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DRDO and SFC to look into why nuclear-capable Agni night test failed

The Strategic Forces Command conducted India's first night trial of the missile as part of its training, and the DRDO provided logistic support

By Snehesh Alex Philip

New Delhi: In a major setback, the first night trial of the 3,500 km range nuclear-capable ballistic missile, Agni-III, carried out by the Strategic Forces Command, the tri-service unit that oversees operations and security of nuclear weapons, failed after being tested at a defence base off the Odisha coast Saturday evening.

Officials are now studying the reasons for the failure of the missile that has been inducted into the Indian military.

"We will have to analyse all information gathered to really say what happened," a top government official told ThePrint when asked why the test failed.

This was the first night test of the missile, capable of carrying both conventional and nuclear warheads weighing up to 1.5 tonnes; a successful test would have validated the technical parameters set for the user and its readiness to handle the weapon during night hours.

As in all tests carried out by the user, the test missile was randomly picked from the lot it has been equipped with.

While the Strategic Force Command (SFC) conducted the trial as part of its training, the DRDO provided logistic support.

The New Indian Express reported that the missile "tumbled" into the sea after first phase separation.

"The missile travelled around 115 km into its initial flight trajectory when things went awry. It deviated from the flight path forcing the mission team to terminate it midway," the daily said quoting sources.

It added that the flight trajectory of the missile was set for nearly 2,800 km.

'Manufacturing defects may have caused failure'

The surface-to-surface missile carrying a dummy payload blasted off from an auto-launcher at the Abdul Kalam Island in full operational configuration at about 7.15 pm Saturday.

Though the exact fault behind the 'failure' is yet to be established, the daily said preliminary investigations attributed it to manufacturing defects.

"Starting from the launch to the first phase separation, everything was smooth in accordance with the mission plan," a source said. "But suddenly it started behaving abnormally. It could be possibly due to metallurgical defects."

While developmental trials of missiles are expected, the failure of a nuclear missile already inducted into the military is a concern.

Incidentally, the first test of the Agni-III in 2007 had failed, but it was still in developmental phase back then.

Agni-III missile is equipped with advanced high accuracy navigation system and is guided by what the DRDO says is an innovative guidance scheme.

When the SFC had carried out a successful test of the missile in 2013, an official statement from the government had said, “Such successful training launches clearly indicate our operational readiness to meet any eventuality as also establishes the reliability of this deterrent component of India’s Strategic arsenal”.

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Stock Daily Dish

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‘Mission Shakti is similar to Pokhran’

‘Others will think twice before attacking our space assets.’

When an Indian anti-satellite weapon shot down an Indian satellite 300 km in space in just three minutes, India became only the fourth country in the world to join an elite club, of nations with anti-satellite missile systems, after the United States of America, Russia and China.

How big is this DRDO-ISRO achievement? G Madhavan Nair, former ISRO chairman and now a , tells ‘s Shobha Warrier, “It is like the atomic weapon. It shows we have the strength, but will be used only for self-defence.”

How big is this achievement for India‘s space research?

Space has become an integral part of our society for most civilian applications and for some defence applications depending on the space-based system.

So, protecting this space-based system is absolutely important for the country. Developing the anti-satellite weapon is a step towards that.

This is actually a self-defence mechanism, you can say.

When we have satellites serving the people of the country, when a non-friendly country wants to attack us, the first thing they may target would be our satellites.

In such a situation, it is important that we have the capability to intervene such an attack, if at all it happens.

Also, in case the attack escalates, we should be able to take counter measures.

So, from that point, it is like the atomic weapon.

It shows that we have the strength, but will be used only for our self-defence.

In case we are driven to the wall, it can be a system to be used against also.

How do you describe the technology used in this?

Technology-wise, it is very intricate.

Though we know about rockets, trajectory, tracking system, etc, synthesising all these into a total new system and then demonstrating in real time is something that is of great technology challenge.

DRDO was taking the lead in this mainly. And they have achieved it.

With Mission Shakti, as it is named, have we become a space power or a military power?

I will say, both.

Space technology is something that needs to be protected and the defence system missile which can tackle any unfriendly spacecraft is an asset as well as a self-defence system.

So, it is a major milestone, a synthesis of the rocket system, tracking, mission computation and decision-making.

It is the coming together of all these. We have demonstrated to the world that we could do it.

The military significance is the system which can be designed as anti-missile can derive many elements out of this. For example, there is a commonality between the anti-satellite weapon and the anti-missile system.

What is the difference between an anti-satellite weapon and anti-missile system? What does an anti-satellite weapon do, strike down missiles?

No. We can down any flying object in the space which is hostile to us using the anti-satellite weapon.

The anti-missile system works like this: If somebody launches a missile to us, and we detect it at the appropriate time and send our missile to intercept it in the air and perhaps, destroy it over their land itself.

At the time of a war, you mean?

Yes, at the time of a war, the anti-missile weapon can be used.

Today, Russia and America have perfected this technology. China also have it.

We can use this technology in anti-missile weapons also.

Has any country used it anywhere?

I have not heard of anyone using it so far. But there were many demonstrations where they launched their own missiles over the sea and intercepted them from another ship.

An anti-satellite weapon can be used in space wars, they say. What does it mean?

We are heavily dependent on our space assets for our national needs and development. So, if at all somebody wants to corner us, they would first try to destroy our space assets.

Before they destroy our space assets, we can intervene and destroy their system using the anti-satellite weapon. So, an anti-satellite weapon is a defence system.

Now that India has this, others will think twice before attacking our space assets.

When we , you had said that as far as space technology was concerned, our priority was to use it for the welfare of the people. But this anti-satellite weapon…

This is to safeguard what we have developed.

For example, how do we protect the power stations and dams that serve the people? If some unruly element targets them, we stop it first. This is exactly like that.

The difference is this is to protect what is there on space. So, if somebody were to target our satellites which we use for our day to day life, we have to stop it before they are destroyed.

So, all those who have this weapon will use it only as a deterrent or a defence mechanism…

The international treaty stipulates that space should not be weaponised.

All of us are bound by this treaty and we will not make the first attempt to weaponise space. It is more like a precaution, I would say.

Did DRDO and ISRO work together in developing this?

No. ISRO‘s role was in launching satellites while DRDO was responsible for developing this.

The satellite was launched by ISRO and it was struck down by DRDO.

Why do you think the prime minister himself announced this?

You can say what we have done is something similar to Pokhran, but not of that magnitude. Next level, so to say. Theoretically, it has been there for 10 years or so, but at a nascent stage. It was Modiji who gave the thrust to the whole programme in the last couple of years.

He took a bold decision to go ahead and demonstrate to the world what we have achieved. Naturally, he can take the credit for that.

Political will and decisive power are very important in matters like these. He has shown that he is well above all the previous prime ministers in that respect.

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Mon, 02 Dec 2019

India shoots down live satellite, 4th country to do so

The missile hit a live satellite flying in a Low Earth Orbit after it traversed a distance of almost 300 km from earth within three minutes of its launch.

India shot down one of its satellites in space on Wednesday with an anti-satellite missile to demonstrate this complex capability, Prime Minister Narendra Modi announced, making it only the fourth country to have used such a weapon.

Declaring India has established itself as a global space power after the success of the operation 'Mission Shakti', Modi said the missile hit a live satellite flying in a Low Earth Orbit after it traversed a distance of almost 300 km from earth within three minutes of its launch.

Modi said the space mission in which scientists including from the state-owned Defence Research and Development Organistion were involved gave the country a 'new strength' and was an effort to secure a 'fast growing India'.

"A strong India can be a guarantor of peace in the region and beyond. Our strategic objective is to preserve peace, not prepare for war."

The announcement was made by the prime minister in a broadcast to the nation on television, radio and social media shortly before which he advertised his address on Twitter, calling it an 'important message'.

Modi's tweet set the social media abuzz for about half an hour triggering speculation on whether the address would be about Emergency or bringing back underworld don Dawood Ibrahim or killing terror outfit Jaish-e-Mohammed chief Masood Azhar or yet another surgical strike by the armed forces.

"A short while ago, India's scientists have successfully hit a target in space with an Anti-satellite or ASAT missile. The target was a live satellite which was flying in a Low Earth Orbit.

"The missile travelled a distance of almost 300 km from earth and hit the target within three minutes of its launch," Modi said shortly after noon in his address which he said is for a 'very special purpose'.

The address comes a fortnight before the start of the multi-phase Lok Sabha polls.

As Modi's announcement set off a political slugfest, DRDO chairman G Satheesh Reddy said the anti-satellite missile test is a reflection of the country's growing capability to develop critical technology and that it will act as a 'good deterrence',

IMAGE: A video grab shows Prime Minister Narendra Modi announcing the success of Mission Shakti. Photograph: PTI Photo

Reddy said the clearance for the project was given over two years ago.

"It is a great achievement for India," he told PTI.

Experts and former scientists said though India had the capability by 2012 to carry out a similar test, the political leadership at that time did not give a clearance to it.

According to former DRDO chief Vijay Saraswat, India had the capability to carry out the test in 2012-13 but there was no political clearance.

Former ISRO chairman G Madhavan Nair also said India had the anti-satellite missile capability over a decade ago but there was no political will at the time to demonstrate it. The Congress-led UPA was in power from 2004 to 2014.

The Bharatiya Janata Party targeted the previous United Progressive Alliance government for not demonstrating the anti-satellite missile capability when it was in power while Opposition leaders mocked the prime minister over his address to the nation.

The ministry of external affairs (MEA) came out a 10-point explainer to say the anti-satellite missile test was carried out to verify India‘s capability to safeguard space assets and that it was not directed against any country.

The MEA said the test was done in the lower atmosphere to ensure there is no space debris.

“Whatever debris that is generated will decay and fall back onto the earth within weeks.”

India has successfully demonstrated its capability to interdict and intercept a satellite in outer space based on complete indigenous technology, it said, adding that the satellite used in the mission was one of India‘s existing satellites operating in lower orbit while a ballistic missile defence interceptor was used to hit it.

Noting that India has achieved a remarkable success, Modi in his address said so far only three countries in the world — the US, Russia and China had this capability.

“Today, India has become the fourth country to acquire this status as a space power. There can be no bigger moment of pride for every Indian than this.”

Modi assured the international community that the new capability is not directed against anyone and it does not violate any international law or Treaty obligation to which India is a party.

“India has no intention to threaten anyone. This is an effort to secure a fast growing India,” he said, adding that defending and securing valuable space assets is equally important.

“From the point of view of India‘s security and economic development, today‘s ASAT missile will give the country new strength.”

The prime minister said all the objectives that were set by the scientists have been fulfilled and that it is a matter of pride for all in the country that the mission was accomplished using an indigenously developed ASAT missile.

“In the journey of every nation there are moments that bring utmost pride and have a historic impact on generations to come. One such moment is today.”

The announcement was preceded by a meeting of the Cabinet Committee on Security(CCS) presided by the prime minister.

Soon after his address to the nation, Modi interacted with scientists involved in ‘Mission Shakti‘ via video conference, a statement from the prime minister‘s office said.

The forces which work for peace and goodwill must remain ever-powerful to achieve it, he told them.

He told the scientists that the successful test firing of anti-satellite missile is in line with the government‘s ‘Make in India‘ initiative and the scientists involved in the project have proved that India can achieve any goal.

‘The prime minister said that India follows the philosophy of ‘Vasudhaiva Kutumbakam — the world is one family. He, however, also emphasised that the forces which work for peace and goodwill must remain ever-powerful for the achievement of peace,‘ the statement read.

Congratulating the scientists on their success, the PM said the entire nation is proud of the scientists for achieving what they had set out to accomplish.

‘The prime minister asserted that for global peace and regional peace, India should be capable and strong,‘ the statement said.

The scientists thanked the PM for giving them this opportunity to prove themselves, it said.

The Congress accused Modi of indulging in theatrics and playing politics over scientists‘ achievements while other opposition parties complained to the Election Commission alleging violation of Model Code of Conduct(MCC).

Sources in the Election Commission said issues related to national security and disaster management do not fall under the ambit of the model code.

Congress president Rahul Gandhi took a swipe at Modi wishing him ‘happy World Theatre Day‘ even as he congratulated the DRDO while Samajwadi Party chief Akhilesh Yadav said Modi got himself an hour of ‘free TV time‘ and diverted nation‘s attention away from issues on the ground.

Trinamool Congress chief and West Bengal Chief Minister Mamata Banerjee alleged that it was ‘yet another limitless drama‘ by Modi to ‘reap political benefits‘.

Union Finance Minister Arun Jaitley hit back at the opposition and accused the erstwhile United Progressive Alliance government of not granting scientists permission to build the country‘s own anti-satellite missile, saying it lacked ‘capability and clarity‘.

“While we are discussing national security and geo-political situation, the opposition is raising ‘clerical objections‘ in Mission Shakti. It reminds of the saying ‘when the finger points to the moon, the idiot always points to the finger,‘” Jaitley told reporters.

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