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समाचार पत्रों से चयनित अंश

Newspapers Clippings

डीआरडीओ समुदाय को डीआरडीओ प्रौद्योगिकियों, रक्षा प्रौद्योगिकियों, रक्षा नीतियों, अंतर्राष्ट्रीय संबंधों और विज्ञान एवं प्रौद्योगिकी की नूतन जानकारी से अवगत कराने हेतु दैनिक सेवा

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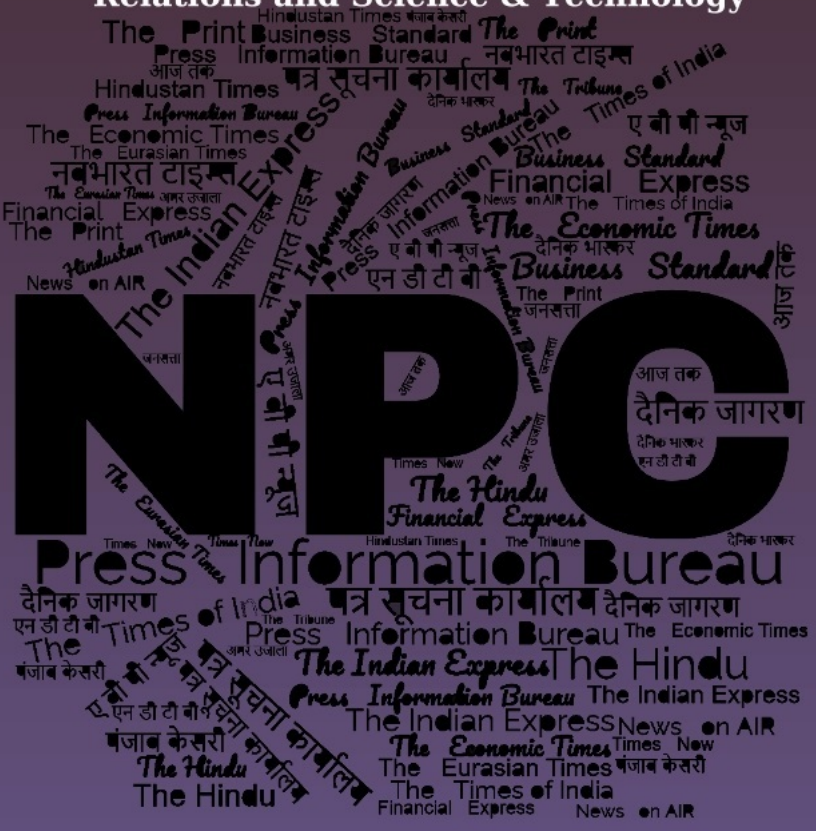

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DRDO News

DRDO & AIIMS Bibinagar unveil first Make-in-India cost-effective advanced Carbon Fibre Foot Prosthesis

Source: Press Information Bureau, Dt. 15 Jul 2025

First Make-in-India cost-effective advanced Carbon Fibre Foot Prosthesis, indigenously designed and developed by DRDO's Defence Research & Development Laboratory (DRDL) and AIIMS Bibinagar was unveiled at AIIMS Bibinagar, Telangana on July 14, 2025. AIIMS Bibinagar – DRDL, DRDO Indigenously Developed Optimised Carbon Foot Prosthesis (ADIDOC), a major breakthrough under the Aatmanirbhar Bharat initiative, was launched by Distinguished Scientist & Director, DRDL Dr GA Srinivasa Murthy and Executive Director, AIIMS Bibinagar Dr Ahanthem Santa Singh.

ADIDOC is biomechanically tested to loads up to 125 kgs with sufficient factor of safety. It has three variants to cater to patients of different weights. This foot is designed with the goal of offering a high-quality and affordable solution accessible to a larger population in need, while delivering performance at par with available international models.

It is expected to reduce the cost significantly to as low as less than Rs 20,000 in production in comparison to the current imported similar products that cost around Rs two lakh. Hence, this innovation is expected to significantly improve accessibility to high-quality prosthetics for low income group amputees in India, reduce dependency on imported technologies, and support broader social & economic inclusion for people with disabilities.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=2144797

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Defence News

India receives GE-F404 engine for fighter jets

Source: The Hindu, Dt. 16 Jul 2025

India on Monday (July 15, 2025) received the second GE-F404 engine from the United States for the Light Combat Aircraft (LCA) Mark-1A fighter jet programme. A senior Defence official confirmed the development and said that public sector firm Hindustan Aeronautics Limited (HAL) has taken delivery of the engine and is expected to receive 12 more GE-F404 engines by the end of the current financial year.

"The engines will be fitted on the LCA Mark 1A fighter jets. Their delivery had been delayed by over a year due to supply chain disruptions faced by the American engine manufacturer," the official said. The Indian Air Force (IAF) has placed orders for 83 LCA Mark 1A aircraft. A proposal to procure 97 additional aircraft is at an advanced stage following clearance from the Defence Ministry, the official added.

Earlier this year, HAL received the first GE-F404 engine in March. The engines will be integrated with the LCA Mk-1A fighters, with HAL aiming to deliver over 10 aircraft to the IAF in the near term. In August 2021, HAL had placed an order worth ₹5,375 crore for 99 F404 engines with GE Aerospace to power the indigenously developed Tejas Mk-1A.

Defence Minister Rajnath Singh recently held a phone conversation with U.S. Defence Secretary Pete Hegseth to review ongoing and forthcoming initiatives aimed at enhancing defence cooperation between the two countries.

https://www.thehindu.com/news/national/india-receives-second-ge-f404-engine-for-lca-mark-1a-fighter-programme/article69815735.ece

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लड़ाकू विमान तेजस मार्क-1ए के लिए भारत पहुंचे अमेरिकी इंजन

Source: Dainik Jagran, Dt. 16 Jul 2025

नई दिल्ली, आइएएनएसः भारत के स्वदेशी लड़ाकू विमान तेजस मार्क-1ए के निर्माण में अब तेजी आएगी। इस लड़ाकू विमान के लिए अमेरिकी कंपनी ने भारत को जेट इंजन की सप्लाई शुरू कर दी है। स्वदेशी हल्के लड़ाकू विमान (एलसीए) तेजस मार्क-1ए के लिए सोमवार को भारत को जीई-404 इंजन प्राप्त हुआ है।

रक्षा अधिकारियों के अनुसार, यह अमेरिकी कंपनी से मिला दूसरा जेट इंजन है। सार्वजनिक क्षेत्र की भारतीय विमानन कंपनी हिंदुस्तान एयरोनाटिक्स लिमिटेड (एचएएल) तेजस का निर्माण कर रही है। एचएएल को इस वित्त वर्ष के अंत तक कुल 12 जीई-404 इंजन मिलने हैं। ये सभी इंजन भारतीय लड़ाकू विमान तेजस मार्क-1ए में लगाए जाएंगे।

भारतीय वायुसेना ने अपनी फ्लीट के लिए 83 एलसीए मार्क-1ए लड़ाकू विमानों का आर्डर एचएएल को दिया है। दरअसल भारतीय वायुसेना को नए लड़ाकू विमानों की आवश्यकता है। इसके लिए वायुसेना ने स्वदेशी लड़ाकू विमानों का विकल्प चुना है।

- भारत में स्वदेशी लड़ाकू विमान के निर्माण में अब आएगी तेजी
- वायुसेना ने एचएएल को दिया है 83 तेजस एमके-1ए का आर्डर

इन लड़ाकू विमानों की आपूर्ति में हो रही देरी को लेकर वायुसेना प्रमुख एयर चीफ मार्शल एपी सिंह विभिन्न मौकों पर अपनी बात भी रख चुके हैं। उन्होंने एलसीए मार्क-1ए की लड़ाकू विमानों की आपूर्ति में हो रही देरी को स्वीकार किया और इसको लेकर चिंता व्यक्त की थी। स्वदेशी विमानों से भारत की सैन्य क्षमता भी बढ़ेगी।

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MoD to host Workshop on UAV & C-UAS indigenisation on 16 July; event to focus on reducing import dependence for critical components

Source: Press Information Bureau, Dt. 15 Jul 2025

In a significant push toward achieving self-reliance in defence technologies, Headquarters Integrated Defence Staff (HQ IDS) in collaboration with the Centre for Joint Warfare Studies (CENJOWS), is organising a Workshop and Exhibition on Indigenisation of Critical Components Currently Being Imported from Foreign OEMs in the Areas of UAV & C-UAS on 16 July 2025 at the Manekshaw Centre, New Delhi.

The event comes in the backdrop of recent India-Pakistan hostilities, including Operation Sindoor, which highlighted the strategic importance and operational effectiveness of Unmanned Aerial Vehicles (UAVs) and Counter-Unmanned Aerial Systems (C-UAS). These systems played a vital role in enhancing situational awareness, enabling precision targeting, and reducing risks to human personnel-demonstrating the maturity, dependability, and value of India's indigenous defence technologies during real-time operations.

Recognising the importance of reducing the dependency on OEMs for critical UAV and C-UAS components, the upcoming workshop-cum-exhibition aims to bring together all relevant stakeholders, including defence experts, policymakers, military leaders, scientists, and private industry, to develop a strategic roadmap for indigenisation. The event is expected to serve as a catalyst for innovation, knowledge sharing, and long-term capability building in unmanned systems.

Chief of Defence Staff (CDS) General Anil Chauhan will grace the occasion as the Chief Guest. Chief of Integrated Defence Staff Air Marshal Ashutosh Dixit will deliver the Closing Address, summarising the deliberations and presenting the expected outcome, a strategic policy document focused on the indigenisation of UAV and C-UAS systems and their critical subcomponents.

The initiative aligns with India's vision of Aatmanirbhar Bharat, aiming to bolster national security, enhance defence preparedness, and transform India into a global hub for advanced military technologies. The workshop will feature talks by prominent experts, live demonstrations of indigenous technologies, and discussions on overcoming existing challenges in domestic production.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=2144799

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Science & Technology News

शुभांशु शुक्ला 18 दिन इस पर रहने के बाद पृथ्वी पर लौटे

Source: Jansatta, Dt. 16 Jul 2025

जनसत्ता ब्यूरो

अंतरिक्ष यात्री शुभांशु शुक्ला और वाणिज्यिक 'एक्सिओम-4 मिशन' के उनके तीन अन्य साथी मंगलवार को पृथ्वी पर लौट आए। ड्रैगन 'ग्रेस' अंतरिक्ष यान दक्षिणी कैलिफोर्निया में सैन डिएगो के नजदीक समुद्र में उतरा। अंतरराष्ट्रीय अंतरिक्ष स्टेशन (आइएसएस) पर 18 दिन के प्रवास के बाद अंतरिक्ष यात्रियों ने पृथ्वी पर लौटने से पहले 22.5 घंटे की यात्रा की। शुक्ला, कमांडर पैगी व्हिटसन तथा मिशन विशेषज्ञ पोलैंड के स्लावोज उज्नान्स्की-विस्नीवस्की और हंगरी के टिबोर कापू को लेकर अंतरिक्ष यान सोमवार को भारतीय समयानुसार शाम 4:45 बजे अंतरिक्ष स्टेशन से अलग हो गया था।

स्पेसएक्स ने 'एक्स' पर एक पोस्ट में कहा, एक्सिओम-4 के चालक दल को जहाज पर ही कई चिकित्सीय जांचों से गुजरना होगा। उसके बाद उन्हें हेलीकाप्टर के जरिए वापस तट पर भेजा जाएगा। चारों अंतरिक्ष यात्रियों के फिर से धरती के वातावरण में गुरुत्वाकर्षण के प्रभाव के प्रति अनुकूलन के लिए सात दिन पुनर्वास कार्यक्रम में रहने उम्मीद है क्योंकि पृथ्वी की कक्षा में वे भारहीनता की स्थिति में थे। इससे पहले शुभांशु शुक्ला और 'एक्सिओम-4 मिशन' के तीन अन्य अंतरिक्ष यात्री धरती पर लौटने के बाद ड्रैगन 'ग्रेस' अंतरिक्ष यान से मुस्कुराते हुए बाहर निकले तथा कैमरों की ओर हाथ हिलाते हुए लोगों का अभिवादन किया। चारों अंतरिक्ष यात्रियों को सात दिन तक निगरानी में रखा जाएगा। मालूम हो कि सभी अंतरिक्ष यात्री 26 जून को भारतीय समयानुसार शाम 4:01 बजे आइएसएस पहुंचे थे। एक्सियम मिशन 4 के तहत 25 जून को दोपहर करीब 12 बजे ये रवाना हुए थे। स्पेसएक्स के फाल्कन-9 राकेट से जुड़े ड्रैगन कैप्सूल में इन्होंने कैनेडी स्पेस सेंटर से उड़ान भरी थी।

शुभांशु शुक्ला के लिए यह यात्रा ऐतिहासिक रही है। वह अंतरराष्ट्रीय अंतरिक्ष (आइएसएस) स्टेशन पहुंचने वाले पहले भारतीय बने और अंतरिक्ष में यात्रा करने वाले राकेश शर्मा के बाद दूसरे भारतीय हैं। राकेश शर्मा 1984 में उस समय के सोवियत संघ के सल्युत-7 अंतरिक्ष स्टेशन मिशन के तहत गए थे।

अंतरिक्ष यात्रा

क्या-क्या शोध किए शुभांशु ने

शुभांशु और उनके साथियों ने आइएसएस पर लगभग 60 प्रयोग किए, जिनमें से 7 प्रयोग खास तौर पर भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो) द्वारा डिजाइन किए गए थे। ये प्रयोग भारत के भविष्य के अंतरिक्ष मिशनों, खासकर गगनयान और चंद्रमा अभियान के लिए महत्वपूर्ण हैं।

मायोजेनेसिस : इस प्रयोग में मांसपेशियों के नुकसान का अध्ययन किया, जो अंतरिक्ष की माइक्रोग्रैविटी में होता है। उन्होंने देखा कि बिना गुरुत्वाकर्षण में मांसपेशियां कैसे कमजोर होती हैं। यह आस्टियोपोरोसिस जैसे रोगों के इलाज में मदद कर सकता है।

टार्डिग्रेड्स : इस में शुभांशु ने छोटे माइक्रो-जानवरों (टार्डिग्रेड्स) का अध्ययन किया, जो चरम परिस्थितियों में जीवित रह सकते हैं. उन्होंने देखा कि ये अंतरिक्ष में कैसे ठीक होते हैं, जो भविष्य के लंबे मिशनों (जैसे मंगल यात्रा) के लिए उपयोगी हो सकता है।

बीज अंकुरण : शुभांशु ने मेथी और मूंग जैसे बीजों को अंतरिक्ष में अंकुरित किया। उन्होंने इन बीजों की जेनेटिक्स, माइक्रोबियल बदलाव और पोषण मूल्य का अध्ययन किया। यह प्रयोग अंतरिक्ष में फसल उगाने की संभावना तलाशता है।

साइनोबैक्टीरिया : इस प्रयोग में शुभांशु ने साइनोबैक्टीरिया (जल बैक्टीरिया) की वृद्धि व गतिविधि का अध्ययन किया। ये भविष्य में चंद्रमा या मंगल पर जीवन समर्थन प्रणाली के लिए आक्सीजन व ईंधन बना सकते हैं।

माइक्रोएल्गे : शुभांशु ने माइक्रोएल्गे का परीक्षण किया, जो अंतरिक्ष में भोजन, आक्सीजन और बायोफ्यूल का स्रोत हो सकता है। यह गहरे अंतरिक्ष मिशनों के लिए जरूरी है।

क्राप सीड्स : इस में उन्होंने 6 तरह के फसल बीजों पर शोध किया कि अंतरिक्ष में इनकी वृद्धि कैसे होती है। बाद में इन बीजों को पृथ्वी पर कई पीढ़ियों तक उगाया जाएगा ताकि जेनेटिक बदलाव समझे जा सकें।

वायेजर डिस्प्ले : शुभांशु ने कंप्यूटर स्क्रीन के उपयोग का अध्ययन किया कि माइक्रोग्रैविटी में आंखों और दिमाग पर क्या असर पड़ता है। यह अंतरिक्ष में डिजिटल सिस्टम के बेहतर इस्तेमाल के लिए है। इनके अलावा, उन्होंने हड्डियों के स्वास्थ्य, रेडिएशन एक्सपोजर और मानसिक स्वास्थ्य पर भी प्रयोग किए।

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Shubhanshu Shukla's mission validates India's astronaut selection & training: Former IAM chief

Source: The Times of India, Dt. 16 Jul 2025

For the first time, India's astronaut training protocols are being tested and validated in real space conditions, said Air Vice Marshal Anupam Agarwal, former Commandant of the Institute of Aerospace Medicine (IAM), which is responsible for selecting and preparing Gaganyaan astronaut-designates.

In an exclusive interview to TOI, Agarwal, who was an air commodore when he helmed IAM, described Group Captain Shubhanshu Shukla's (Shux) current mission to the International Space Station (ISS) as part of the Axiom-4 mission as a critical milestone for India's human spaceflight efforts.

“The entire aerospace medicine process, physiological and psychological selection, is being validated. Not only was he selected well, but also the test standards we developed, the procedures we followed, the psychological selection methods, everything is now being put through a real microgravity test,” Agarwal said.

“It is a fulfilling feeling,” he added. IAM’s involvement in astronaut screening goes beyond selection. It collects extensive baseline medical and physiological data before a mission. According to Agarwal, this data is now central to studying how microgravity affects Indian astronauts. “Changes, if any, will be compared with the kind of changes we expect in microgravity. We will study those extensively and try to determine whether our methods for collecting and interpreting baseline data were correct.

This will bolster the entire process.”Agarwal said India’s limited past exposure to human spaceflight made missions like Shukla’s especially important. “This is extremely complicated and many developed nations have attempted it and were unable to achieve it. For us, international exposure is the best thing that could happen to this programme.

”He added that knowledge about human spaceflight is often not openly shared in literature and can only be gained through experience. “If we want success, we must learn fast, learn accurately and learn what’s relevant.”

Looking ahead to Gaganyaan and future Indian space missions, Agarwal said IAM’s role will be critical. “The aerospace medicine specialists are to the human what the engineers are to the spacecraft. They help design the human-use products, the man-machine interface, the safety of crew, acoustic, visual, vibration and acceleration standards, clothing, hygiene products and so on.”

Reflecting on his personal experience of selecting India’s first set of astronaut-designates, Agarwal said shortlisting Shukla was a memorable moment for him and his team. “We agreed that we have been extremely lucky in life. The selection process allowed us to meet some of the brightest, most intelligent and professionally sound humans in the country. Shux is one of them. How many people have this opportunity? It was, is and will remain an excellent experience to meet Shux.”

https://timesofindia.indiatimes.com/india/shubhanshu-shuklas-mission-validates-indias-astronaut-selection-training-former-iam-chief/articleshow/122532761.cms

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What Shubhanshu Shukla’s Axiom 4 mission will mean for India’s space ambitions

Source:The Indian Express, Dt. 16 Jul 2025

“The second Indian in space”, Group Captain Shubhanshu Shukla’s return journey to terra firma was safely and successfully accomplished on July 15. Shukla is back after a fruitful stay of about 18 days on the International Space Station (ISS). A day before his return, the Crew Dragon spacecraft ‘Grace’ in which he comfortably sat with his three Axiom 4 colleagues successfully undocked (detached) from the ISS, circling the earth at 400 km height.

For the next 22 hours or so, the craft independently orbited the Earth and then dived back into the atmosphere, survived the subsequent fiery re-entry heat and splashed down off the coast of California at a comfortable speed of about 24 km per hour. With this, Shubhanshu Shukla’s maiden sojourn in space concluded.

Understandably, the successful completion of Shukla's Axiom 4 mission will make the already joyous India more euphoric for quite some time. People across the country, especially students, will be eagerly awaiting Shukla's return. Many among our hundreds of millions of strong, intelligent and capable students will consider Shukla as a role model. Shukla has said that India's first space traveller, Rakesh Sharma, was a role model.

The sense of excitement associated with spaceflight, especially human spaceflight, and the inspiration it can provide, is immense. It can effectively empower students to pursue STEM education with seriousness. This is one of the prominent benefits to accrue from Shukla's exciting and worthwhile journey to space.

Having many significant achievements to its credit in the arena of uncrewed spaceflight, India is confidently and cautiously taking its first step into human spaceflight. Gaganyaan aims to launch Indian space travellers ("gaganyatris") from Indian soil, in an Indian-built spacecraft, propelled by an Indian launch vehicle, make them orbit the earth for a few days and bring them back safely. Serious and systematic efforts are being led by ISRO, with the enthusiastic participation of many national scientific/technological institutions of repute.

As part of this arduous endeavour, the human rating (significantly enhancing the reliability of a rocket vehicle to safely launch human beings) of India's most capable launch vehicle, HLVM3, is reportedly completed. The design and development of the Gaganyaan spacecraft, which will be capable of accommodating three space travellers, is in progress.

Prashanth Balakrishnan Nair, Ajit Krishnan, Angad Pratap and Shubhanshu Shukla, all test pilots now holding the rank of group captain in the Indian Air Force, have been selected and trained in India and Russia.

The participation of one of its astronaut candidates in Axiom 4 will enrich Gaganyaan in terms of planning and execution. In this regard, it is pertinent to remember that Shubhanshu Shukla was extensively trained in many US facilities, including at NASA, for about eight months. Fairly detailed knowledge of such facilities as well as the training procedures would not have been available to us without the participation in a human spaceflight mission.

Thus, not only the experience of getting trained for the launch, but the first-hand experience of travelling in a spacecraft to Earth orbit has been acquired by Shukla. More importantly, he has gained invaluable experience of living and working in the weightless environment of space aboard the ISS.

That he was able to perform the carefully designed and packaged bio-medical, healthcare, space food production and cognitive science-related experiments from India, has greatly encouraged our scientific and engineering community and enhanced our confidence and atmanirbharata. Thus, India's participation in the Axiom 4 mission is beneficial in many ways indeed.

https://indianexpress.com/article/opinion/columns/shubhanshu-shukla-axiom-4-space-isro-india-gaganyaan-10128498/lite/

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ISRO acknowledgwes importance of Axiom-4 mission that cost ₹548cr

Source: The Times of India, Dt. 16 Jul 2025

▶Continued from P 1

By 3.37pm, Grace was being moved from its initial place on Shannon to a deck where the crew was expected to come out. Between 3.40pm and 3.41pm, the recovery personnel opened the side hatch and began preparations to allow the crew to exit.

At 3.49pm, Peggy slid out of the capsule with a smile, followed by Shux at 5.52pm and mission specialists Slawosz Uznanski and Tibor Kapu in the next couple of minutes. The crew was taken to land by helicopter. Following medical checks, they will be taken to Houston for de-briefing and other procedures.

Like Shux, Isro has acknowledged the importance of the mission that has cost India Rs 548 crore. "...Ax-4 is one small step in orbit, but a giant leap in India's pursuit of human spaceflight and scientific discovery," the agency had said post launch.

ANI

Shubhanshu Shukla's father Shambhu Dayal Shukla and mother Asha Shukla get emotional as they celebrate his and the Axiom- 4 crew's return

Isro chairman V Narayanan had told **TOI** earlier that benefits from Ax-4 far outweigh the cost. He had stressed that learning outcomes—spanning astronaut training (for two), mission operations, and hardware-software-human interface—could not be measured purely in monetary terms.

Indian Space Association director general Lt Gen (retd) AK Bhatt said: "This is a stepping stone for India's future crewed space journeys, including Gaganyaan and goals of landing an Indian on the Moon by 2040. It'll not only support Isro but also give impetus to both global and Indian private space industries."

Satcom Industries Association-India president Subba Rao Pavuluri, echoing Bhatt's views, said: "...While our ancestors explored Planets with intuition, we'll be exploring planets with experimentation and going there. Shukla's mission is the first step to realise 'Bharat's Space ambitions'."

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Recovery after space journey

Source:The Indian Express, Dt. 16 Jul 2025

AS SHUBHANSHU Shukla and his colleagues on the Axiom-4 mission took their first steps on the recovery boat after coming out of the space capsule, they needed some assistance.

It will be some days before Shukla, who returned to Earth on Tuesday after spending 20 days in space — 18 of which were spent on the International Space Station — can get back to normal life. Bodies of astronauts undergo various stresses in space, and require time to recover.

Space environment

The human body is under stress in space due to microgravity conditions and exposure to certain radiations that are absent or benign on Earth. The impact of these stresses depends on the length of the astronaut's stay in space.

During one of his interactions from the ISS, Shukla had said he did not feel his usual self in the first few days.

"It's the first time for me, so I don't know what to expect [upon return]. ...I did have some symptoms coming up, so I am hoping that I will not have it going down," he said.

Mission commander Peggy Whitson, who was on her fifth trip to space, said, "Some people get space motion sickness coming uphill and some people get it going downhill. I am a downhill person where I don't really adjust... [as] well to gravity as I adjust to microgravity".

Getting back to normal

The first thing that the four astronauts, back in Earth's air after almost three weeks, did after walking out of the Grace space capsule was to undergo a health check. They were then taken by helicopter to the NASA Space Centre in Houston, where they will rest for the next few days.

Detailed post-flight medical checks usually continue for a week or longer after return. Impacts on the functioning of the heart, bones, eyes, and immune system are watched, apart from things like sleep disorder and headaches.

Astronauts experience space sickness in their initial days as the brain is confused by the gravity and acceleration information it receives from the inner ear — information that is essential for maintaining balance on Earth. Living in microgravity teaches the brain to not listen to the inner ear, which becomes a challenge when the astronauts return to Earth, as they face difficulty in standing up and walking.

Also, bodily fluids tend to shift because of microgravity conditions, and usually move to the upper part of the body in space — as a result, astronauts experience light-headedness or dizziness after they return.

All these symptoms are likely to be less severe in Shukla and his crew mates who spent just 18 days on the ISS. Astronauts on previous Axiom missions have been able to resume normal lives a week or two after their return.

Need for reconditioning

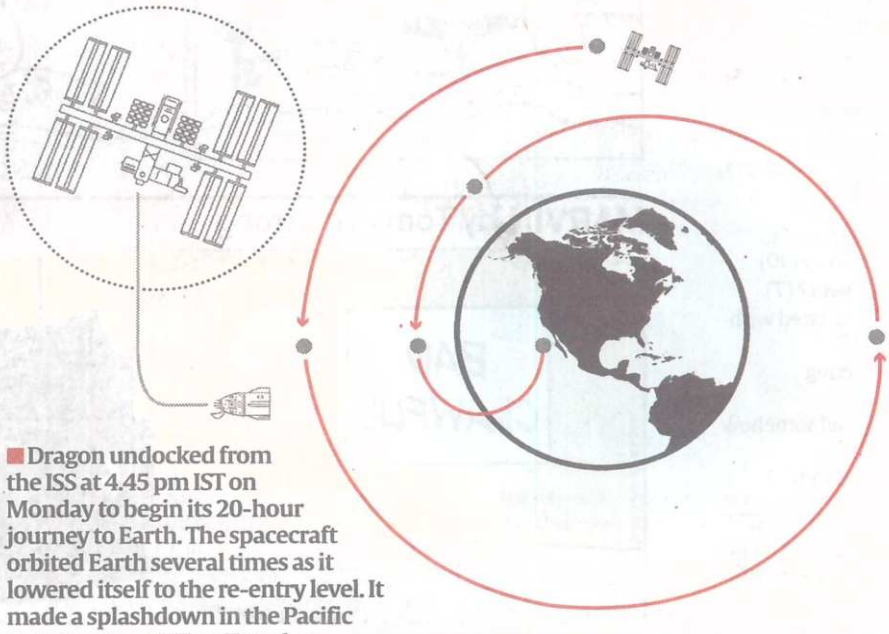
Astronauts need reconditioning after coming back to Earth to deal with their symptoms such as problems with balance, fixing their gaze, and difficulty standing up.

The reconditioning process includes training the astronauts to start listening to their inner ear again, helping with motion control, and taking care of conditions they face while standing. It also deals with their perception of movement of their own bodies, strength, and endurance.

According to NASA, around 92% of astronauts experience post-flight injuries. They may suffer muscle sprains, tendon-related injuries, and fractures.

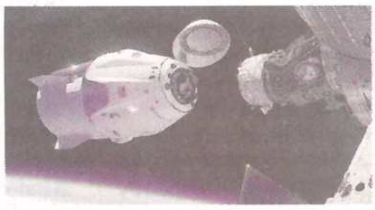
HOW SHUKLA RETURNED FROM THE ISS

SpaceX's Crew Dragon spacecraft transported Shubhanshu Shukla and others to the International Space Station and also brought them back. It remained docked to the ISS for the period the astronauts were on board.



■ Dragon undocked from the ISS at 4.45 pm IST on Monday to begin its 20-hour journey to Earth. The spacecraft orbited Earth several times as it lowered itself to the re-entry level. It made a splashdown in the Pacific Ocean at 3 pm IST on Tuesday.

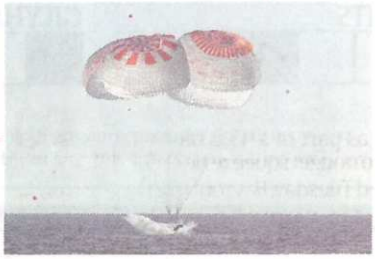
The Axiom-4 crew were assisted out of the Dragon spacecraft onto the recovery vehicle, after their return from the ISS on Tuesday. *Axiom Space/ANI*



1 Crew Dragon autonomously undocks from the ISS, and uses its boosters to move away from the space laboratory. *Illustration/NASA*

2 Before re-entering the Earth's atmosphere, Dragon detaches its trunk to reduce mass and save fuel. *Illustration/SpaceX*

3 Dragon's two drag parachutes are deployed at an altitude of 18,000 feet, followed by four main parachutes at 6,500 feet *(right)*. *NASA*



4 The four main parachutes reduce Dragon's speed drastically as it glides down at an angle for a safe splashdown. *NASA*

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