

समाचार पत्रों से चयित अंश Newspapers Clippings

दैनिक सामयिक अभिज्ञता सेवा
A daily Current Awareness Service

Vol. 42 No. 292 31 December 2017



रक्षा विज्ञान पुस्तकालय
Defence Science Library
रक्षा वैज्ञानिक सूचना एवं प्रलेखन केन्द्र
Defence Scientific Information & Documentation Centre
मैटकॉफ हाऊस, दिल्ली 110054
Metcalf House, Delhi- 110054

Artillery gun Dhanush's induction into Army delayed

After accidents during user exploitation trials of the gun, a Board of Inquiry is under way

By- Dinakar Peri

After accidents during the final phase of user exploitation trials, the induction of the Dhanush artillery gun into the Army has been delayed.

The Dhanush is an upgraded version of the Swedish 155-mm Bofors howitzers, which India procured in the mid-1980s, based on its original designs.

“There were two accidents in May and July during user exploitation trials. A Board of Inquiry is under way to determine the cause of the incident. As part of it, there will be an investigative firing likely to take place next month,” a defence official said.

The upgrade is being done by the Ordnance Factory Board (OFB) based on the requirements of the Army. To a query from *The Hindu*, the Board said that the Army was satisfied with the Dhanush gun, but before accepting it, wanted to do a wider exploitation of six guns prior to the grant of the bulk production clearance.

“So far, the exploitations have been carried out satisfactorily in the Pokhran and Babina field firing ranges and the Leh high-altitude range with three guns at each location. Further, these six guns altogether were fired at Pokhran in May 2017 and July 2017. Defects in the muzzle brake have been found in two guns and investigations are under process,” U. Mukherjee, OFB spokesperson, said in a written reply.

Dr. Mukherjee said these six guns would be further offered to the Army for balance user exploitations likely by February-March 2018, after carrying out internal firings. “It is expected that BPC [bulk production clearance] will be accorded immediately after completion of the user exploitations,” he said.

Better range

Dhanush is a 155-mm, 45-calibre gun with a maximum range of 40 km in salvo mode compared to the 39-calibre, 27-km range of the original guns. “The user exploitation trials are almost over. They will be inducted in 2018,” another official said.

The Army, which has not inducted any new artillery guns since the Bofors guns, is keen on inducting Dhanush. Other deals too are in the pipeline.

A project management team is working on this project at the Gun Carriage Factory, Jabalpur, and the Army has decided not to shift its personnel till the project is complete.

“To ensure continuity of the project, approval from the Vice-Chief was taken for continuity of personnel till 2020.”

The Army has placed an initial order for 114 guns and is expected to order another 400 more. As per earlier plan, the first regiment with 18 guns was to be inducted by 2017-end and the remaining guns in batches of 36 and 60 by 2019.

Maintaining vigil

Sun, 31 Dec, 2017



Close watch a naval submarine on patrol off the coast of Visakhapatnam on Saturday.

K.R. Deepak

Business Standard

Sun, 31 Dec, 2017

Russian tankers fuelled North Korea at sea?

The owner of one ship accused of smuggling oil to North Korea denied any such activity

By- Guy Faulconbridge Jonathan Saul & Polina Nikolskaya

Russian tankers have supplied fuel to North Korea on at least three occasions in recent months by transferring cargoes at sea, according to two senior Western European security sources, providing an economic lifeline to the secretive Communist state.

The sales of oil or oil products from Russia, the world's second biggest oil exporter and a veto-wielding member of the United Nations Security Council, breach UN sanctions, the security sources said.

The transfers in October and November indicate that smuggling from Russia to North Korea has evolved to loading cargoes at sea since Reuters reported in September that North Korean ships were sailing directly from Russia to their homeland.

“The Russian vessels made transfers at sea to the North Koreans,” the first security source, who spoke on condition of anonymity, told Reuters. The source said the transfers of oil or oil products took place on several occasions and were a breach of sanctions.

A second source, who independently confirmed the existence of the Russian ship-to-ship fuel trade with North Korea, said there was no evidence of Russian state involvement in the latest transfers.

“There is no evidence that this is backed by the Russian state but these Russian vessels are giving a lifeline to the North Koreans,” the second European security source said.

In comments carried by Russia’s RIA Novosti state news agency on Saturday, the Russian Foreign Ministry said the country was observing sanctions against North Korea. The two security sources cited naval intelligence and satellite imagery of the vessels operating out of Russian Far Eastern ports on the Pacific but declined to disclose further details to Reuters, saying it was classified.

The Russian Customs Service declined to comment when asked if Russian ships had supplied fuel to North Korean vessels. The owner of one ship accused of smuggling oil to North Korea denied any such activity.

The US State Department, in a statement, called on Russia and other UN members to “strictly implement” sanctions on North Korea and to work “more closely together to shut down UN-prohibited activities, including ship-to-ship transfers of refined petroleum and the transport of coal from North Korea”.

The latest report came as China, responding on Friday to criticism from US President Donald Trump, denied it had illicitly shipped oil products to North Korea.

North Korea relies on imported fuel to keep its struggling economy functioning. It also requires oil for its intercontinental ballistic missile and nuclear programme that the United States says threatens the peace in Asia. “The vessels are smuggling Russian fuel from Russian Far Eastern ports to North Korea,” said the first security source.

Reuters was unable to independently verify that the vessels had transferred fuel to North Korean vessels, whether the Russian state knew about the sales or how many Russian vessels were involved in the transfers. It was also unclear how much fuel may have been smuggled.

MAIL TODAY

Sun, 31 Dec, 2017

‘Russia selling Cold War missile designs to N Korea’

NORTH KOREA was able to develop a ballistic missile with advanced technology acquired from Russia, new documents have revealed. The secretive state announced on November 29 that it had tested an Inter-Continental Ballistic Missile (ICBM) capable of reaching all of the mainland of the United States, prompting fresh sanctions against Kim Jong-un's regime.

It has now been claimed that after the collapse of the Soviet Union, Russia sold the technology that it used to develop its own ICBM force to Pyongyang. The Washington Post reported that after the collapse of a joint US-Russian joint venture to



Kim Jong-un

launch satellites using Soviet era missiles, the Russia's began looking for new markets for their technology.

More than 60 Russian missile scientists and family members from the Makeyev Rocket Design Bureau were arrested at a Moscow airport in late 1992 as they were about to travel to Pyongyang to work as consultants.

Intelligence officials from the US, South Korea and Russia later concluded some of the scientists eventually succeeded in getting to North Korea to offer missile blueprints and technical advice for, the Washington Post reported. Brochures from the Makeyev Rocket Design Bureau,

unearthed by the paper, include an array of Soviet missiles capable of delivering nuclear warheads to U.S. cities.

Some of the models offered for sale could be launched from a large boat, a submerged barge, or a capsule dropped into the ocean, and were originally designed for the Russian navy. The Hwasong-10, or Musudan, a missile successfully tested by North Korea in 2016, appears to use the same engine and has many design features of a Soviet submarine-launched ballistic missile designed by Makeyev scientists.

David Wright, a missiles expert at the Union of Concerned Scientists told Post: “The question that has long been raised is: Did North Korea get this technology from a (Russian) fire sale?”

Daily Mail

Sun, 31 Dec, 2017

India to launch 31 satellites on Jan 10 from its spaceport at Sriharikota

India will launch 31 satellites, including the earth observation spacecraft Cartosat on January 10, from its spaceport at Sriharikota in Andhra Pradesh, said a space official on Saturday.

“We have tentatively scheduled the rocket launch at 9.30 a.m. to carry Cartosat and other satellites, including 28 from the US and five other countries in a single mission,” Indian Space Research Organisation (ISRO) Director Devi Prasad Karnik told IANS here.

The first space mission in 2018 onboard the Polar Satellite Launch Vehicle (PSLV-C40) comes four months after a similar rocket failed to deliver the country’s eighth navigation satellite in the earth’s lower orbit on August 31.

“The sixth Cartosat in 2A series and other satellites are being integrated with the rocket at the spaceport. The mission launch board will decide the rocket’s lift-off time for the reverse countdown two days ahead,” said Karnik.

The mission’s payload will also include one each nano and micro satellite from India, besides Cartosat-2.

As an observational satellite, Cartosat will beam high-quality images for cartographic, urban and rural applications, coastal land use and regulation and utility management like road network monitoring.

The previous satellite in the Cartosat-2 series was launched on February 15, from the spaceport on the east coast, about 90km northeast of Chennai.

hindustantimes hindustantimes.com

Sun, 31 Dec, 2017

Top royal honour for Indian-origin scientist Pratibha Gai

Gai is the fourth Indian-origin woman conferred with the honour since it was instituted in 1917.

Acclaimed York-based scientist Pratibha Laxman Gai has been named for damehood, the female equivalent of a knighthood, leading a number of people of Indian-origin from various walks of life in the Queen’s New Year’s Honours List 2018 released on Saturday.

Gai, professor and acclaimed expert on electron microscopy based at the University of York, grew up in India and won the national science talent scholarship before winning another scholarship to study at the University of Cambridge.

She is the fourth Indian-origin woman conferred with the honour since it was instituted in 1917, following Maharani Lakshmi Devi of Dhar (1931), educationist Asha Khemka (2014) and medicine academic Parveen Kumar (2017).

She has been honoured for “services to chemical sciences and technology”, an official release said. The damehood and other honours will be conferred at the Buckingham Palace by Queen Elizabeth and other members of the royal family at various times in 2018.

Inspired in early life by the renowned physicist-chemist Marie Curie, Gai’s patented inventions are in the fields of hydrocarbon catalysis/polymers, energy sources, electronic ceramics, Piezoelectrics and nanocoatings for polymers and food.

She created the atomic-resolution environmental transmission electron microscope and is considered an outspoken advocate for women with careers in science. She has over 300 refereed scientific papers in leading journals and nine co-authored and edited books and journal issues.

Her expertise includes development of novel chemical processes, nanomaterials, reaction mechanisms and novel in-situ environmental electron microscopy in gases and liquids, surface science and catalysis for healthcare, and energy and climate control.

The Queen's New Year's Honours List 2018 includes the names of former deputy prime minister Nick Clegg, novelist Michael Morpurgo, Beatles drummer Ringo Starr and women's cricket captain Heather Knight, whose team beat India in the world cup final.

Other Indian-origin individuals named for the honours include: Officers of the Order of the British Empire: Jarnail Singh Athwal (for services to business and charity, Datchet, Berkshire); Charanjit Bountra, professor of translational medicine, University of Oxford (for services to translational medical research); Ranjit Lal Dheer (for services to local government and to charity, London); Rilesh Kumar Jadeja (for services to people with disabilities, London); Rohinton Minoo Kalifa (for services to the financial services and technology, London); Paromita Konar-Thakkar (for services to energy analysis, London); Rajan Madhok (for services to renal research and tackling health inequalities in Scotland, Pollockshields, Glasgow); Jaswant Ramewal (for services to defence, London); Naymitkumar Shah (for services to law enforcement and diversity, abroad).

Members of the Order of the British Empire: Onkardeep Singh Bhatia (for services to the community particularly young people, London); Balwant Singh Chadha (for services to local government and community cohesion in the west of Scotland, Cumbernauld, Lanarkshire); Bobby Gurbhej Singh Dev (for services to young people in Sheffield, South Yorkshire); Neelam Farzana (for services to mental health in the community, London); Atulkumar Bhogilal Patel (for services to heritage and the community in the East Midlands, Leicestershire); Mubeen Yunus Patel (for services to public sector digital transformation programme, Leicestershire); Gurmit Singh Randhawa (for services to community cohesion in the Vale of Glamorgan); Mehool Harshadray Sanghrajka (for services to the Jain faith and education, London); Shyamal Kanti Sengupta (for services to interfaith relations in Renfrewshire); Vikas Sagar Shah (for services to business and the economy, Greater Manchester); Rohit Shankar (for services to people with learning disabilities in Cornwall); Sanjiv Kumar Shridhar (for services to primary care, Cheshire); Seema Srivastava (for services to improving quality and patient safety, Bristol).

Medallist of the Order of the British Empire: Kulbir Singh Brar (for services to community cohesion, Berkshire); Buldev Kaur Angela Kandola (for services to vulnerable people with mental health issues, Nottinghamshire); Subhash Chander Mahajan (for services to the community in Hounslow); Manju Rajawat (for services to border security, Buckinghamshire); Suryadevara Yadu Porna Chandra Prasad Rao (for services to health and care, Staffordshire); Asish Jaidev Soni (for voluntary and charitable services to homeless people in London); Deviesh Tankaria (for voluntary service, London).

Queen's Ambulance Service Medal: Kuldip Singh Bhamrah, East Midlands Ambulance Service NHS Trust.

Business Standard

Sun, 31 Dec, 2017

UFOs: Is this all there is?

A super secret programme is now being resurrected in the US to investigate UFOs and their mysteries

By- Dennis Overbye

Hey, Mr Spaceman, Won't you please take me along? I won't do anything wrong. Hey, Mr Spaceman, Won't you please take me along for a ride?

So sang the Byrds in 1966, after strange radio bursts from distant galaxies called quasars had excited people about the possibility of extraterrestrial intelligence.

I recalled those words recently when reading the account of a pair of Navy pilots who were outmaneuvered and outrun by a UFO off the coast of San Diego back in 2004. Cmdr David Fravor said later that he had no idea what he had seen. "But," he added, "I want to fly one." His story was part of a bundle of material released recently about a supersecret \$22 million Pentagon project called the Advanced Aerospace Threat Identification Program, aimed at investigating UFOs. The project was officially killed in 2012, but now it's being resurrected as a nonprofit organisation.

Disgruntled that the government wasn't taking the possibility of alien visitors seriously, a group of former defense



officials, aerospace engineers and other space fans have set up their own group, To the Stars Academy of Arts & Science. One of its founders is Tom DeLonge, a former punk musician, record producer and entrepreneur, who is also the head of the group's entertainment division.

For a minimum of \$200, you can join and help finance their research into how UFOs do whatever it is they do, as well as telepathy and "a point-to-point transportation craft that will erase the current travel limits of distance and time" by using a drive that "alters the space-time metric" — that is, a warp drive going faster than the speed of light, Einstein's old cosmic speed limit.

"We believe there are transformative discoveries within our reach that will revolutionise the human experience, but they can only be accomplished through the

unrestricted support of breakthrough research, discovery and innovation," says the group's website.

I'm not holding my breath waiting for progress on telepathy or warp drive, but I agree with at least one thing that one official with the group said. That was Steve Justice, a former engineer at Lockheed Martin's famous Skunk Works, where advanced aircraft like the SR-71 high-altitude super-fast spy plane were designed.

"How dare we think that the physics we have today is all that there is," he said in an interview published recently in HuffPost.

I could hardly agree more, having spent my professional life in the company of physicists and astronomers trying to poke out of the cocoon of present knowledge into the unknown, to overturn Einstein and what passes for contemporary science. Lately, they haven't gotten anywhere.

The last time physicists had to deal with faster-than-light travel was six years ago, when a group of Italy-based physicists announced that they had seen the subatomic particles known as neutrinos going faster than light. It turned out they had wired up their equipment wrong.

So far Einstein is still the champ. But surely there is so much more to learn. A lot of surprises lie ahead, but many of the most popular ideas on how to transcend Einstein and his peers are on the verge of being ruled out. Transforming science is harder than it looks.

While there is a lot we don't know, there is also a lot we do know. We know how to turn on our computers and let gadgets in our pocket navigate the world. We know that when physical objects zig and zag through a medium like air, as UFOs are said to do, they produce turbulence and shock waves. NASA engineers predicted to the minute when the Cassini spacecraft would dwindle to a wisp of smoke in Saturn's atmosphere last fall.

In moments like this, I take comfort in what the great Russian physicist and cosmologist Yakov Zeldovich, one of the fathers of the Soviet hydrogen bomb, once told me. "What science has already taken, it will not give back," he said.

Scientists are not the killjoys in all this. In the astronomical world, the border between science fact and science fiction can be very permeable, perhaps because many scientists grew up reading science fiction. And astronomers forever have their noses pressed up against the window of the unknown. They want to believe more than anybody, and I count myself among them.

But they are also trained to look at nature with ruthless rigor and skepticism. For astronomers, the biggest problem with ET is not the occasional claim of a mysterious light in the sky, but the fact that we are not constantly overwhelmed with them.