

## About Ourselves

### Early days of the Society

The Aero-medical Society of India came into being in 1952 as a nucleus of a few workers in the then new field of Aviation Medicine with the objective of maintaining the health of the aircrew in the air. The motto of the Institute of Aviation Medicine, Bangalore "नमसि आरोग्यम्" (Freedom from disease in the skies) is in fact the essence of this objective. The few members of the Society used to hold their small meetings in Delhi only. The venue used to be either a small room in the 'H' Block of the Air Headquarters or a hall at Air Force Station New Delhi. Hardly furnished, this hall used to be made ready with a few chairs for the audience which never exceeded a figure of 20. A table draped with white sheet would be decorated with a small flower vase with seasonal flowers of Delhi. Here sat the Chairman of these meetings. There was no lectern. No microphone system was used because not only the audience was small but also that the otherwise empty hall generated many an echo. In 1953 the society met thrice on 15th April, 6th July and 3rd August. In the July session Sqn Ldr H Lakshminarayanan addressed the gathering on the subject of "Psychological Aspects of Aircrew Selection" under the Chairmanship of Wg Cdr D N Maniktala. The society met again in a reasonably grand manner on 22nd and 23rd January 1955 holding a society dinner and a lunch. Another small meeting was held in the same year. In 1956, the meeting was held only once on 27th November. This activity took place twice in 1957 on 15th July and 15th October. In those days the agenda used to be very small and one did not have to cater for the guests, seating arrangements etc. Since then the years, as they rolled by, brought in the progress and the status of our society as we find it today. This article titled "About Ourselves" covers a brief review of the activities of the Society in Bangalore.

### THE INSTITUTE OF AVIATION MEDICINE

The Institute of Aviation Medicine as it stands to-day was established as School of Aviation Medicine at Bangalore on 27th May 1957. This School was to be the area of accomplishment of aims and objectives of the Society. It was very small then—just a solitary building consisting of 8 rooms on a land of 7 acres given on long lease by the Hindustan Aircraft Limited

(now Hindustan Aeronautics). The building was also constructed by them. A Medical Evaluation Centre was also formed on the same date but was housed in Vimanapura hutments near the railway line about 3/4 km northwards. The activities in various aspects of Aviation Medicine undertaken then and now are briefly described below.

### Aero-medical Training

To-day the Institute runs training courses for various categories of personnel as follows:—


#### (a) Medical Officers

(i) *Introductory Aviation Medicine Course*: is of 4 weeks duration. Starting with first course on 16th September 1957 we have completed 57th batch on 17 Dec 77. This is a familiarisation training meant to induct the young medical officers into the discipline of Aviation Medicine. Very elementary aspects of the subject are covered with emphasis on aeronautics, flying experience and aircrew examination procedures.

(ii) *Primary Aviation Medicine Course*: This is a 10-week course for reasonably mature and experienced medical officers. It was started on 26th August 1958. Till date 57th course has been completed. The teaching is more advanced and additional aspects on medical electronics, research methodology, scientific writing and aircraft accident investigation are covered. The medical officers so trained are expected to possess the ability to crystallize the aero-medical problems, sift them in terms of those that can be solved by them and those that require sophisticated research approach at IAM.

(iii) *Advanced Course in Aviation Medicine*: This is a 66-week course and as the title implies is in the nature of a highly advanced training with a view to take the selected medical officers towards specialization. The first course was started on 25th July 1960 and presently the 18th Course is running with effect from 11th July 1977. Since 1976 i.e. the 17th Course, the intake was raised to 9 to include two foreign nationals and two civilian doctors. This course is recognised by the Bangalore University for the award of Diploma in Aviation Medicine at the end of 44 weeks of academic phase. The students are taught Aviation Medicine in depth which includes practical work on projects and their own work on projects of





research allotted to them. The students, at an appropriate stage, visit various scientific institutions in the country. They are also detailed for accident investigation boards after their academic phase. The foreign students and civilian doctors are required to join a Primary Course on Aviation Medicine before joining this Advanced training. In the 17th Course two medical officers of Zambian Air Force and one from Afghan Air Force were trained. The training in this course is further augmented through guest lectures delivered at the Institute by eminent scientists from all over the country.

(iv) *MD (Aviation Medicine)*: This is a recently introduced post-graduate degree course with an intake of 3 students. This would cover 3 years of training with exemption of one year for students who have already qualified for Diploma (Aviation Medicine) or possess post-graduate degree in any of the allied specialities of Medicine, Ophthalmology, Otorhinolaryngology, Physiology, Pathology and Neuropsychiatry. The first MD (Av Med) Course will be starting in January 1978.

(v) *Aviation Pathology*: Two pathologists are taken for a 12-week course each and two such courses are run in a year. First course was started on 12 July 1971. Presently the 8th course has been over on 26th November 1977. This training is restricted to service pathologists of all the three services. Army and Navy officers, however, are required to undergo an Introductory Course in Aviation Medicine before joining this training. This course of training covers all aspects of accident investigation where the pathologists have an important role in helping the investigation board to arrive at the human factors in accident causation and crash injury analysis.

(b) *Aircrew Indoctrination Course*: Presently the Institute runs these courses of one week duration for Fighter/Bomber and Transport aircraft aircrew officers. The Fighter/Bomber Course started on 17th February 1958 completing the 121st course in August 1977. The indoctrination course for transport aircrew was commenced on 7th February 1966 completing 56th Course in September 1977. A Senior Aircrew Officers Course of 4 days duration was started on 6th May 1968 and till date 35th course has been completed on 26th August 1977. The idea behind this course is to impart knowledge to Senior Officers on the Aviation Medicine to assist them in their admini-

strative and professional handling of the aircrew operational programmes. Indoctrination of civil aircrew also being very important, courses of 4 days duration were started for them on 19th December 1962 completing the 39th batch in September 1977.

(c) *Medical Assistants Course*: This is a 4-week course started on 16th March 1959. It caters for the paramedical cadre to enable them to become familiar with Aviation Medicine for adequate assistance to medical officers handling the aircrew. Besides the academic training, emphasis is laid on the crash and rescue procedures, air evacuation of casualties, and handling of casualties involved in aircraft accidents. Till date 36th Course has passed out.

### **Aero-medical Research**

Since its inception with only a few research facilities, the Institute has built up its facilities to modern standards. All facilities to conduct aero-medical research on high altitude and under-water physiology, climatology, centrifugal acceleration, disorientation, human body measurements, noise and vibration, vestibular physiology, applied psychology and neuropsychiatry, biochemistry, clinical aspects, pathology, testing of aircrew protective assemblies and oxygen systems are available along with the self sufficient potential of Biomedical electronic engineering. Funds from the Armed Forces Medical Research Council form the major element in the support of research at the Institute. With the facilities already available many departmental projects, test and miscellaneous research studies have so far been undertaken without any extra funding requirements. While the AFMRC concerns itself with major projects, the other projects are in the nature of small scale studies for immediate application in the solution of on-going aircrew problems. Projects are mostly formulated on the basis of problems either brought to the notice of the society through 'feed-back' from the field or in anticipation of future advancements in Aviation. Aero-Bio-Engineering Unit of Directorate of Aeronautics located in Bangalore complements the research work by undertaking the task of producing the hardware both in terms of aircrew equipment and major research facilities. Further assistance is available from Aeronautical Development Establishment which is also located in Bangalore. The Institute has so far completed 204 research projects of major importance, as listed below:—