

structures include a meeting hall with seating for 850 persons; ample library space, worthy of the Society's fine collection of books; with other easements necessary to complete the working scope and social aims of a scientific corporation of this kind.

No reference to the Society would be adequate without testimony to the wonderful and enlightened activity it has consistently displayed in regard to exploration in Africa and in Arctic and Antarctic regions, and help in such undertakings as the successive Mount Everest Expeditions, as well as in others. Scientific men and a vast

public are well aware of these services; and, should the lands fail in a measure, there remains the air. Already the Society has encouraged the British Arctic Air Route Expedition by supplying it with "the best instruments it could furnish, and a little of its money".

It remains to add that Admiral Sir William Goodenough has been chosen as the new president in succession to Sir Charles Close, whose term of office ends as the one hundred and first year of the Society begins. Scientific workers generally wish the Society continued prosperity and increased activity in this second century of its existence.

Obituary.

MR. M. A. GIBLETT.

WHEN in 1924 it was decided to take up again with renewed energy the development of airships, it at once became clear that a prime necessity was a specialised meteorological service devoted entirely to airship problems. What exactly were those problems was not known: weather forecasting was obviously one, but there were others, not yet formulated, connected with the forces present in the atmosphere which would affect largely the success of airship transport. It was therefore necessary to place the new Airship Services Division of the Meteorological Office under an able Superintendent. The man chosen for this responsible post was at the time a relatively junior Assistant Superintendent in the Forecast Division, but a man who had already made his mark by his scientific ability and outstanding personality.

Mr. M. A. Giblett was then only a little more than thirty years old, having been born on July 15, 1894. He had been educated first at Upton School, Slough, and Modern School, Maidenhead, and then at the Universities of Reading and London. Three years as nautical master on the Cadet Ship *Worcester* under Capt. Sir David Wilson Barker were no doubt responsible for his becoming interested in meteorology, and in March 1919 he joined the staff of the Meteorological Office for training preparatory to going out to the British Expeditionary Force in North Russia on meteorological duties. He sailed for Russia at the end of July 1919 and received his commission as 2nd Lieutenant in the Meteorological Section, Royal Engineers, while actually on the voyage. He was stationed at Archangel, but had been there only a few weeks when the British Expedition was withdrawn. He returned to the Meteorological Office and resumed his duties as professional assistant in the Forecast Division in October 1919.

As soon as Giblett received his appointment as Superintendent of the Airship Division, he set to work with great energy to plan and build up the meteorological organisation which was to be an integral part of the Imperial scheme for the development of airships. At first this scheme only visualised an airship route to India. He found an almost unexplored field before him.

It is true that at each end of the route there were highly developed meteorological services, but between the shores of India and the east of the Mediterranean there was no meteorological service and no synoptic charts had ever been drawn for these regions. Further, although practically every country in Europe prepares its own synoptic charts, there was no single chart of Europe on a scale sufficiently large to make it possible to study in detail the changes of weather even in Europe as a whole. Giblett therefore set to work to collect from every possible source observations for the whole area embracing the route from England to India, and from these prepared a series of daily weather charts for a whole year. It was a stupendous piece of work, which is not yet entirely finished, but with the aid of these charts it was possible to study the routes open to airships and to calculate in detail the times it would occupy to travel each route in different types of weather.

Although at that time the route to India was the only one on which it was planned to employ the airships, it was necessary to make a preliminary survey of possible airship routes to all parts of the Empire. In 1926 this became an urgent problem, for the Air Ministry wished to place before the Imperial Conference which was held in that year a scheme for the development of Imperial air transport. This scheme was presented to the Imperial Conference in a book, afterwards published, entitled "The Approach towards a System of Imperial Air Communications", in which sections on the meteorological investigation of the England-India route and on the meteorological organisation in connexion with the development and operation of airship services were written entirely by Giblett. This description of possible routes, the necessary ground organisation for meteorology, and the co-operation required between the meteorological services was a remarkable piece of work and received much commendation at the Imperial Conference: it showed a power of planning and organising seldom met with in so young a man and a 'scientist' to boot.

It had by that time become clear that meteorology would play an important if not the chief

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part in the development of airship transport, and that airship-meteorology must be developed along with airship-architecture and airship-mechanics. It was therefore only natural that when the Air Ministry despatched a mission to South Africa, Australia, New Zealand, and Ceylon to confer with the governments on airship routes and to survey possible sites, Giblett should be a member. On this journey, which lasted from May 5, 1927, to December 17, 1927, Giblett met the official meteorologists in the Dominions mentioned and also those in India and Egypt. Everywhere he made friends and impressed everyone with his scientific judgment and enthusiasm for his scientific work. He explained the problems and was highly successful in enlisting the co-operation of the various meteorological services in initiating the meteorological observations, both surface and upper air, on which alone a reliable survey of the atmosphere can be made.

During Giblett's absence the collection of data of upper winds and thunderstorm frequency in all parts of the world, which he had planned before leaving, had proceeded apace, and progress had been made in an investigation into the structure of the wind which will be a piece of classical work when the results are published.

The time had now arrived for making detailed plans for the journeys of the new airships *R100* and *R101*. At first it was proposed that both these airships should be employed on the India route, but early last year the plans were altered and it was decided that *R100* should go to Canada instead of to India. This necessitated a new and rapid meteorological survey of the Atlantic crossing which could only be made with the aid of synoptic charts. Much work was done, mainly by Giblett personally, to calculate the time taken to reach Canada on different routes under different weather conditions. In co-operation with the navigators he carried out on paper a number of crossings of the Atlantic. A date of departure would be chosen and then from the synoptic chart of the day a course would be laid down. The next day's chart showed where the airship would have been and then the course for the next day set. In this way the whole crossing was worked out in detail. A large number of occasions were studied and the statistics of the time taken on the different routes were discussed. An interesting result came out, namely, that the track across the north Atlantic, in spite of its greater winds and bad weather, was more frequently a better crossing than one farther south where the weather as a whole is much better. This was against the opinion generally held.

Simultaneously, in conjunction with the wireless staff, detailed plans for the collection of data by the airships when in flight were worked out, and areas delineated in which the ship would receive its forecasts from specified meteorological services, these being the meteorological services of London and Canada on the Canada route and those of London, Malta, Egypt, and India on the India route. A scheme for handing over responsi-

bility from one service to the other was worked out in great detail.

Those of us who worked with Giblett were much impressed with the thoroughness with which he planned his organisation. It is impossible here to go into any further details of this work, but sufficient has probably been said to indicate the remarkable organising powers of Giblett. He was given almost complete freedom in working out his plans, and he never failed in the trust reposed in him.

There is not space to say much about his purely scientific work; but Giblett was one of our very best meteorologists. He worked on turbulence, and applied the new work of Taylor and Richardson to the problem of evaporation from a large expanse of water. He was an enthusiastic follower of the Bergen school of forecasting and made use of the new knowledge of 'fronts' in all his forecasting for airships. The importance of atmospheric disturbances for the safety of airships led him to a detailed study of line squalls and water spouts, and his paper on line squalls, which he read before the Royal Aeronautical Society in 1927, contains the best review of our knowledge on this subject which exists.

Added to his ability as a man of science and as an organiser, Giblett possessed a charming personality. This was a great asset, for it endeared him to the technical officers with whom he worked, and he became a close personal friend to Colmore, Scott, and Richmond. It is heartbreaking to those of us who worked during the last five or six years with Giblett to see all his plans destroyed before they were put to the test, and the loss of so much knowledge and experience is a disaster compared with which the material loss is absolutely insignificant.

Giblett leaves a widow and daughter three years old, to whom, as well as to his mother, the sympathy of all will go out.

G. C. SIMPSON.

LIEUT.-COL. V. C. RICHMOND, O.B.E.

VINCENT CRANE RICHMOND, who was killed in the disaster to the *R101* on Sunday, Oct. 5, was the Assistant Director of Airship Development (Technical) at Cardington, and as such was responsible not only for the design work there but also for the control of airship research. He was born on Jan. 21, 1893. His education at the Royal College of Science, London, was that of a physicist rather than a mathematician, and it was indicative of his capacity that he was undertaking work that needed not only an understanding of those subjects but also considerable engineering knowledge as well.

Richmond's connexion with airships dates from 1915, when he was dealing with the manufacture of envelopes for non-rigids for the R.N.A.S. The design of the gas-bags and the methods of taking the stresses in the *R101* showed many signs of his experiences of those days. His experience of rigid airships was chiefly commenced in 1919, when he was attached to the Inter-Allied Commission in