FACT SHEET

Date of issue: 30 June 2021

Fact Sheet: Enhancing Operational Readiness of the RSN

1.   The Republic of Singapore Navy (RSN) stands watch over Singapore waters to safeguard Singapore's sovereignty and ensure our sea lines of communication (SLOCs) are kept open and secure. As a maritime nation, Singapore relies heavily on the sea to bring in essentials such as food, energy and supplies. Even amidst COVID-19, the RSN continued to maintain maritime security and deployed across the oceans to participate in exercises. The RSN's adaptability and accelerated implementation of initiatives that have been developing over the years allowed for a sustained high operational tempo despite COVID-19.

Sustaining High Operational Tempo in 2020

2.   Safeguarding Singapore's Maritime Security. The RSN has continued 24/7 maritime security operations at the frontline by implementing safe management measures and continuously enhancing capabilities with improved platforms.

> (a)   Enhanced Safe Management Measures. Personnel on duty have to abide by safe management measures and cohorting to minimise risk and disruption to operations. Enhanced safety measures were introduced for high-risk roles - Accompanying Sea Security Teams (ASSeT) which conduct compliant checks on vessels transiting through Singapore waters don extra PPE such as surgical gloves and N95 masks and undergo Rostered Routine Testing.

> (b)   Enhancing Capabilities. The *Sentinel*-class Maritime Security and Response Vessels inaugurated in January 2021 have commenced operations, and the Maritime Security Unmanned Surface Vessels are on track to begin operations by the end of 2021. As security threats become increasingly complex, the RSN continues to hone its competencies in Whole-of-Government (WoG) responses against potential attacks on

Singapore's coastal installations. In Nov 2020, the RSN conducted Exercise Highcrest and Exercise Apex - high-key maritime security exercises. The RSN also consistently works with other national agencies to counter maritime terrorist threats through the Singapore Maritime Crisis Centre, which will commemorate its 10th anniversary later this year.

3.   <u>Keeping SLOCs Open</u>. SLOCs are economic lifelines for Singapore and keeping them open and secure requires collective effort by global actors. In 2020, the RSN continued to be actively deployed across the seas and engaged with international navies[1] to foster dialogue and cooperation[2], while honing capabilities. Such interactions continue in 2021 - four RSN ships are currently deployed to Guam for Exercise Pacific Griffin. In addition to the existing shipboard medical and quarantine facilities equipped with isolated ventilation on board ship, additional medical contingency plans were developed for deployed ships to deal with potential cases while at sea.

Adaptability and Accelerated Implementation of Initiatives

4.   <u>Leveraging Technology to Enhance Logistical Support</u>.

(a)   <u>Augmented Reality Glasses for Improved Subject Matter Expert (SME) Support</u>. Augmented Reality, video compression and streaming techniques have enabled ship military experts to engage SMEs back ashore for specific advice in real-time. Through the image transmitted via the Augmented Reality glasses, SMEs can "see" the problem the deployed ship crew face, allowing them to provide specific advice. This system, Tele-X, was trialled for the Rim of the Pacific Exercise (Exercise RIMPAC) deployment in 2020, and is also deployed for Exercise Pacific Griffin in 2021.

(b)   <u>Data Analytics to Enhance Preventive Maintenance</u>. Data analytics and trend analysis has improved the operational readiness of RSN ships for long deployments through tailored preventive maintenance programmes[3]. System data is aggregated and analysed to continuously refine maintenance regimes as part of the Fleet Management System that was developed in collaboration with the Defence Science and Technology Agency.

5.   <u>Embracing Digitalisation for Exercises and Training.</u>

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[1] The RSN has conducted exercises with the Royal Australian Navy, Royal Brunei Navy, French Navy, Indonesian Navy, Japan Maritime Self-Defense Force, Republic of Korea Navy, Royal Malaysian Navy, People's Liberation Army Navy, and United States Navy.

[2] In 2020, the RSN participated in the <u>Singapore-India Maritime Bilateral Exercise</u> and <u>Singapore-India-Thailand Maritime Exercise</u> in the Andaman Sea, <u>Exercise Singaroo</u> with the Royal Australian Navy, <u>Exercise Cooperation and Readiness Afloat Training</u> with the United States Navy in the southern reaches of the South China Sea within international waters, and the multilateral <u>Rim of the Pacific Exercise (Ex RIMPAC)</u> in the waters off Hawaii.

[3] Predictive Maintenance includes tailored pre-sea enhanced checks for shipboard combat and platform systems, determining preventive maintenance required for the various systems, and identifying system spares that should embark on the deployed ships.

(a) Successful Conduct of Exercises Aided by Virtual Interactions. The RSN was able to plan for and participate in exercises amidst COVID-19 virtually. Exercise RIMPAC 2020, although planned virtually, saw the RSN leading a task group and also taking on the role of Sea Combat Commander to lead a fleet of ships from different nations to counter surface and underwater threats. Complex anti-submarine warfare serials were also conducted during Exercise Singaroo and the Singapore-India Maritime Bilateral Exercise.

(b) Simulators for Competency and Currency Training. With the need to cohort in smaller groups due to COVID-19, the RSN leveraged on simulators to enable realistic training in a wide variety of scenarios without deploying actual ships to sea and to support targeted training which involves only a small group of crew. The RSN also partnered DSTA to develop a game - "Admiral's Battleground" - that incorporates eSports to gamify the fundamentals of naval warfare for trainees to train without having to rely on instructors to set up tactical scenarios.

(c) Systems to Support Self-directed learning. Systems such as the SAF LEARNet and the RSN instructor-developed eBuddy (since Nov 2019) allow trainees to carry out self-directed learning. SAF LEARNet allows instructors to upload modules for trainees to read and practise in their own time. eBuddy enables RSN instructors to track the progress of the trainees to provide timely feedback.

6.   Strengthening Personnel Support Systems.

(a) Improved Connectivity to Stay in Touch with Loved Ones. With enhanced shipboard connectivity, ship crew are able to stay in touch with their loved ones through messaging apps even when deployed for months at a time. This was important amidst COVID-19 when crew had to remain on board ship and be deployed for longer periods.

(b) Strengthened Family Support Network. Family liaison officers with the RSN keep in touch and support family members and loved ones of crew on deployment to provide them with peace of mind.

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