



ONR Global Command Brief

19 Sep 18

CAPT Borghardt

ACCELERATING TO THE NAVY & MARINE CORPS AFTER NEXT

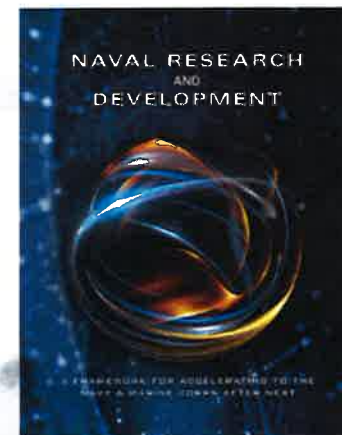
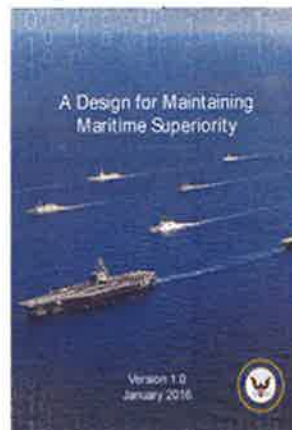
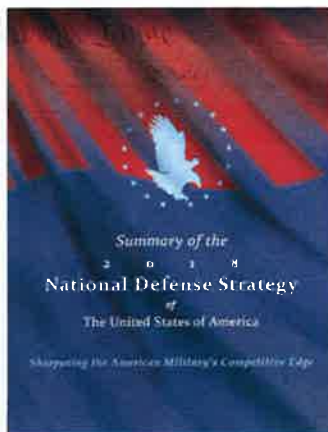


ONR Global Overview

ONR Global Mission

To serve as the preeminent external network facilitator for the Naval Research Enterprise (NRE) by ensuring:

- Quality/relevant connections between the international research and development community, naval fleet/forces, Naval capability development, and our international partners.
- To remain always focused on the current and future needs of our Sailors, Marines, and international partners.





Mission: To serve as the preeminent external network facilitator for the Naval Research Enterprise

"...plan, foster and encourage scientific research in recognition of its paramount importance as related to the maintenance of future naval power, and the preservation of national security..."



Fleet and Force



Capability Development



NRE

Integrated Research Portfolios



U.S. NAVAL RESEARCH LABORATORY



Science Advisors

TechSolutions

Experimentation/Analysis

Foreign Comparative Testing

International Engagement

Science Directors



International Research Community



International Naval Partnerships



ONR Global History



1946 – **ONR London Office** created to survey, assess, and report on European S&T

1974 – **ONR Tokyo Office** opened to liaise and assess Asian S&T activities

1977 – London and Tokyo combine to form the **ONR International Field Office (IFO)** to implement integrated DoN S&T strategy for fostering international collaboration

2000 – Tokyo Office expands its presence with a **Singapore** detachment

2002 – IFO opens **Santiago Office**

2003 – Naval Fleet/Force Technology Innovation Office and IFO merged to form **Office of Naval Research Global**

2006 – ONRG opens **Singapore Office**

2009 – DNS designates ONRG an **Echelon II Command** reporting to CNR

2010 – **ONR Global Prague** opens

2015 – **ONR Global São Paulo** opens

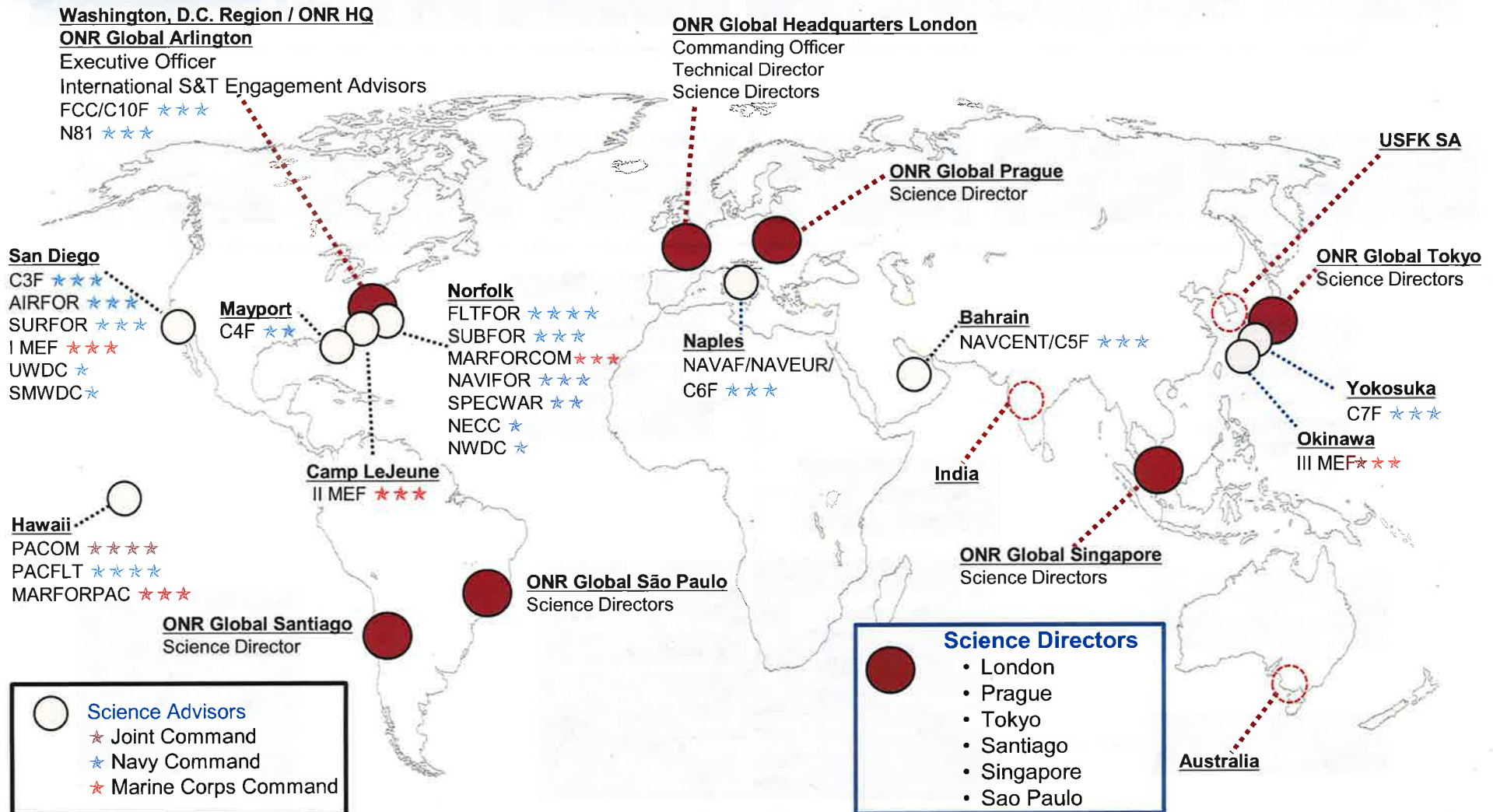
2018 – Experimentation/Analysis, TechSolutions, Senior National Representative (Navy) and Foreign Comparative Testing are aligned under ONR Global





ONR Global's Network

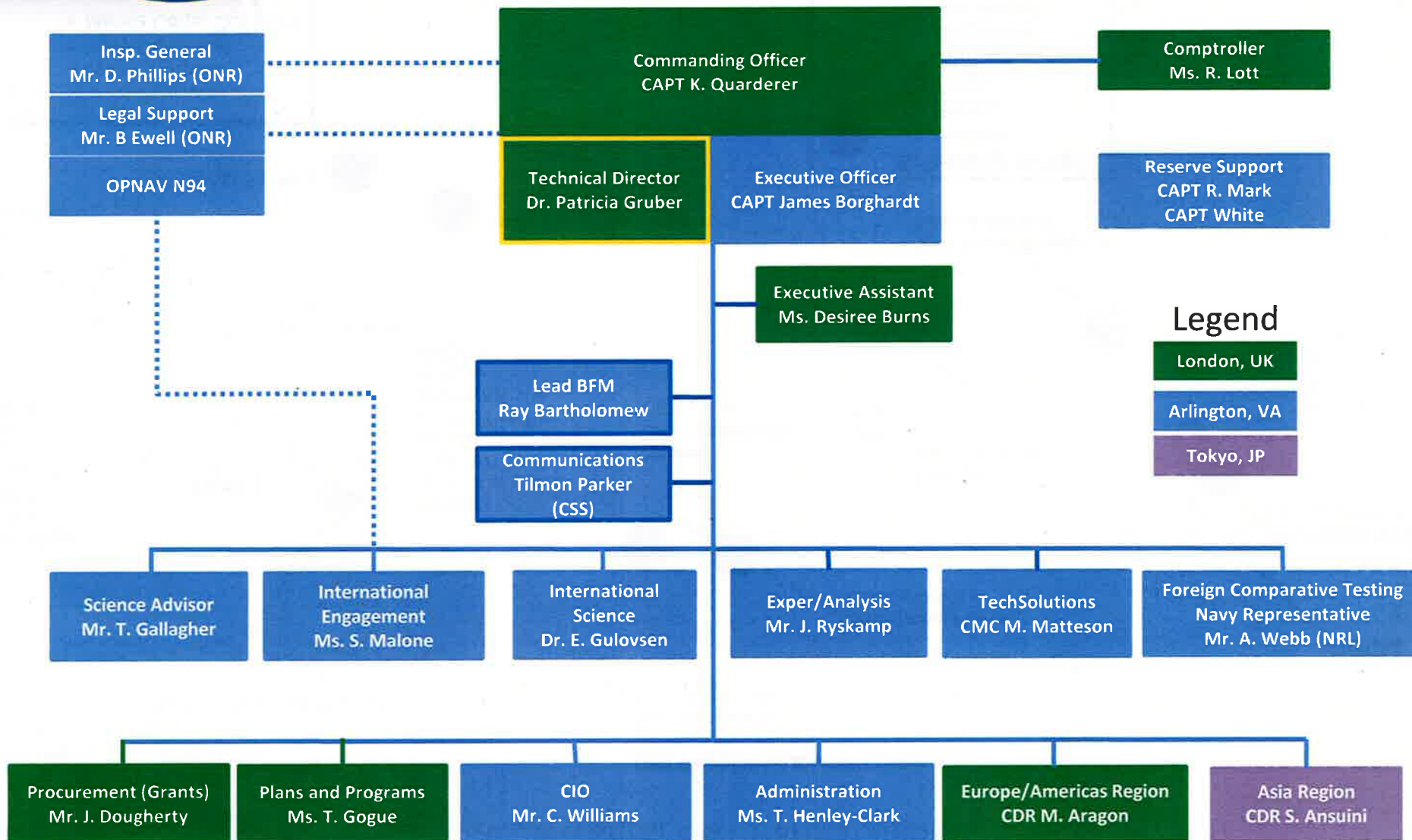
Accelerating S&T Partnerships



***NRE's Bridge to the International S&T Community and Naval Fleet / Force;
 R&D Engagements Globally***



ONRG Top Level Organization

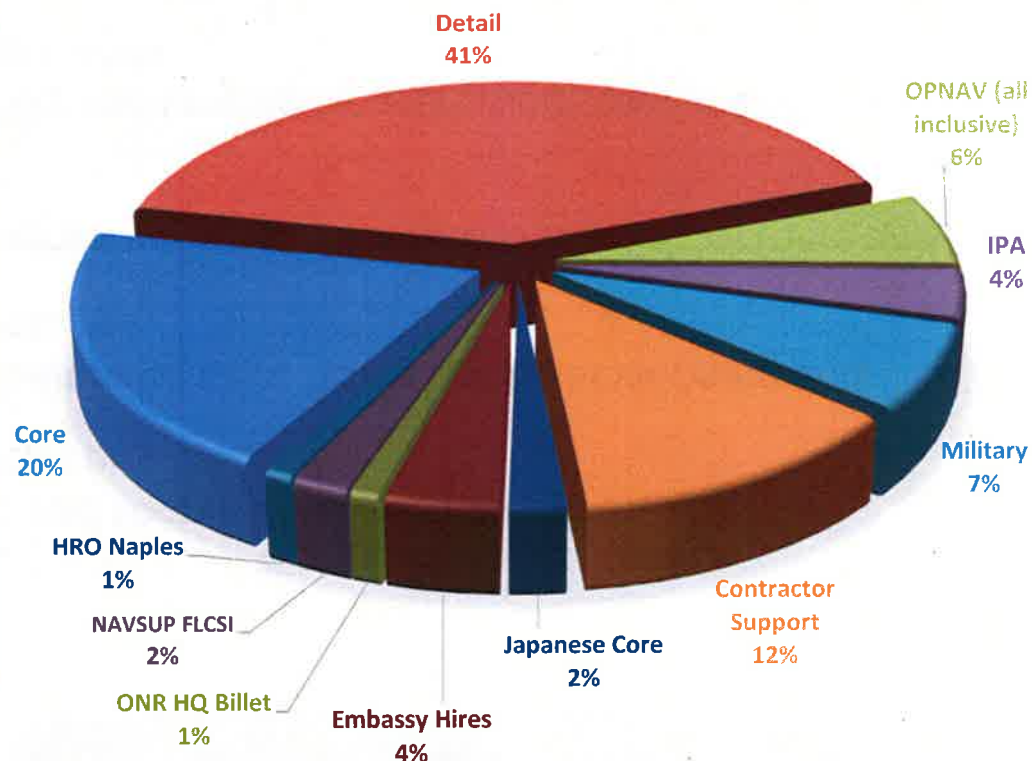




A Diverse Team

ONR GLOBAL WORKFORCE

Category	Current	Rqmnt	Delta
Core	23	25	-2
Detail	41	44	-3
OPNAV (all inclusive)	6	6	0
IPA	4	8	-4
Military	7	6	1
Contractor Support	12	12	0
Japanese Core	2	2	0
Embassy Hires	4	5	-1
ONR HQ Billet	1	1	0
NAVSUP FLCSI	2	3	-1
HRO Naples	1	1	0
	103	113	-10



People are the Key to Our Success!



ONR Global Objectives

Enable the technology advantage of the Naval warfighter through external facilitation

- **Provide connection to the Fleet and Forces** to respond to needs, align NRE investments and create technology pull
- **Accelerate the delivery of capability** and drive down risk by developing and demonstrating prototype technologies
- **Facilitate dynamic, productive agreements** between international partners and the NR&DE
- **Preserve Naval Power** by fostering and leveraging promising science and monitoring emerging technology trends



ONR Global Technical Functions

Science Advisors

Embedded in Navy and Marine Corps staffs to connect the warfighter and the Naval Research & Development Establishment



Science Directors

Finding and connecting the best science back to the Naval Research Enterprise from six offices worldwide



International Engagement

Developing and maintaining Naval military to military research & development relationships





ONR Global Technical Functions

Experimentation/ Ops Analysis

Provides the opportunity to explore new technology capability limitations, develop operational concept possibilities and analyze science and technology applications in support of the Fleet/Force.



TechSolutions

TechSolutions develops and delivers prototype technology based on needs submitted directly by Sailors and Marines by linking the warfighters with the Naval Research and Development Establishment for rapid response prototyping.



Foreign Comparative Testing

Identification and testing of foreign developed defense capabilities and technologies to provide enhanced platform, systems and warfighter lethality, effectiveness, readiness/sustainment and protection.





International Science Tools

Liaison Visits

- ONRG technical staff attend international events and visit international institutions to develop access and discover cutting edge S&T

Grant tools

Visiting Scientist Program (VSP)

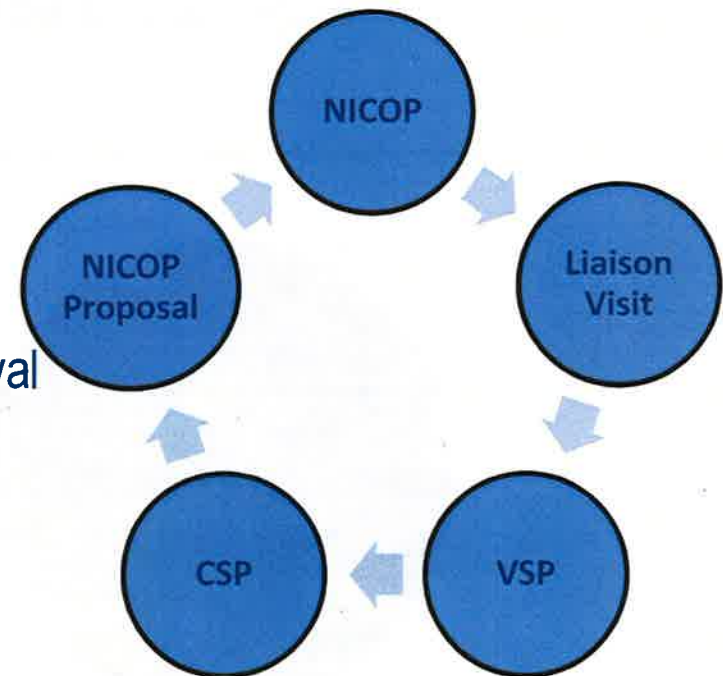
- Support travel of foreign scientists to the US to socialize new S&T ideas or findings with the Naval Research Enterprise

Collaborative Science Program (CSP)

- Support foreign or international workshops and conferences of Naval interest

Naval International Cooperative Opportunities Programs (NICOP)

- Support connection of innovative, international S&T to ONR programs and US PIs



Small early investments can lead to significant results



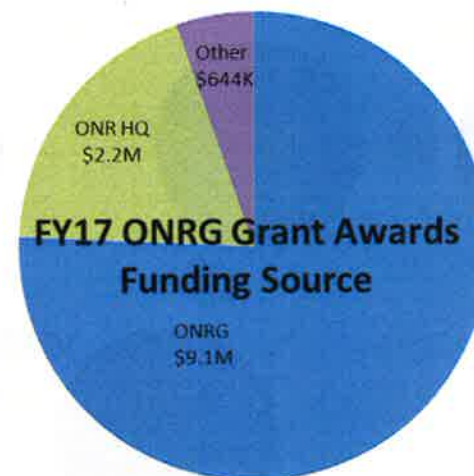
FY17 International Science Tools

Globally Dispersed



FY17 Grants (236 total)

Grant Collaboration



FY17 Grant Tools Metrics

- Total Funding	\$12M (\$9.1M ONR Global)
- Total Countries	41
- Grants (Conference + Research)	236
- Visiting Scientist Program	47
- Total	283



Recent Accomplishments

- Science Directors
 - Synthetic Biology GTA
 - NRL-ONR-U Sao Paulo
- Science Advisors
 - S&T Integrated Priorities List
 - POST Conference
 - Prioritized Future Naval Capability (FNC) for C03 and Investment Steering Committee (ISC)
- Tech Solutions
 - 4-8 projects per year
- Experimentation and Analysis
 - HVP at RIMPAC
 - Explosive affects on ships
- Foreign Comparative Testing
 - 16 FY19 nominations
 - 5 funded in FY18 (out cycle)
- International Engagement
 - Bilateral relationships
 - Multilateral relationships
 - NATO



Priorities/Challenges

Priorities

- Articulate connective tissue
 - To Fleet and Force
 - To Capability Development
 - To International Science
 - To International Partners
- Global tech awareness
- Workload assessment (IG)

Challenges

- Ech II vs ONR department
- Knowledge management
 - Articulate/visualize to align
 - Improve connectivity
- Resource allocation
 - Viscosity differential (rates)
 - Balance of agility AND consistency
- International science <1% of NRE 6.1/6.2 budget



Questions?



Points of Contact

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Science Directors

Act as a tech broker linking ONR, NRL, and the NRE with International S&T

Identify disruptive S&T in order to avoid Naval technical surprise

Gain enhanced awareness of S&T through direct, regular contact with international colleagues

Initiate and manage grants to provide tangible links between foreign scientists and their US Naval counterparts

Provide ONR forward presence with global innovators and technologists



Naval Research Enterprise's Global S&T Scouts!



Science Advisors

Articulate Fleet Force S&T needs and requirements to ONR, NRL, NR&DE

Communicate Command issues to CNR, ONR leadership and Program Officers

Serve as ONR on site rep during Fleet Force exercises and demonstrations

Lead S&T planning & experimentation processes to focus on meeting critical needs, then assist in transition of key technologies to the Warfighter



Aligning Naval Research Enterprise to the Fleet/Force!



TechSolutions

Requests input directly from Sailors on the deckplate and Marines in the field

Links warfighters with the Naval Research & Development Establishment (NR&DE) for prototype development

Pulls S&T ideas from the fleet and force for development, rather than pushing technology

Rapidly develops a prototype and demonstrates the solution in an operational context



Fleet/Force's Conduit to the Naval Research Enterprise!



Operational Analysis looks at alternatives and options to develop or apply to S&T projects

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Accelerating Naval Research Enterprise's Capability Development!



Foreign Comparative Testing

Supports the warfighter by leveraging non-developing items of allied and friendly nations to satisfy U.S. defense requirements more quickly and economically

Connects Foreign Technologies to Department of the Navy Development and Acquisition Programs

Increases U.S. Warfighting capabilities, while providing significant cost savings resulting in positive ROI

Accelerates fielding technologies an Average of 2 - 4 Years vice starting a new US defense R&D program

Provides friends and allies an opportunity to market their defense products to the U.S., while improving Cooperation and the "2-Way Street"



Accelerating Naval Research Enterprise's Capability Development!



International Engagement

Serve as the action officer to coordinate & manage government to government S&T partnerships

Engage with US Program Officers and foreign defense organizations to identify & develop collaborative projects that solve Naval capability gaps

Interface throughout ONR & NRL; NR&DE

Gain exposure across the S&T portfolio

Connect across USG (OPNAV, NIPO, AF/Army/DARPA, OSD, DOS, OSTP, etc)



Naval Research Enterprise's International Partnership Builders!