

Induction of DRDO developed Naval Systems into Indian Navy a Curtain Raiser

Four Naval Systems developed by DRDO will be handed over to the Indian Navy by the Defence Minister Shri Manohar Parrikar at a function, here tomorrow. Chief of the Naval Staff Admiral Sunil Lanba will formally take over the systems from the Defence Minister which include ABHAY Compact Hull Mounted SONAR for Shallow Water Crafts, HUMSA UG Upgrade for the HUMSA SONAR System, NACS Near-field Acoustic Characterisation System, and AIDSS Advanced Indigenous Distress SONAR System for submarines. Secretary, Department of Defence R&D and Chairman DRDO Dr S Christopher will be present on the occasion.

The systems have been designed and developed by NPOL, a Kochi based premier laboratory of DRDO which has outstanding contributions and achievements in the design of SONAR systems for the Indian Navy to its credit. ABHAY is an advanced Active-cum-Passive integrated SONAR system designed and developed for the smaller platforms such as shallow water crafts and coastal surveillance/patrol vessels. Designed using the latest technology in hardware architecture and advanced signal processing algorithms, the SONAR is capable of detecting, localizing, classifying and tracking sub-surface and surface targets in both its active and passive modes of operation.

The prototype of this compact SONAR ABHAY installed onboard a nominated Naval platform has successfully completed all user evaluation trials to demonstrate the features as per the Naval Staff Qualification Requirements. Indian Navy has proposed to induct this SONAR on three of the ABHAY class ships. Intensifying the command over the high seas is the HUMSA-UG that is designed for upgrading the existing HUMSA SONAR system of the Indian Naval platforms. The hardware architecture is based on the state-of-the-art open architecture processor technologies that will enable smooth upgrade of the system capabilities. This system is proposed to be installed on seven ships of three different classes of ships.

NACS determines the in-situ performance of the SONAR systems which are used to find the frequency-dependent 3-D transmission and reception characteristics of the SONAR. It is also used to measure the magnitude and phase characteristics of the SONAR transmission and reception electronics and the transducers. The NACS has been integrated with the HUMSA-NG SONAR array and proved onboard Naval platforms and this will be fitted on all frontline ships.

NPOL has also developed AIDSS, a distress SONAR that is an Emergency Sound Signaling Device which is used to indicate that a submarine is in distress and enable quick rescue and salvage. It is a life-saving alarm system designed to transmit SONAR signals of a pre-designated frequency and pulse shape in an emergency situation from a submarine for long period, so as to attract the attention of Passive SONARS of Ships or Submarines in the vicinity and all types of standard rescue vessels in operation. It is also provided with a transponder capability. With the induction of these four systems, the underwater surveillance capability of the Indian Navy will get a boost, besides providing a fillip to the quest for self-reliance in this critical area of technology.

Locally made underwater sensors for Navy

One of them is a distress alert sonar system for Sindhughosh-class submarines

Four key underwater sensor systems, including a distress-alert system that will enable swift rescue of submariners in case of an eventuality, designed and developed by the Naval Physical and Oceanographic Laboratory (NPOL), the only Defence Research and Development Organisation (DRDO) laboratory in Kerala, will be delivered to the Navy on Friday.

Defence Minister Manohar Parrikar will hand over the systems to Admiral Sunil Lanba, Chief of the Naval Staff, at DRDO Bhavan.

The NPOL, which has over the decades raised the indigenous quotient of underwater sensor systems in use on Indian warships, is set to deliver Abhay, a compact hull-mounted sonar for use on shallow water crafts and smaller vessels; HUMSA-UG, which is an upgraded variant of its most successful hull-mounted sonar array system; NACS, a near-field acoustic characterisation system; and AIDSS, an advanced indigenous distress alert sonar system for submarines. Nine of the submarine distress alert systems will be installed on the Navy's Kilo-class (Sindhughosh-class) submarines.

A spokesperson of the laboratory said the latest set of systems further underscored the commendable performance of the naval cluster of the DRDO, especially the Thrikkakara-based laboratory whose sensors are deployed on surface vessels and submarines operated by the Indian Navy.

“Abhay — an active-cum-passive integrated sonar system designed and developed for smaller platforms such as shallow water crafts and patrol vessels for coastal surveillance — will be deployed on three Abhay-class corvettes in operation with the Navy to start with. Its export variant, HMS-X2, has also been cleared for export,” said the spokesperson.

The Abhay sonar is capable of detecting, localising, classifying and tracking sub-surface and surface targets in both its active and passive modes of operation. A prototype of the system, installed on a naval platform, has successfully completed all user evaluation trials as stipulated by the Naval Staff Qualification Requirements.

While the new-generation HUMSA is already in operation on vessels of various classes in the Navy, its upgraded version, HUMSA-UG with state of the art open architecture processor technologies, will be installed on seven naval ships across three classes.

The NACS is a health monitoring system that will be used to determine the in-situ performance of the sonars. “It will be used to find the frequency-dependent 3-D transmission and reception characteristics of the sonar. The NACS has been integrated with a previous variant of the HUMSA sonar, the HUMSA-NG, and proven on board warships. It will be fitted across platforms now.

The last is an emergency sound-signalling device that will speed up submarine rescue and salvage by indicating that its in distress. “It is a life-saving alarm system designed to transmit sonar signals of a pre-designated frequency and pulse shape in an emergency situation from a submarine for a long period, so as to attract the attention of passive sonars of ships, nearby submarines and all types of standard rescue vessels.

Locally made underwater sensors for Navy

A graphic representation, sourced from DRDO, shows deployment of the four sonar systems of NPOL on naval ships and submarines. One of them is a distress alert sonar system for Sindhughosh-class submarines. Four key underwater sensor systems, including a distress-alert system that will enable swift rescue of submariners in case of an eventuality, designed and developed by the Naval Physical and Oceanographic Laboratory (NPOL), the only Defence Research and Development Organisation (DRDO) laboratory in Kerala, will be delivered to the Navy on Friday. Defence Minister Manohar Parrikar will hand over the systems to Admiral Sunil Lanba, Chief of the Naval Staff, at DRDO Bhavan.



The NPOL, which has over the decades raised the indigenous quotient of underwater sensor systems in use on Indian warships, is set to deliver Abhay, a compact hull-mounted sonar for use on shallow water crafts and smaller vessels; HUMSA-UG, which is an upgraded variant of its most successful hull-mounted sonar array system; NACS, a near-field acoustic characterisation system; and AIDSS, an advanced indigenous distress alert sonar system for submarines. Nine of the submarine distress alert systems will be installed on the Navy's Kilo-class (Sindhughosh-class) submarines. A spokesperson of the laboratory said the latest set of systems further underscored the commendable performance of the naval cluster of the DRDO, especially the Thrikkakara-based laboratory whose sensors are deployed on surface vessels and submarines operated by the Indian Navy. "Abhay — an active-cum-passive integrated sonar system designed and developed for smaller platforms such as shallow water crafts and patrol vessels for coastal surveillance — will be deployed on three Abhay-class corvettes in operation with the Navy to start with. Its export variant, HMS-X2, has also been cleared for export," said the spokesperson. The Abhay sonar is capable of detecting, localising, classifying and tracking sub-surface and surface targets in both its active and passive modes of operation.

A prototype of the system, installed on a naval platform, has successfully completed all user evaluation trials as stipulated by the Naval Staff Qualification Requirements. While the new-generation HUMSA is already in operation on vessels of various classes in the Navy, its upgraded version, HUMSA-UG with state of the art open architecture processor technologies, will be installed on seven naval ships across three classes. The NACS is a health monitoring system that will be used to determine the in-situ performance of the sonars. "It will be used to find the frequency-dependent 3-D transmission and reception characteristics of the sonar. The NACS has been integrated with a previous variant of the HUMSA sonar, the HUMSA-NG, and proven on board warships.

Thu, 17 Nov, 2016

(Online)

Indian Sonar System cleared for Export

India plans to export an integrated sonar system designed for small naval platforms meant for coastal surveillance.

The system called 'Abhay' will be deployed on three Abhay-class corvettes in operation with the Indian Navy, **The Hindu** reported today quoting a spokesperson of a laboratory of India's Defense Research and Development Organisation (DRDO) as saying.

The export variant of 'Abhay' is called HMS-X2 and has been cleared for export; the spokesperson was quoted as saying.

The Abhay sonar is capable of detecting, localising, classifying and tracking sub-surface and surface targets in both its active and passive modes of operation. A prototype of the system, installed on a naval platform, has successfully completed all user evaluation trials as stipulated by the Naval Staff Qualification Requirements.

On Friday, including compact Hull Mounted Sonar Abhay, four Naval Systems developed by DRDO will be handed over to the Indian Navy Chief of the Naval Staff Admiral Sunil Lanba from defense minister.

The DRDO's Naval Physical and Oceanographic Laboratory (NPOL) will also be delivering a distress-alert underwater sensor system that enables quick rescue of submariners in case of an eventuality to the Navy. Nine of the submarine distress alert systems will be installed on the Navy's Kilo-class (Sindhughosh-class) submarines.

The deliveries also include HUMSA-UG an upgraded variant of its most successful hull-mounted sonar array system.

While the new-generation HUMSA is already in operation on vessels of various classes in the Navy, its upgraded version, HUMSA-UG with open architecture processor technologies, will be installed on seven naval ships across three classes.



Thu, 17 Nov, 2016

(Online)

Navy inducts 4 types of indigenously developed sonars

New Delhi: Navy today formally inducted four types of indigenously developed sonars that will boost its underwater surveillance capability.

The systems included Abhay - compact hull mounted sonar for shallow water crafts, Humsa UG - upgrade for the Humsa sonar system, NACS - Near-field Acoustic Characterisation System, and AIDSS - Advanced Indigenous Distress sonar system for submarines.

Defence Minister Manohar Parrikar, who today handed over the sonars to the Navy, praised the force along with DRDO and said he expects more synergy in the coming days.

The systems have been designed and developed by NPOL, a Kochi based laboratory of DRDO.

With the induction of these four systems, the underwater surveillance capability of the Indian Navy will get a boost, besides providing a fillip to the quest for self-reliance in this critical area of technology.

Abhay is an advanced active-cum-passive integrated sonar system designed and developed for the smaller platforms such as shallow water crafts and coastal surveillance/patrol vessels.

It is capable of detecting, localizing, classifying and tracking sub-surface and surface targets in both its active and passive modes of operation.

The prototype of this compact sonar installed onboard a nominated naval platform has successfully completed all user evaluation trials to demonstrate the features as per the Naval Staff Qualification Requirements.

Indian Navy has proposed to induct this SONAR on three of the Abhay class ships.

Intensifying the command over the high seas is the Humsa -UG that is designed for upgrading the existing Humsa sonar system.

This system is proposed to be installed on seven ships of three different classes of ships. AIDSS is a distress sonar is an Emergency Sound Signaling Device which is used to indicate that a submarine is in distress and enable quick rescue and salvage.

It is a life-saving alarm system designed to transmit sonar signals of a pre-designated frequency and pulse shape in an emergency situation from a submarine for long period, so as to attract the attention of passive sonars of ships or submarines in the vicinity and all types of standard rescue vessels in operation. It is also provided with a transponder capability.



Thu, 17 Nov, 2016

(Online)

RUSTOM-2's maiden flight successful, DRDO boosts 'Make in India' initiative

DRDO successfully carried out the maiden flight of TAPAS 201 (RUSTOM-II) thus giving a fillip to Prime Minister Narendra Modi's Make in India initiative.

Hyderabad: Giving a boost to Prime Minister Narendra Modi's 'Make in India' initiative, the Defense Research and Development Organization (DRDO) on Wednesday heralded a new beginning of indigenous development of Unmanned Aerial Vehicle (UAV). In a major success, the DRDO successfully carried out the maiden flight of TAPAS 201 (RUSTOM-II). RUSTOM-II is a medium Altitude Long Endurance (MALE) UAV which is a drone for surveillance and attack.

The test flight took place from Aeronautical Test Range (ATR), Chitradurga, 250 km from Bangalore and completed its main objectives of proving the flying platform like take-off, bank, level flight and landing.. Chitradurga is a newly developed flight test range for the testing of UAVs and manned aircraft.

TAPAS 201 is a multi-mission UAV that is being developed to carry out the Intelligence, Surveillance and Reconnaissance (ISR) roles for the three Armed Forces with an endurance of 24 hours. As per reports by *TOI*, the UAV is been designed and developed by Aeronautical Development Establishment (ADE), the Bangalore-based premier lab of DRDO with HAL-BEL as its production partner.

The UAV weighs two tonnes and is also the first R&D prototype UAV which has undergone certification and qualification for the first flight from the Center for Military Airworthiness & Certification (CEMILAC) and Directorate General of Aeronautical Quality Assurance (DGAQA), *TOI* reported. Rustom- II will undergo further trials for validating the design parameters, before going for User Validation Trials.

TAPAS 201 is capable of carrying Medium Range Electro Optic (MREO), Long Range Electro Optic (LREO), Synthetic Aperture Radar (SAR), Electronic Intelligence (ELINT), Communication Intelligence (COMINT) and Situational Awareness Payloads (SAP) to perform missions during day and night.

The development of UAV immensely contributes towards the Make-in-India initiative as many critical systems such as airframe, landing gear, flight control and avionics sub-systems are being developed in India with the collaboration of private industries. Defence Electronics Application Laboratory (DEAL) of DRDO has developed the data link for the UAV.

THE ASIAN AGE

Thu, 17 Nov, 2016

Rustom-II success adds to India's UAV capability

Rustom-II will undergo further trials for validating the design parameters, before going for user validation trials.

New Delhi: In a big boost to India's unmanned aerial vehicles (UAV) programme, the indigenously developed long-endurance combat-capable drone — Rustom-II — successfully completed its maiden-flight on Wednesday.

Designed and developed by Aeronautical Development Establishment (ADE), the Bengaluru-based lab of DRDO with HAL-BEL as the production partners, two-tonne TAPAS 201 (Rustom-II) is a medium altitude long endurance (MALE) UAV.

With an endurance of 24 hours, besides ability to conduct intelligence gathering, surveillance and reconnaissance missions, it can also be used as an unmanned armed combat vehicle on the lines of the US's Predator drone. The test flight took place from Aeronautical Test Range (ATR), Chitradurga, 250 km from Bengaluru, which is a newly-developed flight test range for the testing of UAVs and manned aircraft.

A defence ministry statement said the flight achieved its objectives of proving the flying platform with successful take-off, banking, level flight and landing among others.

It is also the first R&D prototype UAV to have undergone certification and qualification for the first flight from the Centre for Military Airworthiness & Certification (CEMILAC) and Directorate-General of Aeronautical Quality Assurance (DGAQA).

Many critical systems such as airframe, landing gear, flight control and avionics sub-systems are being developed in India with the collaboration of private industries. Rustom-II will undergo further trials for validating the design parameters, before going for user validation trials.



Thu, 17 Nov, 2016

Online

Rustom-II UAV successfully completes maiden test flight

New Delhi (Pti): Rustom-II, India's indigenously developed long-endurance combat-capable drone, on Wednesday successfully completed its maiden-flight, giving a boost to India's development programme for Unmanned Aerial Vehicles (UAV).

The DRDO successfully carried out the maiden-flight of TAPAS 201 (RUSTOM II), a Medium Altitude Long Endurance (MALE) UAV. It has an endurance of 24 hours and can conduct surveillance and reconnaissance missions for the country's armed forces.

The UAV can also be used as an unmanned armed combat vehicle on the lines of the US's Predator drone.

The test flight took place from Aeronautical Test Range (ATR), Chitradurga, 250 km from Bangalore, which is a newly developed flight test range for the testing of UAVs and manned aircraft.

The flight accomplished the main objectives of proving the flying platform, such as take-off, bank, level flight and landing among others, a statement by the Defence Ministry said.

TAPAS 201 has been designed and developed by Aeronautical Development Establishment (ADE), the Bangalore-based lab of DRDO with HAL-BEL as the production partners.

The UAV weighing two tonnes was put into air by a dedicated team of young scientists of DRDO. It was piloted (external and internal) by the pilots from the armed forces.

It is also the first R&D prototype UAV which has undergone certification and qualification for the first flight from the Center for Military Airworthiness & Certification (CEMILAC) and Directorate General of Aeronautical Quality Assurance (DGAQA).

TAPAS 201, a multi-mission UAV is being developed to carry out Intelligence, Surveillance and Reconnaissance (ISR) roles for the three armed forces with an endurance of 24 hours.

It can carry different combinations of payloads like Medium Range Electro Optic (MREO), Long Range Electro Optic (LREO), Synthetic Aperture Radar (SAR), Electronic Intelligence (ELINT), Communication Intelligence (COMINT) and Situational Awareness Payloads (SAP) to perform missions during day and night.

Many critical systems such as airframe, landing gear, flight control and avionics sub-systems are being developed in India with the collaboration of private industries. Rustom-II will undergo further trials for validating the design parameters, before going for User Validation Trials.

IHS Jane's 360

Thu, 17 Nov, 2016

(Online)

India's indigenous Rustom-II UAV completes maiden flight

India's locally developed Rustom-II medium-altitude long-endurance unmanned aerial vehicle (MALE UAV) completed its maiden test flight at the aeronautical test range in Chitradurga, near Bangalore, on 16 November.

Official sources told *IHS Jane's* that the test flight was limited to a 100 km range even though the UAV's operational range to conduct intelligence, surveillance and reconnaissance (ISR) missions for all three of India's services is expected to reach to 250 km.

India's Ministry of Defence (MoD) said in a statement that the test flight achieved the main objectives of testing the platform's capabilities such as take-off, banking, level flying, and landing.

Developed by the Aeronautical Development Establishment of India's Defence Research and Development Organisation (DRDO) and Bharat Electronics Limited, the first prototype of the 1.8-tonne multimission UAV - known as TAPAS 201 - has a 21 m wingspan, a capacity payload of 350 kg, an endurance of over 24 hours, and an operational ceiling of 10,660 m (34,776 feet), according to the MoD.

The public sector Hindustan Aeronautics Limited is also a production partner in the programme.

The MoD said that the Rustom-II/TAPAS 201 is capable of carrying medium- and long-range optic sensors, synthetic aperture radar, electronic intelligence, communication intelligence, and situational awareness payloads for round-the-clock operations.

The UAV is powered by two Russian NPO Saturn 36T turboprop engines rated at 100 hp each. The UAV's airframe, landing gear, digital flight control, avionic, and navigational systems have all been sourced locally from public and private sector companies.

DRDO officials said the Rustom-II/TAPAS 201 would undertake further trials to validate its design parameters before conducting user trials with the respective services.

The UAV is a derivative of the Rustom-I, which conducted its first test flight in October 2010 and was designed primarily as a test bed for more advanced variants. However, DRDO sources said that the Rustom-I is also expected to enter limited service, possibly with the Indian Navy.



Thu, 17 Nov, 2016

(Online)

DRDO successfully carries out maiden flight of UAV RUSTOM-II

The Defence Research and Development Organization (DRDO) on 16 November 2016 successfully carried out maiden flight of TAPAS 201 (RUSTOM – II), a Medium Altitude Long Endurance (MALE) Unmanned Aerial Vehicle (UAV). The test flight took place from Aeronautical Test Range (ATR) at Chitradurga, a newly developed flight test range for the testing of UAVs and manned aircraft.

Highlights of TAPAS 201 (RUSTOM – II)

It was designed and developed by Aeronautical Development Establishment (ADE), the Bangalore-based premier lab of DRDO.

- It is the first R&D prototype UAV which got the certification and qualification for the first flight from the Center for Military Airworthiness & Certification and Directorate General of Aeronautical Quality Assurance.
- It will carry out the Intelligence, Surveillance and Reconnaissance (ISR) roles for the three Armed Forces with an endurance of 24 hours.
- It is capable to carry diverse combinations of payloads like Medium Range Electro Optic (MREO), Long Range Electro Optic (LREO), Electronic Intelligence (ELINT), Communication Intelligence (COMINT) and Situational Awareness Payloads (SAP). • The data link for the UAV was developed by Defence Electronics Application Laboratory (DEAL) of DRDO.



Thu, 17 Nov, 2016

Online

DRDO's combat drone Rustom-2 takes to sky for the first time

Defence Research and Development Organisation (DRDO), on Tuesday completed the first flight test of its long-endurance unmanned combat aerial vehicle (UCAV), Rustom -2, after considerable delay.



The UCAV, a 'medium-altitude, long-endurance' (MALE) category unmanned aerial vehicle, completed its first flight early on Tuesday, in Challakere, about 200km from Bengaluru.

Designed and developed by the Aeronautical Development Establishment (ADE) of the DRDO, the vehicle is reported to have "met all the

expectations" during the first flight. First scheduled in late 2013, the three-year delay of the first flight, however, had cost the country dear as the armed forces are looking outside the country for combat drones, and has already struck deals with Israeli firms.



Thu, 17 Nov, 2016

Online

India's Rustom II makes flight debut

The Indian-developed Rustom II unmanned air vehicle has carried out its maiden flight at a specialised test range in the south of the country. Development of the UAV has been led by the Aeronautical Development Establishment (ADE), which is part of India's Defence Research and Development Organisation (DRDO). Performed on 16 November, the debut flight was intended to prove the aircraft's take-off, banking, level flight and landing performance. The activity was carried out at the Aeronautical Test Range – a newly developed facility for testing UAVs, according to the DRDO.

Touted as a "new era" for India in its development of UAVs, the programme is expected to result in a medium-altitude, long-endurance unmanned system with an endurance of 24h. The DRDO has renamed it the Tapas 201. The Tapas 201 was piloted by military personnel during the flight, and is described as the first prototype UAV to have undergone certification and qualification for its first flight from both the Center for Military Airworthiness & Certification and the Directorate General of Aeronautical Quality Assurance.

Once ready for operational use, the Tapas 201 is expected to be employed by all three Indian services. It will be able to carry a variety of surveillance payloads, according to the DRDO, with one of its divisions having developed the air vehicle's data link. Further trials will be conducted before the UAV enters a user validation trial phase, the DRDO says.

The milestone flight was conducted five years after the predecessor Rustom I made a 12min debut from Hosur, near Bengaluru. Also developed by the ADE, the tactical UAV had a planned endurance of 12-15h. India is striving to bolster its UAV inventory through a mix of acquisitions, in-country developments with the help of international partners, and indigenous designs such as the Rustom II. New Delhi's military largely operates Israeli-developed UAVs at present, including the Israel Aerospace Industries Heron and Searcher systems.



Thu, 17 Nov, 2016

RUSTOM-II COMPLETES ITS MAIDEN-FLIGHT
New Delhi: Rustom-II, India's indigenously developed long-endurance combat-capable drone, on Wednesday successfully completed its maiden-flight, giving a boost to India's development programme for Unmanned Aerial Vehicles (UAV).

अमेरिकी ड्रोन को टक्कर देगा भारतीय रुस्तम-2



दो साल की देरी से लड़ाकू ड्रोन रुस्तम-2 ने मंगलवार को पहली उड़ान भरी। रुस्तम-2 यानी रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) का अनमंडेड काम्बैट एयर व्हीकल (यूसीएवी या ड्रोन)। दो इंजनों से लैस यह भारतीय ड्रोन अमेरिकी लड़ाकू ड्रोन की टक्कर में बनाया गया है। रुस्तम-2 को जंग के मैदान के अलावा नेवीगेशन के लिए भी इस्तेमाल किया जा सकता है। भविष्य में डीआरडीओ इसे तीनों सेनाओं को सौंप सकता है।

9.5 मीटर
रुस्तम-2 की लंबाई

20 मीटर
डेनों की लंबाई

1000 किमी
उड़ान सीमा

35 हजार
फीट की ऊंचाई पर उड़ान भरने में सक्षम

24-30 घंटे
तक भर सकता है उड़ान

350 किग्रा
वजन लेकर उड़ सकता है

225 किमी
प्रति घंटा अधिकतम रफ्तार

250 किमी
दूरी तक मिसाइल से वार करने में सक्षम

250 किमी
दूरी तक सूचना देने लेने में सक्षम

विकास क्रम

► 2010 में डीआरडीओ ने अमेरिकी लड़ाकू ड्रोन आरक्यू-1 की टक्कर का ड्रोन



बनाए जाने की बात स्वीकारी

► 2012 में इसका डिजाइन तैयार
► सितंबर, 2013 में बेंगलूर की कोलार एयरफील्ड में परीक्षण शुरू
► फरवरी, 2014 को इसकी पहली उड़ान प्रस्तावित थी। लेकिन कुछ कारणों से यह टलती गई।

भारत के पास दो सौ से अधिक ड्रोन

ड्रोन	बनाने वाला देश	संख्या	रोल
आइएआइ हार्पी	इजरायल	5+	लड़ाकू
आइएआइ हेरोन	इजरायल	10	लड़ाकू
आइएआइ हेरोन	इजरायल	50+	नेवीगेशन
आइएआइ सर्वर	इजरायल	100+	निगरानी व तलाशी
डीआरडीओ निशांत	भारत	12+	निगरानी व तलाशी
डीआरडीओ लक्ष्य	भारत	39	हवाई टारगेट प्रणाली

अमेरिकी आरक्यू-1

यह ड्रोन 24 घंटे लगातार 217 किमी प्रति घंटा रफ्तार से 1,100 किमी की दूरी तक 25 हजार फीट



पर उड़ान भर सकता है। इसमें हेलफायर, स्टिंगर, ग्रिफिन जैसी शक्तिशाली मिसाइलें इस्तेमाल होती हैं। अमेरिका ने इसका इस्तेमाल अफगानिस्तान, पाकिस्तान, ईरान, यमन, लीबिया, सोमालिया, सीरिया और फिलीपींस जैसे देशों में किया।

तैयारी जारी: डीआरडीओ इसके लिए हेलिना नामक एयर लांच एंटी आर्मर सिस्टम भी तैयार कर रहा है। वहीं अन्य मिसाइलें भी लगाने पर शोध हो रहा है।



आइएआइ हेरोन की जगह लेगा : रुस्तम-2 को इजरायली आइएआइ हेरोन नेवीगेशन ड्रोन की जगह लेने या उसके साथ इस्तेमाल के लिए बनाया गया है। हेरोन एक बार में 52 घंटे तक लगातार उड़ान भरने में सक्षम है। 350 किमी उड़ान सीमा के साथ यह 207 किमी प्रति घंटे की रफ्तार से दस हजार फीट की ऊंचाई पर उड़ान भर सकता है।

जनसत्ता

ड्रोन रुस्तम-2 का पहला परीक्षण सफल

नई दिल्ली, 16 नवंबर (भाषा)।

भारत के लड़ाकू क्षमता वाले देशी ड्रोन रुस्तम-2 का बुधवार को पहला सफल परीक्षण किया गया। इससे मानवरहित वायुयान के विकास कार्यक्रम को प्रोत्साहन मिला है।

डीआरडीओ ने तापस 201 (रुस्तम - 2) का सफल परीक्षण किया जो मध्य ऊंचाई पर लंबी अवधि का मानवरहित विमान है। यह 24 घंटे तक उड़ान भर सकता है और देश के सशस्त्र बलों के लिए टोही मिशन का काम कर सकता है। इस मानवरहित यान को अमेरिका के प्रिडेटर ड्रोन की भांति मानवरहित

लड़ाकू यान के रूप में उपयोग में लाया जा सकता है। इसका परीक्षण बंगलुरु से करीब 250 किलोमीटर दूर चित्रदुर्ग में एअरोनॉटिकल टेस्ट रेंज से किया गया। मानवरहित यानों व मानवविमानों के परीक्षण के लिए नवविकसित उड़ान परीक्षण स्थल है। तापस 201 का डिजाइन और विकास डीआरडीओ की बंगलुरु की प्रयोगशाला एअरोनॉटिकल डेवलपमेंट एस्टैब्लिशमेंट और एचएएल-बीइएल ने मिल कर किया है। इसका वजन दो टन है और डीआरडीओ के युवा वैज्ञानिकों की एक समर्पित टीम ने इसका परीक्षण किया। इसमें सशस्त्र बलों के पायलटों ने सहयोग किया।