समाचार पत्रों से चयित अंश
Newspapers Clippings

दैनिक सामयिक अभिज्ञता सेवा

A daily Current Awareness Service

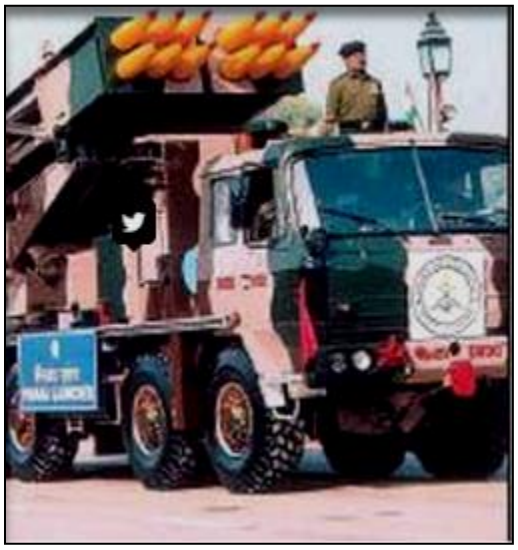
Vol. 43 No. 120 11 June 2018

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

THE TIMES OF INDIA

Mon, 11 June, 2018

DRDO to deliver advanced Pinaka rocket version by 2020



The Armament Research and Development Establishment (ARDE), a laboratory under the Defence Research and Development Organisation (DRDO), will deliver guided Pinaka rocket with an enhanced range of up to 75 km to the army by 2020.The current range of Pinaka is 40 km."An upgraded version of Pinaka rocket, with new guided system and an enhanced range, was successfully test-fired at Chandipur in Odisha recently. The results of the trial were excellent," PK Mehta, director general, Armament Combat Engineering (ACE) cluster headquartered in Pune, told TOI. As per the plan, the advanced version of the rocket will be inducted into the force in the next two years, Mehta said. "Currently, we are working on the rocket's control and guidance system, which will be perfected in the coming months. Thereafter, the rocket will go through several trials, including user trials," Mehta added. Explaining the importance of the guided version of the rocket, Mehta said, "The new version of the rocket will be a force multiplier for the Indian Army as it can hit long distance target with precision." Asked about the specific requirement of the army vis-a-vis new Pinaka, he said,

"The army is still working on this aspect. They haven't quoted any specific number so far" In November last year, the Defence Acquisition Council (DAC) had cleared a request for proposal for six additional regiments of the artillery at a cost of Rs 14,633 crore. A senior army officer told TOI, "The advanced version of the rocket will be in small numbers but it will give us an edge over enemies. The mix attack of the rockets will generate the required lethality on the battlefield." Pinaka, the indigenous unguided rocket system which has been undergoing extensive tests since the last 20 years, is capable of neutralising large areas with rapid salvos. The army had used it extensively during the Kargil war while hitting the mountain peaks of the enemy. In fact, more than 6,000 Pinaka rockets have been supplied to the army. The army has a projected requirement of 2 lakh rockets.

https://timesofindia.indiatimes.com/city/pune/drdo-to-deliver-advanced-pinaka-rocket-version-by-2020/articleshow/64533918.cms

THE ECONOMIC TIMES

Mon, 11 June, 2018

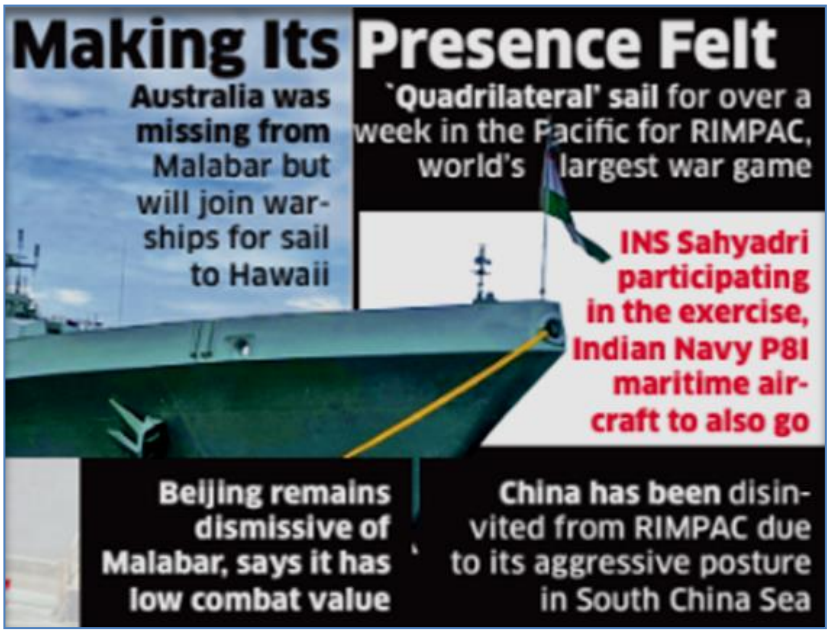
Quad will sail together across Pacific in largest military drill

Australia may have been missing from this year's edition of the Malabar naval exercise but it will join India, Japan and the US in a 'group sail' to the world's largest wargames later this month. Warships of the four nations will traverse the Pacific for over a week to arrive for the Rim of the Pacific (RIMPAC) exercise at Hawaii. While warships of the four nations–being increasingly termed as the Quadrilateral in the Indo Pacific – will sail together, China has been disinvited from this year's edition of RIMPAC. Australia, which had taken part in the Malabar series of exercises in 2007 invoking a strong reaction from Beijing about a possible military containment arrangement—has been keen to come back to the wargames. India, however, is being

cautious given the attempts to normalise relations with China following the tense standoff at Dokalam last year.

The quadrilateral sail for RIMPAC will consist of the INS Sahyadri, the Japanese helicopter destroyer Ize, US pacific fleet vessels, besides the Australian component. While no exercises are planned on the way, a joint sail helps in familiarisation of naval drills. "One of our ships, INS Sahyadri will continue from Malabar to participate at RIMPAC. A group sail is planned from June 17 onwards and they will get together and sail for Hawaii. Our two remaining ships will go back to Vizag," Rear Admiral Dinesh K Tripathi, the Eastern Fleet Commander who is leading the Indian delegation to Malabar, told ET.

RIMPAC will consist of 26 nations, 47 warships, five submarines and over 200 aircraft taking part in a variety of drills from anti-submarine operations, joint ground attack, air defence and anti-piracy drills. An Indian Navy P8I maritime aircraft will also be stationed in Hawaii for the exercise. Over 25,000 personnel are expected to be part of the biennial exercise that is to commence on June 27. The theme of the exercise this year is "Capable, Adaptive, Partners." "It's a different challenge and opportunity, participating with 26 nations and such a large number of sailors. It will be a big learning, will be a great month or so for the ship," Rear Admiral Tripathi said. The reason for the withdrawal of the invitation for RIMPAC has been China's continued aggressive behaviour in the South China Sea that the host, US, sees as 'inconsistent' to the values of the exercise. The Chinese Navy, which shadowed Indian warships on the way to Malabar, has been aggressively patrolling international waters that Beijing now claims as its own.



MAIL TODAY

Mon, 11 June, 2018

Milky Way disc much bigger than thought

Spiral galaxies like Milky Way have discs which are really thin

IT would take us 200,000 years to cross the disc of our galaxy if we could travel at the speed of light, say scientists who found that the disc of the Milky Way is bigger than thought. Spiral galaxies such as the Milky Way have discs which are really thin, in which the major fraction of their stars are found.

These discs are limited in size, so that beyond certain radius there are very few stars left. In our Galaxy we were not aware that there are stars in the disc at distances from the centre more than twice that of the Sun. This means that our own star was apparently orbiting at about half the galactic radius. However, now we know that there are stars quite a bit further out, at more than three times this distance, and it is probable that some stars are at more than four times the distance of the Sun from the Galactic centre. The disc of our Galaxy is huge, around 200 thousand light years in diameter, said Martin Lopez-Corredoira, a researcher at the Instituto de Astrofisica de Canarias (IAC) in Spain. In broad terms we can think of galaxies like the Milky

Way as being composed of a rotating disc, which includes spiral arms, and a halo, spherical in shape, which surrounds it. This piece of research has compared the abundances of metals (heavy elements) in the stars of the Galactic plane with those of the halo, to find that there is a mixture of disc and halo stars out to the large distances indicated. The researchers came to these conclusions after make a statistical analysis of survey date from APOGEE and LAMOST, two projects which obtain spectra of stars to extract information about their velocities and their chemical compositions.

THE ECONOMIC TIMES
WWW.ECONOMICTIMES.COM

Mon, 11 June, 2018

Zuckerberg Vs Musk, a cautionary tale on age of robots

By Cade Metz

San Francisco: Mark Zuckerberg thought his fellow Silicon Valley billionaire Elon Musk was behaving like an alarmist. Musk, the entrepreneur behind Space X and the electric-car maker Tesla, had taken it upon himself to warn the world that artificial intelligence was "potentially more dangerous than nukes" in television interviews and on social media. So, on Nov. 19, 2014, Zuckerberg, Facebook's chief executive, invited Musk to dinner at his home in Palo Alto, California. Two top researchers from Facebook's new artificial intelligence lab and two other Facebook executives joined them. As they ate, the Facebook contingent tried to convince Musk that he was wrong. But he wasn't budging. "I genuinely believe this is dangerous," Musk told the table, according to one of the dinner's attendees, Yann LeCun, the researcher who led Facebook's AI lab. Musk's fears of AI, distilled to their essence, were simple: If we create machines that are smarter than humans, they could turn against us. (See: "The Terminator," "The Matrix," and "2001: A Space Odyssey.") Let's for once, he was saying to the rest of the tech industry, consider the unintended consequences of what we are creating before we unleash it on the world. Neither Musk nor Zuckerberg would talk in detail about the dinner, which has not been reported before, or their long-running AI debate.

The creation of "super intelligence" - the supersmart technological breakthrough that takes AI to the next level and creates machines that not only perform narrow tasks that typically require human intelligence (like self-driving cars) but can actually outthink humans - still feels like science fiction. But the fight over the future of AI has spread across the tech industry. More than 4,000 Google employees recently signed a petition protesting a $9 million AI contract the company had signed with the Pentagon — a deal worth chicken feed to the internet giant but deeply troubling to many artificial intelligence researchers at the company. This month, Google executives, trying to head off a worker rebellion, said they wouldn't renew the contract when it expires next year. Artificial intelligence research has enormous potential and enormous implications, as both an economic engine and a source of military superiority. The Chinese government has said it is willing to spend billions in the coming years to make the country the world's leader in AI, while the Pentagon is aggressively courting the tech industry for help. A new breed of autonomous weapons can't be far away.

All sorts of deep thinkers have joined the debate, from a gathering of philosophers and scientists held along the central California coast to an annual conference hosted in Palm Springs, California, by Amazon's chief executive, Jeff Bezos. "You can now talk about the risks of AI without seeming like you are lost in science fiction," said Allan Dafoe, a director of the governance of AI program at the Future of Humanity Institute, a research center at the University of Oxford that explores the risks and opportunities of advanced

technology. And the public roasting of Facebook and other tech companies over the past few months has done plenty to raise the issue of the unintended consequences of the technology created by Silicon Valley.

In April, Zuckerberg spent two days answering questions from members of Congress about data privacy and Facebook's role in the spread of misinformation before the 2016 election. He faced a similar grilling in Europe last month. Facebook's recognition that is was slow to understand what was going on has led to a rare moment of self-reflection in an industry that has long believed it is making the world a better place, whether the world likes it or not. Even such influential figures as the Microsoft founder Bill Gates and the late Stephen Hawking have expressed concern about creating machines that are more intelligent than we are. Even though super intelligence seems decades away, they and others have said, shouldn't we consider the consequences before it's too late? "The kind of systems we are creating are very powerful," said Bart Selman, a Cornell University computer science professor and former Bell Labs researcher. "And we cannot understand their impact."

Linking Brains and Machines

Asilomar is a hotel and conference center in Pacific Grove, California. A group of geneticists gathered there in the winter of 1975 to discuss whether their work — gene editing — would end up harming the world. In January 2017, the AI community held a similar discussion in the beachside grove. The private gathering was organized by the Future of Life Institute, a think tank built to discuss the existential risks of AI and other technologies. The heavy hitters of AI were in the room — among them LeCun, the Facebook AI lab boss who was at the dinner in Palo Alto, and who had helped develop a neural network, one of the most important tools in artificial intelligence today. Also in attendance were Nick Bostrom, whose 2014 book, "Super intelligence: Paths, Dangers, Strategies," had an outsize — some would argue fear mongering — effect on the AI discussion; Oren Etzioni, a former computer science professor at the University of Washington who had taken over the Allen Institute for Artificial Intelligence in Seattle; and Demis Hassabis, who heads DeepMind, an influential Google-owned AI research lab in London. And so was Musk, who in 2015 had donated $10 million to the institute in Cambridge, Massachusetts. That year, he also helped create an independent artificial intelligence lab, OpenAI, with an explicit goal: create superintelligence with safeguards meant to ensure it won't get out of control. It was a message that clearly aligned him with Bostrom. "Worth reading Super intelligence by Bostrom," Musk tweeted in 2014. "We need to be super careful with AI. Potentially more dangerous than nukes."