

**2021 EDITION OF THE
INDO-PACIFIC REGIONAL DIALOGUE
(IPRD-2021)**

**“EVOLUTION IN MARITIME STRATEGY
DURING THE 21ST CENTURY: IMPERATIVES,
CHALLENGES, AND WAY-AHEAD”**

CONSOLIDATED DOCUMENT

CONCEPT NOTE

Over the past decade or so, the Indo-Pacific, which is a predominantly (even if not exclusively) maritime space connecting four economically resurgent continents — namely, Africa, Asia, Australia and the Americas — has established itself as one of the most important geopolitical regions of our contemporary age. Despite a few recent lurches towards inward-looking nationalism that had sought to abandon globalisation, transnational maritime interests, especially those engendered by the ongoing COVID-19 pandemic, as also those driven by climate-change imperatives, have moved the strategic seascape of the 21st Century well beyond the strict geographical categorisations of earlier times. Consequently, it is, today, neither practical nor useful to view various nations or even sub-regions as isolated entities, as was the case in times gone by. We are witnessing a reconceptualisation of this entire region, wherein the historical perception of the Indo-Pacific as a single, cohesive geopolitical entity is being restored. Today, the horizontal and vertical interconnections of the Indo-Pacific, which encompass a wide swath of economics, connectivity and culture, are increasingly recognised as being of the utmost importance to the world.

For India, the term ‘Indo-Pacific’ reflects the core conceptual, spatial and temporal framework that underpins the country’s engagement with its external environment. It is not, in and of itself, a ‘strategy’ but is, rather, an articulation of India’s proximate ‘strategic geography’. It is worth reiterating that while the Indo-Pacific is a predominantly maritime regional construct, it is not exclusively so. As such, it accommodates both littoral States and hinterland or landlocked ones within its ambit. The spatial context of India’s conceptualisation of this region extends from the Indian Ocean littoral of Africa, encompasses the seas fringing the Indian Ocean, and proceeds eastward, incorporating the seas bordering the Pacific Ocean up to the western littoral of the Americas, and, from the southern littoral of Asia it proceeds southward to the continental landmass of Antarctica.

India’s insistence upon inclusivity and transparency, which are fundamental to its Indo-Pacific formulation, is now echoed by several of the nation-states and collective entities, which operate within the region. The past couple of years have witnessed a strategic (if not always geographic) convergence between the Indian conceptualisation and those of Australia, ASEAN, the EU, France, Germany, Japan, and the USA. For all these nations, ‘inclusiveness’ implies the use of existing regional mechanisms to promote dialogue-based approaches to the resolution of differences, the enhancement of economic cooperation, the sharing of maritime space and airspace, and the willingness to work with all countries in the region. The Prime Minister of India, Shri Narendra Modi has placed on the regional table the Indo-Pacific Ocean Initiative (IPOI), which is a deeply interconnected web of seven main ‘spokes’ — maritime security; maritime ecology; maritime resources; trade connectivity and maritime transport; capacity-building and resource-sharing, disaster risk-reduction and management; and, science, technology and academic cooperation. Upon this framework lies the aspirational framework of the Coalition for Disaster-Resilient Infrastructure (CDRI), once again, an Indian initiative and once again one with enormous beneficial potential at national and regional levels. These developments, seen against the backdrop of India’s maritime policy of *SAGAR* (Security and Growth for All in the Region), whether taken singly or in aggregate, have generated a number of maritime geostrategies that will define geopolitics in this 21st century through which we are hurtling. Indeed, several of these maritime

geostrategies will inevitably interact intensively and extensively with one another, creating new levels of strategic complexity. In the formulation and execution of these multiple geostrategies, ‘transparency’ will be a critical ingredient for regional acceptance and hence, success. Transparency, of course, denotes openness of both, intent and action.

For its part, India seeks to meaningfully contribute to the creation and consolidation of an Indo-Pacific built upon five key principles, embodied by five Hindi words, all of which start with the sound ‘ess’:

- सज्जमान (Sammaan): **‘Respect’** for all, as well as for an international order that is underpinned by established international law.
- सव्वाद (Samvaad): **‘Dialogue’** to resolve differences and promote comity between nations, as also to optimally use existing structures, whether ASEAN-led ones such as the ASEAN Regional Forum (ARF) and the East Asia Summit (EAS), or others such as the Indian Ocean Rim Association (IORA), the Indian Ocean Commission (IOC), the Djibouti Code of Conduct (DCoC), etc. Nation-states operating within the Indo-Pacific must also formulate specific maritime strategies that will encourage seamless interaction between executive-level maritime structures such as the Indian Ocean Naval Symposium (IONS) and the Western Pacific Naval Symposium (WPNS).
- सहयोग (Sahyog): **‘Cooperation’** as the basic means of intercourse between nations and their respective peoples.
- शान्ति (Shanti): **‘Peace’** as the *sine qua non* for the attainment of economic, material, and societal wellbeing.
- समृद्धि (Samridhdhhi) **‘Prosperity’** as encompassing a national, regional, and global sense of economic, material, and societal wellbeing through environmental and ecological sensitivity and climate-change adaptation, the sustainable harvesting of the Earth’s resources, and, the equitable distribution of the wealth that accrues from such sustainable exploitation.

How will these multifarious strategies evolve and how might they be expected to shape the Indo-Pacific over the pandemic-ridden immediate future, and beyond it? Clearly, the ability to identify the imperatives, the opportunities, and the challenges, and, equally importantly, to listen-to — and be sensitive-to — the varying perspectives of other States located-in or operating-within the Indo-Pacific, are clear and evident prerequisites if we are to jointly arrive at a mutually beneficial set of solutions.

As has been the case with all previous editions, the National Maritime Foundation (NMF) is proud and privileged to remain the Indian Navy’s knowledge-partner and the chief organiser of IPRD-2021.

The 2021 edition of the Indian Navy’s annual apex-level international conference, “The Indo-Pacific Regional Dialogue” (IPRD), which will, in deference to the continuing COVID-driven

travel restrictions in force, be held entirely online on 27, 28, and 29 October, and will explore these weighty questions through a series of eight sessions, each based on contemporary themes.

IPRD-2021 will focus upon **eight** themes

Theme 1: Evolving Maritime-Strategies within the Indo-Pacific: Convergences, Divergences, Expectations and Apprehensions.

Theme 2: Adaptive Strategies to Address the Impact of Climate Change upon Maritime Security.

Theme 3: Port-led Regional Maritime Connectivity and Development Strategies.

Theme 4: Cooperative Maritime Domain Awareness (MDA) Strategies within the Indo-Pacific.

Theme 5: Impact of the Increasing Recourse to Lawfare upon a Rules-based Indo-Pacific Maritime Order.

Theme 6: Strategies to Promote Regional Public-Private Maritime Partnerships

Theme 7: Strategies to Address the Manned-Unmanned Conundrum at Sea

Theme 8: Energy-Insecurity and Mitigating Strategies.

PROGRAMME

Day ONE: 27 October 2021		
INAUGURAL SESSION (Duration: 1 h 10 m)		
1130-1240 (IST)		
Australia [IST+4.5] 1600-1710 (Queensland), [IST + 5.5] 1700-1810 (Canberra, Melbourne)	B'desh [IST+ 0.5] 1200-1310	France, Germany, Malta [IST-3.5] 0800-0910
Israel, Kenya, Madagascar, Russia, KSA [IST-2.5] 0900-1010	Japan [IST+3.5] 1500-1610	Malaysia, Singapore, Philippines [IST+ 2.5] 1400-1510
Mauritius/ MUT [IST-1.5] 1000-1110	Sri Lanka, India 1130-1240	
UK [IST-4.5] 0700-0810	USA/EDT [IST-9.5] 0200-0310	USA/Hawaii [IST-15.5] 26 Oct: 2000-2110
1130-1135 (5 min)	Introduction	EmCee (Satyam Shekhar)
1135-1145 (10 min)	Welcome Address	Admiral Sunil Lanba, PVSM, AVSM, IN (Retd) Chairman, National Maritime Foundation, New Delhi, India
1145-1150 (5 min)	Introduction of CNS	EmCee (Satyam Shekhar)
1150-1205 (15 min)	Inaugural Address	Admiral Karambir Singh, PVSM, AVSM, ADC, IN Chief of the Naval Staff, Indian Navy
1205-1210 (5 min)	Introduction of RM	EmCee (Satyam Shekhar)
1210-1230 (20 min)	Keynote Address (Pre-recorded)	Shri Rajnath Singh Hon'ble Defence Minister Government of India

PROFESSIONAL SESSION ONE (Duration: 2 h 55 m) 1330 to 1625 (IST)		
Panel Discussion on “Evolving Maritime-Strategies within the Indo-Pacific: Convergences, Divergences, Expectations and Apprehensions”		
Australia [IST+4.5] 1800-2055 (Queensland), [IST + 5.5] 1900-2155 (Canberra, Melbourne)]	B'desh [IST+ 0.5] 1400-1655	France, Germany, Malta [IST-3.5] 1000-1255
Israel, Kenya, Madagascar, Russia, KSA [IST-2.5] 1100-1355	Japan [IST+3.5] 1700-1955	Malaysia, Singapore, Philippines [IST+ 2.5] 1600-1855
Mauritius/ MUT [IST-1.5] 1200-1455	Sri Lanka, India 1330-1625	USA/Hawaii [IST-15.5]
UK [IST-4.5] 0900-1155	USA/EDT [IST-9.5] 0400-0655	2200/26 Oct-0055/27 Oct
1330-1335 (5 min)	Introduction to the Session	EmCee (Mr Satyam SHEKHAR)
1335-1355 (20 min)	Special Address	Dr Subrahmanyam JAISHANKAR (TBC) Hon'ble External Affairs Minister, Government of India
1355-1405 (10 min)	Opening Remarks by Moderator	Vice Admiral Anil CHOPRA, PVSM, AVSM, IN (Retd) <i>Former Flag Officer Commanding-in-Chief Western Naval Command, Former Flag Officer Commanding-in-Chief Eastern Naval Command, and, Former Director General, Indian Coast Guard</i>
1405-1425 (20 min) Australia 1935-1955	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Professor Brendan SARGEANT Professor of Practice in Defence and Strategic Studies and Head, Strategic and Defence Studies Centre (SDSC), Australian National University (ANU)
1425-1445 (20 min) Russia 1155-1215	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Dr (Ms) Ekaterina KOLDUNOVA Acting Director, ASEAN Centre and Associate Professor, Asian and African Studies Department, MGIMO University, the MFA of Russia Moscow State Institute of International Affairs (University) Ministry of Foreign Affairs of Russia, Moscow
1445-1505 (20 min) Japan 1815-1835	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Professor Hideshi TOKUCHI President, Research Institute for Peace and Security (RIPS) Tokyo, Japan
1505-1525 (20 min) France 1135-1155	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Dr Frédéric GRARE Senior Policy Fellow Asia Programme European Council on Foreign Relations Paris, France
1525-1545 (20 min) USA 0555-0615	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Mr Jeffrey PAYNE Manager of Academic Affairs The Near East South Asia Center for Strategic Studies Washington, DC, USA
1545-1615 (30 min)	Audience Interaction	Moderated by Vice Admiral Anil CHOPRA, PVSM, AVSM, IN (Retd) <i>Former Flag Officer Commanding-in-Chief Western Naval Command, Former Flag Officer Commanding-in-Chief Eastern Naval Command, and, Former Director General, Indian Coast Guard</i>
1615-1625 (10 min)	Summative Remarks by Moderator	Vice Admiral Anil CHOPRA, PVSM, AVSM, IN (Retd) <i>Former Flag Officer Commanding-in-Chief Western Naval Command, Former Flag Officer Commanding-in-Chief Eastern Naval Command, and, Former Director General, Indian Coast Guard</i>
1625-1645	Tea Break	

PROFESSIONAL SESSION TWO (Duration: 2 h 55 m “Adaptive Strategies to Address the Impact of Climate Change upon Maritime Security” 1645-1940 (IST)		
Australia [IST+4.5] 2115-0010 on 28 Oct (Queensland); [IST + 5.5] 2215-0110 on 28 Oct (Canberra, Melbourne)]	B'desh [IST+ 0.5] 1715-2010	France, Germany, Malta [IST-3.5] 1315-1610
Israel, Kenya, Madagascar, Russia, KSA [IST-2.5] 1415-1710	Japan [IST+3.5] 2015-2310	Malaysia, Singapore, Philippines [IST+ 2.5] 1915-2210
Mauritius/ MUT [IST-1.5] 1515-1810	Sri Lanka, India 1645-1940	USA/Hawaii [IST-15.5] 0115-0410
UK [IST-4.5] 1215-1510	USA/EDT [IST-9.5] 0715-1010	
1645-1650 (5 min)	Introduction to the Session	EmCee (Satyam SHEKHAR)
1650-1710 (20 min)	Special Address	Admiral Sunil LANBA, PVSM, AVSM, IN (Retd) Chairman, National Maritime Foundation, New Delhi
1710-1720 (10 min)	Opening Remarks by Moderator	Dr Srikanta K Panigrahi Director-General and Distinguished Research Fellow Indian Institute of Sustainable Development (IISD) New Delhi, India
1720-1740 (20 min) Japan 2050-2110	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Professor Rajib SHAW Professor and Director India Japan Laboratory (IJL) Keio University, Fujisawa, Japan
1740-1800 (20 min) France 1410-1430	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Dr Nicolas REGAUD Director for International Development, Institut de Recherche Stratégique de l'Ecole Militaire (IRSEM), Paris, France
1800-1820 (20 min)	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Dr Pushp BAJAJ Research Fellow, National Maritime Foundation, New Delhi, India
1820-1840 (20 min)	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Professor (Dr) Dhanasree JAYARAM Department of Geopolitics & International Relations Manipal Academy of Higher Education (MAHE) Karnataka, India
1840-1900 (20 min)	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Dr Yugraj Singh YADAVA Director, Bay of Bengal Programme- Inter-Governmental Organisation (BOPP-IGO), Chennai, India
1900-1930 (30 min)	Audience Interaction	Moderated by Dr Srikanta K Panigrahi Director-General and Distinguished Research Fellow Indian Institute of Sustainable Development (IISD) New Delhi, India
1930-1940 (10 min)	Summative Remarks by Moderator	Dr Srikanta K Panigrahi Director-General and Distinguished Research Fellow Indian Institute of Sustainable Development (IISD) New Delhi, India

Day TWO : 28 October 2021		
DAY TWO: PROFESSIONAL SESSION THREE (Duration: 2 h 55 m)		
“Port-led Regional Maritime Connectivity and Development Strategies”		
0945-1240 (IST)		
Australia [IST+4.5] 1415-1710 (Queensland); [IST + 5.5] 1515-1810 (Canberra, Melbourne)	B'desh [IST+ 0.5] 1015-1310	France, Germany, Malta [IST-3.5] 0615-0910
Israel, Kenya, Madagascar, Russia, KSA [IST-2.5] 0715-1010	Japan [IST+3.5] 1315-1610	Malaysia, Singapore, Philippines [IST+ 2.5] 1215-1510
Mauritius/ MUT [IST-1.5] 0815-1110	Sri Lanka, India 0945-1240	USA/Hawaii [IST-15.5] 1815/27 Oct to 2110/27 Oct
UK [IST-4.5] 0515-0810	USA/EDT [IST-9.5] 0015-0310	
0945-0950 (5 min)	Introduction to the Session	EmCee (Satyam SHEKHAR)
0950-1010 (20 min)	Special Address	Admiral Jayanath COLOMBAGE , RSP, VSV, USP, SLN (Retd) <i>Former Commander of the Sri Lanka Navy</i> Secretary for Foreign Affairs to H.E. the President of Sri Lanka, Colombo, Sri Lanka
1010-1020 (10 min)	Opening Remarks by Moderator	Mr Subrat TRIPATHY , CEO Adani Ports & SEZ Ltd Ahmedabad, Gujarat, India
1020-1040 (20 min) Malaysia 1250-1310	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Cdr (Retd) ANG Chin Hup Centre Head, Maritime Economics and Industries Maritime Institute of Malaysia (MIMA) Kuala Lumpur, Malaysia
1040-1100 (20 min)	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Admiral Jayantha PERERA , RWP, VSV, USP, SLN, (Retd) <i>Former Commander of the Sri Lanka Navy</i>
1100-1120 (20 min) Australia 1630-1650	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Professor Colin F DUFFIELD Professor of Engineering Project Management, Deputy Head of Department (Academic), Dept. of Infrastructure Engineering, The University of Melbourne, Australia
1120-1140 (20 min) Japan 1450-1510	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Dr Tomonori YOSHIZAKI Professor and Director, Policy Simulation The National Institute of Defense Studies (NIDS) of the Ministry of Defense, Japan
1140-1200 (20 min) Bangladesh 1210-1230	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Rear Admiral M Khaled IQBAL, BSP, BN Vice Chancellor, Bangabandhu Sheikh Mujibur Rahman Maritime University, Bangladesh
1200-1230 (30 min)	Audience Interaction	Moderated by Mr Subrat TRIPATHY , CEO Adani Ports & SEZ Ltd, Ahmedabad, Gujarat, India
1230-1240 (10 min)	Summative Remarks by Moderator	Mr Subrat TRIPATHY , CEO Adani Ports & SEZ Ltd Ahmedabad, Gujarat, India
1240-1335	Lunch Break	

DAY TWO: PROFESSIONAL SESSION FOUR (Duration: 2 h 55 m) “Cooperative Maritime Domain Awareness (MDA) Strategies within the Indo-Pacific” 1335-1630 (IST)		
Australia [IST+4.5] 1805-2100 (Queensland); [IST + 5.5] 1905-2200 (Canberra, Melbourne)	B'desh [IST+ 0.5] 1405-1700	France, Germany, Malta [IST-3.5] 1005-1300
Israel, Kenya, Madagascar, Russia, KSA [IST-2.5] 1105-1400	Japan [IST+3.5] 1705-2000	Malaysia, Singapore, Philippines [IST+ 2.5] 1605-1900
Mauritius/ MUT [IST-1.5] 1205-1500	Sri Lanka, India 1335-1630	USA/Hawaii [IST-15.5] 2205/27 Oct to 0100/28 Oct
UK [IST-4.5] 0905-1200	USA/EDT [IST-9.5] 0405-0700	
1335-1340 (5 min)	Introduction to the Session	EmCee (Satyam SHEKHAR)
1340-1400 (20 min)	Special Address	Admiral Ravindra C WIJEGUNARATNE , WV, RWP & Bar, RSP, VSV, USP, NI(M), SLN (Retd) <i>Former Chief of Defence Staff of Sri Lanka Armed Forces</i>
1400-1410 (10 min) Bangladesh 1430-1440	Opening Remarks by Moderator	Rear Admiral M Lokmanur Rahman , NBP, NGP, BN <i>Former Chairman, Bangladesh Institute of Maritime Research And Development (BIMRAD)</i>
1410-1430 (20 min) Malta 1040-1100	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Mr Martin Cauchi-INGLOTT Project Director, EU CRIMARIO II Project (South Asia, South East Asia, & Indian Ocean Regions), Malta
1430-1450 (20 min)	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Rear Admiral KM RAMAKRISHNAN , VSM, IN Assistant Chief of the Naval Staff (Communication, Space, and Network-Centric Operations), Indian Navy, New Delhi
1450-1510 (20 min) Mauritius 1320-1340	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Mr Raj MOHABEER Officer in Charge, General Secretariat, Indian Ocean Commission (IOC), Ebène, Mauritius
1510-1530 (20 min) Madagascar 1240-1300	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Dr Navi RAMGOLAM International Liaison Officer (Mauritius) and Deputy Director-General, Regional Maritime Information Fusion Centre (RMIFC), Madagascar
1530-1550 (20 min) Singapore 1800-1820	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Lt Col LESTER Yong Jia Rong Head, Information Fusion Centre, Singapore
1550-1620 (30 min) Bangladesh 1620-1650	Audience Interaction	Moderated by Rear Admiral M Lokmanur Rahman , NBP, NGP, BN <i>Former Chairman, Bangladesh Institute of Maritime Research And Development (BIMRAD)</i>
1620-1630 (10 min) Bangladesh 1650-1700	Summative Remarks by Moderator	Rear Admiral M Lokmanur Rahman , NBP, NGP, BN <i>Former Chairman, Bangladesh Institute of Maritime Research And Development (BIMRAD)</i>
1630-1645 15 min	TEA BREAK	

DAY TWO: PROFESSIONAL SESSION FIVE (Duration: 2 h 55 m) “Impact of the Increasing Recourse to Lawfare upon a Rules-based Indo-Pacific Maritime Order” 1645-1940 (IST)		
Australia [IST+4.5] 2115-0010/29 Oct (Queensland); [IST + 5.5] 2215-0110/29 Oct (Canberra, Melbourne)	B'desh [IST+ 0.5] 1715-2010	France, Germany, Malta [IST-3.5] 1315-1610
Israel, Kenya, Madagascar, Russia, KSA [IST-2.5] 1415-1710	Japan [IST+3.5] 2015-2310	Malaysia, Singapore, Philippines [IST+ 2.5] 1915-2210
Mauritius/ MUT [IST-1.5] 1515-1810	Sri Lanka, India 1645-1940	USA/Hawaii [IST-15.5] 0115-00410
UK [IST-4.5] 1215-1510	USA/EDT [IST-9.5] 0715-1010	
1645-1650 (5 min)	Introduction to the Session	EmCee (Satyam SHEKHAR)
1650-1710 (20 min) USA 0720-0740	Special Address	Rear Admiral Michael McDEVITT , USN (Retd) Senior Fellow Center for Naval Analyses (CNA), Arlington, USA
1710-1720 (10 min) USA 0740-0750	Opening Remarks by Moderator	Professor James KRASKA , JD, SJD Chairman and Charles H Stockton Professor of International Maritime Law, Stockton Center for International Law, United States Naval War College
1720-1740 (20 min) Philippines 1950-2010	Panel Discussion <i>(15 min presentation followed by 5-min interaction with moderator. Alternatively, the moderator is free to club all 5-minute slots together)</i>	Undersecretary Admiral (Dr) Joel S Garcia , PCG (Retd), HD, Al-Haj Executive Director, National Coast Watch Council Secretariat, Republic of the Philippines
1740-1800 (20 min) Singapore 2010-2030	Panel Discussion <i>(15 min presentation followed by 5-min interaction with moderator. Alternatively, the moderator is free to club all 5-minute slots together)</i>	Ms Jane CHAN Git Yin Senior Fellow and Coordinator, Maritime Security Programme, Institute of Defence and Strategic Studies (IDSS), The S Rajaratnam Institute of Strategic Studies (RSiS), Singapore
1800-1820 (20 min) Germany 1430-1450	Panel Discussion <i>(15 min presentation followed by 5-min interaction with moderator. Alternatively, the moderator is free to club all 5-minute slots together)</i>	Dr Christian WIRTH Research Fellow GIGA Institute of Asian Studies Hamburg, Germany
1820-1840 (20 min)	Panel Discussion <i>(15 min presentation followed by 5-min interaction with moderator. Alternatively, the moderator is free to club all 5-minute slots together)</i>	Captain Sarabjeet Singh PARMAR , IN Executive Director, National Maritime Foundation, New Delhi, India
1840-1900 (20 min)	Panel Discussion <i>(15 min presentation followed by 5-min interaction with moderator. Alternatively, the moderator is free to club all 5-minute slots together)</i>	Dr DO Thanh Hai Deputy Chief of Mission Embassy of the Socialist Republic of Vietnam, New Delhi
1900-1930 (30 min) USA 0930-1000	Audience Interaction	Moderated by Professor James KRASKA , JD, SJD Chairman and Charles H Stockton Professor of International Maritime Law, Stockton Center for International Law, United States Naval War College
1930-1940 (10 min) USA 1000-1010	Summative Remarks by Moderator	Professor James KRASKA , JD, SJD Chairman and Charles H Stockton Professor of International Maritime Law, Stockton Center for International Law, United States Naval War College

Day THREE : 29 October 2021		
DAY THREE: PROFESSIONAL SESSION SIX (Duration: 2 h 55 m)		
“Strategies to Promote Regional Public-Private Maritime Partnerships”		
0915-1210 (IST)		
Australia [IST+4.5] 1345-1640 (Queensland); [IST + 5.5] 1445-1740 (Canberra, Melbourne)	B'desh [IST+ 0.5] 0945-1240	France, Germany, Malta [IST-3.5] 0545-0840
Israel, Kenya, Madagascar, Russia, KSA [IST-2.5] 0645-0940	Japan [IST+3.5] 1245-1540	Malaysia, Singapore, Philippines [IST+ 2.5] 1145-1440
Mauritius/ MUT [IST-1.5] 0745-1140	Sri Lanka, India 0915-1210	USA/Hawaii [IST-15.5] 1745/28 Oct to 2040/28 Oct
UK [IST-4.5] 0445-0740	USA/EDT [IST-9.5] 2345/28 Oct to 0240/29 Oct	
0915-0920 (5 min)	Introduction to the Session	EmCee (Satyam SHEKHAR)
0920-0940 (20 min)	Special Address	Admiral Rabinder Kumar DHOWAN, PVSM, AVSM, YSM, IN (Retd) Founder Chairman of the Society for Aerospace Maritime and Defence Studies (SAMDeS) <i>Former Chief of the Naval Staff, India</i> <i>Former Chairman, National Maritime Foundation</i>
0940-0950 (10 min)	Opening Remarks by Moderator	Vice Admiral Sandeep NAITHANI, AVSM, VSM, IN Chief of Materiel Integrated Headquarters of the Ministry of Defence (Navy), New Delhi
0950-1010 (20 min)	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Col Rajinder Singh BHATIA (Retd) President & CEO, Defence & Aerospace Bharat Forge Ltd, Pune, India
1010-1030 (20 min)	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	RAdm Vipin Kumar SAXENA, IN (Retd) Chairman & Managing Director, GRSE, Kolkata, India
1030-1050 (20 min) Australia 1500-1520	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Mr Mahadevan SHANKAR Director, Arzuh International Pty Ltd Queensland, Australia
1050-1110 (20 min)	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Mr Jayant D PATIL President, Society of Indian Defence Manufacturers (SIDM) & Senior Executive Vice-President & Whole-Time Director, Larsen & Toubro Ltd., Mumbai, India
1110-1130 (20 min) Japan 1440-1500	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Mr James ANGELUS President, International Security Industry Council (ISIC), Tokyo, Japan
1130-1200 (30 min)	Audience Interaction	Moderated by Vice Admiral Sandeep NAITHANI, AVSM, VSM, IN Chief of Materiel Integrated Headquarters of the Ministry of Defence (Navy), New Delhi
1200-1210 (10 min)	Summative Remarks by Moderator	Vice Admiral Sandeep NAITHANI, AVSM, VSM, IN Chief of Materiel Integrated Headquarters of the Ministry of Defence (Navy), New Delhi
1210-1255	LUNCH BREAK	

DAY THREE: PROFESSIONAL SESSION SEVEN (Duration: 2 h 55 m) “Strategies to Address the Manned-Unmanned Conundrum at Sea” 1255-1550 (IST)		
Australia [IST+4.5] 1725-2020 (Queensland); [IST + 5.5] 1825-2120 (Canberra, Melbourne)	B'desh [IST+ 0.5] 1325-1620	France, Germany, Malta [IST-3.5] 0925-1220
Israel, Kenya, Madagascar, Russia, KSA [IST-2.5] 1025-1320	Japan [IST+3.5] 1625-1920	Malaysia, Singapore, Philippines [IST+ 2.5] 1525-1820
Mauritius/ MUT [IST-1.5] 1125-1420	Sri Lanka, India 1255-1550	USA/Hawaii [IST-15.5]
UK [IST-4.5] 0825-1120	USA/EDT [IST-9.5] 0325-0620	2125 on 28 Oct to 0020 on 29 Oct
1255-1300 (5 min)	Introduction to the Session	EmCee (Satyam SHEKHAR)
1300-1320 (20 min)	Special Address	Vice Admiral Shekhar SINHA, PVSM, AVSM, NM & Bar, IN (Retd) Trustee, India Foundation <i>Former Flag Officer Commanding-in-Chief Western Naval Command</i> <i>Former Chief of Staff of Integrated Defence Staff</i>
1320-1330 (10 min)	Opening Remarks by Moderator	Rear Admiral Philipose George PYNUMOOTIL, AVSM, NM Flag Officer Goa Area (FOGA) & Flag Officer Naval Aviation (FONA) HQ Goa Naval Area, Goa
1330-1350 (20 min) USA (Hawaii) 2200-2220 on 28 Oct	Panel Discussion <i>(15 min presentation followed by 5-min interaction with moderator. Alternatively, the moderator is free to club all 5-minute slots together)</i>	Rear Admiral Pete GUMATAOTAO, USN (Retd) Director, Daniel K Inouye Asia-Pacific Center for Security Studies (DKI-APCSS) Honolulu, Hawaii
1350-1410 (20 min) Australia 1920-1940	Panel Discussion <i>(15 min presentation followed by 5-min interaction with moderator. Alternatively, the moderator is free to club all 5-minute slots together)</i>	Captain Sean ANDREWS, RAN Director, Sea Power Centre-Australia Canberra, Australia
1410-1430 (20 min)	Panel Discussion <i>(15 min presentation followed by 5-min interaction with moderator. Alternatively, the moderator is free to club all 5-minute slots together)</i>	Rear Admiral Surendra AHUJA, VSM, IN (Retd) Managing Director, Boeing Defense India (BDI) New Delhi
1430-1450 (20 min) Israel 1200-1220	Panel Discussion <i>(15 min presentation followed by 5-min interaction with moderator. Alternatively, the moderator is free to club all 5-minute slots together)</i>	Rear Admiral (Prof) Shaul CHOREV, Isr Navy (Retd) Head, HMS Maritime Policy and Strategy Research Centre (HMS), University of Haifa,
1450-1510 (20 min)	Audience Interaction	Moderated by Rear Admiral Philipose George PYNUMOOTIL, AVSM, NM Flag Officer Goa Area (FOGA) & Flag Officer Naval Aviation (FONA) HQ Goa Naval Area, Goa
1510-1540 (30 min)	Summative Remarks by Moderator	Rear Admiral Philipose George PYNUMOOTIL, AVSM, NM Flag Officer Goa Area (FOGA) & Flag Officer Naval Aviation (FONA) HQ Goa Naval Area, Goa
1540-1550 (10 min)	TEA BREAK	

DAY THREE: PROFESSIONAL SESSION EIGHT (Duration: 2 h 40 m) “Energy-Insecurity and Mitigating Strategies” 1550-1830 (IST)		
Australia [IST+4.5] 2020-2315 (Queensland); [IST + 5.5] 2120-0015/30 Oct (Canberra, Melbourne)	B'desh [IST+ 0.5] 1620-1915	France, Germany, Malta [IST-3.5] 1220-1515
Israel, Kenya, Madagascar, Russia, KSA [IST-2.5] 1320-1615	Japan [IST+3.5] 1920-2215	Malaysia, Singapore, Philippines [IST+ 2.5] 1820-2115
Mauritius/ MUT [IST-1.5] 1420-1715	Sri Lanka, India 1550-1845	USA/Hawaii [IST-15.5] 0020-0315
UK [IST-4.5] 1120-1415	USA/EDT [IST-9.5] 0620-0915	
1550-1555 (5 min)	Introduction to the Session	Emcee (Satyam SHEKHAR)
1555-1615 (20 min)	Special Address	Shri Hardeep S PURI Hon'ble Minister of Petroleum and Natural Gas Hon'ble Minister of Housing and Urban Affairs Government of India
1615-1625 (10 min)	Opening Remarks by Moderator	Vice Admiral Pradeep CHAUHAN, AVSM & Bar, VSM, IN (Retd) Director-General, National Maritime Foundation
1625-1645 (20 min) Japan 1955-2015	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Rear Admiral (Dr) Takuya SHIMODAIRA, JMSDF (Retd) Professor Graduate School of Project Design Nagoya, Japan
1645-1705 (20 min) Singapore 1915-1935	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Dr Christopher LEN Senior Research Fellow and Head of Publications Energy Studies Institute National University of Singapore (NUS) Singapore
1705-1725 (20 min)	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Dr Oliver Nelson GONSALVES Research Fellow National Maritime Foundation New Delhi
1725-1745 (20 min) Kenya 1455-1515	Panel Discussion (15 min presentation followed by 5-min interaction with moderator. <i>Alternatively, the moderator is free to club all 5-minute slots together</i>)	Dr Benard MUOK Centre for Research Innovation and Technology Jaramogi Oginga Odinga University of Science and Technology (JOUST), Kenya
1745-1815 (30 min)	Audience Interaction	Moderated by Vice Admiral Pradeep CHAUHAN, AVSM & Bar, VSM, IN (Retd) Director-General, National Maritime Foundation
1815-1825 (10 min)	Summative Remarks by Moderator	Vice Admiral Pradeep CHAUHAN, AVSM & Bar, VSM, IN (Retd) Director-General, National Maritime Foundation
1825-1830	SESSION BREAK	

DAY THREE: CLOSING SESSION (Duration: 35 min)		
1830-1905 (IST)		
Australia [IST+4.5] 2315-2350 (Queensland); [IST + 5.5] 0015-0050 (Canberra, Melbourne)	B'desh [IST+ 0.5] 1915-1950	France, Germany, Malta [IST-3.5] 1515-1550
Israel, Kenya, Madagascar, Russia, KSA [IST-2.5] 1615-1650	Japan [IST+3.5] 2215-2250	Malaysia, Singapore, Philippines [IST+ 2.5] 2115-2150
Mauritius/ MUT [IST-1.5] 1715-1750	Sri Lanka, India 1845-1920	USA/Hawaii [IST-15.5] 0315-0350
UK [IST-4.5] 1415-1450	USA/EDT [IST-9.5] 0915-0950	
1830-1835 (5 min)	Introduction to the Session and to the Speaker	EmCee (Satyam SHEKHAR)
1835-1855 (20 min)	Closing Address	Vice Admiral R Hari KUMAR , PVSM, AVSM, VSM Flag Officer Commanding-in-Chief,] Western Naval Command, Indian Navy
1855-1905 (10 min)	Vote of Thanks	Captain Sarabjeet Singh Parmar , Executive Director, National Maritime Foundation, New Delhi, India

SESSION-GUIDANCE NOTES

SESSION-GUIDANCE NOTES: PROFESSIONAL SESSION ONE

“Evolving Maritime-Strategies within the Indo-Pacific: Convergences, Divergences, Expectations and Apprehensions” (1330 to 1625 [IST] ON 27 OCTOBER 2021)

1. As the Indo-Pacific gains ever-greater centrality, the geoeconomic objectives and non-geoeconomic goals of a growing number of nation-States and collective entities are generating a dynamic range of geostrategies. These are being played out in temporal as well as spatial terms within the predominantly (but not exclusively) maritime expanse of the region. As might be expected, these geostrategies interact intensively and extensively with one another, sometimes resulting in effects that are predictable, and, at other times, leading to unintended consequences. Complicating the situation further is the manner in which the geostrategies of a given State or grouping of States is *perceived* by other entities. Perceptions, in fact, tend to play a disproportionate role in triggering pre-emptive as well as reactive actions. This is especially so, given that not all States or collective entities are particularly forthcoming about what their geoeconomic and non-geoeconomic goals are in the first place. This leads to a heady mix of competition, collaboration, competition, contestation, and even confrontation, within which each ‘player’ operates in furtherance of its own interests. A major player within the region is India. Consequently, it is important to explore how the Indian geostrategic formulations and their execution are being perceived, especially when juxtaposed against those of other players. This session seeks to explore what each of the eminent panellists perceives to be areas of convergence with India. Basically, this session seeks to elicit specific responses to five questions from the panellists:

- (a) What he/she **HOPES** “maritime-India” will do in the prevailing and expected geopolitical situation within the Indo-Pacific.
- (b) What he/she **EXPECTS** “maritime-India” to do in the prevailing and expected geopolitical situation within the Indo-Pacific.
- (c) What he/she hopes “maritime-India” will **NOT** do;
and then, based upon the three aforementioned assessments:
- (d) Which areas of practical **maritime-convergence** can be identified by him/her, and
- (e) Which areas of **potential or actual divergence** need to be guarded against.

SESSION-GUIDANCE NOTES: PROFESSIONAL SESSION TWO

“ADAPTIVE STRATEGIES TO ADDRESS THE IMPACT OF CLIMATE CHANGE UPON MARITIME SECURITY”

(1645-1940 (IST) ON 27 OCTOBER 2021)

1. Hot on the heels of the 2021 edition of the IPRD is the 26th United Nations Climate Change Conference, also known as COP 26, which is scheduled to be held in Glasgow, Scotland, between 31 October and 12 November 2021, under the presidency of the United Kingdom. As such, this session holds special significance.

2. In recent decades the threat posed by climate change to all forms of security has evolved from a distant problem solely of sporadic academic interest to an imminent one for governments and practitioners alike, worldwide. Sea-level rise (SLR), and the increasing frequency and intensity but decreasing path-predictability of extreme weather events including heatwaves, floods, tropical cyclones, and storm surges, are threatening the ways of life for billions of people on the planet. These impacts pose a significant and growing threat to India’s critical maritime infrastructure, as also to that of practically all countries of the Indo-Pacific.

3. The four broad climate-adaptation strategies — “Protection” (including both, hard protection and ecosystem-based adaptation), “Accommodation”, “Advance”, and “Retreat”, all have one common debilitating feature, especially in respect of extant (brownfield) maritime infrastructure — very high fiscal cost. For instance, the indicative cost¹ of future-proofing (adapting to sea level rise, rising storm surges, and other climate effects) of a major port such as Shanghai (China) is US\$ 400 to 650 million, and that of Gwangyang (South Korea) is US\$ 1.7 to 3.8 billion. Likewise, the projected cost (US\$ 1.5 billion) in respect of the 8.6 km-long Tuas port-terminal in Singapore is about 20% of the total cost of the project itself. In the US, the cost of building a sea wall is between US\$ 885 million and US\$ 2.36 billion *per kilometre* (km), while the cost of building dikes or levees to protect against one metre of SLR varies between US\$ 1.2 to 4.7 billion per km.

4. Given the wide variation in economic capacity and capability within the Indo-Pacific, this order of fiscal outlay is likely to be simply unaffordable. So, what then? Are moored floating wharves and jetties a solution? Does the solution lie in minimising quayside infrastructure such as cranes by proactively opting for Roll-On, Roll-Off (RORO) ships and cargo-handling? If so, what would be the cost of such a decision and what is to be done with the thousands of conventional merchant ships? Should the focus be, instead, on collective financing of adaptive approaches? Can this be done under the aegis of the Quad or extant ASEAN-led structures such as the ARF or the EAS? Or Indian Ocean ones such as IORA? Or should all this be left to

¹ Tom Rodgers, “Ports Face Challenging Calculations in Combatting Sea-level Rise”, Wärtsilä Group.
<https://www.wartsila.com/insights/article/ports-face-challenging-calculations-in-combatting-sea-level-rise>

the Bretton-Woods financial institutions or the newer Asia-centric ones? How should foreign policy be shaped in the face of existential threats generated by the adverse impact of climate-change? As we approach the realm of traditional (“hard”) security, we are confronted by a whole new but equally formidable range of climate-induced security-impacts. These include, amongst others, disputes over borders and boundaries (most especially concerning EEZs) as a result of new maritime transits and an ever more vigorous competition for new resources, strains on naval capabilities arising from preventive and curative ‘First Responder’ HADR (Humanitarian-Assistance and Disaster-Relief) missions, vulnerabilities of coastal installations of navies and coast guards themselves, demands for more intensive and extensive international maritime partnerships that sit uneasily with national missions and tasks, impacts on undersea operations as a result of changing patterns of salinity, not to mention impacts on the technical underpinnings that largely enable naval force capabilities, and so on. Are there cooperative solutions to these that might be devised by extant maritime-security structures such as the IONS or the WPNS? Should and could the QUAD play a meaningful role? What about smaller structures such as BIMSTEC or the Pacific Islands Forum? Or larger ones such as the EU or the Shanghai Cooperation Organisation (SCO)? How large a factor in all this is “trust”? Should this be concentrated upon in the first instance? Is there enough time left for us to proceed sequentially? Could we (or must we) proceed simultaneously, instead?

5. These are amongst the many questions that this eminent panel is expected to deliberate and explore. What we hope will *not* occur is a mere regurgitation of well-known basics and approaches that are so broad as to be largely bereft of real meaning.

SESSION-GUIDANCE NOTES: PROFESSIONAL SESSION THREE

“PORT-LED REGIONAL MARITIME CONNECTIVITY AND DEVELOPMENT STRATEGIES”

(0945-1240 [IST] ON 28 OCTOBER 2021)

1. Ports have a direct impact on international and domestic freight transportation as well as local and national economic and social development. A shortage of ports and/or port-capacity directly hinders international trade, prompting government-intervention in order to avoid such constraints. This endeavour (of unlocking or avoiding constraints) is generally progressed along two mutually-dependent pathways. One involves infrastructure-enhancement and/or development. The other concentrates upon increasing the efficiency of marine and inland operations, once again through infrastructure-enhancement, but additionally via service-innovation. The interdependence of these pathways is evident from the fact that competition between ports (and between terminals within ports) is a well-established driver of efficiency.
2. The fact that in an overwhelming number of cases, the land and the associated seabed are owned by the government, should, at least in principle, enable greater and easier facilitation of trade. However, this is not borne out by fiscal reality. Competing calls on the public budget mean that governments do not have the financial resources to spend, or, for that matter, even the inclination to commit available funds, in order to unlock capacity-constraints and to improve the efficiency of ports. Thus, it is not governments alone that are invested into port-development and port-led development. The profit motive creates a strong interest from the private sector to invest in the development of ports. Likewise, competition in the shipping industry, too, has an impact on port development with the shipping industry exerting pressure on ports to invest in order to accommodate vessels of ever-greater size. This brings also a wider dissemination of global best practices, hopefully leading to increased quality of service, improved efficiency of operations, and improvement in the allocation of public spending.
3. All this notwithstanding, it is nevertheless true that in most cases around the world, national governments are deeply involved, in one or another fashion, in the ports located within their respective jurisdiction. The degree of involvement could be manifested through a variety of models. For instance, at one end of the spectrum, a government might opt to function merely as a regulator of port activities and port-led ones. Alternatively, it might elect to function as both, regulator and landlord, with the development and operation of ports and terminals being let out to private or joint public-private entities. In other cases, a government could choose to directly own, regulate, and operate some or all the ports and/or terminals over which it enjoys jurisdiction.
4. However, no matter which model is adopted, there is a growing realisation that not only does enduring national economic and societal development depend upon the efficient functioning of an optimum number of ports of (albeit of varying size and specialisation), but that port-led development needs to be harmonized with the UN's Sustainable Development Goals (SDGs). The impacts of ports upon the environment is usually severe and invariably adverse.

Ports emit not only carbon dioxide but also a variety of other air-pollutants through the vessels that arrive in and depart from these ports and/or terminals, as also from cargo-handling equipment and vehicles, and related facilities. While on the one hand, port-centric industrial clusters improve efficiency, on the other they add significantly to coastal (and hence oceanic) pollution through the discharge of untreated sewage and industrial effluents, as also the dumping of a huge variety of plastic, toxins, and non-bio-degradable material. Moreover, port-led development must account for a range of adverse impacts of climate change, including, inter alia, sea-level rise, tropical revolving storms, intense uneven precipitation, storm-surges, human-driven coastal erosion. This requires greenfield ports and port-related infrastructure to be designed *ab initio* with resilience against climate-change as a major factor. Far more difficult and expensive is the augmentation of resilience into existing (brownfield) ports and port-related infrastructure.

5. At the regional level, port-led maritime connectivity incorporates a whole slew of options that need to be explored and evaluated for their beneficial or detrimental impact. These include, amongst others, major multimodal and/or transshipment projects such as the International North-South Transport Corridor (INSTC), the Asia Africa Growth Corridor (AAGC), projects under the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and those under the Master Plan on ASEAN Connectivity (MPAC), as also trilateral and bilateral connectivity projects such as the Vladivostok-Chennai Maritime Corridor, the India-Maldives-Sri Lanka connectivity project, and a range of Roll-On-Roll-Off (RoRo) models for Short-Sea Shipping connectivity. In particular, RoRo models, with their minimal requirement of quay-side infrastructure, need to be carefully explored in terms of the fulfilment (or non-fulfilment) of their enormous promise and potential.

6. Against the backdrop provided by the foregoing paragraphs, the broad aim of **Session Three** is to enable the sharing of sub-national, national, and regional perspectives of port-led development, with a view to identifying a specific set of “best practices” that can be shared across the region.

SESSION-GUIDANCE NOTES: PROFESSIONAL SESSION FOUR

“COOPERATIVE MARITIME DOMAIN AWARENESS (MDA) STRATEGIES WITHIN THE INDO-PACIFIC”

(1335-1630 [IST] ON 28 OCTOBER 2021)

1. Security at sea is, in contemporary times, threatened by a range of threats, both traditional and non-traditional. Although *holistic* maritime security, *per se*, has been quite unambiguously defined at India’s prime ministerial level as comprising freedom from threats arising ‘from-’ ‘through-’ or ‘in’ the sea, it is difficult to find an equally unequivocal internationally agreed definition. That said, it is globally acknowledged that maritime security has several interlinked dimensions, encompassing almost every facet of human endeavour in the maritime domain. As a consequence, Maritime Domain Awareness (MDA) — defined by the International Maritime Organisation (IMO) as “*the effective understanding of any activity associated with the maritime environment that could impact upon the security, safety, economy or environment*” — is widely accepted as being one of the key enablers of holistic maritime security.

2. The outcome document of the maiden high-level open debate in the UN Security Council, in August 2021, on “*Enhancing Maritime Security: A Case for International Cooperation*”, explicitly recognised the importance of enhancing international and regional cooperation to counter growing transnational threats to maritime security and safety. The Security Council further commended the efforts by individual countries, regional and sub-regional organisations to enhance maritime security, including through “*sharing information.*”

3. Ensuring freedom of navigation through the waters of the Indo-Pacific is increasingly being seen as a global imperative, with regional MDA being a key facilitator. Several nations have expressed their commitment to a free, open, prosperous, and rules-based order in the region through participative and collaborative approaches. Unsurprisingly, therefore, the region has witnessed an upsurge in MDA hubs and information-sharing centres. While on the one hand, this presents exciting opportunities for collaborations, on the other, the proliferation of such centres also brings attendant challenges. Answers to a number of fundamental questions concerning MDA still remain incomplete or absent altogether. How is trust in the process itself to be built across the region, several segments of which still harbour deep suspicions of MDA affording new garbs to cover exploitative colonial practices. The large economic disparity amongst nation-states of the region engenders a host of technological, structural and societal challenges. How ought these to be identified, collated, and addressed? There are a range of legal issues, too, even the acknowledgement and recognition of which is still nascent if not embryonic. How and by whom will these be explored? Are “suspicion-indicators” globally ubiquitous or do the significant variations in maritime traffic in different segments of the Indo-Pacific demand regional differentiators? If “slow steaming” is considered to be a suspicion indicator, how is this to be squared with climate-change-driven exhortations by the IMO for mercantile shipping to adopt slow steaming as a regular practice to reduce the carbon- and sulphide-footprint of the shipping industry as a whole? If “drifting” is a suspicion-indicator, will investigative effort be wasted on vessels that are routinely or periodically ‘tramping’ as opposed to those that are

'liners'? How should we ensure that the aggressive pushing of one type of 'backend' process does not end-up generating competition with other backend solutions in different Information Fusion Centres? Should we aim for a single 'centralised' backed-processing system or try and lay down standard protocols (as is the case with the internet)? In either case, who would do this and how?

4. It is everyone's case that cooperation and collaboration, at a fundamental level, needs to be driven by a spirit of trust and sensitivity amongst partners to each other's concerns. Yet, there are all these (and many more) questions, the answers to which can only be developed through regular, knowledgeable, and serious dialogue. In this regard, the IPRD presents a critically important platform. It is, therefore, important that the deliberations of this panel steer clear of mere affable restatements of generalities, but instead, meaningfully wrestle with as many challenges as is practicable. It is also important for the panel to identify specific and additional mechanisms and fora in and through which these issues can be afforded the detailed attention that they deserve.

SESSION-GUIDANCE NOTES: PROFESSIONAL SESSION FIVE

“Impact of the Increasing Recourse to Lawfare upon a Rules-based Indo-Pacific Maritime Order”

(1645-1940 [IST] ON 28 OCTOBER 2021)

1. Although a global consensus on what exactly lawfare denotes is yet to be achieved, available literature indicates that it was originally intended to have a neutral meaning as *“the use of legal maneuvering in lieu of armed force”*² or as *“a method of warfare where law is used as a means of realizing a military objective.”*³ Subsequent to the 9/11 terrorist attacks upon the USA, however, the meaning became narrower and lodged itself predominantly in the ‘security’ discourse as *“the imposition or manipulation of international legal standards to confine military means and operations and to limit State responses to terrorism and the use of force.”*⁴

2. With specific regard to developments within the South China Sea, lawfare is understood as a non-kinetic weapon wielded by China to use (or abuse) international law to further its own intent and to discredit, threaten, or defeat the efforts of States perceived as being opposed to it, and, in general, to limit their access to international justice. Lawfare also needs to be viewed against the backdrop of China’s three warfare strategies enumerated in the 2003 revision of the *“Political Work Guidelines of the People’s Liberation Army”*, incorporating public opinion, psychological warfare, and **legal warfare**.

3. China’s efforts to consciously misinterpret the provisions of the UNCLOS — such as changing maritime boundaries where and when it suits Beijing to do so — is a classic example of its practical applications of ‘legal warfare’. China appears to advance its lawfare via four steps. It first proclaims that it has the same rights as archipelagic states, completely glossing over the inconvenient fact that only 22 nations are legally recognised as archipelagic States and China is not one of them. It does so because this would allow it to treat the water between the islands that constitute such an ‘archipelago’ as internal waters thus allowing the State to prohibit the transit of other countries in them without permission. In the second step, it attempts to draw straight baselines around the Paracel islands, and consequently claims its waters to be a mix of China’s territorial sea and its internal waters. Although this has not been replicated in the Spratly islands, at least not officially, this is nevertheless being enforced as part of China’s State practice. As a third step, it claims a 12 nm breadth territorial sea from certain artificial islands that it has developed on well-known reefs in the Spratly group, ignoring the legally established fact that reefs generate no maritime zones at all. China thereafter volubly expresses outrage over foreign warships ‘violating’ this “territorial sea”. Even here, China altogether ignores the right of innocent passage. The fourth step builds on the first three in that China now promulgates a

² Orde Kittrie, *“Lawfare: Law as a Weapon of War”*, London: Oxford University Press, 2016, 162

³ Charles J Dunlap Jr, *“Law and Military Interventions: Preserving Humanitarian Values in 21st Century Conflicts”*, Carr Center of Human Rights, John F Kennedy School of Government, Harvard University, Working Paper, 2001

⁴ *Ibid*

200 nm Exclusive Economic Zone (EEZ) and seeks to regulate military activity within this legally unsustainable EEZ.

4. China buttresses its external manifestations of lawfare by domestic legislation, an example of which is the **Law on the Territorial Sea and the Contiguous Zone, 1992**, which defines the territorial sea as “waters adjacent to its territorial land” and explicitly lists islands of the South China Sea as its “territorial land”, and the 1998 **Law of the People's Republic of China on the Exclusive Economic Zone and Continental Shelf**, which claimed that each island in the SCS has an EEZ of its own.

5. How is all this to be responded to by countries in China's immediate proximity, as also by those that are not necessarily located within the South China Sea sub-region but who are expected to deliver fair and equitable public goods within the maritime domain by upholding freedom of navigation and a rules-based order at sea? In this panel, both categories of States are well represented. What we seek to receive are these very perceptions, and, perhaps even more significant, options that could be identified for the benefit States of the Indo-Pacific in dealing with this sort of lawfare.

SESSION-GUIDANCE NOTES: PROFESSIONAL SESSION SIX
“STRATEGIES TO PROMOTE REGIONAL PUBLIC-PRIVATE MARITIME
PARTNERSHIPS”

(0915-1210 (IST) ON 29 OCTOBER 2021)

1. Countries of the Indo-Pacific are actively seeking to evolve economic models that can support their endeavours to develop holistic maritime security (defined as freedom from threats arising ‘in’-, ‘from’- or ‘through’ the sea). Many of these countries still vividly recall the deprivations and depredations of colonialism and are inherently suspicious of the profit motive. As such, over a large swath of the region, governments have a jaundiced and frequently dismissive view of private business. Consequently, it is commonplace to find that security-related investments and maritime developmental activities in fields such as ports and shipping, shipbuilding, warship- and submarine-construction, deep-sea fishing, deep-seabed mining, and, exploration and production activities involving not merely oil and natural gas but also non-fossil-fuel energy options, have been the preserve of State-owned or State-controlled enterprises — in other words, the public sector. As a result, the public sector has, in many cases, developed a sense of entitlement insofar as the disbursement of public funds is concerned, while also developing an aversion for genuine competition. On the other hand, thanks to the protracted infusion of funds and organisational-support mechanisms, the public sector is a vast and rich storehouse of expertise and experience. Yet, all this having been said, there is also a growing understanding that the sheer pace of technology and technological disruptions is so high as to render solutions that emanate solely from the labyrinthine processes of decision-making that typify public-sector obsolete almost as soon as they are formulated. The private sector is, in many cases, recognised to be far more agile and speedy in its decision-making, and its perception-management and advertising skills are acknowledged as being far superior to those of the public sector. Still, for all its nimbleness, the private sector’s proclivity towards short-term profit is marked and its obsession with immediately-measurable ‘returns-on-investment’ often prevent it from being able to make long-term investments of the sort that are needed for national and regional maritime development. Moreover, private sector enterprises rarely invest the time, energy, and money required for the long-term development of their human resources, relying instead upon hiring (mostly laterally) from the available talent pool.

2. It hardly bears stating that none of the foregoing statements are uniformly true across the predominantly maritime expanse of the Indo-Pacific. In some areas, one encounters exceptionally dynamic and effervescent examples of the private sector at its best, while in others, the public sector is rendering public goods in the finest traditions of public service. Clearly, there is an optimal point at which the advantages of each of these models can best be aggregated while minimising their disadvantages. This is the ideal ‘public-private’ partnership. But what and where is this point? Is there some way of deriving a common optimal balance at a regional level? How much regulation (?) and by whom (?) is needed to ensure that this balance is sustained? Are there best practices that have been proven in one or another State, but are nevertheless capable of being extrapolated across the region or some parts of it at least? How are quality standards to be maintained across the region? Is the much-vaunted “Blue Dot” network a viable

solution or merely a flash in the pan? Would it be better to build on the G7's announcement of Build Back Better World (B3W)? Where does the Quad "Infrastructure Coordination Group" fit? Ought it to be a subset or a superset? Could successful public-private partnership models be promoted by sub-regional organisations such as BIMSTEC or the Indian Ocean Commission (IOC) or IORA? What sort of leadership role could the private sector in different States (most certainly including India) play? Is there a trust-deficit that needs to be addressed between public and private entities within a given State? Would this deficit be amplified as one moved from a single State to multiple ones? What metrics ought to be used to measure the success of such public-private partnerships?

3. These are amongst the many questions that this eminent panel is expected to deliberate and explore. What we hope will *not* occur is a mere regurgitation of well-known basics and approaches that are so broad as to be largely bereft of real meaning.

SESSION-GUIDANCE NOTES: PROFESSIONAL SESSION SEVEN
“STRATEGIES TO ADDRESS THE MANNED-UNMANNED CONUNDRUM AT
SEA”

(1255-1550 [IST] ON 29 OCTOBER 2021)

1. Advances in technology in terms of computer-driven digitalisation, robotics, nanotechnology, and, artificial intelligence, have, in combination offered actual and potential belligerent States with a solution to warfighting that is far less demanding in terms of human death and bodily harm than has hitherto been the case. The seductiveness of removing actual bloodshed from warfighting, at least in respect of one’s own forces, is very large, especially in areas of the world where individual human life has great intrinsic value. On the one hand, Lethal Autonomous Weapons Systems (LAWS) are now part of strategic guidance, not just in an increasing number of States of the Indo-Pacific but, reportedly, amongst non-State actors as well. As a result, they are being aggressively marketed by a number of private defence-manufacturers; and yet, there is a marked degree of discomfort, especially amongst military leaders (given their far more intimate understanding of the effects and impacts of human lethal combat) to blindly move into a combat regime that removes human ethical considerations (and hence humans themselves) from warfighting. There is, consequently, a need to grapple with the complexities of human deployments alongside AI-enabled, autonomous or semi-autonomous robots of one or another kind. This joint deployment-concept is often referred-to as Manned-Unmanned Teaming (MUM-T). The underlying assumption with MUM-Ts is centred upon the contention that keeping humans within the well-known “Observe, Orient, Decide, and Act” (OODA) loop is necessary in order to mitigate, on the one hand, ethical and legal issues with killer robots, and, on the other, to reduce extant technological and financial barriers to the widespread deployment of potentially-lethal autonomous systems.

2. MUM-T is recognised as being a key future-capability in the *maritime domain, which, importantly, implies not just the sea-surface, but also the aerospace medium above it and the water-column and seabed below it*. At one end of the scale are ongoing efforts to integrate unmanned systems in order to provide lethal, survivable and scalable effects in support of aircraft carrier centric operations. At the other, are small-team special operations. Within this wide range, a host of suitable missions and mission-areas are being developed, involving enhanced man-machine interfaces, complex autonomous behaviour, and resilient, protected networks. US-driven concepts such as Boeing’s MQ-25 Stingray aerial refuelling drone, whose genealogy goes back to the US Navy’s “Unmanned Carrier-Launched Airborne Surveillance and Strike” (UNCLASS) programme and the subsequent “Carrier-Based Aerial-Refuelling System” (CBARS) programme, offer a good example of the high-end of this range. As a practical, at-sea concept, this MUM-T draws in other major defence-players such as Northrop-Grumman, whose “E2-D Advanced Hawkeye” is a central feature of the operationalisation of the concept, as is the “F/A-18F Super Hornet” of McDonald Douglas.

3. However, as unmanned technologies pervade the world of surface and sub-surface combat, MUM-T is gaining traction in these realms as well. MUM-T concepts have already

embraced the quintessentially multi-dimensional nature of naval combat. For instance, it is quite possible to imagine a scenario in which a nuclear-powered submarine (SSN) of an advanced naval adversary is first detected by an underwater surveillance grid that is monitoring vessel movements in and out of the adversary's waters. As soon as the surveillance-grid detects the enemy-SSN, an unmanned underwater vehicle (UUV) — an underwater glider, perhaps — is *autonomously* detached from the local network to intercept the SSN. As the SSN passes, the UUV successfully attaches a tether to it and the SSN unknowingly begins pulling the UUV along. As the SSN dives below the UUV's operating depth, the UUV *autonomously* adjusts the tether to maintain its position close to the surface. Every three hours, it glides to the surface and transmits a low-power position report to an airborne long-endurance UAV, which directs a manned helicopter and anti-submarine surface-combatants to track, mark, and, when considered appropriate, prosecute the SSN.

4. Such MUM-T capacities and capabilities are being frenetically pursued by a number of maritime powers outside of the US as well. For instance, the *An Jian* (Dark Sword) has been the focus of a decade-long effort by China in this direction. Likewise, the “Sky Hawk”, which is one of China's state-of-the-art UAVs, reportedly features technology that allows it to communicate and collaborate with manned aircraft during surveillance and combat operations.

5. These developments generate a slew of questions that are germane to the Indo-Pacific. For instance, at a baseline-level of information, what is the current state-of-play in respect of MUM-T in the maritime domain (incorporating as has already been mentioned, not just the sea-surface, but also the aerospace medium above it and the water-column and seabed below it)? What experiences in terms of MUM-T can be shared so as to advance interoperability between partners and between allies? How would an ever-increasing reliance upon MUM-T affect “joint” and/or “combined” exercises by navies? Is doctrine keeping pace with technology? Can it? There are larger, geopolitical questions, too, in which academia, think-tanks and governmental (“Track-One”) structures can all weigh in to mutual advantage. For instance, in what manner will developments in MUM-T affect the visual clues that generate State-reactions to the presence (or absence) of maritime combat-platforms? What are the legal ramifications? Should the focus of fresh legislation and regulation be on nation-states or on multilateral treaties and conventions? What could, would, or should be the mechanisms by which the ethical issues of LAWS (Lethal Autonomous Weapon Systems) are mitigated by MUM-T? Is transparency possible and even if it is, is it desirable? What role could and should multinational corporations within the military-industrial complex of the Indo-Pacific as a whole play?

6. These are amongst the many questions that this eminent panel is expected to deliberate and explore. What we hope will *not* occur is a mere regurgitation of well-known basics and approaches that are so broad as to be largely bereft of real meaning.

SESSION-GUIDANCE NOTES: PROFESSIONAL SESSION EIGHT

“ENERGY-INSECURITY AND MITIGATING STRATEGIES”

1550-1845 (IST) ON 29 OCTOBER 2021)

1. Most countries within the Indo-Pacific, particularly those with rapidly growing economies, find it difficult to delink energy from their economic growth. Major producers of fossil-fuels, such as countries of West Asia and some parts of Africa (examples include Sudan/South Sudan, Nigeria and Angola) and South-east Asia (Indonesia, for instance) depend heavily for their economic wellbeing upon the export of oil and are extremely sensitive to the ‘fiscal breakeven price’ of oil and natural gas. On the other hand, major consumers, such as China, India, South Korea, and Japan, as also South Africa and, somewhat surprisingly, Kenya, have economies that are acutely dependent upon the import of a variety of forms of fossil-fuel energy, including coal, crude oil, natural gas.

2. Given the severity of their oil dependence, these major importers, particularly China, Japan, South Korea and India, all need to ensure three separate but interlinked facets of their import-driven, energy-based, economic wellbeing. The first is the need to ensure that the source-countries are, in and of themselves, socio-politically stable so that the import of oil from them can be assured over time. If periodic net assessments indicate that some socio-economic buttressing is required to ensure this socio-political stability, they must find ways and means by which this can be done at the lowest possible geopolitical cost. The second is the imperative of ensuring that the means of transportation of the oil from the source-ports to the final destination-ports are both safe and secure. Crude-oil pipelines notwithstanding, almost the entire import-quantum of crude-oil from the Persian Gulf area moves over the sea. This predicates an involvement in the safety and security of the ships carrying the crude oil. It must be remembered that safety and security, although often clubbed together, are very different problems with very different sets of possible solutions. And finally, it must be ensured that the sea-areas that these oil-laden ships must traverse, are themselves stable, safe, and secure. Thus, while China makes much of its Malacca dilemma (which is not a constraint limited to the Strait of Malacca alone, but includes the adjacent choke points of the Sunda-Bangka Strait and the Lombok-Makassar Strait), all four major oil-importers (China, India, Japan and South Korea) share a ‘Hormuz’-‘Bab-el-Mandeb’ nightmare. In fact, of all the geopolitical insecurities that must be wrestled-with by oil exporters and oil importers alike, energy insecurity is, arguably, the foremost one. How should this energy-insecurity best be addressed, especially since China has consistently been ignoring the behavioural norms that make for a rules-based order? Why is the Malacca dilemma, such as it is, felt quite so keenly by China but not by Japan and South Korea? Does the answer lie in State behaviour and, if so, how best might the requisite behavioural-change be induced? Does at least one mitigating-option to the geopolitical roil in the Persian Gulf lie in the Strait of Bab-el-Mandeb through which much of Nigerian crude must pass? If so, should countries of the Indo-Pacific involve themselves more vigorously in returning Yemen to a state of normalcy from the brink of the abyss upon which it is currently teetering? Should India? What about IONS? IORA? The Quad? Do Strategic Petroleum Reserves (SPR) offer another genuine mitigation-mechanism? Will floating storage (whether using ULCCs or

VLCCs), with its attendant exposure to offensive action by both, adversarial State-entities and malevolent non-State ones, render oil-importing States more secure or increase insecurity? Is a move towards natural gas a long-term answer or merely a bridging strategy at best?

3. With COP-26 only a few days away, there is a clear push to move decisively away from fossil-fuels as the primary source of energy (especially for the transport sector) and to move towards renewable energy. How will this be viewed by oil-producing nations of the Indo-Pacific whose own wellbeing depends upon oil-revenues? There is, undoubtedly, substantive political capital to be had by espousing a switch to electric-vehicles, as the way forward. However, where the transport sector is concerned, this will require a very substantial increase in the demand for cobalt (an element common to both, lithium-ion batteries and nickel-cadmium ones). Will this generate a fresh set of geopolitical manoeuvring by major powers, dragging in cobalt-rich countries such as the Democratic Republic of Congo (DRC)? Or will it provide such strong economic impetus for deep-seabed mining as to overcome environmental concerns to a point that renders the decisions of the COP and, indeed, the UN Sustainable Development Goals (SDGs) largely meaningless by transforming one apparent set of solutions into a causative-set of problems? Where, on the viability scale, does a hydrogen economy fit, and over what timeframe? Is it realistic to expect 'green' hydrogen to be produced from Ocean Renewable Energy Resources (ORER) at a scale that could support a national economy, and if so, over what timeframe?

4. These are amongst the many questions that this eminent panel is expected to deliberate and explore. What we hope will *not* occur is a mere regurgitation of well-known basics and approaches that are so broad as to be largely bereft of real meaning.