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by Amita Pilania

INDIA

04 August (UNI): Karnataka Pushes Bengaluru as a Global Deep-Tech Hub

Karnataka announced an ambition to position Bengaluru as a global hub for deep technologies, with emphasis on nanotechnology, artificial intelligence, semiconductors, biotechnology and quantum technologies. The initiative reflects a broader shift in India's technology strategy from software-led services towards advanced hardware and research-intensive sectors. Bengaluru already hosts a large concentration of aerospace, defence, semiconductor-design and technology firms, making it a natural location for deeper integration between research institutions, startups and industry. The strategic relevance is particularly strong for defence technology. AI, semiconductor design, quantum systems and advanced materials increasingly underpin modern military capabilities, from autonomous platforms and secure communications to electronic warfare and space systems. Building dense regional ecosystems can shorten the pathway from laboratory research to deployable products. For India, the development also supports the objective of reducing dependence on imported critical technologies. However, achieving deep-tech leadership will require sustained investment in physical infrastructure, patient capital, specialised talent and government procurement. Bengaluru's proposed role therefore represents not merely an economic development initiative but part of the wider competition to build national technology ecosystems capable of supporting strategic autonomy.

06 August (TOI): Indian Army Issues RFI for 2,715 Logistics Drones

The Indian Army issued a request for information for 2,715 logistics drones intended to strengthen high-altitude operations. The requirement reflects the growing role of unmanned systems in military logistics, particularly in difficult terrain where conventional road and air resupply can be constrained by weather, altitude and infrastructure. Logistics drones can potentially transport ammunition, food, medical supplies and other stores over short distances while reducing exposure of personnel to hazardous routes. The development is significant because the military application of drones is expanding beyond surveillance and strike missions. Autonomous and remotely piloted logistics systems can support dispersed formations and sustain operations in environments where traditional supply chains are

vulnerable. Their value increases when combined with AI-enabled route planning, autonomous navigation and real-time battlefield data. For India, the requirement also illustrates the growing importance of indigenous drone manufacturing and reliable component supply chains. A scalable military drone ecosystem will require domestic capabilities in propulsion, batteries, communications, navigation, sensors and software. The Army's requirement therefore represents a move towards treating unmanned systems as an integral part of operational logistics rather than as niche capabilities.

06 August (PIB): 'Agni-4' Ballistic Missile successfully test-fired

India successfully test-fired the **Agni-4 ballistic missile** from the Integrated Test Range (ITR), Chandipur, Odisha, under the aegis of the Strategic Forces Command (SFC). The test successfully validated the missile's operational and technical parameters. The successful trial reinforces the reliability and operational readiness of India's strategic missile forces and strengthens the country's credible deterrence posture. The test also underscores India's continued focus on indigenous missile development and maintaining a robust, survivable strategic capability.

15 August (Indian Express): PM Modi Places AI, Quantum, Space, Robotics and Semiconductors at the Core of India's Technology Ambition

In his Independence Day address, Prime Minister Narendra Modi emphasised that India should become a global innovation hub in an era increasingly shaped by artificial intelligence, quantum technology, space, robotics, semiconductors and data centres. The message placed advanced technology alongside manufacturing, defence self-reliance and infrastructure as major elements of India's development strategy. The significance lies in the convergence of these technologies. AI requires advanced computing and semiconductor supply chains; autonomous defence systems depend on sensors, chips and secure communications; and modern space systems increasingly require onboard processing and resilient networks. Treating these areas as an interconnected ecosystem can help India move beyond individual technology programmes towards broader strategic capability. The emphasis on self-reliance also reflects lessons from global supply-chain disruptions and intensifying competition over critical technologies. For the defence sector, the challenge will

be converting national technology ambitions into deployable capabilities through procurement reform, private-sector participation and closer links between research institutions and the armed forces. The policy direction indicates that technology sovereignty is increasingly being treated as a component of national power.

17 August (DD India): India Leases Two MQ-9B Sea Guardians for Indian Navy

The Ministry of Defence signed a ₹1,943 crore contract with General Atomics Aeronautical Systems on 17 August to lease two MQ-9B Sea Guardian high-altitude, long-endurance remotely piloted aircraft systems for the Indian Navy. The 30-month arrangement is intended to strengthen maritime surveillance and reconnaissance capabilities. The lease is significant because persistent maritime awareness increasingly depends on a combination of space-based sensors, long-endurance UAVs and networked command systems. MQ-9B-class platforms can provide wide-area surveillance and complement satellite imagery by offering flexible, persistent coverage over areas of maritime interest. Their value is therefore greatest when integrated into a broader intelligence architecture rather than employed as standalone aircraft. The decision to lease also demonstrates an approach that can provide near-term capability while longer-term indigenous systems are developed. For India, the challenge will be ensuring secure data links, domestic maintenance capacity and integration with existing naval command-and-control networks. The development reinforces the broader shift towards persistent ISR architectures in which multiple sensors operate across air, sea and space domains.

19 August (ThePrint): India's Space Technology Community Highlights AI and Quantum for Next-Generation Satellites

At the National Space Technology Conclave 2026, ISRO experts highlighted the growing role of artificial intelligence, quantum technologies, semiconductors and advanced computing in India's future space programme. The discussions reflected a shift from viewing satellites primarily as platforms carrying sensors towards treating them as increasingly intelligent and interconnected systems. AI can enable onboard data processing, autonomous navigation and anomaly detection, while quantum technologies may contribute to secure communications, precision sensing and timing. Indigenous semiconductor capabilities are equally important because space systems require components capable of operating under radiation, temperature

and reliability constraints. The convergence of these technologies has strategic implications for India's space-security architecture. Advanced processing can reduce dependence on ground infrastructure and shorten the time between sensing and decision-making, while secure communications can improve resilience against interception and disruption. The development also supports India's broader objective of building an integrated space ecosystem in which public institutions, universities and private companies contribute to mission capability. For defence planners, the key requirement will be translating these technologies into operational systems rather than treating them as isolated research programmes.

USA

24 July (SpaceX): SpaceX's Starship Flight 13 Advances Reusable Heavy-Lift Architecture

SpaceX's 13th Starship test flight on 24 July marked another step in the company's effort to mature a fully reusable heavy-lift launch system. The mission deployed 20 next-generation Starlink V3 satellites on a suborbital trajectory, while the Starship upper stage completed a controlled ocean splashdown. Six of the deployed satellites carried cameras that captured imagery of the vehicle during flight, providing additional data on its thermal protection and in-space behaviour. The Super Heavy booster, however, experienced difficulties during its descent and did not achieve the intended recovery profile. The strategic significance of the test extends beyond a single launch. Starship is being developed around high launch cadence, large payload capacity and rapid reuse. If the architecture reaches operational maturity, it could alter the economics of large satellite constellations and make rapid replenishment of space-based capabilities more feasible. For defence users, such a capability could strengthen resilience by enabling faster deployment of communications, ISR and other satellite assets. The test also illustrates the growing convergence between commercial launch systems and national-security space infrastructure.

27 July (SES): SES Space & Defense and Starlab Move Toward Resilient Commercial Space Communications

SES Space & Defense and Starlab announced an agreement to develop a communications architecture using low-Earth-orbit relay services to support Starlab's commercial space station. The proposed architecture is intended to provide continuous, resilient and low-latency connectivity throughout the station's operational lifecycle. The development reflects the broader transition from individually operated spacecraft toward interconnected orbital networks in which communications, data relay and cloud-like services become persistent infrastructure. For national security planners, the development is relevant because resilient space communications are increasingly treated as an enabling layer rather than a standalone satellite function. Commercial relay services can potentially provide additional pathways for data movement, reducing dependence on a single communications architecture. They also illustrate how commercial space infrastructure may become dual-use by design. As

commercial stations, relay networks and Earth-observation constellations expand, governments will have to consider how these systems can contribute to continuity of operations during disruption. The Starlab-SES initiative therefore represents a wider trend towards networked space infrastructure in which commercial investment can support greater redundancy and connectivity.

28 July (Space.com): SpaceX Launches 24 Starlink Satellites as High-Cadence LEO Deployment Continues

SpaceX launched another 24 Starlink satellites aboard Falcon 9 from Vandenberg Space Force Base on 31 July. The mission formed part of the company's sustained programme of deploying large numbers of satellites into low Earth orbit. The operational tempo illustrates the industrial model behind large constellations: frequent launches, standardised spacecraft and reusable launch vehicles are combined to sustain a continuously expanding orbital network. The strategic relevance of high launch cadence is broader than commercial broadband. Large constellations can provide communications redundancy, navigation augmentation, remote sensing and other services that may have military utility. The ability to replace or augment satellites rapidly is increasingly important as space systems face congestion, interference and potential attack. High-frequency commercial launch operations therefore contribute indirectly to the resilience of national space architectures. At the same time, the rapid growth of LEO constellations raises concerns over orbital congestion and debris management. The Starlink deployment demonstrates the emerging reality that space power increasingly depends on manufacturing scale and launch logistics as much as on individual high-value spacecraft.

29 July (Spaceflight Now): SpaceX Launches Classified NRO Payload, Reinforcing Commercial–Military Launch Integration

SpaceX launched the classified NROL-95 mission for the U.S. National Reconnaissance Office on 29 July aboard a Falcon 9. The mission was conducted under the National Security Space Launch Phase 2 procurement framework, demonstrating the increasing role of commercially developed launch systems in delivering sensitive national-security payloads. The launch also highlighted the operational maturity of Falcon 9, whose reusable first-stage architecture has enabled a high flight rate while supporting government missions. The

development is strategically significant because access to space is becoming increasingly dependent on launch cadence and assured availability rather than simply maximum payload capacity. For military users, frequent commercial launches can provide additional flexibility for deploying or replenishing satellites, particularly in proliferated architectures. It also reduces the distinction between commercial and military space infrastructure: the same industrial ecosystem can support broadband constellations, Earth observation and intelligence missions. The NROL-95 launch therefore reflects a broader U.S. approach in which commercial launch providers are embedded within the national-security space architecture, creating both resilience and new questions about dependence on private operators.

29 July (GlobalFoundaries): US Backs GlobalFoundries' Silicon Photonics Push for AI Infrastructure

The U.S. government announced a $300 million award for GlobalFoundries to advance silicon photonics technology intended to support more efficient AI data centres. Silicon photonics integrates optical communications with semiconductor processes, allowing data to move between computing components using light rather than relying solely on conventional electrical interconnects. As AI workloads demand increasingly large volumes of data movement, the efficiency of interconnects has become a strategic bottleneck alongside processor performance and memory capacity. The development has implications beyond commercial computing. AI-enabled military systems increasingly depend on high-performance data processing for sensor fusion, ISR analysis and decision support. Improvements in optical interconnects can potentially reduce latency and energy consumption while enabling greater computing density. The investment also demonstrates how semiconductor policy is evolving from a focus on fabrication capacity toward control over the wider technology stack, including packaging, interconnects and advanced computing infrastructure. For countries seeking technological autonomy, the lesson is that AI competitiveness cannot be separated from semiconductor manufacturing, photonics and data-centre architecture. These enabling technologies are becoming strategic infrastructure for both civilian and defence applications.

30 July (AviationWeek): SpaceX Secures $1.6 Billion To Launch Space-Based Sensing Sats

SpaceX secured approximately $1.6 billion in launch orders associated with U.S. military satellite networks. The award highlights the growing dependence of national-security space programmes on commercially developed launch systems and the importance of predictable access to orbit. The ability to conduct multiple launches through an established reusable platform gives the U.S. government an industrial base capable of supporting both routine deployment and rapid replenishment. The development is strategically significant because modern military space architectures are moving towards proliferated and distributed constellations. Such systems require a steady flow of launches rather than occasional deployment of a few extremely expensive satellites. Commercial launch providers can supply this cadence while reducing the marginal cost of placing additional spacecraft in orbit. However, the arrangement also creates a dependency on private-sector infrastructure and supply chains. The U.S. approach therefore combines commercial innovation with government procurement to build resilience, while simultaneously making the commercial space sector an integral component of military power. Other spacefaring states, including India, will need to consider how launch frequency, private-sector participation and assured access interact in future space-security planning.

03 August (Leidos): Leidos Selected for Infrared Sensors Supporting U.S. Missile Defence Tracking

Leidos was selected by Sierra Space to provide infrared sensing payloads and onboard signal-processing capabilities for the U.S. Space Development Agency's Accelerated Missile Defense Tranche 3 Tracking Layer. The programme reflects the growing emphasis on space-based sensing architectures capable of detecting and tracking missile threats. Infrared sensors are particularly valuable because they can observe the thermal signatures associated with missile launches and flight. The development illustrates how missile defence is increasingly becoming a multi-domain sensing problem. Space-based sensors can provide wide-area coverage and persistent tracking that complements terrestrial and airborne systems. Integrating onboard signal processing can further reduce the time between detection and the production of usable information. For military operations, this supports faster warning, tracking and engagement decisions. The broader trend is towards proliferated satellite architectures in which numerous smaller or distributed platforms provide resilience against

individual failures or attacks. For countries developing their own space-based surveillance capabilities, the development underscores the importance of pairing sensors with high-speed processing, secure communications and integrated command networks rather than treating satellites as isolated collection platforms.

04 August (Space.com): SpaceX Conducts Its 90th Falcon 9 Mission of 2026

SpaceX launched another 24 Starlink satellites on 4 August, marking the company's 90th Falcon 9 mission of 2026. The milestone demonstrates the extent to which reusable launch technology has transformed orbital access. Rather than treating rockets as single-use strategic assets, SpaceX has built an operational model around recovering, inspecting and repeatedly flying boosters.

The strategic importance lies in launch cadence. A high-frequency launch system can sustain large constellations, replace failed spacecraft and potentially support responsive national-security missions. The same industrial infrastructure that supports commercial broadband can therefore contribute to military resilience by making replenishment less dependent on a small number of annual launches. The development also illustrates the growing role of manufacturing scale, standardisation and operational experience in space power. For emerging space powers, including India, the challenge is not simply to develop a reusable rocket but to create the broader ecosystem—launch sites, supply chains, spacecraft production, range infrastructure and private-sector capital—needed to exploit reusability at scale. Falcon 9's 2026 flight rate provides a practical benchmark for this transition.

10 August (Rocket Lab): Rocket Lab Selects Kepler Communications for Dedicated Neutron Mission

Rocket Lab announced that Kepler Communications had selected its Neutron launch vehicle for a dedicated mission supporting space infrastructure. The agreement demonstrates growing customer interest in next-generation launch vehicles designed to serve larger payloads and constellation deployment requirements. Neutron is being developed around a reusable architecture, positioning it within the broader global competition to reduce launch costs and increase flight frequency. The development is significant because the commercial space market is moving towards larger and more complex satellite networks. Constellation

operators increasingly require predictable launch capacity and flexible deployment options. A successful Neutron programme could therefore add another reusable launch platform to the global market, potentially reducing dependence on a small number of providers. From a security perspective, a more diverse launch market can improve resilience by providing alternative routes to orbit. It also demonstrates how commercial demand is shaping technologies that can have strategic applications. For India, the emergence of multiple private reusable-launch initiatives worldwide underscores the importance of developing a domestic commercial launch ecosystem capable of supporting both civil and national-security requirements.

12 August (Space.com): Space-Based Observations Capture the Total Solar Eclipse

The total solar eclipse of 12 August was observed by multiple spacecraft, providing an illustration of the scientific and operational value of space-based sensing. NASA astronauts aboard the International Space Station captured imagery, while ESA's Proba-3 mission used its formation-flying configuration to observe the solar corona during a rare artificial eclipse. Meteosat and NOAA's GOES-19 satellite also captured the Moon's shadow as it moved across Earth. Beyond the scientific interest, the event demonstrated the increasingly sophisticated sensing architectures operating in orbit. Proba-3's ability to create an artificial eclipse by precisely positioning two spacecraft illustrates the potential of formation flying for future space missions. Similar precision technologies can have applications in Earth observation, astronomy and space-domain awareness. The broader lesson is that advanced space missions increasingly depend on autonomy, precision navigation and distributed spacecraft operations. These capabilities are also relevant to military space systems, where multiple satellites may need to coordinate observations or maintain relative positions. The eclipse therefore provided a visible demonstration of technologies that are likely to influence the next generation of complex orbital missions.

20 August (Micron): Micron Announces $10 Billion Research Hub for Memory and AI

Micron announced plans for a new U.S.-based research institution backed by a planned $10 billion investment over the next decade. The Micron Research Labs initiative is intended to advance memory and computing technologies needed for the AI era, bringing together academia, government, startups and industry. The investment highlights a growing

recognition that AI performance depends not only on processors but also on memory capacity, bandwidth and energy efficiency. The strategic importance is substantial because memory technologies are becoming a critical bottleneck in large-scale AI systems. Military AI applications—including ISR processing, autonomous platforms and battlefield decision support—will also depend on efficient high-performance computing infrastructure. Investments in advanced memory therefore have potential national-security significance alongside their commercial value. The announcement further demonstrates how semiconductor competition is expanding beyond leading-edge processors into the wider computing stack. For India, building a competitive semiconductor ecosystem will require attention to memory, packaging, interconnects and specialised components in addition to logic-chip fabrication. The development reinforces the broader argument that technological sovereignty depends on controlling enabling layers of the digital economy rather than focusing solely on headline AI models

20 August (SpaceflightNow): SpaceX Launches 29 Starlink Satellites After Weather-Related Scrub

SpaceX launched 29 Starlink satellites from Cape Canaveral on 20 August after a last-minute scrub. The mission demonstrated the operational rhythm of a launch system capable of returning to flight rapidly after scheduling disruptions. The first-stage booster was subsequently recovered, reinforcing the role of reusable hardware in sustaining frequent launches. The broader significance is the operationalisation of space infrastructure. Satellite constellations require continuous deployment and replenishment, making launch systems part of an ongoing supply chain rather than occasional project milestones. For defence users, the ability to restore orbital capacity quickly can be valuable in the event of spacecraft failure or hostile interference. Reusability reduces the pressure on manufacturing and launch resources by allowing boosters to fly repeatedly. The mission also illustrates the importance of flexible launch scheduling and range infrastructure. As more countries develop large LEO constellations, the capacity to conduct frequent launches will become an increasingly important measure of space power. The emerging competition is therefore as much about industrial throughput and operational tempo as it is about individual spacecraft performance.

CHINA

11 August (CNN): China's Long March 7A Suffers Launch Failure

China's Long March 7A rocket suffered a launch failure shortly after liftoff from the Wenchang Space Launch Site on 10 August. The incident interrupted an otherwise high-tempo year for Chinese space launches and highlighted the technical risks associated with sustaining a rapid launch cadence. The Long March 7A is designed for missions requiring significant payload capacity to higher orbits, making reliability particularly important for national and strategic space programmes. The failure is noteworthy in the context of China's expanding satellite ambitions. Beijing is simultaneously developing conventional launch vehicles, reusable rockets and commercial launch capabilities. A single failure does not materially alter that trajectory, but it demonstrates that high launch rates bring operational and engineering challenges. For military space planners, reliability remains a fundamental component of resilience: large constellations require not only frequent launches but also dependable access to orbit. The incident also highlights the value of maintaining multiple launch vehicle families and launch sites. China's subsequent return to flight demonstrated the benefit of a diversified launch architecture, allowing the country to continue deploying satellites while investigating the failure.

17 August (Global Times): China Launches 24th Group of Low-Orbit Internet Satellites

China launched the 24th group of low-orbit internet satellites aboard a Long March-12 rocket from Hainan on 16 August. The mission was part of China's effort to accelerate the deployment of large low-Earth-orbit constellations. The high frequency of launches demonstrates Beijing's focus on building the manufacturing and launch capacity required for sustained constellation growth. Large LEO networks have strategic relevance because satellite communications can support connectivity, data relay and distributed services across large geographic areas. For military users, resilient communications are particularly valuable in environments where terrestrial infrastructure may be degraded or contested. China's progress also highlights the importance of integrating satellite production with launch infrastructure. A constellation cannot be strategically useful if replacement spacecraft cannot be manufactured and launched at sufficient speed. The development therefore points towards an industrial approach to space power, in which satellite factories, launch sites, reusable vehicles and ground networks operate as a single ecosystem. India's own plans for expanding

satellite infrastructure will need to consider similar questions of scale, replenishment and commercial participation.

18 August (SpaceFlightNow): LandSpace's Zhuque-3 Achieves China's First Private Orbital-Class Booster Recovery

Chinese commercial space company LandSpace successfully recovered the first stage of its Zhuque-3 orbital rocket on 18 August, marking a major milestone for China's private launch sector. The stainless-steel vehicle uses liquid methane and liquid oxygen and is designed around a reusable first stage. The landing followed earlier Chinese attempts to demonstrate reusable orbital-class launch technology. The significance extends beyond the technical achievement. Reusable launchers can reduce the cost and turnaround time associated with placing satellites in orbit, making high launch cadence more economically viable. For China, the development complements state-run efforts such as Long March reusable vehicles and indicates that commercial companies are becoming active contributors to national space capability. For military space, cheaper and more frequent launch access can support constellation replenishment, responsive deployment and resilience. The emergence of private Chinese reusable launch providers also changes the competitive landscape for global commercial space markets. India's growing private launch sector will increasingly operate in an environment where reusable rockets are becoming an international benchmark. The strategic question is therefore not simply whether India develops a reusable vehicle, but whether its ecosystem can achieve comparable operational cadence and cost efficiency.

18 August (AAWSAT): China's Humanoid Robots Face the Test of Commercialisation

China's rapidly expanding humanoid-robotics sector is moving from demonstrations towards the harder challenge of commercial deployment. Recent reporting highlighted the development of companies building humanoid platforms capable of walking, running and performing increasingly complex tasks. The trend is supported by Chinese industrial policy, a large manufacturing base and intense competition among startups and established technology firms. The strategic relevance of humanoid robotics extends beyond consumer applications. Embodied AI can combine perception, reasoning and physical action, potentially creating systems suited to logistics, manufacturing, hazardous environments and eventually military support roles. However, reliable performance in uncontrolled environments remains a major

engineering challenge. Robots must handle uncertainty, power constraints, dexterity and safe interaction with humans. China's emphasis on real-world testing and competitive demonstrations provides a pathway for accelerating these capabilities. For India, the lesson is that robotics competitiveness requires more than software expertise; it depends on actuators, batteries, sensors, advanced materials, control systems and manufacturing scale. Humanoid robotics may therefore become another area where the convergence of AI and industrial capacity determines technological advantage.

Russia

17 August (Gizmodo): Ukraine Strikes Progress Rocket Space Center, Damaging Russia's Soyuz Production

Ukrainian President Volodymyr Zelenskyy confirmed a missile strike damaged the Progress Rocket Space Center in Russia's Samara region, the facility that assembles Soyuz-2 rockets for Roscosmos. More than 85 percent of Russian rocket launches since 2020 have relied on the Soyuz-2 family, and Soyuz vehicles are not reusable, making the plant essential to sustaining both launch operations and ISS crew transport. A lasting disruption to Soyuz production would represent a serious blow to Russia's already-strained space programme, potentially curtailing launch cadence and crewed mission support. The strike reflects the growing extension of the Russia-Ukraine conflict into space-industrial infrastructure far from the front line.

20 August (KeepTrack): Russian Space Activity Forces US Air Force Antarctic Flight Diversion

Unspecified Russian 'space activity' prompted a US Air Force flight supporting Antarctic operations to turn back, adding to a pattern of Russian space operations drawing concern from US military planners, particularly around polar regions where early-warning and reconnaissance satellites concentrate their coverage. Recurring incidents of Russian space activity affecting allied operational planning highlight persistent friction in a domain where early-warning and reconnaissance assets are increasingly concentrated over contested polar approaches. Such episodes reinforce US and allied interest in resilient, redundant space-based surveillance architectures.

Other Nations

06 August (Space.com): Rocket Lab Launches Japanese Earth-Imaging Satellite for iQPS

Rocket Lab successfully launched the Japanese iQPS Earth-imaging satellite mission on 6 August using its Electron rocket. The mission marked the company's 92nd Electron flight and the eighth launch supporting iQPS's growing Earth-imaging constellation. The deployment highlights the increasing role of small commercial launchers in building distributed satellite networks. Earth-imaging constellations are becoming strategically relevant because they can provide frequent revisit rates rather than relying on a small number of high-value spacecraft. For defence and disaster-response users, rapid access to imagery can improve situational awareness, border monitoring and maritime surveillance. Commercial constellations also create opportunities for governments to purchase data rather than owning every sensor themselves. This model can reduce acquisition timelines while increasing the diversity of available information. The Rocket Lab mission therefore illustrates the broader transition towards proliferated commercial space infrastructure. For India, the expansion of such constellations reinforces the importance of supporting domestic small-satellite manufacturing, launch services and downstream geospatial analytics as interconnected parts of a national space ecosystem.

10 August (Rocket Lab): Rocket Lab Unveils GHOST for Responsive Launch Operations

Rocket Lab unveiled GHOST, a containerised and globally deployable launch system intended to support suborbital and orbital missions from locations outside conventional fixed launch infrastructure. The concept is aimed at responsive space operations by reducing dependence on permanent launch facilities and allowing launch capabilities to be positioned closer to operational requirements. Responsive launch is increasingly relevant to military space because satellites may need to be replaced quickly after technical failure, interference or hostile action. A distributed launch architecture could shorten mobilisation timelines and complicate an adversary's efforts to target launch infrastructure. The concept also reflects a wider trend towards treating launch as a flexible operational service rather than a

geographically concentrated activity. However, real-world deployment would depend on regulatory approvals, range safety, logistics, propellant handling and the ability to establish reliable tracking and communications at dispersed sites. For India, the development highlights the potential value of mobile or distributed launch infrastructure alongside conventional spaceports. It also reinforces the strategic importance of private launch providers in creating responsive access to orbit.

13 August (Quantum Insider): DARPA Funds Quantum Networking Technology for More Stable Entanglement Distribution

DARPA awarded Qunnect a contract under its QuANET programme to advance real-time polarisation compensation for quantum networks. The technology is intended to address instability in optical-fibre links caused by environmental changes, improving the reliability of quantum communications. Such work is part of a broader effort to move quantum networking from laboratory demonstrations towards practical distributed systems.

For defence communications, quantum networking is attractive because it may enable highly secure links and new architectures for distributed quantum processors and sensors. However, operational usefulness depends on maintaining stable quantum states over real-world networks, making engineering challenges such as noise, loss and polarisation drift critical. The DARPA effort therefore highlights an important transition: quantum security is moving from theoretical cryptographic advantage towards the development of resilient physical infrastructure. For India, the development reinforces the need to pursue quantum communication research alongside conventional post-quantum cryptography. Building a secure future communications architecture will likely require both quantum-safe classical systems and, where technically appropriate, quantum networking capabilities.

14 August (South China Morning Post): South Korea Announces Push into Quantum, Lunar and Other Next-Generation Industries

South Korea announced a strategy focused on seven next-generation industries, including quantum chips, fusion energy and lunar exploration, as part of an effort to reduce dependence on established technology sectors. The initiative reflects Seoul's recognition that future economic and strategic competitiveness will increasingly depend on technologies that sit beyond the current semiconductor and AI cycle. The emphasis on quantum and lunar

capabilities is particularly significant. Quantum technologies could transform sensing, communications and computing, while lunar capabilities are increasingly linked to long-term space infrastructure and resource utilisation. South Korea's approach demonstrates how middle and advanced economies are attempting to secure niches in emerging technologies before technological standards become entrenched. For India, the development is relevant because both countries are seeking greater strategic autonomy while operating in an environment shaped by U.S.-China competition. Competition in quantum hardware, space systems and advanced semiconductors is likely to increasingly involve partnerships, supply-chain alignment and specialised national ecosystems. The South Korean strategy therefore illustrates the importance of investing early in technologies whose military and commercial value may expand rapidly.

19 August (Taipei Times): Japan and Australia Agree to Hypersonic Missile Testing Cooperation

Japanese and Australian defence ministers announced an enhanced arrangement allowing Japan's Self-Defense Forces to conduct test launches of hypersonic missiles and other stand-off weapons on Australian missile ranges over the next decade, alongside cooperation on a jointly developed laser weapon system. Australian Defence Minister Richard Marles said the deal would provide Japan with 'strategic depth' through access to Australian test ranges. Access to Australia's vast test ranges addresses a key constraint on Japan's ability to validate long-range and hypersonic weapons domestically, accelerating Tokyo's stand-off strike development. The agreement further deepens Indo-Pacific defence-industrial integration among US allies as regional missile threats intensify.

About the Author

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