

Akash test fired successfully

Balasore (Odisha): India today successfully test-fired Akash its supersonic surface-to-air missile with indigenous radio frequency seeker from a test range in Odisha, officials said.

The state-of-the-art indigenous missile targeting an UAV 'Banshee', was fired from the launch complex-III of the Integrated Test Range (ITR) at Chandipur near here this afternoon. "The radars, telemetry and electro-optical systems along the coast have tracked and monitored all the health parameters of the missile," an official statement said.

The supersonic missile is the first surface-to-air missile with indigenous seeker to be test fired and is being inducted into the Army as short range surface to air missile. With the successful test firing, India has achieved the capability of making any type of surface to air missile, defence sources said.

Akash has a strike range of about 25 km and carries a 55- kg fragmentation warhead that is triggered by proximity fuse. It is an all-weather area air defence weapon system for defending vulnerable areas against medium range air targets penetrating from low, medium and high altitudes. Developed by the Defence Research and Development Organisation (DRDO), the Akash missile system has the capability to neutralise aerial targets like fighter jets, cruise missiles and air-to-surface missiles as well as ballistic missiles.

The system is designed to neutralise multiple aerial targets attacking from several directions simultaneously. The system is autonomous and its operation is fully automated. There is flexibility in deployment, they said. It uses state-of-the-art integral ram jet rocket propulsion system and the onboard digital autopilot ensures stability and control. Electro-pneumatic servo actuation system controls cruciform wings for agile response and thermal batteries provide onboard power supply.

The radio proximity fuse has advanced signal processing features. Together with the pre-fragmented warhead and safety arming mechanism, a high kill probability of manoeuvring targets is assured.

The launch operations were witnessed by Director General (Missiles) of DRDO and Scientific Adviser to the defence minister G Satheesh Reddy and other senior officials of the Defence Research and Development Organisation (DRDO). Reddy congratulated all the DRDO scientists and Armed Forces for the successful test firing of Akash, the statement said.



India successfully test fires surface-to-air Akash missile

India successfully test fires its indigenously-developed surface-to-air Akash missile as part of a user trial from the ITR at Chandipur

Balasore, Odisha: India on Tuesday successfully test-fired Akash its supersonic surface-to-air missile with indigenous radio frequency seeker from a test range in Odisha, officials said. The state-of-the-art indigenous missile targeting an UAV 'Banshee', was fired from the launch complex-III of the Integrated Test Range (ITR) at Chandipur near Balasore, today afternoon. "The radars, telemetry and electro-optical systems along the coast have tracked and monitored all the health parameters of the missile," an official statement said.

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(Online)

Akash Missile Successfully Tested With Home-Made Radio Frequency Seeker

The Akash missile can target aircrafts flying at 18 km altitude and has a range of 30 km.

New Delhi: India's indigenous surface-to-air missile Akash was successfully test fired on Tuesday, for the first time with a home-made radio frequency seeker, an official said. The missile can target aircrafts flying at 18 km altitude and has a range of 30 km.

Akash missile was successfully launched from the Launch Complex-III at Integrated Test Range at Chandipur in Odisha around 1:40 PM. "The radars, telemetry and electro-optical systems along the coast have tracked and monitored all the health parameters of the missile.

"With this success, India has achieved the capability of making any type of surface-to-air missile," the statement said.

The launch operations were witnessed by the Director General (Missiles) in the Defence Research and Development Organisation (DRDO) and Scientific Adviser to Defence Minister, G. Satheesh Reddy; Director of Defence Research and Development Laboratory (DRDL), M.S.R. Prasad; Programme Director G. Chandra Mouli; Director Integrated Test Range (ITR) B.K. Das and other top DRDO scientists.

This missile is being inducted into the army as Short Range Surface to Air Missile (SRSAM).

DRUSE Programme of DRDO: Apply by January 15



Defence Research and Development Organization (DRDO), Ministry of Defence, Government of India, has invited applications from teams of UG or PG Engineering students, under the DRDO Robotics and Unmanned Systems Exposition (DRUSE) Programme, aimed at harnessing the multifaceted talent available in the country on Robotics and Unmanned systems.

The DRUSE Programme is designed to serve as an open platform to popularize and synergize the national talent in the areas of robotics amongst students for conceptualization, design & development of unmanned systems for defence applications.

The ultimate objective of this exposition is to identify and nurture novel ideas from different parts of the country, to support India's defence forces to gain the decisive edge in future warfare. The exposition should be theme-based. However, the themes are not meant to restrict other ideas of relevance to potential defence applications. Participants can showcase their problem-solving capabilities considering utilization to defence applications. They can exhibit their innovative ideas through simulations,

concept papers, presentations or working models. These ideas shall be reviewed at multiple levels by screening committees consisting of experts. The participants can choose any approach to communicate their ideas that they consider most effective. The aim of participants should be to convince the screening committee on the utility of the idea and the capability to convert that idea to a reality.

Eligibility: This is a team based competition. Students can participate as a team only, with a minimum 3 members to a maximum of 5 members. Team members should be engineering students, presently pursuing UG or PG in either NIT/IIT/IISc or equivalent or in an institute recognized by AICTE/NAAC. Multi-institute participation is not permitted. All the participants should have valid Indian citizenship.

One of them should be the Team Leader, who will be the single point contact for technical queries & routine communication regarding the participation and entry. Each student team should have a permanent faculty of the institute as a guide. Team Guide has to be a faculty, who will be the single window contact for communication with regards to administrative issues & legal matters etc.

More than one Team can participate from a college/ institute/ university but the team leader and team members' should not overlap in case of multiple teams & should be

Proposal: Teams can exhibit Innovative ideas, Concepts through graphics, Concepts/technologies depicted through 2D/3D models, Simulation or Animation, Concept paper presentation, Mock up/working models, Prototype, Hardware and Posters. The participating teams will have to bear all the above expenses. The team will have to submit a 'Technical Proposal' in this regard. The medium of communication for the competition shall be English.

Guidelines for preparing Technical Proposal: The format of the proposal is given at https://rac.gov.in/druse/public/pdf/druse_annexure_3.pdf

Registration/Application: All participants will have to first register online at <https://rac.gov.in/druse/index/>, by creating a user login and password using valid mobile no/email id. They should then fill in the Registration Form and Pay the requisite registration fees of Rs. 500/- per team. They should then Upload the duly signed & scanned registration form, Upload the technical proposal in the given format with registration number at the bottom of every page. The Team Leader should select the correct state of their college/institution/university, which will decide their zone of participation at 2nd level of screening, if qualified.

Applicants should lock their submission before the last date. No changes will be

allowed after locking. Proposals have to be submitted latest by 1700 hrs IST, on 15th January, 2018.

Screening: There are three levels of screening. At first level of screening, the proposals shall be reviewed by experts. The first level screening results and Invitation for 2nd level of screening will be announced at the website, on 31st January 2018.

After first level of screening, shortlisted candidates will be called for second level of screening which will be technical presentations / exhibition at respective zonal centres. All the shortlisted teams shall be given cash award at the respective zonal centres. For second level of screening, the shortlisted teams will make their own arrangement for travel & stay at respective zonal centres.

Second level of screening at zonal centres (Exact date of screening for each zone will be intimated to the qualifying teams and published online in advance) will be made between 24th March 2018 and 15th April, 2018.

Winning 5 teams from each of the six zones will be called for 3rd level of screening at DRDO HQ, New Delhi to participate in Exposition and compete. The shortlisted teams will make arrangements for travel & stay at New Delhi. All the shortlisted teams shall be given cash award at DRDO HQ New Delhi. At third level of screening, the teams are required to submit their detailed design report. Any team failing to submit the detailed design report shall be disqualified.

List of finalists for 3rd level of screening and Invitation for 3rd level of screening will be announced online on 16th April 2018. The Evaluation of Exhibits at DRDO HQ, New Delhi will be on 10th May, 2018. Declaration of Winners & Award Ceremony for zonal & national level will be made at 1500 Hrs IST on 11th May, 2018.

The participants who have qualified the 1st level of screening are required to bring the original ID proof (mentioned in the registration form), original registration form and original technical proposal during 2nd and 3rd level screening of the exposition.

The Technical proposal submitted during the 2nd level of screening, shall be duly approved by the Head of the department or college/institute/ university before submission.

More details on the screening process is available at <https://rac.gov.in/druse/index/drusescreening>

By entering this exposition/competition, the participants expressly waive their right to have this proprietary information kept confidential. The information submitted by the participants will not be treated by DRUSE as confidential. Every team and individual who submits his or her data for the purpose of participating in this exposition/competition shall be deemed to have given express consent for the processing, use, retention or disclosure of such personal data for the purposes of the conduct of the competition.

By making a submission in the competition, all teams warrant and represent that to the best of their knowledge, their submission is original and does not violate or misappropriate any third party trade secret, 'know-how', copyright, patent or other intellectual property right.

Prize money: The prize money will be paid in INR to the Team Leader of a qualifying team. DRUSE will not entertain any dispute in this context. Taxes, if any, are the sole responsibility of the teams receiving prizes.

Awards: Zonal level awards (amount per team), will be as follows: First Prize-Rs. 30,000/-; Second Prize-Rs. 25,000/-; Third Prize-Rs. 20,000/-; Fourth Prize-Rs. 15,000/-; Fifth Prize-Rs. 10,000/-; Each participating team- Rs. 10,000/.

The national level awards will be as follows (amount per team): First Prize-Rs.1.5 Lakh; Second Prize-Rs.1 Lakh; Third Prize Rs. 0.5 Lakh; Each participating team-Rs. 20,000/-

For more details, visit <https://rac.gov.in/druse/index/>