



Gateway

Volume 10 Issue 5

September - October 2024

President's Message



Dear Friends,

Political transition in democracies bring about heightened interest not just to respective societies but also to the neighbourhoods and beyond. Of the 50-odd countries that were seeing elections in

2024, three merit close attention: that of India, Japan and the United States. What makes the political scenario even more challenging is that these three democracies manage their relationships bilaterally, trilaterally and multilaterally and in the process ensuring the stability of the Indo Pacific. Elections and leadership continuity are over in India, is in active process in Japan and soon the results will be known in the United States.

India's support in ensuring safety and security in the Indo-Pacific region and the upcoming 2025 Quad Leaders Summit further exemplify its pivotal role on the global stage. India's establishment of a space-based web portal for Mauritius to monitor extreme weather events; and its award of 50 Quad scholarships, worth \$500,000, to students from the Indo-Pacific to pursue a four-year undergraduate engineering program at a Government of India-funded technical institution is a commendable gesture.

India's initiative as the host for the critical Quad Regional Ports and Transportation Conference in Mumbai in 2025 and its participation in the Quad Cancer Moonshot initiative - provision of detection kits and cervical cancer vaccines worth \$7.5 million to the Indo-Pacific region underscore its dedication to fostering sustainable development and saving lives in the region. The challenge to India and Japan in the Indo Pacific is for all to see and heading that list would be freedom of navigation so that there is free flow of trade and commerce.

I look forward to the continued collaboration and exchange of ideas between our two nations to further mutual progress and prosperity with the Indo Japan Chamber of Commerce and Industry contributing what it can to facilitate this process.

Regards,
T.P. Imbichammad

Congratulations to H.E. Mr. Shigeru Ishiba, Prime Minister of Japan



Shigeru Ishiba was voted in as the 102nd prime minister of Japan at an extraordinary Diet session on 1st October 2024. He received 291 out of the 461 votes cast in the Lower House. Ishiba was elected president of the ruling Liberal Democratic Party on 27th September, replacing Mr. Fumio Kishida, who decided not to seek re-election.

A former minister of Regional Revitalisation and Agriculture, Mr. Ishiba frames his economic agenda to elevate Japan's greying, depopulating countryside.

India to drive global semiconductor industry

India is one of the largest consumers of semiconductors, poised to play a significant role in driving the global semiconductor industry, ‘the government will do everything to make India a semiconductor powerhouse, it is a dream to have an Indian-made chip in every device in the world’, says Prime Minister Narendra Modi. India is building a robust semiconductor workforce comprising 85,000 technicians, engineers, and research & development experts. India has attracted investments exceeding Rs 1.5 lakh crores for its semiconductor sector in a short span of time. With India’s electronics sector now valued at over \$150 billion, it is expected to grow to \$500 billion and create as many as 6 million jobs by the end of this decade.

India’s defence manufacturing ecosystem is reaching new heights

Prime Ministers of India and Spain Mr. Narendra Modi and Mr. Pedro Sanchez jointly inaugurated the TATA Aircraft Complex for manufacturing C-295 aircraft at TATA advanced systems limited (TASL) Campus in Vadodara, Gujarat on 28th October. The Prime Ministers went around the exhibition showcased on the occasion. This is the first visit of Prime Minister Mr Pedro Sanchez’s to India. The partnership between the two countries is finding a new



direction, “it would not only strengthen the relations between the two nations but also give momentum to the mission of ‘Make in India, Make for the World’”, said Mr. Modi. He underlined that the factory of C295 aircraft is a reflection of the new work culture of New India. The foundation stone laying of the factory was carried out in October 2022, and the facility is now ready for production of C295 aircraft. Mr. Modi expressed confidence that the aircraft manufactured at the factory would also be exported. “India’s defense exports have increased 30 times over the past decade, now exporting equipment to over 100 countries, the factory will support indigenous manufacturing of 18,000 aircraft parts and India is one of the biggest suppliers of parts for the world’s major aircraft companies today”, said Mr. Modi. The first ‘Make in India’ C295 will roll out of the Vadodara FAL in September 2026, which will be a milestone for the Indian aerospace industry; and shall ramp-up to deliver 40 aircraft to the Indian Air Force by August 2031.

Medical student’s smartphone app deciphers why babies are crying

TOKUSHIMA--A team led by a medical student is upgrading an app that uses artificial intelligence (AI) to analyze the cries of babies and determine what they want. Koga Nakai, a sixth-year student at the Tokushima University Faculty of Medicine, took an interest in babies’ cries three years ago after hearing from mothers who suffered from postpartum depression. He volunteered to work at a day care center, where he interviewed 523 parents and other guardians, felt that AI could determine why babies cry based on the volume, frequency and other particulars. Nakai enlisted the help of medical institutions and day care centers to collect recordings of babies’ cries, and he used an AI system that he developed to analyze more than 12,000 clips of voice data. In 2023 he released a preliminary edition of Awababy Pro, an app that shows pictorially why a baby is crying when the cry is recorded on a smartphone. It takes the app about six seconds to classify babies’ feelings into five patterns, including “drowsy,” “in a bad mood” and “hungry,” based on the frequencies and volumes of their cries. The app can also show how the parent can stop the crying, such as by caressing, hugging or giving milk to the baby. Nakai plans to release a pay edition of the Awababy app this month-end, it will allow babies’ feelings to be visualized in up to 12 patterns.



(Asahi Shimbun)

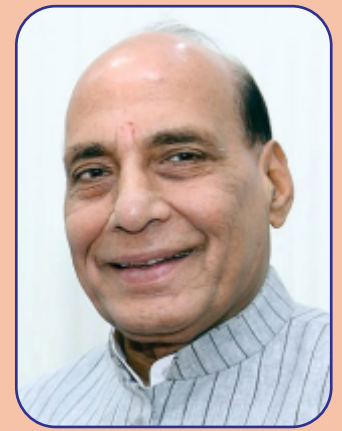
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Defence Minister Mr. Rajnath Singh invites private sector participation in the Indian defence sector

Defence sector must be made more innovative and technology oriented . “Technology's impact on the defence sector is not limited to conventional warfare; it has given birth to unconventional warfare, including drones, cyber warfare, bio-weapons, and space defence. These elements pose challenges to the defence sector, the time has come for the private sector to take the lead in defence sector participation, because the private industry has the capability not only to absorb rapid changes but also to create new innovations. Collaborative efforts by scientists, industrialists, academia, startups, MSMEs, and young entrepreneurs in defence R & D should get together and participate in the defence sector in a big way”, urged Mr. Rajnath Singh.



Tokyo Electron prepares for India expansion

Tokyo Electron is seeking to build a team of chip engineers in India for more semiconductor manufacturing. Japan's biggest chip equipment maker plans to hire and train local engineers in or around 2026, with their first task to provide technical services to Tata Electronics. Robotics will play a growing role, and local staff will be provided with in-person and remote support from Japan. India is ramping up efforts to attract international electronics companies and chipmakers to set up facilities within its borders, under a plan by the Modi administration to close the tech gap with advanced economies. Apple is accelerating its production and sales of iPhones in the country, while Tata Group and others are investing billions of dollars in semiconductor fabrication plants. The government is providing incentives to support those ventures, which will need machinery and know-how from companies like Tokyo Electron. The Tokyo-based company will target 10,000 new hires globally over the next five years, as more countries race to build chips at home. Tokyo Electron supplies gear to Taiwan Semiconductor Manufacturing Co., Samsung Electronics, SK Hynix and Intel, and its forecast for the business year to March points to record revenue and operating profit. It also expects overall chip demand to double by 2030, boosted by artificial intelligence, autonomous cars and a push toward energy efficiency and carbon neutrality. Over \$15 billion worth of semiconductor investment projects have been approved by the Government of India, including U.S. memory maker Micron Technology's plan for a \$2.75 billion assembly facility. Israel's Tower Semiconductor is also seeking to partner with billionaire Gautam Adani on a \$10 billion fabrication plant in western India.

(Japan times)

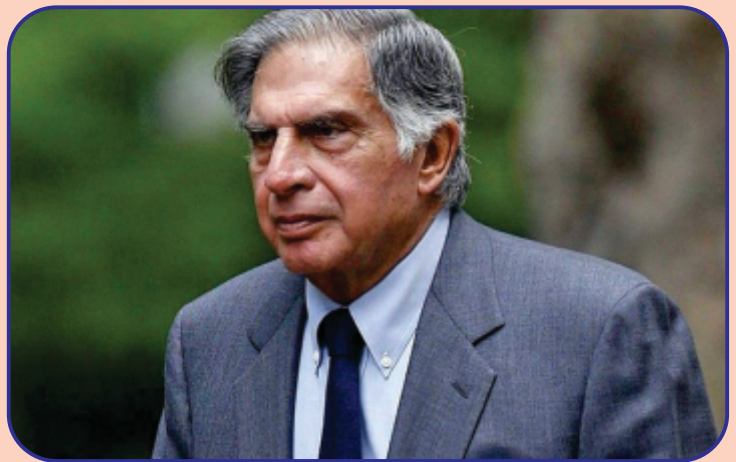
JAXA achieves world's fastest optical inter-satellite communication

The Japan Aerospace Exploration Agency (JAXA) successfully achieved the optical inter-satellite communication at a speed of 1.8 Gbps between the Laser Utilizing Communication System (LUCAS) aboard the Optical Data Relay Satellite and the Advanced Land Observing Satellite-4 “DAICHI-4” (ALOS-4). Since July 4, JAXA has been conducting the initial functional verification operations of “DAICHI-4” to verify on-orbit operations of various onboard instruments. As part of this verification, a test to link “DAICHI-4” to LUCAS began on August 20. By establishing bidirectional acquisition and tracking between the optical inter-satellite communication instrument (Optical Leo Laser Communication Terminal:OLLCT) on board “DAICHI-4” and LUCAS on board the Optical Data Relay Satellite, which are about 40,000 km apart, command was successfully transmitted to “DAICHI-4”, and telemetry was successfully retrieved from “DAICHI-4”. This confirmed that the data transmitted from “DAICHI-4” reached LUCAS at the world's fastest communication speed of “1.8 Gbps” (communication wavelength band of 1.5 μm). This is the world's first successful optical inter-satellite communication between geostationary orbit and low Earth orbit at a communication speed of “1.8 Gbps” in the 1.5 μm wavelength band. It is a speed 7.5 times faster than the “240 Mbps” transmission rate of the preceding Data Relay Test Satellite “KODAMA” (DRTS). This wavelength band is a common wavelength used in terrestrial fiber optical communication networks and is expected to be used in space in the future due to its high performance. With this success in communicating between the low orbit satellite and LUCAS, an increase in communication time to about 9 hours from the typical 1 hour per day for ordinary communications between low orbit satellites and ground stations can be realized, thanks to LUCAS relaying the geostationary orbit satellite. This enables real-time transmission of data acquired in areas where Earth observation satellites in the low orbit cannot directly communicate with ground stations, via the geostationary orbit satellite to the ground. Similarly, during emergencies, commands can quickly be sent from the ground to satellites via LUCAS by relaying the geostationary satellite, and observation imagery can be acquired promptly. JAXA will continue demonstrations to assess how differences in the distance between satellites and their positional relationship affect communication quality using LUCAS and “DAICHI-4” with the aim of practical use. Additionally, plans are in place to conduct demonstrations of transmitting observation data and experimental data from spacecraft orbiting at medium to low altitudes (200 - 1,000 km), such as “Kibo” and others in addition to “DAICHI-4”, by relaying via LUCAS to ground stations.

Tributes to Industrial doyen Mr. Ratan Tata

Visionary business leader, Chairman Emeritus of the TATA Group, one of India's biggest conglomerates Mr. Ratan Tata, passed away on 9th October 2024, at the age of 86. India honours Tata for his unwavering commitment to excellence, integrity, and innovation; a compassionate soul and an extraordinary human being.

Ratan Tata became chairman of the \$100 billion steel-to-software conglomerate in 1991 and ran the group founded by his great-grandfather more than a hundred years ago until 2012. He founded telecommunications company Tata Teleservices in 1996 and took IT company Tata Consultancy Services public in 2004. In a role reversal in 2004, Tata Group, an Indian company, having acquired iconic British car brands - Jaguar and Land Rover - found itself cast as reverse colonialists. In 2009, he fulfilled his promise to make the world's cheapest car accessible to the middle class. The Tata Nano, priced at Rs. 1 lakh, became a symbol of innovation and affordability. Mr. Tata was twice the Chairperson of the Tata Group conglomerate, from 1991 to 2012 and from 2016 to 2017. He became Chairman Emeritus of Tata Sons, Tata Industries, Tata Motors, Tata Steel and Tata Chemicals and head of charitable trusts of the group. With over 13 million followers on X and nearly 10 million on Instagram, he was the 'most followed entrepreneur' in India, according to the 360 ONE Wealth Hurun India Rich List 2023. Born in 1937, studied architecture at Cornell University, and followed it up with a management course at Harvard. In 2008, he received the Padma Vibhushan, India's second-highest civilian honour.



TATA Motors setting up global automotive plant in Tamilnadu

Tata Motors is setting up world-class production facility in Ranipet, Tamilnadu. The production facility will be utilised to next-gen vehicles for Tata Motors and JLR which will cater to both Indian and international markets. Tata Motors signed a MoU with the Tamil Nadu government, investment to the tune of Rs.9,000 crores. The facility has been designed for an annual production capacity of over 250,000 vehicles. Production will begin in a phased manner and progressively increase to reach this capacity over the next 5-7 years. Tata claims that this advanced, state-of-the-art



manufacturing facility has the potential to create over 5,000 employment opportunities. Tata Motors, the parent company of Jaguar Land Rover (JLR), intends to locally manufacture the luxury vehicles under the British brands in India. This would mean lowered acquisition costs of Jaguar and Land Rover cars in India, currently are only available as fully-imported CBUs. Further, the plant will be guided by principles of sustainability and use 100% renewable energy for its running operations.

ISRO Chairman S. Somanath receives IAF World Space Award

- Chandrayaan-3 made historic landing near the Moon's south pole on August 23, 2023.
- It marked India as the first nation to achieve this feat.
- Dr. Somanath's leadership was instrumental in guiding the mission.

In a momentous recognition of India's achievements in space exploration, Dr. S. Somanath, Secretary of the Department of Space and Chairman of the Indian Space Research Organisation (ISRO), has been awarded the prestigious

International Astronautical Federation (IAF) World Space Award for the remarkable success of the Chandrayaan-3 mission. The award ceremony, held in Milan, Italy, celebrates India's significant contributions to lunar exploration and its growing prominence in the global space community.



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Publisher : IJCCI; Designing & Printing : J.G.S. Johnson - 93845 93262

For Private Circulation only.

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