

## **DRDO developing new rifle launched grenade for forces**

*By Vijay Mohan*

Chandigarh: The Defence Research and Development Organisation (DRDO) is developing a new variant of a rifle-launched grenade having more advanced technical and safety features than the present generation of grenades.

The grenade, which has 40 mm caliber, can be launched from an “under-barrel launcher” (UBL) fixed to the fore of a standard issue rifle or from a multiple grenade launcher (MGL), a dedicated hand-held weapon used to fire grenades from a cylindrical magazine similar to that in a conventional revolver.

According to sources, the DRDO has invited the private industry to participate in its development and manufacturing. The project comes in the backdrop of the government identifying eight types of ammunition for manufacture by the private sector, including 40 mm grenades. According to reports, the Army has an annual requirement of about three lakh 40 mm grenades.

The grenade is being developed by the Armament Research and Development Establishment. At present, the Army is using two calibers of weapon-launched grenades. The 30 mm, which is fired from a heavy, tripod-mounted automatic grenade launcher, and the 40 mm variant that is fired from a UBL or MGL. Two types of UBLs—one designed by the DRDO is integrated with the rifle’s firing mechanism and a Russian variant that has its own trigger—are in use.

“Besides use of composite materials from the fabrication of the body of the new grenade, a major technological upgrade vis-à-vis the older grenades would be the use of advanced new generation fuses that trigger the detonation,” a DRDO scientist said. “Some additional reliability and safety features are also envisaged,” he added.

Recently, DRDO’s Chandigarh-based Terminal Ballistics Research Laboratory had developed advanced fuses for various kinds of service ordnance and warheads that are claimed to enhance the lethality, safety and reliability. A few years ago, it had also developed a hand-thrown grenade.

Grenades launched from a weapon give troops immense advantage in terms of enhancing their firepower, reach and accuracy as compared to handheld grenades. With weapon-launched grenades, targets such as troops, enemy posts and bunkers, vehicles and buildings can be engaged up to 400 metres.

### **Army’s annual requirement: 3 lakh**

- The 40 mm grenade can be launched from an ‘under-barrel launcher’ fixed to rifle or from a multiple grenade launcher
- The Army requires around 3 lakh 40 mm grenades annually

<https://www.tribuneindia.com/news/nation/drdo-developing-new-rifle-launched-grenade-for-forces/829870.html>



## **DRDO Chairman calls Chandrayaan 2 a very complex mission, lauds PM Narendra Modi for backing ISRO scientists**

*The DRDO chief said that PM Narendra Modi's hug and encouragement boosted the morale of ISRO scientists who were left heartbroken due to the last mile glitch in a hugely successful mission*

*By Tanweer Azam*

New Delhi: Defence Research and Development Organisation (DRDO) chairman Dr G Satheesh Reddy on Sunday lauded Prime Minister Narendra Modi for hugging and consoling ISRO chief Dr K Sivan after the latter broke down minutes after Chandrayaan 2's Vikram Lander lost contact with ISRO Command Centre in Bengaluru. The DRDO chief said that PM Modi's hug and encouragement boosted the morale of ISRO scientists who were left heartbroken due to the last mile glitch in a hugely successful mission.

Dr G Satheesh Reddy, Chairman of Defence Research & Development Organisation, on PM hugged & consoled ISRO Chief K Sivan after he(Sivan) broke down following #Chandrayaan2Landing: It's a great gesture by PM. It's great morale booster for scientists who saw last mile glitch in mission pic.twitter.com/Q8abhjONhL

— ANI (@ANI) September 8, 2019

"It's a great gesture by PM. It's great morale booster for scientists who saw the last mile glitch in mission," DRDO chief told ANI. Dr Reddy added that it seems that PM's gesture motivated ISRO scientists to again work on the mission and they started finding out the reason which caused the loss of communication between Vikram Lander and ISRO. "I think, after that gesture, ISRO scientists again started working on the mission, started looking for what actually happened; that's how they could locate the rover also," noted the DRDO chief.

Dr G Satheesh Reddy, Chairman of Defence Research & Development Organisation (DRDO): I think, after that gesture, ISRO scientists again started working on the mission, started looking for what actually happened & that's how they could locate the rover also.

#Chandrayaan2 <https://t.co/AC9KqRBrzK>

— ANI (@ANI) September 8, 2019

Dr Reddy also slammed Pakistani leaders for making fun of ISRO's mission and said that they are unaware of the complexity of the mission and these people have not got the basic courtesy to appreciate missions of such magnitude. "The people who haven't done anything of this class I don't think they can appreciate and probably they cannot understand the complexity of this mission," said Dr Reddy.

Dr G. Satheesh Reddy, Chairman of DRDO, on Pakistani ministers trying to ridicule Indian space programme: The people who haven't done anything of this class I don't think they can appreciate and probably they cannot understand the complexity of this mission.

#Chandrayaan2 pic.twitter.com/CzIN64TgkE

— ANI (@ANI) September 8, 2019

Calling Chandrayaan 2 a very complex mission, the DRDO chairman said that only those who have undertaken such missions will be able to appreciate the scientists who are involved in these missions.

"Chandrayaan 2 is a very complex mission. This type of a complex mission can be appreciated by those people who have also taken up such missions," he noted.

Earlier on Sunday, Indian Space Research Organisation (ISRO) chief had said that the location of Chandrayaan-2's Vikram Lander, which had lost contact with the space agency 2.1 km above the Moon's surface, has been found. The ISRO chief, however, added that communication with Vikram Lander was yet to be established.

"We have found the location of Vikram Lander on lunar surface and orbiter has clicked a thermal image of Lander. But there is no communication yet. We are trying to have contact. It will be communicated soon," said Sivan.

<https://zeenews.india.com/india/drdo-chairman-calls-chandrayaan-2-a-very-complex-mission-lauds-pm-narendra-modi-for-backing-isro-scientists-2233133.html>



Mon, 09 Sep 2019

## **DRDO Chief slams Pakistan ministers for mocking Chandrayaan-2**

*Pakistan's Science and Technology Minister Fawad Chaudhry  
had posted a series of tweets using the hashtag "India Failed"*

New Delhi: Defence Research and Development Organisation (DRDO) Chairman G Satheesh Reddy on Sunday hit out at Pakistani ministers for trying to ridicule Indian Space Research Organisation's (ISRO) Chandrayaan-2 Moon mission.

"I don't think the people who haven't done anything of this class can appreciate or understand the complexity of this mission. Chandrayaan-2 is a very complex mission. This type of complex mission can be appreciated by those people who have also taken up such missions," G Satheesh Reddy said.

It comes after Pakistan's Science and Technology Minister Fawad Chaudhry posted a series of tweets using the hashtag "India Failed" after ISRO lost contact with its Vikram lander.

The soft-landing of Chandrayaan-2's landing module, Vikram, did not go according to plan as all ground communication was lost with it just moments before the scheduled landing late on September 7.

The landing began minutes before 1:40 am Saturday, and then things went awry around 12 minutes after Vikram lander began its descent.

G Satheesh Reddy also praised PM Narendra Modi for hugging and consoling ISRO Chief K Sivan after he (Sivan) broke down after communication was lost with the Chandrayaan-2 lander.

G Satheesh Reddy said, "It's a great gesture by the prime minister. It's a great morale booster for scientists who saw the last-mile glitch in mission."

"I think, after that gesture, ISRO scientists have again started working on the mission, started looking for what actually happened and that's how they could locate the rover Pragyan also," G Satheesh Reddy said.

<https://www.indiatoday.in/science/chandrayaan-2-mission/story/drdo-chief-slams-pakistan-ministers-for-mocking-chandrayaan-2-1596976-2019-09-08>