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# ADJ



**Diplomacy, Strategy, Economic Strength Favour Southeast Asia  
Time to Get Real: Regional Cybersecurity Efforts Intensify**

**INTERVIEW**

**Armed Forces Defence Cyber and Electromagnetic Division (DCED)**

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## Cold War Big Power Pacific Manoeuvres Continue

**CHINA** and Russia have staged a series of maritime and air exercises in the Pacific to mirror similar but bigger wargames carried out by the US and its allies elsewhere in the region. Both countries have staged a joint patrol over the north Pacific Ocean and the Bering Sea near the coast of Alaska.

It was reported that the two countries have carried out several joint patrols in the past, and Russia regularly flies its bombers over the Bering Sea. However, the July 24 joint patrol was the first that brought together bombers from both powers in the north Pacific area. Russian TU-95MS strategic missile carriers and the Chinese air force's Xian H-6 strategic bombers were deployed, Moscow and Beijing said it was "not aimed at any third party" and had "nothing to do with the current international and regional situation". The US-Canadian North American Aerospace Defense Command (NORAD) said the bombers, which it intercepted, stayed in international airspace and were "not seen as a threat".

Earlier in mid-July, China and Russia carried out live-fire naval exercises in the South China Sea. Both countries deployed at least three vessels each for the three-day exercises, China's state controlled Global Times newspaper said, citing the People's Liberation Army Navy. The opening ceremony of the Russian-Chinese naval exercise "Maritime Interaction - 2024" took place in the Chinese port of Zhanjiang. During their maritime manoeuvres, the crews of ships of the Russian Pacific Fleet and the PLA Navy conduct joint air defence exercises and anti-submarine drills with the involvement of PLA naval anti-submarine aviation, the Russian defence ministry said. Russia's RIA state news agency, citing Russia's Pacific Fleet, said that the Russian Navy and the Chinese Navy conducted artillery firing as part of the joint drills. "During the exercise, the sailors accomplished about 30 combat exercises and, in particular, conducted joint artillery firings against naval, coastal and aerial targets," according to a statement released by the Fleet's press office. Over 15 days of joint patrolling, Russian and Chinese naval ships covered a distance of about 4,800 nautical miles in the waters of the Asia-Pacific region, it added. ♦

## Crashed Japan Navy Choppers Found

**Japan's** navy has located on the seabed the wreckage of two helicopters that crashed more than three months ago, killing eight crew members. The SH-60K helicopters, each crewed by four people, were conducting submarine location drills off the Izu Islands in the Pacific Ocean when they collided. To date, only one body has been found while the other seven were declared dead in June by the Maritime Self-Defense Forces after a fruitless search operation.

A deep-sea probe by a national research institute that began this month led to the discovery of the two aircraft "on the seabed near the site of the crash", according to a MSDF statement. An unmanned deep-sea probe capable of searching to a depth of 6,000 meters located the two SH-60K patrol helicopters in the search that began on July 15, the MSDF said, adding that it will consider the possibility of salvaging them to further the investigation.

The two choppers, each carrying four MSDF members, collided on April 20 during an anti-submarine night time drill above waters east of Torishima Island, around 600km south of Tokyo in the Izu island chain, where the water's depth is about 5,500m. The choppers found were identified as the crashed aircraft based on their serial numbers and other distinguishing features. ♦

## Bangladesh Struggling to Restore Order Amid Protests

**The** Bangladeshi government has called on the military to impose order to calm rising social unrest triggered by student protests while riot police fired on protesters who violated a government curfew. The violence has killed at least 200 people, including several police officers, according to a latest count of victims reported by police and hospitals, posing a massive threat to Prime Minister Sheikh Hasina's regime after 15 years in power. A government curfew was imposed and the premier's office requested that troops be deployed after police failed to control widespread chaos. "The army has been deployed nationwide to control the law and order situation," armed forces spokesman said on July 22.

The capital city of Dhaka was mostly deserted, with troops on foot patrols and armoured personnel carriers deployed at strategic points in the megacity of 20 million people. The sprawling city has seen nearly daily marches where protesters have demanded the elimination of a quota system that reserves more than half of civil service positions for specified communities. ♦



## Pakistan to Continue Strikes in Afghanistan

**Pakistan** is continuing military operations across the border in Afghanistan as part of a renewed strategy to combat terrorism, according to the country's Defence Minister Khawaja Asif. The ongoing aerial strikes are aimed at groups that Pakistan accuses of targeting its security forces and civilians. Minister Asif, in a recent interview, confirmed the continuity of operations, highlighting that these actions are vital for Pakistan's national security. The latest admissions signal a strategic escalation in Pakistan's counter-terrorism efforts, which the minister argues are essential for maintaining regional stability.

The Taliban government in Afghanistan has condemned these strikes as violations of its sovereignty. In response, Minister Asif dismissed concerns over the legality of the operations, arguing that notifying the Taliban would compromise the element of surprise. The Taliban's response was swift and strong, labelling Asif's statement as "irresponsible" and cautioning that such cross-border attacks would have "consequences".

Tensions between Pakistan and Afghanistan have been escalating since the Taliban regained control in August 2021. Pakistan accuses a faction of the Taliban, known as the Tehrik-i-Taliban Pakistan (TTP), of utilising Afghan territory to launch attacks against Pakistan. "Afghanistan has been reluctant to take action against the TTP, despite our requests to let them not use Afghan soil to attack Pakistan," Minister Asif said, pointing to the strained diplomatic relations between the two neighbours.

Pakistan has recently announced a comprehensive military campaign named "Resolve for Stability", primarily targeting terrorist factions within Pakistan. This operation marks a significant intensification in the country's internal security measures, aimed at curbing the rising tide of violence and terrorist activities. ♦

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**COVER:** The Royal Australian Navy's (RAN) Hobart-class guided missile destroyer, HMAS Sydney, firing the Naval Strike Missile (NSM) for the first time during Exercise Rim of the Pacific (RIMPAC) 2024. The RAN inked a deal with Kongsberg for the NSM in January 2023 to replace its aging inventory of Harpoon systems for use on the Hobart-class destroyers and Anzac-class frigates as well as the RAN's future Hunter-class frigates. The fifth-generation, long-range NSM can easily be fitted onto older, current and future warships, with the Royal Malaysian Navy's (RMN) Maharaja-Lela class Littoral Combat Ships (LCS) to be equipped with the same systems.

**SECURITY ISSUES**

**Diplomacy, Strategy, Economic Strength Favour Southeast Asia**

AMID hyped-up tensions throughout the Asia-Pacific rim with war games and balloons with trash bombs in the Korean peninsula to water cannon skirmishes along disputed sea borders, Southeast Asia remains a bright spot in an increasingly uncertain world. Shadowed by the baggage of never-ending big power rivalry, big powers still congregate to this strategic-yet-peaceful region to cement friendship with regional leaders and positioning their investments for the future.

**TOP BRASS INTERVIEW**

**Armed Forces Defence Cyber and Electromagnetic Division (DCED) director-general, Rear Admiral Mohd Fadzli Kamal Mohd Mohaldin, RMN**

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# Events

at lightspeed. Cyber threats exist due to the advances in digital technology and borderless communications, with various nefarious parties constantly attempting to execute cyber and electromagnetic threats which can endanger the national security of a country as well as its sovereignty.

## Chief Executive, National Cyber Security Agency (NACSA)

IN conjunction with Cyber Digital Services, Defence and Security Asia (CyberDSA) 2024 and the Asia International Security Summit & Expo 2024 (AISSE'24), NACSA chief executive Ir Dr Megat Zuhairy Megat Tajuddin speaks to the Asian Defence Journal on the agency's initiatives, including the Cyber Security Act, and also provides a comprehensive understanding of NACSA's efforts in enhancing Malaysia's cybersecurity framework.

## FOCUS

### Manned-Unmanned Teaming in 6th-Gen Fighters

A SIXTH-generation fighter is a conceptualised class of jet fighter aircraft design that represents a significant leap forward from the current fifth-generation fighters like the F-22 Raptor and F-35 Lightning II. While exact specifications vary by country and programme, sixth-generation fighters are expected to incorporate a host of advanced capabilities as well as advanced materials and propulsion.

### Armour on Wheels

A MODERN wheeled armoured vehicle (WAV) is a type of armoured fighting vehicle that uses wheels for mobility instead of tracks – offering several advantages over its tracked counterparts, including higher speed, better fuel efficiency, lower maintenance and versatility.

## SPECIAL REPORT

### Time to Get Real: Regional Cybersecurity Efforts Intensify

RECENT and not too distant events have again proven that the real threats to cybersecurity are now upon us, and with that in mind, the Southeast Asian region has chosen to focus on efforts in this field. With new emerging technologies such as Artificial Intelligence (AI) and blockchain contributing to the rapid expansion of the Internet of Things (IOT), the banes of such advancements also present clear and present dangers which often require pre-emptive measures to prevent incidents.

## COUNTRY REPORT

### UK Defence Industry Upshifting

THE United Kingdom's defence industry, one of the largest and most sophisticated in the world, focuses on exports and has a highly-established supply chain. It maintains its stellar reputation for excellent designs and production of defence products with a maintenance, repair and overhaul (MRO) sector being a major contributor to the British industrial machine. According to government reports, the UK's defence industry reported a total turnover of US\$29 billion in 2022, with US\$15b being exports.

## SHOW PREVIEW

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# Diplomacy, Strategy, Economic Strength Favour Southeast Asia



By MG Mahmud

**AMID** hyped-up tensions throughout the Asia-Pacific rim with war games and balloons with trash bombs in the Korean peninsula to water cannon skirmishes along disputed sea borders, Southeast Asia remains a bright spot in an increasingly uncertain world. Shadowed by the baggage of never-ending big power rivalry, big powers still congregate to this strategic-yet-peaceful region to cement friendship with regional leaders and positioning their investments for the future. Southeast Asia is an economically strong region with able leaders who are for the most part steadfastly treading a balance between the rival powers in terms of national security and foreign affairs.

On June 18, China's premier Li Qiang received a red-carpet welcome as he arrived in Malaysia flying in on an Air China jet from Australia, the last leg of a regional tour. Li is the first Chinese premier to visit Malaysia since 2015. Li, China's second-most powerful leader after President Xi Jinping, became the first Chinese premier to visit New Zealand and then Australia in seven years. He ended his Australian tour earlier where he has focused on China's investment in critical minerals, clean energy and business links. During his three-day visit, Li held talks with Prime Minister Anwar Ibrahim, met Malaysia's King Sultan Ibrahim Iskandar and attended a dinner to mark the 50th anniversary of diplomatic relations established by the Joint Communiqué signed by Malaysia's second prime minister Abdul Razak and Chinese premier Chou En Lai on May 31, 1974.

The two leaders witnessed the signing of several memoranda of understanding (MoUs) and agreements in various areas of cooperation including in digital economy, green development, tourism, housing and urban development, higher education, science and technology, as well as on the export of agri-commodities to China. He also attended a groundbreaking ceremony for a China-backed railway construction known as the East Coast Rail Link Project. The ECRL project, slated for completion in 2026, serves as evidence of the strong bilateral relationship between Kuala Lumpur and Beijing. China has been Malaysia's largest trading partner for 15 consecutive years since 2009. Last year, total trade with China was valued at US\$98.8 billion, contributing to 17.1% of Malaysia's global trade. Li and Anwar discussed bilateral matters and exchanged views on regional and global issues of mutual interest. "Malaysia's ties with China have grown from strength to strength since the elevation of bilateral relations to Comprehensive Strategic Partnership in 2013," said Wisma Putra, Malaysia's Foreign Ministry.

Resolving disputes in the South China Sea through peaceful means, the need for an immediate and permanent ceasefire in Gaza and seizing opportunities under the Belt and Road Initiative are among issues which Malaysia and China have agreed upon. Emphasising the importance of maintaining peace, security and stability in the South China Sea, the two countries agreed for disputes to be resolved through friendly consultations and negotiations. "The two sides will work together with other Asean countries to fully and effectively implement the

Declaration on the Code of Parties in the South China Sea in its entirety and look forward to the early conclusion of an effective and substantive Code of Conduct in the South China Sea," said a joint statement at the conclusion of Li's visit.

On the issue of Palestine, the statement said that both leaders expressed grave concern over the war in Gaza and the deteriorating humanitarian situation there. "Both sides emphasised that civilians in Gaza must be protected in accordance with international law and urge for an immediate and permanent ceasefire, unimpeded humanitarian assistance, as well as protection of humanitarian relief and medical personnel," it said.

The statement also said that Malaysia and China would seize opportunities provided by the signing of the Belt and Road Cooperation Plan, to further synergise strategies and enhance cooperation. "The two sides will jointly decide and launch mutually agreed projects, data and talent chains, as well as further improve the quality of China-Malaysia cooperation," it said. On China's support for Malaysia in promoting the development of domestic transportation, ports and related logistics industries, both sides agreed to strengthen rail transportation and infrastructure cooperation and contribute to the realisation of the "Pan-Asian Railway vision".

The statement also said that both nations firmly support each other in matters regarding safeguarding national sovereignty, security and territorial integrity and adhere to the principle of non-interference in other countries' internal affairs. "Both sides reiterate the opposition to any form of terrorism and will strengthen cooperation on law enforcement, security and anti-terrorism, to jointly address cross-border crime and contribute to regional peace and stability."

## Signal of Diplomatic Comeback from Russia?

Vietnam is another rising nation that every country wants closer ties with. Flying in from North Korea, Russian President Vladimir Putin on June 20 held talks with Vietnam's leaders, after flying into Hanoi for a visit to an old ally that has positioned itself as an increasingly influential geopolitical player, wooed by most major nations.

Vietnamese President To Lam was full of praise for his Russian counterpart, congratulating him when the Russian leader visited Hanoi. Putin, in return, said strengthening a strategic partnership with the Southeast Asian country was one of Russia's priorities. His trip to Vietnam has been interpreted as a demonstration of the



diplomatic support Russia still enjoys in the region. “Congratulations to our comrade for receiving overwhelming support during the recent presidential election, underlining the confidence of the Russian people,” To said after Putin was given a red carpet welcome complete with a guard-of-honour.

The Russian leader also received a 21-gun salute by the People’s Army of Vietnam (PAVN) at a ceremony in the state capital. Putin had contributed to “peace, stability and development” in the world, Vietnam’s president said. This should come as a surprise to Asia watchers and academic analysts alike as Vietnam still values the historic ties it has with Russia even as it works to improve its relationship with Europe and the US. For his part, Putin said he wanted to build a “reliable security architecture” in the Asia-Pacific region. “We are firmly committed to deepening the comprehensive strategic partnership with Vietnam, which remains among the priorities of Russia’s foreign policy,” he was quoted as saying by Russian media.

The TASS news agency quoted him as saying that the two countries shared an interest in “developing a reliable security architecture” in the region based on not using force and peacefully settling disputes with no room for “closed military-political blocs”. At a news conference to wrap up his trip, Putin accused the NATO military alliance of creating a security threat for Russia in Asia, TASS reported.

During the visit, Russia and Vietnam signed 11 agreements on matters including energy, underlining Moscow’s pivot to Asia after the West imposed sanctions on Moscow over the conflict in Ukraine. The trip, which takes place shortly after Putin begins his new term, demonstrates Russia and the leader’s high evaluation of Vietnam’s potential, position and prestige after 40 years of Doi Moi (“Renewal”).

Despite the impacts from the instability in the world and the regional situation, two-way trade in 2023 still topped US\$3.6b. Russia has invested in nearly 200 projects in Việt Nam with a total capital of nearly US\$1b, while Vietnam has registered some US\$3b in 25 projects in Russia. An important highlight in economic cooperation between the two countries is the strong development in the fields of energy, oil, and gas. Bilateral cooperation in other fields such as science and technology, culture, education, tourism, and locality-to-locality collaboration have been expanded, with partnerships in science and technology, and education-training elevated to a strategic level.

It was reported that Putin’s warm welcome was a public relations achievement for the Russian leader, who has an outstanding International Criminal Court arrest warrant against him over alleged war crimes in Ukraine, charges he has denied. It should be noted that Russia, China and the US are not members of the ICC.



Vietnam Govt

*Vietnam has steadily risen in ASEAN standings.*

### **A Matter of Old Ties**

Vietnam’s ties to Russia are close and go back many decades, to the vital military, economic and diplomatic support given by the Soviet Union (and not to forget Warsaw pact nations) to the fledgling communist state led by Ho Chi Minh in North Vietnam in the 1950s. After Vietnam moved into Cambodia in 1978 to assist rebels in defeating the Khmer Rouge regime, it was isolated and sanctioned by China and the West, and depended heavily on Soviet assistance.

Vietnam’s current economy has been transformed by its integration into global markets. It was reported that Russia has fallen far behind China, Asia, the US and Europe as a trading partner. But Vietnam still uses mainly Russian-made military equipment, and relies on partnerships with Russian oil companies for oil exploration in the South China Sea.

The state visit takes place at a time when the two nations are celebrating the 30th anniversary of the Treaty on Principles of Friendly Relations between Vietnam and Russia this year and on the threshold of the 75th anniversary of the bilateral diplomatic ties in 2025. The two countries established a strategic partnership in 2001 and lifted it to a comprehensive strategic partnership in 2012.

The Communist Party of Vietnam’s (CPV) cooperation with major political parties of Russia, including United Russia, the Communist Party of the Russian Federation, and A Just Russia - For Truth, has also been growing strongly. Cooperation between the two governments and parliaments has also been promoted. Vietnam was the first country to sign a free trade agreement with the Eurasian Economic Union (EAEU), of which Russia is a member. It is the largest trading partner of Russia in Southeast

Asia while Russia is one of Vietnam’s top five trading partners in Europe.

“The two sides are also implementing investment projects in each other’s markets, including in the areas where Russia has strengths such as energy, science-technology, and education-training. They have also carried out various forms of cooperation in defence and security,” a report by the Vietnam News Agency said. Collaboration in the fields of education-training and science-technology continues to be maintained. There are about 5,000 Vietnamese students in Russia at present. The 60,000-strong Vietnamese community in Russia are contributing much to the traditional friendship.

CPV Central Committee secretary and CPV Central Committee’s Commission for External Relations chairman Le Hoai Trung said that overall, the two countries’ relationship has been developing comprehensively and strongly, bringing practical benefits to their people for the sake of peace, stability, and cooperation in the region and the world.

### **Diplomatic Challenges for Everyone**

The invasion of Ukraine presented Vietnam with a diplomatic challenge, but it has chosen to abstain on the various resolutions at the United Nations condemning Russia’s actions, yet maintained good relations with the embattled nation. This is all in keeping with Vietnam’s long-held foreign policy principles of being friends with everyone but avoiding all formal alliances – what the communist party leadership now calls “bamboo diplomacy”, bending with the buffeting winds of great power rivalry without being forced to take sides. It is why Vietnam has so readily upgraded its relations with the US, a country against which it has fought a brutal, long and destructive war



in the 1960s and 70s, in the interests of seeking lucrative markets for Vietnamese exports and balancing its close ties with its giant neighbour China.

How long Vietnam maintains its good relations with Moscow is less clear, analysts say. Vietnam is already seeking alternative sources of military equipment from Europe and especially France, but ending its current dependence on Russia will take many years, even decades.

Aside from the special historical links with Russia, public sentiment in Vietnam, and in many of her neighbours in the region, the war in Ukraine is more ambivalent than in Europe. There is the scepticism on the glaring double standards of the collective West's claims to be upholding international law. In some countries, there is also admiration for Putin as a strongman who defies the West.

The conflict in Ukraine is seen as a faraway crisis by many regional nations. In Thailand, for example, an ally of the US during the Vietnam conflict, public opinion is just as divided as in Vietnam. Thailand's older links between its monarchy and the pre-marxist Tsars of Russia are still remembered. Even those Southeast Asian countries that have consistently condemned Russia have not fully enforced sanctions against Moscow – many import cut-price crude oil and Russian grain albeit via third parties.

### Messages from Washington

US Secretary of State Antony Blinken visited Vietnam to pay his respects following the death of Communist Party general secretary Nguyen Phu Trong, underlining warmer ties between the countries who fought a brutal war some 50 years ago. Blinken arrived in Hanoi late July 27 after attending the ASEAN foreign ministers meeting in Laos and visited the family home of Trong, a Marxist-Leninist ideologue who as party chief was Vietnam's most powerful figure for 13 years. Trong's "bamboo diplomacy" trod a delicate balancing act between rival superpowers the US and communist neighbour China, helping to elevate Vietnam's ties with its two biggest trade partners. Trong died July 20 at the age of 80.

Agency reports said Blinken's brief visit comes at a sensitive time for US-Vietnam relations, which have improved given shared concerns about China's growing regional clout and interest from US investors in a country with an economy that grew an average 5.8% annually during Trong's time in office. After visiting Trong's home, Blinken also met Vietnam President To Lam, the former internal security agency chief who has assumed Trong's duties, and Prime Minister Pham Minh Chinh. Blinken told Lam that Trong was a "visionary leader" who built a lasting bridge between the two countries and showed the world they could move forward despite their difficult past. In his meeting with the prime minister, Blinken said one of the highlights of the Biden administration was its elevation of its strategic



Lavrov (left) meeting with Anwar in Kuala Lumpur.

ties with Hanoi.

A State Department said both sides "welcomed the progress the United States and Vietnam have made together in implementing the Comprehensive Strategic Partnership," he said. Coming against the backdrop of the ongoing political turmoil amid the process of transfer of power in Washington, the top US diplomat's six-nation tour of Asia includes visits to four Southeast Asian nations – Laos, Vietnam, the Philippines and Singapore.

### Russia Welcomes Malaysia Bid to Join BRICS

Russia has welcomed Malaysia's interest in the BRICS intergovernmental organisation and will help promote this interest, Russian foreign minister Sergey Lavrov said. "Malaysia has expressed interest in strengthening contacts with BRICS. We actively support this interest and, as the chair, will help promote this interest," the top diplomat from Moscow said during a press conference following his two-day official visit to Malaysia, according to Sputnik news.

Earlier, Lavrov had called on Prime Minister Anwar Ibrahim in Putrajaya where they discussed Malaysia's desire to join the BRICS organisation. He also presented the Malaysian leader with books, including works by Alexander Pushkin and other Russian writers as well as works by Malaysian poets translated into Russian. Separately, Sputnik also reported that Lavrov, in his meeting with foreign minister Mohamad Hasan had reminded Mohamad of his invitation to visit Russia, which they "discussed yesterday and the day before yesterday". Mohamad and Lavrov

had attended the 57th ASEAN Foreign Ministers' Meeting (AMM) and Related Meetings in Laos.

Russian Foreign Ministry in its official Telegram channel said during the meeting, both Foreign Ministers also exchanged notes on the establishment of cooperation between the Diplomatic Academy of the Russian Foreign Ministry and the Institute of Diplomacy and International Relations of the Malaysian Foreign Ministry. Lavrov arrived in Kuala Lumpur on July 27 from Laos, where he held some bilateral meetings with the foreign ministers of the Association of Southeast Asian Nations (ASEAN) countries, as well as China and Turkey. He also attended ministerial meetings in the Russia-ASEAN format, as well as the East Asia Summit (EAS) and the ASEAN Regional Security Forum (ARF).

Thailand's foreign ministry spokesperson on Jun 20 said that his country had submitted a formal request to join BRICS "a week ago", Reuters reported. In January, Indonesia's Foreign Minister Retno Marsudi said that her country "is still studying the benefits that can be gained from joining BRICS". Vietnam had reportedly said that they were "closely monitoring the process of BRICS membership". Singapore and the Philippines have yet to make their positions known.

BRICS comprises Brazil, Russia, India, China, South Africa, Iran, Egypt, Ethiopia and the United Arab Emirates (UAE). Chaired by Russia, it is considered the foremost geopolitical rival of the G7 bloc, with member countries accounting for around 45% of the world's population and 28% of the global gross domestic product.



# DCED: Malaysia's Cyberspace Force

Land, sea, air and outer space, the domain of interconnected information technologies and data covers all...

**ORDNANCE** and ammunition made up of zeros and ones are just as lethal in the 21st century – they are silent, invisible and move at lightspeed. Cyber threats exist due to the advances in digital technology and borderless communications, with various nefarious parties constantly attempting to execute cyber and electromagnetic threats which can endanger the national security of a country as well as its sovereignty.

While countries continuously improve and innovate on their defence systems and equipment, equal importance and investment must be placed in the cyber realm and ensuring robust, defensive (and if need be, offensive) capabilities. Although cyber means of warfare and cyber crimes are dissimilar in intentions, they are sometimes spoken in the same breath. To counter them there must be a whole of government approach and cooperation with the commercial sector, along with international interactions. The Ministry of Defence Malaysia's Defence Cyber and Electromagnetic Division (DCED) Director-General, Rear Admiral Mohd Fadzli Kamal Mohd Mohaldin, speaks to the Asian Defence Journal on its approach to enhance Malaysia's cyber resilience.

**ADJ:** The DCED plays a crucial role in safeguarding the Malaysian Armed Forces' (MAF) varied operational capabilities in the cyber and electronic warfare realm. Can you elaborate on how the DCED ensures seamless integration and information sharing with the Army, Navy and Air Force?

**DG-DCED:** We are strengthening a unified command-and-control structure and constantly improving cyber defence protocols through what is known as the Network Security Monitoring Operation Centre (NESMOC). Advanced monitoring systems are used to connect and monitor the Tri-Services Secured Network. These systems ensure that all branches have access to the same threat intelligence and can coordinate their responses effectively.

Through common cybersecurity frameworks, the division implements standardised cybersecurity frameworks and protocols across all branches of the MAF. This ensures that there is a consistent approach to cyber defence, with all units following the same procedures for threat detection, incident response and recovery.

This is further backed up by regular compliance checks and audits are conducted to ensure that all branches adhere to the established cybersecurity standards. This helps maintain a high level of cyber hygiene across the entire MAF.

**ADJ:** Building a culture of cybersecurity awareness



is essential. How does the DCED promote cybersecurity awareness and best practices within the MAF and among the Malaysian public?

**DG-DCED:** This important aspect is conducted via training and education programmes. In regular cybersecurity training, we conduct mandatory cybersecurity training sessions for all MAF personnel. These sessions cover topics such as recognising phishing attacks, securing personal devices and safe internet practices.

Through advanced cyber training, specialised training programmes are offered for personnel in key roles, such as IT staff and cybersecurity teams, to ensure they have the necessary skills to defend against sophisticated cyber threats.

We also conduct and engage ourselves through public awareness campaigns such as roadshows: The DCED works together with

the National Cyber Security Agency (NACSA), CyberSecurity Malaysia (CSM) and Yayasan Digital Malaysia (MyDigital) to promote awareness about cybersecurity among the public. This initiative includes workshops, seminars and an extensive online presence to educate citizens about safe online practices.

Through collaborations with educational institutions, we are involved in cybersecurity curriculum development: The DCED has encouraged universities such as Universiti Teknologi MARA (UiTM) and Universiti Pertahanan Nasional Malaysia (UPNM) to integrate cybersecurity education into their curricula. This includes developing modules and courses on cybersecurity fundamentals and emerging threats. "Siber Siaga 2024" is the best manifestation of this initiative.





## TOP BRASS INTERVIEW

**ADJ:** Building a robust cyber defence requires a multi-pronged approach. Can you elaborate on the strategies the DCED employs to enhance Malaysia's cyber resilience?

**DG-DCED:** Participation in international cybersecurity partnerships and forums enables Malaysia to stay updated on global cyber threat trends and strategies. It also facilitates the sharing of intelligence and best practices with other nations, enhancing collective cybersecurity efforts.

**NACSA:** The DCED works closely with NACSA, which coordinates the nation's cybersecurity efforts across different government sectors. This partnership ensures a unified response to cyber threats and promotes the sharing of best practices and threat intelligence. The Cyber Security Bill 2024 passed recently by the Malaysian Parliament aims to establish a robust regulatory framework to protect Malaysia's cyber landscape, particularly its critical information infrastructure, against evolving cyber threats.

Coordination with law enforcement agencies is also very important here. Collaboration with the Royal Malaysian Police and other law enforcement agencies is crucial for investigating and mitigating cybercrimes, enhancing the overall security posture.

The DCED also engages with private sector companies, particularly those involved in critical infrastructure, to develop and implement advanced cybersecurity measures. This includes sharing threat intelligence, conducting joint cyber drills, and fostering an environment of continuous improvement in cybersecurity practices.

**Cybersecurity frameworks:** Implementation of industry-standard cybersecurity frameworks, such as the NIST Cybersecurity Framework, helps ensure that both public and private entities adhere to best practices in managing cyber risks.

**ADJ:** What about emerging technologies like artificial intelligence and quantum computing that have implications for both offensive and defensive cyber capabilities? How is the DCED preparing for these advancements and ensuring the MAF stays ahead of the curve?

**DG-DCED:** We do this through collaborations with technology partners both at the local and international levels, and also via capacity building and training. The DCED partners with international cybersecurity organisations and tech companies to stay updated on the latest advancements in AI and quantum computing. These partnerships facilitate the exchange of knowledge, technologies and best practices.

As for local industry engagement, collaborations with local tech companies and start-ups are encouraged to foster innovation and the development of indigenous technologies. This helps build a robust ecosystem capable of addressing unique national security challenges.

We stress on capacity building, and again, specialised training programmes for MAF



personnel on emerging technologies. These programmes cover the practical applications of AI and quantum computing in cybersecurity, ensuring that personnel are equipped with the necessary skills to leverage these technologies effectively.

Continuous learning initiatives, including workshops and seminars, are organised to keep MAF personnel updated on the latest technological trends and advancements. This ensures ongoing skill development and preparedness.

**ADJ:** As the cyber and electromagnetic threat landscape is constantly evolving, what are the most significant emerging threats facing Malaysia's defence systems, and how is the DCED adapting its strategies to address them?

**DG-DCED:** The most significant ones are ransomware and AI-powered cyber threats: Ransomware remains a prevalent threat, becoming more complex and collaborative among cybercriminals. AI is being increasingly utilised by threat actors to enhance phishing attacks and develop malicious large language models capable of generating fake news, misinformation in the information domain of hybrid warfare and, in conducting cyberattacks. DCED strategies to counter them include:

- Cyber defence cooperation:** Malaysia actively participates in ASEAN's defence cooperation initiatives, which focus on enhancing cybersecurity through collaboration and shared expertise among member states.
- National Military Strategy 2.0:** This strategy aims to guide the Malaysian Armed Forces in preparing for future threats by updating asset criteria and ensuring robust defence systems are in place for the next five to 10 years.
- Comprehensive defence:** The DCED contributes to the concept of Comprehensive Defence, a strategic pillar of Malaysia's defence strategies. This involves cross-sector collaboration among government agencies, industry players, academia and the cyber community.
- Organisational structure:** The Division is being restructured to enhance collaboration with

regional and global defence organisations. This alignment ensures a coordinated response to cyber and electromagnetic threats, and,

- Robust cybersecurity measures:** To safeguard critical infrastructure and sensitive data.

**ADJ:** Cybersecurity expertise is in high demand globally. How does the DCED attract and retain top talents, and what training programmes are in place to develop a skilled cyber workforce within the MAF?

**DG-DCED:** We offer competitive benefits, and career advancement opportunities to attract top talent. This includes unique benefits such as specialised training, opportunities for international collaboration and the prestige of serving in a critical national security role.

Collaboration with leading universities and technical institutions to create tailored cybersecurity programme helps attract young talent. These partnerships often include scholarship programs, internships and guaranteed job placements for graduates. Establishing internship programmes allows the DCED to identify promising talent early on. Interns can gain practical experience while contributing to the organisation's mission.

To retain talent, we recognise outstanding performance through awards, promotions and public acknowledgment fosters loyalty and commitment. The DCED emphasises on-going professional development through advanced training programmes, certifications and opportunities to attend international cybersecurity conferences and workshops. This ensures that all personnel remain at the cutting edge of cybersecurity knowledge and practices.

Creating a supportive and dynamic work environment that encourages innovation and collaboration helps retain skilled professionals. The DCED fosters a culture of continuous learning and values the contributions of its cyber workforce.

As for training programmes involving military and cyber exercises, regular participation in national and international cyber exercises helps personnel develop practical skills in a simulated



environment. These exercises provide valuable experience in responding to real-world cyber threats and enhance the operational readiness of the DCED.

Personnel are encouraged to obtain industry-recognised certifications such as Certified Information Systems Security Professional (CISSP), Certified Ethical Hacker (CEH) and others. These certifications validate their skills and knowledge in specific areas of cybersecurity. Specialised training in advanced threat intelligence and analysis prepares personnel to identify and mitigate sophisticated cyber threats. This training often includes collaborations with international cybersecurity experts and agencies.

**ADJ:** Cyber threats are transnational. How does the DCED collaborate with international partners to share intelligence, best practices and conduct joint exercises to improve regional cybersecurity?

**DG-DCED:** Malaysia has established bilateral and multilateral agreements with various countries to facilitate the exchange of cyber threat intelligence. These agreements ensure that Malaysia receives timely and actionable information about emerging threats, enabling a proactive defence posture.

The division aligns its cybersecurity practices with international standards and frameworks, such as those developed by the International Organization for Standardization (ISO) and the National Institute of Standards and Technology (NIST). This alignment ensures that Malaysia's cybersecurity measures are on par with global best practices. We regularly participate in and host international workshops, seminars and conferences. These events provide platforms for discussing cybersecurity challenges, sharing solutions and learning from global experts.

We also take part in regional and international cyber drills, such as the Defence Cyber Marvel 2024 organised by the UK, and Cobra Gold 2024, co-chaired by Thailand and the US.

**ADJ:** Public-private partnerships are increasingly important in cybersecurity. Can you describe any existing collaboration with private sector companies to leverage their expertise and technology for national defence?

**DG-DCED:** We collaborate with three government entities involved in cybersecurity. The Malaysia Digital Economy Corporation (MDEC) fosters partnerships between the government, private sector and academia to advance the cybersecurity industry in Malaysia. These collaborations focus on developing cybersecurity talent, promoting innovation and enhancing the overall cybersecurity ecosystem.

CSM, an agency under the Ministry of Science, Technology and Innovation (MOSTI), collaborates with various tech companies such as Microsoft, Cisco and FireEye. These partnerships involve sharing threat intelligence, conducting joint cybersecurity exercises and developing advanced



security solutions. CSM works with private firms to promote public awareness campaigns on cybersecurity best practices. These campaigns aim to educate the public and businesses on how to protect themselves from cyber threats, thereby enhancing national cyber resilience.

The National Cyber Coordination and Command Centre (NC4) collaborates with private cybersecurity firms to facilitate real-time sharing of threat intelligence. This cooperation helps in the early detection and mitigation of cyber threats, ensuring a swift response to potential cyber incidents. Private companies assist NC4 in incident response activities by providing expertise and advanced tools to manage and resolve cybersecurity incidents efficiently.

**ADJ:** Is the DCED working with Malaysian defence industries to encourage the development of indigenous cyber defence capabilities and technologies?

**DG-DCED:** Telekom Malaysia (TM), a major telecommunications provider, operates and provides comprehensive cybersecurity services to both public and private sectors through its Cyber Defence Operation Centre (CDOC). The centre offers services like threat monitoring, risk assessment and incident response, contributing significantly to national cybersecurity efforts. TM collaborates with government agencies and international cybersecurity firms to conduct research on emerging cyber threats and develop innovative security solutions.

**ADJ:** As the cyber threat landscape evolves, what is your vision for the future of the DCED and its role in safeguarding Malaysia's national security in the digital age?

**DG-DCED:** The vision of the DCED is to emerge as a leading authority in cyber and electromagnetic operations. The MAF aim to be recognised as a credible and formidable force in this domain, aligning with the objectives outlined in the Defence White Paper (DWP) and the 4DMAF

transformational plan.

**ADJ:** The CyberDSA conference and exhibition has established itself as a leading regional platform for cybersecurity collaboration. How does the DCED view CyberDSA's role in advancing Malaysia's cyber defence capabilities and fostering international cooperation in this critical domain?

**DG-DCED:** CyberDSA brings together leading cybersecurity experts, technology providers and innovators. This allows the DCED and other Malaysian defence entities to stay abreast of the latest advancements in cyber defence technologies, tools and methodologies, which can be integrated into national defence strategies.

The conference serves as a forum for exchanging knowledge and best practices among participants from various countries. This sharing of expertise helps the DCED enhance its own cyber defence strategies and operational procedures. CyberDSA facilitates the establishment and strengthening of international partners. Through networking opportunities, the DCED can collaborate with foreign defence organisations, cybersecurity firms and international bodies to enhance collective cyber defence capabilities.

The conference provides a platform for planning and executing joint cybersecurity exercises and collaborative projects. These initiatives improve coordination and interoperability between Malaysia and its international partners, enhancing regional and global cybersecurity resilience.

CyberDSA offers a stage for Malaysian companies and institutions to showcase their innovations and solutions. This not only boosts the profile of local cybersecurity initiatives but also attracts potential international investors and collaborators. Insights gained from discussions and presentations at CyberDSA can inform national policy and strategy development. The DCED can leverage these insights to refine Malaysia's cybersecurity frameworks and ensure they are aligned with global standards and trends.



# Enhancing Malaysia's cybersecurity framework

**IN** conjunction with Cyber Digital Services, Defence and Security Asia (CyberDSA) 2024 and the Asia International Security Summit & Expo 2024 (AISSE'24), the National Cyber Security Agency (NACSA) chief executive **Dr Megat Zuhairy Megat Tajuddin** speaks to the *Asian Defence Journal* on the agency's initiatives, including the Cyber Security Act, and also provides a comprehensive understanding of NACSA's efforts in enhancing Malaysia's cybersecurity framework.

**ADJ:** Can you provide an overview of NACSA's mission and its role in enhancing Malaysia's cybersecurity landscape? What are some of the key achievements of NACSA in recent years?

**CE:** Malaysia, recognising the critical nature of cyber threats, has placed trust in NACSA to lead the national initiatives to safeguard our cyber ecosystem. NACSA, established under the purview of the National Security Council, Prime Minister's Department in 2017, is lead agency in the field of national cyber security. NACSA is responsible for all aspects of cyber security based on the policies and strategic measures formulated by the National Security Council including measures aimed to tackle cyber threats. Since its inception, NACSA has made significant strides in bolstering Malaysia's cyber security eco-system.

Some of the key achievements of NACSA are:

1. Malaysia Cyber Security Strategy 2020-2024 (MCSS 2020-2024): This is a strategic document that outlines the key objectives, categorised into five strategic pillars that will govern all aspects of cyber security planning and implementation in Malaysia until 2024. The vision of this Strategy is to have a secure, trusted and resilient cyberspace while at the same time fostering economic prosperity and citizens' well-being and its mission is to fortify the local capabilities to predict, detect, deter and respond to cyber threats through structured governance, competence people, support best practices processes and deploy effective technology.

MCSS introduces the "Whole Nation Approach" concept where everyone is included in the national cybersecurity agenda. The strategy outlines five Pillars and 12 implementation strategy that holistically touch all aspects of Malaysia's cyber security concerns including governance and management; legislation and enforcement; local industry development; innovation and technology; research and

development (R&D); capacity and capability building, awareness and education, as well as international engagement and cooperation, 35 action plans and 113 programmes. The five Pillars and 12 implementation strategies are:

**Pillar 1: Effective governance and management**

Strategy 1: Enhancing national cyber security governance.

Strategy 2: Improving organisation management and business operation among the government, critical national information infrastructure (CNII) and business entities.

Strategy 3: Strengthening cyber security incident management and active cyber defence.

**Pillar 2: Strengthening legislative framework and enforcement**

Strategy 4: Enhancing Malaysia's cyber laws in addressing current and emerging threats.

Strategy 5: Enhancing the capacity and capability of cybercrime enforcement.

**Pillar 3: Catalysing world-class innovation, technology, R&D and industry**

Strategy 6: Spurring the National Cyber Security R&D Programme.

Strategy 7: Promoting the creation of local technologies and a competitive local industry.

**Pillar 4: Developing capacity & capability-building, awareness and education**

Strategy 8: Enhancing national cyber security capacity and capability.

Strategy 9: Enhancing cyber security awareness.

Strategy 10: Nourishing cyber security knowledge through education.

**Pillar 5: Strengthening global collaboration**

Strategy 11: Strengthening international collaboration and cooperation in cyber security affairs.

Strategy 12: Demonstrating Malaysia's commitment in promoting secure, stable and peaceful cyberspace to uphold international security.

MCSS 2020-2024 has been designed with tools to provide trust in our cyber environment not only for national security, but also to support the government agenda in the digital economy, Industry 4.0 and the adoption of other disruptive technologies for Malaysia's advancement. MCSS 2020-2024 is replacing the existing National Cyber Security Policy (NCSP) as it is developed to be more inclusive and comprehensive covering



protection of CNII, businesses, industries and citizens.

i. The National Security Council Directive No. 26: Management of National Cyber Security.

The National Security Council, Prime Minister's Department (NSC, PMD) has issued the new NSC Directive No. 26: National Cyber Security Management. The Directive was signed by the Prime Minister on Dec 21, 2021. The objectives of the NSC Directive No. 26 are as follows:

a). to establish a comprehensive national cyber security management structure and outlining the roles and responsibilities of agencies in the national cyber security ecosystem;

b) to achieve a uniform and proactive approach so that national cyber security management can be implemented effectively; and,

c) to outline the duties and responsibilities of the NSC, PMD through its agency, the NACSA as a lead agency in the field of national cyber security. The government has established a governance structure under this NSC Directive No. 26 to focus on all aspects of cyber security to ensure more effective management of the country's cyber security. The National Cyber Security Committee is the highest committee in this governance and is supported by three committees i.e. National Cyber Crime Coordination Committee; National Cyber Crisis Management Committee, and the National Cybersecurity Awareness Committee that focus on aspects of policy implementation, coordination, crisis management, acculturation

and capacity development as well as compliance and enforcement. The National Cyber Security Committee is chaired by the Prime Minister. In addition, the Prime Minister is also a minister in-charge of cybersecurity.

ii. Cyber Security Act 2024 (Act 854) – (explained in the following two questions and answers).

iii. The enhancement of the National Cyber Coordination and Command Centre (NC4).

The NC4, established in and operated since 2016, is currently undergoing an enhancement in terms of its services and capabilities. Its enhancement as the National Computer Emergency Response Team (National CERT) is with a view to level up and raise the bar in increasing national cyber security situational awareness and visibilities to identify, protect, detect, respond to and recover from high scale and complex cyber incidents in a timely manner. Section 11 of the Cyber Security Act specifically indicated the NC4 System.

iv. Capacity building

NACSA has undertaken significant collaborative efforts with various stakeholders to bolster the nation's cybersecurity awareness and capacity. Among the key initiatives is a notable cybersecurity scholarship and training programme in partnership with the EC-Council (International Council of E-Commerce Consultants). This

programme aims to equip individuals with essential skills and knowledge to effectively counter cyber threats, thereby enhancing the overall cybersecurity posture of the nation. The goal is to increase the number of qualified cybersecurity professionals in the country. These programmes focus on various aspects of certification of cyber security, including ethical hacking, incident response, risk management and security auditing.

**ADJ:** The Cyber Security Act has been a significant development in Malaysia's cybersecurity framework. Can you elaborate on the main provisions of the Act? What specific areas of cybersecurity does the Act aim to address?

**CE:** The Cyber Security Act 2024 (Act 854) seeks to enhance national cyber security by requiring compliance of certain measures, standards and processes in the management of the cyber security threats and cyber security incidents to national critical information infrastructures. This is due to the extensive use of information and communications technology systems and devices in executing various functions and businesses of the public sectors and private sectors.

For these purposes, the Act provides, among others, for the establishment of the National Cyber Security Committee, the duties and

powers of the Chief Executive of NACSA, the appointment of the national critical information infrastructure sector leads and the designation of national critical information infrastructure entities as well as licensing of cyber security service providers.

**ADJ:** How does the Cyber Security Act enhance the capabilities of NACSA in protecting national digital infrastructure? What new powers or tools do the Act provide to NACSA once it is in force? Why is it not in force yet?

**CE:** The term used in the Cyber Security Act 2024 (Act 854) is national critical information infrastructure (NCII). The Act, once enforced, will empower NACSA with, among others, investigative powers to conduct investigations on cyber security incidents involving NCII entities. NACSA will now be able to issue directives to NCII entities which must be followed by NCII entities. Also, NACSA will now have the power to instruct NCII entities to conduct audits and risk assessments which are important elements in identifying the vulnerabilities of the assets of the NCII entities.

The Cyber Security Act 2024 was passed by Parliament on April 3, 2024 and the Royal Assent for the Act was received on June 18, 2024 and the Act was gazetted on June 26, 2024. Be that as it may, Act 854 is not yet in force.

To implement the Cyber Security Act 2024, we



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## >>INTERVIEW

have identified three critical elements which we like to refer to as 3R: Regulations, Resources (Manpower) and Resources (Budget). With regard to the regulations, NACSA has drafted four regulations, and they are as follows:

- (i) Cyber Security (Licensing of Cyber Security Service Provider) Regulations 2024;
- (ii) Cyber Security (Compounding of Offences) Regulations 2024;
- (iii) Cyber Security (Risk Assessment and Audit) Regulations 2024; and,
- (iv) Cyber Security (Notification of Cyber Security Incident) Regulations 2024.

The next step is to gazette the entry into force of the Cyber Security Act which will be done after the four cybersecurity regulations have been vetted and approved by the Drafting Division of the Attorney General's Chambers. This is because these four regulations are meant to be implemented together with the Cyber Security Act 2024. It is also important to note that we need to obtain the approval of the Right Honourable Prime Minister of Malaysia as he is the Minister charged with the responsibility of cyber security.

**ADJ:** What are the key challenges in implementing the Cyber Security Act, and how is NACSA addressing these challenges?

**CE:** NACSA has identified three key challenges in implementing the Cyber Security Act 2024 [Act 854] and they are, for ease of reference, identified as the 3R challenges. These challenges are Regulations, Resources (Manpower) and Resources (Budget). With regard to the challenges pertaining to the regulations, NACSA has drafted four regulations as mentioned above. With regard to human resources, NACSA is working closely with the National Security Council, Prime Minister's Department and the Public Service Department to re-organise and expand NACSA to cater for officers/personnel. With regard to budgetary requirements, NACSA is working with the Ministry of Finance to secure the necessary financial resources to implement the Cyber Security Act 2024 (Act 854).

**ADJ:** How do you foresee the Cyber Security Act impacting businesses and private sector entities in Malaysia? Can you talk about the licensing of cyber security service providers as stated in the Act?

**CE:** The Cyber Security Act 2024 (Act 854) will have an impact on businesses and private sector entities in several ways. Some businesses and private sector entities such as banks and telcos may be designated as national critical information infrastructure entities (NCII entities) provided they fulfil the criteria of NCII as defined under the Cyber Security Act 2024 (Act 854). If they are designated as NCII entities by their respective NCII sector leads, they are bound by the obligations of NCII entities as provided in the

Cyber Security Act 2024 (Act 854). Examples of obligations of NCII entities would be to notify the Chief Executive of NACSA and their respective sector lead if there is any cyber security incident which had or might have occurred in respect of the NCII-owned or under the control of the NCII entity.

Businesses and individuals providing licensable cyber security services will also be required to obtain a licence under the Cyber Security Act 2024 (Act 854). Currently, NACSA is planning to license only two types of cyber security services and they are managed security operations centre monitoring service and penetration testing service.

**ADJ:** Can you discuss the role of public-private partnerships in the context of the Cyber Security Act?

**CE:** The role of the public-private partnerships (PPP) can best be illustrated in section 12 of the Cyber Security Act 2024 (Act 854). Section 12 deals with the appointment of cyber security experts by the Chief Executive of NACSA and this section was drafted to enable cyber security experts from the private sector to be appointed in the course of, or in connection with, or incidental to, the performance of the Chief Executive's duties under the Act. NACSA does foresee, in the event of a cyber incident, PPPs enable a coordinated response, ensuring that both public and private entities can work together to mitigate the impact and recover more quickly. This collaboration is essential for dealing with large-scale cyber attacks that can affect multiple sectors. This collaboration is now given a legal effect through section 12 of the Cyber Security Act 2024 (Act 854).

**ADJ:** How does the Cyber Security Act align with international cybersecurity standards and frameworks? Which countries have you worked with when setting a benchmark for the Act?

**CE:** The best example of where international cyber security standards have been recognised by the Cyber Security Act 2024 (Act 854) is in subsection 21(3) pertaining to the duty of the NCII entity to implement the Code of Practice. Subsection 21(3) states as follows:

"A national critical information infrastructure entity may, in addition to the measures, standards and processes referred to in subsection (1) or (2), establish and implement the measures, standards and processes on cyber security based on internationally recognised standards or framework."

When NACSA was drafting the Cyber Security Act, we took note of international instruments and standards pertaining to cyber security such as ISO/IEC 27001 Information Security Management System (ISMS). Rather than mentioning a specific instrument in the Act, we took the approach of using the phrase "internationally

recognised standards or framework" to enable the Act to cater for new or amended international instruments in the future.

With regard to countries that we have worked with, during the drafting of the Cyber Security Act 2024 (Act 854), NACSA worked closely with Singapore (Cyber Security Agency, CSA), the US (Department of State, MITRE and Cyber Security and Infrastructure Security Agency, CISA), European Union (ESISA - Enhancing security cooperation in and with Asia), Australia, United Kingdom and Russia.

**ADJ:** Beyond the Cyber Security Act, what other major initiatives is NACSA currently working on to strengthen Malaysia's cybersecurity posture? Are there any new projects or programmes that you are particularly excited about (such as educating the public and businesses, for example)?

**CE:** The Cyber Security Act 2024 is a pivotal step to fortify Malaysia's cyber security framework, but it is merely the foundation upon which we are building a more robust and resilient cyber security ecosystem. The enforcement of the Act will empower NACSA with legislative power to perform its function as the National Cyber Security Lead agency. Currently and beyond, NACSA is actively engaged in a multitude of strategic initiatives. This includes the enhancement of the NC4 to detect and respond to cyber threats with greater efficiency and effectiveness. We are also focusing on developing the cyber security talent pool through comprehensive training and education programmes.

Through partnerships with academic institutions and industry leaders, we aim to create a sustainable pipeline of cybersecurity experts who will contribute to our national resilience. Recognising the critical role of the private sector in national cybersecurity, NACSA is fostering deeper collaborations with industry stakeholders. We are working on several public-private partnership programmes to enhance information sharing, promote best practices, and develop innovative cybersecurity solutions. These collaborations are vital in creating a unified front against cyber adversaries.

**ADJ:** The upcoming AISSE 2024 event in Putrajaya is a significant event on the cybersecurity calendar. Can you share NACSA's plan to use it to further its goals and initiatives?

**CE:** As the national lead agency for cyber security, NACSA is dedicated to supporting initiatives that bolster the nation's cybersecurity landscape. We hope that this will not only demonstrate our leadership in the cybersecurity field in Malaysia but also reinforce our ongoing commitment to protecting our digital infrastructure and enhancing stakeholder participation and engagement, including the private sector, academia, and civil society.

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# Manned-Unmanned Teaming in 6th-Gen Fighters

A **SIXTH**-generation fighter is a conceptualised class of jet fighter aircraft design that represents a significant leap forward from the current fifth-generation fighters like the F-22 Raptor and F-35 Lightning II. While exact specifications vary by country and programme, sixth-generation fighters are expected to incorporate advanced capabilities such as extreme stealth, advanced sensor fusion, artificial intelligence (AI) integration, network-centric operations, hypersonic capabilities, directed energy weapons, manned-unmanned teaming as well as advanced materials and propulsion.

Such fighters are expected to feature even greater reduction in radar, infrared, and acoustic signatures compared to fifth-generation fighters. Sixth-generation fighters are also expected to be able to combine data from multiple sensors (radar, infrared, electro-optical) for a comprehensive situational awareness. AI will play a crucial role in decision-making, threat assessment, and potentially autonomous operations for sixth-generation fighters, as well as seamless integration with other platforms and systems for enhanced command and control.

Sixth-generation fighters are expected to have the ability to fly at speeds exceeding Mach 5, and potentially use lasers or high-powered microwaves for both offensive and defensive purposes. They are also expected to operate alongside unmanned aerial vehicles (UAVs) for increased flexibility and effectiveness, as well as utilise cutting-edge materials and propulsion systems for improved performance and efficiency. Essentially, sixth-generation fighters aim to achieve a level of situational awareness, lethality, and survivability far surpassing current capabilities. At this time, the technology for them is still in the development

phase, with the first operational aircraft expected to enter service in the 2030s.

Several countries are actively developing sixth-generation fighter programmes, each with its own unique approach and capabilities in mind. Asian Defence Journal takes a look at some of the prominent programmes:

## US's NGAD

The US Air Force (USAF) and Navy (USN) are both pursuing Next-Generation Air Dominance (NGAD) programmes for their next-generation fighter jets. Details remain classified, but expectations include significant advancements in stealth, sensor fusion and AI integration. The

USAF's NGAD is expected to be a manned fighter, while the USN's F/A-XX could be a manned-unmanned teaming system. The USAF's NGAD originated from DARPA's Air Dominance Initiative in 2014. The programme is not just a single aircraft but a broader concept encompassing a network of manned and unmanned platforms, advanced sensors, weapons and communication systems. The centrepiece of NGAD is a new, highly advanced, sixth-generation fighter jet. This aircraft is expected to be highly stealthy, possess advanced sensors, and integrate seamlessly with other components of the system.

Unmanned Collaborative Combat Aircraft (UCCAs), also known as "loyal wingmen", will





work alongside the manned fighter, providing additional capabilities like electronic warfare, surveillance and strike. NGAD will also incorporate cutting-edge sensors and weapons, including directed energy weapons, hypersonic missiles and advanced electronic warfare systems.

The USAF is using digital engineering tools to accelerate the development and production process of the NGAD, which had the primary goal of maintaining air superiority over potential adversaries, especially in highly contested environments. It aims to field the first NGAD aircraft around the 2030s. Mass production is expected to follow the initial operational capability, with the NGAD gradually replacing the F-22 Raptor. Despite the many challenges, the USAF is committed to the NGAD programme, recognising it as crucial for maintaining air dominance in the face of growing threats.

### Europe's FCAS

A collaborative effort by France, Germany and Spain, the Future Combat Air System (FCAS) aims to develop a complete air combat system, including a Next-Generation Fighter (NGF). The NGF will likely focus on advanced stealth, sensor fusion and network-centric operations, potentially

incorporating AI for pilot assistance. Year 2017 saw the formalisation of the FCAS programme as a joint venture between France and Germany.

Other key features of the FCAS include integration with unmanned combat aerial vehicles (UCAV) which will provide additional firepower and functionality, as well as combat cloud, a secure networked system for real-time information sharing, coordination and decision-making between manned and unmanned platforms, as well as other air, land and sea assets. The FCAS aims to deliver a significant leap in air combat capabilities compared to existing aircraft, with reduced radar signature for improved survivability, integrating various sensors to provide pilots with a comprehensive picture of the battlefield as well as integration with AI which could assist with tasks like target identification, threat assessment and even autonomous flight control in specific situations. It may also feature seamless communication and coordination with other platforms and command centres.

It is expected that the initiation of technology demonstrators for critical components will be in the late 2020s, while the potential for first flight of the New Generation Fighter (NGF) will be in early to mid-2030s. Expected Initial Operational Capability (IOC) for the FCAS system will be in the late 2030s or early 2040s. The FCAS is a long-term project with a first operational capability expected around 2040. Overall, the FCAS represents a significant European effort to maintain air combat superiority in the face of evolving threats and technological advancements.

### UK-Italy-Japan's GCAP

This trilateral Global Combat Air Programme (GCAP) seeks to develop a next-generation fighter known as Tempest. GCAP emphasises agility, advanced sensors, and information dominance, potentially incorporating AI for pilot support. It aims to replace the Eurofighter Typhoon and the Mitsubishi F-2. The programme builds upon the UK's Team Tempest programme and Japan's F-X programme, with formal development phase expected to begin in 2025. Demonstrator flight is targeted for 2027 and the production aircraft is expected to enter service from 2035.

Key features of the GCAP are expected to include advanced stealth technology for reduced

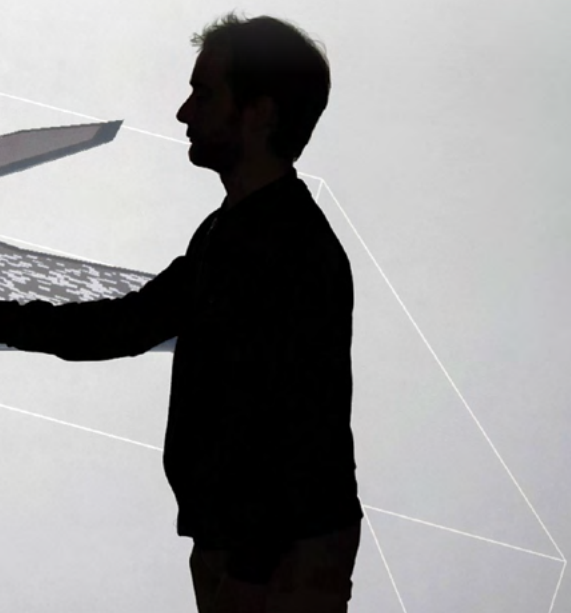
radar, infrared, and acoustic signatures; integration of multiple sensors for enhanced situational awareness, as well as AI for decision support, threat assessment and potentially autonomous operations. The programme is also expected to feature seamless integration with other platforms and systems; potential for hypersonic weapons and flight as well as operation with unmanned aerial vehicles.

### China's Chengdu J-XX

Not only the Chengdu J-XX is still an unofficial designation, information on China's sixth-generation fighter programme is limited. Speculations suggest it might focus on high-speed capabilities and advanced weapons systems, but concrete details are scarce. The Chengdu J-20 is (currently) a fifth-generation stealth fighter aircraft developed by China's Chengdu Aerospace Corporation for the People's Liberation Army Air Force (PLAAF). It is considered a direct competitor to the US F-22 Raptor. The designation "J-XX" is a generic term used by Western intelligence and media to describe potential future Chinese fighter aircraft programmes. It is a placeholder rather than a specific aircraft designation. However, it is very likely that the replacement for the J-20 is already on the drawing board at the moment, to match the development of the (US's) NGAD and (UK-Italy-Japan's) GCAP programmes.

### Russia's PAK-DP

Similar to China's programme, details on Russia's sixth-generation fighter are not readily available. Expectations include features like supercruise capabilities, advanced avionics and potentially hypersonic weapons. "PAK-DP", which in Russian means "prospective air complex for long-range interception", is a Russian designation for a new generation interceptor aircraft being developed by the United Aircraft Corporation's Mikoyan, where the aircraft is also referred to as the MiG-41. Key features of the PAK-DP include being designed for extremely high speeds, potentially





exceeding Mach 4 –primarily intended to intercept hypersonic missiles and other airborne threats, as well as capable of operating at extended ranges to intercept threats early. The PAK-DP is also expected to be equipped with advanced radar and other sensors to detect and track targets, as well as likely to carry hypersonic missiles for engaging targets.

There is potential for an unmanned version of the PAK-DP. The design phase was reportedly completed in 2019, and the aircraft is expected to enter service in the late 2020s. The PAK-DP’s future is however cloudy due to the current sanction imposed on Russia. Even the currently available fifth-generation Sukhoi Su-57 Felon, which first flew in 2010, is only slowly entering service.

**4th-plus, 5th, 6th-Gens Still Evolving**

The information on these sixth-generation fighter programmes are constantly evolving as development progresses. Specific capabilities and timelines might change based on technological advancements and budgetary constraints. Some nations might prioritise different aspects like stealth, speed or weapons systems based on their perceived threats and strategic needs. Overall, the development of sixth-generation fighters signifies a global race to achieve dominance in future air combat. These advanced aircraft will likely revolutionise aerial warfare with their currently unmatched capabilities.

**MUM-T with Current-Generation Combat Aircraft**

Manned-Unmanned Teaming (MUM-T) is a concept that involves integrating manned aircraft with unmanned aerial vehicles (UAVs) to enhance mission capabilities. This strategy is becoming increasingly prevalent in modern warfare, as it offers a range of advantages, such as increased situational awareness, enhanced firepower, risk mitigation and cost-effectiveness. UAVs can provide pilots with a broader and more detailed view of the battlefield, including real-time data on threats and targets. They can also carry additional weapons, expanding the firepower of the team. By delegating high-risk tasks to UAVs, the manned aircraft and its pilot can be kept out of harm’s way. UAVs are also generally less expensive to operate and maintain than manned aircraft.

While many countries are actively exploring MUM-T concepts, some notable examples include the US, France, Germany and Israel. The US Air Force has experimented with various UAVs, such as the MQ-9 Reaper, to team up with F-16 and F-15 fighters. Meanwhile, countries like France and Germany are developing UAV concepts to work alongside the Eurofighter Typhoon and Rafale. In the Middle East, Israel has been a pioneer in UAV technology and has integrated them with its F-16 and F-15 fighters. Countries experimenting with the MUM-T concept experience a number of challenges and considerations including data



link and communication, command and control and autonomy as well as logistics and support.

Reliable and secure communication between manned and unmanned aircraft is essential, and developing effective command and control structures for the team is crucial. Balancing human control with UAV autonomy also requires careful consideration, and integrating UAVs into existing air operations requires logistical planning and support infrastructure.

**Loyal Wingman – The Unmanned Teammate**

A Loyal Wingman is a type of UCAV designed to collaborate with manned fighter aircraft. This concept falls under the broader category of MUM-T. These UCAVs are equipped with artificial intelligence (AI) systems enabling them to operate autonomously or under the control of a manned aircraft. They work in tandem with manned fighter jets, sharing information, coordinating tasks and providing support. The Loyal Wingman can be configured for various missions, such as electronic warfare, intelligence, surveillance, reconnaissance and strike. Compared to manned aircraft, they are generally less expensive to produce, operate and maintain.

Loyal Wingmen can provide pilots with a broader and more detailed view of the battlefield, including real-time data on threats and targets. By distributing tasks between the manned aircraft and the Loyal Wingman, both platforms can focus

on their strengths. The UCAV can also undertake high-risk missions, reducing the danger to the manned aircraft and its pilot. Another important point is that Loyal Wingmen are generally less expensive to operate and maintain than manned aircraft, making them a more cost-effective option.

The most prominent of the Loyal Wingman programme is the Boeing MQ-28 Ghost Bat, which is developed for the Royal Australian Air Force. Other examples include the Kratos XQ-58 Valkyrie, a subsonic, stealthy UAV designed for low-cost, attritable operations, as well as the General Atomics Avenger, a larger UAV with a longer endurance and payload capacity compared to the XQ-58. The Airbus Wingman is a concept for a modular UAV that can be adapted for various missions, while the Saab Corvus is a Swedish concept for a high-speed, stealthy UAV. Russia’s primary Loyal Wingman program centres around the Sukhoi S-70 Okhotnik. This unmanned combat aerial vehicle (UCAV) is designed to operate alongside the Su-57 fifth-generation fighter. Several other countries, including the US, Europe, South Korea and China are also exploring Loyal Wingman concepts.

MUM-T that include Loyal Wingman-type of UCAV is a rapidly evolving field, and it is likely that we will see more advanced and sophisticated implementations in the coming years. This concept is expected to play a significant role in future air warfare. ♦



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# Armour on Wheels



A **MODERN** wheeled armoured vehicle (WAV) is a type of armoured fighting vehicle that uses wheels for mobility instead of tracks. It offers several advantages over its tracked counterparts, including higher speed, better fuel efficiency, lower maintenance and versatility. Wheeled vehicles are generally faster on paved roads, as wheels require less power to operate compared to tracks. Wheels also have fewer moving parts and are generally easier to maintain. Lastly, wheeled vehicles can often be used in a wider range of terrains and environments, and is the better option when travelling on roads.

There are several types of wheeled armoured vehicles including Armoured Personnel Carrier (APC), Infantry Fighting Vehicle (IFV), reconnaissance vehicle and armoured cars.

APCs are used to transport troops and equipment into combat zones while providing protection from small arms fire and shrapnel. Examples of APCs include the Stryker, Boxer and Patria AMV.

IFVs are APCs with increased firepower and protection, designed to accompany infantry in combat. Examples include the VBCI, Lynx and Piranha V.

Reconnaissance vehicles are lightly armoured vehicles designed for scouting and gathering intelligence, while armoured cars are typically smaller and faster vehicles used for reconnaissance, patrol and escort duties.

Many modern WAVs are designed with modularity in mind, allowing for different mission packages to be installed. Modern WAVs also feature improved armour materials and designs to provide better protection against threats like mines and improvised explosive devices (IEDs). Many WAVs are equipped with remote-controlled weapon stations and anti-tank missiles, while advanced suspension systems and powerful engines allow for high speeds and off-road capabilities.

Here Asian Defence Journal looks at recent developments related to wheeled armoured vehicles around the world:

## Stryker – The Benchmark

The Stryker is a family of eight-wheeled armoured fighting vehicles derived from the Canadian LAV III, itself based on the Swiss Mowag Piranha. It is primarily used by the US Army.

The US has provided Stryker armoured personnel carriers in multiple tranches to Ukraine as part of its military aid packages. These vehicles have been seen in action on the battlefield, playing a crucial role in transporting troops and enhancing their mobility and protection.

The US has also offered to co-produce the Stryker with India, including an air defence variant. India has expressed interest in this proposal, and negotiations are ongoing. However, the initial interest was originally expressed 15 years

ago (in 2009) and renewed interests have been registered more recently. The finalisation of the co-production deal depends on various factors, including whether it meets the Indian Army's operational requirements; can achieve a high level of indigenisation and technology transfer, and to finalise the co-production model and identify the Indian partner.

The US has also approved a potential US\$1.5 billion sale of 183 Stryker armoured vehicles to Bulgaria in September 2023. The Bulgarian parliament then approved the purchase in December that year.

In Southeast Asia, Thailand is an operator of the Stryker. In July 2019, the US approved a Foreign Military Sale (FMS) to Thailand for 60 Stryker Infantry Carrier Vehicles (ICVs) along with M2 Flex .50 calibre machine guns, for a total estimated cost of US\$175 million. The first batch of Strykers was delivered to Thailand in September 2019. In February 2024, Thailand received an additional 20 Stryker ICVs as part of another FMS case, totalling nearly US\$200 million. This acquisition is part of Thailand's ongoing military modernisation efforts and strengthens the security ties between the two nations.

## Boxer – The New Standard

The Boxer is a multi-role armoured fighting vehicle designed by an international consortium to accomplish a number of operations through



the use of installable mission modules. Its most distinctive feature is its modular design – it consists of a drive module and a mission module that can be easily swapped out to adapt the vehicle to different roles. Due to the modular design, the Boxer can be configured for a wide range of missions, including infantry transport, command and control, ambulance, reconnaissance and more.

Countries that have adopted the Boxer include Germany, Netherlands, United Kingdom (UK), Lithuania, Australia, Slovakia and Netherlands. Slovakia expressed interest in acquiring Boxers in 2015 and signed a contract for their purchase in 2016. Deliveries to Slovakia began in 2020. Meanwhile, Lithuania expressed interest in acquiring Boxers in 2015 and signed a contract in the following year for their purchase. Deliveries began in 2021. The Netherlands, a core partner in the Boxer programme, continues to acquire new Boxer variants, while Germany, the primary developer and user of the Boxer, has ongoing orders for various Boxer configurations. The UK is considering the Boxer as a potential replacement for its aging armoured vehicles.

Artec, the consortium behind the Boxer, is expanding its production capacity by adding new assembly lines across Europe. The goal is to produce 200 Boxers annually, but this depends on the ability of suppliers to keep up with demand.

The Boxer continues to evolve with new variants and upgrades. Germany is integrating C-UAS (Counter-Unmanned Aerial System) capabilities into the Boxer platform, enhancing its air defence role. Another variant, Kampfboxer, features a 30mm cannon and Spike-LR anti-tank

Irish Army



*The MOWAG Piranha, which served as a basis for the LAV and Stryker designs.*

guided missiles, providing increased firepower. Constant improvements are being made to armour, sensors and other systems to enhance the Boxer's performance. Development of additional variants, such as the Boxer Overwatch with precision-guided missiles, is ongoing. Integration of new technologies like advanced sensors, AI and autonomous capabilities is being explored.

Australia has been at the forefront of Boxer armoured vehicle development and integration, after signing a contract with Rheinmetall Defence Australia for the acquisition of 211 Boxers in 2015. For example, Australia has played a significant role in the design and development of the Boxer Block II, which features improved protection, firepower, and situational awareness. The Boxer Block II incorporates the Lance 2.0 turret, offering increased lethality and precision. Production of the Boxer Block II for the Australian Army has begun, with deliveries commencing this year.

Australia is also exploring the integration of new technologies into the Boxer platform, such as advanced sensors, electronic warfare systems, and unmanned aerial vehicles. Ongoing research and development efforts aim to enhance the Boxer's capabilities and adaptability to future threats. Australia has also secured a significant contract to export Boxer Heavy Weapon Carrier variants to Germany. This deal marks a major milestone for Australia's defence industry. There is also a rising demand for the Boxer from various other countries due to its versatility and adaptability. The increased demand could lead to supply chain challenges and delays in production.





**Patria AMV – Versatile**

The Patria Armoured Modular Vehicle (AMV) is an 8x8 multi-role military vehicle produced by the Finnish defence industry company Patria. The AMV's most notable feature is its modular design, allowing it to be configured for various roles by swapping out mission modules. This modularity makes it adaptable to a wide range of missions, including infantry transport, command and control, ambulance, reconnaissance, mortar carrier and more. The AMV offers a high level of protection against ballistic threats and mines, and its 8x8 wheel configuration provides excellent mobility both on and off-road.

Several countries have adopted the Patria AMV as their armoured vehicle platform, including Finland, Sweden, Croatia, United Arab Emirates, Slovakia, Chile, South Africa and Japan. Slovakia introduced the AMV (locally known as the Vydra) in the early 2010s, while Chile acquired them in the mid-2010s and South Africa later that year. Japan placed an order for the AMV XP in December 2022 to be its new wheeled APC. This decision came after a competitive evaluation process to replace the ageing Type-96 8x8 APCs. Japan chose the Patria AMV XP over the Mitsubishi Heavy Industries' armoured vehicle. Patria has signed a licensing agreement with Japan Steel Works (JSW) to produce the AMV XP in Japan.

Japan allocated US\$93 million in fiscal year 2023 to acquire 26 AMVs. In fiscal year 2024, Japan allocated US\$129.77 million for an additional 28 AMVs. The decision to select the Patria AMV XP reflects Japan's focus on modernising its ground forces and enhancing its

military capabilities.

**VBCI – by Nexter**

The Véhicule Blindé de Combat d'Infanterie (Armoured Infantry Fighting Vehicle), is a French wheeled armoured vehicle designed and manufactured by Nexter Systems and Arquus (formerly Renault Trucks Defense) to replace the AMX-10P. The vehicle features a modular design allowing for various mission configurations, including infantry transport, command and control, ambulance, reconnaissance and more. Offering a high level of protection against ballistic and mine threats, its wheeled design provides good mobility on roads and moderate off-road capability. The VBCI can be equipped with various turrets and weapon systems, depending on the mission role.

The primary user of the VBCI is the French Army. It is the backbone of their armoured infantry forces. Saudi Arabia has shown interest in the VBCI but no concrete deal has been signed. The French Army has ordered a total of 630 VBCI, which include 550 units of the VCI (Infantry Fighting Vehicle) variant and 150 units of the VPC (Command Post Vehicle) variant. Delivery of these vehicles was completed in 2018. While there were initial plans for a larger order of 700 vehicles, this was later reduced to 630.

The VBCI has been in service with the French Army for over two decades and has undergone continuous upgrades and modernisation. VBCI Mk2, an upgraded version of the VBCI, features improved protection, firepower, and situational awareness. It incorporates the T40 turret with a 40mm cannon and Akron MP anti-tank guided

missile. The French Army has also initiated a regeneration programme to refurbish older VBCI vehicles, extending their service life and maintaining operational readiness. Overall, the VBCI remains a cornerstone of the French Army's armoured infantry capabilities.

**Piranha – Still Popular**

The Piranha is a family of wheeled armoured fighting vehicles designed by the Swiss company Mowag (now part of General Dynamics European Land Systems). It is known for its modular design and versatility, making it adaptable to various roles such as infantry transport, reconnaissance, command and control, and fire support. It offers protection against small arms fire and shrapnel, with options for additional armour, and has excellent mobility on both roads and off-road terrain. There are several generations of Piranha vehicles, each with its own variant – the latest generation is the Piranha V with advanced technology and increased protection.

The Piranha is a widely used armoured vehicle platform, with numerous countries adopting it over the years, including Switzerland, Brazil, Chile, Finland, Denmark, Australia, Canada, Slovenia, Slovakia, and the United Arab Emirates. Slovakia adopted the Piranha in the early 2010s, and Chile in the mid-2010s. It is estimated that thousands of Piranhas have been ordered and produced since its inception. Early adopters of the Piranha however are or have replaced the vehicles with other, more modern armoured vehicles. ♦



French Army

France's VBCI has been deployed on overseas missions multiple times, including the Central African Republic.



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# Time to Get Real: Regional Cybersecurity Efforts Intensify

By Duncan Looi

**RECENT** and not too distant events have again proven that the real threats to cybersecurity are now upon us, and with that in mind, the Southeast Asian region has chosen to focus on efforts in this field. With new emerging technologies such as Artificial Intelligence (AI) and blockchain contributing to the rapid expansion of the Internet of Things (IOT), the banes of such advancements also present clear and present dangers which often require pre-emptive measures to prevent incidents. Cybersecurity is a global challenge that is endlessly evolving with every passing minute, as cyberthreats ranging from cyberespionage, cyber attacks, data

breaches, ransomware attacks and even online fraud grow increasingly complex and severe across the borderless virtual realm. And, the threats need not even come from enemies at large but via “a glitch” by cyber defenders, the most recent being the July 18 global IT outage caused by cybersecurity firm CrowdStrike.

## The Threats

Typically, such acts are commonly carried out by non-state actors or even state-sponsored advanced persistent threats (APT). According to reports, APT attacks occurred mostly in Singapore, Thailand, Vietnam, and Indonesia. In 2023, reports indicated that members of

the Association of Southeast Asian Nations’ (ASEAN) finance and healthcare sectors experienced the most attacks. Cyber-intelligence company Cyfirma stated that the significant cybersecurity challenges faced by ASEAN were ransomware, state-sponsored threats, disruptions to IOT devices and tech supply chain vulnerabilities.

On June 24, Indonesia announced that it had suffered a ransomware attack on its national data centre which disrupted airport operations and over 280 government services at the national and local levels since June 20. According to the Communications Ministry, the attack was carried out using a new variant of the malicious software named Lockbit 3.0 with the attackers demanding a US\$8 million ransom, though the Indonesian reportedly government refused to pay. Then, the perpetrators purportedly apologised and released the decryption key free of charge, data of several affected agencies were restored and officials are working towards restoring the rest that were not backed up.

Indonesia has been the target of many cyberattacks, following previous cyberattacks that hit companies and government agencies, data of millions of consumers were leaked with reputational damage inflicted on Indonesia. In the aftermath, the government is looking to design data centres that have layered backups with strong security measures.

## Of Cybersecurity and Cyber Defence Organisations

Discussions have been ongoing in Jakarta regarding the “increasingly inevitable” establishment of a fourth military branch dedicated entirely to cyber warfare since the Indonesian Armed Force’s existing cyber unit focuses on internal activities meant only to support the military’s core systems. Other Indonesian agencies such as the National Intelligence Agency, National Police and National Cyber and Crypto Agency all play roles but none of them hold sole responsibility of buttressing the country’s cyber defences.

Singapore established the Digital Intelligence Service (DIS) as the fourth unified service under the Singapore Armed Forces (SAF) in Oct 2022, absorbing several other cyber defence elements in the process. The DIS would address the city-state’s substantially growing requirements due to its high susceptibility to recurrent cyberattacks related to cyberespionage. Under the Service are four commands, the Joint Intelligence Command, the SAF C4 Command/Cybersecurity Task Force, the Digital Defence Command and the Training Command in addition to the Digital Operations Tech Centre. The DIS took part in Exercise Forging Sabre to aid the SAF in better assessing information on the ground





and deploying assets across domains more effectively via robots and AI to integrate well with the army and air force. Additionally, adopting open source intelligence to prevent collateral damage and computer vision algorithms that can detect targets on the battlefield more quickly

In a July 2023 ceremony, the headquarters of the ASEAN Defence Ministers' Meeting Cybersecurity and Information Centre of Excellence (ACICE) was officiated. Located at (Singapore's) Changi Naval Base, it was to function as an information-sharing and research centre for ASEAN members. ACICE has been operational since 2021, providing situational awareness and early warning of regional or global cyber threats. Aside from that, ACICE also looked to take on fake news and misinformation. Moreover, ACICE provides ASEAN states with a platform to build regional capacity by providing actionable intelligence against potential threats and help formulate a collective response should transnational cyber threats emerge. ACICE and regional along with international bodies will discuss and develop a global consensus on the norms, rules, and principles which will guide state behaviour in cyberspace.

Later in October, the Cyber Security Agency of Singapore (CSA) announced agreements with Microsoft and Google to enhance the republic's cyber defences via the facilitation of intelligence sharing, joint anti-cybercrime and malicious cyber activity operations, exchanges on subject matter and capacity-building. The Singapore government encouraged more such partnerships between the private and public sectors to realise synergies and attain positive outcomes for the public good.

As of February 2024, the CSA has worked to operationalise the ASEAN Regional Computer Emergency Response Team (CERT) to better coordinate a stronger regional cybersecurity incident response and cooperation on critical information infrastructure (CII) protection. Its financial model would see joint training, cybersecurity

exercises and networking of respective ASEAN member CERTs with INTERPOL, the industry and academia to supply ASEAN states of threats in the industry. The announcement was made following the fourth ASEAN Digital Ministers' Meeting in Singapore where respective ministers discussed AI governance and tactics on combating scams regionally in addition to digital innovation and business opportunity agreements.

In September 2023, Malaysia's Defence Ministry (MINDEF) said that country's cyber defence system remains at a high level, as the entire armed forces strategic communication system is in a secure network unconnected to the external internet chain under the watch of the Armed Forces' (MAF) Defence Cyber and Electromagnetic Division (DCED) Cyber Defence Monitoring Centre. They added that plans to establish a Cyber Command Centre are also in the works. Proactive measures such as bilateral and multilateral cooperation and the sharing of intelligence on cybersecurity threats between partner nations have also been taken.

In February this year, MINDEF also began exploring the recruitment of hackers to shore up cyber defences and to develop its Force of the Future which would focus on cyber security, digital threats and electromagnetic defence while simultaneously strengthening monitoring apparatus around the waters and borders of the country. This is part of the ministry's mid-term review of the Defence White Paper that also recommends to explore the prospects of adapting AI, big data and digitalisation. Research indicated that Malaysia was only second to Singapore in ASEAN regarding AI readiness.

The Royal Thai Armed Forces (RTArF) is expected to create a cyber-command unit this coming October, a unit to be supported by the agencies under the three branches of service and headed by a lieutenant general. The Royal Thai Army (RTA) cyber and digital technology units are to be restructured while an electronic warfare division will be a new addition to the Royal Thai Navy's (RTN) cyber

centre. Besides that, the Royal Thai Air Force (RTAF) cyber centre will be transferred to the Defence Ministry's Department of Information Technology and Communications. On top of that, a cyber defence academy will be formed to produce 300 to 500 specialists annually.

In October last year, the Philippines banned the use of AI-enabled mobile applications due to possible privacy and security risks including identity theft, phishing attacks and others. The Armed Forces of the Philippines (AFP) announced plans to enhance the existing Cyber Group (AFPCyG) into a Cyber Command that would see its capabilities, personnel and equipment improve and be able to protect the military's cyber networks across the country. Under Horizon 3 of the AFP's modernisation programme, cyber equipment and facilities for the new command are planned. The AFP also stated plans to recruit IT personnel from its youth with more relaxed recruitment standards. Establishing the command will require a greenlight from the President.

Following that, the AFP also said it would include cyber defence drills as a common fixture in upcoming military exercises, citing the real-world consequences of non-physical domains in the physical domains. The Philippines also agreed to broaden cyber defence partnership with Denmark, emphasising on countering disinformation and proactively addressing threats in the information ecosystem.

Prior to this, several cyber assaults targeted government and private bodies including the AFP's cyber infrastructure, with data breaches consisting of older files and non-sensitive documents. Despite such incidents occurring often, the AFP assured that none had been successful. In February this year, China-based hackers reportedly attempted to break into the Philippine presidential website and e-mail systems among other governmental targets in a thwarted attack.

### Regional, International Cooperation

Brunei's Legislative Council hosted an ASEAN Parliamentary Caucus Meeting in June. The meeting was held in its capital with the theme "Strengthening Asean Cyber Resilience through Parliamentary Cooperation: Towards a Future of Safe and Vibrant Digital Economy".

Cambodia has pledged to foster a secure digital environment for all, hoping to leverage ASEAN as a platform to build up their capabilities with help from all nations. Earlier this year, Cambodia established the Digital Security Committee comprising relevant ministries to lead the way in the cyber domain.

Vietnam's third largest stock brokerage



was recently hit by a cyberattack, with officials assuring there was no risk of contagion. The attack was overcome but the attackers and extent of damage were unspecified. The country urged the United Nations Security Council (UNSC) to divert its resources and attention to cyber challenges and cyber security with regards to prevention of conflicts, prevention and control of terrorism along with the safeguarding of essential infrastructure. As a supporter of international cooperation in this field, Vietnam also actively participates in promoting responsible cyberspace behaviour that would not infringe on national independence and sovereignty or internal affairs.

With most of ASEAN having economic and security ties with both the US and China, the increasingly tense US-China cyber race and increasing militarisation of the cyber domain could potentially have adverse effects on ASEAN. Therefore, it would be in the interest of ASEAN to step up cyber diplomacy efforts and promote responsible state behaviour in cyberspace to prevent the US and China from dictating rules to exert influence and prevent Southeast Asia from turning into a virtual battlespace.

Last October, Japan and eight ASEAN countries marked 50 years of friendship and cooperation with an agreement to reinforce private sector cybersecurity partnerships. The countries involved were Malaysia, Thailand, Vietnam, Cambodia, Indonesia, Singapore and the Philippines. After Japan upgraded relations to a "comprehensive strategic partnership", Japan has committed to assist in boosting the cybersecurity capabilities of ASEAN states. In November, South Korea held the multinational Cyber Training and Exercise (CYTREX) with members of the ASEAN Defence Ministers' Meeting-Plus (ADMM-Plus), involving its dialogue partners, South Korea, the US, China, Japan, Russia, India, Australia and New Zealand.

In February this year, the first ASEAN-Japan Cybersecurity Working Group Meeting was held in Bangkok. Japan and Thailand established the ASEAN-Japan Cybersecurity Capacity Building Centre (AJCCBC) in 2018 to heighten expertise of government personnel and Critical Information Infrastructure Organisations to manage, prevent and respond to cyber threats. In the coming year, the AJCCBC is looking to work with other countries such as the US, UK and Canada for more advanced cybersecurity skills and knowledge.

### ASEAN Cyber Defence Meeting in KL during CyberDSA

Malaysia will host the ASEAN Cyber Defence Network (ACDN) Meeting for the third time during the upcoming Cyber Digital Services, Defence and Security Asia (CyberDSA) exhibition at the Kuala Lumpur Convention Centre (KLCC) from August 6-8. The meeting would focus on developing a 10-year roadmap to future cyber defence strategies in addition to fostering knowledge exchanges. CyberDSA will gather key stakeholders and industry professionals from the region and beyond that defend the national, public and business interests in the cyber world. Furthermore, the event will serve as a bridge between decision-makers from government bodies across the globe and from the private sector.

With full support from the Malaysian Ministry of Communications and Digital, Malaysia's MINDEF, the Armed Forces, the DCED, the Royal Malaysia Police (RMP), Cybersecurity Malaysia, and the National Cyber Security Agency of Malaysia (NACSA), the event will feature major players from the defence and cybersecurity industries and highlight their state-of-the-art products, innovative solutions and diverse services. Aside from the forums featuring over 50 industry leaders and experts, roundtable talks for subject matter experts and officials are also on the agenda as more than 7,000 trade visitors and 80 VIP delegations are anticipated to grace this edition of the show which will shine the spotlight on 150 exhibitors from 20 countries. ♦

## Fixes, Assurance After Global Tech Outage

**CYBERSECURITY** firm CrowdStrike has deployed a fix for an issue that triggered a major tech outage that occurred on July 19, which affected industries ranging from airlines to banking to healthcare worldwide, the company's CEO said.

"This is not a security incident or cyberattack. The issue has been identified, isolated and a fix has been deployed," CrowdStrike CEO George Kurtz said in a post on social media platform X. The issue stemmed from a defect found in a single content update for Microsoft Windows hosts, Kurtz said, adding Mac and Linux hosts were not impacted by the issue.

A massive IT outage which began on July 19 disrupted operations at companies across multiple industries, with major airlines halting flights, some broadcasters off-air and sectors ranging from banking to healthcare hit by system problems.

"We're deeply sorry for the impact that we've caused to customers, to travellers, to anyone affected by this, including our company," Kurtz told NBC News.

The company recently opened a new office in Singapore, positioned as a central hub for its operations in Asia. "Many of the customers are rebooting the system and it's coming up and it'll be operational," Kurtz said, adding that it could be some time for some systems that won't automatically recover.

CrowdStrike's "Falcon Sensor" software was causing Microsoft Windows to crash and display a blue screen, known informally as the "Blue Screen of Death", according to an alert sent by CrowdStrike earlier to its clients and reviewed by Reuters.

The Office of the Secretary of Defense and the US Cyber Command statement said that "a software update from cybersecurity software company CrowdStrike has caused outages for thousands of Microsoft Windows users worldwide, with banks, airports, health care organisations and several other industry sectors reporting disruptions in operations as a result".

Microsoft said separately it had fixed the underlying cause for the outage of its 365 apps and services including Teams and OneDrive, but residual impact was affecting some services.

Meanwhile, the US Joint Chiefs of Staff Chairman said that the country's Department of Defense (DoD) operations are not affected by the widespread CrowdStrike "glitch". "For all reports I have right now, (there have been) no impact on DoD operations," General CQ Brown said on July 19 during the Aspen Security Forum. "But I will also share with you, this just gives you an indication of how important cybersecurity is – how we use our software, how we use our tools – is important, and the things that we do particularly in DoD to protect our capabilities to ensure that we can still protect the nation, even when you have – whether it's a glitch or an attack – that would be best postured to be able to support."

"I'm sure our adversaries are looking at this as a way to, I would say, put sand in our gears when we're trying to generate combat power to respond to a crisis anywhere around the world," he later added.

It was reported that several Department of Defense (DOD) components use Microsoft Windows products for cloud storage, cybersecurity and other administrative and IT services – including Microsoft 365, Power BI, Microsoft Defender for Endpoint and Microsoft's Azure cloud. – MG Mahmud ♦



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# UK Defence Industry Upshifting

Spending hike by government, increased contracts, partnerships promise various benefit for all sectors in years to come

**THE** United Kingdom's defence industry, one of the largest and most sophisticated in the world, focuses on exports and has a highly-established supply chain. It maintains its stellar reputation for excellent designs and production of defence products with a maintenance, repair and overhaul (MRO) sector being a major contributor to the British industrial machine. According to government reports, the UK's defence industry reported a total turnover of US\$29 billion in 2022, with US\$15b being exports. In 2022/23, the country recorded over US\$32b in defence industry spending for the first time, supporting around 209,000 jobs. In April, then-prime minister Rishi Sunak announced a hike in defence spending to 2.5% by the end of the decade, an extra US\$93b over the next six years.

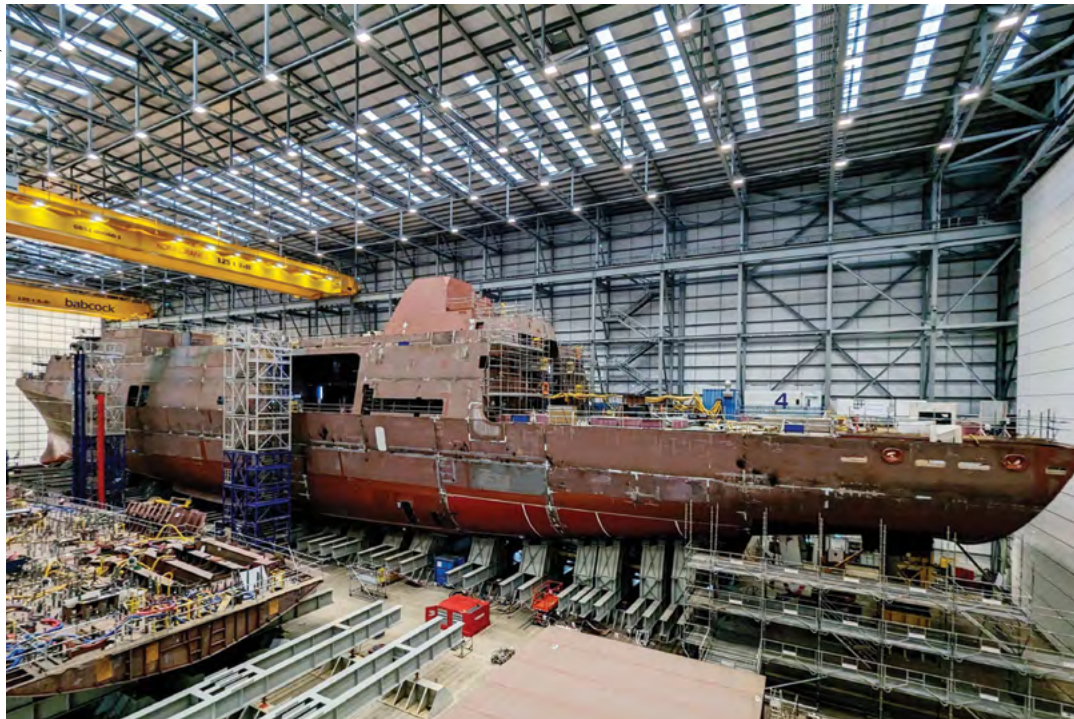
Alongside big, local defence firms such as BAE Systems and Rolls-Royce are many foreign powerhouses – mainly European countries and the US – with major presence in the country. They include Boeing, Airbus, Leonardo, General Electric, Lockheed Martin, MBDA, Safran and Thales, with Leonardo and Airbus as two of the largest inward investors in the British defence industry. Meanwhile, BAE Systems is the largest British defence company and among the top 10 in the world, being at the forefront of the UK's defence exports and production, developing, designing, manufacturing and upgrading a myriad of products, ranging from space and aerospace, ground combat vehicles, cyber security solutions, military electronics, to surface and sub-surface warships in addition to offering various services around the world.

### 'New Golden Age of Shipbuilding'

The Royal Navy (RN) is expected to grow further as Britain would experience a new "golden age of shipbuilding", with 28 warships and submarines currently being built for the RN. An old Type 23 Duke-class frigate was retired and reportedly sold to BAE Systems in order to establish a shipbuilding academy in Scotland where the frigate would be used for training. Meanwhile, the Royal Marines (RM) will receive as many as six amphibious Multi Role Support Ships to deploy RM Commandos worldwide for special operations.

BAE Systems' Type 26 frigates, or Global Combat Ship programme comprise three operators, the RN, Royal Australian Navy (RAN) and Royal Canadian Navy (RCN). The RN has eight of the vessels ordered amounting to US\$4.78b, the first vessel in the City-class named Glasgow is being outfitted in dry dock as of April, followed by Cardiff which is nearing structural completion. The third and fourth, Belfast and

Babcock, BAE



*Babcock and BAE Systems are among the largest warship builders in the country.*

Birmingham, are being assembled while the first steel of the fifth ship named Sheffield will be cut early next year. Rounding out the order are Newcastle, Edinburgh and London, all expected to enter service by 2036. Construction on the RAN's Hunter by BAE Systems commenced in June. The planned RCN vessels are based on the company's design. Another frigate, the Type 31 Inspiration-class designed and built by Babcock, has five on order from the UK while the ship's Arrowhead 140 design has been provided to Poland and Indonesia under licence. The Inspiration-class Venturer, Active, Formidable, Bulldog and Campbelltown will be built in Babcock's Rosyth site. In March, Babcock was awarded a US\$723.3





DSTL

*DragonFire was the result of collaboration between the private and government defence sector.*



UK MOD

*RTX's HLEW is small enough to be fitted on vehicles to counter aerial threats on-the-go.*



BAE

*The SSN-AUKUS selected by the UK and Australia is based on the US Virginia-class submarine.*

million contract to modernise the RN's Vanguard-class nuclear-powered submarine, HMS Victorious.

The government announced US\$129m worth of upgrades to Belfast dockyards in Northern Ireland, as the consortium of BMT, Harland and Wolff along with Navantia UK dubbed Team Resolute clinched a US\$2.06b contract for three RN Fleet Solid Support Ships. Parts of the ships are to be built elsewhere as well before being assembled in Belfast, anticipated to be operational by 2032 as production is slated for 2025. A sixth Astute-class nuclear submarine was named Agamemnon in April and expected to be ready for service by the end of the year. The seventh and final named Agincourt is also being constructed at BAE's Barrow-in-Furness. Furthermore, construction of the first three next generation nuclear deterrent Dreadnought-class submarines is also underway.

### Further Benefits of AUKUS

A portion of the UK's defence export can be attributed to the trilateral defence pact between Australia, the UK and US (AUKUS). In October 2023, BAE Systems won a US\$4.8b contract from the British government

to build the nuclear-powered SSN-AUKUS attack submarines, securing funding for infrastructure and design work on the submarines. Largely of British design, the class is the largest, most lethal and most advanced attack submarines to ever serve in the British fleet and it will replace the current Astute-class submarines. BAE Systems added that the project will add as many as 5,000 more workers and bring their total yard workforce to 15,000 strong.

Then-Secretary of State for Defence Grant Shapps had said: "The multi-billion-dollar investment in the AUKUS submarine programme will help deliver the long-term hunter-killer submarine capabilities the UK needs". Though the final design has not been unveiled, it is speculated that it would share some similarities with the Astute-class and US Navy Virginia-class submarines, but larger and more technologically advanced.

Australia will also provide US\$3.1b to the British industry in a 10-year deal to support construction of at least three SSN-AUKUS submarines for the RAN. The vessels are expected to be built in Adelaide by BAE in collaboration with an Australian government-owned shipbuilder ASC. All the submarines are to be powered by Rolls-Royce Submarines' nuclear reactor plants; it would create well over 1,000 jobs in Derby and double the size of Rolls-Royce's manufacturing facility. Production of the submarines are slated to begin by the end of the decade with the first UK submarine due for delivery in the late 2030s, while the first Australian vessel is due in the early 2040s. Babcock received a parallel engineering support contract for design input.

### Laser-Focused on Defence

In January, the UK successfully tested the DragonFire laser directed energy weapon (LDEW) against aerial targets for the first time. Though its full capabilities and range are classified, the high-power intense beam of light can be delivered over long ranges at the speed of light to cut through targets as small as a coin and costs less than US\$13 per shot. Its relatively low cost means the weapon can be a long-term low-cost alternative to firing missiles but can only engage targets within its line of sight. The US\$129m project is headed by the UK Ministry of Defence (MOD) Defence Science and Technology Laboratory (DSTL) along with MBDA, Leonardo and QinetiQ. The UK hopes to operationalise the system on RN vessels by 2027, five years ahead of the planned 2032 deployment date as threats from unmanned aerial vehicles and small attack crafts continue to threaten naval vessels. The DragonFire will be undergoing subsequent live-fire tests before being manufactured and fitted onboard British warships. The MOD also floated the idea of sending the weapon to Ukraine.

In another ground-breaking first, Raytheon UK and DSTL test-fired a High-Energy Laser Weapon System mounted on a Wolfhound combat vehicle



## Country Report

at a target over one kilometre away. Using similar technology as the DragonFire, this system is a lightweight portable system designed for the Army to counteract NATO class 1 UAVs. With a British supply chain comprising Raytheon, Frazer-Nash, NP Aerospace, LumOptica, Blighter Surveillance Systems and Cambridge Pixel, it is a major leap in the MOD's Land LDEW Demonstrator programme, logging more than 40,000 testing hours and downing 400 targets. With just a two-man team, it takes less than a fortnight to train its crews. The system operates with a command and control system which can also be paired with other battle management radar and surveillance systems. It will undertake further trials with the Army later in the year.

### More Support to Ukraine

The UK committed to send another US\$620m worth of materiel to Ukraine, adding that the UK needed deeper stockpiles of ordnance and a heightened ability for the industry to replenish it quicker. New prime minister Keir Starmer reiterated the commitment to increase defence spending to 2.5% of the gross domestic product, but only after a review of defence strategy and being financially capable. The "root and branch review" comes after a February parliamentary report found that the British military faced multiple capability shortfalls. The review will involve input from the military, the defence industry, North Atlantic Treaty Organisation (NATO) allies and others with the report due in the first half of 2025.

The UK and Ukraine signed a Defence Export Support Treaty to boost industrial production for Ukrainian forces and the UK. Representatives of the UK's defence sector consisting of the government, BAE Systems, Thales UK, MBDA, KBR and Babcock met with their Ukraine counterparts and President Volodymyr Zelenskyy. The MOD agreed to renew the UK's production of forgings for gun barrels together with Sheffield Forgemasters. BAE Systems has provided maintenance and repair for British-supplied L119

Light Guns and AS90 self-propelled howitzers from a facility in Ukraine while Babcock won a six-month extension of its maintenance, repair and asset management of vehicles deal with the MOD. As the lead industrial partner in the Ukraine Capability Enhancement Programme, Babcock provided operational support to armoured vehicles provided by the British such as the Challenger 2 main battle tanks, Combat Vehicle Reconnaissance (Tracked) and trained Ukrainian personnel on managing vital equipment, supply chains and spares. Ahead of the arrival of F-16 fighter jets for the Ukrainian Air Force, Babcock successfully trained 10 trainee pilots through its Elementary Flying Training phase for the Ukrainian Pilot Force development and training programme. Babcock will now support the pilots onto the next phase involving training on F-16s and assisted by other nations. On top of that, Babcock has assisted the Ukrainian Navy with the maintenance of two mine countermeasure vessels transferred over by the RN.

### Industry Partnerships

In April this year, the UK boosted defence ties with Germany, with partnerships on jointly developing the 155mm remote-controlled howitzer wheeled artillery systems (RCH 155) to be fitted on the Boxer armoured fighting vehicle, and prospective entry into the European Sky Shield Initiative which would entail allied missile batteries deployed on British soil to protect against hostile threats. The RCH was selected by the British Army for its Mobile Fires Platform, and has a potential export market worth upwards of US\$3.8b. The joint industrial programme capitalises on prior successes between the British and German land systems market and creates jobs.

The British Army's Ajax family of armoured vehicles has yet to attain initial operating capability, with less than 50 units delivered for deployment and training since June 2023 (out of 589 units ordered, 152 have reportedly been built). The General Dynamics UK programme was



plagued with problems and delays.

As the UK looks to rearm itself, BAE Systems received US\$361m and US\$162m deals from the government for more ordnance. A new BAE Systems machining line and explosive filling facility is in the works to meet British needs for 155mm artillery shells, and 30mm and 5.56mm ammunition. The exigence in replenishing shrinking ordnance caches is sparking innovation in energetics and propellants in addition to the use of off-the-shelf steel instead of bespoke steel to step up production. MBDA also renewed a complex weapons strategic partnership with the MOD for the next decade, the Portfolio Management Agreement (PMA2) valued at US\$8.4b minimum would deliver existing and the latest in complex weapons, such as the Future Cruise and Anti-Ship Weapon, Land Precision Strike and further developments of the Meteor to the British military at a faster pace but lower cost.

At Eurosatory 2024, BAE Systems debuted the Tridon Mk2 40mm anti-aircraft system and the CV90MkIV with a new turret. The company won a 15-year US\$400m deal to repair and maintain the Danish Army's 44 CV90 infantry fighting vehicles. In May, BAE Systems agreed to sell







GCAP partners released a new concept model while the programme is to be reviewed. GCAP

new CV9035 MkIIICs to the Swedish Army to replace those donated to Ukraine. The firm also received contracts amounting to US\$111m to supply South Korea with the Second-generation, Anti-jam, Tactical, Ultra high-Frequency Radio for NATO (SATURN) waveform, providing secure and interoperable command and control capabilities. Produced in Indiana, USA, the ARC-232A SATURN-capable radio will be handed over to South Korea's LIG Nex1 for final assembly and aircraft integration.

Babcock inked a deal with deep tech firm Uplift360 which is developing chemical technologies to recycle composite materials from materiel as well as recycling high-value composite materials from the local defence industry to be repurposed via circular economics. Besides that, Saab selected Babcock to support the design of the Swedish Navy's new Lulea-class Surface Combatant, providing engineering support, including structural design and auxiliary systems and assisting Saab in completing the basic design phase. Moreover, both sides are to work hand-in-hand to identify prospective export markets for the vessels. South Korea also partnered with Babcock to manufacture and install the weapons handling launch system on the sixth Jangbogo-III submarine. Together with Supacat, production of 70 High Mobility Transporter Jackal 3s for the British Army was launched, being built at Babcock's Devonport facility.

In May, the US State Department announced plans to ease licensing requirements for the transfer of military equipment and sensitive technology between the AUKUS members, previously constrained by the US' International Trafficking in Arms Regulations (ITAR) which hampered cooperation. With the move, defence firms will have more freedom to manufacture materiel in the UK or Australia and foster defence trade and cooperation. Over 70% of ITAR-restricted subjects and 80% of defence trade subjected to Export Administration Regulations are now licence-free. The UK and Australia also upgraded defence ties with a new "status of forces" agreement, which would see both

nations collaborate closer on defence science and technology.

The UK is part of the Global Combat Air Programme (GCAP) with Japan and Italy to jointly develop a next-generation fighter jet by 2035, but the new Labour Party government is reportedly planning to review its involvement amid cost concerns. The new defence minister John Healey is scheduled to meet his Japanese and Italian counterparts to discuss the project at the Farnborough International Airshow (FIA) 2024 on July 22-26. Among the topics to be discussed is the potential of BAE being lead system integrators alongside Japan's Mitsubishi Heavy Industries and Italy's Leonardo.

### Farnborough: Still Flying High

At the biennial FIA 2024, the GCAP partners were to exhibit together for the first time and showcase a new concept model with a more evolved design and larger wingspan. With exhibition space all sold out, FIA 2024 is anticipating 75,000 visitors to converge on Farnborough, with 1,262 exhibitors from 44 countries highlighting numerous hardware, software, solutions and services across the commercial and defence sectors. The airshow celebrated 75 years last September, being home to the event since 1948. It will be opened with a flypast by the Royal Air Force (RAF) Red Arrows aerobatic team with

other aircraft including Boeing's most advanced F-15 variant – the F-15QA, set to perform aerial displays. Another highlight of the aerial display is the Royal Danish Air Force's F-16 in the Danish flag livery, which also marks the 50th anniversary of the F-16's first flight in 1974. The Turkish Aerospace Industries (TAI) Hurjet advanced trainer and Diamond Aircraft's Dart-750 tandem turboprop are also expected to make their respective debuts at the show. South Korea's Hanwha Aerospace will unveil their prototype 15,000 pound thrust-class turbofan engine that is expected to power the Korea Aerospace Industries (KAI) KF-21 and other uncrewed combat aircraft. Close to 80 aircraft would fill the tarmac, with Embraer making its presence known, bringing the C-390 Millennium transporter and EMB 314 Super Tucano. Leonardo is highlighting their AW149 helicopter and M-346 trainer. Airbus is displaying the C295 and A400M while the RAF's A330 multi-role tanker transport (MRTT) is also slated to fly past. The US is also pulling out all the stops, deploying F-35As, F-16s, KC-135 tankers, C-130J transporters while the MQ-9 UAV and B-52H bomber are also conducting flypasts. Aside from the European and American presence, the 27 international pavilions consist of countries including Malaysia, Japan, South Korea, Australia, Mexico, Canada, Turkiye and Morocco. ♦



(L-R) GCAP defence ministers Minoru Kihara, John Healey and Guido Crosetto.

Japan MOD



## SHOW PREVIEW

# LIMA'25: 'Innovate Today, Thrive Tomorrow'

Langkawi International Maritime and Aerospace Exhibition 2025 organiser on what to expect at the region's largest show of its kind...

ASIA-Pacific's largest aerospace and maritime show and the only remaining show of its kind in the world – the Langkawi International Maritime and Aerospace (LIMA) exhibition – will be held on May 20-24 next year. The 17th edition of the event will be held at the Mahsuri International Exhibition Centre (MIEC) and the Langkawi International Airport on the resort island of Langkawi, in northern Malaysia's Kedah state. The unique maritime and aerospace exhibition themed "Innovate Today, Thrive Tomorrow" was launched in April.

Show organiser Global Exhibitions and Conferences Sdn Bhd (GEC) says LIMA'25 has garnered strong response from companies both domestically and internationally, being an event that local and international players in the aerospace and maritime industry look forward to. The exhibition, jointly organised with the Ministry of Defence of Malaysia, will introduce several new segments to attract more participation from small and medium-sized enterprises (SME) to be part of the exhibition for both aerospace and maritime segments.

GEC managing director **Abdul Hafiz A Bakar** speaks to the Asian Defence Journal more about LIMA'25.

**ADJ:** Please share with our readers what is new at LIMA'25 and how different will it be compared to LIMA'23. What are its main goals and objectives?

**GEC MD:** Global Exhibitions & Conferences Sdn Bhd is the newly appointed co-organiser for LIMA'25 by the Ministry of Defence Malaysia. Our team individuals have vast experience in organising LIMA since 1991. We believe these combined personal experiences will bring great success in LIMA'25. And my mission is to make LIMA'25 positioning in the same standard as the Paris Airshow and Farnborough International Airshow. Yes, it will take dedicated time and consideration as Pulau Langkawi is the dedicated venue.

LIMA is a biennial event held in Langkawi that serves as a platform for industry professionals, government officials, and defence contractors to gather, discuss and share the advancements in aerospace and maritime technology. Over the years, LIMA has grown significantly in size and scope. It attracts participants from around the world, including major defence contractors, aerospace manufacturers, naval forces and related government agencies.

As LIMA is considered as one of the major platforms for Malaysia's investment through the aerospace and maritime sector, this time around

LIMA 2025 is bringing the new segments of defence, commercial, innovation, future flight and vessel, education, sustainability, and space. This has given the opportunities for potential industrial collaboration between the industry players of the related sectors in parallel with strengthening the two-ways diplomatic relation of the participating countries.

**ADJ:** How many companies are participating and from how many countries? How many visitors and country delegations are you expecting at LIMA'25?

**GEC MD:** Through the introduction of new segments, LIMA'25 will attract not only the big industry players, but also the potential professional industry players especially among the SME and the research and technology (R&T) of the education segments. Thus, LIMA'25 aims for participation of 600 exhibitors from 50 countries such as France, Germany, Turkiye, China and US. With the estimation of 45,000 trade visitors and official foreign delegates from 52 countries, LIMA'25 aims for 30% of growth based on the previous edition of LIMA participation.

**ADJ:** How many country pavilions will be present?

**GEC MD:** LIMA'25 has been actively promoted since the official launch on April 26, and as of June, the MIEC hall has been 84% reserved and sold to the exhibitors of various countries. There will be several country pavilions, such as the Turkiye Pavilion, Pakistan Pavilion, Germany Pavilion, Iran Pavilion and China Pavilion. Besides that, we are also highlighting the Space Pavilion and Universities Pavilion for the education segment.

**ADJ:** How many conferences and forums will be held?

**GEC MD:** In addition to the main exhibition. LIMA'25 will include conferences, forums and social gatherings that contribute to its vibrant atmosphere and provide opportunities for knowledge exchange and cultural exchange. For example, the "Women in Aviation" forum will be a sharing session from female pilots and professional industry players.

**ADJ:** What does the LIMA'25 theme reflect?

**GEC MD:** "Innovate Today, Thrive Tomorrow" reflects the quality of LIMA'25 that not only showcases technological advancements but also facilitates collaboration, innovation, and economic opportunities in the global aerospace and maritime



sectors, as LIMA has always significantly boost Malaysia's profile in the aerospace and maritime industries, positioning the country as a hub for defence technology, aerospace manufacturing and maritime services.

**ADJ:** What can you tell us about the aerospace display and aerobatic teams at the event? Will there be any live demonstration? By which teams?

**GEC MD:** The air show will be going on throughout the exhibition on May 20-24, with the expected (aerobatic team) participations from the Republic Korea Air Force "Black Eagle", Russian Air Force "Russian Knights", People Liberation Army Air Force "August 1st", Indonesia's TNI-AU "Jupiter" and the US Air Force. The expected static aircraft display will involve the SU-30 MKM, F/A 18D and PC 7 MK2 from the Royal Malaysian Air Force, and Airbus' A400M, Hercules C130 and EC725.

**ADJ:** Thank you for your time. Any additional information you would like to share with our readers?

**GEC MD:** LIMA'25 is expecting more than 300,000 visitors with the introduction of new segments that will not only attract the industry players but also the public visitors, in raising the awareness of the advancements in aerospace and maritime sectors through both defence and commercial lens that our country has and maintaining the diplomatic relations we have with other countries. I would like to invite the public to come and participate in LIMA'25, and also enjoy the beauty of Langkawi.

**\*ADJ is the Official Magazine and Show Daily publisher for LIMA'25.**

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# ADAS 2024 Forging the Future of Defence



**THE** Philippines is set to become the epicentre of defence technology and innovation as the Asian Defense & Security (ADAS) 2024 show, the fifth “Asian defense and security, crisis and disaster management exhibition and conference in the series to be held in Manila serving the Philippines and the wider Asia Pacific region” returns to World Trade Center Metro Manila this Sept 25-27. The show will bring together global industry leaders, government officials, and military experts to showcase the latest advancements in the field.

ADAS 2024 organiser APAC Expo Pte Ltd promises the show to be “a dynamic platform for networking, knowledge sharing and exploring cutting-edge solutions to address the evolving security landscape”. Attendees can expect to witness a wide range of exhibits, including:

**Land, sea, air defence systems:** From armoured vehicles and naval vessels to advanced aircraft and missile systems, ADAS 2024 will feature the latest technologies for protecting national borders.

**Cybersecurity solutions:** In an increasingly digital world where cybersecurity is paramount, the show will highlight the latest tools and strategies to safeguard critical infrastructure and sensitive information.

**Homeland security, counterterrorism:**

Addressing the challenges of internal security, the show will feature technologies for border control, surveillance and emergency response.

Beyond the exhibition floor, ADAS 2024 will host a series of conferences led by industry experts. These sessions will delve into critical topics such as defense modernisation and regional security challenges.

Over 150 exhibitors from over 30 countries to be at the show, including prominent defence companies from Australia, Brazil, Bulgaria, Canada, China, Czech Republic, France, Germany, India, Indonesia, Italy, Japan, Poland, Russia, Singapore, South Korea, Sweden, Turkey, the UK and the US. Some will be under their respective country pavilions, including those from Germany, India, South Korea, Turkey and US.

“Whether you are a defence industry professional, government official or military personnel, ADAS offers an unparalleled opportunity to connect with key stakeholders, explore new technologies, and gain valuable insights into the future of defence. Expect over 10,000 visitors from over 60 countries to be at the show, including VIP delegations from ASEAN and other countries,” says APAC Expo.

It added that the original objective of the

ADAS Series is to support the modernisation and upgrading programmes of the Department of National Defense, the National Security Council, the Armed Forces of the Philippines, the Philippine National Police, the Philippine Coast Guard and many other defence and security agencies, and to provide a platform for them to meet participating exhibitors in the Show in order to fully evaluate their ongoing modernisation and upgrading requirements.

“Safe to say, ADAS is more than just an exhibition; it is a platform for fostering collaboration and building partnerships to strengthen national security. It is supported by the Office of the President, the Philippine Department of National Defense, National Security Council, National Disaster Risk Reduction Management Council, Office of Civil Defense, Government Arsenal, Bureau of Customs, Office for Transportation Security, Armed Forces of the Philippines, Philippine National Police, the Philippine Army, the Philippine Air Force, the Philippine Navy, the Philippine Coast Guard and Tourism Promotion Board Philippines.”

**Asian Defence Journal is a media partner for ADAS 2024.**

## Who’s Who of Regional Security to Converge at AISSE’24



**IN** an increasingly globalised and interconnected world, national security threats need to be tackled in a bilateral and multilateral manner. As crimes such as terrorism, extremism, trafficking and cyberattacks transcend national borders, so too must efforts to counter that.

On Oct 8-10, the international who’s who of the security sector will gather at the Putrajaya International Convention Centre in Malaysia. Comprising law enforcement and public security decision makers, government officials, technical experts and professionals, they will be participating in the Asia International Security Summit & Expo 2024 (AISSE’24).

Hosted by the Ministry of Home Affairs Malaysia and the Royal Malaysia Police (RMP), and organised by Alpine Integrated Solution (AIS) and the RMP Cooperative), AISSE’24 is set to be the region’s most prominent security event.

The soft launch of AISSE’24 was officiated on

March 11 at the Royal Malaysia Police College in Kuala Lumpur by Malaysia’s Minister of Home Affairs Saifuddin Nasution Ismail and the Inspector General of Police Razarudin Husain. This was during the RMP Special Dialogue I session held in conjunction with the 217th Police Day.

### What to Expect

All in all, more than 100 security organisations, 1,000-plus conference delegates, 50 VIP delegations and over 5,000 visitors from more than 20 participating countries are expected to be at the three-day event. Expected VIP visitors include Home and Interior Ministers as well as police chiefs and high-ranking officials from the Asia-Pacific and Middle East, including host nation Malaysia.

AISSE’24 aims to be the one-stop event for the discussion of challenges, solutions, priorities, technologies and techniques to tackle national

security issues. Key happenings include panel discussions, conferences, forums, presentations by technical experts, business-to-business matching and a Roundtable hosted by the Minister of Home Affairs Malaysia and the Inspector General of Police.

In addition, the event is being held alongside the CyberCrime Prevention Summit Malaysia which is running concurrently on the same days and which is supported by the National Cyber Security Agency (NACSA) of Malaysia.

Those seeking the latest products and solutions to security or who are looking to form partnerships with suppliers or buyers will be glad to know that a trade exhibition is also part of AISSE’24. The trade expo will bring together 200 exhibitors comprising industry leaders in the security sector including forensics, biometrics, arms, personal equipment, ICT, traffic management, documentation, vehicle technology and more.



# KADEX 2024 Showcases S.Korea's Capabilities

**THE** Association of the Republic of Korea Army (AROKA) is gearing up to host the highly-anticipated Korea Army International Defence Industry Exhibition (KADEX) on Oct 2-6. As South Korea's premier defence exhibition, the exhibition promises to be a dynamic platform for showcasing the nation's cutting-edge defence capabilities and fostering international collaboration within the global defence industry.

Held at the prestigious Gyeryongdae military complex, KADEX 2024 will occupy a vast exhibition space, providing ample opportunity for both domestic and international defence companies to display their latest technologies and products. From land, sea and air platforms to advanced weapon systems, cybersecurity solutions, and support services, the event will offer a comprehensive overview of the defence industry's current state-of-the-art.

## Showcase of Korean Defence Excellence

KADEX 2024 is poised to highlight South Korea's remarkable strides in defence technology and manufacturing. The exhibition will feature a strong emphasis on indigenous defence capabilities, showcasing the nation's commitment to self-

reliance and technological advancement. Visitors can expect to witness a wide array of domestically developed systems, including:

**Land systems:** Advanced tanks, infantry fighting vehicles, self-propelled artillery, unmanned ground vehicles and other ground-based platforms.

**Air, missile defence:** State-of-the-art air defence systems, including surface-to-air missiles, radars and electronic warfare systems.

**Unmanned systems:** Drones and unmanned aerial vehicles (UAVs) for various military applications.

## Global convergence of defence industries

KADEX 2024 organiser Messe Esang Co Ltd says the event is not solely focused on domestic achievements, as it will also serve as a vital platform for international defence companies to connect with potential partners, customers and suppliers. "Expect over 250 companies from over a dozen countries including Brazil, Denmark, Finland, France, Germany, Sweden, Turkiye, United Kingdom and USA to be present with the latest in defence products and services. With participants from around the world, the event promises to be a melting pot of ideas

and innovations, fostering collaboration and knowledge exchange."

Key highlights of the international participation include:

**Foreign participation:** Dedicated spaces for major defence exporters to showcase their offerings.

**Joint ventures, partnerships:** Opportunities for collaboration between South Korean and foreign companies.

**Technology transfer:** Platforms for sharing expertise and knowledge.

## Beyond the exhibition floor

KADEX 2024 extends beyond the exhibition halls to offer a rich programme of accompanying events. Event such as the Annual Meeting, World Defense Forum and Korea.ASEAN+ International Forum on Logistics will delve into critical defence-related topics, such as:

**Defence industry trends:** Analysis of emerging technologies and market dynamics.

**Security challenges:** Addressing regional and global security threats.

**Military modernisation:** Discussing the latest advancements in military equipment and doctrine. These events will provide valuable insights for industry professionals, policymakers and military experts alike.

## A Catalyst for defence cooperation

"As a key player in the global defence landscape, South Korea recognises the importance of international cooperation. KADEX 2024 aims to strengthen defence ties with partner nations, contributing to regional and global security. The exhibition will serve as a catalyst for joint projects, technology sharing, and capacity building," says event organiser Messe Esang.

"With its strategic location and growing defence industry, South Korea is well-positioned to become a global defence hub. KADEX 2024 is a testament to the nation's ambition to play a leading role in shaping the future of defence. It is more than just an exhibition; it's a platform for forging partnerships, driving innovation, and strengthening global security. Don't miss this opportunity to be part of South Korea's defence success story."

The company added that those attending KADEX 2024 can look forward to gaining invaluable insights into the latest defence trends, network with industry leaders, and explore new business opportunities.

KADEX 2024 is supported by the Ministry of National Defense, Republic of Korea, Republic of Korea Army, Defense Acquisition Program Administration, Korea Defense Industry Association, and Agency for Defense Development, Defense Agency for Technology and Quality, among others.

**Asian Defence Journal is the Official Publication and Official Show Daily** partner for the event.



# Thai Associations, CAAT, DEPA, TCEB & Many More Support DronTech Asia 2024 Launch



(L-R): Rakwatin, Dr Leopairote, Pacharoen, Jantarang, Gandhi, Manu Leopairote, Thailand Convention and Exhibition Bureau (Public Organisation) president Chiruit Isarangkun NaAyuthaya, Industry for National Defense & Security Association president Air Chief Marshal Maanat Wongwat, Puntragul and RV Connex Co Ltd aircraft design and efficiency manager Norawit Thanapura

GML Exhibition (Thailand) Co Ltd, the organiser of DronTech Asia 2024 held a press conference on July 4, attended by over 40 members of the media as well as several key players in the drone and related tech industries.

Of note was the attendance of DronTech Asia supporters and press conference speakers from the Civil Aviation Authority of Thailand (CAAT), the Digital Economy Promotion Agency (DEPA), World UAV Federation and RV Connex Co Ltd.

Moderated by Dr Karndee Leopairote, the press conference kicked off with an opening speech by GML Exhibition Chairman Manu Leopairote on the importance of commercial drone applications today and their impact on Thailand.

The press conference continued with DEPA Executive Vice-President Dr Preesan Rakwatin showcasing the agency's One Tambon, One Digital (Drone Jai) Project, which has strong correlations and promotions of drones used in agriculture to enhance farmers' skills and

generate economic value.

CAAT Unmanned Aircraft Standards Department Manager Chatchai Puntragul continued the conference discussion on future drone applications for Thailand and regulations, including certification and pilot licensing.

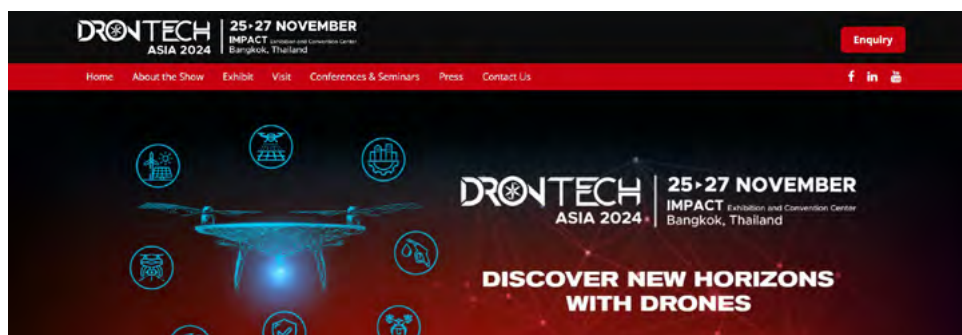
The press conference concluded with a panel discussion led by Dr Leopairote, who rejoined Dr Rakwatin, Puntragul and joined by Air Marshall Kittithat Pacharoen and Norawit Thanapura.

Several topics were discussed, including

cooperation in making Thailand a centre for drones.

DronTech Asia 2024, the first international drone exhibition and conference in Asia, will take place on November 25–27 at the Impact Exhibition and Convention Centre in Bangkok.

GML Exhibition stated that the excitement and interest from the press conference will further “create new opportunities for local and international drone-related companies, facilitating connections with end users, system integrators, and business influencers”.





# ADAS 2024



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## European Air Force Contingent Deployment Across the World

**TOKYO:** A contingent of more than 30 military aircraft from Germany, France and Spain arrived in Japan on July 19 to conduct a series of training exercises with the Japan Air Self-Defense Force (ASDF), marking these countries' first-ever trilateral air force deployment to the Asia-Pacific. The aircraft's arrival from Alaska followed their participation in the Arctic Defender aerial combat drills, the first leg of a two-month, trilateral Pacific Skies that will also see the German, French and Spanish air forces exercise with regional partners such as Japan, India and Australia. Aimed at improving tactical skills and promoting mutual understanding, the two-day aerial manoeuvres beginning on that day highlighted the expanding defence ties between Tokyo and key European partners – particularly NATO members – as they align their strategic interests amid shared economic and security concerns.

The ASDF's drills with France were in the airspace around Hyakuri Air Base in Ibaraki Prefecture, while those with both Germany and Spain were held in the airspace around Chitose Air Base in Hokkaido, according to the Japan Defence Ministry. Both Germany and Spain

sent Eurofighter Typhoons, while France fielded Rafale jets. They were accompanied by several transport and aerial refuelling aircraft as well as several hundred personnel. The ASDF was set to deploy F-2 fighters for its manoeuvres with France and F-15s for separate drills with Spain and Germany, a Japan Times report said. These activities were followed by a separate ASDF exercise with the Italian Air Force called "Rising Sun", which will be held on Aug 6-8 in the airspace around Misawa Air Base, Aomori Prefecture. These tactical drills will see Italy send transport and early warning aircraft as well as four F-35As, while Japan will field four F-35As and an aerial tanker.

A trilateral European contingent of 48 aircraft

is deploying across the world to demonstrate air power projection and take part in multiple international exercises. On June 27, the French, German and Spanish Air Forces started the historic deployment that would take 48 of their aircraft across the world to train in the Indo-Pacific region. Dubbed Pacific Skies 2024, the deployment will allow the three air forces to take part in multiple international exercises with regional partners. The 58,000-kilometre trip will stretch across four continents between June 27 and August 15, with four highlights: Arctic Defender in Alaska, Nippon Skies in Japan, Pitch Black in Australia and Tarang Shakti 1 in India. Germany will also take part in RIMPAC 2024 in Hawaii. ♦



## Direct US-China Military Communication Restored

**WASHINGTON DC:** Direct ties between senior US and Chinese military leaders have been restored, President Joe Biden told reporters on July 12. In November last year, both Biden and Chinese President Xi Jinping agreed to resume military-to-military communication, which Beijing had suspended after House Speaker Nancy Pelosi's August 2022 visit to Taiwan. "We've re-established

direct contact with China," Biden said at a press conference on July 12. "We set up a new mechanism. There's a direct line between Xi and me, and our military has direct access to one another, and they contact one another when we have problems." He did not elaborate how top US and Chinese leaders are communicating or at what level this "direct access" is taking place.

Since Biden and Xi announced the resumption of communication between top US and Chinese military leaders, both countries have held Defense Policy Coordination Talks in January on defence relations and a Military Maritime Consultative Agreement meeting in April on how both countries can work together on air and maritime safety, a Pentagon spokesman was cited as saying in the report. ♦

## UN Variant Bushmasters for Fiji Delivered

**SUVA:** The Royal Australian Navy (RAN) ship HMAS Choules has delivered 14 Bushmaster Protected Mobility Vehicles to Fiji as part of a month-long deployment in the South West Pacific, enhancing the Australian Defence Force's (ADF) engagement with Fiji and Tonga. The delivery of the United Nations variant of the Bushmasters to Fiji by the Australian Government will strengthen Fiji's peacekeeping capability, manufacturer Thales said on July 15. Developed, manufactured and supported by Thales in Australia, the combat-proven, multi-role protected vehicle has a proven track record of protecting and saving lives during operations.

Chief of Joint Operations Lieutenant General Greg Bilton said the RAN was a frequent visitor

to the region and the deployment followed visits by ADV Reliant and HMAS Stuart earlier in the year. HMAS Choules is demonstrating its versatility by delivering 14 Bushmaster Protected Mobility Vehicles purchased by Fiji, to the Republic of Fiji Military Forces". The ADF

has a strong and enduring relationship with the Republic of Fiji Military Forces. After delivering the Bushmaster Protected Mobility Vehicles, Choules embarked the Republic of Fiji Navy military band for transport to the Tonga Royal Navy's 50th anniversary celebrations. ♦





## ASEAN Important at Global Level in Fostering Regional Stability

**VIENTIANE:** The 57th ASEAN Foreign Ministers' Meeting (AMM) and Related Meetings in Vientiane related to the Association of Southeast Asian Nations (ASEAN) and global powers ended on July 27. This includes a meeting of the East Asia Summit framework, participated by Japan, the US, China, Russia and other countries, and a meeting of the ASEAN Regional Forum, whose members include North Korea.

During the summit, ASEAN foreign ministers condemned violence against civilians in military-ruled Myanmar and urged all parties to end hostilities and follow an agreed peace plan. The Southeast Asian regional bloc's biggest members, including Thailand, Indonesia, Singapore and Malaysia, are frustrated by the junta's unwillingness to honour its commitment to dialogue, which has tested the bloc's credibility and viability of a peace plan agreed months after a 2021 coup. Indonesia's Foreign Minister Retno Marsudi stressed Myanmar would remain on the sidelines of the bloc until its junta honoured the peace commitment.

The meetings also described North Korea's missile tests as worrisome developments and urged peaceful resolutions to the conflicts in Ukraine, as well as Gaza, expressing concern over the dire humanitarian situation and "alarming casualties" there.

### Agree to Reduce Tensions in South China Sea

In a joint communique issued two days after their closed-doors retreat in Laos, the association also welcomed unspecified practical measures to reduce tension in the South China Sea and prevent accidents and miscalculations. In their meeting, Chinese foreign minister Wang Yi and Philippine foreign secretary Enrique Manalo agreed that the two countries will continue dialogue, but remained apart over the disputes. At a China-ASEAN meeting, Wang urged countries outside the region not to interfere.

The presence of world powers at the 57th AMM and Related Meetings clearly shows that ASEAN is still an important bloc at the international level. Australian foreign minister Penny Wong has emphasised the pivotal role played by the Southeast Asian bloc in fostering regional stability and

prosperity ahead of her visit to Vientiane, where top diplomats from the bloc and key partners are convening for meetings. Wong stated: "A strong ASEAN underpins regional stability, contributes to prosperity and reinforces the rules and norms that protect us all."

Malaysia's foreign minister Mohamad Hasan said the presence of ASEAN dialogue and non-dialogue partners proves the importance of ASEAN in shaping the current global geopolitical landscape.

"The presence of ASEAN Dialogue Partner countries and other external partners at this ASEAN conference is a manifestation of ASEAN's ability as a 'convening power', capable of bringing world and regional powers to the negotiating table. ASEAN is a very important block that can shape world politics and determine the direction of the world," he told reporters. In addition to the ASEAN Conference with interested countries, he said Malaysia also held bilateral meetings with leaders from Australia, China, Canada, the European Union, India, Norway, South Korea, Turkiye and the UK.

The 57th AMM was attended by all the foreign ministers of the ASEAN-member countries except Vietnam, which was represented by its deputy foreign minister Do Hung Viet while Myanmar was represented by its permanent secretary of the Foreign Ministry, Aung Kyaw Moe. The meeting was also attended by the foreign ministers of ASEAN Dialogue Partners, including US secretary of state Antony Blinken, Chinese foreign minister Wang Yi, Russian foreign minister Sergey Lavrov, UK foreign secretary David Lammy and EU high representative for Foreign Affairs and Security Policy, Josep Borrell-Fontelles.

A number of important matters such as the South-east Asian Nuclear Weapons Free Zone (SEANWFZ), the ASEAN Intergovernmental Commission on Human Rights (AICHR) and the South China Sea issue, as well as regional and international political issues, had been discussed and agreed upon by the member states. During the opening ceremony, Laos, the regional grouping's current chair, said that member nations need to remain united amid geopolitical changes, in an apparent reference to growing superpower rivalry

in the region. "In light of the rapid and complex geopolitical and geo-economic changes, we need to further enhance ASEAN centrality and unity so as to promote the relevance and resilience of ASEAN," said Lao foreign minister Saleumxay Kommasith. ♦

## Singapore, Indonesia Conclude 30th Exercise Chandrapura

**SINGAPORE:** The Singapore Armed Forces (SAF) 1st Commando Battalion and the Indonesian National Defence Forces (TNI) Special Forces Command (KOPASSUS) successfully concluded the 30th edition of Exercise Chandrapura (XCP). Held in Singapore on July 17-23, the exercise participants exchanged professional knowledge in commando tactics, techniques, and procedures, culminating in the execution of a combined company Urban Operations raid with live-firing. These activities, including a combined free fall and static line jump, helped to build confidence and deepen friendships between the soldiers, and strengthened mutual understanding between the two armies.

SAF chief commando officer Colonel (COL) Pang Chee Kong and TNI KOPASSUS commandant general Major General Djon Afriandi co-officiated the closing ceremony of XCP 2024, where they witnessed an exchange of airborne wings between the two forces. In his closing speech, COL Pang highlighted the close ties between the two forces. He said, "It has been 30 years since the first Exercise Chandrapura in 1994 and it has grown in scale and depth since then. Similarly, the ties between our militaries have grown from strength to strength. Today, our exercise participants stand before us, proudly, are testaments of this growing relationship, brotherhood and special trust built from three decades of cooperation."

First conducted in 1994, the exercise underscores the close and long-standing defence relations between Singapore and Indonesia. Besides bilateral exercises, the Singapore and Indonesian armies engage in a wide range of activities such as visits, professional exchanges, and cross-attendance of courses. These regular interactions enhance professionalism and foster mutual understanding between the two armed forces. ♦

## Minister: Indonesia Top 10 for Cyber Attacks

**JAKARTA:** Indonesia's Minister of Communication and Informatics Budi Arie Setiadi said Indonesia is ranked 10th globally as the most targeted by cyber attacks. Budi cited a ranking carried out by the antivirus software company, Kaspersky. He attended the National Cyber and Crypto Agency (BSSN) launch for a Cyber Incident Response Team or Computer Security Incident Response Team (CSIRT) for 18 ministries, institutions and regional governments.

According to him, CSIRT has a vital role in facing cyber-attacks by providing reactive, proactive and security quality improvement services.

Budi said CSIRT was formed to anticipate increasingly modern cyber attacks. "Such as new cyber security threats along with technological advancements, low user understanding of the urgency of cybersecurity, and limited cybersecurity talent," he said, adding that cybersecurity can anticipate hacker attacks by

protecting from the threat of theft and data leaks. Apart from that, said Budi, cybersecurity can also increase stakeholder trust and secure investment for the country.

Previously, national cybersecurity became a public concern after the attack on the Temporary National Data Center or PDNS2 in Surabaya by the Brain Cipher hacker group. The attack was first detected on June 17. The hackers have since provided a decryption key for free. ♦



# Airbus to Lead NATO Next-Gen Rotorcraft Study

**THE** NATO Support and Procurement Agency (NSPA) has awarded a contract to Airbus Helicopters to lead a concept study in the frame of the Next Generation Rotorcraft Capability (NGRC) project under which the participants combine efforts to work on design, development and delivery of a medium multi-role helicopter. Airbus is partnering with RTX's Collins Aerospace and Raytheon businesses and MBDA for the 13-month study which will analyse two integrated concepts of next generation military rotorcraft.

"Taking part in this NATO study for the next generation of military rotorcraft offers a unique opportunity to leverage our experience working with the different European armed forces," said Airbus Helicopters CEO Bruno Even. "Our goal, together with our highly skilled partners, is to develop a

European solution, a concept that would fulfil both the needs of the NATO armed forces while also guaranteeing industrial sovereignty for our European nations and maintaining key engineering competencies," he added. "This project will be fully interoperable with other NATO means. With our experience in both civil and military helicopter design, we are convinced that we have the right cost effective, high performance, and operationally efficient solutions at Airbus Helicopters for the next generation of military rotorcraft."

NSPA general manager Stacy A Cummings said: "The launch of Concept Study #5 is a significant milestone for the NGRC concept stage activities, and demonstrates NSPA's dedication to meet the challenge of next generation medium lift for participating nations. The strategy to launch

three parallel contracts awarded by competition delivers on our commitment to maximise industry expertise, opportunity and engagement in the programme, and will provide a broad range of potential concepts in the study results for our multinational customers."

France, Germany, UK, US, Ireland and Italy are involved in the project via the different partner companies. Each partner will contribute to the study in its area of expertise: helicopter design, systems integration, connectivity, weapons and effectors, avionics and sensors. The study will focus on high performance rotorcraft. The concepts will be modular and multi-mission, and fully interoperable with NATO standards, with a high degree of connectivity and resilient communication system. ♦

# Leonardo Launch M-346 Capability Enhancement Programme

**AT** the Farnborough International Air Show, Leonardo has announced the launch of a comprehensive capability enhancement package for the M-346 integrated training system including the aircraft's core avionics, navigation/identification, mission equipment and ground training capabilities. The move reflects the training needed to align pilot's skills to the evolution dictated by modern multi-domain battlefields, combat air technology, and information management.

This latest development leverages the inherent growth capability embedded into the M-346 design as well as 10 years of proven in-service experience with leading air forces across geographies and is an integral part of the broader organisational digitisation roadmap initiative, fully consistent with Leonardo's longer-term strategy. As such, both training and fighter variants will benefit from these enhancements to deliver even greater capabilities to the market for a wide spectrum of applications, while implying significant margin for further developments in the future. The "M-346 T Block 20" and "M-346 F Block 20" are the designations

for the new standard.

The new Block 20 standard will not be limited to the platform itself, but rather to the entire system including the ground based training system and shall be enabled by the widespread implementation of digitalisation powered by AI.

The Block 20 standard cockpit will feature two large area displays, one per each seat, replacing the existing six multi-functional displays, plus a low profile head-up display. These will be combined with a new digital video and data recorder and a new augmented reality helmet mounted display. The new cockpit will align the human-machine interface to those of the most sophisticated

and future frontline combat air systems, with advantages in terms of quality training (i.e. look and feel plus a high fidelity immersive environment) and situational awareness in operational missions. The M-346 Block 20 will also benefit from new navigation, weapon management, flight management system and Identification of Friend or Foe (IFF) transponder.

Specifically for the M-346 F variant, further critical capability enhancements include an AESA (Active Electronically Scanned Array) radar featuring fire control radar capability, integration of new weapons for both air-to-air and air-to-ground roles in addition to a built-in missile datalink. ♦



# Boeing Provide Guidance on SAF Usage for Defense Aircraft

**BOEING** has released guidance to defence customers that company-built military aircraft can operate on sustainable aviation fuel (SAF) at currently approved limits of up to 50% blend with conventional fuel. The guidance, announced on July 20 at the Royal International Air Tattoo (RIAT) – the world's largest military air show – aims to support global militaries who are evaluating the adoption of SAF into their fleets.

The global No Technical Objection (NTO) states there are no technical issues with Boeing defence aircraft operating on synthetic aviation turbine fuels, which includes SAF. The NTO applies to all Boeing-built defence aircraft and their derivatives.

"SAF is widely accepted today as a drop-in replacement that works with existing aircraft, and also provides opportunities for global interoperability as well as strategic resilience through local fuel production," said Boeing Defense, Space and Security senior vice president and chief operating officer Steve Parker. "We hope this NTO will clear the way for more widespread SAF adoption by our military customers and propel greater alignment between commercial and military fuel standards, to the benefit of all."

Unblended, or "neat" SAF, which is totally free of fossil fuels, can reduce lifecycle carbon emissions up to 84% when compared to conventional

jet fuel and offers the industry's largest potential to reduce carbon emissions over the next 30 years in all aviation segments. Currently, the maximum allowable limits for SAF is a 50-50 blend with conventional fossil fuels.

Boeing has been a pioneer in making SAF a reality and has a long track record with advancing alternative fuels. In 2010, the company collaborated with the US Air Force on an in-depth fuel study as part of their efforts to certify the C-17 Globemaster to use SAF blends. The same year, Boeing also supported the supersonic flight of a US Navy F/A-18F "Green Hornet" on a 50/50 SAF blend. ♦

## Raytheon Laser Fired from UK Military Vehicle for 1st Time

**RAYTHEON** UK, Defence Science and Technology Laboratory (Dstl) and Defence Equipment and Support (DE&S) have successfully tested Raytheon's High-Energy Laser Weapon System (HELWS) integrated onto a British Army combat vehicle, the first test of its kind in the UK. The ground-breaking test, conducted at Dstl's range in Porton Down, saw the laser weapon fired at full power whilst integrated onto a British Army Wolfhound armoured vehicle. The lightweight, portable HELWS is the first laser weapon integrated on a land vehicle to be fired in the UK.

The milestone marks a major leap forward in the UK Ministry of Defence's Land Laser Directed Energy Weapon (LDEW) Demonstrator programme.

The increasing prevalence, proliferation and evolution of drone warfare makes the rapid adoption of counter-UAS technologies ever more important. This variant of the HELWS has been designed to defeat NATO class 1 drones whilst being easily compatible within existing air defence systems, including radar, command and control and other platforms.

"We have proven that the Raytheon high energy laser weapon system can track and engage targets whilst mounted on a vehicle," said Raytheon UK chief executive and managing director James Gray. "The speed at which this capability was delivered is only possible due to the hard work of our British SME partners,

coupled with the operationally proven technology developed by Raytheon."

The Wolfhound integration successfully fused the proven capability of Raytheon's High-Energy Laser Weapon System with cutting edge UK intellectual property from Frazer Nash, NP Aerospace, LumOptica, Blighter Surveillance Systems, and Cambridge Pixel. Raytheon's HELWS is certified for use in combat with US forces, with multiple systems now in service. The system has logged more than 40,000 testing hours and downed more than 400 targets. The next phase of testing for the UK will allow British Army soldiers to familiarise themselves with the system and refine requirements for future capability. ♦

## Dutch, Austrian C-390 Airlifter Buy Formalised

**THE** Dutch Ministry of Defence has formalised the contract for the acquisition of nine Embraer C-390 Millennium aircraft during a July 23 ceremony at the Farnborough International Airshow. The contract is a joint purchase, in cooperation with Austria – five aircraft for the Royal Netherlands Air Force and four for the Austrian Air Force.

The joint purchase will also allow both nations – as well as current and future operators – to cooperate and benefit from synergies in areas like training, logistics and future growth of the platform, together with the other C-390 operators in NATO nations. The C-390 Millennium provides maximum operational readiness enabling interoperability and connectivity in networked environments and multiple domains.

Its enhanced tactical airlift capacity increases operational flexibility and responsiveness, provides logistical support in various missions and operations, and enables a wide range of humanitarian and medical tasks.

Since entering operation with the Brazilian Air Force in 2019 and the Portuguese Air Force in 2023, the C-390 has proven its capacity, reliability, and performance. The current fleet of aircraft in operation has accumulated more than 13,000 flight hours, with mission capable rate of 93% and mission completion rates above 99%, demonstrating exceptional productivity in the category.

The C-390 can carry more payload (26 tons) compared to other medium-sized military transport

aircraft and flies faster (470 knots) and farther, being capable of performing a wide range of missions such as transporting and dropping cargo and troops, medevac, search and rescue, firefighting, and humanitarian missions, operating on temporary or unpaved runways. The aircraft configured with air-to-air refuelling equipment, with the designation KC-390 (pix), can operate both as a tanker and as a receiver, in this case also by receiving fuel from another KC-390 using pods installed under the wings. ♦



## GCAP Partners Unveil New Next-Gen Concept Model

**EXHIBITING** at the Farnborough International Airshow show together for the first time, the three Global Combat Air Programme (GCAP) government partners and their lead industry partners BAE Systems (UK), Leonardo (Italy) and Mitsubishi Heavy Industries (Japan) showcased the significant strides they are making to progress the delivery of a truly next-generation combat aircraft. The new concept model features a much more evolved design with a wingspan larger than previous concepts to improve the aerodynamics of the future combat aircraft. Engineers from across BAE Systems, Leonardo and Mitsubishi Heavy Industries are working together under a collaboration agreement on the design and development of the future combat aircraft using a range of innovative digital tools and techniques, including computer based modelling and virtual reality to evolve the aircraft's design during its concepting phase.

BAE Systems' Future Combat Air Systems managing director Herman Claesen said: "In the 18 months since the launch of the GCAP, we've been working closely with our industrial partners in Italy and Japan under the collaboration

agreement, and also with the three governments, to understand and align requirements for a next generation combat aircraft. The new model, unveiled at Farnborough International Airshow, shows notable progress in the design and concepting of this future fighter jet. We'll continue to test and evolve the design, as we move closer towards the next phase of the programme."

Leonardo's GCAP chief officer Guglielmo Maviglia said: "The pace of the programme is extraordinary, building on a solid foundation and industrial legacy in each country and government-led partnership. Since the treaty was signed in December 2023, the programme has seen strong commitment from each partner. Each brings different, but complementary, qualities and requirements. We are now working closely together to exchange knowledge, address common challenges and achieve common goals. The programme is immensely important for Italy, for Leonardo, including our UK-based business, and for wider Italian industry. GCAP represents the future of combat air in a System of Systems perspective for our generations to come."

MHI GCAP senior fellow Hitoshi Shiraishi said: "MHI considers any project to be a valuable opportunity to deepen our knowledge. In particular, since GCAP is a three-country joint development programme between Japan, UK and Italy, we expect to obtain better results and deeper knowledge than ever before by combining the different cultures, experiences and knowledge of the three industries involved. I also hope that this GCAP programme, with the broad participation of Japan's defence companies, will foster innovation in the country's industrial sector such as digital transformation, as well as the development of human resources in the field of science and technology."

The combat aircraft, set to be in service in 2035, will be one of the world's most advanced, interoperable, adaptable and connected fighter jets in service, boasting an intelligent weapons system, a software-driven interactive cockpit, integrated sensors and a powerful next generation radar capable of providing 10,000 times more data than current systems, giving it a battle-winning advantage. ♦



**Wescom Chief, 3 other AFP Officials Promoted**



Gen Brawner Jr (left) dons the new rank on Vice Admiral Torres Jr during the donning of ranks ceremony on June 27 in Camp Aguinaldo, Quezon City. Three other military generals were promoted during the ceremony. (AFP)

**ARMED** Forces of the Philippines (AFP) Western Command chief Rear Admiral Alfonso Torres Jr and three other ranking officials were promoted to the next higher rank. AFP chief Gen. Romeo Brawner Jr. led the donning of ranks rites at the Armed Forces of the Philippines (AFP) headquarters in Camp Aguinaldo, Quezon City on June 27, according to a news release from the military.

Aside from Torres who was

promoted to Vice Admiral, the other promoted officials were AFP deputy chief of staff for operations Marine Maj Gen Jimmy Larida, Wescom deputy commander for external defense operations Commodore Constancio Arturo Reyes Jr and Wescom deputy commander for internal defense Brig Gen Roman Dioso.

Wescom is the unified command responsible for safeguarding the West Philippine Sea (WPS) ♦

**Myanmar Army Chief**



**SENIOR** Gen Min Aung Hlaing (pix), the head of Myanmar's military-government, on July 22 also took the position of acting president to replace the holder of that post who was unable to perform his duties due to health problems, Myanmar state media reported. The announcement of the declaration naming Min to replace Myint Swe came four days after his predecessor was publicly reported to be ailing. It came about a week before the procedures had

to be carried out to renew the state of emergency the military originally declared after it seized power from the elected government of Aung San Suu Kyi in February 2021.

The announcement of the new appointment, broadcast on state-run MRTV television, said Min received an official letter from the acting president's office on Monday, authorising him to carry out the duties of the acting president in order to deal as needed with matters related to the National Defense and Security Council while Myint Swe is absent on medical leave. The council, which is formally led by the president, is nominally a constitutional government body, but in practice is controlled by the military. It plays a key role in renewing the state of emergency every six months, allowing the military broad extra-constitutional powers. Legally, the president, or in Myint Swe's case the acting president, is the one who must

**New MSDF Chief Appointed**



**THE** chief of Japan's Maritime Self-Defense Force has been replaced following a series of cases of misconduct that include those involving handling of confidential information related to national security. Sakai Ryo resigned as MSDF chief of staff on July 19. Saito Akira assumed the post on the same day. The week before, Defence Minister Kihara

Minoru announced the replacement, saying it was prompted by a series of illegal and inappropriate practices involving "specially designated secrets" and fraudulent allowance claims by MSDF divers. The outgoing chief asked Saito to carry out reforms in a handover ceremony at the Defence Ministry in Tokyo.

Saito responded that he will deal appropriately with misconduct. He said there is no time to waste, considering the security environment surrounding the country. Regarding the fraudulent allowance claims, the ministry said the total amount may be as much as about US\$340,000 (53-million yen), up about 10-million yen from the ministry's previous disclosure last week ♦

**RMN Chief to Retire**

**CHIEF** of the Royal Malaysian Navy (RMN) Admiral Abdul Rahman Ayob will retire as he reaches mandatory retirement. Receiving his commission as a Sub Lieutenant in 1984, Adm Rahman was the first submariner to hold the RMN's top job. Among the positions he has held throughout his service include Commander of the Submarine Force, Deputy Chief of Mission for the Mindanao International Observation Team, Commander of Naval Areas 2, and Commander of Eastern Fleet, Deputy Chief of Navy before being promoted as the 18th naval chief in January 2023. ♦



endorse renewals.

The military claims a state of emergency is needed to deal with instability caused by armed opponents of military rule, who are fighting against the army in most parts of the country. State media announced on July 18

that Myint Swe was suffering from neurological disorders and peripheral neuropathy disease. It said he has been receiving medical treatment since early this year and still cannot carry out normal daily activities, including eating food. ♦

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