

Fri, 24 Jan 2020

#### Republic Day to get many firsts, Dhanush and the Anti Satellite missile to be part of parade

Three army equipment are being displayed for the first time during the parade, Major General Alok Kacker, the Chief of Staff Delhi Area, who is the parade's second-in-command said. The main attraction out of the three would be the Dhanush artillery gun. The Dhanush is a 155mm calibre artillery gun, which has been developed by the OFB

By Shaurya Karanbir Gurung

New Delhi: The ceremonial wreath laying by Prime Minister Narendra Modi on Republic Day on Sunday will be held for the first time at the National War Memorial, instead of at the Amar Jawan Jyoti. This will also be the first time that the recently appointed Chief of Defence Staff General Bipin Rawat will be part of this ceremony.

The CDS along with Defence Minister Rajnath Singh, the Minister of State for Defence Shripad Yesso Naik, the three services chiefs and the Defence Secretary Ajay Kumar will be standing behind the Prime Minister according to the laid down protocol. Previously, the wreath laying ceremony followed by a salute by the dignitaries during Republic Day was held at the Amar Jawan Jyoti, located under the arch of India Gate. The change this time doesn't mean that the Amar Jawan Jyoti will be ignored. Officials said that a wreath will be laid there as well on Republic Day.

There will also be other firsts. The Dhanush artillery gun and the Anti-Satellite missile will be part of the Republic Day parade for the first time this year.

Meanwhile, the focus of the parade this year will as well will be to give adequate representation to women. Captain Tania Sher Gill, an officer serving with the army's Corps of Signals, will be leading an all male marching contingent during the parade. Although she will be the second woman to do this, she was the first woman officer to lead an all male marching contingent during the Army Day parade on January 15.

Major General Alok Kacker, the Chief of Staff Delhi Area, who is the parade's second-in-command said that the wreath laying by the Prime Minister will be at the National War Memorial, instead of the Amar Jawan Jyoti. The memorial was inaugurated by Modi in February last year. Following this, it became the place for wreath laying on all designated events, including Republic Day. The memorial commemorates the soldiers who died in wars and operations, including counter-terrorism, since Independence. The Amar Jawan Jyoti consisting of the eternal flame, the rifle and the helmet, was built for the soldiers who died in the 1971 India-Pakistan war and also honoured those troops who died in action after that.

Kacker added that the three service chiefs, CDS and other dignitaries will be present at the memorial as well. He explained that this is happening for the first time. "This will also be the first time that the CDS will be part of the Republic Day, including the ceremony," another official said.

The post of the CDS was approved by the Cabinet last month and General Bipin Rawat, who was previously the Army Chief, was appointed as the CDS.

Meanwhile, three army equipment are being displayed for the first time during the parade, Kacker said. The main attraction out of the three would be the Dhanush artillery gun. The Dhanush is a 155mm calibre artillery gun, which has been developed by the Ordnance Factory Board. It was inducted into the artillery last year. The army is procuring 114 of them to deploy them along the borders with Pakistan and China. Having a range of 36.5 km, the gun is equipped with an internal navigation system and advance gun sighting system. It is also an all terrain equipment. The gun is

towed by an Ashok Leyland truck and is also equipped with self propelled mode, enabling it to be deployed in areas where it cannot be towed.

The other two equipment being displayed for the first time is the short span bridging system and the 15 m Sarvatra bridge system. The K-9 Vajra self-propelled artillery gun will also be part of the parade. This will be the second time that it is being displayed. Importantly, the Anti-Satellite (ASAT) weapon system will also be part of the parade. An ASAT test was successfully conducted with an interceptor missile against a live orbiting satellite in the Low Earth Orbit in March last year.

https://economictimes.indiatimes.com/news/defence/republic-day-to-get-many-firsts-dhanush-and-the-anti-satellite-missile-to-be-part-of-parade/articleshow/73551690.cms

## Firstpost.

Fri, 24 Jan 2020

### Indigenous artillery gun system 'Dhanush', Army air defence marching contingent to take part forfirst time in republic day parade

- Artillery gun system 'Dhanush' and a marching contingent of the Army Air Defence are set to take part in the Republic Day parade for the first time
- The K9-Vajra, the anti-satellite (A-SAT) test conducted under Mission Shakti, and Air Defence Tactical Control Radar (ADTCR) of the DRDO will also be part of the parade

New Delhi: India's military might and some of the state-of-the-art assets of the armed forces will be showcased during the Republic Day Parade on Rajpath, with artillery gun system 'Dhanush' and a marching contingent of the Army Air Defence set to take part in the ceremonial event for the first time, officials said on Thursday.

Besides, K9-Vajra, the anti-satellite (A-SAT) test conducted under Mission Shakti, and Air Defence Tactical Control Radar (ADTCR) of the DRDO will also be part of the parade.

India early last year had shot down one of its satellites in space with an A-SAT missile to demonstrate this complex capability, joining the elite club of countries — the US, Russia and China — which have such capabilities.



The Army will showcase many of its state-of-the-art assets during the majestic January 26 parade, and artillery gun systems Dhanush and Short Span Bridge system will make their appearance for the first time during the parade, Chief of Staff, Delhi Area, Maj Gen Alok Kacker, told reporters.

At a press conference, he also said, 16 marching contingents will take part in the parade from the armed forces, paramilitary forces, Delhi Police, NCC and NSS, along with 21 bands.

The 61 Cavalary, consisting of 52 horses, will be marching down the Rajpath as part of the mounted column.

Corps of the Army Air Defence has earlier participated in the Republic Day parade with its vehicular columns, but this time a marching contingent of the AAD will take part in the event for the first time, officials said.

On January 26, trailblazer officer Captain Tania Sher Gill, will lead the all-men contingent of the Corps of Signals, making her "family of faujis" and the nation proud.

The 26-year-old officer of the Corps of Signals, had recently created history by becoming the first woman Parade Adjutant to led all-men contingents during the Army Day function on January 15.

A motorcycle display by an all-women team of the Central Reserve Police Force (CRPF) will be another attraction this January 26 parade.

The prime minister will pay homage to fallen soldiers at the newly-built National War Memorial here on the Republic Day instead of Amar Jawan Jyoti beneath the India Gate arch, officials said.

The iconic memorial in the India Gate complex behind the canopy was inaugurated by Prime Minister Narendra Modi on February 25 last year.

Amar Jawan Jyoti is symbolised by an inverted bayonet and soldier's helmet over it with an eternal flame burning beside it. It was built in 1972 underneath the India Gate arch to commemorate soldiers martyred in the Indo-Pak War of 1971.

Tri-Services chiefs pay respect on occasions of national importance like Independence Day, Republic Day at the Amar Jawan Jyoti.

"Prime Minister Narendra Modi will visit the National War Memorial on January 26 morning before the commencement of the Republic Day Parade, and lay a wreath at the memorial in the presence of the three services chiefs and the Chief of the Defence Staff," a senior official of the Army said. Lt Gen Asit Mistry, General Officer Commanding, Delhi Area, will be the Parade Commander, Maj Gen Kacker will be the Parade Second in Command.

"In the mechanised columns, three T-90 Bhishma tanks, three Ballaway Machine Pikate, one Saravatra Bridge system, one five-metre Short Span Bridge system, three Dhanush gun system, three K-9 Vajra gun system, two transportable satellite terminal (TST), two Akash surface-to-air-missiles, will be showcased," Kacker said.

Leaders of some of the participating marching contingents -- The Grenadiers (Maj Anirudh Nair), Kumaon Regiment (Capt Rahul Singh Kataria), Sikh Light Infantry or SIKHLI (Maj Anjum Gorkha), Para Regiment Centre (Maj Nikhil Kumar Maurya), Corps of Army Air Defence (Capt Vikas Kumar Sahu), were present during the press interaction held here.

"Since, I am leading, my challenge is to make sure the each and every member moves in perfect synchronisation. And, when me march together, it is actually our discipline and team work at display. We march with common heartbeat," said Maj Anjum Gorkha.

https://www.firstpost.com/india/indigenous-artillery-gun-systemdhanush-army-air-defence-marching-contingent-to-take-part-for-first-time-in-republic-day-parade-7948461.html

### The **Hitavada**

Fri, 24 Jan 2020

# Maha metro installs 3 bio-digester as part of its green initiative

About 900 litres water is saved per station daily with help of the DRDO-patented technology

Maha Metro Nagpur has installed Bio-Digesters at its Metro Stations as part of its efforts towards conservation of environment. With help of the technology, water used at the stations is recycled for multiple purposes. Use of recycled water ensures saving of water. Bio-Digesters are installed at Khapri, New Airport and Airport South Metro Stations and are in process of being affixed at other locations. As per the study, roughly 30 to 40 per cent or about 900 litres of water is recycled at each station daily. Bio-digester are DRDO patented technology widely used for sewage treatment.

Major highlight of this technology is, very less space is required for treating water; it doesn't need

electricity, thus saving on expenses otherwise incurred on power. Also, it doesn't generate any sludge and doesn't have any handling issues. Most important is fact that it attracts lesser capital investment compared to conventional engineering treatments such as Activated Sludge Process. Additionally, it has better performance compared to septic tank treatment. In scientific terms, it consists of bio-digester tank and a specialized bacterial culture called Anaerobic Microbial Inoculum (AMI).



Under controlled anaerobic conditions, specialised bacteria completely degrades sewage into a gaseous by-product. Maha Metro Nagpur has adopted above technology for achieving its environmental commitment of Zero Liquid Discharge. It is planned that sewage generated in operational phases would be treated using this technology. A MoU was executed between Defence Research and Development Organization (DRDO) and Maha Metro for transfer of this technology.

During construction phase, bio-digester treated sewage was only used for land discharge based end uses such as dust suppression. Presently, it is being used for flushing purposes. Sewage which has been recycled after treatment has greatly reduced fresh water demand. It is expected that on account of on site sewage treatment units, Maha Metro shall reduce around 30 per cent of fresh water requirement. The technology would gradually be used in other Metro locations such as stations and depots.

https://www.thehitavada.com/Encyc/2020/1/23/Maha-Metro-installs-3-bio-digester-as-part-of-its-green-initiative.html



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### Indian DRDO selects Israeli CONTROP's observation payload for drones

Israel's CONTROP Precision Technologies - specialising in electro-optics and infrared (EO/IR) solutions – has won a tender by India's Defence Research and Development Organisation (DRDO) for the supply of its iSky-50HD systems, for use on unmanned air platforms.

The iSky-50HD is a member of CONTROP's iSky family of lightweight, compact EO/IR observation systems, which have been specifically designed for use in challenging airborne environments. The iSky-50HD features highly-sensitive multi-spectral sensors, which are gyro-stabilized and have advanced image processing algorithms, thereby providing maximum sensor ranges and performance, for a variety of airborne defence applications.



In daily operation around the world since the 1990s, the iSky systems are integrated into a wide variety of UAV, helicopter, fixed-wing aircraft and aerostat platforms.

Hagay Azani, CONTROP's CEO & President said, "The (Indian) DRDO tested several systems and concluded that our technology and pricing was best suited to meet India's defence requirements.

<a href="https://www.defenseworld.net/news/26220/Indian\_DRDO\_Selects\_Israeli\_CONTROP\_s\_Observation\_Payload\_for\_Drones">https://www.defenseworld.net/news/26220/Indian\_DRDO\_Selects\_Israeli\_CONTROP\_s\_Observation\_Payload\_for\_Drones</a>