

# PSLV-C44 TO LIFT-OFF WITH ADDED FEATURES

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ISRO chairman K. Sivan addresses a press conference at Antariksh Bhavan in Bengaluru on January 11, 2019. | Photo Credit: [PTI](#)

With the Indian Space Research Organisation (ISRO) planning to keep the fourth and final stage of the Polar Satellite Launch Vehicle (PSLV) 'alive' in space as a useful 'orbital platform', the rocket — popularly dubbed ISRO's trusted workhorse — is getting added features.

Set for lift-off this month with the Microsat-R payload, the upcoming PSLV-C44 mission will see a new variant of the PSLV in use. This variant, tagged PSLV-DL, will be the first to sport two strap-on boosters for providing added thrust.

Its final and fourth stage — PS4 — will be equipped with lithium-ion batteries, but no solar panels. An in-house technology, the lithium-ion cells are critical to keep the spent stage in orbit. Solar panels will be added, in all likelihood, in the next mission, Vikram Sarabhai Space Centre (VSSC) Director S. Somanath says.

ISRO had hit upon the idea of transforming the expendable fourth stage into a makeshift satellite to reduce space debris. In a normal scenario, the initial stages of the rocket, once they detach, drop back into the sea. However, stage four, after releasing the payload, wanders around in space as junk.

If the plan is successful, the spent stage will be automatically 'recycled' into a valuable platform for space-based experiments.

Mr. Somanath said ISRO would perfect the technology with tests spread over multiple missions. On the C44 mission, the ISRO will also test the downloading of data from the stage to the ground station. In subsequent missions, the space agency will carry out experiments using the platform.

China's Chang'e-4 lunar rover scripted history on January 3 when it made the first-ever soft landing on the far side of the moon and sent back

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