

### **Canisterised Agni 5 ICBM Test fired successfully**

India's ICBM Agni 5 was successfully test fired from a canister today 31 Jan 2015 at 0809 hrs. It was a historic moment when for the first time in India, an ICBM about 17m long and weighing over 50 ton majestically rose from the confines of its canister. At the predetermined moment, having risen to about 20 meters height, its first stage motor ignited lifting Agni 5 into the sky. The flight continued on its predetermined path during which the second, all composite light weight motor, followed by the third, innovatively designed conical all composite rocket motor propelled the missile into space taking it to a height of more than 600 km. The missile, after reaching peak of its trajectory turned towards earth to continue its journey towards the intended target with a speed now increasing due to the attraction of earth's gravitational pull and its path precisely directed by the advanced on-board computer and inertial navigation system. As the missile entered earth's atmosphere, the atmospheric air rubbing the skin of the missile during the re-entry phase raised the temperature to beyond 4000 degree Celsius. However, the indigenously designed and developed carbon-carbon composite heat shield continued to burn sacrificially protecting in the process the payload, maintaining the inside temperature below 50 degree Celsius. Finally, commanded by the on-board computer with a support of highly accurate ring laser gyro based inertial navigation system, the most modern micro inertial navigation system (MINS), fully digital control system and advanced compact avionics, the missile hit the designated target point accurately, meeting all mission objectives.

Shri Ajit Doval, National Security Advisor congratulated Dr Avinash Chander and the Mission team for the successful launch, over a tele-conversation.

Congratulating team Agni, Air Chief Marshal Anup Raha, PVSM, AVSM, VM, Chairman Chiefs of staff committee and Chief of Air Staff, who had witnessed the entire launch operations from the control room called it a great achievement. Lt Gen Amit Sharma AVSM, VSM, Cdr in Chief Strategic Forces Command, also present on the occasion, called it a fantastic achievement.

Addressing the gathering and project team, a happy and satisfied Dr Avinash Chander, Secretary DDR&D, SA to RM and DG DRDO said, "This is a momentous occasion. It is India's first ever ICBM launch from a canister and is a giant leap in country's deterrence capability". He termed it a copy book launch with entire command network functioning in loop. Dr Avinash Chander congratulated the entire DRDO community for the tremendous efforts put in by them in making the country self reliant in the area of long range missile systems. He thanked them for demonstrating such a great success on the last day of his work in DRDO. Dr Avinash said, "I cherished every moment of my service in DRDO and I thank you all for the relentless support given to me all through. I am leaving with a great satisfaction of equipping the country with such advanced missiles. I wish the entire DRDO community a great future".

Earlier, announcing the success of the mission, Dr VG Sekaran, Mission Director, Prog. Dir. Agni and DG Missiles and Strategic Systems said "All mission objectives have been achieved, down range ships have confirmed final splashdown, the mission is a great success and

it is a momentous occasion". A jubilant Dr Rajesh Kr Gupta, Project Director Agni5, described the success as "historic achievement; a dream fulfilled".

The Ships located in midrange and at the target point tracked the Vehicle and witnessed the final event. All the radars and electro-optical systems along the path monitored all the parameters of the Missile and displayed in real time.

The earlier two flights of Agni 5, fully successful were in open configuration and had already proved the missile. Today's launch from a canister integrated with a mobile sophisticated launcher, was in its deliverable configuration that enables launch of the missile with a very short preparation time as compared to an open launch. It also has advantages of higher reliability, longer shelf life, less maintenance and enhanced mobility.

Dr G Satish Reddy, DS & Director, RCI, Dr Manas K Mandal, DS & DG LS, Dr GS Malik, CCR&D HR, Dr Tessy Thomas, Director ASL, Dr PS Subramaniam DS & PGDCA and Dir ADA, Dr Manmohan Singh Dir VRDE, Shri Manjit Singh, Director TBRL and Dr SK Patel, Director Quality Reliability and Safety were among other senior DRDO scientists present on the occasion.

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