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## It's a 'go' for **UAE Mission 2** lift-off today

SULTAN AL NEYADI SET TO EMBARK ON THE LONGEST ARAB SPACE MISSION

#### DUBAI

BY SAJILA SASEENDRAN Senior Reporter

'clogged filter' that caused the scrubbing of the Monday launch of Crew-6 mission to the International Space Station (ISS) has been fixed and the UAE Mission 2 with astronaut Sultan Al Neyadi is all set for lift-off today.

Nasa yesterday confirmed that it is a 'Go' for the Crew-6 mission, including Al Neyadi on the longest Arab space mission, at 9.34am (UAE time).

It also confirmed that the agency and SpaceX traced the 'TEA-TEB' ignition glitch that forced the first launch attempt to be scrubbed two and a half minutes before the lift-off, to a 'clogged filter' and SpaceX got it replaced.

"Mission teams stood down from a February 27 launch attempt to review an unusual data signature related to confirming a proper bleed in of pad supplied fluid known as triethylaluminum triethylboron (TEA-TEB)," said Nasa.

These announcements came after Nasa and SpaceX complet-



Sultan Al Neyadi

ed a launch readiness review. weather briefing, and mission management meeting.

#### Favourable weather

Weather officials continued to predict a 95 per cent chance of favourable weather conditions for the launch. SpaceX Falcon 9 rocket with Dragon spacecraft 'Endeavour' will launch from Launch Complex 39A from Nasa's Kennedy Space Centre in Florida.

After an approximate 24.5hour space transit, the crew will dock to the space-facing port of the microgravity laboratory's Harmony module about 10.17am GST on Friday. The live coverage begins at 6am here today.

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# DECKS CLEARED FOR AL NEYADI'S SPACE EXPEDITION TODAY Nasa confirms mission is a 'go' after SpaceX replaces clogged filter that caused ignition issue on Monday

DUBAI

BY SAJILA SASEENDRAN Senior Reporter

asa yesterday confirmed that the Crew-6 mission to the International Space Station, which includes UAE extraout Sultan

Space Station, which includes UAE astronaut Sultan Al Neyadi on the longest Arab space mission, is a 'go' today.

Nasa also confirmed that the agency and SpaceX traced the 'TEA-TEB' ignition glitch that forced it to 'scrub' (delay) the first launch attempt on Monday to a 'clogged filter' and SpaceX got it replaced.

Nasa said the launch is targeted at 9.34am GST today on a SpaceX Falcon 9 rocket and Dragon spacecraft from Launch Complex 39A from its Kennedy Space Centre in Florida.

#### 95% favourable weather

Weather officials with Cape Canaveral Space Force Station's 45th Weather Squadron continue to predict a 95 per cent chance of favourable weather conditions for Crew-6 launch, with the 'flight through precipitation rule' serving as the primary weather concern.

#### 24.5-hour space transit

Primary crew and mission specialist Al Neyadi, along with Nasa astronauts Stephen Bowen, mission commander, and Warren Hoburg, pilot, Roscosmos cosmonaut and mission specialist Andrey Fedyaev will travel to the space station for a science expedition mission.



Reuters

 Sultan Al Neyadi waves to his family and friends at Kennedy Space Centre in Cape Canaveral, Florida, on February 26.

ON GULFNEWS.COM



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All you need to know about Sultan Al Neyadi's historic expedition to space

After an approximate 24.5-hour transit, the crew will dock to the space-facing port of the microgravity laboratory's Harmony module about 10.17am GST tomorrow.

#### Live broadcast

The Mohammad Bin Rashid Space Centre (MBRSC) will broadcast the launch of the longest Arab space mission in Arabic. Live coverage begins on its website at 6am today. "With every moment that passes, the excitement mounts and ambition grows," it tweeted.

#### 'Ready for challenges'

Meanwhile, responding to Monday's launch scrub, Al Neyadi joked saying: "I promised my kids to return soon and I didn't mean this soon! Our crew is safe and our spirits are high."

He yesterday posted a verse

from a poem written by His Highness Shaikh Mohammad Bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai.

It is an ignition fluid used to start the Falcon 9 rocket's

nine first-stage engines. During pre-launch, the

fluid flows to the rocket's

interface and back to a

catch tank to remove gas

from the ground plumbing.

During engine start, it flows to the engines for ignition.

Flow into the catch tank is

one of several parameters

used to determine that the

fluid has been properly bled

into the system,

Nasa said.

"On a trail we tread where feet cannot reach, and rough terrain emerges, I relish the challenge to breach," the translation of the verse said.

Al Neyadi shared an image of himself in a spacesuit sporting the UAE flag and mission logo.

#### **SPACE JARGON**

Here's what awaits Crew-6 as they rendezvous with ISS

#### DUBAI

BY SAJILA SASEENDRAN Senior Reporter

f all goes according to plan, everyone following the UAE's second space mission will hear space jargon such as 'hatch', 'Harmony module', 'CASA' and 'Cupola'.



If the second launch attempt at 9.34am UAE time today goes smoothly, the Endeavor spacecraft carrying Crew-6 is likely to reach the International Space Station (ISS) at 10.17am tomorrow. It will dock at the space-facing port of the station's Harmony Module, known as the ISS' 'utility hub'. It acts as an internal connecting port to international science labs and cargo spacecraft and provides air, electrical power, water, and other systems essential to support life on the station.

The 'hatch opening' is expected to take place at 11.55am tomorrow. It is basically an opening on the ISS. A hatch at ISS is composed of two components: A hatchway (the opening itself) and a cover (the piece that closes the hatchway).

The seven-member Expedition 68 crew on the ISS will welcome the four-member SpaceX Crew-6 for Expedition 69. Living and working space in the ISS is no larger than a six-bedroom house. It has six sleeping quarters, two bathrooms, a gym, and a 360-degree view bay window. When there are more members aboard, the crew will have to organise makeshift arrangements dubbed CASA — an acronym for 'Crew Alternate Sleep Accommodation'. This will see some of them sleep in their Crew Dragon capsules. Casa means home in Spanish.

Now comes the cupola. If the Integrated Truss Structure (ITS) reaching 108.5 metres in length forms the backbone of the ISS, cupola is considered as the eye through which astronauts see the Earth (pictured). It is a small observatory domelike module designed for the observation of operations outside the station such as robotic activities, the approach of vehicles, and spacewalks. Its six side windows and a direct nadir viewing window provide spectacular views of Earth and celestial objects. The cupola also houses the robotic workstation that controls the robotic arm Canadarm2.

Al Neyadi said he would carry a camera for taking photos of watching Earth through the cupola.

"All astronauts run towards the Cupola to watch Earth or see Earth from there. I want to do it differently. I want to go there with a camera, hopefully. So I want to share that moment with everybody. I want to capture that moment of looking back, back towards Earth with everybody. Yeah, so that's probably the moment I'm looking forward to," he said.