

SOCIETY NEWS

XXXI Annual Meeting
Indian Society of Aerospace Medicine

PRESIDENTIAL ADDRESS

AIR MARSHAL AS CHAHAL AVSM VSM

AIR CHIEF MARSHAL S K MEHRA
PVSM, AVSM, VM, ADC
Chief of Air Staff, Indian Air Force



Inaugurated the XXXI Annual Meeting
of the Society

AIR MARSHAL A S CHAHAL
AVSM, VSM, PHS
Director General of Medical Services
Indian Air Force



Our President

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Annual Meeting of Indian Society Of Aerospace Medicine

The XXXI Annual Meeting of the Indian Society of Aerospace Medicine was held at the Institute of Aviation Medicine, IAF, Bangalore from 7th March 1989.

The meeting will be inaugurated by Air Chief Marshall SK Mehra PVSM, AVSM, VM, ADC, Chief of Air Staff, Indian Air Force.

The prestigious SUBROTO MUKERJEE ORATION on 'Role of Coronary bypass in treatment of Ischaemic Heart Disease' was delivered by Dr. MR Girinath MS MCh FRACS, Chief Cardiothoracic Surgeon, Apollo Hospitals, Madras.

The Annual meeting featured two important symposia, one on the 'Role of Command Hospital Air Force Bangalore in management of OP PAWAN casualties' and another on 'Human Factors in Aircraft accidents: An Indian perspective'.

XXXI Annual Meeting Indian Society of Aerospace Medicine

PRESIDENTIAL ADDRESS

AIR MARSHAL AS CHAHAL AVSM VSM
Director General Medical Services (Air) &
President, Indian Society of Aerospace Medicine

It is a matter of great pride and privilege to me as head of the Medical Services of the Air Force and President of the Indian Society of Aerospace Medicine to welcome Air Chief Marshal SK Mehra PVSM AVSM VM ADC, Chief of the Air Staff and the delegates to this meeting. I would also like to welcome the local dignitaries and many of our senior retired Air Force Officers and their lady wives who have graced the occasion.

Chief of the Air Staff has been very kind to spare his time out of his busy schedule to be with us on this occasion. It is the keen interest and serious concern which he has about the flight safety and continued good health of our fliers which has motivated all of us to put in our best to improve the aeromedical services. As you are aware that flying today has become highly technical and a pilot has to manoeuvre and keep an eye on so many gadgets and instruments in the cockpit which are very demanding. To ensure this high degree of alertness and physical fitness, regular health checks and personal effort by the pilots and Squadron Commanders at all levels is a must. The medical officer in the Squadron or in the SSQ or in the airports for the civil pilots have a tremendous role to play to give timely advice to the pilots to ensure not only their safety but other members of the crew and the passengers who fly with them.

Our Society started as an Aeromedical Society of India in 1952. Over the years it has blossomed and today it is a healthy 37 years old. To start with, it was a small group of dedicated doctors in Delhi who organised the Society. This Society has played a very vital role in reviewing and standardising various procedures for examination and fitness of the pilots and the crew members.

Institute of Aviation Medicine at Bangalore has done yeoman service in bringing the scientific knowledge of Aviation Medicine to our country. Not only this Institute has carried out

research of fundamental human physiology, pathology and psychology on man in correlation with flying but also developed equipment and gadgets which can be usefully employed for carrying out tests and training to our pilots. There is a regular interaction between the doctors and the fliers, the test pilots who are located in Bangalore to ensure that the present and future design of the aircraft meet with the requirements of flight safety and ensure excellent health of our pilots.

This Society is also keeping a good relationship with the national and international Aeromedical Societies like Aeronautical Society of India so that its space programme and human engineering are developed on modern scientific basis. We have also been having very active dialogue and development with the National Airport Authority of India and Director General of Civil Aviation to develop aeromedical facilities for our civil pilots. Land for this Establishment has been located in Safdarjung Airport, Delhi where this set up will soon see the light of the day.

Medicine and surgery have made tremendous strides in the last few decades. Human beings are not only living longer but are enjoying better health with modern surgical procedures like coronary bypass surgery. We are fortunate to have with us Dr Girinath, a great Surgeon of India who has done a few thousand bypass surgeries in Apollo Hospital Madras. A few years back majority of the Indians used to go abroad for this type of surgery which costs about Rs 3 lakhs in the UK or USA. With Dr Girinath's efforts today a common man and a service officer or an airman can get this facility in India. He will be delivering the Subroto Mukerjee Memorial Oration this morning. I am sure he will also give us some idea as to the future employment of our pilots after angio-plasty and bypass surgery.

It is our endeavour to bring the aircraft accidents to a minimum by eliminating human factors as far as possible. I am sure Air Chief Marshal SK Mehra will be kind enough to equip us with modern machines like a Centrifuge where 10 to 15 G tests can be carried out. There is a need for a Disorientation Simulator for training our pilots under medical supervision.

I would like to thank the delegates, the guests, ladies and gentlemen who have been gracious to be with us this morning. I would now request the Chief of the Air Staff to inaugurate the 31st Annual Meeting of the Indian Society of Aerospace Medicine.

XXXI Annual Meeting Indian Society of Aerospace Medicine

INAUGURAL ADDRESS

AIR CHIEF MARSHAL SK MEHRA
PVSM AVSM VM ADC
Chief of Air Staff

It gives me great pleasure to be here this morning. This Society has recently adopted a new name which is in keeping with its broad spectrum of activity, and enhanced responsibilities. At the very outset, I would like to stress that the single most important area of concern of the medical fraternity in the Air Force, continues to be to keep the force physically and mentally at the peak of fitness. To this end it may appear, that your thrust as doctors and scientists has remained unchanged. This in my opinion is not really so and there is more to it.

While dealing with the effectiveness of the man-machine weapon system, possibly for the first time we are now faced with a situation wherein the capabilities of modern machines are so vast and formidable, that in certain areas they outstrip human endurance and tolerance limits. This places the man in most difficult conditions, which at times could be a matter of life or death.

In this context, I would like to specially touch upon the aspect of 'g' induced loss of consciousness (g-Loc). Although 'g' loc is not a new term in medical circles, till now probably, it was considered as more or less a theoretical problem, rarely encountered, since aircraft performance capabilities were inadequate to produce the conditions for its manifestation. Today, however, we are operating aircraft of tremendous potential in terms of very high sustained 'g' capability, and our aircrew flying these aeroplanes are fully exposed to the hazards associated with 'g' loc. It is of prime importance that not only are aircrew sufficiently indoctrinated on this hazard, but alongside, it is for our doctors and medical researchers to study the problems and find solutions to them. Improvements in protective clothing, selective physical exercises which improve the body's 'g' tolerance, listing out 'Dos' and 'Don'ts' for guidance of aircrew to negate or lessen 'g' effects areas for medical research to be concerned with. While stating this, I am aware that some progress has been achieved in this

direction, but an in-depth study is essential, if viable solutions are to be obtained.

This is just one of the problems brought about by the induction of modern equipment. There are other areas of concern as well. Disorientation for example. Not by any means a new phenomena, nor an area which has not been studied in great depth. Despite this, we have had a spurt in night accidents in the recent past, and in some of these cases, as well as in some day accidents, there appears to be a strong indication of disorientation being a contributory, if not the primary cause factor. This is yet another aspect on which Aerospace Medicine experts could provide valuable advice in identifying the weak and hazard areas. The aspects related to the human being in respect to preventing and overcoming disorientation are well documented and propounded. What about the design aspects of the machine and its systems which could be influencing or aggravating disorientation under particular circumstances? Is the cockpit lighting, projection of display symbology, and such related design features compatible with safety, or could they be impairing the performance of the pilot? These are areas where aerospace medicine specialists could contribute significantly while working in conjunction with the test pilots and Squadron aircrew. We have the expertise beyond doubt, and there is therefore no reason why we must wait for research reports from abroad.

On the ground too, there are many areas in our operating environment, which need to be looked at more objectively. Are the work areas poorly lit and congested? Is adequate protection provided to personnel working in areas of high noise levels. Are there areas leading to unacceptably high levels of fatigue. Is heat stress being properly countered? These are just some of the areas where doctors could provide valuable inputs to the Commander at every level.

Gentlemen, I have dwelt on the operational aspects of the Air Force, towards which I feel the medical branch has an unquestionable responsibility. I have highlighted certain examples to illustrate, that in your endeavour to keep the Air Force fighting fit, the medical branch has to go beyond the realm of prevention and cure of diseases and illness. Doctors, be they Unit MOs, specialist or research scientist, need to interact closely with other

spheres of Air Force activity, so that their contribution towards the operational effectiveness of the Air Force could be more wide ranging. Also greater efforts should be made to recover aircrew whose medical have been lowered.

Notwithstanding all this, I wish to place on record my appreciation for the services being provided by our medical staff, be units and stations the doctors are providing the requisite medical support, inspite of difficult working conditions at the hospitals. Our specialists have assisted very creditably in dealing with the large number of patients, including battle casualties from Sri Lanka and Siachen. And at our prestigious institutions, CME, and IAM, I am pleased to note that research in a number of spheres is being pursued with skill and dedication. I am aware that there is a need for improvements in the medical facilities and modernisation of equipment. This is being studied and will find a place in our priority schemes as dictated by the budgetary constraints.

As regards this Society, which is 35 years old, it may be appropriate to draw a parallel to human ability vis-a-vis age. At this stage, one would be in robust health with uninhibited zeal and vigour striving for perfection in one's profession. This coupled with the experience and maturity which comes with age, provides the required ingredients to achieve high standards. This is where the Society is today, and we all look to it for producing results which are original and the very best that the profession has to offer. I wish it all success and glory in its programmes.

As the Chairman of this Society, I consider it a privilege to welcome to this conference, the renowned heart surgeon, Dr MR Girinath. His oration today on the 'Role of Coronary Bypass in the treatment of Ischaemic Heart Diseases' is undoubtedly a topic of great interest, and would be professionally beneficial to the service at large.

I am also pleased to note that among the topics to be discussed during this conference, accidents caused by Human Error is a subject for deliberation. Among the other important points on the agenda, this is an area of deep concern to us. The Flight Safety and operational staff would, I am sure, be keenly awaiting the outcome of your considered opinion and recommendations. For future conference too, it

would be useful to deliberate on this aspect, taking up fresh cases as applicable.

In conclusion, all that remains to be conveyed is my deep appreciation and congratulations to the organisers of this conference. I am confident that the papers to be presented to this august body, will be of the highest professional standards, and would be educative and deeply thought provoking. I wish the organisers and delegates all success in their endeavour to further improve on the quality of medical care in the Air Force, as also in contributing towards the operational goals of the service.

With this, I now declare the Thirty First Annual Meeting of the Indian Society of Aerospace Medicine inaugurated.

NEWS OF MEMBERS

Retirements

The following members have retired from active service:

- Air Vice Marshal OP Suri AVSM
- Air Commodore IC Sethi
- Group Captain US Pruthi VM VSM
- Wing Commander SK Mishra
- Wing Commander N Rampal VSM

We wish them all the very best and hope that their active association with the Society will continue.

Honours and Awards

Air Marshal AS Chahal VSM, Director General Medical Services (Air) who is our President and **Air Vice Marshal OP Suri** Principal Medical Officer, Headquarters Training Command IAF were awarded **Ati Visishta Seva Medal** on 26th January this year in recognition of their meritorious and selfless services to the nation. All members of the Society congratulates and wish them many more awards.

Promotions

We congratulate the following members on their recent promotions:

Major General PC Chatterjee : General Chatterjee was our immediate past Chief Editor and a

Fellow of the Society. He is posted as Additional Director General Medical Services (Army) at Army Headquarters. Our special congratulations to him.

Other members who were recently promoted were:

- Group Captain KP Das
- Group Captain AS Doosaj
- Group Captain VM Alurkar
- Wing Commander SN Sharma
- Wing Commander NN Aggarwal
- Wing Commander SKS Puri
- Wing Commander DK Bhat
- Squadron Leader (Mrs) R Ahuja
- Squadron Leader SK Garg

New Members

We welcome the following members on their induction into Indian Air Force.

- Flight Lieutenant (Mrs) Sadhana Beotra
- Flight Lieutenant AK Dixit
- Flying Officer Shankar Subramanyam
- Flying Officer Amit Suri
- Flying Officer (Miss) Nirmala Tutakne
- Flying Officer Mudit Sharma
- Flying Officer Prashant Gupta
- Flying Officer AK Handa
- Flying Officer (Miss) Monika Singh

New Chief Editor of the Journal

Air Commodore Surjit Singh is our new Chief Editor. As an eminent Physician, he is very familiar to all of us. He has served in various hospitals as medical specialist before becoming Senior Adviser in Medicine. Before his present appointment he was Deputy Commandant of Command Hospital, Air Force, Bangalore. Presently he is the Air Officer Commanding of Institute of Aerospace Medicine, Bangalore which is one of the most prestigious Establishments of Indian Air Force.

Change of service :

- Flight Lieutenant (Miss) Sonya Bhagwanani is posted to Military Hospital, Kirkee in the rank of Captain. We wish her the very best in her army career and hope that her active association with the Society will continue.