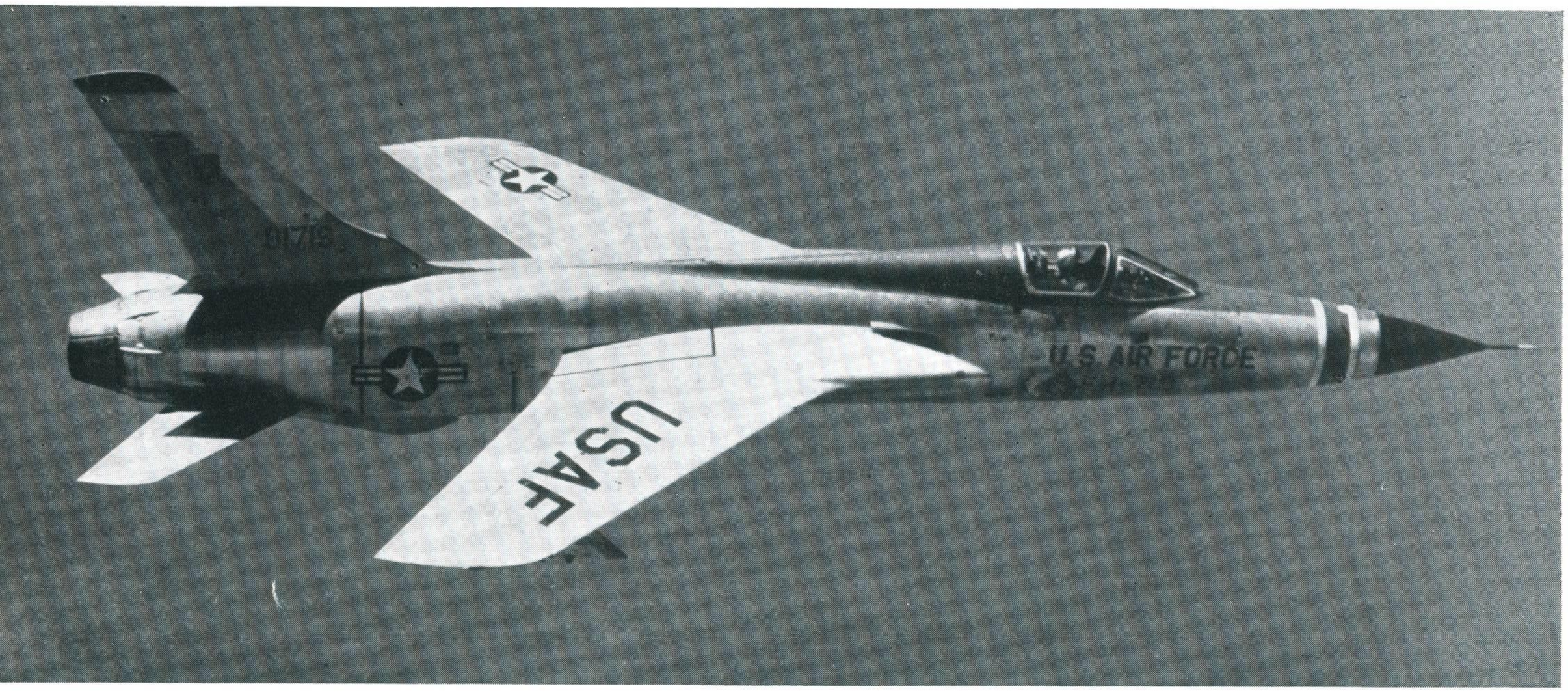
THUNDERCHIEF

Although classed as a fighter by its F-series designation, this is something of a misnomer for this powerful fighter-bomber capable of carrying a six to seven ton load of bombs with a Mach 2 performance in an interceptor role. It is, in fact, a highly automated weapons system capable of delivering nuclear or conventional strikes. A recent modification provides for reconnaissance missions.

Three versions of this Republic aircraft are in general service, the initial production batch of 75 F-105Bs, the main production version of F-105Ds with improved electronics to give an all-weather capability and the F-105F two-seat version illustrated here. The F-100A version concerned prototypes only and the F-100C and F-100E two-seat trainer and fighter-bomber versions respectively were cancelled.

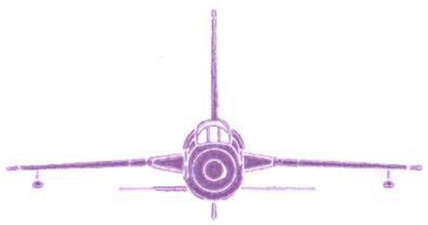
(continued overleaf)

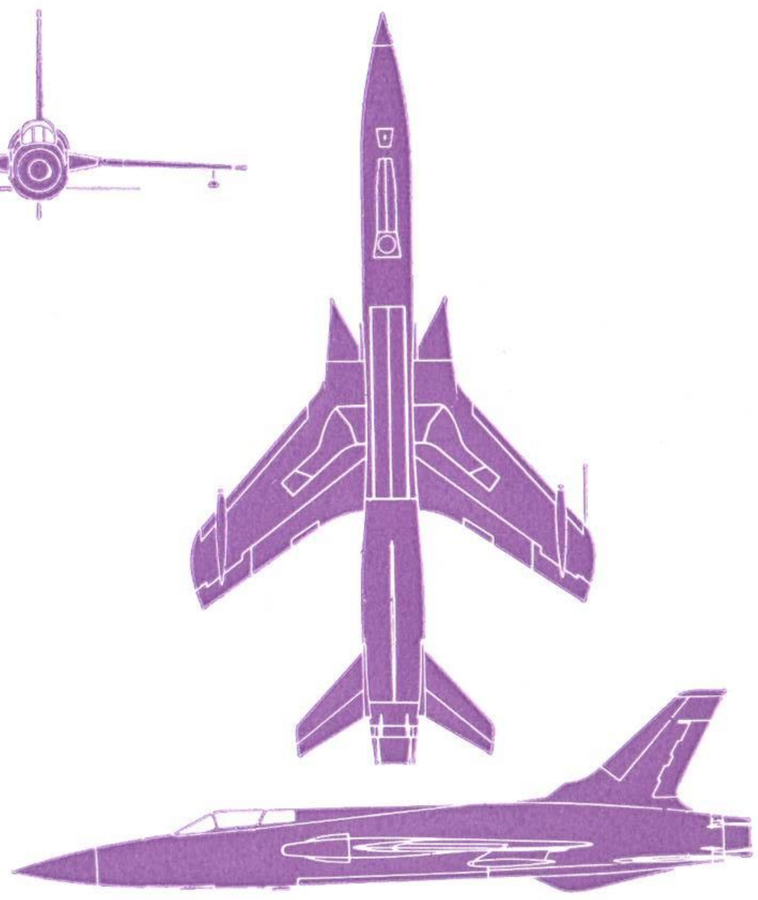
Single-seat F-100Ds (above) and a two-seat F-100F (below)



Span 35 feet

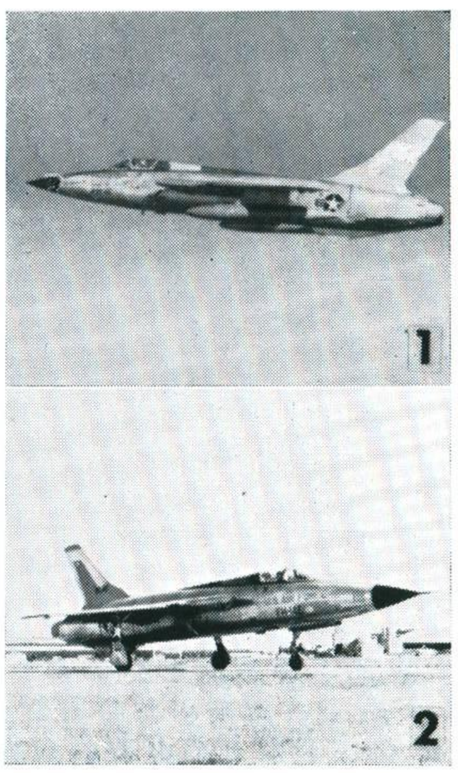
THUNDERCHIEF *(continued)*

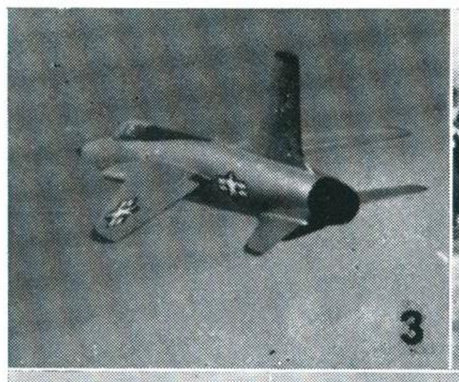




For all practical identification purposes, Thunderchiefs can be divided into two classes—single-seat and two-seat. The two-seat F-105Fs, apart from the extended cockpit canopy, differ from the F-105Bs and F-105Ds by an increase in fuselage length of $2\frac{1}{2}$ feet and a heightened fin. All versions have the characteristic waisted fuselage giving a coke-bottle appearance, large fluted intakes and ventral tail fins. Variable features concern only the various external stores that may be carried under the wings and fuselage.

Both F-100Ds and F-100Fs are used by the Tactical Air Command of the U.S.A.F. in Germany and thus the Thunderchief is an aircraft that must be instantly recognised as friendly. This is a lesson for all and instructions for getting the most out of it are on page 124.

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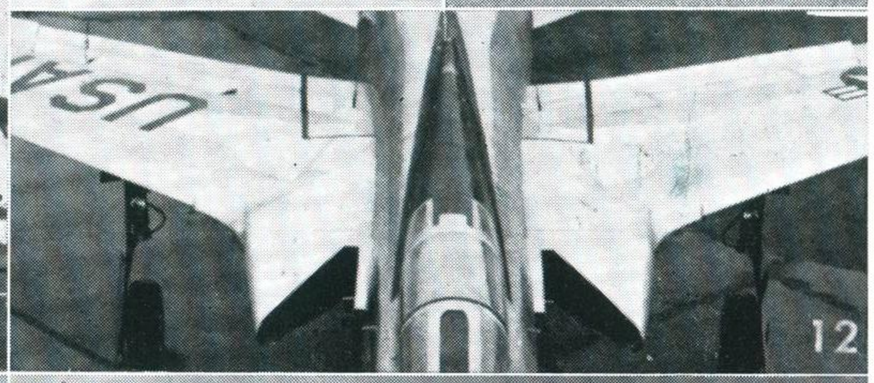

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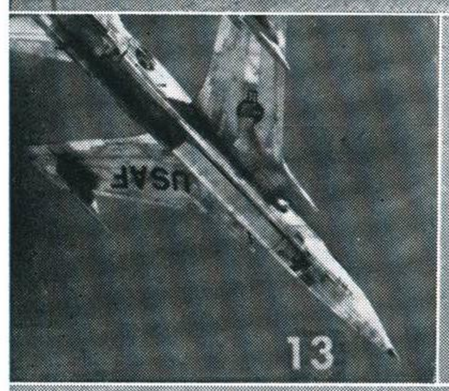

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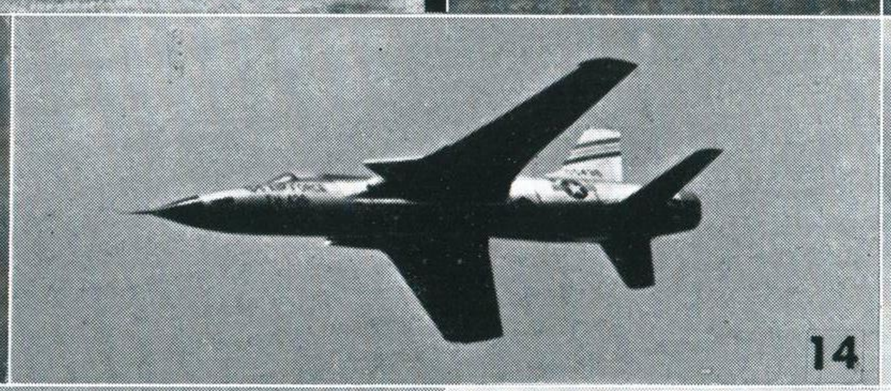
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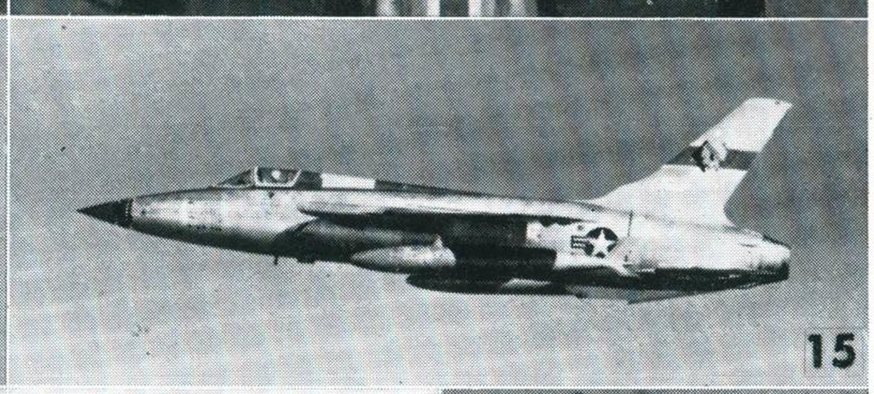
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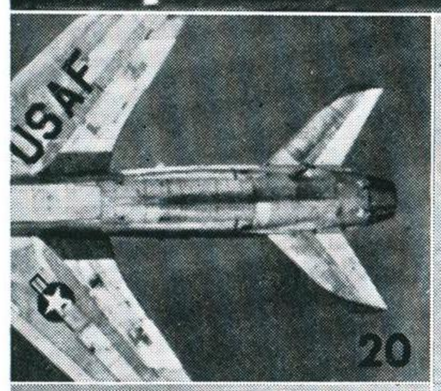

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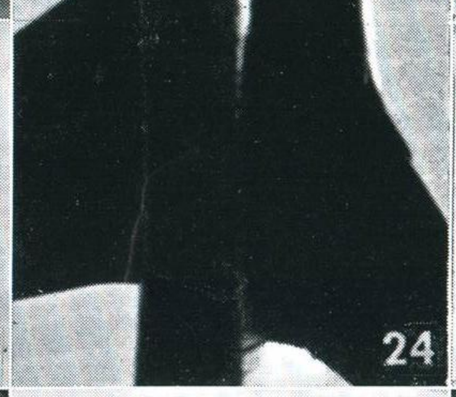
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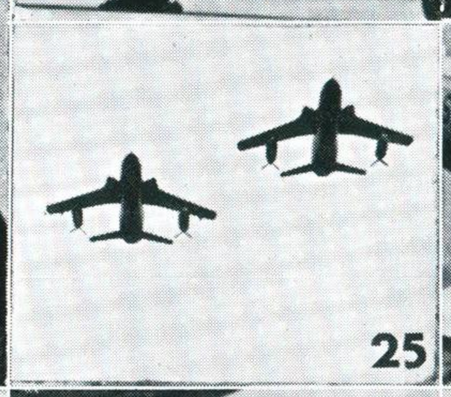
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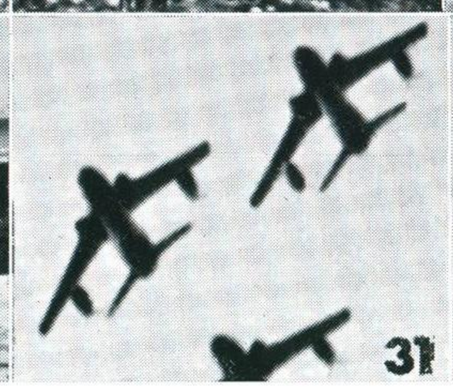
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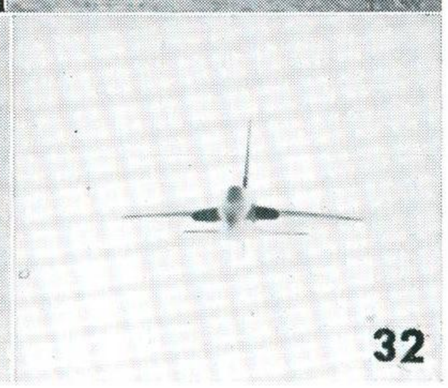
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IN PASSING

Nord Noralpha

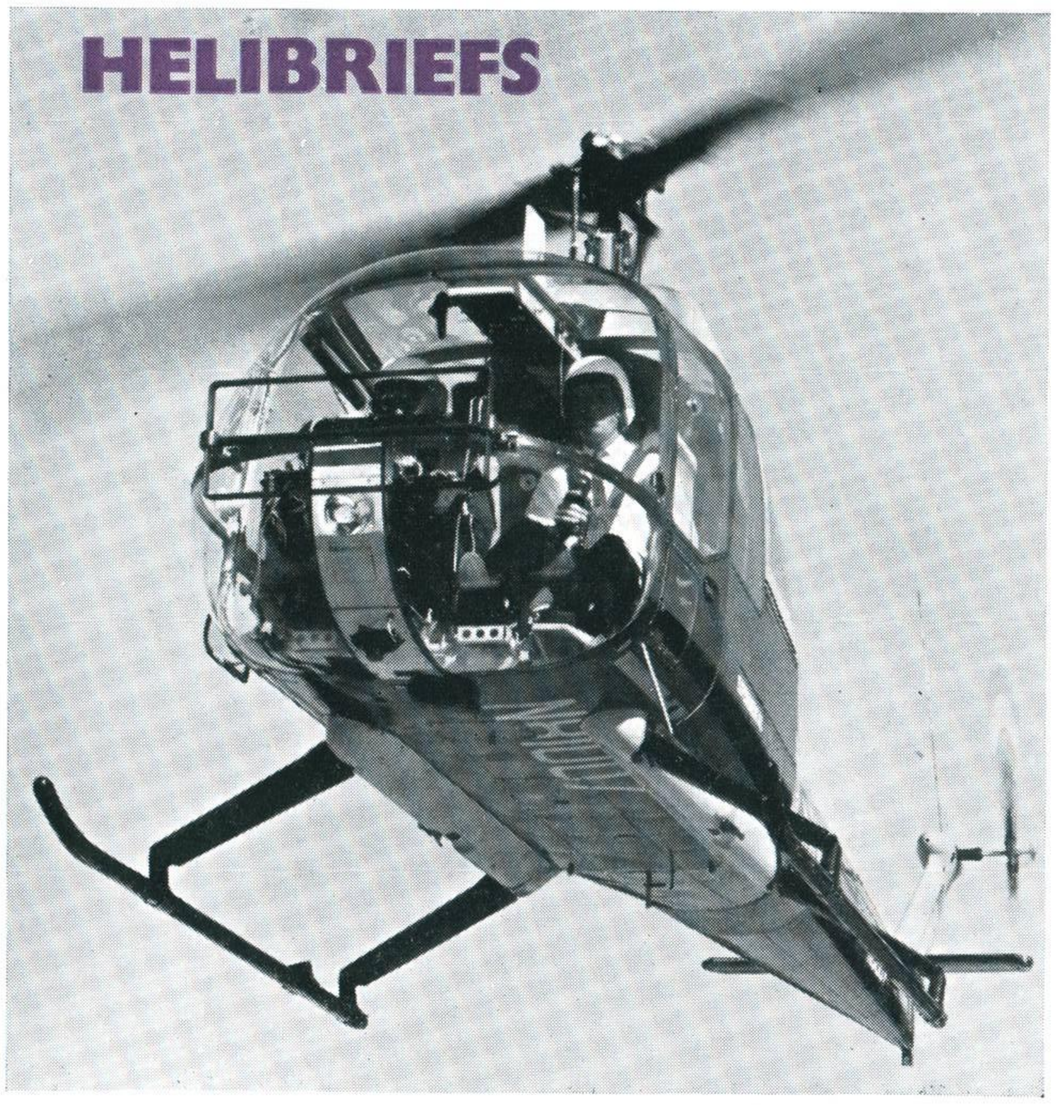
Nord Norécrin

LIGHT TYPES In our test of Light Types in the December 1963 edition, the Norécrin was incorrectly given as the Noralpha. The similarity of the two is evident from these two comparable views.

LESSON INSTRUCTIONS. To obtain the maximum benefit from the training devices published in this *Journal*, the following procedure should be adopted.

1. **Read the text associated with the lesson.**
2. **Prepare a list of target numbers so as to be able to tackle the targets in any order.**
3. **Identify the target pictures by comparing them with the key views: start with the easy ones so as to gain experience: also use targets already identified to solve the more difficult ones.**
4. **When certain of the identity of a target write down its name *IMMEDIATELY* against the appropriate number on your list. THIS IS IMPORTANT.**
5. **Lessons should not be hurried or given a time limit. So far as beginners are concerned, it is more important to identify accurately than quickly.**
6. **Do not attempt conscious memorising of details, shapes, or names.**

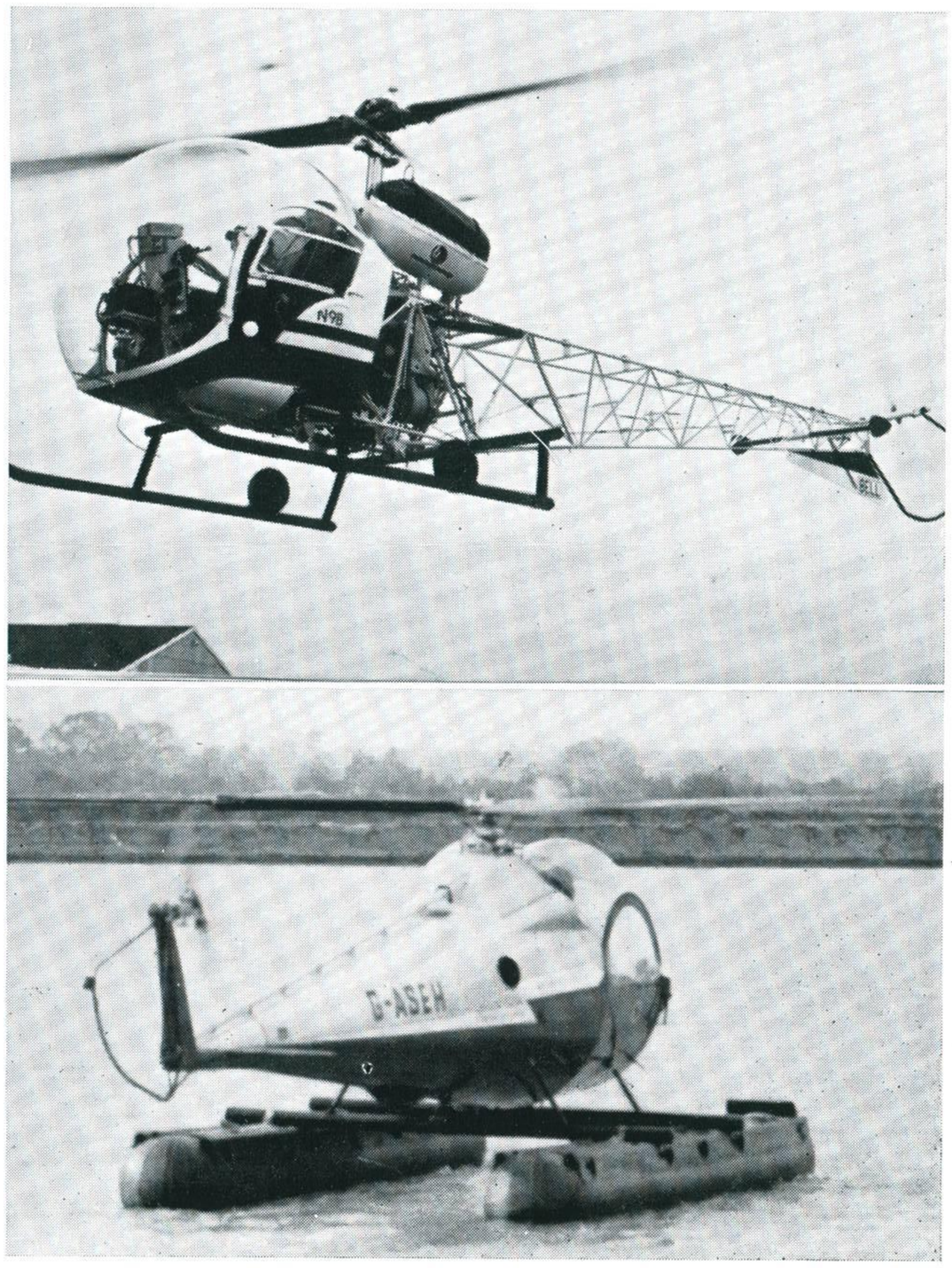
HELIBRIEFS



▲The new Hiller OH-5A which is in competition with new Bell and Hughes light helicopters for a large U.S. Army contract.

Added to the helicopter types likely to be seen with pontoons is the Brantley B-2. The example shown is the B-2A. ▶

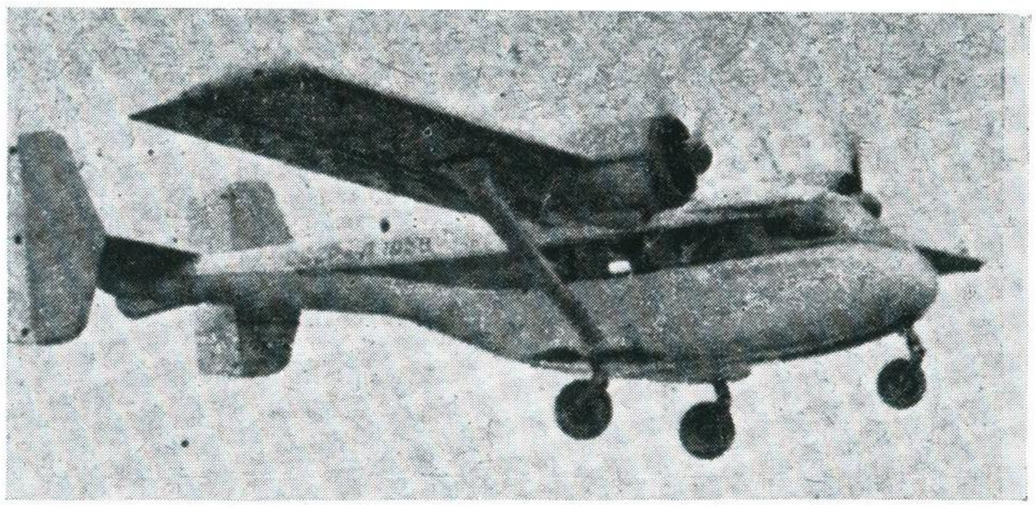
Latest of the Bell 47G Trooper series—a type to be built in Britain for Service use—is the 47G-4 (top right).

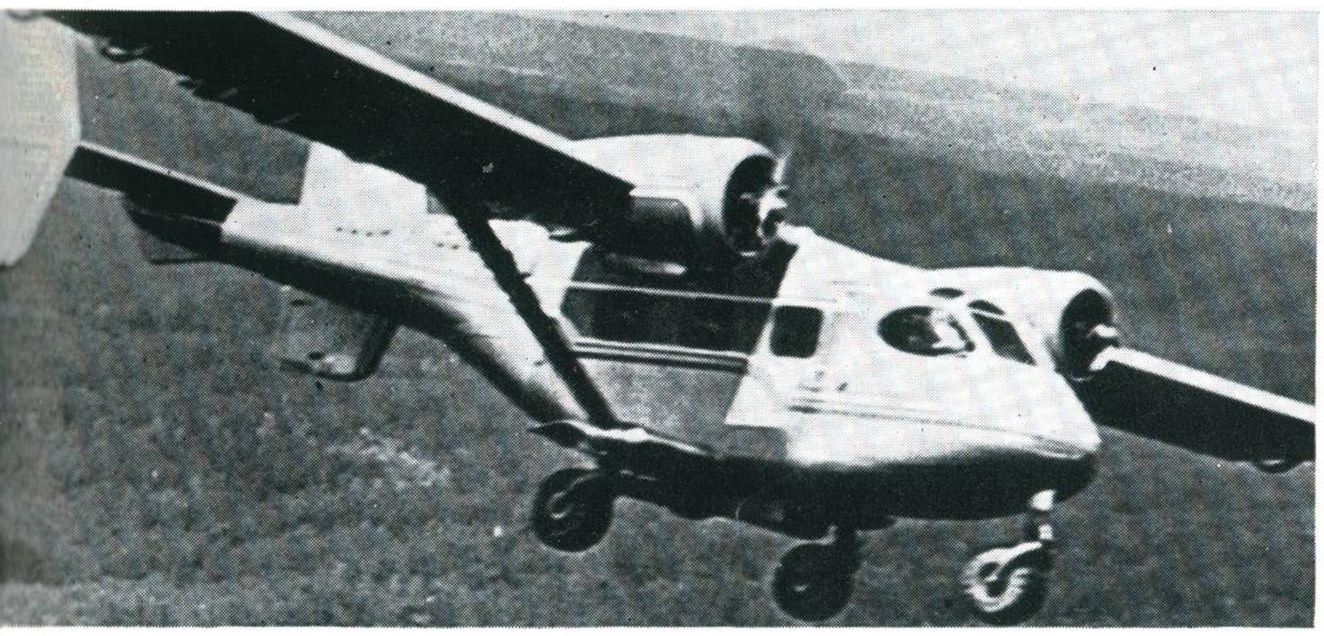


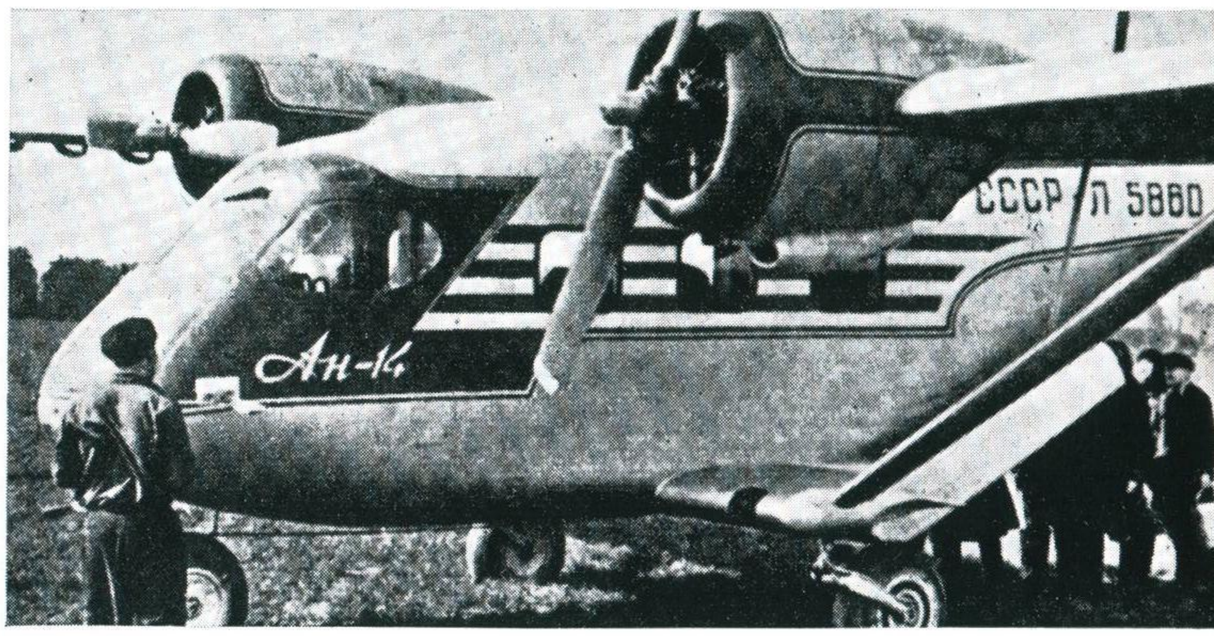
CLOD

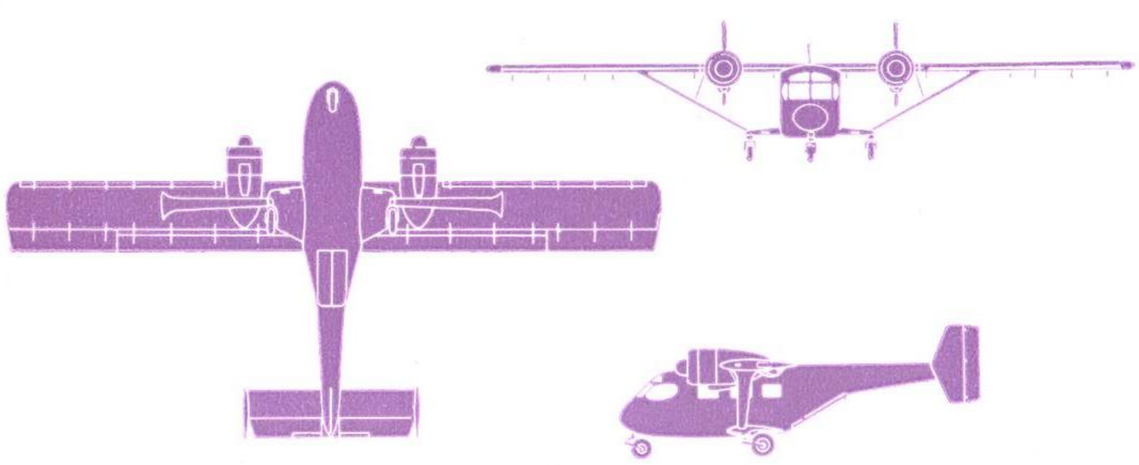
Pchelka (Little Bee) is the Russian name for the Antonov An-14 which has been allotted the inappropriate reporting name of Clod. Wingtip tanks are believed to be an optional fitting on this light general purpose aircraft. A slightly larger version is believed in production, while China has built a scaled-down version.

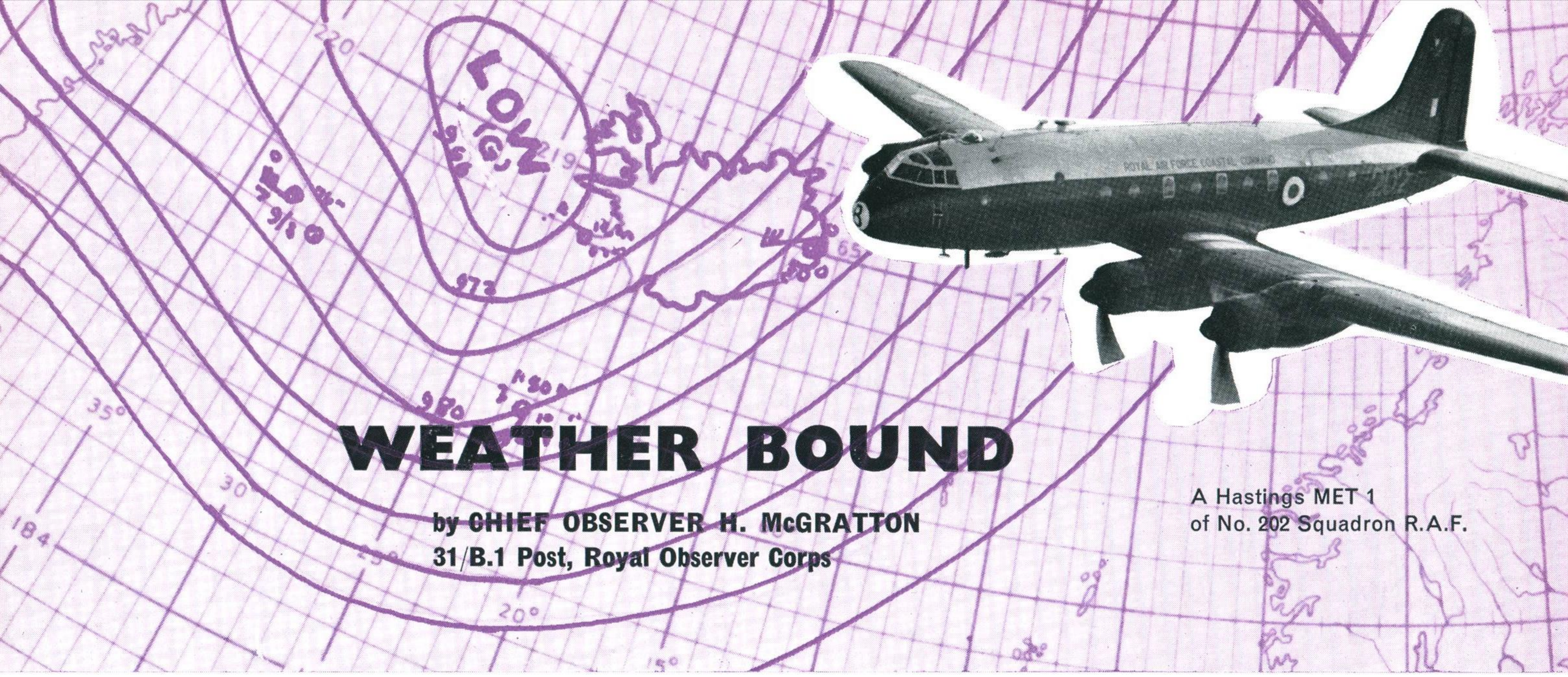
Span 65–72 feet











WEATHER BOUND

by CHIEF OBSERVER H. McGRATTON
31/B.1 Post, Royal Observer Corps

A Hastings MET 1
of No. 202 Squadron R.A.F.

Although no longer on the R.O.C. Training List, the Handley Page Hastings transport is still a familiar aircraft to observers in many parts of the country—no less so in Northern Ireland where these big four-engined 'planes are employed in the highly important task of meteorological reconnaissance.

Five days a week, fifty-two weeks a year, regardless of the weather conditions over this country, a Hastings from No. 202 Squadron—the only unit in the R.A.F. today engaged in "weather" flights—roars down the runway of the Aldergrove (County Antrim) air base and into the air on a mission which may take it a thousand miles out over the North Sea or deep into the lonely airspace over the Atlantic Ocean.

It is the squadron's proud boast that never once has the weather flight—or "Bismuth" as it is known—been delayed or cancelled due to weather conditions, except when the runway has been obscured by fog or covered in deep snow.

Once in the air, the weather holds even less fears for the crew of the weather 'plane. Like a tireless bloodhound, the Hastings will hunt out the worst possible weather and fly unheedingly into the heart of any storm that lies in its path.

Certainly, on the June morning when Leading Observer John Grace (31/N.4) and I boarded one of the squadron's aircraft, weather conditions could hardly have been described as perfect. Visibility was down to a couple of miles and a thin mist covered the aerodrome area. A low ceiling of cloud obscured the sky.

Crew members of Hastings TG567, with grey-blue overalls covering their uniforms and carrying the silver "bone dome" flying helmets, oxygen masks, life jackets and the thousand and one pieces of equipment with which the modern flier is encumbered, were already moving into their various positions for take-off. An air of unhurried activity surrounded the 'plane as ground crew carried out their final checks on the exterior of the aircraft while inside the men who were to fly the machine made ready the instruments, charts and equipment which are vital to the success of each flight.

One of the most unusual things which anyone accustomed to the R.A.F. and flying will notice on first meeting the crew members of a weather plane is the flying brevets worn by many of them. For most of the eight crew wore on their tunics a single wing with the letter "M" emblazoned in the centre.

This is a flying badge which will be seen nowhere else in the British Isles. It is the hallmark of the Air Meteorological Observer and symbolises a man whose position in the Royal Air Force is unique. For the Met Observer is something of an anomaly in that he is virtually "A civilian in R.A.F. uniform".

These men are, in fact, civil servants normally employed on meteorological duties at civilian airports throughout Britain and the Commonwealth. They are volunteers for this special duty who, following a period of basic training as airmen, were posted to Aldergrove with the rank of Sergeant to train in this task. After a stay of about three years with the R.A.F. they return to their civilian duties.

The flights on which No. 202 Squadron were engaged are of nine hours' duration, the reconnaissance area for the aircraft being selected each morning by the Central Forecasting Office at Dunstable. The routes flown vary from the Bay of Biscay, through the Western Approaches to Icelandic waters or out over the North Sea. Heights vary from sea level—or as close to it as the pilots can manage—to about 18,000 feet.

"Tango Golf 567" eased her great bulk off runway 08 just after 0800 hours on that drab morning. She carried ten men —her regular crew of eight and we two Corps members. Trips in "Bismuth" aircraft are now an established part of the Corps activities in Ulster.

The area chosen for detailed examination that day lay to the north of Scotland and extended out towards the distant coastline of Scandinavia.

One low, fast turn across Lough Neagh, a swift "beat-up" of the aerodrome and we were climbing through the clinging grey clouds to our seven thousand feet cruising level. The green fields swam quickly from view in the murky sea of vapour as the Hastings rose like a silver-grey trout towards the stratospheric surface somewhere above.

Northern England and Scotland lay in deep green pools amongst the scattered clouds as the Hastings droned its way eastward, its four 1,600 h.p. Bristol Hercules engines pounding monotonously while its broad wingspan shuddered occasionally in the turbulent morning air.

From time to time the intercom crackled into life as instruction, question or comment passed between crew members. Sometimes, faintly, the wireless operator could be heard acknowledging instructions from air traffic control as the aircraft was guided safely through the airlanes and controlled airspace which lay between us and the patrol area.

But now, the sea lay stretched below and the grey shores of Britain sank gradually to nothingness behind as the aircraft dropped gently towards a predetermined point over the rolling grey water. The real work of the day was beginning.

The navigator had on the charts before him a vast area marked out with a sprawling, diamond-shaped track. The first "leg" of our five-hour journey lay away to the north-east towards the invisible European coastline. Then, three turns, accurately made, would bring us back to our starting-point.

The flight-sergeant, in the off-duty seat opposite, adjusted his flying helmet into a more comfortable position and yawned. "This is where it really gets boring", he shouted over the roar of the engines. "The next five hours we just go up and down like a yo-yo."

For one long-accustomed to weather flights, I have no doubt this is a boring experience. To me, on my first trip, it was to be an experience of continued interest.

A warrant officer explained the procedure to us as he passed round cardboard cups of orange juice. "We climb from sea level to 10,000 feet taking readings of humidity, temperature, visibility, cloud extent, pressure, ice-formation and wind strengths at different levels. This way we more or less get a cross-section of conditions throughout the atmosphere."

The sea was no longer a rolling grey far below. It rushed past the fuselage at what seem mere feet below the dark grey wing. In the seat beside the pilot the observer began to record the first readings of the day.

"Clear to climb."

The engine bellowed suddenly and the sea tilted sharply away behind us as the aircraft pulled itself up from the face of the ocean and began its long climb towards the upper atmosphere. But not for long did its upward course remain unchecked.

Over the intercom I could hear the observer counting off the millibars of pressure as the air around us became thinner. "Two hundred. One hundred. Zero." At this moment the met man indicated to his captain that the pressure had dropped 25 millibars. The throttles were suddenly cut. For a moment the plane hung sickeningly, on the very edge of the stall it seemed. Seconds later, his readings taken, the observer spoke again—"Clear to climb".

Perhaps a dozen times during that 10,000 foot climb the Hastings hung poised like a seagull swinging motionlessly in an offshore wind. And a dozen times the engines roared again to climbing revs and the fuselage angled acutely with the combined power of the four engines.

At 10,000 feet the cloud base lay below us. The sky was deep blue, a blue deeper than ever earthbound man has seen it. And the sun glancing off the vapour-polished wings was searingly bright.

But there was little time to enjoy the scenic effects of cloud and sun. The tilt of the cabin floor was now reversed as the pilot pushed down the nose and the Hastings was rushing—unhindered this time—down towards sea level.

I lost count of the number of times the aircraft climbed, hung and dived in the ceaseless investigation of the atmosphere. Only once was the symmetry broken when the churning, yellow-white trail of a large oil tanker was spotted and the Hastings swung away from her established course. A rear hatch was opened and a camera swung into position.

A U.S.A.F. F-102 Delta Dagger flies past a Hastings on a meteorological reconnaissance flight.

"We photograph anything of interest we see", the pilot explained. Seeming almost to clip the tips from the white mast head of the ship, the weather plane flashed over the tanker and climbed steeply away, wings rocking.

Rain was beating against the cabin windows and flowing in broad rivulets across the broad wings as the Hastings turned away, two hours later, from her final north-west track and took up a westerly course towards the British Isles. As we gradually descended on our long run home the plane bucked violently in the strong winds.

Aldergrove, we were told, was under cloud and a ground controlled approach would be necessary. Even now, radar scanners below were swinging in our direction, searching for an "echo" from the metal aircraft.

Having positively identified the Hastings, the man on the ground began his "talk-down" which would bring the plane

WEATHER BOUND

to within a few hundred feet of the runway from where the pilot could land visually.

"Tango Golf. Check wheels and flaps down for landing." The pilot reported "three green lights"—an indication that the undercarriage was down and locked.

"Tango Golf. Do not acknowledge further transmissions."

Then began the soothing patter as the Hastings slid gradually down through the late afternoon rain clouds towards home.

Six hours ten minutes after take-off, the big main landing wheels of the 20-ton transport touched the tarmac runway of Aldergrove, bounced gently, then settled firmly. The tail dropped as the speed decreased and, with brakes smoothly applied, the rear wheel sank to the ground.

With two engines idling, the Hastings lumbered along the taxiway towards her position outside Flying Wing Headquarters and swung into her bay under a final burst of power.

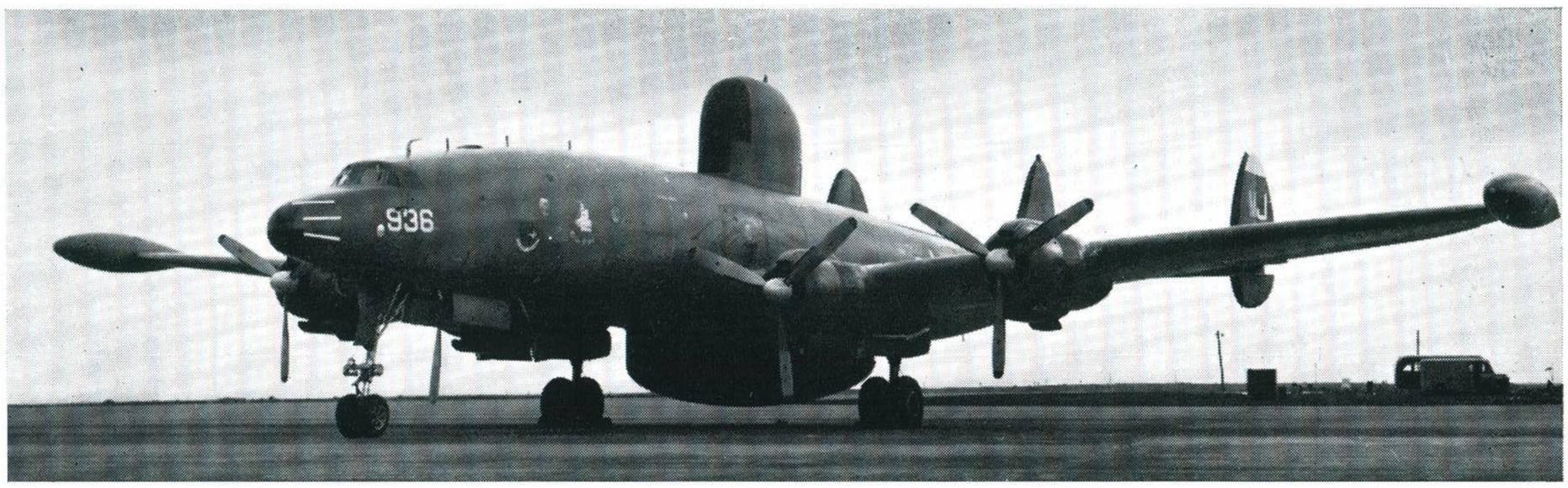
"Tango Golf is closing down."

It was nice to stand once more on firm ground, to feel the cold wind once again. Normal everyday noises were startlingly obvious after the roaring monotony of the past six hours.

The captain was coming down the ladder, unbuttoning his life jacket. "Hope you weren't too bored. And sorry you didn't see much weather."

I reached home just in time for the weather forecast on the radio. For perhaps the first time in my life I listened to every word the announcer said. A refreshing hint of drama had suddenly given new life to the usually drab bulletin. It was no longer a dull list of statistics produced with the casual abandon of a magician producing a rabbit from his top hat.

And, after the excitement and pleasure of the day, I felt that to take some interest in the report was the least I could do for those tireless "weather seekers" of Coastal Command.



The U.S. Navy's "Warning Stars" (Super Constellations) are used on weather reconnaissance missions.

SOLUTIONS TO TESTS AND EXERCISES IN THIS EDITION

KNOW YOUR OWN— A GENERAL TEST

Page 114

It is not expected that Mark numbers would be given in general reporting but to be precise they are included here.

1 Britannia C.1
2 Lightning F.1s
3 Comet 4
4 Whirlwind
5 Canberra B.2
6 Hunter
7 Valetta
8 Javelin F.A.W.9s
9 Vulcan B.2s
10 Valiant B(K)1
11 Hastings C.1
12 Javelin
13 Heron C.3
14 Beverley C.1
15 Wessex H.C.2
16 Beverley C.1s
17 Hunter
18 Gnat T.1s
19 Shackleton M.R.2
20 Pioneer C.C.1
21 Canberra B.8
22 Belvedere H.C.1
23 Argosy C.1s
24 Jet Provost T.4s
25 Victor B.1 (left) and Valiant B(K)1 (right)

ALOUETTE II

Page 116

All targets are of **Alouette II** helicopters except No. 7 which is a **Djinn.**

N.B. The aircraft on fire in Target No. 21 is a **Bretagne.**

CAMEL

Page 118

All targets are of **Camels** except No. 23 which is a **Cookpot.**

COMET—A REFRESHER

Page 120

All targets are of **Comets** (all are **4** or **4Cs** with the exception of No. 7 which is a **4B** and No. 22 which is a **2 (R.A.F. Comet C.2).**

A Hawker P.1127 in tripartite markings of the V/STOL fighter squadron which is planned to form at West Raynham at the turn of the year with British, American and German personnel.

THUNDERCHIEF

Page 121

All targets are of **F-105 Thunderchiefs** except No. 19 which is an **RF-84F Thunderflash.**

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