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# Group Captain Shubhanshu Shukla — Ashoka Chakra for Axiom Mission 4 (ISS, 2025)

26 January 2026

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# Group Captain Shubhanshu Shukla — Ashoka Chakra for Axiom Mission 4 (ISS, 2025)

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## WHY IN NEWS

Group Captain Shubhanshu Shukla of the Indian Air Force was awarded the **Ashoka Chakra** — India’s highest peacetime gallantry honour — at the 77th Republic Day ceremony on January 26, 2026, in recognition of his historic voyage to the International Space Station aboard **Axiom Mission 4 (Ax-4)** in June–July 2025, making him the **second Indian ever to travel to space** and the first to visit the ISS.

## SHUBHANSHU SHUKLA — PROFILE

**Group Captain Shubhanshu Shukla** is an Indian Air Force (IAF) fighter pilot, one of the **four Gaganyaan astronaut candidates** selected by ISRO in 2020, and India’s first astronaut to reach the **International Space Station**.

Parameter	Detail
<b>Rank</b>	Group Captain, Indian Air Force
<b>Home city</b>	Lucknow, Uttar Pradesh
<b>Commissioned</b>	June 2006 (IAF Fighter Stream)
<b>Aircraft flown</b>	Su-30 MKI, MiG-21, MiG-29, Jaguar, Hawk, Dornier, An-32 (2,000+ hours)
<b>Gaganyaan selection</b>	One of 4 astronaut-designates (ISRO, 2020)
<b>ISS mission</b>	<b>Axiom Mission 4 (Ax-4)</b> — Pilot; June 25 – July 15, 2025
<b>Award</b>	<b>Ashoka Chakra</b> , Republic Day 2026

## AXIOM MISSION 4 (AX-4) — MISSION DETAILS

**Axiom Space** is a US-based private space company that conducts commercial crew missions to the ISS using **SpaceX Crew Dragon** spacecraft (Falcon 9 launch vehicle).

**Ax-4 Crew:**

Role	Astronaut	Agency
Commander	Peggy Whitson	Axiom Space (former NASA astronaut)
Pilot	<b>Group Captain Shubhanshu Shukla</b>	ISRO / IAF
Mission Specialist 1	Slawosz Uznański-Wisniewski	ESA (Poland)
Mission Specialist 2	Tibor Kapu	Hungarian Space Office

#### Ax-4 Mission Timeline:

Parameter	Detail
Launch	June 25, 2025 — Kennedy Space Center, Florida
Splashdown	July 15, 2025 — Pacific Ocean off San Diego
Duration	~18 days
Orbits completed	~282 orbits
Distance covered	~12 million kilometres
Experiments	~60 scientific experiments; at least 7 designated by ISRO and Indian institutions

#### ISRO experiments conducted by Shukla on ISS:

- Cognitive effects of screen use in microgravity (biomedical)
- Crop resilience and space agriculture (plant biology)
- Microbial adaptation in low-gravity environments
- Muscle atrophy studies (human physiology)
- Material science in microgravity

#### ASHOKA CHAKRA — AWARD DETAILS

The **Ashoka Chakra** is India's **highest peacetime gallantry award**, equivalent in precedence to the **Param Vir Chakra** (wartime). Awarded for acts of bravery, self-sacrifice, or distinguished service away from the battlefield.

**Shukla's citation:** First IAF astronaut to reach the ISS; conducted Indian space science experiments in microgravity; brought operational orbital experience to ISRO's Gaganyaan programme; demonstrated India's credibility as a human spaceflight nation.

#### Republic Day 2026 — Select Gallantry Awards:

Award	Recipient	Context
<b>Ashoka Chakra</b>	Group Captain Shubhanshu Shukla	IAF — ISS mission via Ax-4
<b>Kirti Chakra</b>	Major Prashanth Balakrishnan Nair	Army — counter-insurgency operations
<b>Shaurya Chakra</b>	Lt Cdr Dilna K.	Navy — first woman naval officer so honoured
<b>Shaurya Chakra</b>	Lt Cdr Roopa A.	Navy — first woman naval officer so honoured

## SECOND INDIAN IN SPACE — HISTORICAL CONTEXT

Astronaut	Mission	Year	Vehicle	Destination
<b>Wing Cdr Rakesh Sharma</b>	Soviet mission	<b>1984</b>	Soyuz T-11	Salyut-7 (Soviet space station)
<b>Group Captain Shubhanshu Shukla</b>	Axiom Mission 4	<b>2025</b>	SpaceX Crew Dragon	ISS

Rakesh Sharma remains famous for telling Prime Minister Indira Gandhi that India looked “Saare Jahan Se Achha” from space — 41 years before Shukla’s mission.

Shukla’s Ax-4 voyage gave ISRO its first actual on-orbit operational data, directly feeding into preparations for **Gaganyaan** — India’s indigenous crewed spaceflight programme targeting launch in 2027.

## GAGANYAAN — INDIA’S HUMAN SPACEFLIGHT PROGRAMME

Phase	Timeline	Details
Unmanned Test Vehicle (TV-D1)	October 2023	Crew Escape System tested successfully
LVM3-G1 (unmanned)	2025	First Gaganyaan orbital demonstration
LVM3-G2 with Vyommitra (robot)	2026	Humanoid robot test flight
LVM3-G3 (crewed)	2027	3 astronauts; 3–7 days at 400 km LEO

### Four Gaganyaan astronaut candidates (all IAF test pilots):

Group Captain Prashanth Balakrishnan Nair

Group Captain Ajit Krishnan

Group Captain Angad Pratap

**Group Captain Shubhanshu Shukla** — flew Ax-4 (2025)

All four trained at the Yuri Gagarin Cosmonaut Training Centre (Star City, Moscow) in 2020–21. Post-Ukraine invasion, further training shifted to NASA’s Johnson Space Center (Houston) and ESA (France).

### **STRATEGIC SIGNIFICANCE — INDIA’S SPACE DIPLOMACY**

Shukla’s Ax-4 mission is simultaneously a scientific, diplomatic, and symbolic achievement:

**India-USA space partnership:** Formalised at the 2023 Modi-Biden summit; NISAR satellite (NASA-ISRO joint), LunaNet agreements; Ax-4 was the human spaceflight component

**ISS operational experience:** Direct applicability to Gaganyaan’s orbital rendezvous and docking requirements

**Commercial space:** Demonstrates India’s ability to integrate with global private spaceflight ecosystem (Axiom Space, SpaceX)

**Soft power:** Ax-4 crew included astronauts from USA, India, Poland (ESA), and Hungary — exemplifying multilateral cooperation in space

#### **UPSC RELEVANCE**

Ashoka Chakra (highest peacetime gallantry; equivalent to Param Vir Chakra); Axiom Mission 4 (Ax-4; June–July 2025; SpaceX Crew Dragon; ISS; Axiom Space; Peggy Whitson commander; Shukla pilot); second Indian in space (Rakesh Sharma, 1984 — Soyuz T-11 — Salyut-7); Gaganyaan (LVM3; 4 astronauts; IAF test pilots; 400 km LEO; 3–7 days; TV-D1 October 2023).

#### **MAINS GS-3:**

Science & Technology — India’s human spaceflight programme; commercial space missions and ISRO collaboration; space diplomacy; microgravity science.

## ★ FACTS CORNER — KNOWLEDGEPEDIA

### GROUP CAPTAIN SHUBHANSHU SHUKLA:

Rank: Group Captain, **Indian Air Force** (fighter pilot; commissioned June 2006)

Home: **Lucknow, Uttar Pradesh**

One of **4 Gaganyaan astronaut candidates** (selected 2020 by ISRO)

Trained at: Yuri Gagarin Cosmonaut Training Centre, Star City, Moscow (2020–21)

Mission: **Axiom Mission 4 (Ax-4) — Pilot** (not Mission Specialist)

**Second Indian in space** (after Rakesh Sharma, 1984)

**First Indian on the ISS**

Award: **Ashoka Chakra**, Republic Day 2026 (announced January 25, 2026)

### AXIOM MISSION 4 (AX-4):

Operator: **Axiom Space** (private, USA)

Launch vehicle: **SpaceX Crew Dragon** (Falcon 9)

Launch: **June 25, 2025** | Splashdown: **July 15, 2025** | Duration: **~18 days**

Orbits: **~282** | Distance: **~12 million km**

Crew: Peggy Whitson (Cdr), Shubhanshu Shukla (Pilot), Uznański-Wiśniewski (ESA), Tibor Kapu (Hungary)

Experiments: **~60 total**; at least **7 Indian/ISRO-designed**

### ASHOKA CHAKRA:

Highest **peacetime** gallantry award

Peacetime equivalent of **Param Vir Chakra** (wartime)

Awarded for bravery away from battlefield or distinguished service of conspicuous order

### GAGANYAAN PROGRAMME:

Agency: **ISRO** | Vehicle: **LVM3** (GSLV Mk III)

Target orbit: **400 km LEO** | Duration: **3–7 days**

Crew: **3 Indian astronauts** (all IAF test pilots)

TV-D1 test (crew escape system): **October 21, 2023** — successful

Crewed mission target: **2027**

### ISS FACTS:

Launched: **1998** (first module: Zarya) | Operational: **2000**

Partners: USA (NASA), Russia (Roscosmos), Europe (ESA), Japan (JAXA), Canada (CSA)

Altitude: **~400 km LEO** | Speed: **28,000 km/h** | Orbits Earth every **90 minutes**

Planned retirement: **2030** (de-orbit via SpaceX Dragon)

### OTHER RELEVANT FACTS:

Rakesh Sharma (1984): First Indian in space; Soyuz T-11; Soviet Salyut-7 station; said “Saare Jahan Se Achha” to PM Indira Gandhi

India-USA 2023 Space Framework: Signed at Modi-Biden summit, June 2023

NISAR satellite: NASA-ISRO joint Earth observation satellite

Axiom Space: Building first commercial space station (Axiom Station) post-ISS retirement (2030)

Yuri Gagarin: First human in space (April 12, 1961; Vostok 1; 108 minutes)

Sources: ISRO, PIB, The Hindu

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