



ISAM NEWSLETTER 2021

FROM THE PRESIDENT'S DESK

As I jot down this address for the annual newsletter, I must state, that it is my proud privilege for getting an opportunity to lead the extraordinary team of Aerospace Medicine practitioners of one of the most dynamic professional society- ISAM! This year we commemorate the glorious past of the Society for last 60 years as we celebrate the Diamond Jubilee of ISAM.

The unprecedented times that started with COVID-19 pandemic proved to be mayhem for the humanity in 2020. Treading new paths, forging the way ahead with the help of innovations we successfully averted the adversary. It gives me immense pleasure that the Society continued to perform, during these adverse times, beyond expectations and continued to excel in the professional domain. Our members were actively involved in the patient care and preventive measures to curb the ongoing pandemic. The active contribution of our members has been phenomenal during these critical times. The members of the Society have responded to call of duty and performed beyond expectations with zeal and perseverance.

The society has been successful in its endeavors to establish a global presence and the same has been acknowledged by the international community of Aerospace Medicine. The contribution of the members in the challenging task of GATCAN selection, training and medical evaluation for Human Space Program is path-breaking and praiseworthy.

I convey my sincere gratitude to all the Society members for the support rendered and wish everyone a very Happy Diamond Jubilee Anniversary of the Society.

Jai Hind!





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SALIENT ACTIVITIES OF THE SOCIETY

• REVISED MEMORANDUM OF ASSOCIATION OF ISAM

The Society Memorandum has been revised after incorporating the suggestions and inputs deliberated during the GBM held on 21 Nov 20 and the same has been made available on the ISAM website (<http://www.isam.in>) under tab '**About ISAM**'.

• EX-OFFICIO ANNUAL MEMBERSHIP OF AsMA

Commandant IAM and Secy ISAM have been made Ex-Officio annual members of AsMA for academic benefits.

• ISAM WEBSITE UPGRADE

➤ MEMBERSHIP MODULE.

A membership module of the Society has been created on ISAM website. The Life Members (including Fellows and Associate Fellows) and Honorary Fellows of the Society can log into the module using their life membership credentials and can now download digital membership card from the website.



➤ TECHNICAL MINI SERIES ONLINE.

Persistent efforts by the editorial board of IJSAM have resulted in availability of all Technical Mini Series (TMS) published under the aegis of ISAM over the years on ISAM website under the membership module.

➤ JOURNAL WEBSITE UPDATE.

The website (www.indjaerospacemed.com) is in process of upgradation and the digital copies of the older versions of the IJASM wef 2001 have been made available online. The efforts are on to digitize even the older issues of the IJASM by Mar 2022.



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- **AIR MSHL PM SUNDARAM TRAVELLING FELLOWSHIP: SPREADING AWARENESS ABOUT AEROSPACE MEDICINE**

Gp Capt MS Nataraja, Travelling Fellow of ISAM conducted guest lectures at 03 Medical Colleges during the difficult times of Covid pandemic. The primary objective of the travelling fellowship is to propagate the word about the niche speciality of Aerospace Medicine among the medical fraternity.



He delivered intriguing lectures on topics like "High Altitude Physiology, Spatial Orientation and Importance of Aerospace Medicine in Flying" at Chandramma Dayanand Sagar Institute of Medical Education and Research Kanakapura, Sri Siddhartha Medical College Tumkur & Chamaraja Nagar Institute of Medical Sciences.

His zealous efforts were received cordially at all institutes and he generated lot of interest amongst the

bright minds seeking further guidance for the post-graduation in Aerospace Medicine. He was felicitated by these Colleges in the traditional style.



- **INTERNATIONAL PRESENCE BY ISAM MEMBER**

COVID 19 pandemic has put unprecedented challenges to global aerospace medicine community with several postponement of scientific meetings and Conferences. Sqn Ldr Devdeep Ghosh was the sole representative from India at the 91st Annual Scientific Meeting of Aerospace Medical Association (AsMA) held at Denver, USA from 29 Aug 21 to 02 Sep 21.

The theme of the conference was – 'Advancing Aerospace Medicine Through Research'. Total 970 delegates from all over the world participated in the event. Main focus of the meeting was on operational and clinical aerospace medicine.





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Sqn Ldr Devdeep Ghosh presented a paper titled 'Effect of noise and hypoxia on risk taking behaviour: A cause for concern in aviators!' which was well appreciated amongst the global aerospace medicine fraternity.

• OUTSTANDING ACHIEVEMENTS BY AEROSPACE MEDICINE SPECIALISTS

Air Marshal (Dr) Padma Bandopadhyay PVSM AVSM VSM (Retd), former President ISAM and DGMS (Air) an alumnus of 2nd batch of Armed Forces Medical College, and Institute of Aerospace Medicine received the Padma Shri, the fourth highest civilian award, in the field of medicine on 08 Nov 21 at Rashtrapati Bhavan from President Ram Nath Kovind. She is India's First woman Air Marshal to receive the award.

She is a decorated flight surgeon of Indian Air Force. She was the first woman to be promoted to the rank of Air Mshl and second woman officer in the Indian Armed Forces to be promoted to a three-star rank. She continues to serve people as veteran now.



Wg Cdr (Dr) Shrinivas Gokulnath, a member of ISAM, an avid cyclist, covered around 2,240 km along the Karnataka border on cycle in shortest recorded time. He took 119 hr 13 min to ride through the tough but scenic route. This ultra-cyclist, India's first solo finisher at RAAM, the toughest ultra-cycling endurance race, along with 10-member crew, started his ride to explore the home state and curate a new path. This novel path would serve as a designated route for regular annual race for the future ultra-endurance cycle expeditions of India and abroad. The idea is based on the events like

Race Across America (RAAM) and Race Around Austria (RAA).

Wg Cdr (Dr) Ajay Kumar, an associate fellow of ISAM gave a Keynote address on 'Aerospace Medicine- An Introduction' at 4th Annual Health Summit organized by Venus International Foundation at Chennai. His talk facilitated in spreading awareness about the specialty and the Society. He was awarded 'Outstanding Clinician





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in Aerospace Medicine' during the summit and the certificate was handed over by Dr Abha Chandra, Cardio-thoracic Surgeon, Sri Venkateswara Institute of Medical Sciences, Tirupati.

• HUMAN SPACE PROGRAM-GAGANYAN



With the rich legacy and the past experience of selecting Cosmonauts during 'Op Pawan' in 1979, IAM moved forward with a meticulously developed selection process. This fresh start culminated in to the selection of four candidates who are called '**Gaganauts**' - **the space farer!** The Gaganauts following culmination of their Generic Spaceflight training at the Russian Space Centre- Gagarin Cosmonaut Training Center (GCTC) came back to the country in March 2021. They are now in the Mission Specific Training phase of the Gaganyaan Programme.

The youngest Department of Space Medicine in IAM established in Oct 2020, prepared a comprehensive aeromedical training program, for the Mission specific training of Gaganauts which commenced following their return from GCTC. The first phase of this Aeromedical training for two weeks has been successfully conducted by IAM from 22 Sep 21 to 04 Oct 21. The Aeromedical Training was attended by the Gaganauts and ten Scientists from ISRO. IAM is also conducting six monthly periodic medical examination and monthly psychological interaction with the Gaganauts to ensure their fitness till mission completion. IAM has also been made the nodal agency for maintenance of physical fitness and evaluation of Gaganauts. IAM continues to provide consultancy to ISRO in various aeromedical issue related to the Gaganyaan. A national Standing Medical Advisory Committee (SMAC) has been newly constituted by ISRO with DGMS (Air) and Commandant IAM as members to issue advisories for all matters related to crew health.





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• AEROMEDICAL SUPPORT TO GENERIC SPACEFLIGHT TRAINING OF GAGANAUTS AT GCTC, RUSSIA

The selected flight surgeons for the mission along with the Gaganauts attended the aeromedical training classes held as part of generic training for spaceflight at GCTC Russia from Jan-Mar 21. The Flight Surgeons enhanced their knowledge and had an enriching experience during the Aeromedical training of Gaganauts. The IAF medical team developed rapport with the Russian Flight Surgeons and instructors quickly which allowed smooth flow of information and enabled better understanding during the aeromedical training at Russia which has added immensely to the knowledge bank of the Institute.

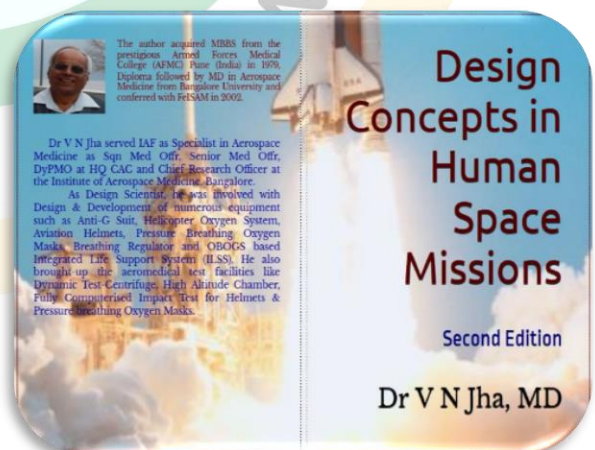


Wg Cdr Stuti Mishra, Oi/c Dept of Space Medicine was invited as a **panelist** for discussion on **Human Spaceflight – Long Term consequences** organised by the French Embassy under their Science for Tomorrow program. The other eminent panelists were Dr VR Lalithambika, Director DHSP, ISRO, Dr Audrey, MEDES France and Dr Susmita Mohanty, CEO Spaceport. Wg Cdr

Stuti Mishra contributed to the panel as Space Medicine expert. The panel was well appreciated by the audience which came forth in the form of interesting queries about Space and Aerospace Medicine.

• BOOK PUBLISHED ON HUMAN SPACE MISSION

Gp Cpt (Dr) V N Jha has published a book "Design Concepts in Human Space Missions" with his experience of specialist in Aerospace Medicine and a Design Scientist in Life support Technologies in DRDO. The book was first published in August 2021 on Amazon without ISBN number though. Now, for second edition, ISBN number has been accorded and this edition of the book is available on Amazon Kindle book. Digital version (e-book) is available all over the world but the paperback and hard cover is available only in Europe and America. The book dwells upon the Human Parameters forming the conceptual basis of designs of the Crew module, EC&LSS and other allied systems.



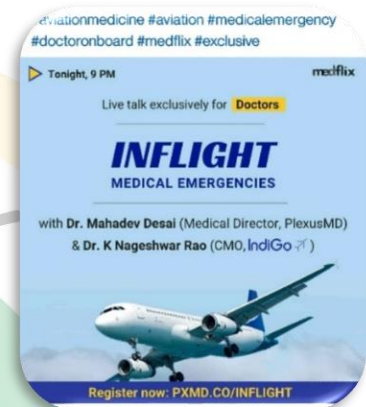


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• CONTRIBUTION TO CIVIL AVIATION

Col (Dr) K Nageshwar, an Associate Fellow of ISAM was one of the chief contributors for insights on the aviation medicine issues on white paper on **Resuming Safe Air Travel 31 July 2021 - a Joint effort by AHPI and Airport Joint Advisory - released by the Ministry of Civil Aviation on 31 July 2021.**

During the IATA Aviation Health Conference, he also presented a scientific paper titled - **Return to duty concerns for flight crew post covid: Experience of over 2000 cases-** IndiGo Airlines on 19 Oct 2021. This was attended by more than 500 airlines and aviation medicine experts across the world. He, was also on the expert panel delivering talk on **Inflight Medical Emergencies** to an audience of 500 doctors on 28 Oct 2021 on Medflix platform.



DOWN THE MEMORY LANE



Air Marshal (Dr) MS Boparai AVSM (Retd), former President ISAM & DGMS (Air), an honorary fellow of the Society, was conferred with the Prestigious Dr BC Roy National award by the Honorable President of India Dr Shakar Dayal Sharma on 05 Jan 1993 at Rashtrapati Bhavan. He had delivered the Dr. BC Roy oration for development of the speciality of Ophthalmology for the year 1991.

Dr BC Roy National Awards are announced every year by the Medical Council of India to honor the outstanding talent in the medical profession in memory of Dr B.C Roy. Bharat Ratna Dr BC Roy MD MRCP FRCS D Sc, a founder member of the Medical Council of India, was not only a doyen amongst the medical professionals, but also an eminent statesman, he had played significant role in the freedom struggle as well.



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AEROSPACE MEDICINE TRAINING- A LEAP FORWARD

- **ONLINE PAMC-CONTINUED TRAINING**

COVID-19 pandemic has also provided avenues for innovation. The training schedule of Primary Aviation Medicine Course (PAMC) for the young MO's from field areas was disrupted due to the pandemic. However, IAM has initiated hybrid PAMC for these young medical officers so as to maintain the operational efficacy and optimum utilization of resources. The course is divided in two phases: Initial phase consist of online course followed by a contact phase at IAM.

- **CONTINUING AEROSPACE MEDICINE EDUCATION ONLINE (CAMEO)**

Albert Einstein once said '**Learn from Yesterday, Live for Today, Hope for Tomorrow. The important thing is not to stop Questioning**'. IAM has been conducting Journal Clubs as part of MD curriculum for the residents, where peer reviewed journal articles are presented and discussed. This has been an in-house affair for the last so many years.

However, during this pandemic when most of the learning has switched from physical to e-learning, the necessity was felt by IAM to extend the learning avenues further to our esteemed Society members, by conducting an **online Journal Club: CAMEO (Continuing Aerospace Medicine Education Online)**. In this session, being conducted once a month on virtual platform, research papers are discussed by IAM residents with IAM faculty and all Aerospace Medicine Fraternity attending online. The main aim of this is to utilize the vast experience available in the field to enrich the students and enable them to become a better specialist in the future.

It is envisaged that CAMEO will be a stepping stone towards Online Interactions, sharing of thoughts and experiences by Aerospace Medicine Splts from different sectors (civil/ military or serving/ veterans) for the benefit of the entire fraternity.

- **UPGRADE OF HPHC TO DFS AT IAM.** High Performance Human Centrifuge has been upgraded to **Dynamic Flight Simulator (DFS)**. This advanced simulator has enabled improvement in the aeromedical training of the fighter aircrew by providing better and more realistic training capabilities to train with 1 v/s 1 combat, missile avoidance and simulated experience of tactical air combat manoeuvre.

- **INSTALLATION OF 3-D DIGITAL LASER ANTHROPOMETER AT IAM.** With Indigenization becoming the buzz word, it is essential to enhance the designing capabilities. The installation of 3-D Digital laser anthropometer has opened up avenues for the



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prospects of designing indigenous aircraft / systems and aircrew equipment assembly.

- **DEVELOPMENT OF IAM PROTOCOL FOR EVALUATION OF MUSCULOSKELETAL DISABILITIES (MSD).**

Objective evaluation of MSDs at IAM has undergone a radical change with advent of new evaluation modalities. In-house development of **IAM Exercise Manoeuvre Protocol (IAM-EMP)** for assessment of functional restrictions has provided an objective tool. Additionally, procurement and installation of **Isokinetic Dynamometry Apparatus** under MoU with ISRO, in the department of Environmental and Space Physiology, IAM has complimented the process of evaluation of MSDs.



- **ESTABLISHMENT OF NEURO-VESTIBULAR LAB AT IAM.**

A state-of-the-art **Neuro-Vestibular Lab** with the most advanced equipment including rotary chair,

Posturography platform, Virtual reality goggles etc. was set up at the Department of Spatial Orientation under MoU with ISRO. The lab was extensively utilized during the selection process of Gaganauts and continues to serve as one of the latest research instruments at IAM for academic enhancement. The instruments and their protocols are currently undergoing validation at IAM.



- **HUMAN ENGINEERING EVALUATION.** IAM is involved in aeromedical evaluation of aircraft systems and flying clothing for use by aircrew in IAF aircraft and their integration into existing aircraft of the IAF e.g. Helmet Mounted Display Systems (HMDS) for IAF fleet, sizing of shoes for LCA (Toe strike), oxygen system connectors for Jaguar etc.

- **ISAM SPONSORED STUDY AT IAM**

ISAM has sponsored a project in the Department of High-Altitude Physiology and Hyperbaric Medicine titled "**To Study the Employability of Combination of Hypobaric and Normobaric Hypoxia in Hypoxia Demonstration**", being conducted by **Surg Cdr Ranjan Sarkar**, an Associate Fellow of ISAM. Aim of the project is to evaluate utility of **Combined Altitude Depleted Oxygen (CADO)** in Hypoxia indoctrination by



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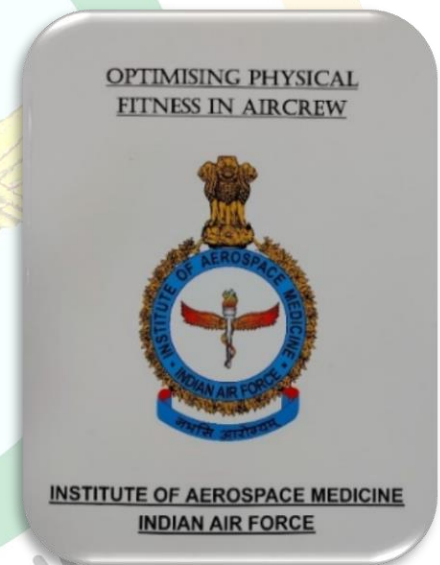


comparing it with time tested gold standard of Hypobaric Hypoxia. The project envisaged a total cost of Rs 71400/-, for the procurement of pressurized cylinders containing 10.3 % Oxygen with regulators and delivery system. The project involves comparing physiological parameters, subjective symptoms and psychomotor performance in the same group of subjects exposed to Hypobaric Hypoxia using both the Explosive Decompression Chamber (EDC) and CADO. The study entails monitoring of physiological parameters and the symptoms assessment including Psychomotor performance using a questionnaire.

- **PUBLICATION OF HANDBOOK ON PHYSICAL FITNESS**

Physical fitness is an inseparable attribute of an aircrew. Aircrew who are exposed to unique stressors of flying, which could adversely affect their health and in turn compromise aerospace safety, makes it obligatory to maintain optimal aircrew physical fitness. However, much information is available in theory and there was a gap in the practical application of this concept.

With the same objective in mind, the Aerospace medicine specialists at IAM, in consultation with eminent Physiologists and Sports Medicine Specialists, prepared an elaborate, yet reader friendly document on Physical conditioning. The authors have proposed a customized exercise program for the aircrew of three different streams of flying viz. Fighter, Transport and Helicopters. It will surely serve as a ready reckoner for the aircrew for optimizing their physical fitness.



- **LAUNCH OF e-GCA AT DGCA**

DGCA embarked on a new journey of digitization and automation through implementation of e-Governance in Civil Aviation (e-GCA) Programme. The inception of the project dates back to 2014, however, for unavoidable reasons it could not kickstart until 2019. Along with TCS and PWC, DGCA commenced the first phase of e-GCA, which included 18 different types of Medical Services of DGCA. On 11 Nov 21, Union Minister of Civil Aviation Shri Joyotiraditya Scindia, formally launched all the 298 services of e-GCA.



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The primary objective of e-GCA is to have a completely on-line system that shall reduce procedural insufficiencies and enhance user interaction through transparency in various processes for medical examination of pilots and ATCOs at DGCA. The new online medical services provided on e-GCA, by design, shall reduce the processing time remarkably by upto 70%. Till October 2021, more than 10,000 pilots had already utilized these e-GCA medical services for their initial, re-initial or renewal medical examinations and issuance of NOC.



AEROMEDICAL SUPPORT TO FOREIGN EXERCISES

• EX DESERT FLAG VI FROM MAR 04 TO MAR 27 AT ALDHAFRA AIRBASE UAE

Sqn Ldr Vasudev BN, member ISAM participated in multinational flying exercise held at Aldhafra Airbase, Abudhabi from 04 Mar to 27 Mar 21. IAF contingent consisted of a total of 127 air warriors. Strict Covid-19 protocols were maintained during induction as well as de-induction of all the personnel. The exercise was successfully completed without any incidence/accident or unusual medical occurrence and Zero COVID case.

• EX BLUE FLAG 2021 FROM 14 TO 21 OCT 21 AT UVDA BASE, ISRAEL



Sqn Ldr I Vijayvardhan, member of ISAM participated in one of the largest Air Force exercises ever conducted by Israel Air force which consisted of participation from 8 other countries. The Indian Air Force contingent consisted of air warriors as well as advanced fighter Aircraft. The same contingent also participated in **Ex Dessert Warrior at El-Berigat Air Base, Egypt** from **29 – 31 Oct 21**. Medical officer conducted lectures on aeromedical

concerns of long duration sorties, dietary advisories and he maintained the awareness regarding Covid- 19 precautions. His efforts and liaison with local authorities led to adequate availability of medical instruments for the exercise and timely conduct of RTPCR for entire contingent respectively.



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59TH ANNUAL CONFERENCE OF THE ISAM

The Indian Society of Aerospace Medicine organised its 59th Annual Conference at IAM IAF, Bangalore from 20 to 21 Nov 20 on a **HYBRID PLATFORM**. The conference was attended physically by around 75 members and online by around 165 representatives inclusive of Armed Forces Medical Officers, IAF Aircrew, representatives from DRDO, ISRO & Aviation Industry and the past Presidents of the Society. A total of eight sessions consisting of fifteen live podium & eleven online presentations and four poster sessions were held involving presentation of 108 scientific papers including scientific posters, speaking posters, panel discussions and closed-door sessions. This was the first time in History of ISAM when the Conference was conducted in hybrid platform but the success has prompted us to adopt this model for future as well.

THE THEME AND THE LOGO FOR THE 59TH ANNUAL CONFERENCE OF THE ISAM

The theme for 59th Annual Conference was '**Extraordinary times: Changing Aeromedical Paradigms**'. The recent COVID-19 pandemic has hugely affected the Aviation environment which has witnessed sea changes in its role, capabilities, reach and challenges. The theme aptly represented the current times and the approach of aviation fraternity towards these difficult times. The logo designed by Wg Cdr AVK Raju, Associate Fellow ISAM, for the conference was in consonance with the theme of the Conference.

Description of the Conference logo with its individual components is as under:

(a) Centre of the logo is a 'triangle' signifying a Prism which can split invisible light into bright and colorful array of colours (VIBGYOR).

(b) Left of the logo is a 'Golden Arrow' which represents the light rays entering the Prism. This beam signifies the myriad of challenges and problems that the Aviation Industry is facing due to the Pandemic.

(c) At the bottom on the triangle is 'image of a microorganism' which represents COVID-19.

(d) Centre of the triangle is image of a 'Bulb' and signifies novel ideas needed to tackle the problems due to novel virus.





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(e) Top of the triangle has an 'aircraft' which signifies Aviation industry which bore the maximum brunt of the pandemic.

(f) Bright and colourful array of colours (VIBGYOR) emerging from the triangle represents the viable solutions to the problems.

• **INAUGURAL SESSION OF THE 59TH ANNUAL CONFERENCE OF ISAM**

The 59th Annual Conference was inaugurated on 20 Nov 2020 at 0830 h by Chief of the Air Staff and Chief Patron of the Society Air Chief Marshal RKS Bhadauria PVSM AVSM VM ADC. Air Marshal RD Mathur PVSM AVSM VSM ADC, AOC-in-C Training Command IAF, Lt Gen Anup Banerjee SM PHS, DGAFMS and Senior Colonel Commandant, Air Marshal MS Butola, DGMS (Air) and President Indian Society of Aerospace Medicine were some of the important dignitaries who graced the occasion.



AIR MARSHAL SUBROTO MUKERJEE MEMORIAL ORATION

The Air Marshal Subroto Mukerjee memorial oration was delivered online by Dr Scott A Shappel, Professor and Chair of the departments of Human Factors and Behavioural Neurobiology, Embry-Riddle aeronautical University on the topic, "**Developing Novel Intervention Strategies Using Human**





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Factors Intervention Matrix (HFIX)". This talk provided an insight to the highly effective algorithms like HFIX and FACES, which have been proven effective at reducing human error through a variety of high-risk industries like aviation and healthcare.

AVM MM SRINAGESH MEMORIAL ORATION



The AVM MM Srinagesh memorial oration was delivered online by **Wg Cdr (Dr) SN Sharma (Retd) Senior Cardiologist, Badr AL Samaa Hospital** on the topic, **"Coronary Artery Disease: Pathophysiology and its Therapeutic Implications"**. While in service Dr SN Sharma, an eminent cardiologist, was involved in the pre - and post flight cardiological evaluation of the first Indian Cosmonaut Wg Cdr Rakesh Sharma (Retd.). He presented on an exhaustive topic of Coronary Artery Disease in very simple and elegant manner. His talk included the description of the sample patients treated by him. He summarised with a very important message "heart beats incessantly to keep us alive; so keep the heart happy, be it yours or others. Have a hearty laughter and enjoy.

JHF MANEKSHAW PANEL

The JHF Manekshaw panel was delivered by two eminent speakers- **Dr VR Lalithambika, Director DHSP ISRO & Dr Taslimarif Saiyed Director C-CAMP.**

Dr VR Lalithambika spoke on the topic, **"Human Space Mission: Design Challenges & Strategies"**. The presentation was an eye opener to the challenges posed in preparatory phase for human space mission. She categorically brought that human safety is of prime importance in the design considerations and formulation of the strategies.



Dr Taslimarif Saiyed spoke on the topic, **'Building Cutting-edge Healthcare Innovations: Discussion on Efforts towards Point-of-Care Test for Detection of Sleep Deprivation'**. The effects of sleep deprivation and ensuing fatigue is a widely discussed aeromedical challenge in the current times. He discussed about the need of a quick, easy and an objective method to detect sleep deprivation with development of sensitive bio-

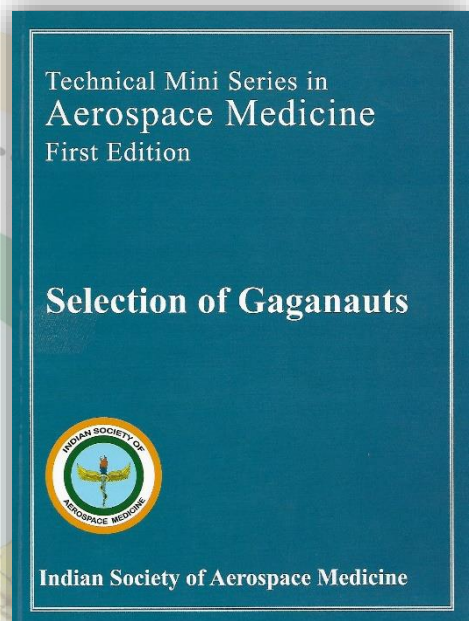


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markers like Saliva, Urine or plasma for screening. His talk gave a new dimension to ponder upon and generated lot of interest.

RELEASE OF TECHNICAL-MINI SERIES ON SELECTION OF GAGANAUTS

The Technical Mini-Series (TMS) titled, "**Selection of Gaganauts**" was published and released by Chief of the Air Staff during the inaugural session of 59th annual conference. The TMS was different from the earlier ones as it described the process which took place for very first time, in record time, by a group of professionals under the watchful post hoc scrutiny of international agencies. The IAF medical fraternity came together and performed towards completion of this TMS as an orchestrated effort which was appreciated by the international community as well. This TMS is a ready reckoner for anyone seeking guidance about the detailed process of selection of the space travellers and its uniqueness.



AWARDS AND TROPHIES

THE CHIEF OF THE AIR STAFF TROPHY FOR STANDING FIRST IN PAMC

The Chief of the Air Staff Trophy is awarded to the officer who scores the highest marks in all the Primary Aviation Medicine Courses (PAMC) held during the year. This year the trophy was awarded to **Sqn Ldr Balkesh Rani**. The trophy was handed over to the officer by Air Chief Marshal RKS Bhadauria PVSM AVSM VM ADC during the inaugural ceremony of the 59th annual conference.

DGMS (AIR) BEST STUDENT TROPHY FOR INTAM

The DGMS (Air) best student trophy is awarded to the officer who scores the highest marks among all Introductory Course in Aviation Medicine (INTAM) during the year. **Flt Lt SS Bhandari** received the trophy for the year 2019 during the Inaugural function of 59th annual conference.



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AVM MM SRINAGESH TROPHY



The AVM MM Srinagesh trophy is awarded to the officer who scores the highest marks in the Advance Course in Aerospace Medicine. This year the trophy was awarded to **Lt Col Thakur Nepal** by Air Chief Marshal RKS Bhadauria PVSM AVSM VM ADC.

AOC-IN-C TRAINING COMMAND ROLLING TROPHY

AoC-in-C training command rolling trophy is awarded for the best dissertation in the MD Aerospace Medicine. **Flt Lt Rahul Dev** was awarded the trophy for his dissertation titled, **"Development of IAM Exercise Manoeuvre Protocol (IAM-EMP) for Functional Assessment of Aircrew with Musculoskeletal disabilities"**. His guide for the dissertation was **Gp Cap NK Tripathi**. The trophy was awarded by the Air Chief Marshal RKS Bhadauria PVSM AVSM VM ADC and Air Marshal RD Mathur PVSM AVSM VSM ADC, AOC-in-C Training Command.



PRESIDENT'S GOLD MEDAL



The President's Gold medal is awarded to the student standing first in the MD Aerospace Medicine. This year the President's Gold medal was awarded to **Flt Lt Rahul Dev**. The Gold medal was awarded by the Air Marshal MS Butola, DGMS (Air) and President, Indian Society of Aerospace Medicine during the General Body Meeting held on 21 Nov 2020.



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AIR MARSHAL KULDIP RAI AWARD

The Air Marshal Kuldip Rai award is awarded to the author of the best published scientific paper in the Indian Journal of Aerospace Medicine (IJASM). The award consists of cash prize of Rupees 25,000/-. This year the award went to **Dr SR Santhosh Sc 'E'** for his original research article, "**Simultaneous Analysis of Ten Drugs of abuse in Blood and Urine Matrix by Gas Chromatography-Mass Spectrometry: Implication for Air Crash Investigation**"

published in the summer edition of IJASM 2020. The award was handed over by the Air Mshl MS Butola, DGMS (Air) and President Indian Society of Aerospace Medicine during the General Body Meeting held on 21 Nov 2020.



AWARD FOR THE BEST PAPER AND POSTER IN ANNUAL CONFERENCE OF ISAM



The best paper and poster presented during the 59th annual ISAM conference are awarded a cash prize of Rs 5000/- each in two categories- Institutional and field categories. During the 59th annual conference of ISAM, the best paper award in the Institutional Category was won by **Dr Kumari Pooja** and in the field category by **Gp Capt Parli R Ravi**.

The awards were handed over by **Air Mshl MS Butola, DGMS (Air)** and President Indian Society of Aerospace Medicine during the General Body Meeting held on 21 Nov 2020.





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• AIR MARSHAL PM SUNDARAM TRAVELLING FELLOWSHIP

Every year the Air Marshal PM Sundaram travelling fellowship is awarded to two senior members of the Society for spreading awareness about the specialty. Due to Covid pandemic and travel restrictions there off, the Travelling Fellowship for the year 2020 awarded to Gp Capt Rahul Pipraiya and Gp Capt MS Nataraja has been carried forward to 2021.

• GENERAL BODY MEETING OF ISAM

The first ever General Body meeting of ISAM on Hybrid platform (both physical and virtual mode) was held on 21 Nov 20 from 1700h to 1830h, and was attended by approx. 75 members physically and 123 members virtually. The GBM was chaired by Air Mshl MS Butola PHS, DGMS (Air) and the President of the Society and Gp Capt Prathu Rastogi, Secy ISAM conducted the proceedings. The approved minutes of the GBM have been made available on the Society website.

• NEW FELLOWS AND ASSOCIATE FELLOWS OF THE SOCIETY

AVM Navin Rattan AVSM VSM (Retd) and **Surg Capt SG Swamy** were awarded Fellowship and **Gp Capt Prateek Kinra, Wg Cdr Ajay Kumar and Wg Cdr Aprajita Bhayana (Retd)** were awarded Associate fellowship of the Indian Society of Aerospace Medicine during the General Body Meeting held on 21 Nov 2020.

• NEW LIFE MEMBERS OF THE SOCIETY

Following were awarded with the life membership of the Society during the GBM held on 21 Nov 20: -

- Sqn Ldr Y Thakur
- Sqn Ldr N Rathore
- Maj Hemanth Ayyappa
- Sqn Ldr Deepan Rai
- Sqn Ldr Shruthi B Chandran
- Sur Lt Cdr Kartikeyan
- Surg Lt Cdr B Vinod
- Dr Neha Rao
- Dr Suryakiran
- Dr Akshay Shirur



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OBITUARY

SURG VICE ADMIRAL MV SINGH, AVSM

Surg Vice Adm MV Singh, AVSM (Retd) (18 Jun 1959 to 14 May 2021), an alumnus of MLN Medical College, Allahabad was commissioned in the Indian Air Force on 16 Aug 1983. He did his MD (PSM) in 1990 from AFMC Pune. During his 35 years of service, he held various important Administrative and Staff appointments like OIC SHO at Air Force Academy, SMO of fighter and transport bases, Dy PMO of CAC & EAC. PMO of CAC & TC, PDMS (P) at Air HQ, Comdt CHAF Bengaluru, Cmdt, AMC Centre & College & OIC Records and DGMS (Navy).

His passionate efforts lead to implementation of the Alcohol Abuse Control programme, Obesity Control programme, Suicide Prevention Programme and CBRN training in the IAF. He was a member of ISAM for close to 34 years during his service in IAF.

Thereafter, he assumed appointment of Director General Medical Services (Navy) on 10 Jun 19 and retired from service on 30 Jun 20. For his outstanding and meritorious service, sterling qualities of industriousness towards achieving set targets and ability to perform with distinction in diverse fields, he was awarded **CAS Commendation** in 2011 and **Ati Vishist Seva Medal** in 2019. After his retirement he continued to stay in **Prayagraj** till his untimely demise due to COVID-19.

He will always be remembered as a humble, down to earth gentleman, an inspiring teacher, a thorough professional and a researcher par excellence!





ISAM NEWSLETTER 2021

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