MEWS

A JOURNEY OF FIRSTS
EXERCISE SINGSIAM 2015

OUR EVERYDAY IS DEFENDING YOURS
THE FACES OF THE NAVY
TELEVISION COMMERCIAL

ISSUE 04 2015



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Defending our waters daily





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ISSUE 04 2015

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The mission of the RSN is to enhance Singapore's peace and security through deterrence and diplomacy, and should these fail, to secure a swift and decisive victory over the aggressor at sea. The RSN will ensure Singapore's seaward defence, secure our sea lines of communication, and maintain a high level of operational readiness and a broad spectrum of capabilities to support our national interest.

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AN EVENTFUL AND SIGNIFICANT YEAR FOR THE NAVY

2015 has been an eventful and significant year for our Navy Family. We celebrated Singapore's Golden Jubilee and SAF50, and we were part of the send-off for our founding Prime Minister Mr Lee Kuan Yew at his state funeral procession.

For many, the year started on a sombre note as we were involved with the search for AirAsia flight QZ8501. Amidst strong winds and rough seas, we managed to locate the fuselage to help bring closure to many with loved ones on the flight. We came together again to organise large-scale SAF50



commemorative events like SAF50@Vivo in February 2015 and SAF50@Istana in July 2015. We also played host to foreign partners from more than 40 countries at the series of conferences and exercises held in conjunction with the International Maritime Defence Exhibition & Conference Asia 2015.

In 2015, we conducted exercises with key partners like our ASEAN neighbours, China, India and US to enhance interoperability and strengthen ties. We also witnessed the launching of the first of our latest platform – the Littoral Mission Vessel *Independence* – by Defence Minister and Mrs Ivy Ng.

We did all this while continuing with our core mission: to ensure the security of our waters and safeguard the sovereignty of Singapore. We have continued to maintain a vigilant watch amidst the rising threat of terrorism. I would like to thank our servicemen and women for their sacrifices and service to the nation



The Strength from our Everyday lies in our Navy Family

We would not have been able to accomplish what we did without the strength and support from our Navy Family. First, we have our biological family with our spouses, children, parents and siblings. Second, we have our extended Navy family, comprising our shipmates and colleagues that we worked with. These are the bonds that bind us together. These are the ties that make us stronger.

In the past years, our Navy family has grown. We have welcomed mid-careerists who chose to join us as a second career. Then there are others who have volunteered to serve as SAF Volunteers. Through the Expertise Conversion Scheme, Operationally Ready National Servicemen with merchant marine experience are now also sharing with us their professional expertise in ship handling.

Each and every member of our Navy family is valuable to us. I thank each and every one for your valuable contributions. As we move towards RSN50 in 2017, let us continue to work together as Team Navy to take the RSN beyond the 3G horizon!

QUICK REP

CDF Visit to MSTF

CDF MG Perry Lim visited the Maritime Security Task Force (MSTF) on 9 Oct 2015. During the visit, he toured the Singapore Maritime Crisis Centre, the MSTF Operations Centre and the Information Fusion Centre. He went on board RSS *Resilience*, where he observed operations in the Combat Information Centre and bridge of RSS *Resilience*, and Accompanying Sea Security Team personnel boarding a tanker.





PS21 ExCEL Awards 2015

At the PS21 ExCEL Awards Ceremony on 15 Oct 2015, Commander Naval Logistics Command ME7 Andy Tay received the Public Service Best Practice award for Stakeholder Communications and Engagement, together with Director Nexus, COL Joseph Tan, for co-organising SAF50@Vivo. 2WO Hans Seah, ME3 Shahabudeen and ME5 Chua Eng Seng received the PS21 Star Service Award, ME3 Sivanantha was PS21 Innovation Champion and PS21 Most Innovative Project/Policy went to Networking and Digitalising for Craft Operations.



MTDC Instructors' Day

Maritime Training and Doctrine Command (MDTC) celebrated Instructors' Day on 19 Oct 2015. More than 400 trainees and crew of MTDC attended a ceremony at RSS Panglima Victory Hall to pay tribute to the instructors. All the instructors recited the Instructors' Creed, led by then-Commander Naval Military Expert Institute, COL Foong Kok Pun.

Learning Journey to Changi Naval Base

About 100 public officers from various government agencies went on a learning journey at Changi Naval Base on 20 Oct 2015. They visited RSS *Intrepid*, the Damage Control Training Centre, Full Mission Ship Simulator and Changi Naval Warehouse, where they saw first-hand innovations that improved the efficiency of the Navy's operations.





Basic Specialisation Course II Graduation Ceremony

49 learners received their vocation specialisation badges after completing the Basic Specialisation Course II on 23 Oct 2015. The graduation parade, held at the Naval Military Expert Institute (NMI), was officiated by then-Commander NMI, COL Foong Kok Pun.



Inspectorates Affiliation Programme

As part of the regular safety exchanges between the Inspectorates of the three Services, the Naval Inspectorate organised the Inspectorates Affiliation Programme on 23 Oct 2015 at the RSN Wardroom in Changi Naval Base. The event was attended by personnel from the Air Force Inspectorate, the Army Safety Inspectorate, and the Safety and Systems Review Directorate. Besides sharing of each Service's safety initiatives and recent case studies, the seminar also strengthened the links between the three Inspectorates.

46th GKS CSC Graduation Ceremony and Dinner

Three operationally ready National Servicemen (NSmen) joined their 20 regular counterparts in the Goh Keng Swee Command and Staff Course Graduation on 28 Oct 2015. It marked the end of a 10-month course they all underwent. The top Navy graduates for the 46th CSC and 16th CSC (NS) were LTC Daniel Tee and MAJ (NS) Terence Quek respectively.



CNV Visit to 123 SQN

CNV visited 123 Squadron on 30 Oct 2015 for a better understanding of the squadron's operational focus areas and challenges. He also tried his hand on flying a naval helicopter in a simulator.



Commander Naval Military Expert Institute (NMI) Change of Command Ceremony

On 11 Nov 2015, COL Foong Kok Pun handed over command of NMI to SLTC Chew Chun-Liang at Victory Hall in Changi Naval Training Base.

DS(A) Dialogue with Maritime Training and Doctrine Command (MTDC)

Deputy Secretary (Adminstration) Mr Han Neng Hsiu visited MTDC on 19 Nov 2015. He was briefed on the roles of MTDC, and held a dialogue session with MTDC personnel.



National Cadet Corps Teachers Officer Naval Familiarisation Course 01/15

National Cadet Corps Teachers Officers underwent a 3-day course from 17 to 19 Oct 2015 to familiarise themselves with the Navy. They had lessons at the Naval Military Expert Institute, and sailed on board STET Polaris.



192/193 Squadron SAF50 Heritage Day

On 20 Nov 2015, 192/193 SQN held the Squadron SAF50 Heritage Day on board MV Avatar at Changi Naval Base to commemorate the SAF 50th anniversary and pay tribute to the pioneers of the squadron. The Squadron also launched the 192/193 Squadron Alumni during the event.

National Day Awards Investiture

During the National Day Awards Investiture, held on 20 Nov 2015, 661 officers were recognised for their contributions to the defence of Singapore. Among them was 188 Squadron Coxswain ME4 David Mohan, who was on board RSS *Steadfast* during the search for MH370.





International Cadets Exchange Programme

On 25 Nov 2015, local and international cadets and cadet officers from the National Cadet Corps visited parts of the Navy for international cadets to learn more about the education and trainings Singapore NCC (Sea) cadets undergo.

Senior Military Expert Appointment Ceremony

On 27 Nov 2015, 47 RSN servicemen and women were appointed as senior military experts of the SAF. For the first time, this included 12 naval Operationally Ready National Servicemen (NSmen) under the Expertise Conversion Scheme, an initiative where NSmen can volunteer to contribute with their deep civilian professional expertise, such as ship-handling.





RSN Family Day

On 27 Nov 2015, naval personnel got to spend a relaxing day with their family at Adventure Cove, Madame Tussauds Museum before gathering for an evening show at the Wings of Time. CNV RADM Lai Chung Han was present at the event too. Read more on pg 26.

Senior Minister of State for Defence Visit to MTDC

On 1 Dec 2015, Senior Minister of State for Defence, Dr Maliki bin Osman visited MTDC. During the visit, he got to experience the latest pedagogies and technologies adopted in the RSN training system at MTDC. He witnessed the realistic simulation training conducted at the Missile Corvette Combat Simulator Trainer, Full Mission Shiphandling Simulator, and Damage Control Trainer.





Walk The Extra Mile With Me

On 5 Dec 2015, NDU divers participated in the "Walk The Extra Mile With Me" event, held at Ngee Ann City Civic Plaza. The divers led the participants in stretching, acted as route marshalls and handed out bottles of water along the walking route.



NDU Anniversary

The Naval Diving Unit celebrated their 44th anniversary on 11 Dec 2015 with the unveiling of a heritage corner where the iconic Seng Fatt Barber & Gift Shop was located. In addition, the naval divers competed in an Amphibian Challenge.

Presentation of RSN Craft Handling Badge

On 14 Dec 2015, fast craft coxswains received the RSN Craft Handling Badge from Fleet Commander RADM Lew Chuen Hong in an inaugural ceremony. The badge is in recognition of their craft-handling skills.





171 SQN Little Xmas

On 16 Dec 2015, 171 Squadron celebrated Christmas with traditions adopted from their Swedish trainers. One highlight was the Christmas gift presentation by a submariner dressed as Santa Claus. A poem or riddle about a small incident that occurred in the year accompanied the present, and the recipient would share about the incident so everyone could learn about it.

Specialist Cadet Graduation Ceremony

Nine specialist cadets graduated from the 22-week Sepcialist Cadet Course on 17 Dec 2015. Receiving the Golden Bayonet was ME1(T) Lim Gek Swee, a medic and the first female to do so.





Wardroom-Gunroom Annual Games

On 21 Dec 2015, the Wardroom-Gunroom Annual Games were held at the CNB Sports Complex. Meant to promote interaction between officers and midshipmen through sports, they competed in football and basketball, as well as a fitness challenge. The wardroom won the football match and fitness challenge, while the gunroom won the basketball match.



14/15 Naval Junior Officers' Course Graduation

The 14/15 Naval Junior Officers' Course was held from 3 Aug to 23 Dec 2015. The graduation was held at RSS Panglima Learning Cove. The top graduate was LTA Dominic Lew, and the distinguished graduate was LTA Toh Jia Jun.

1/15 Intermediate Specialist Course Graduation

On 30 Dec 2015, 32 military experts graduated from the 26-week Intermediate Specialist Course, which prepares them to take on leadership roles as supervisors in their respective units. ME1 Yee Chee Lup emerged top graduate.





NALCOM Anniversary/Dining-in

The Naval Logistics Command celebrated their 30th anniversary on 30 Dec 2015 with a dining-in. The NALCOM30 Commemorative Book was also launched on the same night.

CDF's Year End Visit to TNB

On 31 Dec 2015, Chief of Defence Force MG Perry Lim and Chief of Navy RADM Lai Chung Han visited the crew of RSS *Gallant*, sea soldier of Base Defence Squadron and members of Maritime Security Task Force, to thank those on duty for their efforts and dedication in keeping Singapore safe over the holidays.



WHERE WE'VE BEEN



Exercise SEACAT

The RSN participated in the annual multilateral Southeast Asia Cooperation and Training (SEACAT) exercise, together with navies from the United States, Brunei, Indonesia, Malaysia, the Philippines, and Thailand at the Changi Command and Control Centre. From 5 to 9 Oct 2015, the participating navies conducted drills, such as ship tracking and boarding operations involving vessels simulated to be engaging in terrorist-related activities.



The RSN's frigate RSS *Intrepid* with an embarked S-70B naval helicopter, missile corvette RSS *Vigour* and submarine RSS *Archer*, and the Royal Thai Navy's frigate HTMS *Naresuan*, frigate HTMS *Saiburi*, two S-70B naval helicopters and one Dornier-228 maritime patrol aircraft participated in the bilateral naval exercise, named Exercise *Singsiam*, from 2 to 12 Nov 2015. Following a shore planning phase at Changi Naval Base, the two navies took to the Malacca Strait and Andaman Sea for the sea phase.



Exercise Highcrest

From 2 to 6 Nov 2015, about 900 personnel from 15 agencies, including the SAF, the Singapore Police Force, the Singapore Civil Defence Force, the Immigration and Checkpoints Authority, Singapore Customs, and the Maritime and Port Authority of Singapore, came together for the conduct of Exercise Highcrest. The exercise was held to test the response of national maritime security agencies to simultaneous maritime security threats.





Exercise *Pelican*

The RSN and Royal Brunei Navy held Exercise *Pelican* from 23 to 27 Nov 2015. Hosted by the RSN, this year's exercise involved command teams from RSS *Stalwart* and RSS *Valiant* from the RSN. A series of tactical discussions and simulation exercises in naval warfare, including antisurface, anti-submarine and anti-air operations, were conducted.



Courtesy calls on CNV

Brunei

Fleet Admiral PG Dato Seri Pahlawan Norazmi Bin PG Mohammad Commander, Royal Brunei Nawy

Malaysia

Admiral Tan Sri Abdul Aziz Bin Haji Jaafar Chief of Navy Royal Malaysian Navy

Oman

Rear Admiral Abdullah Bin Khamis BinAbdullah Al Raisi Commander, Royal Navy of Oman

United States of America

Vice Admiral Joseph Aucoin Commander, United States Seventh Fleet United States Navy

OUR EVERYDAY IS DEFENDING YOURS

Story by S Mitra Photos courtesy of NRC

The men and women of our Navy serve our nation in various roles and capacities with one common aim – to protect Singapore. Navy News talks to the faces of the latest Navy television commercial and finds out their experiences defending the nation.



CPT Eileen Sow understands the sacrifices needed to keep our waters safe very well. As a former executive officer, she guarded Singapore's territorial waters on board patrol vessel RSS Resilience.

"Being out at sea 24/7 enables the RSN to respond to any emergencies that may arise, such as a search-and-rescue, or to foil piracy attempts and attacks on our ships," said CPT Sow. "It may not be easy at times to leave our homes to patrol the seas, missing festive holidays and special occasions like birthdays, but threats — conventional, terrorist or piracy — can strike at any time if we let our guard down, so we ensure that we never do."

Today, this resonates even more with her as she works to bring into operation a new class of ship. CPT Sow is now operations





officer of littoral mission vessel *Independence*, the first of eight littoral mission vessels built to replace the ageing fleet of patrol vessels.

"Our job of safeguarding Singapore's waters is important as it ensures that our waters and sea lines of communications remain open for sea trade," said CPT Sow.

CPT Eileen Sow understands the sacrifices required to defend Singapore's waters.

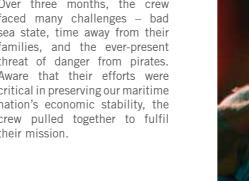


Protecting our interests from afar

Operating further afield was MAJ Xing Yongzhi. He was one of the operation officers on RSS Tenacious when it was deployed for counter-piracy operations in the Gulf of Aden in 2014.

To protect this major maritime trade route connecting Asia and Europe, he toiled tirelessly with his crew to plan the operations for the ship to ensure the safe passage of merchant ships. MAJ Xing said: "Even though we were thousands of miles away from home, we knew that our work in keeping the Gulf of Aden safe from piracy would make a difference."

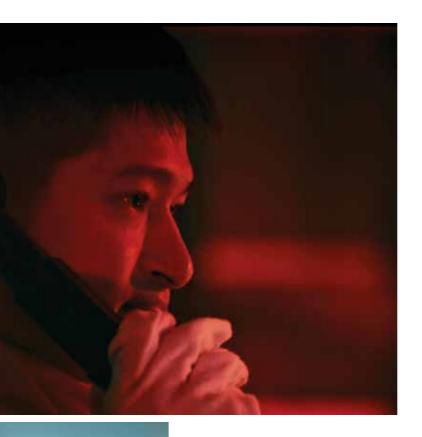
Over three months, the crew faced many challenges - bad sea state, time away from their families, and the ever-present threat of danger from pirates. Aware that their efforts were critical in preserving our maritime nation's economic stability, the crew pulled together to fulfil their mission.





MAJ Xing Yongzhi was involved in counter-piracy operations in the Gulf of Aden.







in the Gulf of Aden to the Information Fusion Centre. As the head of operations and exercises in the centre, he works closely with International Liaison Officers from 17 countries (as of beginning of January) to promote information sharing and collaboration with partner maritime agencies. Such efforts facilitate timely and effective operational responses maritime security incidents.

MAJ Xing brings his experiences

MAJ Christopher Chang and his RSS Kallang crew are operationally ready to be deployed on short notice.

Always ready to defend

Besides ensuring the security of our waters, our Navy has also been called further for regional operations. Over the year-end holidays in 2014, MAJ Christopher Chang's mine countermeasure vessel, RSS *Kallang*, was activated at short notice to sail to the Java Sea to search for downed AirAsia flight QZ8501.

As commanding officer, MAJ Chang had to rally his crew to stay focused on their search as they faced huge waves and bad sea. He said: "Everyone was on standby, so when we were activated to sail on New Year's Eve, there were no complaints. Our families understood the importance of our jobs and the necessity of the sacrifices we make."

Reflecting on his experience, MAJ Chang shared that the willingness and ability to deploy at short notice attests to the high level of operational readiness of his crew and ship.

operational readiness Such continues to be maintained RSS Kallang everyday as conducts sweeps in Singapore Strait to that our waters are stay free of mines. Such assurance allows the merchant vessels, ferries and other commercial and military ships to transit our waters with confidence - without any fear of being damaged or destroyed.



ME4 Joyce Tan is committed to her role in moulding the RSN's future leaders.

Engaging the public

CFC Muhammad Nasrullah Bin Radzwan had the chance to share how he is defending our everyday as the public thronged RSS *Endurance* at Vivocity during SAF50@ Vivo in February 2015. Part of a series of public engagement programme by the Navy, visitors had the chance to interact with our naval personnel while having an up-close view of the landing ship tank.

Even though CFC Nasrullah will complete his national service in May 2016, he continues to find his NS meaningful. He said: "By doing our best in running the fast craft utility rides during SAF50@Vivo, the public can see our capabilities, and reaffirms the importance of my role as a fast craft specialist."

"It feels great to see the public taking interest in what our armed forces are capable of, and it shows how supportive they are of the SAF," he added.



At SAF50@Vivo, CFC Muhammad Nasrullah Bin Radzwan realised the importance of his role.

Training our future officers

To inspire her trainees, ME4 Joyce Tan will share with them her commitment to defence as a divisional officer in the Midshipmen Wing. This instructor of future naval officers finds job satisfaction in seeing those under her charge become better officers and individuals.

As ME4 Tan puts it, "How I see my role is to provide training for midshipmen — to stretch them beyond their limits both mentally and physically, and to mould them into competent, confident and committed leaders in the RSN."

A strong Navy is not just about the capability of assets, but the strength of her people. ME4 Tan said: "During my time on RSS Persistence in 2014, I sailed to Australia for Exercise Trident. While the initial training was tough and the irregular hours took a toll on the crew and me, it was not only our persistence and perseverance that helped us to overcome these challenges, but the spirit of camaraderie and teamwork within the whole ship as well."



A SPECIALISED DEFENCE

Story by Harry Sin Photos by Harry Sin and Jonathan Ryan

The specialised marine craft (SMC) made her debut public appearance at the National Day Parade 2015 as part of the year's mobile column. Designed and built locally by Singapore Technologies Marine Ltd, they took over the coastal interceptor role of the fast boats, which retired in 2008.

he SMCs are deployed to defend our bases and to protect our forces. In addition, they will operate together with the patrol vessels, and the future littoral mission vessels in maritime security operations.





Effective coastal interceptors

"The SMC's primary role is for coastal interception and maritime security," said LTC Tan Say Yong, Head of SMC Group. To enhance these capabilities, the SMC is designed with a sleek hull form and low height. This enables the craft to achieve high speeds of beyond 30 knots. With only two meters of the craft above water, the SMC is able to move swiftly and to make hard manoeuvres in crowded waters.

Human-centric design

One of the key features is the integrated bridge console designed for a lean crew, which comprises a boat commander, coxswain, navigator and gun operator. This leverages on technology to maximise crew efficiency and to optimise the compact space on the SMC. The craft is specially

constructed such that the control panels and displays are easily within reach of crew members. Depending on the operation, displays can also be adjusted to feature specific information.

Integral to Singapore's layered defence

The SMC comes with a communications system that allows the crew to exchange information and to coordinate easily with other RSN ships shore headquarters. Defending our bases is a "tricky job", LTC Tan added. "You have a very visible area that you have to protect and we don't fight alone." Leveraging on the SAF's Integrated Knowledge-based Command and Control network, the SMC is able to draw on a common pool of information to draw on so that the crew can quickly assess the maritime situation and respond effectively.

Ship specifications	
Length	25 metres
Beam	6 metres
Weight	45 tonnes
Speed	In excess of 30 knots
Range / Endurance	250nm at 20 knots
Crew Size	4
Equipment	12.7mm Oto Melara Stabilized Gun Electro-optical system Navigation systems Communications system

WORKING TOGETHER TO DEFEND

Story by Jonathan Ryan Photos courtesy of DMC

This year, Exercise *Highcrest* tests the Singapore Maritime Crisis Centre's (SMCC) ability to coordinate responses to sea and land threats from two different sources simultaneously.

A marine fire vessel from the Marine and Port Authority of Singapore extinguishes a fire that breaks out on board the hijacked merchant vessel.

he SMCC buzzes with quiet activity. Officers from the five national maritime agencies are focused on the monitors before them. Information is coming in from various partner organisations, and they must keep track of everything.

Abruptly, an anomaly appears: a suspicious speedboat is speeding towards Changi Naval Base. Almost at the same time, a separate threat arises. A merchant vessel has been hijacked and is entering Singapore waters.

The officers of the SMCC moves into swift, focused action.

To deal with the first threat, the Maritime Security Task Force Ops Centre is notified, and the Navy despatches a unmanned surface vessel. Working together with the Police Coast Guard (PCG) interceptor craft, they intercept the speedboat before it reaches Changi Naval Base.





The Police Coast Guard forces the terrorist craft (middle) to surrender.



At the same time, a PCG patrol boat and a RSN patrol vessel are deployed together to stop the hijacked merchant vessel. The Special Operations Task Force from the Singapore Armed Forces (SAF) storms the ship, while the Maritime and Port Authority of Singapore (MPA) and Singapore Civil Defence Force (SCDF) are subsequently deployed to deal with a fire that breaks out on the ship during the takedown of the hijackers.

Back in the SMCC, the officers remain alert and keep their eyes trained on the monitors to make sense of the information still coming in. With 18 agencies collaborating in this year's Exercise *Highcrest* (Ex *Highcrest*), making sense of the constant stream of information is no easy feat.

"We are stress-testing the SMCC's ability to handle multi-pronged and simultaneous maritime attacks against Singapore," explains RADM Frederick Chew, Commander Maritime Security Task Force.

A greater challenge

Held from 2 to 6 Nov 2015, Ex *Highcrest* involves about 900 personnel from 18 agencies, including five national partners, namely the RSN, Singapore Police Force, MPA, Immigrations and Checkpoints Authority (ICA), and Singapore Customs.

With all the different agencies under one roof in the SMCC, it is both easier and more difficult to manage operations. With a collective pool of knowledge, swift and decisive action can be taken against any security threat in our waters. Furthermore, the centre can draw on the accumulated experience of officers from the different agencies.

However. with extensive collaboration comes more complex coordination. According to COL Lee Kien Tian, Director National Maritime Operations Group (NMOG), "in 2013, we had less than 10 government agencies working together in information sharing. Currently, have more than government and non-government agencies involved."

Hence, having exercises like Ex *Highcrest* is important in testing the SMCC's capabilities. Such exercises help the centre to identify any areas for improvement, and further hone their ability to handle scenarios where threats can take any form or combination.

A sailor from the RSN's patrol vessel fires warning shots to get the terrorists on board the hijacked merchant vessel to surrender.





The Special Operations Task Force approaches the hijacked merchant vessel.

Working and learning together

Started in 2011, the SMCC is a combined effort between the maritime agencies. Based in Changi Naval Base, it aims to spot and stop maritime security threats as early and as far away from Singapore as possible.

The SMCC became fully operational in 2013, and has been bringing the agencies closer in key areas, such as sensemaking and threat assessment, and conducting training and exercises. It is made up of the National Maritime Sense-making Group (NMSG) and the NMOG.

The NMSG tracks and analyses information provided by the agencies. For example, in 2015, the NMSG spotted a discrepancy on entry applications of two barter trade craft. A crewmember not only appeared on both entry applications, but also held different appointments on each vessel. Investigation by the ICA revealed that it was a submissions error by the shipping agent.

The SMCC aims to become more adept at spotting such discrepancies, as well as those even smaller and harder to identify. COL Lee said: "Since 2013, our sense-making framework has expanded. We have increased the awareness of our framework and we are also sharper in detecting anomalies."





Men from the Special Operations Task Force board the hijacked merchant craft.

On the other hand, the NMOG looks at training, conducting exercises, and creating a more coordinated operational response. For example, the NMOG was responsible for maintain maritime security during events such as the SEA Games in June and the F1 race in September.

Ex Highcrest brings the two groups of the SMCC together, and tests both capabilities. This ensures that the SMCC is always ready to defend Singapore's southern waterways, which are one of the busiest in the world and are vital for global shipping.

ASSeTs TO OUR NATION

Story by Harry Sin Photos by Jun Wei

For Singapore to enjoy her peace and serenity, Accompanying Sea Security Teams (ASSeTs) are deployed throughout the day, boarding merchant vessels that transit through the Singapore Strait to conduct security checks.





Ommunications checked, weapons checked – before boarding operations, members of the 180 squadron help each other through checks of their equipment. With their equipment in place and in order, they are ready to conduct compliant boarding security checks on board transiting merchant vessels.









The men wear Floatation Body Armour Vests, and are armed with MP5 and P226. These together with the other equipment, such as communication sets and pepper spray, weigh a total of approximately 20kg. Together with their close quarters combat skills, this ensures that they are prepared for any situation they

may encounter on board ships.

- 3 Maritime security is the business for many agencies in Singapore. ASSET teams comprise of both RSN and Police Coast Guard personnel, and they work closely with other national maritime agencies like the Immigration and Checkpoints Authority and Singapore Customs to ensure the security of our waters.
- 4 With more than 1,000 ships passing through the Singapore and Malacca Straits every day, it is important that these waters are closely guarded. Hence, maritime security operations such as maritime surveillance, boarding, and interdiction operations are carried out on a 24/7 basis.
- One of the ASSeT member, LTA(NS) Ethan Barnes, conducting checks on a Liquefied Petroleum Gas carrier in compliance boarding operations. He and the rest of the team keep an eye out for possible threats of ships being hijacked or robbed while transiting in our waters.

TO OUR LOVED ONES

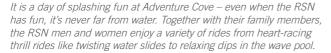
Story by Harry Sin Photos by Harry Sin and Jonathan Ryan

This year, the RSN Family Day was held at Sentosa, where our servicemen and women brought their families to Adventure Cove and Madame Tussauds Singapore. It celebrated the constant support given by their loved ones, which helped the RSN carry out their duties with ease and pride.

At Madame Tussauds, people come face to face with life-size wax figurines of well-known personalities, athletes and childhood heroes. Here, children ham it up with one of our local directors, Jack Neo.















At the Wings of Time, Chief of Navy RADM Lai Chung Han thanks the RSN men and women for their tireless work and their family members for their whole-hearted support. The day ended by the water for everyone as they enjoy an awe-inspiring light show that lights up the night sky.

Servicemen and their family members bond over exhibits and games at Madame Tussauds. A serviceman and his daughter learn more about the process of creating wax figurines at this station. Visitors can also create wax souvenirs of their own hands.

A JOURNEY OF FIRSTS

Story and photos by Andrew Leung

Exercise *Singsiam*, an annual bilateral exercise with the Royal Thai Navy (RTN), turned into a deployment of firsts for the RSN. Read about it from the perspective of the Officers-Under-Training (OUTs) on board.





s RSS Intrepid cut through the waters of the Andaman Sea, LTA Lester Kwok scanned the seas intently. Through his binoculars, he kept a sharp eye out for any sign of the elusive submarine RSS Archer, such as its feather, the wake caused by the periscope peeking just above the water surface.

It was a challenge because the submarine's very mission was to evade detection by the frigate and to surface without being spotted.

This particular exercise took place as RSS *Intrepid* was on its way

back home after the successful completion of Exercise *Singsiam* (Ex *Singsiam*). Not to miss any valuable training opportunities, the crew of the stealth frigate pitched their skills against those of the RSN's *Archer*-class submarine in an anti-submarine exercise.

"I felt really privileged to be a part of this exercise, especially since it is also my first time exercising with a submarine," LTA Kwok said.

This was the first time a RSN submarine participated in Ex Singsiam. RSS Intrepid's crew

managed to spot the submarine and the exercise was completed successfully.

Calling the defining moment of the entire deployment, LTA Tan Hui Ting said: "That was my first time witnessing an actual submarine in exercise. The sight of it in action was very impressive."

Similarly, other OUTs were glad to be part of this deployment, which brought them on a journey through the Malacca Strait to the Andaman Sea and the Java Sea on RSS *Intrepid*.



CPT Lim Kian Hwee briefing COL Yong Wei Hsiung, Commanding Officer, during his watch

More than an exercise

RSS Intrepid began her 2-week naval deployment through the Malacca Strait, accompanied by two RTN ships, HMTS Naresuan and HMTS Saiburi, which had sailed down to Singapore for the exercise's opening ceremony.

During the transit, OUTs had the opportunity to gain hands-on experience in naval operations. For example, CPT Lim Kian Hwee had a chance to take control of the ship as an Officer-of-the-Watch (OOW). He and his team of OUTs did their homework well by familiarising themselves with the navigation landmarks they would pass.

The most challenging part of the transit, said CPT Lim, was when they neared One Fathom Bank lighthouse. "A tanker was moving slowly ahead of us. I wanted to overtake it to remain on schedule.

LTA Tan Hui Ting learns about naval helicopter operations from Senior Marine Raymond Chew

Engineer ME5



LTA Basil Chong and LTA Jason Chan interact with RTN sea-riders

but the area had many shallow patches, so I had to wait until we passed the lighthouse before overtaking."

Besides navigation through such congested waters, the OUTs also learned how the OOW coordinates with the different stations of the ships during exercises and operations.

For example, in order for a round to be discharged from the 76mm Oto Melara gun located at the bow of RSS *Intrepid*, the crew have to work closely together. Without close cooperation, the mission would not be successful.

Recounting his observations, LTA Sebastian Koa said: "The whole ship fights as one. Many considerations are necessary for a successful and safe firing." He cited the example of the OOW and bridge team being "the eyes of the ship, keeping her safe and well clear of navigational danger" while "the Principal Warfare Officer and the gunnery team in the Combat Information Centre are the nerve centre, ensuring targets are accurately identified and hit."

He added: "Neither can succeed without the other, so a deep understanding and well-practised interaction is crucial."

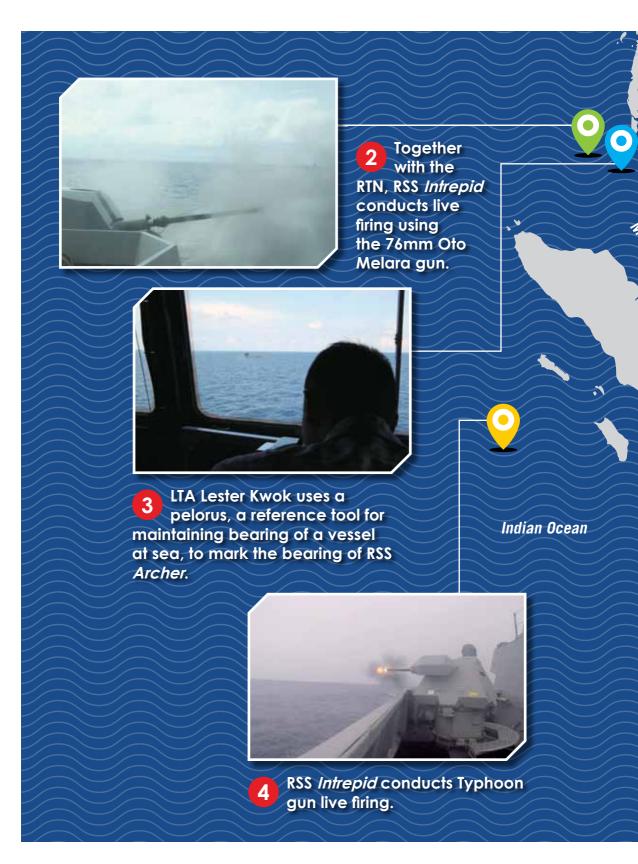
On the way home

To return to Singapore, RSS *Intrepid* sailed south-westwards, just off the coast of Sumatra. Approximately 1,000 nautical miles away from home, in the vast expanse of the Indian Ocean, the crew conducted helicopter operations and a Typhoon gun live firing.

LTA Tan Hui Ting had the chance to observe the helicopter simulation exercises in the Helicopter Control Room. For example, the radar on the helicopter malfunctioned and the pilots worked together with the ship's crew to navigate safely.

Such complexities in operations piqued LTA Tan's interest in the *Seahawk* naval helicopter. "My observations of the naval helicopter operations helped me realise the potential of the 3rd generation SAF."

It was through deployments like this, she added, that shows OUTs "how the combination of modern systems and competent servicemen from different services coming together is able to bring forth greater capabilities."





MAKING THE SWITCH

Story by Yvette Kan Photos by Harry Sin & S Mitra

When making a career change, most people might not think of joining the SAF. Navy News talks to the men who joined us under the Military Domain Experts Scheme (MDES) to find out why they've chosen to be mid-careerists with the RSN.



In the RSN, we have good people with good attitude.

- ME5 Goh Sze Teng

've always dreamed of joining the Navy," ME5 Soh Ting Hong said with a grin. "I'm proud that I can still serve the country even at my age now."

The 49-year-old was a principal engineer in the wafer fabrication industry for 18 years before he decided to join the RSN in 2014. Now, he leads a team of military experts (MEs) in providing logistical support to Formidable-class frigates and Endurance-class landing ships tank.

His background in wafer fabrication equipment translates well into his work for the RSN, he said. "I did production support so the job scope is similar. The only difference is that I'm working on board ships and not with wafer fabrication ... The MDES is a good calling for engineers like me."

Under the MDES, the RSN develops the skills of MEs who specialise in vocations ranging from naval warfare system engineers and experts to military medical experts. The scheme develops our sailors in specialised areas, where they are able to build in-depth knowledge and expertise in engineering or different aspects of naval warfare.

Hence, mid-careerists such as ME5 Soh are welcomed as they bring their honed skills into the RSN. Mid-careerists refer to those who are already established in their chosen fields and made the switch in the middle of their career. ME5 Soh decided to join the Navy as he sees the work being done here as "dynamic".

"We have to prepare the ships for anything out there to ensure that they are ready and prepared so that the mission is successful," he said.

What further attracted ME5 Soh to the Navy was the family-oriented environment. He said: "Here, every human is an asset. Everyone has a role and part to play. It's a friendly environment, where we can sit down and discuss things."

This view was echoed by ME5 Goh Sze Teng, who entered the RSN in the same batch as ME5 Soh. The two friends exemplify the easy camaraderie that springs up between our people. They met while applying under the MDES, and stayed friends since.

"Here in the RSN, we have good people with good attitude," ME5 Goh said.

While working with the Defence Science and Technology Agency (DSTA) from 2000 to 2010 as a project manager for naval surface weapon systems, he worked closely with people from the Navy. He enjoyed working with the RSN, and even after he left DSTA, his naval contacts remembered him.

When they brought up the possibility of ME5 Goh joining the RSN under the MDES, he jumped on the opportunity. It had felt like a natural choice, he said. "I'm familiar with the people I'll be working with. I didn't have any issue blending in because people are so friendly."

He is now a senior engineer in the Weapon Systems Branch of the Engineering Group in the Naval Logistics Department (NLD). Even though he is already highly experienced in his field, in the RSN, he was "exposed to some of the most cutting-edge weapon systems in the world and was given opportunities to travel to many exotic places for projects and operations."

He added: "I like that teamwork is key here. In order to succeed, we need teamwork. In the private sector, work is more individualistic."

Here, every human is an asset. Everyone has a role and part to play. It's a friendly environment, where we can sit down and discuss things.

ME5 Soh Ting Hong

Similarly, ME4 Lew Kar Wei prefers that there are "more face-to-face meetings" instead of "in the commercial world, where they are more into email and conference calls."

A project officer dealing with C4 (Command, Control, Communications and Computer) networks in the NLD, ME4 Lew is the newest of the three to the Navy family. He started work on 9 Nov 2015, and he admitted that he is still adapting to the RSN.

ME4 Lew has a background as a senior engineer with technology company Hewlett-Packard. He said that it is not a "perfect fit" from the private sector into the government sector, as he has to relearn certain things such as management styles and the way meetings are carried out.

However, he believes that as long as he tries hard, he will be able to succeed in his role. He said: "No matter what you do, even if you go into another private company, you have to start from scratch, so I would just try my hardest."

It was with this willingness to try something new that ME4 Lew

decided to join the RSN. After being in his previous job for two years, he said he had the thought, "Well, the project is stabilising, so should I make the job switch to look for a new challenge?" 1.010

Besides brand-new experiences, the MDES also offers mid-careerists continuous professional development. There are two career paths available — Command and Doyen. Those under the Command route would see their leadership skills being developed, while Doyens would have a greater focus on vocational skills, becoming an expert in their field.

Throughout their time with the RSN, the mid-careerists will be exposed to various technical and leadership appointments. While currently posted at Maju Camp, ME5 Goh is looking forward to the opportunity to be posted to the NLD headquarters and other units. "This will help me understand my needs and interests better ... so I can choose the path that best suits my aspirations and also those of the organisation."

He added with a laugh: "I want to work until I'm 60."



FIGHTING

Story by S Mitra

Thinking about picking up a new sport, while keeping fighting fit for your IPPT? Mixed martial arts (MMA) may be just the sport for you.

housands of spectators watched in disbelief as Brazilian Jiu-Jitsu (BJJ) practitioner Royce Gracie took down his bulkier boxer opponent. Nobody had thought BJJ, a ground-fighting martial art, stood a chance against stand-up striking fighting styles like boxing. He went on to become the first winner of the Ultimate Fighting Championship – and thus, modern MMA as we know it, with its combination of both striking and grappling martial arts, began right then in 1993.

Combination of martial arts

MMA is a full-contact combat sport that integrates the two fighting styles. In the past, MMA fighters trained almost exclusively in one martial art, leading to a clash of styles in matches. As the sport evolved, fighters began training in various martial arts to obtain a well-rounded skillset. Now, it is no longer about which one style is the best, but how a fighter can effectively mix multiple styles to win — either by knockout, or by the opponent's submission or "tap out".

Fighters typically train at least one striking and grappling martial art to ensure they have most bases covered. A common combination is Muay Thai, the Thai national sport that involves stand-up striking techniques, and BJJ, which emphasises the use of leverage and technique over strength. Other styles commonly seen in MMA include taekwondo, wrestling, and boxing.

Train for MMA and IPPT at the same time

Just like training for the IPPT, running is a staple of any fighter's regimen. It builds a solid cardio base and ensures you can last multiple rounds without getting winded. In the same vein, skipping is crucial for fighters, not just for cardio, but for footwork and handeye coordination as well.

Strength training is equally important. It is often the deciding factor if both combatants are evenly matched in skill level. Strength training for MMA athletes

consists of compound movements such as squats, deadlifts and bench pressing. These exercises train large muscle groups and are less taxing on the body than isolating each muscle group individually. They give athletes more recovery time.

Finally, techniques and skills come into play. While training your skills won't contribute much to fitness, it helps to condition the body. After all, throwing a roundhouse kick a few hundred times will make your leg stronger. Similarly, a session of striking and grappling drills followed by technical sparring will leave you sore the next day, but you will be stronger.

Benefits of MMA

Besides physical benefits (and monetary ones, for those who ace their IPPTs), other benefits include being able to defend yourself. MMA is, after all, a multitude of fighting styles modified to fit the rules of a sport and it will equip you with basic self-defence skills. Furthermore, sparring against an opponent improves hand-eye coordination and reflexes, as you are training to avoid hits.

MMA training can also develop your discipline. For example, drilling a single move hundreds of times will lead to a more perseverant mentality. Such a way of thinking will be beneficial in other aspects of your life as well. For example, when you are on ship, where you have to complete tasks assigned on time for the ship to achieve mission success.

WITNESS THE FITNESS

Story by Harry Sin

Integrate technology into your workout with these new gadgets and track everything from your heart rate to your real-time location.





itness trackers are a growing trend. Together with smartphone applications and websites, you can use these devices to record your activity, set health goals and share your achievements with friends to give you that extra motivation to get off the couch.



Step counters

Step counters are being integrated into an increasing number of devices such as smartphones and watches. As a daily target of 10,000 steps is recommended, such trackers are a convenient way to keep track of your activity rate throughout the day. For example, they alert you when you have been sitting down for too long and urge you to take a short walk around. They can also track the condition of your gear such as your athletic shoes and notify you when it's time for a new pair.



Global Positioning System (GPS) tracking

GPS tracking refers to the recording of a variety of data from monthly mileage to the current and average speed of your workout. It is a favourite tool of endurance and multisport junkies. With developments in running technology, the way training is tracked has been revolutionised by speed and distance monitors.

Besides applications on phones that do GPS tracking, there are also smartwatches

where the data and statistics are displayed right on your wrist. Whether it is training for your first half marathon or going for a full distance marathon, a GPS tracking device such as a running watch can make a difference in your performance as you train and on the day of your race.



Heart rate monitors

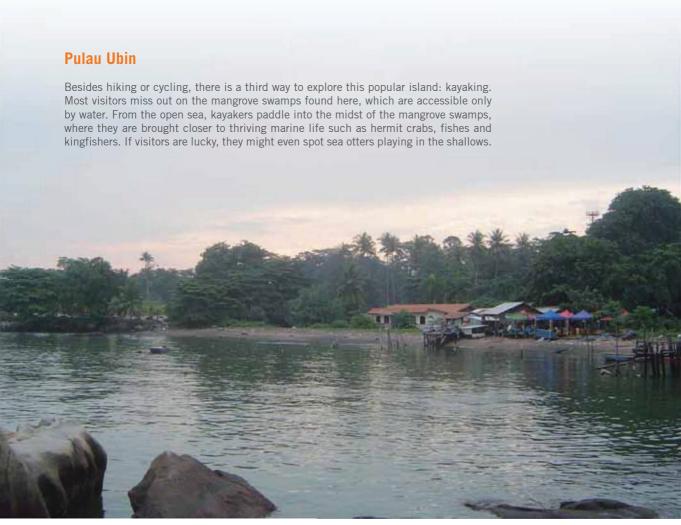
For any type of activity to benefit your health, you need to be moving faster and breathing harder to raise your heart rate. Knowing your heart rate zone allows you to estimate the state at which your body is performing in various sports. Strapping on a heart rate monitor is an easy way to track this and make your training more effective. It also ensures you are training in the right zone, and getting the fitness gains you want and the recovery you need after your workout.

The best heart rate monitors track other metrics as well, such as your speed, distance and location. Many models include options to enter your height and weight to give you more accurate information.

OFFSHORE ISLAND LIVING

Story and photos by Jonathan Ryan

Visit Singapore's offshore islands, where you can take a rest from the city life amidst a vibrant diversity of flora and fauna. Navy News tells you what's new and interesting about these islands.



Pulau Ubin is good for a day trip of walking or cycling along a rustic countryside that harks back to 1960s Singapore.



Sisters' Island is home to a wide variety of hard corals. These thriving reefs, as seen above, shelter many sea creatures such as giant clams and sea horses. (Photo courtesy of

A circular mushroom coral, one of the many species of corals that can be found on Sisters' Island. (Photo courtesy of Ria Tan)

Sisters' Islands

Singapore's first marine park here on Sisters' Island spans around 40ha. It houses a variety of habitats such as coral reefs, sandy shores and sea grass areas. The highlight of this island is the two dive trails of the reefs located at Pulau Subar, one of the two islands that make up Sisters' Island. These trails are the first of its kind in Singapore, with the shallow trail at a depth of 6m and the deeper trail at 15m. For those without dive certification, there are free guided tours of the park's intertidal zones, where visitors can spot interesting marine species such as anemone shrimps and sea stars.



Coney Island Once owned by the Haw Par

brothers, Coney Island, also known as Pulau Serangoon, was opened to the public in Oct 2015. The 50ha island is home to a variety of habitats, from coastal forests to casuarina woodlands. Some of the plants at the park are presumed extinct in the wild elsewhere in Singapore. Coney Island Park ecologically sustainable, with a focus on energy and water conservation, recycling and maintaining of the park's natural elements. Visitors can

Coney Island is an ecologically sustainable park that aims to retain the natural elements of the park. (Photo source: bit.ly/1Zfsq4R)



UNWAVERING SERVICE

Story and photo by S Mitra

The RSN presented the Long Service Awards to personnel who have served the SAF for 20, 30 and 40 years. Navy News interviews some of the recipients to gather their thoughts on their dedicated service to the nation. Throughout my 42 years of service in the Navy, I have had the opportunity to have worked at many different places, including Seletar Camp and Brani Base once it opened. I even got the chance to visit India for the first time, thanks to the MSTD in 1986.

- ME3 Muthigh Theyanindrian

Having signed on with the Navy immediately after completing my
Secondary Four education, I have spent the majority of my life in service – first as a uniformed personnel, then as a Non-Uniformed SAF personnel (NUSAF), and now as a DXO. Through all this, I have done my best, and the Long Service Award has been a great acknowledgement of my contributions.

- Ms Tan Beng Choo

I have spent over 40 years in the Singapore Armed Forces – from Joint, to
Air Force, and now in the Navy.
Through all this, my commitment to our SAF remains as strong as ever.
Those I love are in this country, and I have committed myself to protect them by protecting this country, our country.

- Mr Kayampu Subramaniam





STANDING PROUD AS FUTURE COMMANDERS

Story and photo by Jonathan Ryan

or the first time, three operationally ready Navy National Servicemen (NSmen) joined their regular counterparts in the Goh Keng Swee Command and Staff Course (CSC). LTC (NS) Daryl Ou, LTC (NS) David Seow and MAJ (NS) Terence Quek graduated in a ceremony held for all CSC graduates at the Istana on 28 Oct.

Over 10 months, with a 5-week residential period, the Navy NSmen joined the other CSC participants in scenario planning, lectures, discussions and presentations at the Goh Keng Swee Command and Staff School in SAFTI Military Institute. "The course gave me an opportunity to step up my game so I can play a bigger role as an NSmen the next time I return to the Navy for reservist," LTC (NS) Seow said.

Another 20 Navy officers and military experts attended the CSC and CSC (Executive) as well, and were presented with their graduation certificates by Defence Minister Ng Eng Hen. Top Navy graduates for the 46th CSC and 16th CSC (National Service) respectively were LTC Daniel Tee and MAJ (NS) Quek.

