

beml

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NEWS

Business Standard

6-2-2021

BEML, NAL sign MoU to jointly develop 2-seater trainer aircraft

BEML Limited has signed an MoU with Council of Scientific and Industrial Research (CSIR)-National Aerospace Laboratories (NAL)

[BEML](#) Limited has signed an MoU

with Council of Scientific and Industrial Research (CSIR)-National Aerospace Laboratories (NAL) for joint development in the areas of advanced composites and autoclaves, mini-unmanned aerial vehicles, design & analysis of aircraft structure and systems.

[BEML](#) also teamed with NAL for joint development of two seater trainer aircraft through transfer of technology, according to a [BEML](#) statement.

"This will help BEML increase its footprint in the aerospace sector," the statement said.



Bharat Defence Kavach

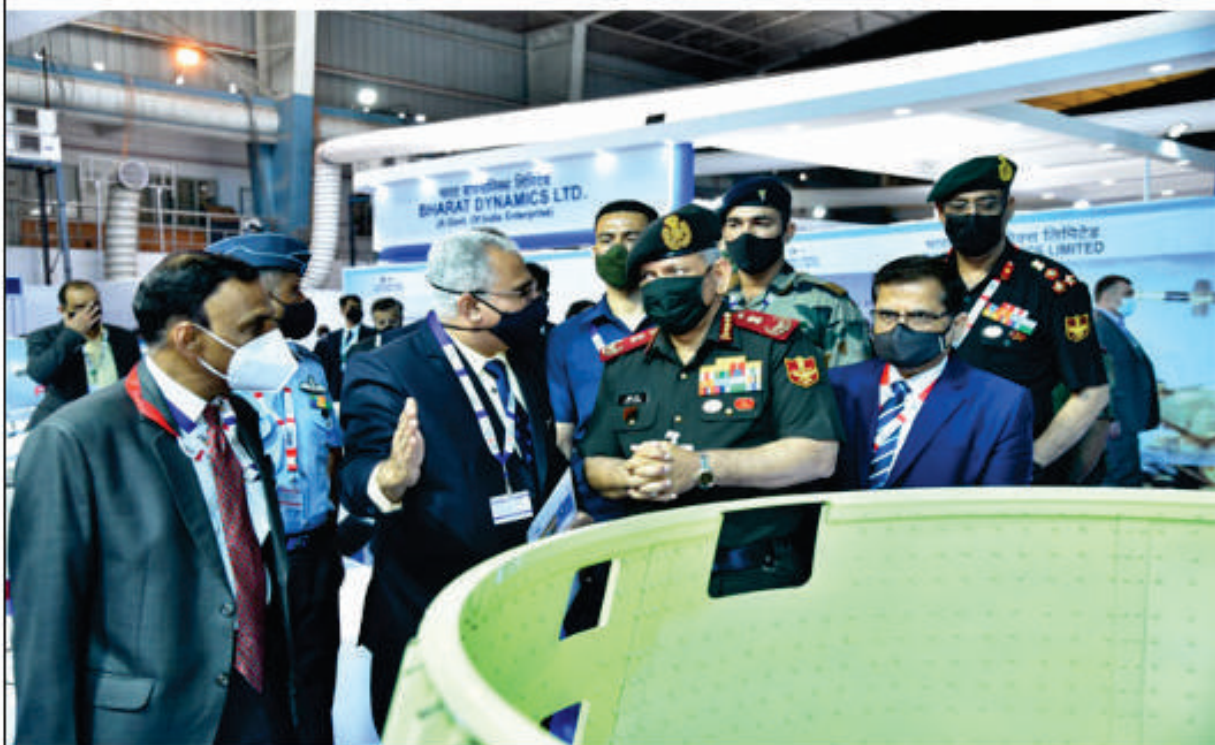
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3.4, Hall B, at Aero India 2021.

Raksha Mantri and CDS at BEML Stall



Shri Rajnath Singh, Hon'ble Raksha Mantri visited BEML Pavilion during AERO INDIA - 2021



CDS General Bipin Rawat Visited BEML Stall @ AERO INDIA 2021

BEML signed MoUs to explore & enhance the business in Defence & Aerospace

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A Revolution in Digital Media

6-2-2021

Raksha Mantri Visited BEML Pavilion @ AERO INDIA 2021

(THE NEWSMAN OF INDIA.COM) Rajnath Singh, Hon'ble Raksha Mantri Visited BEML pavilion at AERO INDIA 2021. On arrival he was warmly greeted by MV Rajasekhar, CMD and shown around the equipment, components and briefed about the BEML's Capabilities in Defence & Aerospace Business Sector.

BEML Signs MoU with CSIR-NAL

9-2-2021

(THE NEWSMAN OF INDIA.COM)

BEML Limited signed a Memorandum of understanding (MoU) with Council of Scientific and Industrial Research (CSIR)-National Aeronautics Laboratory (NAL) to develop in the areas of advance composite and autoclaves, Mini unmanned aerial vehicles, Design & analysis of aircraft structure and systems. BEML also teamed with NAL for joint development of 2 seater trainer aircraft through Technology of transfer (ToT). At AERO SHOW, Bangalore Shri A K Srivastav, Director Defence & Aerospace exchanged the copies with Shri R Venkatesh, Director Business Development, NAL in the presence of MV Rajasekhar, CMD, BEML. This will help BEML to increase its footprint in the Aerospace sector.

THE HINDU BusinessLine

News

BEML teams up with CSIR-NAL to develop 2 seater trainer aircraft

Anil Urs Yelahanka (Bengaluru) | Updated on February 04, 2021 Published on February 04, 2021



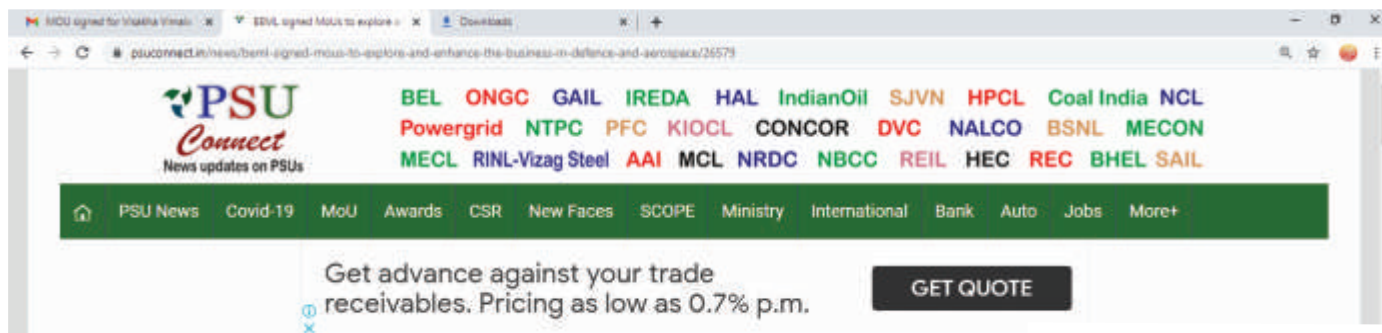
BEML Limited, a defence public sector undertaking, has signed a Memorandum of understanding (MoU) with Council of Scientific and Industrial

Research (CSIR)-National Aeronautics Laboratory (NAL) to take up R&D in the areas of advance composite and autoclaves, mini unmanned aerial vehicles, design and analysis of aircraft structure and systems.

The company also has teamed up with NAL for joint development of two seater trainer aircraft through Technology of Transfer (ToT) route.

At Aero India 2021, AK Srivastav, Director Defence & Aerospace exchanged the MoU copies with R Venkatesh, Director Business Development, NAL in the presence of MV Rajasekhar, CMD, BEML. "This will help BEML to increase its footprint in the aerospace sector," said Rajasekhar.

At the Aero India, Chief of the Army Staff Gen MM Naravane visited the BEML Stall. Gen Naravane was briefed by Rajasekhar and AK Srivastav, Director Defence on BEML's ongoing projects related to aerospace and defence business.



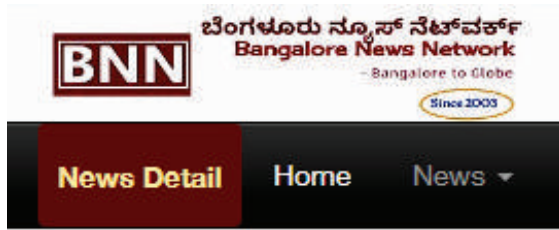
Shri A K Srivastav, Director Defence, BHEL exchanging the copies of MoU with Shri Ashish Rajvanshi, MD, Adani Defence Systems & Technologies Limited in the presence of Shri MV Rajasekhar, CMD, BHEL LTD at AERO India 2021

New Delhi: BHEL Limited is a leading multi-technology 'Schedule A' company under the Ministry of Defence signed of MoUs with 11 entities to explore and enhance the business in the Defence & Aerospace Sector in the presence of Shri Rajnath Singh, hon'ble Raksha Mantri at the Bandhan Ceremony, AERO INDIA 2021. Shri M V Rajasekhar, CMD, Shri Suraj Prakash, Director (Finance), and Shri A K Srivastav, Director (Defence Business) were present on this occasion.

MoUs:-

- With UP Expressway Industrial Development Authority (UPEIDA) to explore the opportunities for establishing warehouse storage for parts and activity center for servicing come overhauling of BHEL products (MRO).
- With Advance Navigation Positioning Company (ANPC) for joint manufacturing of transponder landing system (TLS) for Indian armed forces, Airport Authority of India (AAI), and Oil exploration companies.
- With Primoco UAV SE, Czech Republic for manufacturing of '150 kg class' Surveillance UAV for Indian as well as global requirements such as Intelligence-based agriculture, Remote mapping, Pipeline Monitoring, Mining Support, Security & Intelligence, Disaster Management & Surveillance.
- With IIT Kanpur for joint development and manufacturing of 25 kg class Tactical UAV for Armed forces.
- With Torus Robotic Pvt Ltd, Chennai for joint development Artificial intelligence (AI) based unmanned ground vehicle (UGV), Robotics, Lightweight, Ingenious electric power drive system for defence and commercial applications.
- With Council of Scientific and Industrial Research (CSIR)-National Aeronautics Laboratory (NAL) to develop in the areas of advanced composite and autoclaves, Mini unmanned aerial vehicles, Design & analysis of aircraft structure and systems.
- With Outdu Mediatech Pvt. Ltd., Bangalore for Artificial intelligence-based vision system and face recognition system for surveillance & monitoring applications.
- With SKAT Systems, Russia for joint manufacture of High Altitude UAVs for Indian and Global requirements.
- With Hacklab Solutions Pvt Ltd, Bangalore for AI-Based Lightning System (headlamps/fog lamps) on Heavy Earth Moving Machinery (HEMM) current and future products in order to make more competitive.
- With JSC 'Rosoboron'export, Russia for projects such as infantry combat vehicle 'Boomerang', light armored vehicle 'Streia', Auxiliary power units for T-71 / T-90 tanks, Air Defence Systems.
- With S'YOMKA S VOZDUHA, Russia (Shooting from Air) for manufacturing of Marine Drones and Anti Drone Systems.
- With Adani Defence Systems & Technologies Limited to provide mobility systems for armed vehicles such as wheels armored personal carriers, infantry combat vehicles, and main battle tanks. Apart from the development and production of Jigs and fixtures for UAVs, Air borne structures, ground handling, and ground support equipment for Airports.

Posted Date : 05-02-21



BEML Signs MoU with CSIR-NAL

This will help BEML to increase its footprint in the Aerospace sector



Left to Right - Shri A K Srivastav, Director Defence & Aerospace exchanged the copies with Shri R Venkatesh, Director Business Development, NAL in the presence of Shri MV Rajasekhar, CMD, BEML

BEML Limited signed a Memorandum of understanding (MoU) with Council of Scientific and Industrial Research (CSIR)-National Aeronautics Laboratory (NAL) to develop in the areas of advance composite and autoclaves, Mini unmanned aerial vehicles, Design & analysis of aircraft structure and systems.

BEML also teamed with NAL for joint development of 2 seater trainer aircraft through Technology of transfer (ToT).

At AERO SHOW, Bangalore Shri A K Srivastav, Director Defence & Aerospace exchanged the copies with Shri R Venkatesh, Director Business Development, NAL in the presence of Shri MV Rajasekhar, CMD, BEML.

ಉದಯವಾಣಿ

ಹಸಿಮಠದ ಚೀವಣಾಡಿ

ತರಬೇತಿ ಯುದ್ಧ ವಿಮಾನ: ಒಡಂಬಡಿಕೆ



ತರಬೇತಿ ಯುದ್ಧ ವಿಮಾನ ಅಭಿವೃದ್ಧಿಗೆ ಬಿಇಎಂಎಲ್ ಹಾಗೂ ಸಿಎಸ್‌ಐಆರ್-ಎನ್‌ಎಎಲ್ ಕಂಪನಿಗಳು ಜಂಟಿ ಒಡಂಬಡಿಕೆ ಮಾಡಿಕೊಂಡವು.

ಬೆಂಗಳೂರು: ಭಾರತ್ ಆರ್ತ್ ಮೂವರ್ಸ್ ಲಿ., (ಬಿಇಎಂಎಲ್) ಹಾಗೂ ಕೌನ್ಸಿಲ್ ಆಫ್ ಸೈಂಟಿಫಿಕ್ ಆಂಡ್ ಇಂಡಸ್ಟ್ರಿಯಲ್ ರಿಸರ್ಚ್-ನ್ಯಾಷನಲ್ ಏರೋ ಸ್ಪೇಸ್ ಲ್ಯಾಬೋರೇಟರೀಸ್ (ಸಿಎಸ್‌ಐಆರ್-ಎನ್‌ಎಎಲ್) ಜಂಟಿಯಾಗಿ ತರಬೇತಿ ಯುದ್ಧ ವಿಮಾನ ಅಭಿವೃದ್ಧಿಪಡಿಸಲು ಮುಂದಾಗಿದ್ದು, ಈ ಸಂಬಂಧ ಎರಡೂ ಪ್ರತಿಷ್ಠಿತ ಸಂಸ್ಥೆಗಳು ಗುರುವಾರ ಪರಸ್ಪರ ಒಡಂಬಡಿಕೆ ಮಾಡಿಕೊಂಡವು.

ಯಲಹಂಕ ವಾಯುನೆಲೆಯಲ್ಲಿ ನಡೆಯುತ್ತಿರುವ ಏರೋ ಇಂಡಿಯಾ ಶೋನಲ್ಲಿ ಎರಡೂ ಸಂಸ್ಥೆಗಳ ನಿರ್ದೇಶಕರು ಪರಸ್ಪರ ಸಹಿ ಹಾಕಿ, ಒಪ್ಪಂದ ಪತ್ರಗಳನ್ನು ವಿನಿಮಯ ಮಾಡಿಕೊಂಡರು. ಬಿಇಎಂಎಲ್ ಅಧ್ಯಕ್ಷ ಮತ್ತು ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕ ಎಂ.ವಿ. ರಾಜಶೇಖರ್ ಇದಕ್ಕೆ ಸಾಕ್ಷಿಯಾದರು.

ಈ ಒಪ್ಪಂದವು ಒಂದು ತಂತ್ರಜ್ಞಾನಗಳ ವಿನಿಮಯ ಆಗಿದೆ. ತರಬೇತಿ ಯುದ್ಧ ವಿಮಾನಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಸುಧಾರಿತ ಸಂಯೋಜನೆಗಳು, ವಿಮಾನಗಳ ವಿನ್ಯಾಸ ಮತ್ತು ವಿಶ್ಲೇಷಣೆ, ಅದರಲ್ಲಿನ ವ್ಯವಸ್ಥೆಗಳು, ಲಘು ಮಾನವರಹಿತ ವಿಮಾನ ಮತ್ತಿತರ ಅಂಶಗಳನ್ನು ಇದು ಒಳಗೊಂಡಿರಲಿದೆ. 'ಇದು ಏರೋಸ್ಪೇಸ್ ಕ್ಷೇತ್ರದಲ್ಲಿ ತನ್ನ ಸಾಮರ್ಥ್ಯವನ್ನು ವೃದ್ಧಿಸಲು ಈ ಒಪ್ಪಂದ ನೆರವಾಗಲಿದೆ' ಎಂದು ಬಿಇಎಂಎಲ್ ವಿಶ್ಲೇಷಿಸಿದೆ.

PSUWATCH Fast, Accurate, Engaging

MV Rajasekhar assumes additional charge as CMD of BEML

3 Feb 2021



MV Rajasekhar, who is currently serving as Director (Mining & Construction) has assumed additional charge as Chairman & Managing Director (CMD) of BEML Limited on February 1. New Delhi: BEML Limited's Director (Mining & Construction) MV Rajasekhar has assumed additional charge as Chairman & Managing Director (CMD) of the defence PSU on February 1. He has succeeded Dr Deepak Kumar Hota, who retired from service on account of superannuation on January 31. Rajasekhar has been assigned with the additional charge of the post for a period of three months with effect from February 1, or till regular incumbent is appointed or until further orders, whichever is earlier. He is serving as Director (Mining & Construction) of BEML since June 1, 2019.

Rajasekhar is a graduate in Metallurgical Engineering from VNIT, Nagpur. He also holds a post-graduate degree (M Tech) in Welding Engineering from IIT Chennai. In addition, he has done his MS in Technology Management in Germany. He has over 31 years of varied experience spread across several functions like research and development, production, planning, outsourcing and marketing. His production experience includes equipment, aggregates of mining & construction, defence and rail & metro businesses. Prior to assuming the present position, Rajasekhar was the Executive Director (Mining & Construction Business).

BEML Limited

BEML Limited, formerly known as Bharat Earth Movers Limited, was established in May 1964 as a PSU for the manufacture of Rail Coaches & Spare Parts and Mining Equipment at its Bangalore Complex. The company has partially disinvested and presently the government owns 54 percent of total equity and rest 46 percent is held by Public, Financial Institutions, Foreign Institutional Investors, Banks and BEML Employees. BEML plays a pivotal role in serving India's core sectors like defence, rail, power, mining and infrastructure. The company started with a modest turnover of Rs 5 crore in 1965 and the total turnover of the company is now more than Rs 3,500 crore.

BEML Showcasing its capabilities in Defence and Aerospace Sectors



Bengaluru: BEML is showcasing some of its prime products during AERO INDIA 2021, the biennial mega Aero exhibition, being held in Bangalore, from 3rd Feb to 5th Feb. 2021. With the theme of 'Atmanirbharata', include niche products such as Transporter Landing System (TLS) and Variants of Unmanned aerial vehicles (UAV). In the indoor Stall, BEML is also displaying various equipment and critical components in the aero-space sector.

BEML's focus at AERO Show is to display its capability, promote Aerospace & Defence products and to interact with potential customers, and also explore collaborations. BEML would be signing MoUs, to enter into collaborations with major players in the Defence & Aerospace Business. BEML would also be using the opportunity to network with MSMEs and Startups to maximize its efforts of localization/indigenization.

TLS being displayed in BEML Outdoor Stall is a ground-based precision landing system which can improve access to airports where terrain or land constraints make instrument landing system (ILS) installation infeasible or cost-prohibitive. TLS works over any terrain using directional antennas and can be installed even on short runways ending with water/obstructions. It would be manufactured in India by BEML in collaboration with Advanced Navigation and Positioning Corporation, USA.

BEML Primoco UAV- 'One 150', the state-of-the-art UAV designed for civilian and also military uses is one of the centre pieces in BEML Indoor Stall. It is built to take off and land autonomously also in poor weather conditions. It can fly continuously for 15 hours and has a 200 km radio range. This UAV can be used for surveillance, monitoring, boarder patrolling, and law enforcement. Primaco UAV is planned to be built in India in Collaboration with Primaco, Czech Republic.

BEML is also displaying the 25 kg Class Tactical UAV being developed indigenously in collaboration with the Indian Institute of Technology, Kanpur. The UAV is intended to carry versatile payloads of 3.0 kg, such as day & night cameras. It can take off and land in short runways, fly continuously for 8 hours, and has a 50 km radio range.

BEML Limited, the leading multi-technology, multi-product company, is engaged in the design, development and manufacturing of a wide range of products for core sectors of the economy such as Defence, Mining, Power, Infrastructure and Urban Transportation. Presently over 87% of total business is won against tough competition mainly from MNCs, while above 68% of the business comes from in-house R&D developed products. BEML Limited has exported its products to over 68 countries.

THE NEWSMAN OF INDIA

A Revolution in Digital Media

3 Feb 2021

MV Rajasekhar assumed additional charge as CMD, BHEL



(THE NEWSMAN OF INDIA.COM)

MV Rajasekhar, Director (Mining & Construction) and member of the board of BHEL Limited has taken additional charge as Chairman & Managing Director of the company from Feb 01, 2021. He succeeded Dr Deepak Kumar Hota, who retired from service on account of superannuation.

The Indian EXPRESS

5-2-2021

BEML to collaborate with CSIR-NAL



BEML Limited has signed a Memorandum of Understanding (MoU) with Council of Scientific and Industrial Research (CSIR)-National Aeronautics Laboratory (NAL) for development in the areas of advance composite and autoclaves, Mini unmanned aerial vehicles, Design & analysis of aircraft structure and systems.

BEML also teamed up with NAL for joint development of 2 seater trainer aircraft through Technology of transfer (ToT).

At Aero India, A K Srivastav, Director Defence & Aerospace, exchanged the copies with R Venkatesh, Director Business Development, NAL in the presence of MV Rajasekhar, CMD, BEML.

This will help BEML to increase its footprint in the Aerospace sector.



Brahmos Cruise Missile shines at Aero India 2021

3-2-2021

Aero-defence strengths of BEML on display



EXPRESS NEWS SERVICE
@Bengaluru

DEFENCE PSU BEML is slated to showcase a host of its prime products at Aero India 2021. With the theme 'Atmanirbharta', the company's niche product line-up such as Transporter Landing System (TLS) and variants of unmanned aerial vehicles, will be on display. In the indoor

stall, it is displaying various equipment and critical components in the aerospace sector, such as the BEML Primoco UAV 'One 150', which is designed for civilian and military use.

"BEML's focus at the air show is to display its capability, promote Aerospace & Defence products and interact with potential customers and explore collaborations. BEML would be signing MoUs, to enter into collaborations with major players...

The company would also be using the opportunity to network with MSMEs and startups to maximise its localisation/indigenisation efforts," a release said.

Meanwhile, MV Rajasekhar, Director (Mining & Construction) and member of the board of BEML Limited took additional charge as Chairman & Managing Director of the company as on February 1, 2021. He succeeded Dr Deepak Kumar Hota.

The Statesman BEML CMD:

BEML CMD: M V Rajasekhar, director (mining & construction) and member of the board of BEML Ltd, took additional charge as chairman & managing director of the company from 1 February. He succeeded Deepak Kumar Hota, who retired from service on superannuation, the Bengaluru-headquartered company said in a statement.

PTI

DECCAN HERALD

3-2-2021

Air show symbol of country's revitalisation: Rajnath

'Decision to hold Aero India amid Covid wasn't easy'

BENGALURU, DHNS

From top-level military discussions to cutting-edge military technology aimed at showcasing India's indigenous manufacturing, Defence Minister Rajnath Singh said Aero India 2021 is a symbol of the efforts to revitalise the country.

Speaking to reporters on Tuesday, Singh defended the move to hold Aero India this year, despite the cancellation of other air shows around the world due to the threat of Covid-19, notably the Paris Air Show, which was supposed to be held in June.

"The world is passing through one of the worst pandemics. The decision to organize Aero India 2021 amid Covid-19 and the security challenges thrust upon us along the northern borders was not easy - I have no hesitation in saying that," the Defence Minister said.

The minister said all health protocols would be strictly followed at the event and pointed to several key features of the air show this year which he said distinguishes it from its "previous avatars."

Among these are a conclave of defence ministers, a conclave of Chiefs of Air Staff of various countries and the expected signing of 200 MoUs on Friday.

The defence ministers' conclave, which will be held at Taj Yeshwantpur on Thursday, will be attended by ministers from 28 Indian Ocean Rim (IOR) Association countries, nine of whom will attend virtually. Among these is the Ira-

Advanced tech on display

The advanced future technologies category will showcase an advanced unmanned wingman aircraft being developed by Hindustan Aeronautics Limited (HAL). BHEL will showcase its Primoco UAV 'One 150,' a state-of-the-art UAV designed for civilian and military uses and can remain airborne for 15 hours at a stretch. Bharat Electronics

Limited (BEL) said that it will display about 30 products and systems in total, which were developed as part of the Aatmanirbhar Bharat initiative, including Airborne Missile Electronics, Receivers for EW Systems, 2KW Fuel Cells, FO Gyro based Sensor Packaged Unit, Athermal Laser Transmitter, IR Jammer and IR Seekers Missiles.

nian defence minister, Singh confirmed.

The closed-door meeting is to focus on stability and prosperity in the region. Meantime, the Chiefs of Air Staff conclave will examine technological advances and use of air power especially in the Indo-Pacific region.

India Pavilion

Another key feature is the "India Pavilion," whose theme is rotary wings. Anurag Bajpai, joint secretary, department of defence production, explained that the theme was chosen to show India's strides in helicopter development.

"Previously, India was reliant on other countries for helicopters, but now we will showcase our indigenous strength," Bajpai said.

The India pavilion will feature displays of rotor systems from defence PSUs, large private manufacturers, MSMEs and startups. Divided into four zones, the first zone is dedicated to India's flagship rotor machines: the Advanced Light Helicopter, the Light Utility Helicopter, and the Light Combat Helicopter, Chetak, Cheetah and Cheetal.

The second zone highlights India's indigenous strength

and capabilities in research, design and development of rotor systems. The third zone will focus on lifecycle support through maintenance, repair, overhaul and training. The fourth zone provides a glimpse of the future of rotary wing platforms in India, including Unmanned Aerial Vehicles (UAVs).

Bajpai said two of the other main features on inauguration day will be a Tejas Mark IA order ceremony and the flying display. "Aircraft from three countries will participate in the air display, including India, the United States and Ukraine," he said.

President chief guest

The Defence Minister also confirmed that President of India Ram Nath Kovind has consented to be the chief guest. "This is a first in the 13 times the air show has been held," Singh said.

Defence officials and Chief Minister BS Yediyurappa said that the expo will not only help Karnataka consolidate its position as one of favoured destinations for foreign and domestic investors, but it will also cement its reputation as a gateway to defence and aerospace engagement in India.

THE HINDU BusinessLine

Shri M V Rajasekhar assumed additional charge as CMD, BEML



Shri MV Rajasekhar, Director (Mining & Construction) and member of the board of BEML Limited has taken additional charge as Chairman & Managing Director of the company from Feb 01, 2021. He succeeded Dr Deepak Kumar Hota, who retired from service on account of superannuation.



THE HINDU

3-2-2021

BEML to showcase transporter landing system

SPECIAL CORRESPONDENT
BENGALURU

BEML will display a Transporter Landing System (TLS), a ground-based precision landing system that can improve access to airports where terrain or land constraints make the installation of an instrument landing system (ILS) prohibitive in terms of cost or non-feasible.

TLS can be installed even on short runways ending with water

or obstructions. This will be manufactured in India by BEML in collaboration with Advanced Navigation and Positioning Corporation, U.S.A., said a release.

Variants of unmanned aerial vehicles (UAV) will be on display, including Primoco UAV designed for civilian and defence purposes. It is built to take off and land autonomously in poor weather conditions.

Bharat Electronics Ltd. (BEL)

will showcase a host of high technology products from its stable, including 30 products and systems developed as part of the Aatmanirbhar Bharat initiative.

LCA division inaugurated

The second plant of HAL's Light Combat Aircraft (LCA) division, which will increase the production capacity, was inaugurated in Bengaluru by the Defence Minister Rajnath Singh.

DECCAN  HERALD

3-2-2021

Forum for strategic alliance

The sonic boom of a high-speed aircraft flying overhead is music to an enthusiast of all things connected to air shows. Every alternate year Bengalureans are treated to an exhibition of might and grace as planes cavort effortlessly in heart-stopping maneuvers. This year, the 13th Aero India show is slated from February 3-5. Many foreign delegations will conduct business as usual with the Indian and foreign exhibitors on hand. The organizers are ensuring all safety norms will be in place to provide the much-needed platform for decision-makers and A&D industry businesses on a national and global scale for new opportunities and partnerships.

Aero India began its journey in 1996. This exhibition is a biennial one and critical for both the aerospace and Defence sectors. It highlights aerospace, defence, civil aviation, airport infrastructure and defence. The event showcases new developments, products, technologies, market trends and attracts investors and buyers alike. Some among the notable sectors showcased are quality assurance, software systems, aeronautical developments, armaments, engineering services, research and development, electronics and radar, robotics, artificial intelligence, vehicles, Indian army, navy, air force and others. Many companies operating in these sectors present their products to strike lucrative deals in manufacturing and supply.

The logo of the event, inspired by the Tejas Light Combat Aircraft (LCA) and its tri-coloured silhouette with the Ashok Chakra, evokes the spirit of a new India and underlines the fact that this country is indeed the top of its class in world-class aerospace exhibitions. The outline of the 'A' is symbolic of a fighter jet, indicative of the strength and supremacy of Aero India on the world stage.

The show is also a venue for strategic military alliances. When countries participate it provides an opportunity to the military administrations to fortify existing relations or forge new ones, all working towards peace in the region as well as worldwide. It also provides an opportunity, to put on view, in peaceful setting, the military might and capabilities available for India and other countries.



This exhibition provides opportunities to the defense sector to stay updated with the latest in avionics. It also helps strengthen local partnerships and promote the 'Make in India' brand. As a result of these negotiations and deals, the Indian supply chain is benefited with crores in revenues and many job opportunities.

This show is an opportunity to network, showcase technology and sign lucrative business deals, says **Swati Rathore**

This echoes in the tagline for the event which says that Aero India 2021 is, "The Runway to a Billion Opportunities".

The Ministry of Defence website has all relevant details about this event. This online presence is critical since many of the participants are unable to attend the show because of travel restrictions. The Aero India 2021 virtual exhibition on YouTube has uninterrupted viewing 24/7; facility to see detailed descriptions of all the products on display and virtual interactions with the exhibitors; participation in all the conferences; conducting B2B meetings with the exhibitors in virtual meeting rooms and the option to watch the live events remotely, even for an extended period of time. It is reported that more than 600 exhibitors are proposed to take part with 78 foreign delegations.

No aero show is complete without the air display which tests both machines and man alike. Hindustan Aeronautics Ltd announced that its indigenous aircraft will fly in the 'Atmanirbhar Formation Flight' with the light combat aircraft (LCA) trainer, Hindustan Turbo Trainer-40 (HTT-40) jets, the intermediate jet trainer, advanced Hawk Mk-132 aircraft (Hawk-i) and the Dornier-228 transport plane.

BEML is showcasing some of its prime products such as Transporter

Landing System (TLS) and variants of unmanned aerial vehicles (UAV). BEML is also displaying various equipment and critical components in the aerospace sector. BEML's focus at the show is to display its capability, promote aerospace and defence products, and to



interact with potential customers.

The US Consulate, Chennai reported that a B-1B, a supersonic heavy bomber of the 28th Bomb Wing based out of Ellsworth Air Force Base in South Dakota, will perform a fly-by. The Surya Kiran and Sarang Helicopters are also expected to strut their stuff and blaze a trail in the skies overhead.

Many seminars and conclaves are scheduled like 'Post Covid19: The Future and Dynamics of Civil Aviation Sector' and 'Aerospace & Defence opportunities in Karnataka', and topics like 'Aero engines India: An Engine of Atmanirbhar Bharat'.

The last day has events/seminars like 'Start Up Manthan' for promoting new ventures, 'Bandhan' for signing MOUs, product launches and announcements; and a grand finale in the form of a valedictory function presided over by the President of India.

VK ವಿಜಯ ಕರ್ನಾಟಕ

ತರಬೇತಿ ಯುದ್ಧ ವಿಮಾನ: ಒಡಂಬಡಿಕೆ



ತರಬೇತಿ ಯುದ್ಧ ವಿಮಾನ ಅಭಿವೃದ್ಧಿಗೆ ಬಿಇಎಂಎಲ್ ಹಾಗೂ ಸಿಎಸ್‌ಐಆರ್ -ಎನ್‌ಎಎಲ್ ಕಂಪನಿಗಳು ಜಂಟಿ ಒಡಂಬಡಿಕೆ ಮಾಡಿಕೊಂಡವು.

ಬೆಂಗಳೂರು: ಭಾರತ್ ಆರ್ತ್ ಮೂವರ್ಸ್ ಲಿ., (ಬಿಇಎಂಎಲ್) ಹಾಗೂ ಕೌನ್ಸಿಲ್ ಆಫ್ ಸ್ಟೆಂಟಿಫಿಕ್ ಆಂಡ್ ಇಂಡಸ್ಟ್ರಿಯಲ್ ರಿಸರ್ಚ್-ನ್ಯಾಷನಲ್ ಏರೋ ಸ್ಪೇಸ್ ಲ್ಯಾಬೋರೇಟರೀಸ್ (ಸಿಎಸ್‌ಐಆರ್-ಎನ್‌ಎಎಲ್) ಜಂಟಿಯಾಗಿ ತರಬೇತಿ ಯುದ್ಧ ವಿಮಾನ ಅಭಿವೃದ್ಧಿಪಡಿಸಲು ಮುಂದಾಗಿದ್ದು, ಈ ಸಂಬಂಧ ಎರಡೂ ಪ್ರತಿಷ್ಠಿತ ಸಂಸ್ಥೆಗಳು ಗುರುವಾರ ಪರಸ್ಪರ ಒಡಂಬಡಿಕೆ ಮಾಡಿಕೊಂಡವು.

ಯಲಹಂಕ ವಾಯುನೆಲೆಯಲ್ಲಿ ನಡೆಯುತ್ತಿರುವ ಏರೋ ಇಂಡಿಯಾ ಶೋನಲ್ಲಿ ಎರಡೂ ಸಂಸ್ಥೆಗಳ ನಿರ್ದೇಶಕರು ಪರಸ್ಪರ ಸಹಿ ಹಾಕಿ, ಒಪ್ಪಂದ ಪತ್ರಗಳನ್ನು ವಿನಿಮಯ ಮಾಡಿಕೊಂಡರು. ಬಿಇಎಂಎಲ್ ಅಧ್ಯಕ್ಷ ಮತ್ತು ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕ ಎಂ.ವಿ. ರಾಜಶೇಖರ್ ಇದಕ್ಕೆ ಸಾಕ್ಷಿಯಾದರು.

ಈ ಒಪ್ಪಂದವು ಒಂದು ತಂತ್ರಜ್ಞಾನಗಳ ವಿನಿಮಯ ಆಗಿದೆ. ತರಬೇತಿ ಯುದ್ಧ ವಿಮಾನಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಸುಧಾರಿತ ಸಂಯೋಜನೆಗಳು, ವಿಮಾನಗಳ ವಿನ್ಯಾಸ ಮತ್ತು ವಿಶ್ಲೇಷಣೆ, ಅದರಲ್ಲಿನ ವ್ಯವಸ್ಥೆಗಳು, ಲಘು ಮಾನವರಹಿತ ವಿಮಾನ ಮತ್ತಿತರ ಅಂಶಗಳನ್ನು ಇದು ಒಳಗೊಂಡಿರಲಿದೆ. 'ಇದು ಏರೋಸ್ಪೇಸ್ ಕ್ಷೇತ್ರದಲ್ಲಿ ತನ್ನ ಸಾಮರ್ಥ್ಯವನ್ನು ವೃದ್ಧಿಸಲು ಈ ಒಪ್ಪಂದ ನೆರವಾಗಲಿದೆ' ಎಂದು ಬಿಇಎಂಎಲ್ ವಿಶ್ಲೇಷಿಸಿದೆ.

hindustantimes

3-2-2021

BEML to showcase landing system

Public sector unit (PSU) BEML will display some of its prime products with the theme of 'Atmanirbharata'. It will include its transporter landing system and variants of unmanned aerial vehicles. In the indoor stall, BEML will display various equipment and critical components in the aero-space sector. "The TLS is a ground-based precision landing system, which can improve access to airports where terrain or land constraints make instrument landing system installation infeasible or cost-prohibitive. TLS works over any terrain using directional antennas and can be installed even on short runways ending with

water/obstructions. It would be manufactured in India by BEML in collaboration with Advanced Navigation and Positioning Corporation, US," BEML said.

It added that the Primoco UAV- 'One 150', the state-of-the-art UAV designed for civilian and also military uses, is built to take off and land autonomously also in poor weather conditions. It can fly continuously for 15 hours and has a 200-km radio range.

"This UAV can be used for surveillance, monitoring, border patrolling and law enforcement. Primaco UAV is planned to be built in India in collaboration with Primaco, Czech Republic," BEML said.

THE FINANCIAL EXPRESS

BEML showcases its capabilities

BEML is showcasing some of its prime products during AERO INDIA 2021, the biennial mega Aero exhibition, being held in Bangalore, from 3rd Feb to 5th Feb. 2021. With the theme of 'Atmanirbharata', these include niche products such as Transporter Landing System (TLS) and Variants of Unmanned aerial vehicles (UAV). At the indoor Stall, BEML is also displaying various equipment and critical components in the aero-space sector.

BEML's focus at Aero India is to display its capability, promote Aerospace & Defence products and to interact with potential customers and also to explore collaborations. BEML would be signing MoUs, to enter into collaborations with major players in the Defence & Aerospace Business. BEML would also be using the opportunity to network with MSMEs and Start-ups to maximise its efforts of localisation/indigenisation.

TLS, being displayed at the BEML Outdoor Stall, is a ground-based precision landing system which can improve access to airports where terrain or land constraints make instrument landing system (ILS) installation infeasible or cost-prohibitive. TLS works over any terrain using directional antennas and can be installed even on short runways ending with water/obstructions. It would



M V Rajasekhar,
Additional charge
as CMD, BEML

be manufactured in India by BEML in collaboration with Advanced Navigation and Positioning Corporation, USA.

BEML Primoco UAV- 'One 150', the state-of-the-art UAV designed for civilian and also military uses, is one of the centre pieces at BEML Indoor Stall. It is built to take off and land autonomously also in poor weather conditions. It can fly continuously for 15 hours and has a 200-km radio range. This UAV can be used for surveillance, monitoring, border patrolling and law enforcement. Primaco UAV is planned to be built in India in collaboration with Primaco, Czech Republic.

BEML is also displaying the 25 kg Class Tactical UAV being developed indigenously in collaboration with IIT, Kanpur. The UAV is intended to carry versatile payloads of 3.0 kg, such as day & night cameras. It can take off and land on short runways, fly continuously for 8 hours and has a 50-km radio range.

3-2-2021

THE ECONOMIC TIMES

BEML, NAL team up for 2-seater aircraft

BEML Limited on Thursday signed an MoU with Council of Scientific and Industrial Research (CSIR)-National Aerospace Laboratory (NAL) to develop in the areas of advanced composite and autoclaves, mini-unmanned aerial vehicles, design and analysis of aircraft structure and systems. BEML also teamed with NAL for joint development of two-seater trainer aircraft through technology of transfer (ToT). At Aero India 2021, A K Srivastav, Director Defence and Aerospace, BEML, exchanged the copies with R Venkatesh, Director, Business Development, NAL, in the presence of M V Rajasekhar, CMD, BEML.

ఎయిర్పోలో కుదిరిన కీలక ఒప్పందాలు..

**నావికాదళానికి మూడు ఏవల్ హెలికాప్టర్లు
అప్పగించిన హెచ్ఎఫ్ఎల్**

బెంగళూరు, ఫిబ్రవరి 5 (ఆంధ్రజ్యోతి): ఎయిర్పోలో భాగంగా శుక్రవారం హిందుస్తాన్ ఎరోనాటిక్స్ లిమిటెడ్ (హెచ్ఎఎల్) మూడు ఆర్కాస్-400 హెలికాప్టర్లు (ఏవల్ హెలికాప్టర్) నావికాదళానికి అప్పగించింది. ఇండియన్ నేవీ అధిపతి అడ్మిరల్ కరంవీర్ సింగ్ వీటిని అందుకున్నారు. ఈ సందర్భంగా ఆయన మాట్లాడుతూ నావికా దళం కోస్తా గార్డుల కోసం హెచ్ఎఎల్కు మొత్తం 18 ఏవల్ హెలికాప్టర్లు అర్జీ చేశామన్నారు. హెచ్ఎఎల్ సీఎండ్ అర్ మాదవన్ మాట్లాడుతూ ఏవల్ హెల్ ఎంకేఐ ఇప్పటికే 3 లక్షల గంటలపాటు ప్రయాణించి తన సామర్థ్యాన్ని చాటుకుందన్నారు. ఎలాంటి ప్రతికూల వాతావరణాన్ని అయినా తట్టుకునే శక్తి ఈ హెలికాప్టర్లకు ఉంటుందన్నారు. పూర్తి న్యూజీ సౌకర్యాలతో కూడిన హెచ్ఎఎల్ క్యాపేబిలిటీ వీటికి రావుకల్లూన చేశారన్నారు. ఈ సందర్భంగా కోస్తా గార్డుల డిజి కే నటరాజన్ తదితరులు హాజరయ్యారు.

**ఎయిర్చీఫ్ మార్షల్ చే
హవాయ్ పోర్టల్ ఆవిష్కరణ**

బెంగళూరు యలహంక ఎయిర్బేస్లో జరుగుతున్న అంతర్జాతీయ ప్రమాణిక ప్రదర్శన దివస్ రోజైన శుక్రవారం హెచ్ఎఎల్ - ఇండియన్ ఎయిర్పోర్ట్ సంస్థల సంయుక్తంగా రూపొందించిన హవాయ్ పోర్టల్ ఆవిష్కరణ కార్యక్రమం జరిగింది. ఎయిర్చీఫ్ మార్షల్ అరేకేష్ కుమారయ్య ఈ కార్యక్రమానికి ముఖ్యఅతిథిగా హాజరయ్యారు. డిజిబిల్ ఇండియా పరికల్పనలో భాగంగా పరస్పరం సౌకర్యాల సమాచారాన్ని ఎక్స్చేంజ్ చేస్తున్న వినిమయం చేసుకునేందుకు వీలుగా ఈ పోర్టల్ను రూపొందించారు. ఈ పోర్టల్ అంతర్గత సమాచారం కోసమే ఉద్దేశించామని హెచ్ఎఎల్ సీఎండ్ అర్ మాదవన్ తెలిపారు. ఈ రెండు సంస్థల మధ్య ఇప్పటికే వరుస ఒప్పందాలున్నాయని వీటిని విజయవంతంగా పూర్తిచేసే దిశలో హవాయ్ పోర్టల్ సౌకర్యాల సమాచార వేదికగా ఉంటుందని చెప్పారు. ఉభయ సంస్థలకు చెందిన వరుసల ఉన్నతాధికారులు ఈ సందర్భంగా హాజరయ్యారు.

**సీఎస్ఎఫ్, ఎన్ఎఎల్లతో
బెమెల్ కీలక ఒప్పందం**

బెంగళూరు, ఫిబ్రవరి 5 (ఆంధ్రజ్యోతి): నగరంలో గుతున్న ఎయిర్పోలో భాగంగా కేంద్ర ప్రభుత్వ రక్షణా సంస్థ వీఈఎల్ శుక్రవారం పలు కీలక ఒప్పందాలు రుద్దుకొంది. రెండు సీట్ల టైసర్ ఎయిర్ ప్రాక్ట్లకు గాను లి ఎరోనాటిక్స్ లెటోటెక్నికల్స్, కోస్తా అప్ సైండిపి! దస్త్రీయల్ రీసెర్చ్ సంస్థలతో ఒప్పందం కుదుర్చుకొని! సందర్భంగా బెమెల్ సీఎండ్ సీఎంపీ రాజీవ్ రో పాటన్స్ ఏకే స్పెన్ డైరెక్టర్ ఏకే శ్రీవాత్సవ్, ఎన్ఎఎల్ డైరెక్టర్ వెంకటేష్ తదితరులు పాల్గొన్నారు.

స్టాల్ను సందర్శించిన రాజనాథ్ సింగ్

ఎయిర్ పోలో భాగంగా ఏర్పాటైన బెమెల్ స్టాల్ను రక్షణా శాఖా మంత్రి రాజనాథ్ సింగ్ శుక్రవారం పర్యటించారు. బెమెల్ ఆవరణలో జరుగుతున్న పలు ప్రాజెక్టులని అడిగి తెలుసుకున్నారు. స్టాల్లో ఉంచిన పలు ఉత్త



బెమెల్ స్టాల్ను సందర్శించిన రాజనాథ్ సింగ్

The Indian EXPRESS

5-2-2021

BEML to collaborate with CSIR-NAL



BEML Limited has signed a Memorandum of Understanding (MoU) with Council of Scientific and Industrial Research (CSIR)- National Aeronautics Laboratory (NAL) for development in the areas of advance composite and autoclaves, Mini unmanned aerial vehicles, Design & analysis of aircraft structure and systems.

BEML also teamed up with NAL for joint development of 2 seater trainer aircraft through Technology transfer (To T).

At Aero India, A K Srivastava, Director Defence & Aerospace, exchanged the copies with R Venkatesh, Director Business Development, NAL in the presence of MV Rajasekhar, CMD, BEML.

This will help BEML to increase its footprint in the Aerospace sector.



Brahmos Cruise Missiles shines at Aero India 2021

BusinessLine



AERO INDIA

The Runway to a Billion Opportunities



Aero India 2021 an exhibition exhibiting defence capability

Lets face it: ourselves we have stepped in that time of the year when flocks of fighter jets take off, leaving the spectators mesmerised. The three-day-long 19th

closest to the untapped ocean.

Bringing new technology together

The biennial symposium is a joint programme organised by the Defence



Aero India Exhibition is all set to start from the 3rd to 5th February, at the Air Force Station, Yelahanka, Bengaluru.

The exhibition is organised every alternate year perhaps it creates a sense of excitement amongst both the potential buyers and investors.

This platform is like a hot plate since it acts as an arena of endless possibilities by bringing people

Exhibition Organisation to bring together all the people associated with the aviation sector.

It also enables industry professionals to acquire a deep market insight, showcase new developments, and gain media coverage.

The exhibition offers a unique platform to all the international visitors sector to business business. Aero India 2021 provides the



opportunity to demonstrate products to potential customers and investors. Here, exhibitors are likely to showcase their products using the latest technologies to potential customers.

It is an important international event, likely to be

attended by thousands of business visitors and lab general visitors.

Speaking of the event, this is one of the large-scale exhibitions with an allocated space of 23,000 sqm. The situation of abso-

both companies showcasing their strengths and showcasing taking it as an opportunity to understand the status of the newly developed technology. Nonetheless, the key highlight remains the enthrall-

Honourable Prime Minister gave birth to the concept of Aatmanirbhar Bharat.

This year Hindustan Aeronautics Limited (HAL) will showcase a unique flying display of its indige-

of HAL products such as LCA trainer (LIFT Trainer), HTT-40, ITC, Advanced Hawk Mk 132, and Civil Do-228 will fly in a special formation presenting the spectrum of trainers and signifying self-sufficiency



late lockdown, including travel restrictions was the major hurdle that joined the essence of the Aero Exhibition.

However, the Ministry of Defence ensured to keep the 2021 exhibition without any major alterations, with all the covid-19 precautions. This year, there will be 403 exhibitors, including 228 Indian and 165 Foreign exhibitors.

This three-day-long show is a culmination of

ing public air show. The air show takes place at the Air Force Station, Yelahanka, Bengaluru.

The reason it attracts a large number of audiences is for its grandeur and for giving people a sneak peek into how these aircraft slide past the clouds to dodge the foreign invasion.

The Aatmanirbhar Formation Flight
Amidst the pandemic, the



ness platforms (both fixed and rotary wing) aptly titled 'Aatmanirbhar Formation Flight' will be part of the flying display during the 19th edition of Aero India 2021.

HAL will showcase its prowess in defence and aerospace centred on the theme 'Cooperate, Indigenise, Collaborate' at the world's best hybrid exhibition.

The 'Aatmanirbhar Formation Flight' consisting

is the trainer segment, HTT-40, Advanced Hawk Mk 132, and Civil Do-228 will be available for customer demonstration flights. Sukhoi Su-30 MKI, Advanced Light Helicopter (ALH) Dhruv, Light Combat Helicopter (LCH), Light Utility Helicopter (LUH) will also take part in the flying display.

बी ई एम एल
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RESEARCH, MANUFACTURE

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Defence Industry

BEML at Aero India 2021: Showcasing its capabilities in Defence and Aerospace Sectors



BEML is showcasing some of its prime products during AERO INDIA 2021, the biennial mega Aero exhibition, being held in Bangalore, from 3rd Feb to 5th Feb 2021. With the theme of 'Atmanirbharata', include niche products such as Transporter Landing System (TLS) and Variants of Unmanned aerial vehicles (UAV). In the indoor Stall, BEML is also displaying various equipment and critical components in the aero-space sector.

BEML's focus at AERO Show is to display its capability, promote Aerospace & Defence products and to interact with potential customers and also to explore collaborations. BEML would be signing MoUs, to enter into collaborations with major players in the Defence & Aerospace Business. BEML would also be using the opportunity to network with MSMEs and Start-ups to maximize its efforts of localization / Indigenization.

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BEML AT AERO INDIA 2021

****Showcasing its capabilities in Defence and Aerospace Sectors****



BEML is showcasing some of its prime products during AERO INDIA 2021, the biennial mega Aero exhibition, being held in Bangalore, from 3rd Feb to 5th Feb. 2021. With the theme of 'Atmanirbharata'; include niche products such as Transporter Landing System (TLS) and Variants of Unmanned aerial vehicles (UAV). In the indoor Stall, BEML is also displaying various equipment and critical components in the aerospace sector.

BEML's focus at AERO Show is to display its capability, promote Aerospace & Defence products and to interact with potential customers and also to explore collaborations. BEML would be signing MoUs, to enter into collaborations with major players in the Defence & Aerospace Business. BEML would also be using the opportunity to network with MSMEs and Start-ups to maximize its efforts of localization / indigenization.

TLS being displayed in BEML Outdoor Stall is a ground-based precision landing system which can improve access to airports where terrain or

land constraints make instrument landing system (ILS) installation infeasible or cost-prohibitive. TLS works over any terrain using directional antennas and can be installed even on short runways ending with water / obstructions. It would be manufactured in India by BEML in collaboration with Advanced Navigation and Positioning Corporation, USA.

BEML Primoco UAV- 'One 150', the state-of-the-art UAV designed for civilian and also military uses is one of the centre pieces in BEML Indoor Stall. It is built to take off and land autonomously also in poor weather conditions. It can fly continuously for 15 hours and has a 200 kms radio range. This UAV can be used for surveillance, monitoring, boarder patrolling and law enforcement. Primaco UAV is planned to be built in India in Collaboration with Primaco, Czech Republic.

BEML is also displaying the 25 kg Class Tactical UAV being developed indigenously in collaboration with Indian Institute of Technology, Kanpur. The UAV is intended to carry

CT TODAY



Transporter Landing System

versatile payloads of 3.0 kg, such as day & night cameras. It can take off and land in short runways, fly continuously for 8 hours and has 50 kms radio range.

BEML Limited, the leading multi-technology, multi-product company, is engaged in the design, development and manufacturing of a

wide range of products for core sectors of economy such as Defence, Mining, Power, Infrastructure and Urban Transportation. Presently over 87% of total business is won against tough competition mainly from MNCs, while above 68% of the business comes from in-house R&D developed products. BEML Limited has exported its products to over 68 countries.



Tactical UAV25 kg Class

BEML sign MoUs to explore, enhance business in Defence, Aerospace



Bengaluru. Feb 5 (UNI) BEML Limited, a leading multi-technology 'Schedule A' company under the Ministry of Defence, signed MoUs with 11 entities to explore and enhance the business in Defence and Aerospace Sector, in the presence of Defence Minister Rajnath Singh at the Bandhan Ceremony, AERO INDIA 2021.

The company signed MoU with the UP Expressway Industrial Development Authority (UPEIDA) to explore the opportunities for establishing ware house storage for parts and activity center for servicing-cum-overhauling of BEML products (MRO).

Tags: #BEML sign MoUs to explore#enhance business in Defence#Aerospace **Please log in to get detailed story.**

బీఈఎంఎల్ ఇన్-చార్జ్ సీఎండిగా ఎంపీ రాజశేఖర్ కు అదనపు బాధ్యతలు



బెంగళూరు, ఫిబ్రవరి 2 (ఆంధ్రజ్యోతి): కేంద్ర ప్రభుత్వ రక్షణ రంగ సంస్థ భారత్ ఎర్త్ మూవర్స్ లిమిటెడ్ (బీఈఎంఎల్)లో ప్రస్తుతం వైసింగ్ విభాగం డైరెక్టర్ గా ప్యూహరిస్తున్న ఎంపీ రాజశేఖర్ అదనపు బాధ్యతలు చేపట్టారు. సీఎండి డాక్టర్ దీపక్ కుమార్ హోటా పదవీ విరమణ చేసిన నేపథ్యంలో

ఆయన ఈ బాధ్యతలను తాత్కాలికంగా నిర్వహించనున్నారు. ఈ అదనపు బాధ్యతలను ఆయన సోమవారమే స్వీకరించారని బీఈఎంఎల్ నగరంలో మంగళవారం విడుదల చేసిన ప్రకటనలో తెలిపింది.

BEML to explore opportunities under offsets, joint ventures



By Sumit Kumar Singh

Bengaluru, Feb 3 (IANS): Poised to grow reasonably well in defence business in the coming years, BHEL Chairman and Managing Director M.V. Rajasekhara has said that BHEL has around Rs 4,660 crore orderbook as on date and around Rs 850 crore worth of orders in the pipeline.

Rajasekhara also said during Aero India that the company will explore opportunities under offsets and joint ventures in the areas of mutual interest. Meetings have been planned with global Original Equipment Manufacturers such as Lockheed Martin, Boeing and Rosoboronexport.

Excerpts of the interview:

Q: Over the last five-and-a-half decades, BHEL has been supplying quality products and services to sectors such as Mining & Construction, Rail & Metro, Defence and Aerospace. How successful has the company been in achieving its missions and goals? What are major accomplishments in the recent times?

A: Yes. We were able to achieve our short-term goals. However, some of the long-term plans are yet to be achieved and we are on the trajectory for achieving the same. During recent times ample numbers of accomplishments has been achieved by the company.

Q: What are the capabilities of the newly-launched Aerospace Assembly Hangar, situated within BHEL's Bangalore Complex, and the new Industrial Design Centre?

A: New Aerospace Assembly Hangar has been set up at Bangalore Complex to take up the manufacture of the Light Alloy Structures for GSLV Mk III structures. Required infrastructures have been established to meet the stringent quality requirements of ISRO. There was focus on implementing Industrial Design and Human Factors in all products. It is also global benchmarking for Industrial Design and Ergonomics and integration with research and development and manufacturing. It is also a hub for exchange of creative ideas and concepts to provide the Design-edge for better Market and User acceptance.

Q: How healthy is BHEL's orderbook?

A: At present we are having orderbook position of over Rs 12,200 crore which will be executed by 2023-24. Over the last few years BHEL's order book is very good. With respect to defence vertical, it has seen a rising trend in performance over the last five years. BHEL has around Rs 4,660 crore orderbook as on date and around Rs 850 crore orders in the pipeline. With this orderbook position, BHEL is poised to grow reasonably well in defence business in the coming years.

Q: How does the company support the Atmanirbhar Bharat initiative?

A: Atmanirbharta is in our DNA. Over the years indigenisation has been a big plank of our strategy. Under the government's guidance, we have issued an expression of interest on every product for seeking manufacturing and technology partnerships from reputed Original Equipment Manufacturers looking to establish and or expand their supply chains or manufacturing base in India for the manufacture of various goods and or service business that is being imported as we want to go towards zero import on whatever item is being imported. BHEL has also signed a ToT with Tatra Trucks for indigenisation of cabins for military trucks.

Under Atmanirbhar initiative, BHEL is associated with IIT, Kanpur to establish a potential Industry – Research Institute relationship for joint development of 25 kg class Tactical UAV for surveillance application.

Furthermore, BHEL is entering into an MOU with NAL to associate in the areas of Advanced Composites and Autoclaves, Mini UAV, Design and Analysis of Aircraft Structures and Systems. Efforts are also being made with global OEMs to associate for indigenous design and development of Unmanned Aerial Systems through technology transfer.

Q: What are the activities by BHEL to promote the Defence indigenisation?

A: We have already achieved indigenisation levels of 84 per cent in High Mobility Vehicles and entered into Transfer of Technology with Tatra Trucks for indigenous manufacture of cabins for HMVs. Further, we have also planned for local manufacture of defence spares through joint ventures. There was development of 1500HP Engine for Defence Application.

BHEL has taken up a project for Design, Development and Supply of 1500HP engine to Combat Vehicles Research and Development Establishment with end user being Indian Army. The engine will be supplied to use on Future Main Battle Tank and is designed to work in extreme environmental conditions.

Q: The products of BHEL are exported to more than 67 countries. Could you shed some light on the export operations? Which are the main customers and what are the main export products?

A: BHEL is exploring opportunities for exporting defence products to friendly neighbouring countries like Bangladesh, Thailand etc. Apart from this, BHEL has exported more than 1,100 equipments to various countries across the globe. Our main customers are Syria, Tunisia, Saudi Arabia, Abu Dhabi, Nepal and the main export products are HMV 8x8, HMV 6x6, Sarvatra Bridge System, Recovery Vehicles, Dozers and Excavators.

We have mainly exported Mining and Construction products globally. For improving the geo-strategic reach and increasing exports, we are working on various business opportunities in Defence, Mining and Construction and Rail and Metro segments in SAARC and Africa.

We are in continuous discussion with Indian Embassies and Defence Attaches with respect to business promotion and engaging local representatives and have already appointed representatives in Bangladesh, Tunisia, Cameroon, Thailand and are in the process of appointing more representatives across the globe. Also, we are conducting various webinars and e-meetings through Indian missions abroad to promote BHEL products. Webinars have been conducted through Indian missions in countries such as Kenya, Senegal, Zambia, Sri Lanka, Saudi Arabia, Abu Dhabi, and Oman. Kenya region has been allocated to us by MoD and we have already registered BHEL branch office at Kenya.

Q: What are the highlights of BHEL's participation at the Aero India 2021? How do you look at the expo as an opportunity to bridge new business relationships?

A: BHEL is showcasing some of its prime products during Aero India, the biennial mega aero exhibition. The products, with theme of 'Atmanirbharta', include niche products such as Transporter Landing System (TLS) and Variants of Unmanned aerial vehicles (UAV). In the indoor Stall, BHEL is also displaying various equipment and critical components in the aero-space sector.

BHEL will explore opportunities under offsets and Joint Venture in the areas of mutual interest. Keeping in view of the above, meetings have been planned with global OEMs such as Lockheed Martin, Boeing and Rosoboronexport.

Q: What are the expansion plans for BHEL's business operations?

A: We are looking for growth in aerospace sector and have recently have established manufacturing facilities at our Bangalore complex. We have planned to manufacture and supply aerospace components and aggregates for National programmes and for other DPSUs. Recently, we have engaged management consultant firm McKinsey & Company Inc, Gurugram for devising Business-cum-Growth Plan, after obtaining Board and Ministry of Defence approval.

BHEL plans to associate with global leaders for manufacturing airborne structures, aircraft systems that would enable BHEL reaching the level of a Lead Integrator in the area of missile systems. In addition to this, BHEL is also signing MoUs with strategic OEMs for introducing new products such as autonomous ground vehicles, twin tracked carriers, light armoured dozers, aggregates for T-90 tank and others under Make-in-India initiative.

6-2-2021

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BEML Signed MoU during AERO INDIA



BEML Limited is a leading multi-technology 'Schedule A' company under the Ministry of Defence signed of MoUs with 11 entities to explore and enhance the business in Defence & Aerospace Sector in the presence of Shri Rajnath Singh, Hon'ble Raksha Mantri at the Bandhan Ceremony, AERO INDIA 2021. Shri M V Rajasekhar, CMD, Shri Suraj Prakash, Director (Finance), and Shri A K Srivastav, Director (Defence Business) were present on this occasion.

MoUs:-

With **UP Expressway Industrial Development Authority (UPEIDA)** to explore the opportunities for establishing ware house storage for parts and activity center for servicing come overhauling of BEML products (MRO).

With **Advance Navigation Positioning Company (ANPC)** for joint manufacturing of transponder landing system (TLS) for Indian armed forces, Airport Authority of India (AAI) and Oil exploration companies.

With **Primoco UAV SE, Czech Republic** for manufacturing of '150 kg class' Surveillance UAV for Indian as well as global requirements such as Intelligence based agriculture, Remote mapping, Pipeline Monitoring, Mining Support, Security & intelligence, Disaster Management & Surveillance.

With **IIT Kanpur** for joint development and manufacturing of 25 kg class Tactical UAV for Armed forces.

With **Torus Robotic Pvt Ltd, Chennai** for joint development Artificial Intelligence (AI) based unmanned ground vehicle (UGV), Robotics, Light ght, Ingenious electric power drive system for defence and mercial applications.

With **Council of Scientific and Industrial Research (CSIR)-National Aeronautics Laboratory (NAL)** to develop in the areas of advance composite and autoclaves, Mini unmanned aerial vehicles, Design & analysis of aircraft structure and systems.

With **Outdu Mediatech Pvt. Ltd., Bangalore** for Artificial intelligence based vision system and face recognition system for surveillance & monitoring applications.

With **SKAT Systems, Russia** for joint manufacture of High Altitude UAVs for Indian and Global requirements.

With **Hacklab Solutions Pvt Ltd, Bangalore** for AI Based Lightning System (headlamps / fog lamps) on Heavy Earth Moving Machinery (HEMM) current and future products in order to make more competitive.

With **JSC 'Rosoboron'export, Russia** for projects such as Infantry combat vehicle 'Boomerang', light armored vehicle 'Strela', Auxiliary power units for T-71 / T-90 tanks, Air Defence Systems.

With **SYOMKA S VOZDUHA, Russia (Shooting from Air)** for manufacturing of Marine Drones and Anti Drone Systems.

With **Adani Defenec Systems & Technologies Limited** to provide mobility systems for armed vehicles such as wheels armored personal carriers, infantry combat vehicles and main battle tanks. Apart from development and production of jigs and fixtures for UAVs, Air borne structures, ground handling and ground support equipment for Airports.

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THE INDIAN EXPRESS, THURSDAY, FEBRUARY 4, 2021

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ADVERTORIAL SHOW DAILY AERO INDIA 2021

An Initiative by **RED** Red Engine System

Indo-Russia meet held at Aero India

RELATIONS BETWEEN India and Russia are rooted in history, mutual trust, and mutually beneficial co-operation. Both the countries have institutionalised dialogue mechanisms to take the co-operation forward. The defence facet of the relationship is one of the strongest pillars of India-Russia relationship and is evolving from the traditional buyer-seller one to a joint production and development, with emphasis on technology sharing. Accordingly, an Inter-Governmental Agreement (IGA) on 'Mutual Co-operation in Joint Manufacturing of Spares, Components, Aggregates and other material related to Russian/Soviet Origin Arms and Defence Equipment' was signed during the India-Russia Summit in 2019. The objective of the IGA is to enhance the After Sales Support and operational availability of Russian origin equipment currently in service in Indian Armed Forces by organising production of spares and components in India by Indian industry by way of creation of Joint Ventures/Partnership with Russian OEMs under the framework of the 'Make in India' initiative.

This is the first time that Russia has localised the manufacturing of their OEM's spare parts in a foreign country, indicating the strength of India-Russia co-operation. About 1000 types of spares are expected to be manufactured in India under this agreement, for which 20 Memoranda of Understanding (MoUs) have already been signed so far between Indian companies and Russian OEMs for manufacturing of these spares in India. The Indian Navy, Indian Air Force, and the Ordnance Factory Board have issued RFPs for about 400 spares under the IGA. India-Russia Military Industrial Corporation (MICO) is expected to provide a platform to Russian OEMs and Indian defence private & public sector companies to identify possible areas of co-operation. Five rounds of MICs have already been organised on the sidelines of Aero India/Del expo in India & Russia. The 6th MIC was organised today during Aero India 2021 at Bangalore.

The MIC is held in order to provide a platform to Russian OEMs and Indian defence private and public sector companies

J.R. McDonald, Vice President of Business Development, Integrated Fighter Group, Lockheed Martin Aeronautics, greets Rajesh Mantri Rajnath Singh at the Lockheed Martin stand



MBA showcasing the capabilities of Mistral to Chief of Army Staff General Manoj Mukund Naravane



METEOR is MBDA's revolutionary target powered and network-enabled beyond visual range air-to-air missile, which is widely recognised as a game changer for air combat. Key to this is Meteor's formidable range, agility, active radar seeker and datalink that combine to provide unmatched end-game speed and manoeuvrability at greatly extended ranges, resulting in its all important 'No Escape Zone' being several times greater than any other existing or planned BVK weapons. Meteor is a true European nation programme that will provide the key to the UK's air-to-air arsenal for Europe's new generation of combat platforms. The Indian Air Force is receiving this world-class system on its new Rafale aircraft.

BEML showcases its capabilities

BEML is showcasing some of its defence products during AERO INDIA 2021, the biennial mega Aero exhibition, being held in Bangalore, from 3rd Feb to 5th Feb 2021. With the theme of 'Aero-mobility', BEML includes products such as Transport Landing System (TLS) and variants of Unmanned Aerial Vehicles (UAV). At the expo stall, BEML is also displaying various equipment and critical components in the aerospace sector.

BEML's focus at Aero India is to display its capability to provide Aerospace & Defence products and to interact with potential customers and also to explore collaborations. BEML would be signing MoUs to enter into collaborations with major players in the Defence & Aerospace Business. BEML would also be using the opportunity to network with MSMEs and start-ups to enhance its efforts of local sourcing/development.

TLS, being displayed at the BEML Outdoor Stall, is a ground-based precision landing system which can improve access to airports where terrain or land constraints make instrument landing systems (ILS) installation infeasible or cost prohibitive. TLS works over any terrain using direct optical antennas and can be installed even on short runways ending with water obstacles (runways for monsoons) in India by BEML in collaboration with Advanced Navigation and Positioning Corporation, USA.

BEML's Precision UAV 'One 250', the state-of-the-art UAV designed for precision and autonomy, is one of the centre pieces at BEML Outdoor Stall. It is built to take off and land autonomously in poor weather conditions. It can fly continuously for 75 hours and has a 200 km radio range. This UAV can be used for surveillance, monitoring, border patrolling and law enforcement. Precision UAV is planned to be built in India in collaboration with Precision, Czech Republic.

BEML is also displaying the 25 kg Class Tactical UAV being developed indigenous in collaboration with IEL, Kanpur. The UAV is intended to carry versatile payloads of 3.0 kg, such as day & night cameras. It can take off and land on short runways, fly continuously for 8 hours and has a 50 km radio range.



M.V. Rajagopalan, Additional charge as CEO, BEML

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2021 AERO INDIA

3rd - 5th Feb

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5-2-2021



BEML signs MoU with CSIR-NAL to Develop 2-Seater Trainer Aircraft;



During the Aero India 2021 show being held at Yelahanka Air Force Base, Bengaluru, Karnataka, **BEML Ltd** (previously Bharat Earth Movers Limited) signed a Memorandum of Understanding (MoU) with **CSIR-NAL** (Council of Scientific and Industrial Research-National Aerospace Laboratory) for development of two-seater trainer aircraft through technology transfer.

- The Two entities will also undertake Joint Development in areas of advanced composites and autoclaves, mini-unmanned aerial vehicles, design & analysis of aircraft structure & systems.
- The MoU was exchanged between A K Srivastav, Director Defence and Aerospace, BEML & R Venkatesh, Director, Business Development of NAL.
- The agreement will help BEML to enhance its presence in the aerospace sector.

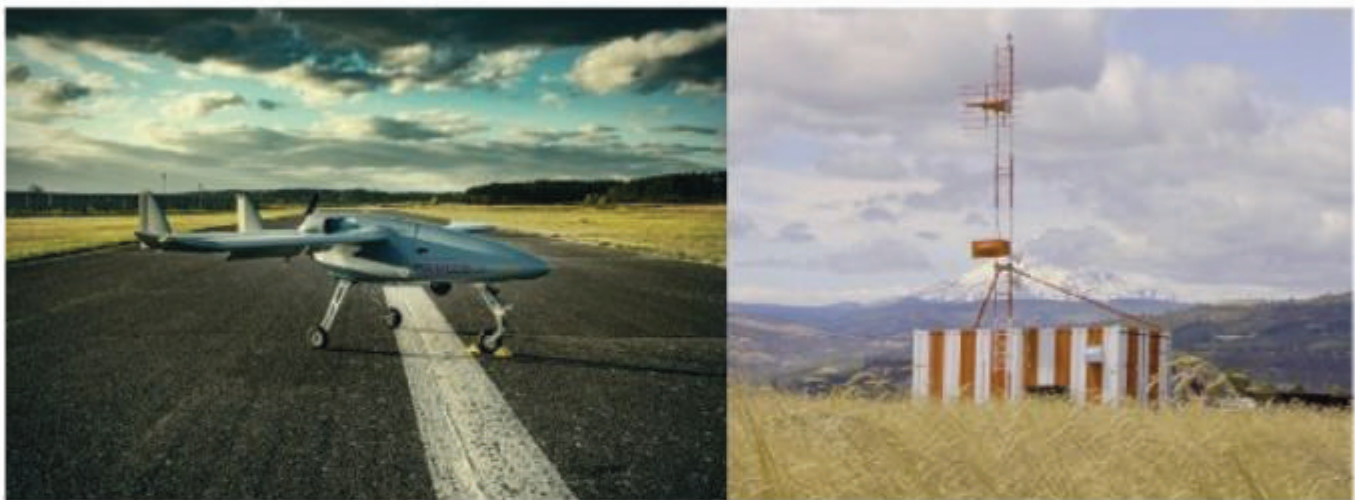


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(<https://www.psuconnect.in/>)

BELM Showcasing its capabilities in Defence and Aerospace Sectors

BELM would be signing MoUs, to enter into collaborations with major players in the Defence & Aerospace Business.



Bangalore: BELM is showcasing some of its prime products during AERO INDIA 2021, the biennial mega Aero exhibition, being held in Bangalore, from 3rd Feb to 5th Feb, 2021. With the theme of 'Atmanirbharata', include niche products such as Transporter Landing System (TLS) and Variants of Unmanned aerial vehicles (UAV). In the indoor Stall, BELM is also displaying various equipment and critical components in the aero-space sector.

BELM's focus at AERO Show is to display its capability, promote Aerospace & Defence products and to interact with potential customers, and also explore collaborations. BELM would be signing MoUs, to enter into collaborations with major players in the Defence & Aerospace Business. BELM would also be using the opportunity to network with MSMEs and Startups to maximize its efforts of localization/indigenization.

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BELM Primaco UAV- 'One 150', the state-of-the-art UAV designed for civilian and also military uses is one of the centre pieces in BELM Indoor Stall. It is built to take off and land autonomously also in poor weather conditions. It can fly continuously for 15 hours and has a 200 km radio range. This UAV can be used for surveillance, monitoring, boarder patrolling, and law enforcement. Primaco UAV is planned to be built in India in Collaboration with Primaco, Czech Republic.

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BELM Limited, the leading multi-technology, multi-product company, is engaged in the design, development and manufacturing of a wide range of products for core sectors of the economy such as Defence, Mining, Power, Infrastructure and Urban Transportation. Presently over 87% of total business is won against tough competition mainly from MNCs, while above 68% of the business comes from in-house R&D developed products. BELM Limited has exported its products to over 68 countries.

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4-2-2021

BEML Signs MoU with CSIR-NAL



A K Srivastav, Director Defence & Aerospace exchanged the copies with R Venkatesh, Director Business Development, NAL in the presence of MV Rajasekhar, CMD, BEML

BEML Limited signed a Memorandum of understanding (MoU) with Council

of Scientific and Industrial Research (CSIR)-National Aeronautics Laboratory

(NAL) to develop in the areas of advance composite and autoclaves, Mini unmanned aerial vehicles, Design & analysis of aircraft structure and systems.

BEML also teamed with NAL for joint development of two seater trainer aircraft through Technology of transfer (ToT).

A K Srivastav, Director Defence & Aerospace, BEML exchanged the copies with R Venkatesh, Director, Business Development, NAL in the presence of MV Rajasekhar, CMD, BEML.

This will help BEML to increase its footprint in the Aerospace sector.



MV Rajasekhar
Director (Mining &
Construction), & CMD
(additional incharge)
BEML inaugurating
the BEML Pavilion
at Aero India



3-2-2021



M V Rajasekhar assumed charge as CMD, BEML

MV Rajasekhar, Director (Mining & Construction) and member of the board of BEML Limited has taken additional charge as Chairman & Managing Director of the company from Feb 01, 2021. He succeeded Dr Deepak Kumar Hota, who retired from service on account of superannuation.

4-2-2021

BEML Puts Thrust on Indigenization and Exports



MV Rajasekhar
Director (Mining & Construction), &
additional charge as CMD, BEML

"Atmanirbharta is in BEML's DNA and indigenization has been the core of our strategy over the years. We are seeking manufacturing & technology partnerships from reputed OEMs looking to establish or expand their supply chains/manufacturing base in India. Positive responses have been received and are under compilation. We aim to indigenize various goods and service business that are being imported as we want to go towards zero import status," said MV Rajasekhar, Director (Mining & Construction), who assumed additional charge as Chairman & Managing Director, BEML. In an interview with Aeromag, he talks about the company's latest business operations and expansion plans.

Over the last five and a half decades, BEML has been supplying quality products and services to sectors such as Mining & Construction, Rail & Metro, Defence & Aerospace. How successful has been the company in achieving its missions and goals? What are the major accomplishments in the recent times?

BEML has been able to achieve our short-term goals. However, some of the long-term plans are yet to be achieved and we are on the trajectory for achieving the same. During recent times, numerous accomplishments were achieved by the company. Some of them are:

- Designed, Developed and supplied India's biggest Excavator and Dump Trucks to Coal India and Bulldozer to Nalco.
- BEML received prestigious orders from VSSC, ISRO for manufacture of 8 types of Light alloy structures for GSLV. This is first of its kind for BEML to venture into space domain to manufacture critical launch vehicle structures thereby supporting

ISRO for their upcoming launch mission including "Mission Gaganyaan". Required facilities including an assembly hangar have been set up at Bangalore Complex.

- BEML received orders for supply of more than 800 BEML HMV vehicles and 1512 Mine Ploughs for Tank T-90

- Overhauling of two Armoured Recovery Vehicle (ARV) has been taken up at KGF Division which is yet again first of its kind in BEML.

- So far, more than 8200 High Mobility Vehicles, 350 Armoured Recovery Vehicles, 3200 Trailers / Wagons, 6 sets (330 nos.) of Pontoon Bridge Systems, 7 sets of Sarvatra Bridge systems, 18000 Rail Coaches and 700 EMUs, 1650 Metro cars, 32000 Mining & construction equipment and 27000 engines.

Defence Minister Rajnath Singh, unveiled 'Driverless Metro Car' manufactured by BEML for Mumbai Metropolitan Region Development Authority (MMRDA) recently. Could you talk more about the project? How strong are the business operations of BEML in rail and metro sectors?

Indigenously designed and developed state-of-the-art Driverless Metro trains are being manufactured at BEML's Bangalore Complex. The cars will operate on 25 kV AC traction power and equipped with CCTV surveillance and with the provision

to carry passenger bicycles in the coaches. The cars are made up of stainless-steel body with a capacity of carrying 2280 passengers in 6 cars Metro train-set.

BEML bagged a total order of 576 cars for MMRDA's MRS1 project, the largest order ever, amidst stiff competition in the presence of international players and the supply is scheduled progressively up to January 2024. On 29 January 2021, Chief Minister of Maharashtra unveiled the First Train on Metro Lines for 7 & 2A designed and supplied by BEML Limited.

What are the capabilities of the newly-launched Aerospace Assembly Hangar, situated within BEML's Bangalore Complex, and the new Industrial Design Centre?

New Aerospace Assembly hangar has been set up at Bangalore Complex to take up the manufacture of the Light Alloy Structures for GSLV Mk III structures. Required infrastructures have been established to meet the stringent quality requirements of ISRO.

The Industrial Design Centre focuses on implementing Industrial Design & Human Factors in all Products. It undertakes global benchmarking for Industrial Design and Ergonomics and integration with R&D and manufacturing. It is a hub for exchange of creative ideas and concepts to provide the 'Design-edge'





Feb-Mar-2021

रक्षा उद्योग

सेना को गतिमान बनाने में बीईएमएल की बड़ी भूमिका



बीईएमएल निर्मित भारूदी सुरंग हटाने वाला माइनिंग प्लाट

डिफेंस मॉनिटर स्पेशल

भारत अर्थमूवर्स लि. एक रक्षा सार्वजनिक उपक्रम है जिसकी स्थापना मई 1964 में की गई थी। बेंगलुरु में मूलतः इसकी स्थापना रेल के डिब्बे, पुर्जे और खनन उपकरणों को तैयार करने के लिए किया गया था। कंपनी का आंशिक विनिवेश हुआ है और टोटल इक्विटी का 54 फीसदी भारत सरकार के अधीन है।

यह कंपनी रक्षा, रेलवे, पावर, खनन और इंफ्रास्ट्रक्चर के क्षेत्र में देश की सेवा कर रही है। शुरू में यानी 1965 में कंपनी का कुल कारोबार मात्र 5 करोड़ रुपये का था और आज यह रु. 3500 करोड़ से ज्यादा का हो गया है। यह कंपनी मुख्यतः तीन क्षेत्रों में कार्यरत है-खनन और निर्माण, रक्षा और रेल व मेट्रो। रक्षा के क्षेत्र में बीईएमएल जिन उत्पादों को तैयार करता है, उनमें टाट्टा आधारित उच्च शक्ति के ट्रक, रिकवरी वाहन, ब्रिज प्रणाली, मिसाइलों के लिए वाहन, टैंकों को ले जाने के लिए ट्रेलर, सैन्य कार्य के लिए रेलवे वाहन, भारूदी सुरंगें हटाने के लिए जमीन खोदने वाले विशेष हल, दुर्घटना में आग बुझाने के वाहन, बर्फ काटने की मशीन, विमान को खींचने वाले टोइंग ट्रैक्टर, विमान में हथियार लगाने के काम आने वाली ट्रॉली आदि शामिल हैं।

बीईएमएल के बने टाट्टा ट्रकों पर ब्रह्मोस मिसाइल के अलावा कई तरह की मिसाइलें लगाई जाती हैं। इसके अलावा ऐसे ट्रक युद्ध में सैन्यापूर्ति के लिए काफी उपयोगी साबित हुए हैं। हाल ही में बीईएमएल को उच्च गतिवान वाहनों की आपूर्ति के लिए 758 करोड़ रुपये मूल्य के ऑर्डर रक्षा मंत्रालय से मिले हैं। ये ट्रक और वाहन सेना की साजो-सामान लाने ले जाने की क्षमता में काफी वृद्धि करेंगे और सेना एक स्थान से दूसरे स्थान तक तेजी से पहुंच सकेगी। इन वाहनों में सेना की टुकड़ियां, बख्तरबंद वाहन, गोला-



बीईएमएल निर्मित टाट्टा ट्रक जो सेना के लिए काफी उपयोगी वाहन है

बारूद, रसद आदि रणक्षेत्रों तक पहुंचाए जाते हैं। बीईएमएल निर्मित वाहन पर्वतीय, बर्फीले, रेगिस्तानी, दलदली आदि कठिन इलाकों के लिए काफी उपयोगी हैं। इन वाहनों का निर्माण केरल में पलक्कड प्लांट में किया जाएगा और साल भर में सेना को उपलब्ध करा दिए जाएंगे।

भारत अर्थ मूवर्स लि. द्वारा बुलडोजर, खुदाई की भारी मशीनें (Excavators), डंपर, जल छिड़काव उपकरण, मेट्रो कार, रेलवे कोच, ब्रॉड गेज रेलवे बस आदि भी बनाए जाते हैं। बीईएमएल के उत्पादों की बिक्री और सेवा के लिए इसका एक विशाल मार्केटिंग नेटवर्क भी है। इस कंपनी के उत्पादों का 67 देशों में निर्यात भी किया जाता है। गुणवत्ता में और सुधार तथा नई टेक्नोलॉजी को आत्मसात करने के लिए बीईएमएल आर एंड डी पर भी काफी धन निवेश करता है। ●

geopolitics

Show daily

2-2-2021

BEML Showcasing capabilities in Defence and Aerospace sectors

BEML is showcasing some of its prime products at Aero India 2021. With the theme of 'Atmanirbharata', there are niche products such as Transporter Landing System (TLS) and Variants of Unmanned Aerial Vehicles (UAV). In the indoor Stall, BEML is also displaying various equipment and critical components in the aerospace sector.

BEML's focus at the Aero Show is to display its capability, promote Aerospace & Defence products, to interact with potential customers and also to explore collaborations. BEML would be signing MoUs to enter into collaborations with major players in the Defence & Aerospace business. BEML would also be using the opportunity to network with MSMEs and start-ups to maximize its efforts of localization/indigenization.

TLS being displayed at BEML Outdoor Stall is a ground-based precision landing system which can improve access to airports where terrain or land constraints make instrument landing system (ILS) installation infeasible or cost-prohibitive. TLS works over any terrain using directional antennas and can be installed even on short runways ending with water/obstructions. It would be manufactured in India by BEML in collaboration with Advanced Navigation and Positioning Corporation, USA.

BEML Primaco UAV-One 150', the state-of-the-art UAV designed for civilian and also military uses is one of the centrepieces at BEML Indoor Stall. It is built to take off and land autonomously also in poor weather conditions. It can fly continuously for 15 hours and has

a 200 kms radio range. This UAV can be used for surveillance, monitoring, border patrolling and law enforcement. Primaco UAV is planned to be built in India in Collaboration with Primaco, Czech Republic.

BEML is also displaying the 25 kg Class Tactical UAV being developed indigenously in collaboration with Indian Institute of Technology, Kanpur. The UAV is intended to carry versatile payloads of 3.0 kg, such as day & night cameras. It can take off and land in short runways, fly continuously for 8 hours and has 50 kms radio range.

BEML Limited, the leading multi-technology, multi-product company, is engaged in the design, development and manufacture of a wide range of products for core sectors of the economy such as



Defence, Mining, Power, Infrastructure and Urban Transportation. Presently over 87 per cent of total business is won against tough competition mainly from MNCs, while above 68 per cent of the business comes from in-house R&D developed products. BEML Limited has exported its products to over 68 countries.

Conceptualised and designed by **NEWSEYE MEDIA PVT. LTD.**, R-9, 1st Floor, Pratap Market, Jangpura B, Near Post Office, New Delhi - 110014, Tel: 981019312

दक्षिण भारत राष्ट्रमत

6-2-2021

दौरा



बेंगलूरु के यलहंका एयरबेस पर चल रही 'एरो इंडिया-2021' में बीईएमएल के पैवेलियन का दौरा रक्षा मंत्री राजनाथ सिंह किया। उनका गर्मजोशी से स्वागत संस्थान के सीएमडी एमवी राजशेखर ने किया। इस मौके पर रक्षा मंत्री को बीईएमएल के रक्षा और एयरोस्पेश बिजनेस सेक्टर में उपकरण, घटकों की क्षमता के बारे में जानकारी दी।



Feb-Mar-2021



BRITISH COMPANY PEARSON ENGINEERING PARTNERS WITH BEML TO SUPPLY 1,500 TRACK WIDTH MINE PLOUGHS TO INDIAN ARMY

New Delhi. British Company Pearson Engineering will be supplying over 1,500 Track Width Mine Ploughs (TWMP) to the Indian Ministry of Defence. The order, which will see the Pearson plough integrated with the T-90 S/SK tank, will be delivered in partnership with Defence PSU BEML Limited. With previous experience in integrating counter-mine capabilities with T-72, T-90, Arjun Mk1 Main Battle Tank and BMP-2 Armoured Vehicles, Pearson Engineering is proud to be a current supplier to the Indian Army. Dr Deepak Kumar Hota, Chairman and Managing Director of BEML, said, "We are proud to be associated with MoD to enhance the combat capabilities of the Indian Army. This is another example of BEML's capability to meet the specific requirements for our armed forces. BEML signifies the true spirit of Make in India." Richard Beatson, Business Development Director at Pearson Engineering, said, "We are delighted to have received this important order alongside our partners at BEML. Having been committed to developing capability for India for many years, we look forward to further developing our relationships, both with the end-user and Indian industry." The track width mine plough will enable the Indian Army's T-90 tanks to move through mined areas, while remaining highly mobile. Pearson Engineering has a long heritage in the supply and integration of mine ploughs to Armed Forces around the world. ■

Aero India 2021: Defence strengths of BEML on display

Defence PSU BEML is slated to showcase a host of its prime products at Aero India 2021.



Metal birds manoeuvre during the Aero India 2019 air show in Bengaluru. (File Photo | EPS)

By Express News Service

BENGALURU: Defence PSU BEML is slated to showcase a host of its prime products at Aero India 2021. With the theme 'Atmanirbharata', the company's niche product line-up such as Transporter Landing System (TLS) and variants of unmanned aerial vehicles, will be on display. In the indoor stall, it is displaying various equipment and critical components in the aerospace sector, such as the BEML Primoco UAV- 'One 150', which is designed for civilian and military use.

"BEML's focus at the air show is to display its capability, promote Aerospace & Defence products and interact with potential customers and explore collaborations. BEML would be signing MoUs, to enter into collaborations with major players... The company would also be using the opportunity to network with MSMEs and startups to maximise its localisation/indigenisation efforts," a release said.

Meanwhile, MV Rajasekhar, Director (Mining & Construction) and member of the board of BEML Limited took additional charge as Chairman & Managing Director of the company as on February 1, 2021. He succeeded Dr Deepak Kumar Hota.

Frontline

9-2-2021

BEML signs MOU to co-develop two-seater trainer aircraft and other high-tech products in the aerospace sector at the Aero India 2021 air show

With a turnover of more than Rs.3,500 crore, defence public sector enterprise (DPSE) BEML Limited (formerly Bharat Earth Movers Limited) plays a pivotal role with top-draw services in core sectors like defence, railways, power, mining, and infrastructure and is India's leading mining and construction equipment manufacturer, offering a comprehensive range of mining machinery. Even while continuing to ramp up production and sales of its hydraulic excavators, bulldozers and dump trucks, the DPSE has extended its gaze to the aerospace sector over the past dozen years in a bid to take advantage of the global and domestic opportunities in the fast-expanding aerospace market.

At Aero India 2021, BEML's foray into the aerospace business was the cynosure of all eyes, with the company announcing a joint venture with the Council of Scientific and Industrial Research (CSIR)-National Aeronautics Laboratory (NAL) to co-develop a two-seater trainer aircraft through the transfer of technology (ToT) route. Also on display at Aero India 2021 were BEML's unmanned aerial vehicles (UAVs), such as the Primoco UAV One 150, which is designed for civilian and military use, and two other smaller UAVs.

The company also showcased its Transporter Landing System (TLS) and a variety of equipment and critical components in the aerospace sector. The TLS is a ground-based precision landing system which can improve access to airports where terrain constraints make instrument landing system (ILS) installation infeasible or prohibitively costly. The TLS works over any terrain using directional antennas and can be installed even on short runways ending with water or other obstructions. BEML would be manufacturing the TLS in India in collaboration with the United States-based Advanced Navigation and Positioning Corporation.

Talking to *Frontline*, BEML's M.V. Rajasekhar, Director, Mining and Construction, (he has also taken additional charge as Chairman and Managing Director of the company), and A.K. Srivastav, Director, Defence, were of the view that unmanned aerial vehicles were the future.

Said Rajasekhar: "UAVs are a totally unexplored sector and business. Not only will they find great use in military applications both for surveillance and in an offence mode given that future wars will be unmanned and

Frontline

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remote controlled, but also in civilian applications in areas like aerial mapping, reconnaissance, remote weather watch, and so on. BEML has entered into an agreement with Indian Institute of Technology Kanpur to develop a 25-kg class tactical UAV, which has a range of 200 km and an endurance in excess of three to four hours. The Primoco UAV, which we are developing along with Primoco UAV SE of the Czech Republic, has an endurance of 15 hours and a range of 200 kms. The 'BEML Primco One 150' is built to take off and land autonomously even in poor weather conditions. It can fly continuously for 15 hours, has a payload capacity of 1-30 kgs and has a 200 km-radio range. This UAV can be used for surveillance, monitoring, border patrolling and law enforcement. The platform is ready, with BEML and Primoco working to fine-tune it to Indian conditions. We are now looking at trials by potential customers."

BEML has entered into a partnership with the Indian Institute of Technology Kanpur for joint indigenous development and manufacture of a 25-kg class tactical UAV for the Armed forces. BEML has also signed a Memorandum of Understanding (MoU) with SKAT Systems, Russia, for joint manufacture of high altitude UAVs for Indian and global requirements and another with S'YOMKA S VOZDUHA, Russia, for the manufacture of marine drones and anti-drone systems.

Rajasekhar estimates that there will be a demand for around 50,000 to 100,000 small to big UAVs from both the military and civil sectors. He disclosed that BEML has also ventured into the space arena, manufacturing products for ISRO's Geosynchronous Satellite Launch Vehicle (GSLV) Mark III.

At Aero India 2021, BEML signed an MoU with CSIR-NAL for cooperation in the areas of advance composite and autoclaves, mini unmanned aerial vehicles and design and analysis of aircraft structure and systems. This will help BEML to increase its footprint in the aerospace sector.

Also, on display at Aero India 2021 was BEML's Medium Bullet Proof Vehicle (MBPV)-MkII, a boon for paramilitary forces like the Border Security Force (BSF) and the Central Reserve Police Force (CRPF). The bullet proof vehicle

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protects crew and troops from ballistic arm fire, hand grenades and fragment simulated projectiles, allowing troops to be transported and made operational in any counter-insurgency environment.

BEML is offering the Indian Army their Artificial Intelligence (A.I.)-powered Medical Health Diagnostic System (MHDS), a mobile health and diagnostic station housed in a 20 feet container on a high mobility platform (the BEML TATRA 8x8/6x6 truck). In order to cover the medical diagnostic needs of troops in forward posts, especially in high altitude areas, the MHDS diagnostic station has a plethora of high-tech medical equipment.

During the Aero India 2021 air show, BEML entered into a number of MOUs with foreign and Indian companies. It has also entered into an MoU with Adani Defence Systems & Technologies Limited to provide mobility systems for armed vehicles such as wheels, armoured personal carriers, infantry combat vehicles, and main battle tanks, in addition to the development and production of jigs and fixtures for UAVs, air-borne structures, ground handling, and ground support equipment for airports.



6-2-2021



BEML signs MoU with CSIR-NAL

February 09, 2021



BEML Limited, operating in three verticals -- defence and aerospace, mining and construction and rail and metro signed a Memorandum of understanding (MoU) with Council of Scientific and Industrial Research (CSIR)-National Aeronautics Laboratory (NAL) to develop in the areas of advance composite and autoclaves, mini unmanned aerial vehicles, design and analysis of aircraft structure and systems.

BEML has also teamed up with NAL for the joint development of two-seater trainer aircraft through Technology of transfer (ToT). At the Aero Show, Bangalore, A K Srivastav, Director Defence and Aerospace exchanged the copies with R Venkatesh, Director Business Development, NAL in the presence of MV Rajasekhar, CMD, BEML.

According to the official news release, this contract will help BEML to increase its footprint in the aerospace sector.

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A start-up with promise

Start-ups along with Micro, Small and Medium Enterprises (MSMEs) are going to play a pivotal role in building a robust Indian Defence Ecosystem, said the Managing Director (MD) of a Tamil Nadu-based Indian start-up in defence. "We are happy that the Government of India recently has allowed start-ups to be part of building Indian defence ecosystem. We have an emotional and passionate connect towards this journey," said R Jayaraghavendhar, MD, Mviven Infra Tech Pvt Ltd.

Mviven has a 10-year agreement with SRPC Joint-stock Company (JSC), and is working on second generation anti-tank missile, and with value addition the company is upgrading the existing systems. Mviven is working towards adding Optics and making these second-generation anti-tank missiles more accessible. The company is working with the Indian Army and the Ministry of Defence for Make 1 or say Make 2 with local manufacturing capacity to contribute towards the Make in India platform.

"We have just been sanctioned as a design and development agency for defence platforms by the Ministry of Defence (MoD), Government of India. We are an agency for modern development which makes India future combat ready," Jayaraghavendhar quipped. "Our design philosophy is to design a product or service which has a shelf-life of at least 15 years, which can show its prowess after 15 years of manufacturing. Every shot counts and it should count after 15 years. Our process is small but a robust one," he said.

Lockheed Martin offers Javelin missile through JV

THE JAVELIN Joint Venture, a partnership of Raytheon Missiles & Defense and Lockheed Martin, is offering the Javelin anti-tank guided missile to the Indian Ministry of Defence through various programmes.

Two of the programmes that the Javelin Joint Venture is competing for include the Indian Ministry of Defence's procurement of the next-generation dismounted fire-and-forget Anti-Tank Guided Missile solution and the Wheeled Armoured Fighting Vehicle opportunity.

For both opportunities, the Joint Venture is offering Javelin — a versatile one-man-portable and platform-employed anti-tank and multi-target precision weapon system. Javelin's fire-and-forget capability, which extends to the full 4-kilometre range in most operational conditions, greatly increases the survivability of operators. Javelin's minimum range of 65 metres makes it an ideal weapon for urban or mountainous



environments. Javelin can also switch between top-attack and direct-attack modes. Javelin's lethality is effective against any currently fielded Main Battle Tanks. Javelin's Multi-Purpose Warhead is also lethal against light armour, irregular targets, structures, caves and personnel.

For the Wheeled Armoured Fighting Vehicle programme, the Javelin Joint Venture is working with Ashok Leyland, and other Indian vehicle

manufacturers, in pursuit of anti-tank guided missile integration. The team is prepared to support with a combined solution should the customer express further interest or progress towards the next steps.

To fulfill potential future requirements of the Indian Ministry of Defence, last year the Javelin Joint Venture signed a Memorandum of Understanding with Bharat Dynamics Limited, a leading Indian guided

weapon system manufacturer with 50 years of experience. The MOU leads the way for the two companies to explore potential, future co-production of the Javelin anti-tank missile system.

Since signing the MOU, the Javelin Joint Venture has been working with Bharat Dynamics Limited to develop Technology Control Plans and identify which Javelin components could be manufactured in India. The Javelin Joint Venture is also working to get export authorisation from the U.S. State Department.

In support of Make in India, the Javelin Joint Venture is also preparing for indigenous production by Indian industry. The Joint Venture regularly meets with industry to explore opportunities and has made progress toward qualification of Indian industry as suppliers of components for the programme. This will result in access to a global defence supply chain, creating extensive export opportunities for Indian industry.

FLYING DISPLAY AT THE 13TH EDITION OF AERO INDIA



America's B-1B Lancer heavy bomber, of the 28th Bomb Wing based out of Ellsworth Air Force Base in South Dakota, performed a "fly-by" at the Air Show



Defence Minister Rajnath Singh holds engaging discussions at the BAE Systems stand at Aero India 2021



MBDA welcomes Raksha Mantri Rajnath Singh at its stand and showcases its game-changing package for the Rafale aircraft manufactured by Dassault Aviation and industrial activities in India, in line with the 'Make in India' initiative

RAC MiG enters into a strategic partnership with Aviatech Enterprises

AVIATECH ENTERPRISES Pvt. Ltd. (AEPL), a Crown Group Company, specialising in Defence Aerospace MRO and Aviation Engineering services including engineering design, Manufacture, Product development and Production for Indigenisation and with a NABL accredited Calibration facility, has announced that it has entered into a 'Framework Agreement' with Joint Stock Company RAC MiG.

AEPL will be the in-country authorised partner for RAC MiG for providing post-warranty Product Support for MiG 29K/KUB aircraft, Associated Systems, Ground Support Equipment (GSE) and Special to Type Test Equipment (STTE) in the inventory of the Indian Navy.

Speaking on the partnership, Rear Admiral Srinivas Kanungo, VSM (Retd), Head of Aerospace Engineering and CEO Aviatech Enterprises Pvt. Ltd. (AEPL), commented, "We are proud to be the preferred Partner of Choice for JSC RAC MiG, Russia's premier aerospace and defence company. The 'Framework Agreement' is an enabling agreement which paves the way for enhanced in-country Product Support at the doorstep of the Indian Navy establishments operating or maintaining the MiG-29K/ KUB fleet of aircraft. It drastically reduces the turnaround timelines of the aggregates through the contracts on long term basis as per MOD (Dept of Defence Production) guidelines. The association of Indian partner, AEPL, in the follow-on support contracts addresses critical Maintenance, Logistics and Supply chain issues on 24x7 basis, thus enhancing the availability of the aircraft and associated systems."



AEPL will be the in-country partner for RAC MiG for post-warranty Product Support for MiG 29K/KUB aircraft, Associated Systems, GSE, STTE in Navy's inventory

The above Agreement is in line with the 'Make in India' policy under the 'Atmanirbhar Abhiyan' vision of the GOI. The Agreement has been concluded under the spirit of 'Inter-Governmental Agreement (IGA)' signed between GOI and Russian Federation in September 2019. It is also in line with the area of focus of IAF to engage with the industry to set up repair and overhaul (ROH) facilities within India for high value rotables/repairs and encourage in-house MRO facilities, thereby leading to reduced timeframes for repair and enhanced operational availability of assets.

Rolls-Royce committed to partnering with India on its goals: Kishore Jayaraman

INDIA IS at the right juncture to build a vibrant local defence industry ecosystem that could support both domestic and export demand. With a mix of defence public sector undertakings and private companies, as well as research capabilities and manufacturing set-ups, India has a huge defence industrial base. This provides an excellent opportunity to build and/or scale up an industrial base centred on indigenous manufacturing. Co-creation and subsequent manufacturing for India and for the world, is a goal we can aspire to achieve in this sector.

India today has the width and the weight to invest in co-creation programmes through collaboration with willing global players with the goal to co-develop relevant technologies and IP in critical areas. With a co-owned IP in areas of strategic importance, not only can India commercialise



Kishore Jayaraman, President, India & South Asia, Rolls-Royce

production locally, but it can also use its base to become a global supplier and exporter of defence technologies.

With a legacy partnership that rests on many years of capability development and

co-manufacturing, Rolls-Royce is committed to partnering India's progress. We believe the future will be all about 'Creating in India' in collaboration with willing global players, with India co-owning the Intellectual Property (IP) in areas of strategic importance. This will catapult India's vision to create a strong ecosystem and commercialise production locally, and eventually use this base to boost global supply chain and export capabilities.

Additionally, as India progresses towards 'Atmanirbharata', it must embrace technology at an increasing pace across all spheres of industry and society. Specifically, in the defence sector, the country's aspiration to evolve from a regional power to a global power will need to be coupled with the creation of well-defined initiatives focused on indigenisation and self-reliance, driven by technology at its core.

AATMANIRBHARATA पूर्णतम



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BEML Pavilion
Indoor Stall - E, 4.1 and Outdoor OD-04

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Raksha Mantri Visited BEML Pavilion @ AERO INDIA 2021



Bangalore, 06 February 2021 : Shri Rajnath Singh, Hon'ble Raksha Mantri Visited BEML pavilion at AERO INDIA 2021. On arrival he was warmly greeted by Shri MV Rajasekhar, CMD and shown around the equipment, components and briefed about the BEML's Capabilities in Defence & Aerospace Business Sector.

CDS General Bipin Rawat Visited BEML Stall @ AERO INDIA 2021



Bangalore, 06 February 2021 : The Chief of Defence Staff of the Indian Armed Forces (CDS) General Bipin Rawat, PVSM, UYSM, AVSM, YSM, SM, VSM, ADC Visited the BEML Stall at AERO INDIA 2021

He took keen interest about the exhibited equipment such as unmanned vehicle such as BEML Primoco UAV and BEML IIT Kanpur 25 kg class tactical UAV.

Shri MV Rajasekhar, CMD & Shri AK Srivastav, Director Defence business were present during his visit.

