



Nimitz Research Group Warfare Innovation Workshop March 2022 Quick Look

This rapid concept generation workshop was held 21-24 March 2022 and included 60 participants working a design challenge on the NPS campus in Monterey and on the NPS “Virtual Campus” via ZoomGov.

Nimitz Research Group Design Challenge

How might U.S. Pacific Fleet preserve the balance of power and, if necessary, defeat a near peer adversary in the Western Pacific?

Four primary focus areas:

- 1) **Present combat power** – *How might activities such as exercises, tests, and demonstrations exhibit capability and capacity, actual and/or perceived?*
- 2) **Strengthen alliances** – *How might INDOPACOM improve cooperative efforts (bi-lateral and multi-lateral) with critical partner nation militaries in the western Pacific via policies, procedures, and technologies?*
- 3) **Improve posture** – *How might commanders array their forces in a way that presents an adversary with a formidable but confusing view of U.S. and Partner capability, capacity, and intent?*
- 4) **Integrate information operations** – *How might emerging technologies, activities, and new models of understanding “human system integration” enhance a combatant commander’s ability to shape the Information environment in order to compete with adversaries below the threshold of armed conflict?*

PROBLEM SET OWNER: U.S. Pacific Fleet

Event Description

The Naval Postgraduate School’s annual Warfare Innovation Workshop acts as an innovation engine, leveraging operationally-focused students and defense-oriented faculty at the Naval Postgraduate School (NPS) to address complex fleet issues – from technical to ethical and from concept-generation to experimentation. Small teams of early career professionals from the fleet, Navy labs, industry, and academia with diverse experience levels and perspectives spend three and a half days rapidly generating concepts of employment and evaluate risk within a future conflict scenario. Government, military, industry, and academic leaders vet these ideas before disseminating results back to Naval leadership.





Concepts Generated

Tasked to generate and develop concepts and capabilities in support of CPF's focus areas, the NRG WIW organized into three teams: 1) Allies & Partners (AP), 2) Combat Power and Posture (CPP), and 3) Operations in the Information Environment (OIE). Team AP explored opportunities to strengthen alliances and presented three named concepts. Team CPP considered various concepts to present combat power and improve the operational force posture and presented one overarching concept. Team OIE identified potential solutions to improve the integration of information operations and presented three concepts on the final day of the workshop.

Nimitz Research Group Workshop MARCH 2022

TEAM ALLIES & PARTNERS (AP):

Tech "Allow List": technologies to improve security that are immediately shareable with regional allies and partners.

Leverage U.S. Coast Guard: support larger role for USCG in building partnerships with nations in the region, and support industry partnerships.

Lend/Lease Program: to share with allies and partners U.S. assets that are in excess or about to be excessed.

TEAM COMBAT POWER & POSTURE (CPP):

Project Honeycomb: a collaboration tool to leverage lessons learned and micro innovations that could be applied at the macro resulting in innovative ideas "buzzing" to the surface for wider adoption.

TEAM OPERATIONS IN THE INFORMATION ENVIRONMENT (OIE):

Campaigning Forward in the Information Environment: increase the value of human capital through preparation such as early placement in-country of personnel during training.

Augmentation of Today's JTACs: Applying the model of joint terminal attack controller to the OIE, at the operational and tactical level of war.

Unit-level OIE Certification: Much like MEUs must be certified prior to humanitarian operations, ensure OIE certification prior to a deployment.

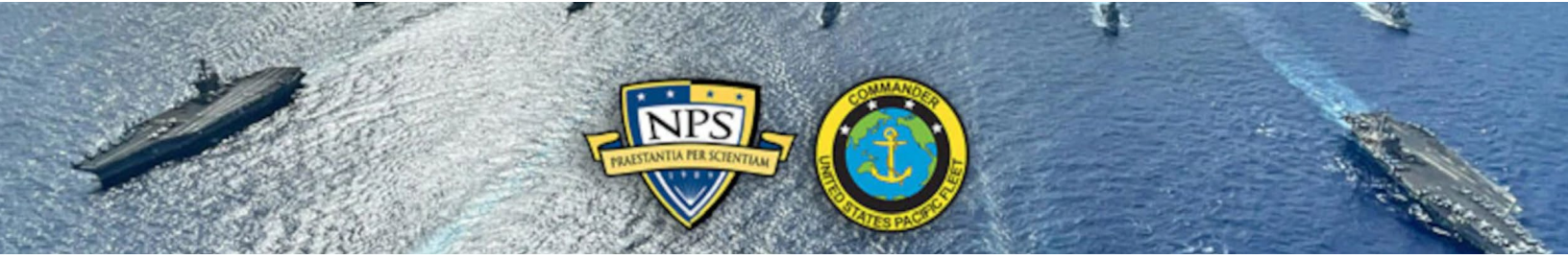
KEY TAKEAWAYS:

Allies and Partners are key – To advance a free and open Indo-Pacific that is more connected, prosperous, secure and resilient the U.S. must build collective capacity with allies and partners and with regional institutions.

Present combat power and improve posture now – To disrupt an adversary's decision cycle by demonstrating fleet warfighting capability, posture, and forward presence in any potential future conflict we must start now.

Keep pace with emerging digital technology to remain effective - Integrating emerging digital technology for future operations in the information environment is essential to ensure continued mission success.



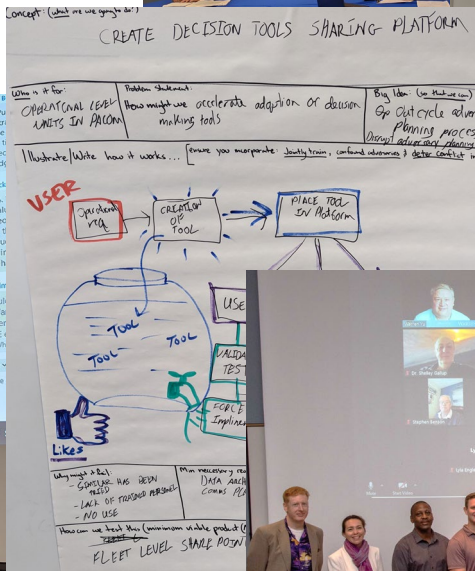


Next Steps

Three concept generation teams presented seven concepts generated over two days of focused work on the design challenge presented to the **Nimitz Research Group** in this NPS NWSI Warfare Innovation Workshop. In this hybrid workshop held concurrently on both the NPS campus in Monterey and the NPS "Virtual Campus" via ZoomGov, 60 active participants from NPS, industry, OPNAV, civilian academia, the Fleet, systems commands, and international participants from Indonesia and Australia were facilitated through the problem space. Concept generation teams composed of NPS students, civilian engineers, and researchers with diverse perspectives addressed issues related to future force design to maximize mission capabilities. Equal in significance to the concept outcomes was the opportunity to build and grow networks between NPS students and faculty, warfare center personnel, and industry engineers.

Three Discovery Panels included speakers from across NPS, the warfare centers, industry, and allied partner nations. We hope these presentations and the conversations they inspired will carry on well after the workshop experience. Our next step will be to synthesize all the concepts provided by the teams into a final report for distribution to our own researchers and NWSI stakeholders. This report will inform the new **NWSI Nimitz Research Group**, and will influence NPS theses and capstone projects, research topics, and experimentation.

A full final report will be available by the end of May 2022.
Email nwsi@nps.edu





Plenary Schedule

MONDAY, 21 MARCH 2022

9:00 AM - 10:00 AM

Welcome & Tasking

An introduction to the process and tasking for the NWSI Nimitz Research Group Warfare Innovation Workshop by Ms. Lyla Englehorn, NWSI Concepts Branch Lead.

KEYNOTE ADDRESS

RADM Michael E. Boyle USN, PACFLEET Director Maritime Operations

10:30 AM - 12:00 PM

DISCOVERY PANEL: Competition & Conflict

Competition and Potential Conflict in the South China Sea: *the military and geopolitical perspectives*

CAPT Jeff Kline USN (ret), NPS Operations Research

Dr. Christopher Twomey, NPS National Security Affairs

MODERATOR: Dr. Michael Malley, NPS National Security Affairs

1:00 PM – 2:30 PM

DISCOVERY PANEL: Issues & Constraints

Global Commerce & Supply Chain Issues & Constraints to Consider: *the acquisition, industry, and partner nation perspective*

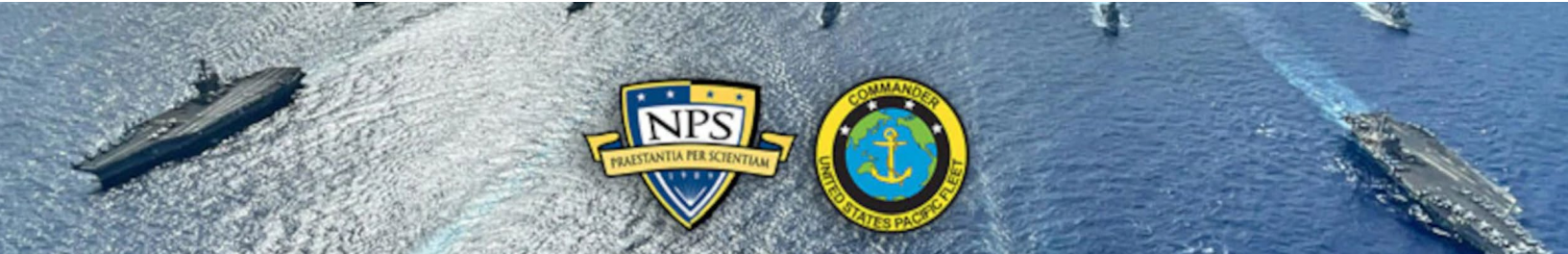
Ms. Rana Foroohar, Financial Times Global Business Columnist & Associate Editor

Mr. Glen Sears USN, Lockheed Martin Rotary & Mission Systems

Mr. Frank Kelley, Defense Acquisition University Vice President

LCDR Stephen Delo, Royal Australian Navy

MODERATOR: VADM David Lewis USN (ret), NPS Acquisition Chair and NWSI Director (Acting)



Plenary Schedule

TUESDAY, 22 MARCH 2022

9:00 AM - 10:30 AM

DISCOVERY PANEL: Information Operations Integration
Integrating Operations in the Information Environment through Emerging Digital Technologies: *the technology perspective.*
The Cloud: Mr. Paul Puckett, US Army Enterprise Cloud Management Agency Director
Web3 and DAO: the emerging digital infrastructure: Dr. Victor Fang, AnChain.AI CEO & Co-Founder
Digital Tech: CPT Jay Long USA, Modern War Institute Fellow
Decision Theory / ML: Dr. A. Mustafa Canan, NPS Information Sciences
MODERATOR: LTC Kelly McCoy USA, NPS Strategy Chair

WEDNESDAY, 23 MARCH 2022

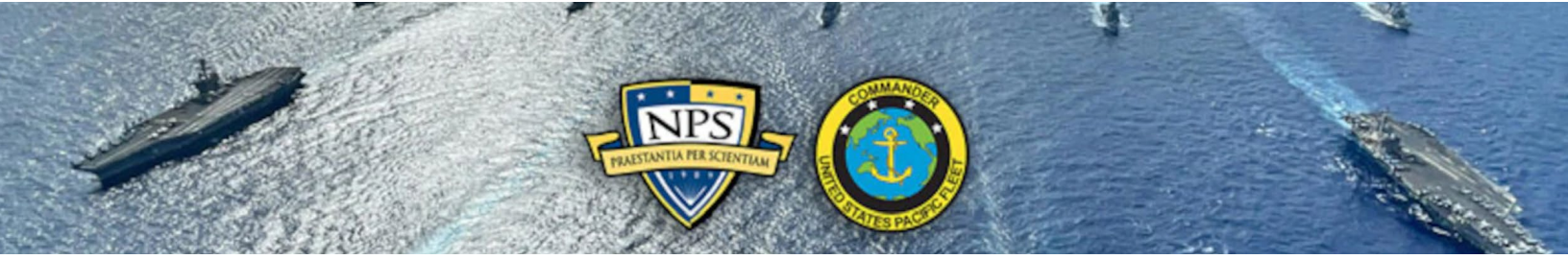
9:00 AM - 10:00 AM

NWSI Nimitz Research Group
An overview of the Naval Warfare Studies Institute, the Nimitz Research Group, and a discussion of future plans.

THURSDAY, 24 MARCH 2022

9:00 AM - 11:30 AM

FINAL CONCEPT PRESENTATIONS
The teams working the four design challenges will present their final concepts for feedback.



About Us – NWSI Concepts Branch



The Concepts Branch of the Wayne P. Hughes, Jr. Naval Warfare Studies Institute (NWSI) is responsible for warfighting concept generation and development activities across the named NWSI Research Group and Task Force topic areas, and across the NPS campus. The primary Concept Branch activities are rapid concept generation workshops scheduled throughout the year to maximize availability of NPS students. Each workshop is an innovation engine leveraging the primary strength of NPS – *operational experienced students and defense-oriented faculty* – to address complex fleet issues and discover opportunities available through emerging technologies via facilitated rapid concept generation using tools of user-centered design.



A decade of rapid concept generation at NPS!

- MAR 2011 Future Unmanned Naval Systems Wargame Competition
- SEP 2011 Revolutionary Concepts from Evolutionary UxS
- SEP 2012 Advancing the Design of Undersea Warfare
- MAR 2013 Undersea Superiority 2050
- SEP 2013 Distributing Naval Air and Surface Force Capabilities
- SEP 2014 Warfighting in the Contested Littorals
- SEP 2015 Creating Asymmetric Warfighting Advantages
- SEP 2016 Developing Autonomy to Strengthen Naval Power
- SEP 2017 Distributed Maritime Operations
- SEP 2018 Cross-Domain Operations
- SEP 2019 Logistics in Contested Environments
- SEP 2020 Resurrecting War Plan Blue
- SEP 2021 Hybrid Force 2045
- NOV 2021 Maritime Gray Zones
- FEB 2022 Strategic Deterrence
- MAR 2022 Nimitz Research Group
- SEP 2022 *Topic will be announced soon!!*



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