



AFRL

Air Force Office of Scientific Research Asian Office of Aerospace R&D, Australia Site (AOARD-M)

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AOARD-M Site Chief
DSTG-AFRL Liaison

Dr. Geoff Andersen

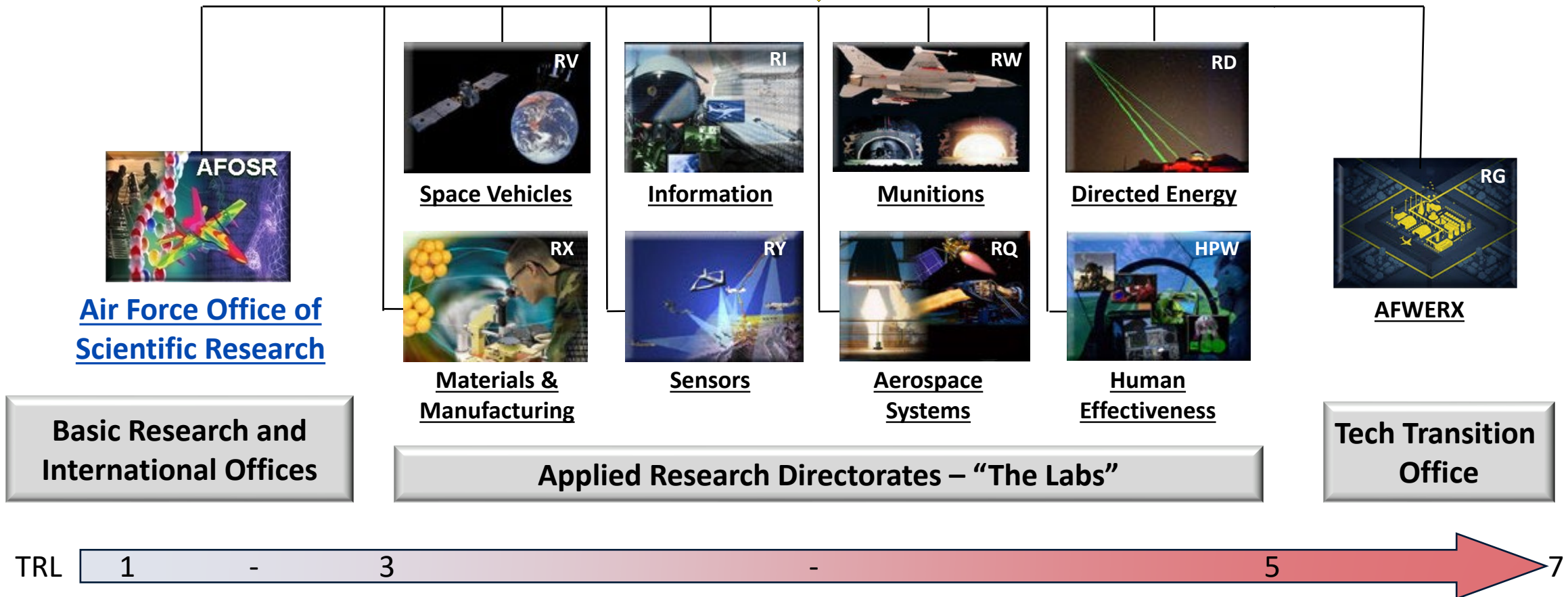
AOARD-M Research Director



US Air Force Research Laboratory



One Lab, Two Services (USAF/USSF)



AFOSR International Offices at a Glance



Europe (EOARD) & IO HQ
London, UK



Asia (AOARD)
Tokyo, Japan



South America (SOARD)
Santiago, Chile
Sao Paulo, Brazil

...and now Australia!

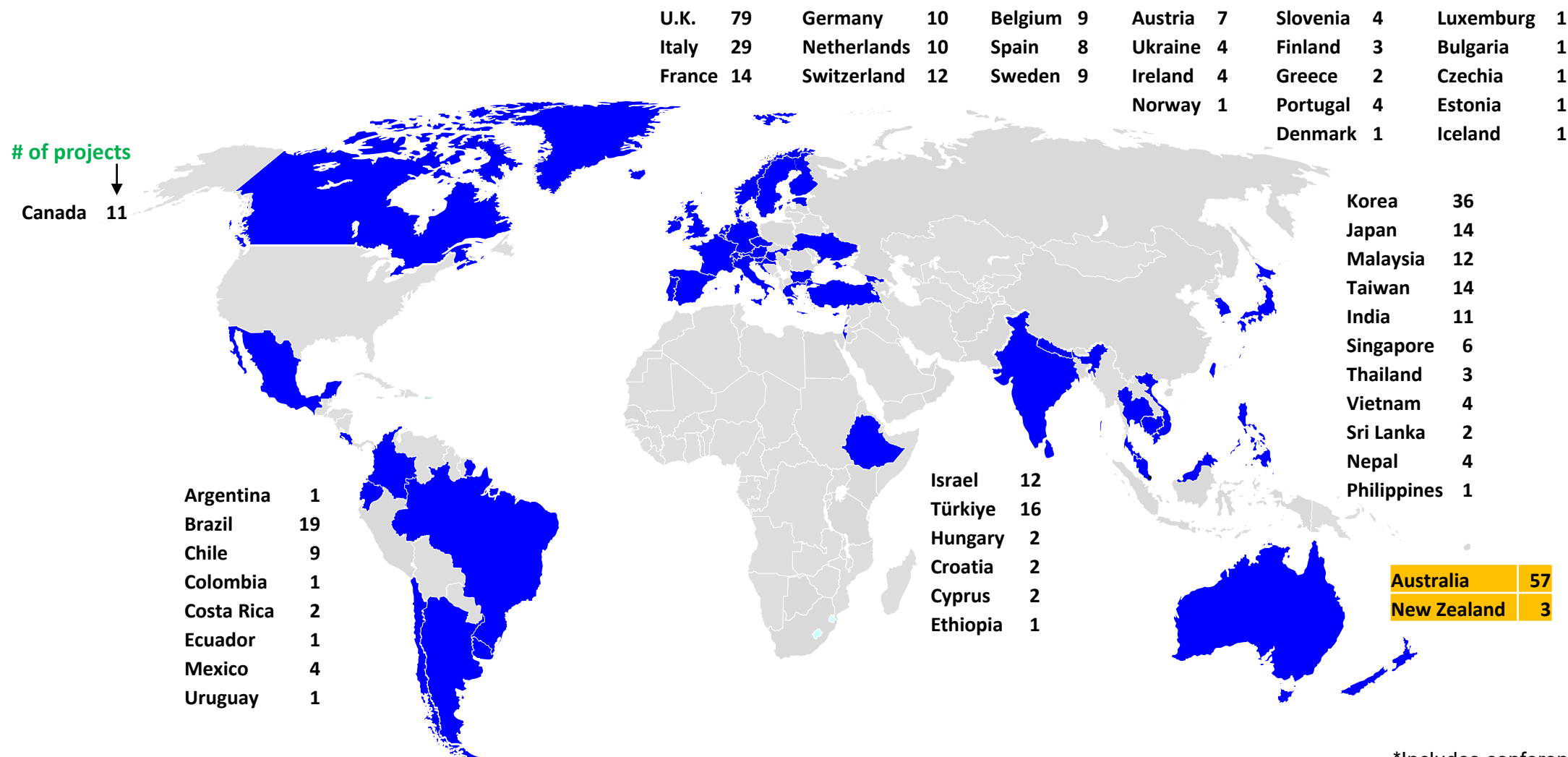


AOARD-Melbourne (Wurundjeri land)
- a satellite office to Tokyo

We provide the US Air Force and Space Force awareness of, engagement with, and relationships to overseas basic research



International Basic Research Projects* - 51 Countries, 250 Institutions, 470 Projects



*Includes conferences



AOARD-Melbourne

Our office mission: Enhance basic science engagements with Aus scientific community

- Seeking out collaborations, agreements, partnerships, information exchanges
- Research grants, Conferences/Workshops, Researcher exchanges
- Lab liaison between AFRL & Australian Defense Science & Tech Group (DSTG)



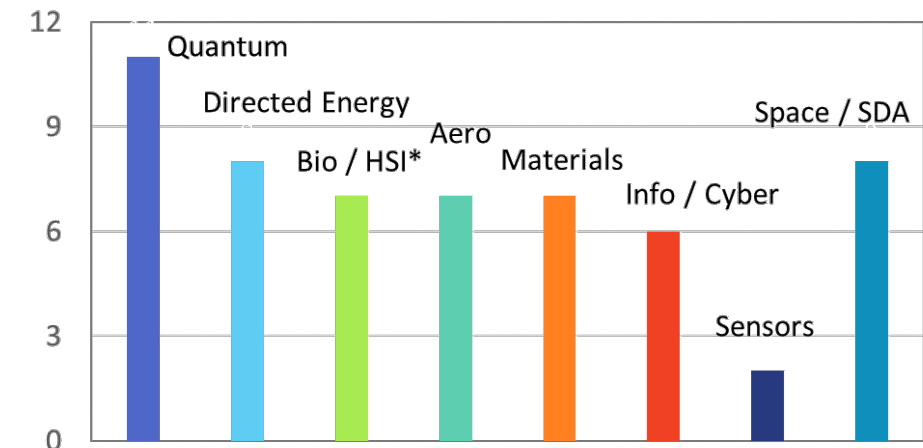
Current engagements

- Active grants: 57 in Australia, 3 in New Zealand, 19 institutions
 - 3 in NZ: V. U. Wellington, U Auckland, U Canterbury

Logistics

- 2-Person office on-site at DSTG, Fishermans Bend
 - Lt. Col. David Newell, Chief
 - Dr. Geoff Andersen, Technical Director

Active grants by discipline



*HSI: Human Systems Integration



Tools

Site visits, conference attendance

- Assess research state-of-the-art, identify rising stars and unique capabilities
- Discuss possible projects and teaming arrangements

Research grants*

- Funding for investigations through Broad Agency Announcements (BAAs)

Conferences/Workshops*

- Support for international meetings on focus areas of mutual interest.

Exchanges*

- Support researchers traveling to or from US labs or research centers (WOS, WOW, ESEP, ISEP)

* AFOSR funding can only go towards non-Gov. & not-for-profit entities



Broad Agency Announcements (BAAs)

- The primary funding vehicle for research grants and support salaries, equipment / materials, travel and overhead
- Open call can be found on Grants.gov: [FA9550-23-S-0001](#)
- Grants are strictly non-governmental and non-profit (universities, foundations, schools etc)
- Typically \$100-150k/yr for 2-3 years
 - No guarantee of funding beyond Yr1 (cancellation is rare)
- Preference given to collaborative efforts and multi-discipline, -national, -organization
- We can cost-share with Army or Navy for projects of mutual interest
- Deliverables are yearly/annual report to us and/or publications in public venue
 - Intellectual Property belongs to the researchers

What makes for a promising proposal?

- High risk, high reward
 - Transformational / revolutionary **not** incremental / evolutionary
 - Not simply applying AI/ML/LLM or high-power computing at a known problem
- Not being done in US...or at least a very different approach
- Dovetails, or directly collaborates with, an existing AFRL/AFOSR program
 - AFOSR: Try to align with interests of a particular program (see BAA)
 - AFRL: Consider a fundamental study that can help with an existing applied effort
- Possible ties to DSTG
- Follow-on grants with same PI are not encouraged unless:
 - Original work showed a lot of promise but didn't quite get to payoff
 - A completely new line of effort is proposed
- For extremely speculative work we may consider 1-yr “seedling” to investigate potential
- We can also share with our Navy/Army partners to gauge their interest

Think:



...not:





AFOSR Portfolios (HQ)*

Engineering & Information Science (RTA)		Physical & Biological Sciences (RTB)	
Engineering & Complex Systems	Information & Networks	Physical Sciences	Chemistry & Biological Sciences
Multi-scale Multifunctional Structures and Systems	Computational Cognition & Machine Intelligence	Condensed Matter Physics	Molecular Dynamics and Theoretical Chemistry
Unsteady Aerodynamics & Turbulent Flows	Mathematical Optimization	Space Sciences	Natural Materials and Systems
Agile Science for Test and Evaluation	Information Assurance and Cybersecurity	Physics of Sensing	Mechanics of Multifunctional Materials & Microsystems
Energy, Combustion and Non-Equilibrium Thermodynamics	Trust & Influence	Quantum Information Science	Organic Materials Chemistry
GHz-THz Electronics	Computational Mathematics	Electromagnetics	Biophysics
Dynamic Materials & Interactions	Complex Networks	Aerospace Materials for Extreme Environments	Human Performance and Biosystems
Propulsion & Power	Information Computation, Learning & Fusion	Atomic & Molecular Physics	Life Sciences for Space
Aerospace Composite Materials	Dynamic Data and Information Processing	High Energy Radiation-Matter Systems (HERMeS)	
High-Speed Aerodynamics	Dynamic Systems and Control Theory	Optoelectronics & Photonics	
	Cognitive and Computational Neurosciences	Ultrashort Pulse Laser-Matter Interactions	
		Astrodynamics	

* See BAA for more details on each

Conferences

- Funding to support venue expenses, publicity materials, speaker & student participation
 - University & non-profits but not government
- Cannot support entertainment, salaries & indirect expenses
- May be for an entire conference or simply a session within larger meeting
- Open call can be found on Grants.gov: [BAA-AFRL-AFOSR-2016-0008](#)
- **Allow no less than 3 months lead time**



Exchanges

Windows on Science (WOS)

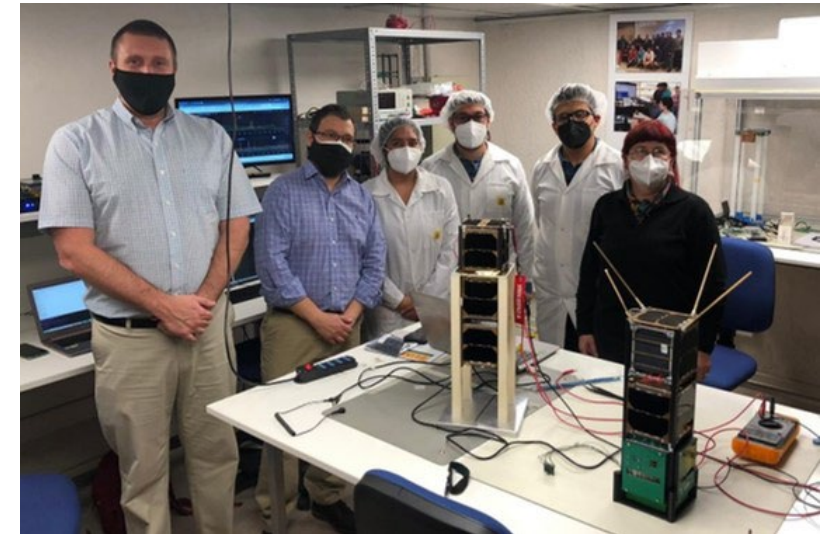
- Support for Australian (non-government) researchers to travel to US to visit AFRL researcher / lab
 - Few days to a week and can visit multiple locations
 - We cover meals, lodging & transport
- Apply through email request direct to our office (me)
 - **Must apply >60 days in advance of travel**

Windows on the World (WOW)

- Support for US government researchers to travel to Aus lab
 - 3 weeks to 6 months

International Student Exchange Program (ISEP)

- Support student of AFOSR-funded Australian PI to visit US researcher / laboratory
 - 3 weeks to 6 months





What now?

Send us an email with 1-2 paragraphs of your idea(s)

- If it looks promising, we will ask for more detail in a white paper



Send a white paper

- We'll get an internal technical review and assess funding availability
- ***This is a dialogue – we may ask if you are willing to consider an alternate line of investigation***
- It's good to nail down the funding here, especially with regards to institutional overhead
- If it looks good here, we will ask for a full proposal



Submit a full proposal

- Work with your business office to submit in grants.gov
- We also have some paperwork on our side before it goes to Contracting



Wait. Typically around 2-3 months before signed award



For more information check out:



Questions?



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U.S. ARMY COMBAT CAPABILITIES DEVELOPMENT COMMAND

International Technology Center - IndoPacific

15 JULY 2024

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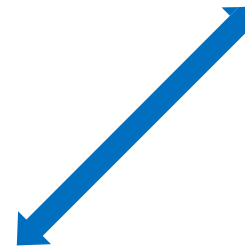
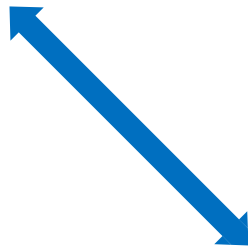
ITC INDO-PACIFIC MISSION & GOALS



ENGAGE with Indo-Pacific universities, companies, and institutions



LEARN the Indo-Pacific S&T Enterprise

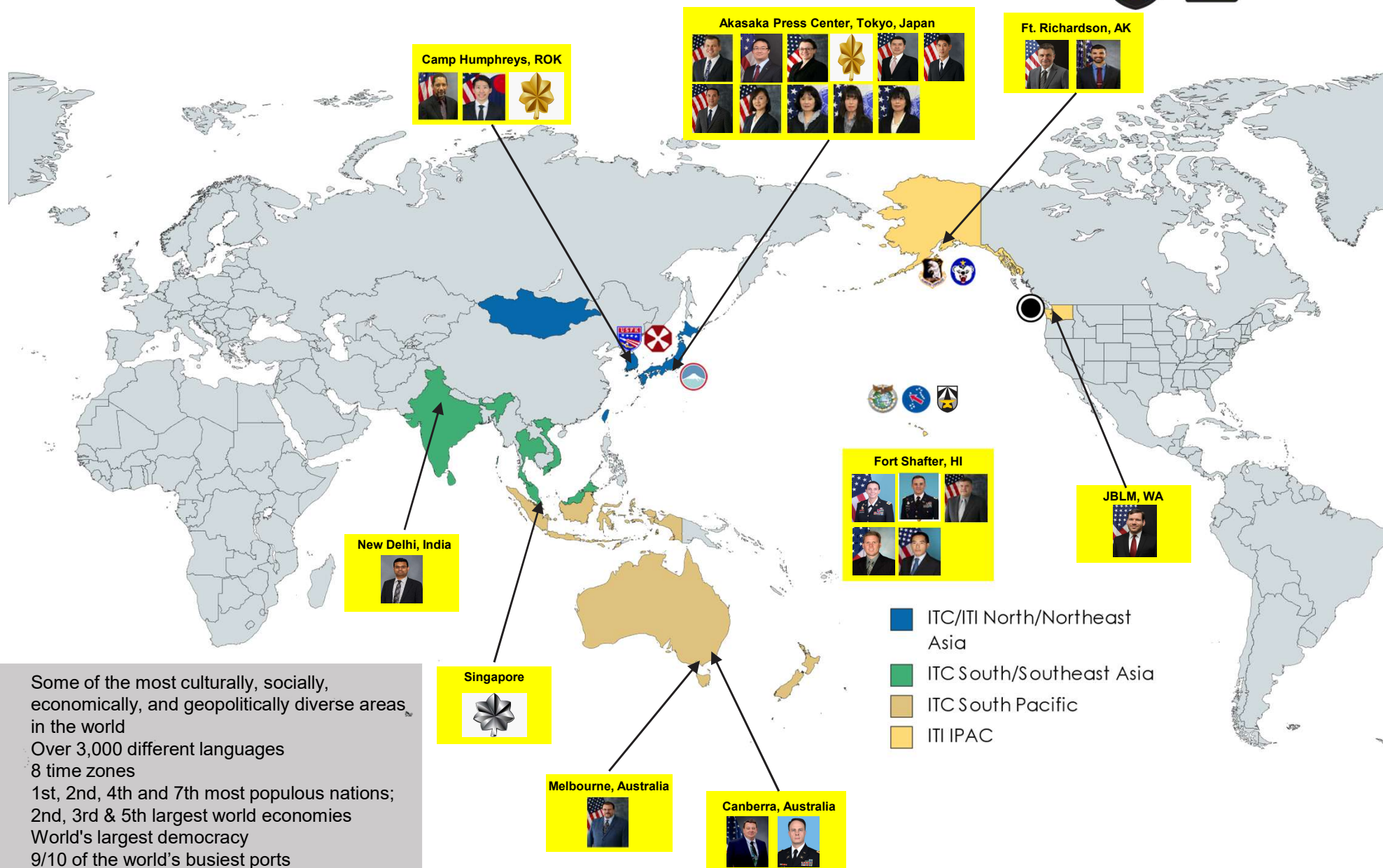


FOSTER Indo-Pacific S&T projects aligned with Army priorities

Examples:

- Scouting for cutting edge international research
- Highlighting collaboration opportunities to the Army Enterprise
- Identifying and funding technology assessments
- Providing information on foreign companies, & academic institutions

INDO-PACIFIC AREA OF OPERATIONS



- Some of the most culturally, socially, economically, and geopolitically diverse areas in the world
- Over 3,000 different languages
- 8 time zones
- 1st, 2nd, 4th and 7th most populous nations; 2nd, 3rd & 5th largest world economies
- World's largest democracy
- 9/10 of the world's busiest ports
- 5/10 largest standing militaries
- 3 nuclear nations
- 2/3 of the world's oil transits the South China Sea

FUNDING OPPORTUNITIES



BASIC RESEARCH SEED PROJECTS

- Topic Areas: Align to an Army priority research area with US Army S&T customer co-funding
- Rolling Submission
- General Process:
 - Concepts Submission (1 paragraph, 3 sentences)
 - Whitepaper (2-page technical writeup with 2-page application)
 - Full Proposal (Technical Proposal no more than 20 pages)
- Project Duration: Up to 5-year effort
- Funding Amount: \$20K-\$500K USD per project (total)

INTELLECTUAL PROPERTY



- **Who retains the Intellectual Property rights?**
 - You, the researcher, and/or University/Research institute
 - The proposal should identify any sensitive or intellectual property restrictions
- **What does the U.S. Government get from the research?**
 - Government Purpose Rights (non-exclusive/non-commercial use of the IP)
 - International research collaboration
 - New relationships with top researchers in key areas to support U.S. Government priorities and strategies
- **Can the Results be Published?**
 - DEVCOM Indo-Pacific encourages sharing of your results in an open, peer-reviewed journal, magazine, or other publication
 - The U.S. Government scientists can collaborate throughout the research activities to co-author publications with you

FUNDING OPPORTUNITIES CONTINUED



SCIENTIFIC CONFERENCE/TECHNICAL WORKSHOP SPONSORSHIP

- Funding Amount: \$3K-\$15K USD per event
 - Money cannot be spent on food, drinks, alcohol
 - Money could be spent on student travel, subject matter expert travel, student stipends to help with conference / workshop, IT support (conference website, abstract book), room reservations, etc.

LIAISON VISIT SUPPORT

- Fund travel for a foreign scientist to a U.S. lab/center or US DoD conference for a collaboration visit or guest lecture

FUNDING OPPORTUNITIES CONTINUED



FOREIGN TECHNOLOGY ASSESSMENT SUPPORT (FTAS)

- Foreign academia or industry provides laboratory prototype/samples/software to a U.S. Army lab/center for evaluation of novel capabilities
- Supports technology at any stage of development
- Funding Amount: up to \$150K USD, 1 year

THANK YOU.

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Office of Naval Research Global Overview

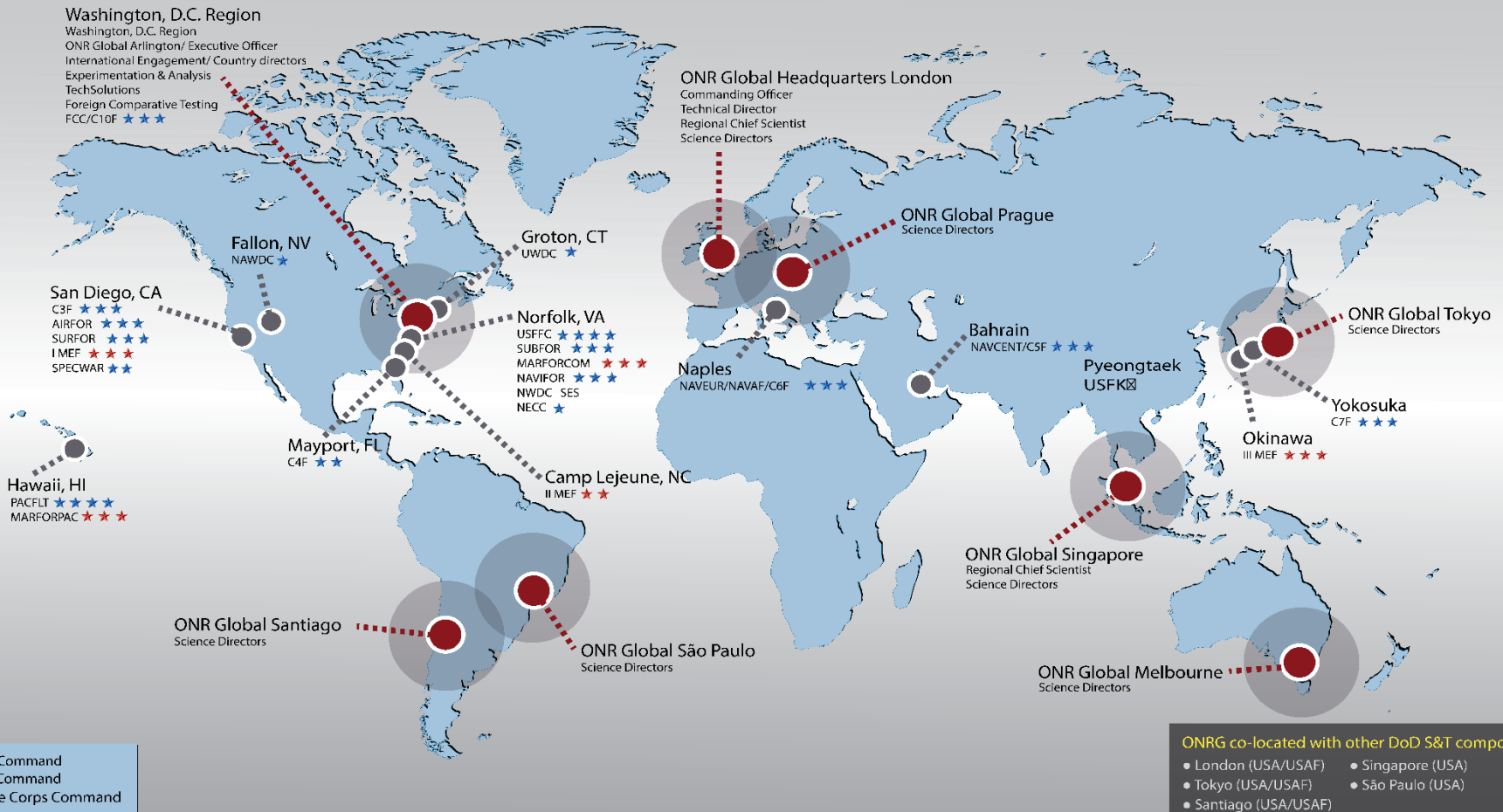


Dr. Clint Novotny
Science Director – Melbourne

Countries: Australia, New Zealand



ONR Global Invests in Trusted Partnerships and is Present around the Globe



70% of personnel deployed overseas or outside HQ



Collaboration 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

Research Grants

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

GlobalX

- Seek potentially game-changing multidisciplinary technology concepts from international research teams



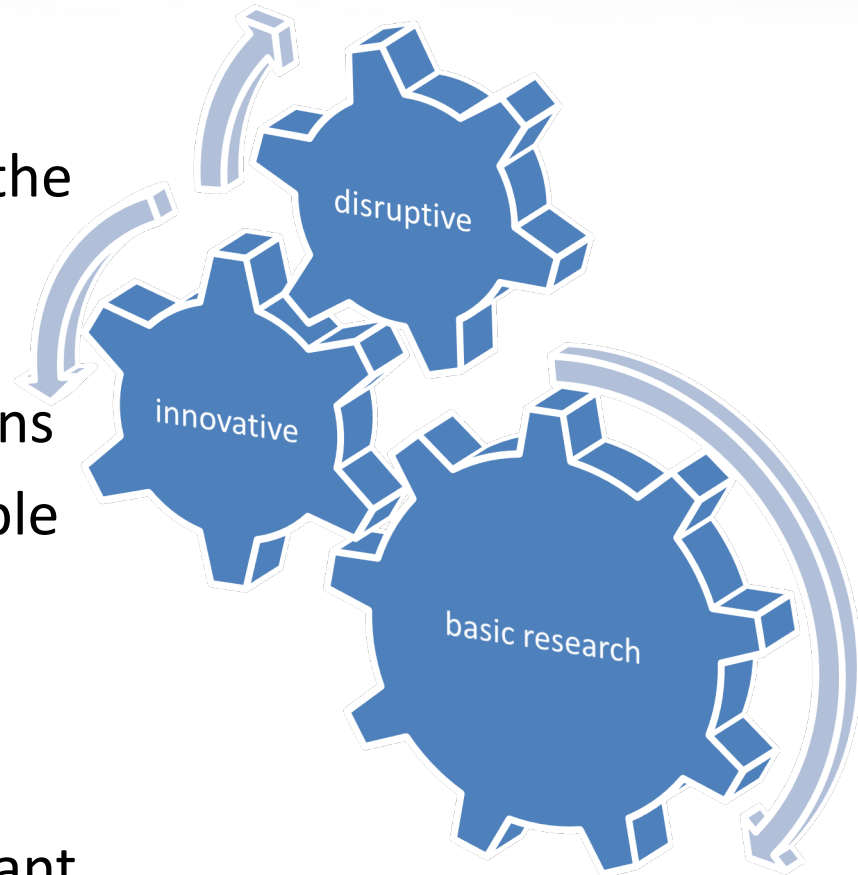
Small early investments can lead to significant results



Engagement Opportunities

- **Intellectual property remains** with the Principal Investigator
- Funding goes to **non-U.S. based** Principal Investigators and institutions
- Government organizations not eligible
- We **encourage openly** publishing results/outcomes

Email me white papers with your relevant concepts





Proposal Submission Guidance

- Most current BAA can be found at:
<https://www.nre.navy.mil/work-with-us/funding-opportunities>
- Submit proposal using <http://grants.gov>
 - Offeror shall use the Grants.gov form Standard Form SF424(r & R), the Research And Related Other Project Information, the Research & Related Budget, and Project Abstract forms from the application package template associated with the BAA on the Grants.gov web site. Assume that performance will start no earlier than three (3) months after the date the cost proposal is submitted.

Grant proposals submitted to ONRG should be in response to Broad Agency Announcement (BAA) of long-range ONR scientific projects



ONR Focus Areas



Chief of Naval Research

ONR HQ

Code 31 Command, Control, Computing, Communications, Cyber, Intelligence, Surveillance, Reconnaissance and Targeting (C5ISR)



Code 32 Ocean Battlespace Sensing



Code 33 Sea Warfare and Weapons



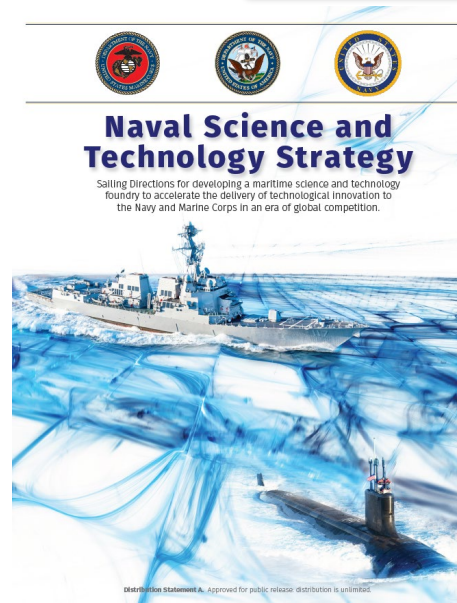
Code 34 Warfighter Performance



Code 35 Naval Air Warfare and Weapons



Office of Naval Research Global (ONRG)

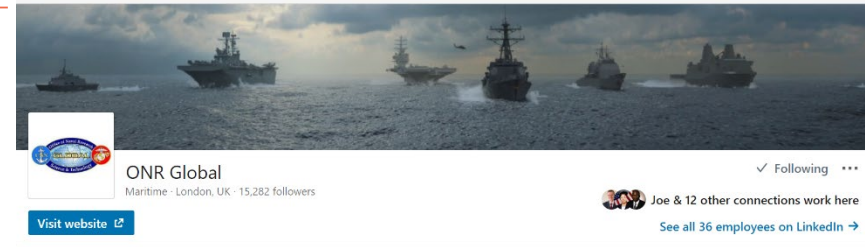


Naval S&T Focus Areas

- Autonomy/AI
- Naval Aerospace
- Directed Energy & Kinetic Systems
- C5ISR/Naval Space
- Human & Biological Systems
- Manufacturing
- Materials/Electronics
- Naval Engineering
- Ocean, Atmosphere, & Space
- Power & Energy
- Undersea Systems



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ONR TECHNOLOGY AND RESEARCH

ONR-sponsored research covers a broad spectrum of science and engineering disciplines. Listed below are the technology areas ONR is pursuing.

A

- Acoustic Transduction Materials and Devices
- Active Aperture Array
- Advanced Ground and Amphibious Platforms
- Advanced Power and Energy for Undersea Applications
- Aerodynamics
- Aerospace Structures and Materials
- Alternative Hull Materials and Concepts
- Anti-Submarine Warfare
- Applied and Computational Analysis
- Applied Cyber Resiliency
- Arctic and Global Prediction
- Artificial Intelligence/Machine Learning for Photonics, Power & Energy, Atmospherics, and Quantum Science
- Atomic, Molecular and Quantum Physics
- Attention Control

ONR Global:

<https://www.nre.navy.mil/organization/onr-global>

ONR Technology & Research:

<https://www.nre.navy.mil/our-research/onr-technology-and-research>



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Naval Air Warfare and Weapons



Thank You!

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*(this address will be valid for all future
Melbourne-based ONRG Science Directors)*

