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## Chapter 6

### THE SMALLER BRITISH SOCIETIES DEVOTED TO ASTRONAUTICS AND INTERPLANETARY FLIGHT\*

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The interplanetary movement began in the United Kingdom in October 1933 when P. E. Cleator of Wallasey founded the British Interplanetary Society. The resultant publicity triggered enthusiasm among isolated individuals, not only to apply for membership in the new society, but also to form small groups of enthusiasts in other localities.

Among the small societies was one formed by Eric Burgess in June 1936, after corresponding with Cleator following an advertisement about the B.I.S. in the British science fiction magazine SCOOP. This was the Manchester Interplanetary Society. Just after the formation of the M.I.S., a London Group of the B.I.S. was inaugurated, and Professor A. M. Low became president of the B.I.S. upon the transfer of its headquarters to London shortly afterwards. Just after formation of the M.I.S., Burgess met with Robert Esnault-Pelterie at his Boulogne-sur-Seine laboratory, and from him obtained much inspiration about the possibilities and potential of astronautics, and a great amount of encouragement. R. Esnault-Pelterie made suggestions for "cellular partitioned" solid-propellant rockets to control thrust, a principle which Burgess later tried in his experiments.

The reason the smaller societies were formed was basically one of transportation. Local groups did not find it easy to travel to London or Liverpool for meetings. Enthusiasts wanted to be able to get together in their own localities. As a result there appeared to be a proliferation of small groups. In fact, most of these consisted of only two or three active individuals with a number of corresponding members in other cities and towns. Even the Manchester group, which was by far the largest, was a somewhat motley array of young people with some corresponding older members. The groups were frustrated by lack of finance, lack of serious technical interest in space and support of the groups by professional scientists and engi-

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neers, but they had a great desire to do something practical to urge mankind into the space age.

The Manchester Interplanetary Society had a somewhat spectacular rise to the notice of the public, when it experimented with stability problems using powder rockets and an accident occurred. Basically the society had been experimenting with powder rockets in a series of tests with various types of launching apparatus and methods of stabilizing rockets in flight. Other experiments had been aimed at step rockets and cellular construction. Air injection was also tested to improve propulsive efficiency [1]. The outcome was an unfortunate conflict with the Explosives Act of 1875, and with an Order In Council of Queen Victoria in 1894, which led to a brush with the law and an involved legal discussion of whether rockets were explosives under the meaning of the Act. Although charges were dropped, the result was an enormous amount of unwanted publicity, much of which was frivolous in treatment and detrimental to serious consideration of spaceflight.

The other small societies and groups included the Paisley Rocketeers Society formed in Scotland by John D. Stewart [2], a Leeds Rocket Society under the leadership of H. Gotlieb, and a Hastings Interplanetary Society formed by J. A. Clarke. Stewart also made many experiments with powder rockets but maintained a low profile sufficient to avoid legal conflicts. The other groups were virtually one-man operations and did not develop further. By early 1938 the Hastings and Leeds groups had disbanded.

Following the legal involvement of the Manchester Interplanetary Society and some of its members, after the accident, with a small experimental rocket [3], two groups developed within the society. One wanted to concentrate exclusively on publishing a printed journal (as opposed to a mimeographed one) and to obtain guarantors for the loan of money to do so, the other wanted to continue as in the past with a mimeographed bulletin and some kind of practical work. No compromise seemed possible. The outcome was a schism in December 1937, which resulted in the formation by E. Burgess and Trevor Cusack and other M.I.S. members of the Manchester Astronautical Association.

Two members of the Manchester groups, Harry E. Turner and Eric Burgess were present at the meeting in Chingford, Surrey on July 17, 1938, when Robert Truax visited the B.I.S. and showed his early liquid propellant rocket engine [4]. A couple of historical pictures were taken at that time, one by Eric Burgess and the other by Maurice Hansen. The pictures are almost identical, but with Hansen on one and Burgess on the other.

Both Manchester Societies continued to operate and became affiliated with the British Interplanetary Society, but their combined membership probably never exceeded 35. Under the leadership of H. E. Turner, the M.I.S. published several issues of a printed journal before disbanding in early 1939. The reason was stated [5] as being the "lack of financial support and, more serious, lack of helpers in running the society." The M.A.A. continued publishing a mimeographed Bulletin and Journal throughout the years of World War II, and continued holding meetings

and building its strength. It did not, however, officially undertake any practical experimental work, although some of its members did so as individuals.

During this period the B.I.S. was actively building strength also, and both the M.A.A. and the M.I.S. maintained close ties with the national society and exchanged publications. This was the period when the B.I.S. made its important contributions to investigating the basic requirements in the design of a three-man mission to the Moon. In early 1939 T. Cusack and E. Burgess visited the B.I.S. to discuss a joint research policy, and it was agreed that the M.A.A. would incorporate its Bulletin with that of the B.I.S. However, a great disappointment to interplanetary enthusiasts occurred when, soon after the outbreak of the war in September 1939, the B.I.S. issued a notice stating that it was abandoning activities for the duration of hostilities. Two addresses were given for members to contact the society again after the war. One was Arthur C. Clarke's family address in Bishops Lydiard, Somerset.

The Manchester Astronautical Association then became the only functioning British society. It suffered from the loss of one of its founders, Trevor Cusack, as a result of U-boat action in North Atlantic against a merchant ship on which he was a radio officer. Also, many of its most active members entered the military forces or other national service. However, the M.A.A. continued to hold sporadic meetings and published a quarterly mimeographed journal, *SPACEWARDS*, throughout the war period.

Another small group had been formed by Kenneth W. Gatland at Subiton, Surrey. This Astronautical Development Society issued a Bulletin. Since its members were associated with the aircraft industry, it concentrated on various designs associated with development of rocket-propelled vehicles. Contact between the M.A.A. and the A.D.S. was made through the correspondence columns of the magazine *FLIGHT* in 1941. In early 1942 a joint monthly Bulletin was started, followed in October by *SPACEWARDS* becoming the joint journal of the two groups. A short while later the mimeographed publication was elevated to a printed journal, as it represented the major activity of the Society.

To explore whether a single society might be formed from the two groups, Burgess visited the A.D.S. twice in 1943. The result was that Gatland and Burgess brought the two societies into a loose affiliation, which they named the Combined British Astronautical Societies. A Midlands Group consisting of a few members of this Society was formed by G. Richardson, and J. Humphries started a group at Farnborough from a larger pool of enthusiasts at the Royal Aircraft Establishment there. An inaugural meeting of a small group at Eccles, Lancashire, took place in June 1944.

About this time, P. E. Cleator, A. C. Clarke, and R. A. Smith, in the interests of the B.I.S., circulated a policy file with officials acting for the C.B.A.S. The aim was to start planning for a postwar national society. Clarke and Burgess met one rainy day at Warwick Castle (both were in the Royal Air Force and the Castle was about midway between their two bases) to discuss plans further and start some action towards the national society.

In September 1944 regular meetings of the C.B.A.S. began again in Manchester. Because of air raids and alerts, they had been sporadic before that time. The Society obtained permission to use a new venue, the Adult Education Institute. A few months later a possible amalgamation of the C.B.A.S. and the B.I.S. was discussed when Burgess met with Cleator in Wallasey December 10, 1944 to prepare a draft proposal acceptable to the two societies. The C.B.A.S. had by this time twice the number of members of the pre-war B.I.S.

Events moved rapidly thereafter. A general meeting of technical members of the C.B.A.S. and B.I.S. was convened by the Farnborough Group and held in London on January 20, 1945 [6]. Speakers advocating the formation of a single national society were A. M. Low, A. C. Clarke, A. V. Cleaver, and E. Burgess. Low stressed the point that the ideals of the society were such as to interest every citizen and keen members of general experience should be judged equally as important as the specialist technician. Clarke stated; "Now that the war is coming to its end, it is high time that we took council with ourselves and decided precisely what sort of society we need and how we hope to achieve it . . . The society must include all existing organizations, for only then can it be regarded as the national society."

Burgess stated that the prime object of the C.B.A.S. had been to form the basis for a national post-war organization. He pointed out that in the past 18 months the Societies had laid important groundwork for a national society by increasing the C.B.A.S. membership from about 75 to over 200 members, with new applications arriving daily. He concurred with all Clarke's ideas for a national group.

Cleaver emphasized that the national body should be predominantly a technical one to organize discussion and to further the science by mathematical investigation and preliminary layout work for space missions. "We must have one society," he concluded, "and all personal ambitions, prejudices and previous attachments should be foregone to gain full agreement."

Smith, long a prominent and active B.I.S. member, emphasized that the national body should have interplanetary communication as its prime interest, not the development of rockets.

J. Humphries and J. Davison spoke on behalf of the Farnborough group of the C.B.A.S. and put forward several proposals for the reorganization of the C.B.A.S. to make it a more professional body, even if the suggested merger of C.B.A.S. and B.I.S. did not occur.

In February 1945, as C.B.A.S. president, Burgess visited Farnborough and addressed a meeting of the group there on their proposals to upgrade the professional stature of the C.B.A.S. He discussed in more detail the proposals put forward at the London meeting for a national society. Another C.B.A.S. meeting followed in Manchester, at which Burgess explained to the members the plans for a national society. Soon afterwards Birmingham was the next branch he addressed. During this period Burgess also developed a new constitution for the society. This he placed before the membership for consideration at meetings in London, Manchester and Birmingham in June 1945. It was adopted.

The next important step was the formation in June 1945 by L. Gilbert, G. Brosan, C. Fleisher, D. G. Ford, and others, of the London group of the C.B.A.S. Burgess addressed the inaugural meeting in August 1945 and expressed the hope that the headquarters of the C.B.A.S. could be transferred to the new group from Manchester. This transfer took place shortly thereafter, as the London group grew rapidly in strength to some 200 members. Plans were made about this time for the incorporation of the C.B.A.S.

Previously, on June 13th, 1945, an informal but important meeting of some pre-war officers and members of the B.I.S. took place in London, at which it was decided to reform the society and apply for incorporation. In August, Cleator and Burgess exchanged correspondence regarding the revival of the B.I.S. and the prospects for a national society. Cleator stressed the importance of taking quick action, before either society became incorporated. Burgess agreed and suggested that a joint meeting should be held as quickly as possible between the elected committee of the C.B.A.S. and the group representing the pre-war B.I.S. This suggestion met with enthusiastic approval, and a meeting of the following representatives took place in London on 25 September 1945. For the B.I.S. were R. A. Smith, L. J. Carter, H. E. Ross, A. V. Cleaver and R. C. G. Slazenger. For the C.B.A.S. the representatives were G. Brosan, L. Gilbert, D. H. Burgess and E. Burgess.

At this meeting it was unanimously decided that a national society should be incorporated under the name of the British Interplanetary Society Ltd. L. J. Carter was authorized to prepare the Memorandum and Articles of Association and to make the required application for incorporation.

Winding up meetings were then called by the B.I.S. and the C.B.A.S. for 8 December 1945 and were held at 28, Redington Road, Hampstead, London. The winding up resolutions for the C.B.A.S. were presented by the President, E. Burgess, and carried unanimously. R.A. Smith presented the resolutions for the winding up of the B.I.S., and these also were carried unanimously. The assets of the B.I.S. were transferred to the British Interplanetary Society Ltd. Immediately following these meetings, the subscribers to the Memorandum and Articles of Association of the new Society met and made arrangements for various administrative details. The certificate of incorporation was obtained on 31 December 1945, and the British Interplanetary Society commenced its activities as an incorporated national society at the beginning of 1946 [7]. Burgess became first chairman of Council for the national society. The membership dropped to 50% after the amalgamation, and by March 1946 it was 109, well over half of which were from the C.B.A.S. [8]. Membership climbed steadily thereafter, and the Society had reached nearly 300 members by the end of 1946 as more old members came back into the fold and new members were attracted to the Society [9].

With a single national society, the British interplanetary and astronomical movement had come of age and has never looked back since then. The founders of the national society had planned well, for the Society has been able to maintain a high technical standing among professionals while achieving a wide popular appeal.

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