

Air Travel in the Desert

IHAVE recently completed 6000 miles of travel by aeroplane and flying-boat. This was over one of the most important air routes in the world, namely, that from Egypt to India by way of Palestine, the Arabian desert, Mesopotamia, and Persia; then back again over the same route from India to Egypt and across the Mediterranean by flying-boat from Alexandria to Greece.

What impressed me perhaps most of all in this wonderful argosy was the great part that wireless plays in modern aviation. Indeed, without an efficient wireless service it is difficult to see how this vitally important Imperial route could be maintained.

Desert Dangers.

THE country flown over is for the most part wild, sparsely inhabited; and although weather conditions are generally good, except during the Indian monsoon—that is, for about two months in the year—sudden storms arise at intervals during most of the year, and are particularly dangerous in the desert. For the wind blows up minute particles of dust, bringing the visibility down to lower than that in a thick fog.

In a real desert dust-storm not only is the wind very strong, but it is sometimes impossible to see more than 30 feet ahead. The dust-clouds rise to an immense height, even as high as 7000 feet.

The big three-engined passenger and mail-carrying aeroplanes have a good "ceiling" or power of rising high into the air; but, even so, 7000 feet puts a great strain upon them, especially when the aeroplane is fully loaded.

Treacherous Storms.

BUT there is a far greater difficulty, and that is in finding the aerodromes and landing when a dust-storm is blowing. It may be quite fine sixty miles away, which is less than an hour's flying distance, but local winds make landing dangerous, and but for wireless the aeroplane could fly into danger without warning.

As the usual journeys between the desert aerodromes are some three hours' duration, without wireless it would be impossible for a machine to leave an aerodrome, say, at Basra, at the head of the Persian Gulf, in perfect weather conditions and without being warned, fly into a duststorm and find it impossible to land at Bagdad.

The importance of wireless, therefore, can be readily understood. If a sudden storm arises the aeroplanes in flight can be warned and directed either to go to a safer landing-place or, if the worst comes to the worst, go back and land at their point of departure.

Radio Warnings.

IHAD three experiences of duststorms during my journeys. The first was in flying from Cairo to Gaza, in Southern Palestine. After crossing the Suez Canal we had to fly over the dread Sinai desert.

The weather was perfect when we left Egypt, but the wind increased be-

In the accompanying article (published in "Modern Wireless") Lt.-Commander J. M. Kenworthy, R.N., M.P., vice-president of the Air League of the British Empire, relates several personal experiences which prove the vital importance of radio to aeroplanes flying over desert routes.

tween the Suez Canal and Gaza, and soon blew up clouds of fine sand. We were able to ascertain, by calling the wireless station at Gaza, that the landing ground there was clear and weather conditions fairly good.

Without wireless we dared not have risked this, and would have had to turn back. As it was, by going out to sea we were able to fly round the edge of the storm, the limits of which were fairly visible from the air. There was a stiff wind over the sea, but no dust. Any wind, short of a gale, if unaccompanied by dust, does not worry the modern flying machine.

The second episode was on the farther stages of the same journey, when we were warned by wireless that the Basra aerodrome was experiencing a

duststorm and landing conditions would be bad. We therefore made Bagdad very comfortably, and stayed there the night instead of trying to make Basra.

The third experience was on the way back, when we were held up a whole day at Basra by a terrific storm in which no aeroplane could live and the visibility was reduced to almost zero. This meant a delay of twenty-four hours, spent very comfortably in a rest-house, but in the knowledge that the moment the weather conditions improved—for the desert storms arise and subside with equal suddenness—we could proceed on our journey.

The passenger-carrying aeroplanes can receive and send wireless messages over considerable distances, and all the landing-places have their own wire-

less stations. It is, therefore, possible to choose one's weather; and the safety of flying in that part of Asia has been increased at least a hundred per cent. by wireless telegraphy.

A Forced Landing.

If an unexpected landing is to be made at an aerodrome after dark, owing to head winds or other causes, the aerodrome station can be warned by radio in time for the lights to be put up and lit on the landing ground to facilitate the descent to earth.

There is another danger in air navigation over Asia Minor, and that is of forced landings in the desert through engine troubles or other mishaps. The route from Palestine to Bagdad lies across a huge expanse of almost uninhabited, flat, sandy wastes.

Supposing a machine were forced to land halfway and was not fitted with wireless. It is doubtful if any of the crew or passengers would get out of it alive.

If repairs could not be effected, and she was unable to resume her flight, they would have to make their journey over a trackless, almost waterless desert, without camels, and would be extremely fortunate if they managed to reach a settlement.

But there is still another danger, and that is from the native inhabitants themselves. For these are the Bedouin, who have never been brought under the control of any civilised Government. They live on their herds of camels, inhabiting low, black tents, are very poor, but are well armed with modern rifles and look upon travellers as a legitimate source of revenue.

Law of the Desert.

THE Law of the Desert is the law of the strong right arm. I heard the true story of a small party of missionaries proceeding by motor-car over part of the desert. A tribe of Bedouin swept down, robbed them of everything they had, even stripping them of their clothes and boots, and leaving them to make their way naked and on foot as best they could to the nearest post.

But if an aeroplane, fitted with wireless, has to land in the desert it can report the fact at once to the nearest aerodrome and a relief 'plane is sent immediately to rescue the passengers and mails. This has happened more than once.

Indeed, so perfect is the organisation that the very moment a 'plane leaves one aerodrome to make another across these wild countries, it reports its position every half-hour, and its track is plotted on charts both at its point of departure and its point of arrival.

If there is silence, if the signals do not come through as expected, if the aeroplane is called up by wireless and does not respond, a relief 'plane is sent up immediately to fly along the track and to find out what has happened.

R.A.F. Avengers.

THIS the inhabitants of the desert have learnt to know quite well, and they think twice of molesting aeroplane travellers who may have come (Concluded on page 28.)

"Old English Song"

A Lecture Recital

by



from
2YA

on
Jan. 5.

Mrs. Daisy Basham

Assisted by the

ARIEL SINGERS