Scientific Achievements

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5 March 1991

Four stamps honouring British scientific achievements will be issued on 5 March. The stamps commemorate the bicentenaries of the births of Charles Babbage and Michael Faraday and the 50th anniversaries of the first flight of Sir Frank Whittle's jet engine and the use of radar in the Second World War.

The two **22p** stamps (basic inland first class and EEC rate) feature profiles of Faraday and Babbage with representations of their inventions. The **31p** stamp (airmail postcard rate) depicts radar and the **37p** stamp (airmail Zone 2) features the jet engine.





Michael Faraday was born in London in 1791 and was apprenticed to a bookbinder. Interested in science, he was engaged in 1813 by Sir Humphry Davy to assist him at the Royal Institution in Albemarle Street, London. Twenty years later Faraday was appointed the Institution's Professor of Chemistry. In 1821 he developed an electric motor based on electromagnetism followed, a decade later, by a dynamo, generating electricity through mechanical power. His experiments with electricity continued into the early 1850s; most were written up as "Experimental Researches on Electricity" in the Philosphical Transactions. Faraday died at Hampton Court, where he had lived in retirement, in 1867.

Charles Babbage was born at Totnes, Devon in 1792 and was educated at Cambridge where he became Lucasian Professor of

Mathematics in 1823. He is noted for his work on the theory of logarithims and for his calculating machine which is regarded as the forerunner of the modern computer. His unfinished machine can be seen in the Science Museum in London. He was elected a Fellow of the Royal Society in 1816 and died in 1871.

The jet engine is always associated with **Sir Frank Whittle** who was born in 1907. Educated at Cranwell and Cambridge, Whittle patented a turbojet engine at age 22 and in 1936 set up Power Jets Ltd. In the late 1930s he worked, initially part-, later full-time, for the Air Ministry on jet engines and in 1941 his Gloster jet engine flew at 350 mph. In 1946-8 he was technical adviser to the government on engine design and was knighted in 1948. His work was recognised by his election to a fellowship of the Royal Society in 1947 and the award of the Order of Merit in 1986.

The key man in the development of radar, Sir Robert Watson Watt was born in Brechin in 1892 and educated at Dundee and St Andrews. As early as 1919 he took out a patent for a radio direction finding device and after 1935 he headed a team researching radar. He became Scientific Adviser to the Air Ministry in 1940. The importance of radar was appreciated during the Battle of Britain and he was knighted for his work in this field in 1942. After the war his research continued into the use of radar for more peaceful purposes; he died in 1973.

Technical Details

The stamps were designed by Peter Till (22p stamps) and John Harwood (31p and 37p values) and printed by Harrison and Sons Limited in photogravure on phosphor-coated paper. They are of vertical format, 31 x 40mm, printed in sheets of 100 with PVA Dextrin gum. Perforation measures 14 x 15.

Presentation Pack

The pack (No. 216) will cost £1.40; it was designed by Giant, with text by Neil Ardley, printed by Raithby, Lawrence.

Royal Mail Stamp Cards

Cards, featuring enlargements of the stamp designs, will be available approximately two weeks before the stamp issue, price 19p each. They are numbered 133A-D.

First Day Cover

The Royal Mail first day cover will be available from the British Philatelic Bureau, "Collections" centres, philatelic counters and main post offices approximately two weeks before 5 March, price 19p. Two pictorial postmarks will be used for the first day cover service — one for the Bureau, the other for South Kensington, SW7 (location of the Science Museum).



A first day cover service will be provided by the Bureau with the official Royal Mail cover addressed to the destination required with the stamps cancelled with the requested postmark. Application forms, available from the Bureau and main post offices, should be returned not later than 5 March.

Collectors may send their own cards/covers for the pictorial postmarks; these should be sent on the first day of issue in a stamped outer envelope endorsed "Pictorial First Day of Issue Postmark" to: British Philatelic Bureau, 20 Brandon Street, EDINBURGH EH3 5TT (Bureau postmark) or London South Special Handstamp Centre, Royal Mail London South West, 53 Nine Elms Lane, LONDON SW8 5BB (South Kensington postmark). Collectors wanting their cards/covers returned under cover should enclose a suitable addressed envelope. This need not bear additional postage stamps, the postage being already paid by the stamps affixed to the covers for postmarking.

First Day Posting Boxes will be provided at most main post offices for those collectors who wish to post covers to receive the standard, nonpictorial "First Day of Issue" handstamps.

Pictorial First Day postmarks, showing the City coat of arms and the Cathedral will be used respectively by the London North SHC, Royal Mail City and International, King Edward Street, LONDON EC1A 1AA and the Pictorial First Day of Issue Postmark Duty, Royal Mail, 33 Silver Street, DURHAM DH1 3RE. These handstamps were introduced in January 1989 and March 1988 respectively.

A number of special handstamps sponsored by stamp dealers and others, will be used on 5 March - details of these will be found in the *British Postmark Bulletin*, available on subscription from the British Philatelic Bureau.

Souvenir Cover

A souvenir cover, of similar design to the first day cover, will be available from "Collections" centres and philatelic counters from 6 March, price 19p. This will be on sale for one year.

Royal Mail Canterbury Visits

Royal Mail Canterbury have recently produced a postcard showing one of the District's latest 17 ton Leyland Freighter vehicles bearing the new Royal Mail logo. The card has been produced as a souvenir for visitors to Royal Mail Canterbury's Mechanised Letter Office. Readers in-



terested in visiting the office should contact: Business Customer Care Manager, Royal Mail Canterbury, Military Road, CANTERBURY, Kent, CT1 1AA. Please note that this card is only available to visitors and is not being sold to collectors.

Greetings Stamp Books

Both 1991 Greetings stamp books – Good Luck Symbols (5 February) and Smiles (26 March) will be available with cylinder numbers; one in nine books will contain the numbers.



