

DOYEN OF AERONAUTICS

The chairmanship of the newly-created Space Commission sits lightly on the 52-year-old Kashmir-born Dr. Satish Dhawan, Director of the Indian Institute of Science, an institution of national repute and the cradle of the country's distinguished men of science.

The choice of the doyen of aeronautics to head the Space Commission is the culmination of more than a decade of dedication on the part of the youthful-looking Dr. Dhawan in the cause of this branch of science, particularly research and advanced education. In his own words, space technology depended on aircraft technology. The latter depended on material technology which, in turn, was related to the infrastructure. Against this background, his choice for the stewardship of the Commission is considered most appropriate. He said in an interview that he was greatly excited about the immense potentialities of a national space science and technology programme, especially in the field of educational techniques and mass communication in a sprawling country like India.

A notable contribution of Dr. Dhawan at the Indian Institute of Science (of which he continues to be Director) is the design and construction of supersonic

and transonic wind tunnels and the setting up of the High-speed Aerodynamics Laboratory. He initiated research programmes on boundary layer flows at low speeds with reference to transition phenomena. He was largely responsible for the development and organisation of courses and research in the Department of Aeronautics (in which he continues to be a professor) and at several other centres in India. He was also actively associated with the wind tunnel testing and other developmental work for the industry and with the development of wind tunnels for the National Aeronautical Laboratory.

Prof. Satish Dhawan was born in Srinagar, Kashmir, on September 25, 1920. After studying in the Government Colleges at Ludhiana and Lahore he received his B.A. degree in mathematics and physics in 1938 and his M.A. in English literature in 1941 from the Punjab University. In 1944 he graduated in mechanical engineering from the same university, obtaining a first class honours and the first rank.

After a brief period in the Heavy Bombers Division of the Hindustan Aircraft Ltd., he left for the U.S. on a Government of India scholarship for advanced studies in aeronautical engineering. He attended the University of Minnesota from 1946 to 1947 and received his Master's degree. From 1947 to 1951 he worked as a graduate research assistant at the California Institute of

Technology, where he received his Aeronautical Engineer's degree, specialising in aerodynamics, in 1949 and Ph.D. in aeronautics and mathematics in 1951.

Returning to India in 1951, he joined the Department of Aeronautical Engineering, Indian Institute of Science, with which he has been associated ever since. He worked there as a Senior Scientific Officer (1951-52), Assistant Professor (1952-55), Professor and Head (1955-62). Since 1963, he has been the Director of the Indian Institute of Science and also continues as a Professor in the Department of Aeronautical Engineering. During 1971-72 he was a visiting Professor in the California Institute of Technology.

Over the last decade he has been closely associated with the development of aeronautics in India. He is the author of a number of research papers and reports in fluid mechanics and aerodynamics, particularly on high speed flow problems concerning shock waves and boundary layers, transonic and supersonic tunnels, turbulence and transition phenomena. He is a Fellow of the Royal Aeronautical Society and of the Indian Academy of Sciences and a member of the Aeronautical Society of India. He is a member of the Council of Management of the Physical Research Laboratory, the Indian National Committee for Space Research, the Atomic Energy Commission, the Board

of Post-Graduate Engineering and Research of the All-India Council for Technical Education, and the Indo-Soviet Joint Committee for Scientific Cooperation. In 1968, he was a member of the Indian delegation to the U.N. Conference on the Exploration and Peaceful Uses of Outer Space.

In 1966 he was awarded the Padma Shri and in 1971 the Padma Bhushan by the President of India. His hobbies include toy-making for children. The Dhawans have two daughters and a son.