

India to Test Anti-Radiation Missile on Su-30MKI

India's Defense Research Development Organization (DRDO) scientists will test prototypes of indigenous new generation anti-radiation missile (NGARM) for captive flight trials on Su-30 MKI aircraft to validate its seeker, structural integrity, navigation and control system, and aerodynamic capability in June.

"India's DRDO scientists will undertake ground testing of NGARM in April and will develop two prototypes by June," Defence News quoted unnamed officials as saying Thursday.

The Indian Air Force (IAF) has raised objections to the NGARM which is under development. The 60-kilometer-range NGARM is too bulky, IAF officials said. DRDO is developing NGARM for the service's Mirage-2000H, Jaguar, Su-30 MKI and the upcoming Light Combat Aircraft.

"NGARM being developed by DRDO weighs around 140 kilograms and is too heavy, whereas IAF wants only such missiles that do not weigh over 100 kilograms; this one will not meet our requirement," said a senior Air Force official.

"DRDO has never kept us in the loop about this missile, and we are not sure if we will at all use it," the IAF official said, adding, "Infrared radiation seeker technology from Russia will make it too bulky."

However, one DRDO scientist said the missile should meet all Air Force fighter requirements: "We will make sure it is proven successful."

He claimed that NGARM is largely an indigenous missile. But one DRDO source said the agency could not develop the missile on its own and that DRDO has sought help from Russia for seeker technology.

NGARM's broadband seeker is able to pick up radiation or signals emitted by radars and communication systems, home onto the target and destroy the network.

DRDO for the first time is using a dual-pulse propulsion system instead of thrust propulsion for the NGARM, said a DRDO scientist. NGARM is a single-stage, solid-fueled system and is expected to be ready for induction in the next three years. It will be produced jointly by state-owned Bharat Dynamics and Bharat Electronics. NGARM will carry sensors and an RF seeker in its head, and a fixed antenna on its nose to detect radar by tracking its electro-magnetic radiation.

Currently the Air Force equips its Su-30 MKI fighters with the Russian Kh 35 missile, and uses the French Martel anti-radiation missile on its Jaguar and Mirage aircraft. The Air Force also is negotiating to buy AGM 88 missiles from the US and plans to induct more than 1,500 in the next five years. Alongside NGARM, DRDO is also planning to develop a ground-based anti-radiation missile to be launched from a mobile launcher but no details have been made public.

Rayat Bahra University organized National Conference



Mohali: A National Conference on “Recent Trends in Environment, Science and Technology” sponsored by DRDO and PSCST was organized by Rayat Bahra University School of Sciences. The aim of the conference was to bring the distinguished academicians, researchers and scholars together on one platform to accelerate excellence in academics and research, and to provide them an opportunity for initiating collaborative research projects.

The National Conference fetched around 200 research papers contributed by researchers, academicians, scientists and experts from industry across the country.

The Chief guest Dr. R.K. Kohli, Vice Chancellor, Cental University, Punjab, Bathinda, inaugurated the conference. Speaking on the occasion, Dr. Kohli motivated & enlightened the students to explore their potential & choose the right direction in research. He insisted that young brains need to be focused and what they carry in their brains, they need to implement those ideas in to innovations. He also sensitized the audience about the concept of sustainability and to urged them to device the technology to conserve the resources for future generations.

Dr. Manjit Singh Director, TBRL & DRDO and Dr. Neelima Jerath Executive Director, PSCST were the guests of honour

Dr. Manjit Singh, OS & Director, TBRL & DRDO enlightened the audience on the topic “Multifunctional Material for Protection Technologies.” He talked about how technology has changed from 300BC to 21st century. He discussed about ballistic technology that gives protection against small arms; He told about stealth technology & biological inspired technologies now days have been used in military forces.

Dr. Neelima Jerath Executive Director, PSCST, Chandigarh stated that though India has achieved a lot in the area of research & scientific paper publication yet there is a need to focus on quality research & citation of scientific findings. Being an environmentalist, Dr. Jerath talked about climate change, loss of biodiversity and suggested some mitigation measures to combat these problems. Talking about the impact of climate change, she stated that one-degree rise in temperature could destroy 5 million tons of wheat production in Punjab; hence there is a need to preserve our natural resources & to use the technology in a wiser way to minimize the environmental degradation.

Dr. S.K Bansal, Vice Chancellor, Rayat Bahra University, highlighting the importance of conference added that it not only provides a useful forum to the participants to share their expertise for extending collaboration in different disciplines but is also professionally beneficial to them as it broadens their horizon of research.

The participants presented papers in three different technical sessions. The first session was on Environment and Climate Change, chaired by Dr. Satnam Ladhar, Additional Director (PSCST), Chandigarh. The second session was on research related to Chemical, Physical and Life Sciences,

chaired by Dr. Dalip Kumar, Head of Bio-Technology PGGCG, Sec-42, Chandigarh. The third session was on Advances in Materials and Smart technologies, chaired by Prof. Rishav Garg, Head Civil Deptt., BUEST, Baddi. Expert lectures were included in all the three sessions. The expert lecture on Global Climate Change was delivered by Dr. Ajay Goyal Director, RIETT, Ropar. Prof. ManjitKaur gave her expert talk on “Recent advances in Particle Physics: Theory, Experiments and Technology.”