

APPENDIX C

FLIGHT OF HM AIRSHIP R.101 TO INDIA: NOTES FOR PRESS USE

On October 1, 1930, three days before R.101 left for India, the Air Ministry press office released this sixteen-page document to newspapers and other press outlets. It was written by C. P. Robertson, the Air Ministry press officer.

The document covers every aspect of R.101. It opens with the mission's purpose: "testing out the behavior of an airship on a long distance flight, more especially under semitropical conditions." It describes the infrastructure in place for the flight: the signal towers along the route, the meteorological information that will be communicated to the ship as it flies, and the towers in Egypt and India. The document lists all the passengers, officers and crew *scheduled* to fly to India. It contains detailed biographies of all key personnel, and lists for the crew their age, birthplace, and previous airship experience. Most revealing, though, is the mention of Scott only as an official of the Royal Airship Works who was riding on R.101. He is not listed as an officer. Scott objected to this characterization of his role when he saw these notes on the morning of departure for India, October 4th. In response to Scott's objections, Robertson issued a press release, written in consultation with Colmore, when the ship departed the tower. It included this line: "The flight has been carried out under the direction of Major G. H. Scott, Assistant Director in charge of Airship Flying."

The passenger and crew list in this document was outdated by

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the time R.101 slipped from the mooring tower three days after the press notes were issued. A. H. Watkins had replaced G. Watson as an engineer, E. Elliott had replaced C. W. Larkins as a radio operator, and Alexander Bushfield, an inspector with AID, had joined the flight.

This document has been reproduced with its table of contents and with the original pagination indicated. The spelling of place names as in the original document has been retained.

This document is extracted from the file “Responsibilities of Captain for R.101: Position of Major Scott and F/Lt. Irwin” located in the National Archives, Kew, Reference AIR 5/13.

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Flight of HM Airship R.101 to India: Notes for press use

The flight of HM Airship R.101 to India via Egypt—the first flight of an Airship to either country is being undertaken as part of the Air Ministry's development policy for Airships with the object of testing out the behavior of an Airship on a long distance flight, more especially under semi-tropical conditions.

The flight is an experimental one, and in this respect it should not be forgotten that when the Airship was designed she was approximately twice the size of the largest Airship then built, and incorporates many novel features.

HM Airship R.101

The R.101 was designed by Lieut-Col. V. C. Richmond, Assistant Director of Airship Development (Technical) and was built at the Royal Airship Works, Cardington, Bedford. She is the largest Airship in the world having a gas capacity of approximately five and a half million cubic feet.

Since the Airship carried out home trials an extra section has been embodied in the ship, which has increased her length by forty-five feet and her gas capacity by about 500,000 cubic ft. The principal dimensions now are: Length 777 feet, maximum diameter nearly 132 feet and maximum height about 140 feet. As the result of the insertion of the extra bay, and by alterations to the parachute netting which enabled each gasbag to hold a greater volume of gas, her gross lift is now approximately 165 tons.

She is engined by five Beardmore "Tornado" 585 HP compression ignition heavy fuel oil engines. They are carried in five separate power cars. Two of the engines are of reversible type.

R.101 has the most spacious passenger accommodation of any airship yet built. It consists of a large Saloon lounge (Length thirty-three feet, width sixty-two feet) which stretches across the hull, with a raised promenade at either end from which excellent views can be obtained; a separate dining room with seating capacity for fifty persons, a fire-proof smoke room (a feature which has not been installed in any other airship and has been made possible by the use of heavy fuel oil engines) and roomy passengers' cabins. There is also an electrically equipped kitchen and good lavatory accommodation.

The color scheme is white and gold, while the curtains are of cambridge blue.

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The experiment of collecting rainwater on the top of R.100 during the flight to and from Canada having proved highly successful a somewhat similar catchment system has been provided on R.101. Arrangements have been made for collecting water at two positions on the top of the hull and the water will be led from these points in order to supplement the water ballast.

The airship has carried out extensive home trials her total flying time, before carrying out tests after the insertion of the new section, being 103 hours.

A detailed description of the airship is given in separate notes entitled "HMA R.101."

Alternative routes

The flight will be made from The Royal Airship Works, Cardington, Bedford, to India via Egypt, where a stop will be made for refueling purposes at the Airship Base situated at Ismailia in the Canal Zone. This Base is equipped with a Mooring Tower similar in all respects to the one at Cardington, and also with a Silicol Hydrogen Plant which has an output of about 60,000 cubic feet per hour.

At Karachi, in addition to a Mooring Tower and hydrogen plant there is also a large housing shed, which is the largest building in the British Empire, being slightly larger than either of the Sheds at Cardington.

The route HMA R.101 will follow will be dictated by the Meteorological conditions prevailing at the time of departure, and the Captain will naturally shape his course during flight so as to take advantage of the most favorable winds.

The route can be divided up into two sections: (1) Cardington to Ismailia, (2) Ismailia to Karachi.

The following table shows possible alternative routes and the distances that would be covered:

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Cardington to Ismailia

No.	Mercator Route	Nautical Miles	Statute Miles
1	Via Brest, Tafalla, Barcelona, Malta, thence to Ismailia	2,440	2,810
2	Via Toulouse, Narbonne, Malta, thence to Ismailia	2,235	2,570
3	Via Lyons, Marseilles, thence to Ismailia	2,075	2,390
4	Via Lyons, Marseilles, Malta, thence to Ismailia	2,170	2,500

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Ismailia to Karachi

No.	Mercator Route	Nautical Miles	Statute Miles
1	Via Aleppo, Euphrates, Baghdad and Persian Gulf and along the Persian Coast to Karachi	2,200	2,580
2	Via Desert Route, Baghdad and Persian Gulf and along Persian coast to Karachi	2,125	2,440
3	Via Red Sea and Gulf of Aden thence across the Indian Ocean	2,790	3,210

At far as the route from Ismailia to Karachi is concerned it is probable that the most Northerly route will be flown, by way of Aleppo, Baghdad and Basrah. The return flight will be carried out on more or less similar routes which will be decided at the time of departure.

Passengers, officers and crew

Lord Thomson, Secretary of State for Air, Air Vice-Marshal Sir Sefton Brancker, Director of Civil Aviation and Squadron Leader W. Palstra MC of the Royal Australian Air Force will fly on the airship to and from India. Squadron Leader W. H. L. O'Neill, MC will travel to Karachi as a representative of the Secretary of State for India.

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The following officials from the Royal Airship Works, Cardington will be on board:

Wing Commander R. B. B. Colmore, OBE, RAF, *Director of Airship Development*

Lieut-Col. V. C. Richmond, *Assistant Director of Airship Development (Technical)*

Major G. H. Scott, CBE, AFC *Assistant Director of Airship Development (Flying)*

Squadron Leader F. M. Rope RAF, *Technical Assistant to Lieut-Col Richmond*

Mr. H. J. Leach, AFM, *Engineer*

Major P. Bishop, OBE, *Chief Inspector Aircraft of the AID. Will travel as far as Egypt*

Mr. J. Buck will be in attendance on Lord Thomson throughout the flight

The officers of R.101 are:

Flight Lieutenant H. C. Irwin, AFC, RAF *Captain*

S/Ldr. E. L. Johnston, OBE, AFC, *Navigator*

Lt.-Commander N.G. Atherstone, AFC. (RN RET.) *1st Officer*

Flying Officer M. H. Steff, RAF, *2nd Officer*

Mr. M. A. Giblett, MSC, (Superintendent of the Airship Division, Meteorological Office), will act as *Meteorological Officer*

The members of the crew are:

Chief Coxswain: G. W. Hunt, AFM

Asst. Chief Coxswain: W. A. Potter.

Asst. Coxswains: C. H. Mason, L. F. Oughton.

Riggers: S. Church, H. E. Ford, P. A. Foster, A. W. J. Norcott, W. G. Radcliffe, M. G. Rampton, A. J. Richardson, E. G. Rudd, C. E. Taylor

First Engineer: W. R. Gent, AFM

Chargehand Engineers: T. A. A. Key, S. E. Scott, G. W. Short

Engineers: A. V. Bell, J. H. Binks, R. Blake, C. A. Burton, A. J. Cook, C. J. Fergusson, A. D. Hasting, W. H. King, M. F. Littlekit, W. Moule, V. Savory. G. Watson.

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w/T Chargehand: S. T. Keeley

w/T Operators: G. K. Atkins, A. Disley, C. W. Larkins

Chief Steward: A. H. Savidge

Steward: F. Hodnett

Cook: E. A. Graham

Galley Boy: J. F. Megginson

The flying crew therefore consists of five officers and thirty-seven men, and the total number on board (unless there are alterations later) will be fifty-three. (Notes regarding the officials and crew are given in pages seven to fifteen.)

An airship normally flies with a two-watch crew but on the outward journey a three-watch crew is being carried so that the services of the third watch may be available on arrival at Karachi. When an airship is moored one watch is always on duty, a stand-by watch is in close attendance and undertakes maintenance duties during the day, and the third watch—the relief watch—is off-duty for twenty-four hours at a time.

As the conditions on the return journey from India are generally more unfavorable than on the outward passage it may be decided—particularly on the first flight—to curtail the numbers carried on the return passage in order that ample reserve of fuel can be carried to meet any adverse conditions.

Uniform

Dark blue uniform recently approved for the Air Ministry Airship Crews will be worn on the flight probably as far as Egypt, but at this stage it may be necessary to change into tropical kit, for which arrangements have been made. The blue uniform consists of a reefer pattern jacket with gold buttons in the case of the Officers and black for the men, peaked cap, and badge consisting of a circle surmounted by a crown in the center of which are the words “R.101” and on the circle “RAW Cardington.” Similar badges will be worn on the khaki tropical kit.

It should be noted that the Crew of R.101 is entirely composed of civilian personnel, with the exception of two officers and one NCO of the Royal Air Force, who are seconded for duty on Airships.

Food supplies, etc.

On each section of the flight, i.e. Cardington to Ismailia and Ismailia to Karachi, four days' rations will be carried consisting of two days' ordinary ration, one day's reserve ration, and one day's emergency ration. The total amount of food will amount to 837 lbs., which will be taken on board at Cardington and Ismailia on the outward flight and at Karachi and Ismailia on the homeward flight.

About 500 gallons of drinking and washing water will be carried during the flight.

Meals will be served in the Dining Room and will be cooked in the electrically equipped kitchen close by.

The Airship will be cleared by Customs, Emigration and Medical Authorities before leaving Cardington and the necessary papers will be available for clearance in Egypt and India.

The amount of luggage allowed to each Officer or Passenger is thirty lbs., and to each member of the Crew fifteen lbs.

Signals organization

HMA R.101 is equipped for long-wave transmission and for long and short-wave reception. Her call sign and registration mark is GFAAW. (The wave lengths are not being disclosed and it is hoped that private persons will not attempt to transmit messages, as the Airship will be fully occupied in receiving meteorological information and in transmitting essential messages.)

The signal organization is divided into five zones, the operating wireless ground stations being:

Cardington: Cardington to Marseilles 70° E. Long.

Malta: Marseilles 70° E. Long. to Crete 25° E. Long.

Ismailia: Crete 25° E. Long. To Ismailia

Ismailia: Ismailia to Head of Persian Gulf 48° E. Long.

Karachi: Head of Persian Gulf 48° E. Long. to Karachi

The Airship will be in communication with these Stations in the order shown, and similar arrangements will be in force on the return flight.

The main chain of communication will be entirely by Royal Air Force Wireless Stations, with the exception that the Station in India is the Indian Government Civil Station at Karachi.

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During each stage there will be certain routine times both for the transmission and reception of messages. Progress reports will be dispatched by the airship each day at midnight (GMT), 6 a.m. (GMT), noon (GMT), and 6 p.m. (GMT).

The Karachi W/T Station is also fitted up with radiotelephony so that the Captain of the Airship will be able to speak to the mooring Tower officer during landing.

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Special attention has been devoted to the provision of adequate meteorological information throughout the flight. The principal reports which will be supplied and picked up are:

- a. A selection of the regular synoptic reports issued from the Meteorological Office, Air Ministry via the Air Ministry W/T Station.
- b. Special reports from the Meteorological centers at Cardington, Malta, Ismailia, Baghdad, and the Indian Government Station at Karachi.
- c. Weather messages from steamships at sea.
- d. Regular synoptic reports from Continental countries on the route and adjoining territories.

The Meteorological Officer will prepare on board the Airship special weather charts every six hours, similar to those drawn daily at the Air Ministry, and the route followed will be mainly based on the deductions made from these charts.

Staff at overseas air bases

The airship bases at Ismailia and Karachi are under the control of airship officers who were sent recently from the Royal Airship Works. Flying Officer H. R. Luck, RAF is in charge at the former station and Lt. Commander H. W. Watt, RNR, of the latter. The nucleus of the mooring tower crew for each station were also sent from England. Additional men are being provided on the spot by the Royal Air Force and a certain number of Egyptians and Indians are also being employed.

Notes on officials and officers

Wing Commander R. B. B. Colmore, OBE, RAF, *Director of Airship Development*, is the Air Ministry director under the Air Member of Council for Supply and Research, responsible for all airship activities. His directorate is organized in five main divisions; research and design; flying; organisation; construction and maintenance; and finance and administration. Both of the first three divisions is in charge of an assistant director; a works manager is responsible for the fourth and a secretary and accountant for the last. The director has his headquarters at the Royal Airship Works, Cardington, Bedford, where the airship R.101 was designed and constructed and which is also the base for Britain airship operations. The trials of R.100 and R.101 have been carried out at Cardington.

Wing Commander Colmore was born at Portsmouth in 1887, was educated at Stubbington House, Fareham and in HMS *Britannia*. He became a Sub-Lieutenant in the Royal Navy in 1907 and was promoted Lieutenant in 1909. He retired in 1911 and on being mobilized at the outbreak of War become a Lieutenant-Commander. He served with the Armored Car Division at Antwerp in 1914 and commanded the armored car section which was employed at Gallipoli in 1915 and later in the same year was Commanding Officer in the first campaign against the Senussi tribes on the Egyptian borders. He was transferred to the Airship Section of the Royal Navy Air Service in 1916 and after serving at the airship station at Barrow became Commanding Officer of the airship base at Mullion, Cornwall. While holding the command he evolved a novel scheme of dealing with the submarine menace by a system of combined patrols of airships, seaplanes and aeroplanes in conjunction with surface craft. This method proved so successful that Lt. Col. Colmore (as he become on formation of the Royal Air Force) was appointed a 1st class Staff Officer, Aircraft Operations, Plymouth, with a view to the same principles being applied against submarines along the whole British Coasts, and in this connection he was later posted as Chief Staff Officer, Aircraft Operations, with Commander-in-Chief, Grand Fleet, based at Dundee. The war ended, however, before the system came into general operation.

After the War he was granted a permanent commission as Squadron Leader, Royal Air Force, and was attached as Staff Officer for Airships to the Department of the Contoller General of Civil Aviation, Air Ministry.

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When it was decided in 1924 to proceed with the development of airships he was appointed Deputy Director of Airship Development in the department of Air Member of Council for Supply and Research and became Director at the beginning of the present year. He is seconded from the Royal Air Force for airship duty. He was on board R.100 during her Canadian Flight in July and August this year and represented the Air Ministry during her stay in Canada.

Major G. H. Scott, CBE, AFC, *Assistant Director of Airship Development (Flying)* was born in 1889 at Catford, Kent, and was educated at Richmond School, Yorks, and the RN Engineering College, Keyham. From 1908 he was engaged in general engineering until the outbreak of War when he joined the Royal Naval Air Service as a Flight Sub-Lieutenant. After service at Farnborough, in HMA *Eta* and at Kingsnorth [*page 8*] he proceeded in 1915 to the airship station at Barrow and became captain of the *Parseval P.4*. The following year he was appointed to the command of the airship station at Anglesey and in 1917 became captain of R.9, the first British rigid airship to fly, and was also appointed Experimental Officer, Airships, at Pulham airship base. On the formation of the Royal Air Force he was given the rank of Major.

Towards the end of 1918 he was chosen to command R.34 and was awarded the AFC for his work on airships. In 1919 he commanded R.34 on its flight from East Fortune, Scotland to the United States and back to Pulham. For this he was awarded the CBE. This was the first flight of any aircraft to America and also the first outward and homeward flight.

He was demobilized from the Royal Air Force later in 1919. In 1920 he was appointed to the technical staff of the Royal Airship Works, Cardington. He is the inventor of the Air Ministry system of airship mooring to a tower, which is also employed in the United States.

In 1924 he was appointed officer in charge of Flying and Training in the Airship Directorate and in January of this year became Assistant Director (Flying). He visited Canada in 1927 to advise the Canadian Government on the selection of an airship base, which resulted in St. Hubert, Montreal being chosen and equipped.

Since the autumn of last year he has carried out extended trials of the two new British Airships R.101 and R.100, which are the largest airships in the world and contain many novel features compared with previous airship types.

He took part in the Canadian Flight of R.100 during July and August this year and was Officer in Charge of the Flight.

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Lieutenant-Colonel V. C. Richmond, OBE, BSC, ARCS, FRAES, *Assistant Director Airship Development (Technical)* was born in 1895 at Dalston, London, and was educated at the Royal College of Sciences, London. He became Engineer to Messrs. S. Pearson & Sons, for Physical and Structural problems in connection with dock construction. In 1915 he joined the Royal Naval Air Service and was engaged until the end of the War principally on the construction of nonrigid airships. In 1920 he went to Germany with the Inter-Allied Commission of Control and during part of the time was in charge of the Naval Sub-Commission for the surrender of airships and seaplanes. In 1921 he joined the Airship Research Department of the Air Ministry and until 1923 was engaged on research into problems connected with rigid airship construction. From 1923 to 1924, during the cessation of airship activity in this country, he was in charge of the Material and Research Branch under the Director of Research, Air Ministry and since 1923 also, has been Lecturer in Airship Design and Construction at the Imperial College of Science. He joined the Royal Airship Works in 1924 as Officer in Charge of Design and Research, during which time the R.101 has been designed and construction in 1930 was appointed Assistant Director (Technical).

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Flight Lieutenant H. C. Irwin, AFC, RAF, *Captain of R.101* was born in 1894 at Dundrum, Co. Cork, Ireland, and was educated at St. Andrew's College, Dublin. He joined the RNAS Airship Section in 1915 and from 1916 to 1917 was Captain of Non-Rigid airships SS *Zero*, *Coastal* and NS Type in Home Waters and the East Mediterranean. He commanded R.33 and R.36 in 1920 and from the following year to 1924 was performing RAF duty at Service Stations and Staff duties at the Air Ministry. In 1925 he was transferred to the Royal Airship works, Cardington, and in 1926 again commanded R.33 when she carried out various experimental flights to gather technical data required in connection with the design of R.100 and R.101. From 1926 to 1928 he commanded the RAF School of Balloon Training on Salisbury Plain and in 1929 was again transferred to the RAW to take over command of R.101. He was a member of the British Olympic Athletic Team at Antwerp in 1920 and has repeatedly represented Ireland and the Royal Air Force in International and Inter-Service Athletic Contests. He is seconded for airship duty from the Royal Air Force.

Squadron Leader H. L. Johnston, AFC, OBE, Reserve of Air Force Officers,

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Navigator of R.101, was born in Sunderland in 1891 and was educated at Tyne-mouth High school and the Marine School, South Shields. He is a qualified Master Mariner and originally served in the Royal Naval Reserve. He transferred to the RNAS (Airship Section) in 1916 and after commanding coastal type airships he later became Commanding Officer of Luce Bay airship station, in the South West of Scotland. On the formation of the Royal Air Force he was appointed Captain and later was promoted to the rank of Major. After the War he served in the navigation branch in the Air Ministry but later retired from the Royal Air Force. He was appointed to the Royal Airship Works, Cardington, in 1924 for navigational duties and was loaned for some time to Imperial Airways, Ltd., in order to open up European aeroplanes routes. In 1927 he was navigator to the Secretary of State for Air on the first Imperial Airways flight to India and back. He is navigator for R.100 as well as R.101 and in that capacity flew with the former on her voyage to Canada and return in July and August of this year. He is also an Air Ministry Examiner for Navigators' licenses. He recently organized the Guild of Air Pilots and Air Navigators of the British Empire and holds the position of Deputy Master in that organization.

Lieutenant-Commander N. G. Atherstone, AFC, RN (Retd.) *First Officer R.101* was born in 1894 at St. Petersburg, Russia, and was educated at Larchfield, Helensburgh; Winton House, Winchester, and Charterhouse. He joined the Royal Navy as a Cadet in 1915 and was appointed to HMS *Highflyer* for training. On the outbreak of War he was appointed to HMS *Gibraltar* and served with the 10th Cruiser Squadron, Grand Fleet and Destroyers until 1917 when he transferred to Airships, becoming Pilot of Non-Rigid SS *Zero* and HS types. In 1918 he was appointed 1st officer of R.29 and was awarded the AFC. He returned to the Royal Navy in 1919 and retired in 1920 becoming resident in Australia. He was promoted Lieutenant-Commander RN (Retd.) in 1926 and returned to England in 1927 on being appointed to the Royal Airship Works, Cardington, for Airship duties. He was appointed First officer R.101 in 1929.

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Flying Officer M. H. Steff, RAF, *Second Officer R.101* was born in 1896 at Luton, Beds. [Bedfordshire]. He joined the Navy in September, 1914 and served in HMS *Inflexible* from 1915 onwards and was present at the battle of Jutland in 1916. He became a flight officer in the Kite Balloon section of the

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RNAS in the beginning of 1918 and served in the Barrage Kite Balloons in Italy. He took part in minesweeping operations in 1919 in the Aegean Sea, the Dardanelles and the Black Sea and in 1920 he was posted to the instructional staff of the School of Balloon Training in England where he served for four years. He proceeded in 1925 to the Royal Airship Works for Kite balloon experiments and was appointed 2nd Officer of R.101 last year. He has been loaned to R.100 for her Trial Flights, as 2nd Officer, and in that capacity flew with her to Canada and back in July and August of this year. He is seconded from the Royal Air Force for airship duty.

Mr. M. A. Giblett, MSc, *Meteorological Officer*, R.101, was born in 1894 at Englefield Green, Surrey, and was educated at the Universities of Reading and London. During the War he served as Meteorological Officer, Royal Engineers, in the North Russian Expeditionary Force, Archangel, and in 1929 joined the Meteorological Office, Air Ministry, being in the Forecast Division until the beginning of 1925 except during 1921 when he was detached for duty during the trial flights of airships R.80, R.36 and R.38.

When an Airship Services Division was created in the Meteorological Office, Air Ministry, in 1925 he was appointed Superintendent. He was a member of the Official Airship Mission which visited South Africa, Australia, New Zealand and India in 1927 to advise the Governments on the steps to be taken to provide the necessary ground organization for airship operations. He has also organized the necessary meteorological services for airship flights to Canada and on the route to Egypt and India. He is on the Council of the Royal Meteorological Society and is Meteorological Secretary of Section A of the British Association. He flew in R.100 as Meteorological Officer on her trip to Canada and return in July and August of this year.

Squadron Leader F. M. Rope, RAF, *Assistant to Assistant Director (Technical)*, was born in 1888 at Shrewsbury and was educated at Shrewsbury School and Birmingham University where he took an engineering degree. He left the University in R.38 and until 1912 was an engineer to the British Electric Plant Co., Alloa. He then joined the Rio Tinto Co., London, Mining and Mechanical Engineers. From 1913 to 1914 he was employed on locomotive engineering by the Brighton Railway and from then to 1915 served in the same capacity with the Nigerian Government Railway, West Africa. He joined the RNAS in 1915 serving at Capel and Kingsnorth Airship Stations where he subsequently became Staff Officer in the Director of Research Department. From 1921 to 1924 he was Technical Staff Officer, RAF, Iraq and was then appointed to

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the Royal Airship Works, Cardington. He is seconded to the Royal Airship Works from the Royal Air Force.

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Mr. H. J. Leech, AFM, *Foreman Engineer, Royal Airship Works*, was born at Dudley, Worcestershire in 1890 and educated at Appleby. He served as an apprentice with the BSA Co. on motor car manufacturing from 1906 to 1911 and was engaged in this branch of engineering until 1916 when he joined the RNAS (Airship Section). He became an engineer on Non-Rigid Airships SS *Zero*, CP and C-Star types and the *Parseval*, and was an engineer on the SRI, an Italian Semi-Rigid, when she flew from Rome to England in 1918. He was demobilized in 1919 but rejoined airships in 1920 and was placed in charge of the Engine Shops at Pulham Airship Station. He remained there until 1924 when he was transferred to the Royal Airship Works, Cardington, and took charge of the Engine Shop where he has been engaged on test and research work and the development of the Diesel Oil Fuel Airship Engine.

Lieutenant-Commander H. W. Watt, RNR, *Officer in Charge of Karachi Airport*, joined the Royal Naval Reserve in R.38 and from 1914 to 1915 was engaged in Naval Patrol Work. He then transferred to the RNAS (Airship Section) becoming Captain of Non-rigid types and in 1918 was appointed Captain of HMA R.26. In the following year he went to Pulham Airship Station and took part in Airship Mooring Experiments but retired in 1920 and became resident in New Zealand. In 1929 he was appointed to the Royal Airship Works, Cardington, for training to take charge of Karachi Airport, Aeroplanes and Airships. He proceeded in August of this year to take up that appointment and also to make all local arrangements for the forthcoming Indian Flight of R.101, administered by the Government of India.

Flying Officer H.F. Luck, RAF, *Officer in Charge Airship Base, Ismailia*, joined the Naval Wing, RFC (Airship Section) in 1913 and commenced flying in airships on HMA NO. 4. He remained flying with this ship until 1915 when he became engaged on the construction and flying of Coastal Airships. In 1917 he was engaged on the construction and the flying of R.25 and in 1918 was flying non-rigid SS type airships and was Senior Flying Officer at a Mooring Out Station. In November 1918 he was appointed to the R.34 and flew in that ship on every flight which included the voyage to America and back in 1919. Between 1920 and 1921 he flew in R.33 and R.80 and from the latter year until 1929 he was engaged mainly on armament duties at various stations in the

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Royal Air Force. He was then appointed to Royal Airship Works, Cardington to be trained in Mooring Tower duties and in August of this year proceeded to Egypt to take charge of Ismailia Airship Base and to make all arrangements for landing, refuelling and re-victualing R.101 at this intermediate Base on the Cardington to India Air Route.

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Crew of R.101

Name	Age	Designation	Decorations	Birthplace	Remarks
Atkins, G. K.	30	w/T Operator	Nil.	London	Joined Airship Service 1917. SS.Z.16, SS.Z.37, SS.Z.53 & 67. Coastal 3 & 5a.R.101 & R.100. <i>R.100 Canadian Flight.</i>
Bell, A. V.	31	Engineer	Nil.	Fambridge Ferry, Essex	Joined Airship Service Nov. 1919, R.33. Joined crew R.101 July, 1929. <i>R.33 breakaway crew.</i>
Binks, J. H.	37	Engineer	Nil.	Sheffield, Yorks.	Joined Airship Service 1925, R.33, Joined crew R.101 6.8.29.
Blake, R.	33	Engineer	Nil.	Westminster, London	No previous flying experience. Joined crew R.101 Oct. 1929.
Burton, C. A.	29	Engineer	Nil.	Hull, Yorks.	No previous flying experience. Joined crew of R.101 Oct. 1929.
Church, S.	25	Rigger	Nil.	Cardington, Beds.	No previous flying experience. Joined crew of R.101 Oct. 1929.
Cook, A. J.	27	Engineer	Nil.	Lambeth, London.	No previous flying experience. Joined crew of R.101 Oct. 1929.
Disley, A.	28	w/T Operator	Nil.	Lancaster, Lancs.	Joined Airship Service 4.3.29. R.101 & R.100. <i>R.100 Canadian Flight.</i>
Fergusson, C. J.	36	Engineer	Nil.	Gillingham, Kent	No previous flying experience. Joined crew of R.101 Aug. 1929.
Ford, H. E.	27	Rigger	Nil.	Kingsbridge, Devon	Balloons RAF from 27.4.20 to 25.5.29. Attached Cardington for construction R.37 & R.33. Joined crew R.101 1929.
Foster, E. A.	28	Rigger	Nil.	Bedford, Beds.	No previous flying experience. Joined crew of R.101 Oct. 1929.
Gent, W. R.	53	1st Engineer R.101	AFM	Northamp- ton	Joined Airship Service 1915. Ships SS type, C.12, C.STAR, I.C.14.A, R.29, R.32, R.34, R.36, R.33, Joined R.101 1929. <i>Crew of R.34 to USA and return. R.33 breakaway crew.</i>
Graham, E. A.	28	Cook	Nil.	Ranelagh, Co. Dublin	Previously employed on Ocean going vessels & Messrs. Dudeny & Johnson Ltd., Bedford. Joined R.101 Sept. 1930.
Hasting, A. C.	30	Engineer	Nil.	East Ham, London	Joined Airship Service 1918. Ships R.33, R.80, R.38. Joined R.101, 1929.
Hodnett, F.	29	Assistant Steward	Nil.	Youghal, Co. Cork, Ireland	Joined Airship 23.4.30. Assistant Steward, <i>R.100 Canadian Flight.</i>

FATAL FLIGHT

Hunt, G. W.	41	Chief Cox- swain.	AFM & Bar.	Twyford, Berks.	Joined Airship Service 1913. Ships "Beta" & Kite Balloons, Coxn. on SS types, C.P14, 2nd Coxn. No.9, Chief Coxn. R.29, R.33. Joined R.101 as Chief Coxn. Aug. 1929. R.33 <i>breakaway crew.</i>
Keeley, S. T.	35	Chief w/T Operator	Nil.	Stufton, Diss, Norfolk	Joined Airship Service 1924. R.33. (<i>On board during breakaway</i>). R.101 & R.100. R.100 <i>Canadian Flight.</i>
Key, T. A. A.	35	Charge- hand Engineer	Nil.	Hastings, Sussex	Joined airship Service 1915. Ships-Exptl. ss, ss.8, ss.19 & others, R.36, R.33. Joined R.101 1929.
King, W. H.	32	Engineer	Nil.	Tonbridge, Kent	Served on Airships ss.Z18, R.29, R.36, R.33, joining R.101 1929. R.33 <i>breakaway crew.</i>
Larkins, C. W.	25	w/T Operator	Nil.	Blackheath, Kent	Joined Airships Sept. 1929. R.101 & R.100. <i>Crew on return from Canada.</i>
Littlekit, M. F.	29	Engineer	Nil.	Sherfield English, Nr. Romsey	No previous flying experience. Joined crew R.101 July, 1929.
Mason, C. H.	33	Assistant Coxswain	Nil.	Harringay, Middlesex	Joined Airship Service 1916. Ships SS & CP types No. 9, 2nd Coxn. of "Perseval" No. 6, R.33. Joined crew R.101 1929.
Megginson, J. W.	18	Galley Boy	Nil.	York	No previous flying experience. Joined crew R.101 & R.100 July, 1930.
Moule, W.	30	Engineer	Nil.	Wolver- hampton.	No previous flying experience. Joined crew R.101 Oct. 1929.
Norcott, A. W. J.	29	Rigger	Nil.	Royston, Herts.	No previous flying experience. Joined crew of R.101 Oct. 1929.
Oughton, L. F.	29	Assistant Coxswain	Nil.	St. Pancras, London	Joined Airship Service 1919. Ships R.24, R.33, R.36. Joined R.101 1929.
Potter, W. A.	32	Asst. Chief Coxswain	Mentioned in Dispatches	Yoxford, Suffolk	Joined Airship Service 1915. Ships C.1, R.9, R.23, R.31, Asst. Coxn. R.33. <i>Crew R.38, Survivor.</i> Joined R.101 Asst. Chief Coxswain 1929.
Radcliffe, W. G.	31	Rigger	Nil.	Bedford, Beds.	No previous flying experience. Joined crew R.101 Oct. 1929.
Rampton, M. G.	31	Rigger	Nil.	Binstead, Hants.	Joined Airship Service 1915. Ships SS.22, Coxn. SS 34, & others. R.31, R.33, R.34, R.9, R.23, R.36. Joined crew R.101 1929.
Richardson, A. J.	29	Rigger	Nil.	Wilstead, Beds.	No previous flying experience. Joined crew R.101 Oct. 1929.
Rudd, E. G.	25	Rigger	Nil.	Norwich, Norfolk.	No previous flying experience. Joined crew R.101 Oct. 1929.

APPENDIX C

Savidge, A. H.	32	Chief Steward	Nil.	Reading, Berks.	Steward White Star Cunard, Union Castle & Orient lines. Joined Airships 1921. R.36, R.101 & R. 100. <i>R.100 Canadian Flight.</i>
Savory, V.	33	Engineer	Nil.	London	No previous flying experience. Joined crew R.101 Sept. 1929.
Scott, S. E.	40	Charge- hand Engineer	Nil.	Leicester	Joined Airship Service 1921. Ships R.33 & R.101 (July, 1929) <i>R.33 breakaway crew.</i>
Short, G. W.	34	Charge- hand Engineer	Nil.	Maidenhead, Berks.	Joined Airship Service July 1918. Ships C.9, C.2, SS.Z, R.33. Joined crew R.101 July 1929.
Taylor, C. E.	33	Rigger	Nil.	Wilstead, Beds.	No previous flying experience, Joined crew R.101 Oct. 1929.
Watson, G.	25	Engineer	Nil.	Gillingham, Kent	No previous flying experience. Joined crew R.101 May, 1929.

British personnel at overseas airship bases

The following personnel from Royal Airship Works, Cardington, have proceeded overseas to Karachi and Ismailia respectively to take up airship duties:

Karachi		Ismailia	
Mr. P. Norton	Foreman m/Tower	Mr. C. Elliott	Foreman m/Tower
Mr. J. Westgates	m/Tower	Mr. E. Jones	m/Tower
Mr. J. Penney	m/Tower	Mr. H. McLellan	m/Tower
Mr. J. Holland	m/Tower	Mr. C. Pilsbury	m/Tower
Mr. T. Dutton	Foreman Shed	Mr. T. Wallace	Foreman Gas Plant
Mr. G. Alley	Foreman Gas Plant	Mr. J. Sharman	Gas Plant
Mr. J. Skinner	Gas Plant	Mr. H. Pretty	Gas Plant
Mr. A. Stansbury	Gas Plant		

FATAL FLIGHT

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Comparative table of airships

Nationality	Airship	Approx. Capacity. (cubic feet)	Gross Lift (tons)	Length (feet)	Diame-ter. (feet)	Height. (feet)	No. of Engines	Brake Horse Power	Max. Horse Power
British	R.9 (pre-war design)	889,300	25.6	526	53	76.6	3	2 at 180 Vickers 1 at 200 Maybach	610
British	R.33 & R.34	1,960,000	59.5	640	78.75	91.5	5	250 Maori Sunbeam	1,250
British	R.38	2,724,000	82.7	694.5	85.5	92	6	350 Cossack Sunbeam	2,100
British	R.100	5,000,000 plus	156.5	709	131	133	6	650 Rolls-Royce Condor	3,900
British	R.101	5,500,000	165	777	131' 8"	140	5	585 Beardmore "Tornado"	2,925
USA	<i>Los Angeles</i>	2,599,110	71.43 helium	658.4	90' 8"	104' 5"	5	400 Maybach	2,000
USA	New ships under construction 2	6,500,000	180 helium	785	132' 9"	146' 5"	8	Not known	4,480
German	<i>Graf Zeppelin</i>	3,708,000	129	776	100	113	5	530 Maybach	2,650
German	New ship under construction	5,500,000	167	Details not available			8	Maybach ~595	~4,760