RAF TRANSPORT COMMAND REVIEW

No. 2 OCTOBER 1945

RESTRICTED

No. 1 AIR TRAFFIC SCHOOL, ST. MAWGAN

Top left : Passenger handling exercises.
Lower left : Instruction in tying bowlines.
Top right : Load control explained in the Library.
Lower right : Instruction in fitting safety belt.

See article on opposite page.

TRANSPORT COMMAND REVIEW

ISSUED BY H Q TRANSPORT COMMAND
ROYAL AIR FORCE

No. 2 OCTOBER 1945

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ON PASSENGER HANDLING

SQUADRON LEADER D. CASH, *Chief Instructor, No. 1 Air Traffic School, St. Mawgan*

Since the carrying of passengers is amongst the major tasks of Transport Command, the subject of PASSENGER HANDLING *must be of first importance to Traffic Staffs and Crews. In this article* SQUADRON LEADER D. CASH *examines a problem which is peculiar to Transport Command.*

A TRAFFIC Officer once said: ''Nothing is good enough for the Passenger—so don't give it to him!'' Without going into the implications of this remark, let us examine a subject of great importance, the proper handling by Traffic Staffs and Air Crews of the passengers who fly with Transport Command.

The dictionary tells us that psychology is the study of the mind. We shall not get far with this business of handling passengers if we do not study their psychology and the psychology of those whose job it is to move them to and fro.

First, however, in case there should be anyone left of that small minority which says ''Why all this kindness to passengers—why bother?'', this is a point which should be answered right away. Why should we go to any trouble to ensure that passengers do not reach their destinations crumpled, dirty, exhausted, sick, furious, and half-mad with frustration, having suffered every kind of insult, neglect and indignity on the way? Quite apart from considerations of humanity, there are several reasons why we should bother. For one thing Transport Command is very much on display. It has been set up to carry by air from anywhere to anywhere the men and materials of all three services and of the various Government Departments. Passengers of all these categories come into contact with our Traffic Staffs and Flying Crews every day, and it is by their behaviour that the Command is judged, and

—in the case of soldiers, sailors, and civilians—that the RAF as a whole is mainly judged. Further, we carry military and civilian passengers of nearly every nationality, and they, too, are influenced by the way in which they are looked after, in their judgment not only of Transport Command and the RAF, but of the Empire as a whole. In addition, although the war is officially over, there are still no passengers who are merely joy-riding. Air passages are difficult to get, and those who deal out Priorities are not inspired by motives of philanthropy. The man who wishes to fly from A to B is more often than not going to B to do an important job, and he is going in a hurry. It follows, then, that he should be conveyed to B in such a way that when he arrives there he will be in a fit condition to get on with that job. This is where the Traffic Staffs and the Crews come in. There are very many ways in which the passenger's trip can be made not merely easy and as comfortable as possible, but pleasant and thoroughly interesting as well.

Passengers can be divided into a few main categories.

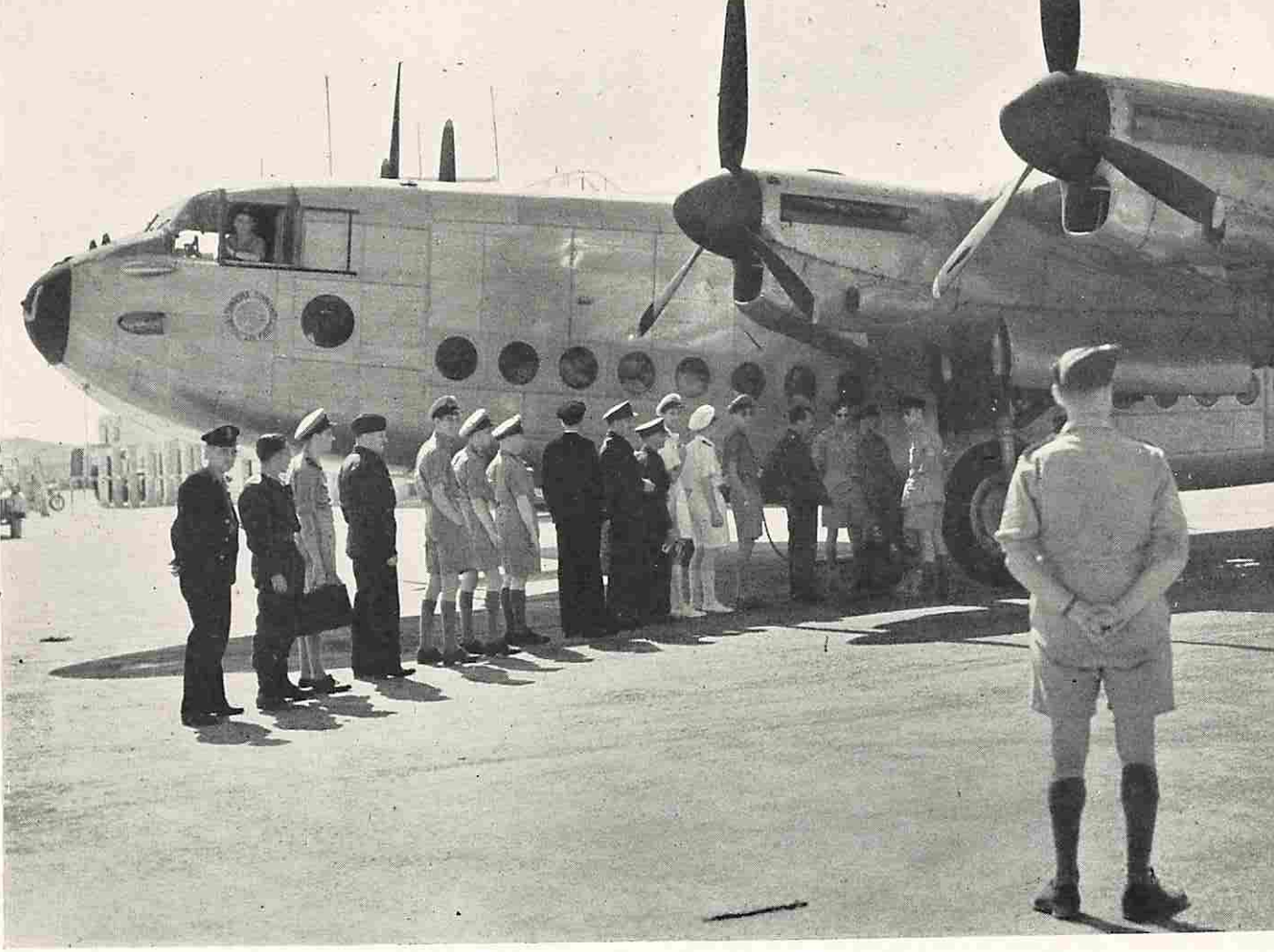
First of all there is the *chatty type*. He has arrived at the airfield half an hour before he should have, and consequently has nothing to do. Being a chatty character, stimulated no doubt a little by excitement and slight nervousness, he wants to talk to someone. He sees the Traffic Officer go by, recognises him, and buttonholes him for a little talk. He doesn't realise that the Traffic Officer is terrifically busy, having several aircraft to dispatch. The TO must curb an inclination (natural enough) to say, "Go and drown yourself," and must let himself be held in conversation for a few seconds, then explain that, though busy at the moment, he will be back in good time to arrange everything for the chatty one's departure. Then he may dart away again, patience and an even temper having done good where the curt word of a busy man might have done much harm.

Next comes the *nervous type*. Not only in the Army and the Navy and amongst civilians do we find people who have never been in an aircraft. We even find them in our own Service. The wonders of aviation have not yet become a commonplace for everybody, and a man or woman making a first flight may feel a degree of pardonable apprehension. The passenger has been given a ticket and has simply been told to be at the field at a certain hour, for a flight of perhaps six hours' duration. He may not be nervous—but he will want a little reassurance. The best thing for the Traffic Officer to do is to shoot a small line (which will probably come easily to him anyway). He should say a few interesting words about the route; give a good build-up to the Captain and Crew concerned; expatiate a little on the fine qualities of the aircraft which is to be used for the flight. All this will tend to soothe and reassure any passenger who is somewhat dubious about leaving terra firma for the first time.

The *irritable type* of passenger—very commonly met with—requires much tact and attention. He is full of his own importance. Sitting on the airfield with half an hour to wait, he "binds" away much as follows: "Why should *I* (who am such an important person) have to come down here and wait for hours before the aircraft is due to start? Why can't I be allowed to come a few minutes before the aircraft leaves?" The only satisfactory way of dealing with this difficult type is to agree with him. The unfortunate concerned—Traffic Officer, Crew-member or Airman—should simply say, "I couldn't agree with you more. But you know the authorities make rules, and it is my duty to carry them out." Such soft answering should result in the defeat of even the sourest "binder." There's not much more that he can do, if his victim agrees with him.

The *questioning type*, probably the commonest of all, deserves to be, and must always be handled intelligently. It is the job of all those concerned with Passenger Handling to see that this is done. The kinds of questions he asks usually fall into two categories, one about the aircraft in which he is to fly, and the other about the times of flights and their duration. It is up to the Traffic Officer and his staff, and to the Captain of the aircraft to answer these questions correctly. They are sensible questions enough. If a passenger receives an immediate straight answer to his inquiries—about the various services and their times, distances from one aerodrome to another, the duration of flights, and so on—he is given a feeling of confidence in the organisation to which his movements are entrusted. If, however, the man to whom the questions are put hesitates and dithers before giving an answer, there will be no such feeling of confidence, and the chances are that he will not be believed. One point, in this connection, is of great importance. If a question is asked, and the answer is not known, there must be no resort to guesswork. The correct answer must be found at once. A guess will be wrong, as likely as not, and *that* is disastrous.

Now for another kind of passenger—the *flapping type*. He is a menace on any flight because he is always in trouble as a result of his own stupidity. He goes into the lavatory and leaves his baggage there, and then swears that it has not been taken off the aircraft. He has to be treated like a child, with a nice mixture of



Passengers at Malta boarding a Transport Command York

patience, firmness and good humour. The Traffic Officer, or whoever has to cope with him, must talk to him quietly and calmly, find out where he went after leaving the aircraft, and accompany him there to look for the missing luggage. He must never be rude, or even brusque, although his temper will be heavily tried and he will have great need of his sense of humour. (Incidentally, a man without sense of humour should hand in his resignation from this Traffic job immediately, for he will get nowhere without it.) The flapping type of traveller, handled in this manner, need not be much of a nuisance, but he is likely to need a good deal of patience.

Of the remaining types of passengers with whom Traffic staffs must deal from time to time, the following are worthy of note.

The VIP—probably the easiest to handle of all passengers, since a great deal of organisation has always been done before he travels at all. Details of accommodation, transport and movement will always have been arranged at a higher level before the VIP comes into the Traffic Officer's ken. Such passengers become a problem only when an aircraft suddenly drops out of the sky, owing to a diversion, and the first intimation to the Traffic staff that a VIP is in the offing is their first sight of him. Even so, the present writer has never met VIPs who did anything at all to make things awkward, or who gave him anything but a comfortable feeling of ''being at home'' in their company.

Women Passengers. These fall generally into three classes. Either they are the wives of local VIPs or of other important persons, or they are nurses or ENSA ''artistes.'' Nothing need be said beyond that, being women, they are deserving of the courtesy usually accorded to their sex. The Traffic Officer, Captain, or Airman who remembers this will find that the women

who pass through a Staging Post are not only very little trouble, but invariably charming and grateful into the bargain.

The Courier. A most unfortunate person, one who has to spend most of his life as a passenger in an aircraft, Carrying bags of diplomatic mail all round the world. he becomes, not unnaturally, "as cheesed as Hell." Couriers have a very tiring time, and it is well that they should be given any possible extra help and consideration.

So much for the various types of passengers who travel in the aircraft of Transport Command. This business of psychology works both ways, and it would be worth our while to examine the qualities needed to make efficient members of Traffic Staffs and first-class Transport Crews.

For both Crews and Traffic Staffs, intent on becoming masters of passenger handling, the first and most important thing is to make a good impression. First impressions, in ordinary life, may not always be of final importance in judging a man, but there are very few people who do not allow themselves to be influenced by them. Passengers, it must be remembered, are of their nature passers-by; they do not have time to delve into the characters of the men who move them around. They are, therefore, more likely to be favourably impressed by someone who is clean, smiling, and well turned out than by one who is uncommunicative, scowling and down at heel. The latter may have a heart of gold and other first-class qualities, but the passenger will not be given time (even supposing he cares) to find these out.

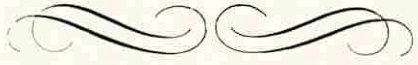
It is not suggested that aircraft should be operated or directed by people who have evidently just emerged from a band-box. It is urged, however, that all who have to do with passengers should appear well-shaven, clean as to the shirt and collar, and thoroughly presentable in general. Khaki drill, in particular, should not look as though it has been recently slept in. A man's appearance is something over which he alone has control. To impress, to encourage, to contribute to the desired atmosphere of efficiency, a good appearance is of the first importance.

Nor is this business of making a good impression confined to appearance alone. That does for the first glance. The second impression made on the passenger comes with what is said, and the way in which it is said. Ideally the Traffic Officer, or whoever deals with passengers, should be brisk, confident, cheerful, and sympathetic—inexhaustibly patient, knowledgeable, indefatigable and kind. He should not lead his passengers about at the slow-march as though from one lying-in-state to another. Nor, on the other hand, should he be overpoweringly hearty, nor insanely gay in the manner of Bob Hope. He is there to inspire confidence and to make sure that all goes smoothly. It is a question of the happy medium.

Where crews are concerned, there is a great deal which can be done to alleviate the boredom and occasional misery of air travel. A Captain who cares what happens to his passengers and lets them feel this, who can enliven a voyage with titbits of information about the flight and the places on the way, one, in fact, who takes real trouble over the comfort of his charges, is doing a job whose value is not to be assessed in words.

Lastly, let it be said that the prerequisite for efficiency in operating transport services, is friendship and co-operation between the Traffic Staffs on the airfields, and the Crews who fly the machines.

The Traffic Officer can do a lot to ensure that the Crews who arrive tired and in need of comfort at his airfield are not subjected to irritations in the matter of transport, meals and washing facilities. He can so organise his loading and unloading that no Captain ever has to complain. Working day in, day out, with many crews he will come to know them, and they him. A friendly spirit of mutual aid thus built up will add enormously to general efficiency, and will, indirectly, benefit the passenger who is the *raison d'être* of the whole show.



RECOLLECTIONS OF SUPPLY DROPPING IN BURMA

FLIGHT LIEUTENANT L. A. SANDERSON

This article, written by a pilot after completing a tour of operations on Transport Support work, is extracted from H.Q. 229 Group Flying Accident Analysis.

ON joining 194 Squadron for supply dropping work in Dakota aircraft in July, 1944, I was posted to the detachment operating from Dergaon. Drops were still being made in the Kohima area, but the detachment was shortly to move to Imphal, and from there to supply the 5th Indian Division and the 33rd Corps in the fighting which drove the Japanese out of the Kabaw Valley, down the Tiddim Road and Manipur River, and so, by the end of the monsoon, out into the plains of Burma.

The country over which the early part of the campaign was fought reminded me of Columbus' description of the island of Jamaica—instead of attempting an explanation in words he took a piece of stiff brown paper and crumpled it into a mass of folds and ridges.

To apply such a symbol more vividly to the Naga Hills, the paper should be painted bottle-green, cotton-wool should crown the ridges and fill some of the valleys to represent clouds, and the model be well watered with a watering can at irregular intervals.

"Monsoon" is a rather frightening word. Before coming to India I think I must have confused it with "typhoon." Anyway, after I had listened to the lectures at the Conversion Unit put out by "old sweats" of pilots, lately off an operational tour and anxious to impress the newcomers by piling on the agony, I went forward with the impression still firmly in my mind that the monsoon was, as the very sound of the word suggests, a continuous, moaning gale.

Actually winds are, for the most part, light. The weather is cloudy. It rains frequently in local, short and heavy showers. The sun shines at intervals and sets the wet green earth steaming. The clouds begin as thin, whitish sheets in the early morning, mottled with purple, and generally rise with the advancing day temperature, about midday, to start shooting up into towering cumulus, monstrous swelling "dowagers" of cloud which *must at all costs be avoided.* The "dowagers" are not just a bore; they are dangerous old women who trap nice young bachelor pilots and lift them straight into the upper 10,000-ft. levels minus the wings of their aircraft, with a pair of shoulder-wings to follow by way of compensation.

My first flights in the second pilot's seat were very alarming. The mountain-tops were all crowned with cloud, but there was—there nearly always is—a lane of clear air in the centre of any deep valley. Before I knew what a small turning circle can be made by a Dakota in emergency, I used to wonder how on earth we should be able to retreat from the lane being followed between the mountain walls.

The dropping zones at this time would be on spurs of hills running into the valleys at right-angles. It would not be possible to parachute supplies to the floor of the valley, as there would be no room to manoeuvre in the narrowing space low down in the "V." Since these spurs were at a high altitude themselves, they, too, would often be cloud-covered on our arrival, and the aircraft would then have to fly up and down the middle of the valley in the hope that the cloud presently would drift off the particular spur where lay the target. If and when this happened, the white cross, smoke, Verey lights and other signals indicating the DZ would become visible and the drop would begin, the pilot aiming to make his "bombing" run as low and therefore as accurately as possible, consistent with avoiding running into drifting cloud on his oval circuit.

This problem of drifting cloud was acute, for it sometimes happened that the space for manoeuvre became narrower and narrower until suddenly the aircraft would plunge into a corner of the opaque curtain. There would be uncomfortable moments, making a climbing turn on instruments, fully conscious of the nearness of the tree-tops but an instant before lost to view, and of the towering invisible mountainsides.

On the particular occasion of which I am thinking, when I was gaining experience in the second pilot's seat, the clouds closed in all round, and for an agonising five minutes we spiralled upwards on the gyro-horizon, my only contribution to the general safety being a fervent prayer.

Soon after this incident I began on my own as Captain of an aircraft. I soon found that there were two good rules to be observed: *Watch the movement of the clouds on the line of escape*, that is, the direction from which you entered the valley and the intended route back to base; and secondly, to drop as many 'chutes as possible while the going was good, half a load being better than none. It was not advisable to hang around too long if the clouds were obviously thickening (although sometimes it did clear in a surprisingly short time), for it would always be possible to come back later after leaving in good time to make a safe exit.

On one occasion I was so keen on getting out the whole load—for we had had a tough time reaching the DZ in the first place, crossing over a ridge from one valley to the next through a tiny gap in the cloud—that, after dropping my last 'chute as the cloud once more drifted momentarily off the target, I discovered that there was no exit from the valley but a hole directly overhead. We spiralled upwards to nearly 15,000 ft. (without oxygen) and then had to twist and turn between the cumulus masses towards clear weather well over the Chindwin (then Japanese-occupied territory), and so, by a circuitous route, back to Imphal.

Besides supply dropping we were employed on casualty evacuation runs from Imphal to Comilla and back. Very often worse weather was encountered on this route than on the supply dropping runs, where one could go a short distance to take a look and turn back if the prospect appeared too unfavourable.

The morning runs would not be too bad, for it is the convection heating at midday of the saturated ground which builds up the big cumulus masses. Returning towards the mountains flanking Imphal was always a matter of flying steadily uphill. The start would be low down, under rainy stratus over Comilla ; there would then be a gap of clear weather, revealing the "hills" of cloud going up and up ahead. Exact compass courses had to be disregarded as one climbed, like a mountaineer, around precipices of cumulus, always aiming for the lowest "pass," or, if this were impossible, for the lightest-looking portion of the cloud wall where gaps could be expected immediately beyond. Any patch of blue sky, however small and distant, was the spot to aim for, for somewhere over there must be clear weather of a sort. Opaqueness was to be avoided at all costs, for once blind one might blunder unknowingly into the arms of a "dowager" cloud with a quick lift to heaven.

Over the Naga Hills—India calls them "hills" which, by European standards, would be mountains of 5,000 to 11,000 ft.,—the clouds generally conformed in density and height to the solid heights they concealed.

Thus it was possible to tell roughly where the 10,000 ft. Kohima Range was hidden in the panorama ahead, and at the southern end (when flying east towards Imphal), the massif of Kennedy Peak, as well as the 9,000-ft. sentinel midway between the two. The rain in the cloud would be falling heaviest over the highest ground, so there was a kind of layer-tinting effect over the ranges—purple, towering cloud above the peaks, thinner and lower whitish stuff over the lesser ridges.

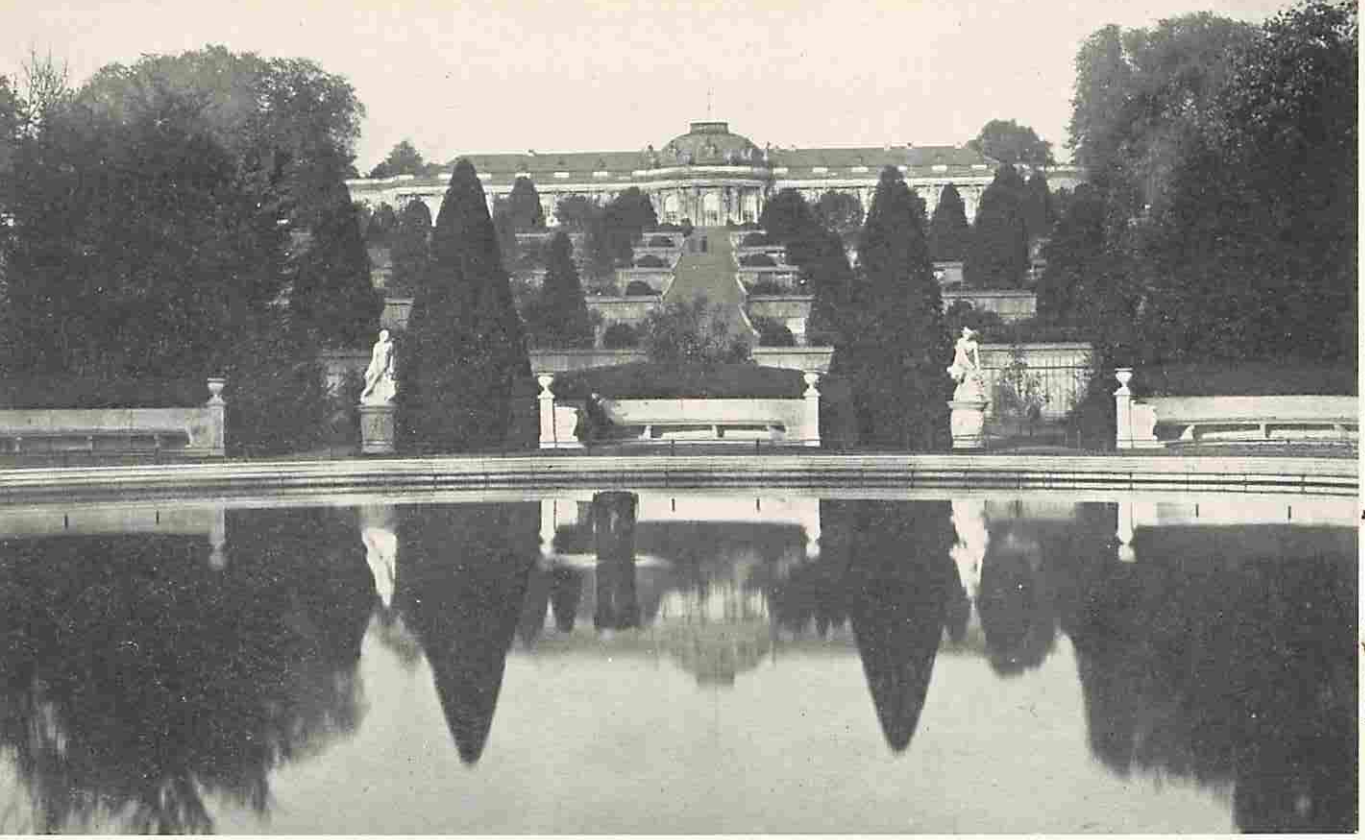
Provided, then, that one aimed for the white, thin-looking places, or at any spot suggestive of blue sky beyond, it was generally possible to get across at a not too uncomfortable safety height. Once above the Imphal plain a hole could nearly always be found at the southern end, above the two lakes, and an express spiral down with wheels lowered was advisable lest the hole close up again.

If it was necessary to fly low under a ceiling from which heavy rain was falling to reach the Imphal strip, we would "home" on Tulihal beacon, pick up the Imphal-Kohima road and follow this back to our strip, which was situated, just to be awkward, with hills on three sides. There were, in addition, hills sticking up from the floor of the Imphal plain like islands, and a sure guide, like this road, was essential in the low visibility of monsoon rain—rain that no Hollywood film director could better.

Some of our supply dropping areas gained temporary fame among the aircrews who were called to visit them many days in succession. The two most notorious were known as the "Figure 8" and "Dead Man's Gulch." "Figure 8" was descriptive of the track made by the aircraft concerned when dropping on a DZ laid at the bottom of the Manipur River Valley. The drop took place at the cross-over of the "8" at the lowest practicable altitude, steep climbs being necessary at each end to get enough "air" to stagger round for the run-in from the opposite direction. When two or more aircraft decided to quarrel about whether the circuit should be begun clockwise or anti-clockwise, there was considerable confusion.

"Dead Man's Gulch" (which I believe I had the honour of first naming) was a cul-de-sac with walls 8,000 ft. high and very steep. Really low dropping was impossible, and some of the 'chutes were bound to miss the "village green" and land in the trees or stream bed. The aircraft was in an almost continuous steep turn, and life depended on the excellent workmanship of Messrs. Pratt & Whitney. Another squadron lost some aircraft due to a stick-at-nothing effort to drop "low," that is, below 600 ft. This kind of zeal, or professional pride, might be called by other names.

These recollections and general observations are written down in the hope that aircrews who may be facing similar weather conditions and terrain in future supply dropping work may gain a rough picture of what a monsoon is like. It is not a howling gale, but general threatening weather. Storms are local and can nearly always be flown around or avoided in some other way. Line squalls are common but these usually have a gap in them somewhere which can be flown through. Otherwise turn back. Avoid unnecessary instrument flying like the plague because of the unsuspected "dowager" which may be sitting above the lower cloud strata. Keep an eye on the road home when engaged on a supply drop in the hills. Remember the time of day—at high noon the clouds will start building up at a fantastic rate far superior to a Dakota's rate of climb. It is very beautiful to see the way these cauliflowers bulge and boil upwards—rather like the speeded-up cloud development pictures—but it is wise to watch from a safe distance.



Sans Souci Palace, Potsdam

PINNER TO POTSDAM

WING COMMANDER R. FALK, *Organisation, 46 Group*

Now that V days are past, it is pleasant to look back on the efforts which helped to bring about victory. Here in a few hundred words is an account of some of the trials and tribulations which beset the organisers at 46 *Group during the months following its formation in* 1944. 46 *Group carried the advanced spearhead of the BLA into Normandy, accompanied the Army across France, made a gallant contribution at Arnhem, helped to pierce the Rhine defences, and brought back the wounded—fetching and carrying, all the way from Pinner to Potsdam.*

WHAT was our job in the early days of 46 Group? It was, as I saw it, to get ready to add just that extra weight of airborne assistance—whether by Glider Towing or by Paratrooping—which would guarantee the success of the planned "D" Day effort. The Group had to be got together hurriedly because the force of aircraft, six squadrons of 25 Dakotas each, only became available at the beginning of 1944 and had to be organised, equipped and crewed in almost record time. Group HQ was established in a suburban mansion at Pinner.

It seems, looking back, that our first concern before "D" Day was the securing of maximum operational efficiency on the airfields which had been allocated to the Group as the homes of the six squadrons. I so well remember the day, when, with snow on the ground and beneath lowering skies, I paid my first visit to our three bases. There certainly was not very much to encourage either the Group staff or the future inhabitants of the Stations. The bases were hurriedly built, inadequately designed, widely dispersed camps, planned to deal with American medium bomber operations and sited in the heart of some of the loveliest country in SW England.

We hurriedly made plans for the conversion of the meagre facilities at these Stations into some semblance, of what we considered the ideal Transport Support Station should be. Aprons were built on which some fifteen or twenty Dakotas could stand at a time while loading and unloading. At either end of the main runways pierced steel planking extensions and widenings

were laid in order, when it came to the great day, to achieve the maximum efficiency in the matter of marshalling gliders and effecting speedy take-off of the Glider Tug Combinations.

Furthermore, at each of the three bases we had to keep in mind the requirements of Casualty Evacuation which called for increased facilities in the way of bedspace, kitchens, rest rooms, as well as hard-standings for ambulances, and effective and safe road circulation. At the side of the aprons were built hangars to accommodate possible backlog of freight, and offices in which to put the Passenger and Freight Sections.

These results were achieved to the inevitable accompaniment of grouses and recriminations, but the grouses and recriminations were, on the whole, very good natured, and it is fair to say that by the spring of 1944 everyone, everywhere, had captured something of the spirit of urgency and liberation which was in the air.

During all this time we could not lose sight of an essential future aspect of the Group's work—the long stretches of normal, undramatic routine transport work the squadrons would have to carry out between airborne operations. Nobody before "D" day could possibly have guessed that the progress of the battle would be such that, in all, the squadrons were only called upon to carry out three all-out airborne operations—"D" Day, Arnhem and the crossing of the Rhine. It was natural that the main emphasis of our pre-"D"-Day planning and organisation should be laid on the airborne work. Nevertheless experiments took place over the same period to ensure that scheduled freight carrying and casualty evacuation operations in support of the Armies and Air Forces in the field should be as efficiently carried out as the more spectacular airborne work.

The lessons we learned from the organisation, disorganisation and reorganisation of Staging Posts were perhaps the best gauge of the importance to be attached to the ground services which are an integral part of the general effectiveness of transport operations. The Staging Posts which started as little units, were built to depend on the general assistance of bigger formations which would look after them. As the battle developed and a greater area of France was captured, the whole concept changed and it became necessary to re-establish Staging Posts as self-contained units capable of handling the numerous details of transport airfield management on their own. This meant a complete re-hash of the establishment of these units; an officer of Wing Commander rank was put in as Officer Commanding the SP, and very often he would find himself Officer Commanding the airfield from which the tactical formations had left, leaving the transport aircraft as the sole users. Later, again, the wheel went full circle and we found it necessary to bring to life those smaller Staging Posts which had been reduced to a "Number Only" basis during the time when the bigger formations were called into existence. The reason for this resurrection of the smaller Staging Posts was in order to deal with the fast-moving battles which developed later in 1944 and continued to occur until the end of the war in Europe. At the same time, such great cities as Paris, Brussels, Marseilles and later Copenhagen, Oslo and The Hague gave the logical homes for the bigger Staging Posts which, by the very nature of their establishments, had become more or less static formations.

While the 46 Group parish was growing ever wider in what might be called the Tactical Area in Europe, a set of problems beset us in the Non-Tactical Area which was, in a sense, confined to France. Here we developed the ground services on two important routes: first, the Refors Route for No. 44 Group single-engined fighter aircraft flying out to MAAF (and being routed UK, Rennes, Toulouse and/or Bordeaux, Marseilles); and, second, the Passenger Transport route, Paris-Marseilles, with an Emergency Landing Ground at Lyons. To all these places it was necessary to send Staging Posts of various sizes. To achieve some degree of decentralised control, a Wing and an Air Booking Centre were set up in the centre of Paris.

At the same time it was equally necessary, as the tactical area increased in size, to copy the same kind of decentralised control. Advanced Headquarters of No. 46 Group, which eventually became known as No. 111 Wing, was put alongside 2 TAF Headquarters in Brussels. As a natural development, just as 2 TAF became BAFO, in Germany, so did No. 111 Wing move from Brussels to the same location as BAFO, and No. 111 Wing is now about to resume its former title of Advanced Headquarters No. 46 Group.

While all this continental organisation was developing an Air Delivery Letter Service system was being expanded to meet the ever-increasing distances and commitments involved. One of the least publicised, but possibly one of the most valuable, parts of No. 46 Group's work was the consistent, and often courageous, flying carried out by the ADLS pilots. Starting with a Hurricane Squadron based at Northolt at the time of "D" Day, and developing into a full Mosquito Squadron from Bomber Command, based in the UK, feeding into an Anson Squadron based near Hamburg, the story of the ADLS is one of reliability and vital work.

What of the future? The "airborne" character of 46 Group is a thing of the past. Our former bases, tucked away in a comparatively safe area of England, are being given up, and instead we find ourselves possessed of an assortment of airfields in and around the London perimeter—Northolt, Blackbushe, Odiham, Croydon and others. Concerned primarily with providing BAFO with Scheduled Transport Services, 46 Group is learning to adjust its technique from that required to handle paratroops, casualties and essential freight to the often bewildering whims and fancies of the average passenger.

MERGUI

MERGUI, *in Lower Burma, was in peacetime a RAF staging post on the route to Singapore. The Japanese enlarged our landing-strip and built an airfield which was later a target for our bombers.* MERGUI, *long known to a few travellers as one of the most interesting and beautiful places in the world, is once more in our hands. It is at present an operational station, and will shortly become an important emergency airfield for single- and twin-engined Refors aircraft.* MAURICE COLLIS, *whose books "Siamese White" and "Sanda Mala" deal with* MERGUI *past and present, was British Commissioner there from* 1931 *to* 1934. *He has written this article specially for* TRANSPORT COMMAND REVIEW.

MERGUI is an old town, and one which our ancestors could never decide how to spell, for we find it in the records as Meguim, Mergi, Merguim, Mergy, Myrghy, Merguy, Mergen and Morgen. In Siamese it is Marit, which with the Burmese affix "gyi" (pronounced *jee*), "great," was twisted into the English form Mergui; though, to make it a bit more muddling, it should be mentioned that the Burmese form is written Myit and pronounced Beik.

The first European to visit Mergui was the Venetian, Nicolo di Conti. He was there as early as 1435, sixty-three years before Vasco da Gama reached India by the Cape. What struck him most was the great quantity of elephants. But it had been a well-known town long before the fifteenth century, for it lies at the head of an ancient trade-route. If you wanted to travel from the Middle East, the area that includes India, to the Far East of Siam, China and Japan, one of the ways to get there was to cross the Bay of Bengal via the Andamans—inhabited in early days by cannibals and, so, a place not to be wrecked on—and land at Mergui. From there you went up the River Tenasserim to the walled town of that name. Thence by small boat, or walking, or on elephants, or in sedan chairs, you crossed the peninsula to the Gulf of Siam, a distance altogether of some eighty miles. After that you could go by track or coasting vessel to Siam's capital and, so, on to China. As this route saved going round by the Straits of Malacca, a long voyage with danger of pirates, it was often used by travellers who had no special business to take them to Java or Sumatra.

From the sixth century onwards there is ample evidence that this route was much used by Oriental merchants. When I lived in Mergui in 1931-1934 I saw this for myself, for I found a quantity of Chinese porcelain dating from the tenth to the eighteenth centuries, and bronzes from the sixth century, in the villages along the route between Mergui and Tenasserim. These objects the people had ploughed up in their fields, fished up out of the river in their nets, discovered in buried jars after the subsidence of a bank and in swamps and mines. Some were found in the sea, as in the case of a magnificent eleventh century Celadon platter which a Japanese diver brought up covered

with coral and shellfish. This beautiful plate, which I have now in my house, must have lain on the sea-floor for 800 years, but washed so carefully by the tides, scrubbed so gently by the sand, that there is not a crack in it nor a chip, though the lustre of the glaze has been worn to a matt surface like velvet to the touch.

Mergui is tucked away among the islands in a confusing manner. Another Venetian traveller, Cesare dei Fedrici, who sailed up from Malacca to Pegu in 1568, tried to find it but could not. While the ship anchored in some cove of the outer islands he went searching in a small boat, and for eight days in the scorching sun (for Mergui is only 12 degrees north of the Equator), sought to trace the way to its secret harbour. Carried hither and thither on the tides which run fiercely between the islets, traversing an archipelago of rocks and shell-strewn beaches, or skirting the margin where green leaf dipped to green wave, he never unravelled the maze nor entered that locked and incomparable haven between the protecting eyot of Pataw and the town of Mergui—a port which the Chevalier de la Loubère described in 1688 as ''the most lovely in all India.''

The traveller by steamer now has, of course, to surmount no such difficulties—the approach being well-charted—yet even he, standing on the upper deck and watching first Tavoy Island, then Iron Island with its hundred satellites appear to starboard, and the 3,000-ft. peaks of King Island farther out, wonders when he will catch the first glimpse of the town which he knows is not far off. He rides on; the sun slants; ''Just ahead,'' they tell him, but there is no sign of habitation. On the glassy sea are boats of many shapes, some made of a single piece of hollowed wood, most elegant in design and rapid before the wind, and others, strange craft constructed to withstand the monsoon waves by devices which resist their pressure by yielding to it. In these boats are curious men, stout and wild-looking, who are sea-gipsies, the famed Salons (once formidable corsairs) of whom Bowrey, a traveller of the 1670s, wrote gorgeously that they were ''absolute Piratts subject to no manner of Government and have many cunning places to hide themselves and their men of warre Prows in upon the Maine of the Malay shore.'' He sees these men pass, the voyager of to-day, and, were he to ask, would be told they have become a timid slinking race which makes a poor livelihood by diving for pearls and collecting the ambergris that the whales send floating upon those scented seas. The ship holds on. It grows dusk. A sunset, its whirling tones of scarlet in some mysterious way like the chords of a great organ, has spread over the west, when suddenly—its hill, its pagoda, its monastery roofs reflecting the red sky—there appears Mergui, once called Mergen.

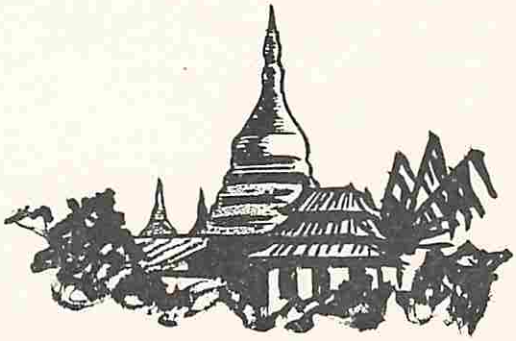
How often have I entered the little port in that sunset light, the bearing for the last two miles being taken from a white streak painted on the wide roof of my house! When the anchor is down, and the launch has come from the jetty, it may happen on such a night

The port of Mergui is dotted with the pile-dwellings of the native fisher folk

Natives paddle their boats about the steamers and yachts in the harbour

that the water is ablaze with a fire which some tiny marine creature knows how to emit, yet a fire, as I have seen it once or twice, so fulgurous that one fears to dabble in the hand. When, taking courage, you plunge your arm to the elbow and draw it out there remains awhile sparkling on the skin, as it were, a sheath of jewels. And ploughing this phosphorescence, you come to shore and smell at once its particular odour as of unknown flowers and fruits in profusion. On the ridge above was my house, brightly lit, and I would climb to it through the warm dark, and the murmur of hidden voices and the distant music of strings from some party of young men serenading in the streets.

This house was not the actual residence in which Samuel White, Siamese mandarin and Governor of the port, once lorded it and drank, and from which he escaped by miracle that monsoon night of July, 1687, when his English companions were massacred in a sudden uprising of the Siamese ; but it was the site of one of his batteries. Nearby is the old Portuguese quarter where live now descendants of the hidalgoes —da Silvas and others—and, more curious, descendants of Captain Leslie, one of White's captains, who was killed in the massacre, but whose wife Mary, for whom White had a very particular affection, was left behind in Mergui with her children. Those among whom she passed the rest of her life were of many eastern nations —Burmese, Siamese, Malays and Indians, both Hindu and Mohammedan. For Mergui has passed through many hands, and as a port on an international trade route was inhabited also by Arab merchants from the Persian Gulf, whose descendants are still to be seen in its streets. Even the Japanese came there, long before their incursion in 1941, for in 1632, when the Portuguese were in the harbour blockading the town, the King of Siam sent down from the capital a number of Samurai from his bodyguard. These Japanese swordsmen arrived at Mergui with artillery on elephants and accompanied by a Siamese regiment disguised as Japanese soldiers, the intention being to strike terror with the name. The guns were mounted on the ridge and suddenly opened on the Portuguese vessels below. Their cannon-balls and the rumour of a Japanese force caused the Portuguese to raise the blockade. Three hundred years afterwards a real Japanese army arrived, Mergui then being held by the British, and, as we know, drove them out, to be themselves this year evicted. But such ups and downs are appropriate to Mergui, on whose ridge have flown so many flags, banners of India and Arabia, Siam and Burma, of Britain, France, Portugal and Japan.



OVER THE HUMP TO CHINA

SQUADRON LEADER R. C. RIVAZ, D.F.C.

This is an account of a trip from Calcutta to Kunming in a Dakota of 52 Squadron. Crews of this Squadron daily fly this hazardous route in all weathers, as a scheduled run. American traffic over the same routes in C46s, Liberators and C54s is very heavy, and all aircraft must for safety reasons maintain the height assigned to them and follow exactly the route as briefed. Frequently the ground is not seen from Dinjan until breaking cloud as low as 500 ft. above ground at Kunming—a severe test of a navigator's abilities.

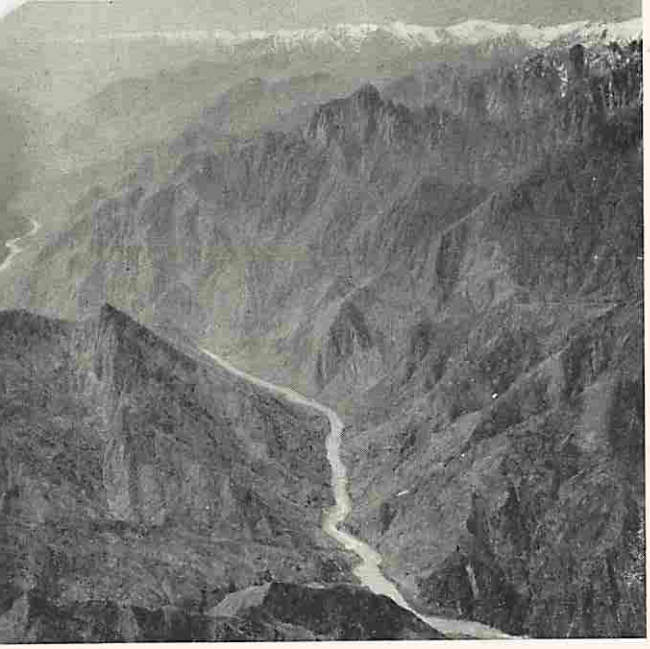
We took off from Dum Dum for Dinjan at 5.15 in the morning, in torrential rain—a most depressing outlook. We had a load of petrol aboard in fourteen 44-gallon drums, and half a dozen cases of beer, to take to our final destination. The monsoon was very late this year at Calcutta, and this was about the first real rain they had had. Everyone seemed highly delighted, as it cooled the atmosphere considerably.

From this stage of our journey north we were under the control of the Americans, as it is they who fly most of the aircraft over the Himalayas into China. We climbed through the first layer of cloud, low and broken, with another layer high above us. It was still pouring with rain, and we flew through a belt of low cumulus, and came through the top at 8,000 ft. All around us were masses of rolling, billowing, evil-looking clouds. There was no light in them: they appeared to be dead but dominant, and in between them were inky, ominous streaks and patches. There was beauty, in a frantic, wild and terrifying state, but it was menacing, unnatural beauty.

We were flying through a wide sort of valley, with massive clouds—the Americans call them "build-ups"—on either side of us, and an occasional glimpse of the ground still fertile and very flooded. We were in the monsoon weather.

At Lalmanir Hat the weather cleared as we turned east to follow the course of the Brahmaputra for 400 miles to Dinjan. The Assam Hills were a deep blue contrasting strangely with the brilliantly lit cloud sitting heavily and menacingly on top of them. The river was winding in a wide island-patched sheet down the middle of the valley, with smaller snake-like rivers feeding it from either side and flowing across our path. The visibility had become crystal clear and we could see well over a hundred miles all the way until we landed at Dinjan. Despite the fresh green everywhere it was stiflingly hot with scarcely any breeze.

We topped up the tanks with a full load of petrol before setting off again at 1.30 for our journey across the Hump into China. The weather forecast showed cumulus formations over the Himalayas, up to a height of 15,000 ft., with a clear passage before another layer at 25,000 ft. We climbed through broken cloud over jungle country showing dark green against the white of the clouds, which threw dark, almost black patches, giving the whole a mottled appearance. It was like



The Salween River, seen on the Hump route

an oven in the cabin, and we sat and sweated while we gained altitude.

In fifteen minutes we reached the foothills, thick and heavy with trees. The clouds were increasing all the time, with massive "build-ups" towering above and all around us. The whole while the pilot was studying their formation, judging their distance, so as to be able to turn away and fly around them in plenty of time. The foothills gradually receded below us, with rivers looking no larger than streams winding through valleys. From 9,000 ft. to 10,000 ft. we flew blind, seeing no farther than the wing tips. I had a sudden longing for Victoria Station: funny what altitude can do.

Suddenly, we came out on to a new world, dazzlingly bright, with a cloud landscape stretching to infinity. We had glimpses of the Ledo Road straggling through the deep blue hills. Across the Hukewing Valley there was a big break in the clouds, revealing the Chindwin flowing muddily like an enormous brown serpent through the jungle: on either side of us purple-white clouds, grotesque, higher than any mountains. We levelled out at 15,000 ft., feeling very much alone in this wilderness of cloud. It had become pleasantly cool in the cabin, with the thermometer a few degrees only above freezing point.

As we neared the first main ridge of the Hump what looked like an impenetrable black wall loomed ahead, and then even darker masses were silhouetted against it as the mountains themselves came into view. We flew on into this darkness, which was nothing more than a solid rainbelt, and as we did so the light left the sky and there was nothing visible outside the cabin. Then another clearance, and the main Hump, black, grand and wonderful.

Sometimes we flew through colossal white and grey-walled cloud canyons reaching tens of thousands of feet above us and well out of sight. It was surprising to see roads, villages and cultivated fields in the valleys, where only jungle and mountain was expected: they were a strange contrast to the frantic wildness of the mountains, stretching wonderfully and majestically around us.

The little town of Pao-chan, looking incredibly remote, nestling in its valley, with the Burma Road straggling through, slid slowly by. We were already over China. A glimpse of Erh Hai, or Tali, a lovely lake bordered with vivid green, and the mountains sweeping up blue-black on either side. It was the half-way landmark. The most magnificent cloud formation it is possible to imagine was above and around, making the land seem small: it was impossible to estimate the height of the tops, but it was well over 30,000 ft. It is on record that a PRU Spitfire, flying at 45,000 ft. on a height test, reported cloud tops towering above him to a ceiling which he estimated at 55,000 ft., about eleven miles high and nearly twice the height of Everest.

Everywhere we looked there was green and blue in every shade, and almost black-backed mountains, and clouds—inadequate word—ranging from dazzling white to deepest indigo. It was a beauty surpassing anything seen before. Sometimes we passed another aeroplane; it was a speck, hardly visible and lost in the mountains.

We were privileged to see so much on that trip. More often than not, at that time of year, the ground is screened from view by an unbroken layer of stratus, except for Lake Tali, which almost always remains open the whole year round. From a flying point of view it was dangerous and tricky, as each "build-up," larger and more vicious than anywhere else in the world, meant almost certain destruction if we should fly into it. The experience of the pilot was of paramount importance. Once we flew for a few minutes through a "small" cumulus—it would have been "colossal" in England—and for the short time we were in it we were buffeted about with hail beating like flails against our windscreen: the noise of the stones drowned the roar of the engines.

After a little over three and a half hours' flying, Kunming came into view, lying against a muddy lake with quaint little sailing boats on it looking like paper boats on a pond: we learnt later, to our advantage, that they were fishing vessels, and a most delicious catch they had produced that day.

The airfield is built on a plateau 6,000 odd feet above sea level, and boasts an "English" climate: it was certainly cool enough for a blanket at night. We were there during the rainy season, and everywhere was mud and plenty of it, a reddish brown mud like that in South Devon. A ride of about four miles in a jeep over the roughest road imaginable—nothing but a jeep could possibly have tackled it—took us to the mess, a one-time wealthy Chinaman's house, where the food was excellent—rather strange, since Kunming is, after all, one of our remotest air stations. The town, with a population of 1,000,000 and looking no larger than

Street traders in Kunming

Chinese boys handle baggage at Kunming

Winchester, is about two miles from the airfield, and reputed to be one of the most primitive in China. It is perhaps the filthiest, despite its lovely setting of mountains.

We paid Kunming a visit on the Sunday, which is no Sunday there. A seething mass of people, most of them in rags and all trying to sell something. Pedlars squatted in the mud of the sidewalks, selling their wares . . . baskets, wooden spoons, rush slippers, pottery, sunshades, sweetmeats ; all kinds of fruit—peaches, pomegranates, pears, mangoes, melons. You can buy almost anything in Kunming, at a price. I inquired the price of a *Parker* ''51'' fountain-pen—in our money about thirty pounds. Every shop—we would call them stalls—sold, or its owners were prepared to buy, anything of any description. The poverty was evident everywhere, despite the apparent trade, but money meant very little owing to its continual fluctuation.

One speaks of a ''handful of food'': in Kunming the expression is a reality. Women walk home carrying a few beans or mealies in their hands or some rice wrapped in a leaf. I saw one woman drop a corn-cob in the mud: she was crying as she picked it up and carefully wiped it. A Chinaman was not a little surprised that the Americans were flying Coco-Cola in bottles to their men stationed in China.

Outside the town everyone was remarkably cheerful and friendly, singing out unmistakably amicable greetings, giving the '' thumbs up'' sign and smiling. The Chinaman is by nature friendly and loves to laugh.

I took a walk up one of the hills surrounding the airfield. Down the road, nothing more than a rough muddy track, came farmers, or more often their women folk, carrying prodigious loads on their backs or on their heads—herbs, fir cones, vegetables, fruit, faggots: they jogged along at a half trot as though at any moment the load would weigh them to the ground. There was an occasional bullock cart with rubber wheels (a law at one time made rubber compulsory on carts). The hill I climbed, about 7,000 ft. above sea level, was a veritable fortress and was honeycombed with dugouts and slit trenches, as were all the neighbouring hills. Kunming had expected invasion.

The surrounding hills were also a vast burying ground, with hummocky grass-covered mounds marking the graves. Some had headstones similar to the ones we see in an English churchyard; some were just plain and probably forgotten, and some had stone pillars about 12 ft. high surmounted by a grotesque lion or mythological animal. The Chinaman carries his dead to a nearby hill for interment, and it is no uncommon sight to see a cortège at the funeral of some wealthy citizen stretching a mile long, with the mourners all in white: indeed, it is difficult for the stranger to distinguish between a wedding procession and a funeral. The coolie when he is dead will be wrapped roughly in straw, or rush matting, his legs protruding, slung between two bamboo poles on the shoulders of four bearers, and carried clear of the city boundary.

All that night it rained steadily; good for the rice. There was considerable doubt in the morning whether we should be able to get from the mess to the airfield, let alone get the aircraft off the ground. But the jeep ploughed its way through the morass—the road for the most part had disappeared—passengers and luggage being thrown about in a most alarming manner.

The scene at the operations room was as busy as any railway terminal: pilots, navigators and wireless operators—all Americans except ourselves—were collecting weather forecasts, route plans and clearance certificates. Some, like ourselves, were returning over the Hump to India ; some to different parts of China, and a Skymaster was going to the U.S.A. Despite the depressing looking weather everyone was cheerful and tremendously busy. And so, without further event, back to Calcutta.

THE AVRO TUDOR 1

THE initial flight of the Avro Tudor 1 on June 14, 1945, served as an effective answer to those who doubted the ability of Britain's aircraft industry to produce our post-war civil types quickly.

The Tudor 1, a low-wing monoplane with a span of 120 feet, has a circular pressurised fuselage nearly 80 feet long. The maximum diameter of 10 feet is maintained for a parallel section of the fuselage, which includes the accommodation for the passengers. Four Rolls-Royce Merlin 100 motors, in their new circular section cowling, drive 13 feet diameter four-blade constant speed propellers. Reversible pitch propellers will be fitted when available. The undercarriage is of conventional design and is fully enclosed when retracted. The tailwheel pivots into a compartment in the tail cone and two small doors close behind it to complete the streamline form. A single fin and rudder towers 18 feet above a 43 feet span tailplane.

The installation of the motors follows recognised practice on the "power egg" principle, but a new feature is the incorporation of a Rotol accessory gearbox. This unit is mounted on the sub-frame structure aft of the firewall and enables the Merlin motors to be removed without disconnecting any of the auxiliary services.

Pressurisation of the fuselage is effected by two Marshall blowers driven by the two outboard engines. These enable a pressure differential of 5½ lb./sq. inch, to be maintained at 25,000 feet. Ground level conditions are maintained up to 13,000 feet, and from that height to 25,000 feet the pressure will slowly change from ground level conditions to those prevailing at 8,000 feet. Most of this equipment with the exception of the Westland Control Panel is housed under the floor of the centre section. A Janitrol heater ensures that the air enters the cabin at the right temperature, and as an additional refinement for production aircraft the development of satisfactory humidifying equipment is now receiving attention.

The large size of the Tudor 1 fuselage allows an extremely generous allocation of space to all compartments, and to the pilots and travellers who have been accustomed to flying in converted bombers the feeling of spaciousness is most gratifying. The entrance to the fuselage is on the port side at the rear end. On the right of the entrance lobby is the kitchenette and steward's quarters. A baggage compartment faces the doorway, and a small wardrobe is on the left-hand side. On each side of the fuselage, and reached via sliding doors, are the lavatories and dressing-rooms. Air-conditioning louvres in each compartment are ingeniously concealed by the decorative scheme as the sandwich formed by the cabin wall and outer skin has been utilised to form separate ducts for fresh and for vitiated air. The bunks are made by swinging up the backs of the armchairs, and when in the horizontal position a simple bolt is closed to make the joint. The bottom bunk utilises the cushions which form the seats of the chair. Curtains can be drawn across all bunks for individual privacy.

Forward of the passengers' compartments a door leads on to the flight deck which is remarkable for its roominess and the almost complete absence of visible plumbing and wiring. This pleasing contrast to the usual appearance of military types has received the favourable comment of aircrews who have had the opportunity of inspecting the machine.

On the left of the flight deck, facing outwards, sit the

Rolls Royce Merlin 100 *motors in their new circular section cowling*

The Avro Tudor in flight

navigator and wireless operator, while on the starboard side, facing forward and with all controls easily to hand, is the position for the flight engineer. The Westland Control Panel is located on the right of the engineer's seat alongside the cabin wall. A central opening through the foremost bulkhead leads to the pilot's compartment in which instruments and controls have been reduced to the absolute minimum now that much of the pilot's work has been transferred to the flight engineer. Flanking a central engine instrument panel are two blind flying panels supplemented by beam approach and glide path indicators and radio altimeters. Centrally placed, between the two pilots, is the control pedestal which carries the engine and airscrew control levers and the trimming wheels. Stick-type control columns, surmounted by "spectacle" aileron wheels are reminiscent of the Lancaster, as are the rudder pedals. Push-pull control tubes are used for all major control surfaces, and in every instance they pass centrally beneath the floor of the fuselage.

Reports from Avro test pilot, Major S. A. Thorn, indicate that the estimated performance figures are likely to be exceeded. In the air the graceful lines of the machine are most pronounced, and that it is without vices in handling is shown by the complete absence of major modification to the control surfaces.

At a maximum gross weight of 76,000 lb., the Tudor 1 has a sea level climb rate of 990 feet per minute and an absolute ceiling of 31,500 feet. On three engines the sea level rate of climb is 540 feet per minute and the absolute ceiling is 24,300 feet. A ground run of 880 yards is required for take-off at 76,000 lb. and a 50-foot screen is cleared at 1,200 yards. Landing at 65,000 lb. the ground run is 770 yards, which can be reduced by 60 per cent to 70 per cent with the use of reversible pitch propellers. Maximum speed is 346 m.p.h. at 25,000 feet, at which height a cruising speed of 230 m.p.h. can be maintained for 4,660 miles. At the same height at 295 m.p.h., using 1,000 b.h.p. per motor, the range is 3,700 miles.

CASUALTY AIR EVACUATION IN NW EUROPE

Planning and Operations

WING COMMANDER R. C. JACKSON, *SMO, 46 Group*

From D-Day to VE-Day aircraft of 46 Group carried 77,365 casualties from the Continent to the UK without the loss of a single injured man. The plans for this huge operation, which was sustained almost without a day's break from June 13, 1944, to May 8, 1945, were based on experiences gained in North Africa, Sicily and Italy.

It was laid down at the outset that the RAF would be responsible for the care of the casualties from the time they were received at the emplaning airfield until they were handed over to the Army at the base airfield.

Two separate movements of casualties were planned —the main shuttle between the UK and base airfields in the field, and the forward shuttle between base airfields in the field and the advanced air strips at the front. Casualty Air Evacuation Centres (CAECs), all mobile, but of three varieties, were therefore planned. Those in the UK to hold 200 cases; those on the Continent in the base areas to hold 100 cases; and those on the advanced air strips to hold 20–30 cases for a period of a few hours. The most advanced CAECs, and the shuttle between them and the base airfields in the field, were controlled by HQ 2nd TAF, but the aircraft, the crews, the ambulance orderlies and the equipment were to be supplied by 46 Group.

There is a good deal to be said for confining casualty air evacuation to aircraft solely employed on ambulance duties; the aircraft can then be distinguished by the Geneva Red Cross and claim protection under the terms of the Geneva Convention. But the magnitude of the scale of operations involved in the invasion of Europe precluded any possibility of setting aside enough aircraft for this plan. The alternative arrangement, that of combining the carriage of freight to the armies with the return of casualties in the same aircraft, implied confidence in maintaining complete air superiority, and this was the plan actually employed.

For the first time in the history of air evacuation it was decided to carry in each aircraft an air ambulance attendant who would be a qualified nursing orderly, and permission was granted to employ a high proportion of WAAF for this important work.

TRAINING BEGUN

It was not until February, 1944, that 46 Group actually began to move into its still unfinished airfields, There were thus barely four months before D-Day in which to train personnel and units in their individual duties, and at the same time to put into working order the complex correlation of duties between 46 Group and the medical units of both 2nd TAF and 21st Army Group. There were also, of course, many constructional and administrative tasks to be accomplished during the same period.

Three large CAECs were set up on the airfields at Broadwell, Down Ampney, and Blakehill Farm, each with a tented capacity of 200 cases. Large loading and unloading bases had to be constructed on the airfields, extensive road-works undertaken to carry the ambulance traffic. Four Forward Staging Post CAECs were also formed in preparation for their transference to the Continent. Air ambulance orderlies were selected after a period of specialized training.

Meanwhile, arrangements were made with the Army for the prompt disposal of their casualties as soon as they were received. The CAECs were obviously not equipped to hold casualties for more than a few hours, and it was essential that patients should be removed at regular and frequent intervals.

During April and May numerous exercises were carried out in conjunction with 83 and 84 Groups of 2nd TAF and medical units of 21st Army Group. By

May 25, 1944, the CAECs in the UK were prepared to accept casualties.

THE FIRST CASUALTIES ARRIVE

Seven days after D-Day, on June 13, 1944, the first casualties were flown from the Normandy bridgehead to the UK. Everything worked more smoothly than any had dared to hope. ETAs were signalled by the aircraft as they crossed the English coast. This gave the CAEC about twenty minutes' warning.

As soon as the aircraft arrived on the airfield the air ambulance orderly indicated to the MO any serious cases for immediate attention. The remaining cases were then taken direct to the CAEC and placed, still on their stretchers, on racks raised from the floor. They were then examined by a RAF Surgeon and Sister. Very serious cases were transferred to the Station Sick Quarters for resuscitation or operation. All the men received a wash and were shaved and given a meal, the diet being according to the Surgeon's decision. Field post cards and telegrams were provided, and the British Red Cross issued toilet requisites to each man.

All decisions as to the disposal of patients were immediately passed to the control hut, an essential feature of the CAEC. The control hut was in direct communication with the Army Control Point, Air Evacuation Headquarters (AVAC), Swindon, and was able to pass them immediate advice as to the number and character of the casualties received. AVAC then allocated the cases to the various hospitals, and called up the British Red Cross ambulances to carry the men to hospital or train.

The decision to sort the casualties in the CAEC rather than on the airfield proved sound. With certain few exceptions all benefited considerably by the rest and refreshment during the sorting process.

During the autumn and winter the Down Ampney centre was considerably extended when a hutted site became available, the Blakehill Farm and Broadwell centres being closed down. Down Ampney was then nominally capable of handling 600 casualties a day, with a maximum of 700 on any one day. In point of fact as many as 832 casualties arrived on one day, and 1,500 meals were served during the twenty-four hours.

After the break-through from the bridgehead was accomplished in August the forward shuttle of Sparrow aircraft of No. 271 Squadron began to operate, based on a Normandy airfield alongside a road known as Harley Street, where most of the General Hospitals were sited. As the armies advanced, and secured new airfields, the Forward Shuttle Flight followed, picking up casualties and flying them back to base hospitals, from where they could be flown back to England. On New Year's Day, 1945, all the Sparrows were destroyed or damaged by the enemy attacks on the Brussels airfields. The shuttle was operated after that mainly

A 'Sparrow' of No. 271 Squadron, used on the Forward Shuttle on the Continent

Patients benefit from the rest, refreshment and a wash and shave provided in the CAEC

Unloading casualties is strenuous work. In one day 832 *cases arrived at Down Ampney*

by Dakotas, and up to VE-Day had carried a total of 39,335 casualties.

CASUALTY DOCUMENTATION

Documentation plays an important part in casualty evacuation. It is essential that no one is missed in the chain of care, attention and medical records, but too much of this work can interfere with the efficient transfer of cases.

All casualties from the front were given a combined sea-air label having three parts, one retained by the CAEC in the bridgehead, one detached on disemplaning in England, and the third went to hospital with the casualty. At the UK airfields composite nominal rolls were compiled of all casualties received each twenty-four hours, dissected into separate rolls and forwarded to Air Ministry, War Office and Admiralty.

A complete alphabetical index of patients proved invaluable in dealing with numerous back-dated inquiries from many authorities. A record of all types of injuries was also kept. By keeping a combined record at Group of the total number of casualties in each CAEC, overloading and confusion was avoided, and diversions arranged through the Operations Room.

CASES FOR AIR EVACUATION

In considering the type of casualty fit for air evacuation the important, and really the only factors that affect decisions are height, duration of flight, and the weather conditions, and of these height is the main consideration.

In North West Europe these factors rarely caused anxiety. Height of flight was usually not much more than 3,000 ft., the journeys could be completed in one to two-and-a-half hours, and weather conditions from the patient's point of view were not often troublesome. Very few of the men carried had ever flown before but only 1.2 per cent of the total were air sick, and most of these were sitting cases, usually in the rear of the fuselage. Many of the stretcher cases had previously been given sedatives—which may account to a certain extent for this low percentage.

From experience it was found that the abdominal case was the one on which restrictions should be placed. Surgical opinion is agreed that no abdominal case should go by air unless the operation has been performed more than ten days previously, and if the aircraft is likely to fly higher than 4,000-5,000 feet this period should be extended to twenty-one days. Head injuries travelled well provided adequate sedatives had been given. Very few chest cases required oxygen at the height flown across the Channel. Facio-maxilliary cases required a good deal of attention in the air, but all travelled well.

The great majority of the casualties carried by 46 Group were, of course, Army. Of the 77,365 brought to England up to VE-Day, 69,083 were of the Army, of which 11,412 were Canadians, 4,289 were of the US Army, 2,939 of the RAF, 638 of the Royal Navy. The CAEC at Down Ampney received 45,369 of the total. By comparison the total number of casualties carried by sea from June 6, 1944, to VE-Day was 70,076.

CAIRO WEST

At the beginning of 1942 *this airfield was a desert landing strip—LG*224. *There were Arab encampments on the site of the hangars and no RAF buildings of any sort; just sand and tents and a scraped out runway.*

*When our bomber squadrons were forced back to the Canal zone and into Palestine, LG*224 *was used as a forward base for four-engined bombers pounding Tobruk and Benghazi. Both* 216 *and* 267 *Squadrons operated from here in support of the* 8*th Army and over the Dodecanese. And all the time reinforcement aircraft flown overnight direct from Gibraltar, were landing at LG*224 *and adding their strength to our resources.*

In January-February, 1942, *the first non-stop UK-Cairo transport flights landed here, three Liberators of* 1425 *Flight (forerunners of* 511 *Squadron), and one of BOAC. A small operational control unit, known as Liberator Flight, was set up to service the transport aircraft using the airfield. Throughout the latter part of* 1942 *urgent supplies for the* 8*th Army were flown every week from the USA to LG*224, *in Mk. III Liberators of* 45 *Group, via Natal and Central Africa.*

*Later, when aircraft could be flown along the North African coast, LG*224 *became known as* CAIRO WEST *and received heavy traffic in reinforcement and ferry aircraft from the UK, Canada, and the USA en route for the Middle East and Far East air forces. With the formation of Transport Command in the spring of* 1943, CAIRO WEST *became our main terminal airport in the Middle East, both for aircraft on delivery and for scheduled services. The Liberator Flight was split into two, the servicing and maintenance unit retaining the original name, while the traffic and catering sections formed the first ADRU (Air Delivery and Reception Unit) in the Middle East. The ADRU has since been more accurately renamed the Passenger and Freight Section, and this title is now standard throughout the Command's Staging Posts.*

During the first six months of this year nearly 8,000 *aircraft and over* 36,000 *passengers passed through* CAIRO WEST, *and more than* 150,000 *meals were served to passengers and crews; freight and mail over the same period totalled over* 7,000 *tons.*

CAIRO WEST *is* 21 *miles from Cairo itself, rather farther than is convenient for a peace-time transport airfield. The runways at Almaza,* 7 *miles from the city, are being lengthened and most scheduled services will in future be routed there. Ferry and reinforcement flights will continue to use* CAIRO WEST.

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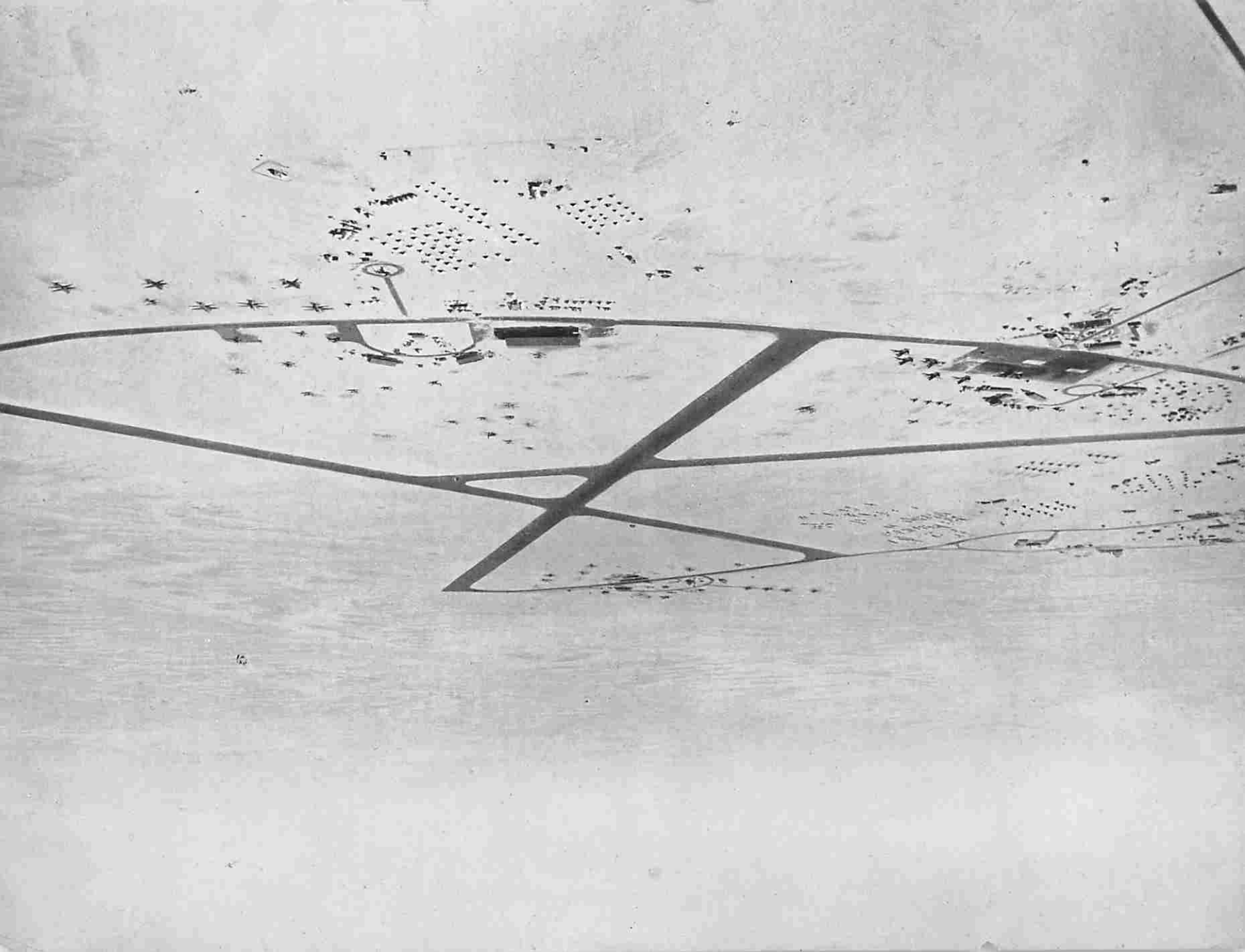

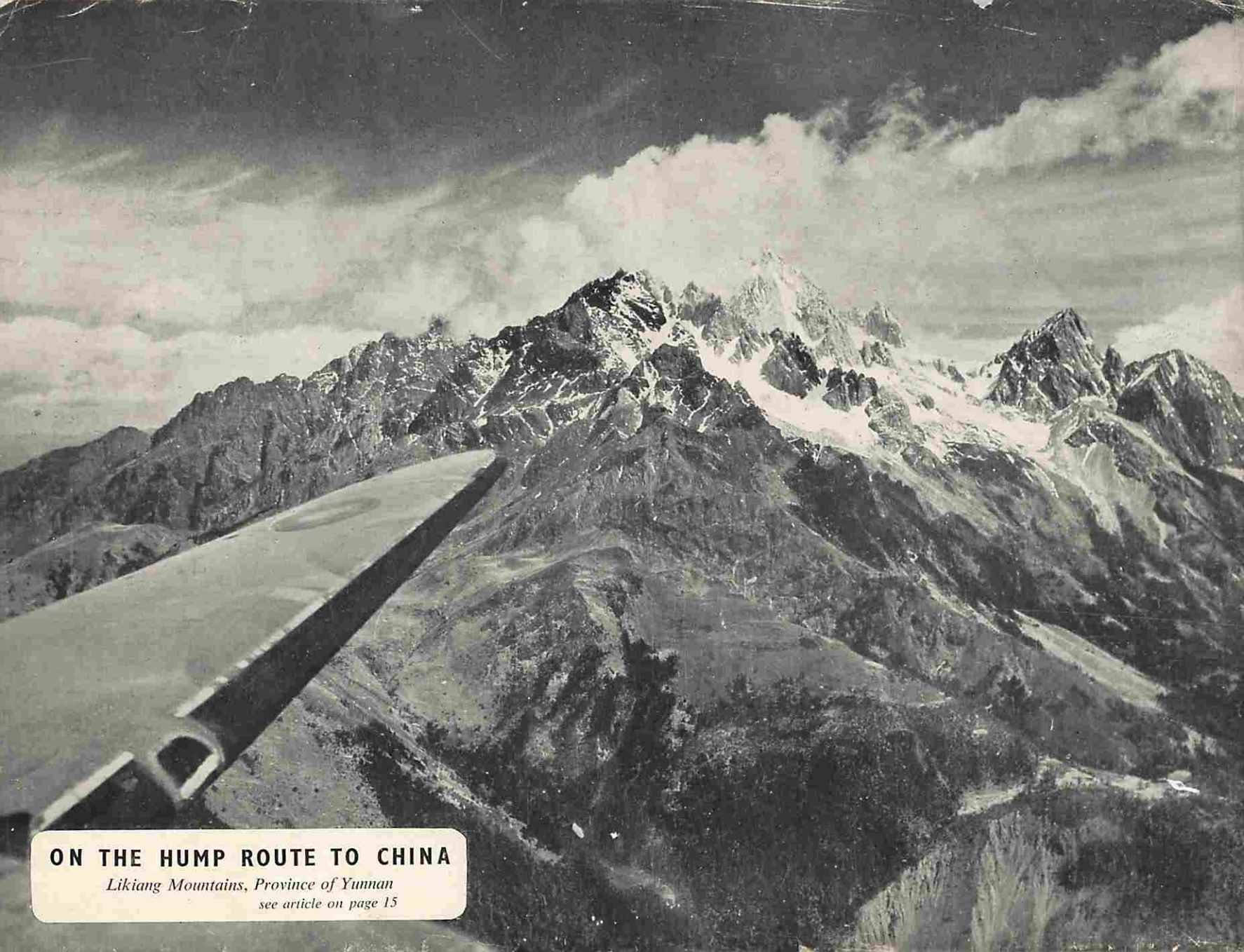

ON THE HUMP ROUTE TO CHINA

Likiang Mountains, Province of Yunnan

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