



Military Operations Research Society

Present and Future

36th The International Symposium on Military Operational Research (ISMOR)

Royal Holloway, University of London

23 July 2019

Simon R. Goerger, PhD
2019-2020 MORS President



A Brief Synopsis of MORS

For more than 50 years, MORS remains the premier government sponsored professional society whose goal is to “Enhance the quality of analysis that informs national and homeland security decisions”

What we do

1. **Conduct meetings to share ideas and obtain peer review**
 - Annual symposium that spans the disciplines in the profession
 - Special meetings that focus on problems in one specific area
3. **Provide workforce development/ professional development opportunities**
 - Certificate classes
 - Executive seminars using analytics
 - Tutorials
 - Guides to managing analysts
4. **Foster collaboration and networking**
 - Communities of Practice
 - Web-based networking
2. **Provide publications (classified and unclassified)**
 - Quarterly newsletter
 - Quarterly Journal
5. **Recognize excellence with awards and prizes**
6. **Sustain our analyst traditions, culture, and history**

What makes MORS unique: *classified* meetings – OR and National Security focus



Multi-Discipline Analysis in National Security

MORS 2019-2020 Strategic Plan
As of 22 March 2019

Vision

Preeminent Professional Society for National Security Operations Research Analysts

Mission

To enhance the quality of analysis that informs national and homeland security decisions

Mission Description (Intent)

MORS will be the "go to" society for all organizations within the national and homeland security communities to support members with tackling the toughest operations research and systems engineering problems with the latest techniques and technologies. National security stakeholders will seek the expertise, skill, and relationships established by a vibrant MORS community. MORS will be recognized for advancing the state of operations research through operations research education opportunities and products, as well as networking and collaboration.

Strategic Objectives

Ensure MORS is the recognized leader in advancing the field of OR

Provide forums that articulate potential solutions on national security issues and enable research and collaboration across breadth of the national security community

Expanded stakeholder base and disciplines while maintaining professional heritage

Provide the premier OR educational and mentorship programs for analysts in the national and homeland security communities

Maintain, improve, and evolve financial and operations* strength, stability, and vigor for MORS. *e.g., Meetings, Publications, Membership, Heritage, Audit, BS&G, MORS Staff operations, etc.

President

Pres-Elect

IPP

VP-FM

VP-MO

VP-PD

VP-SS

Board of Directors

MORS CEO

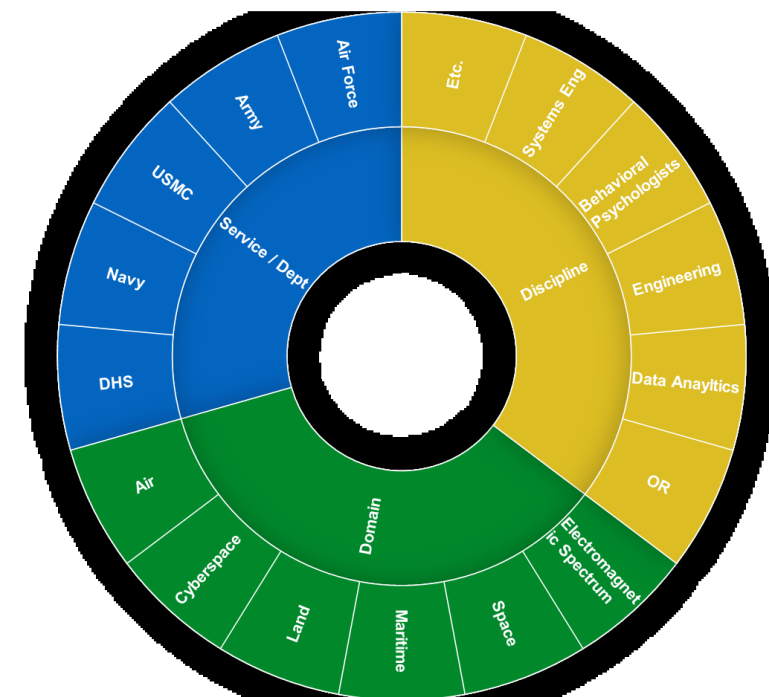


2019-2020 Theme

“Multi-Discipline Analysis in National Security”

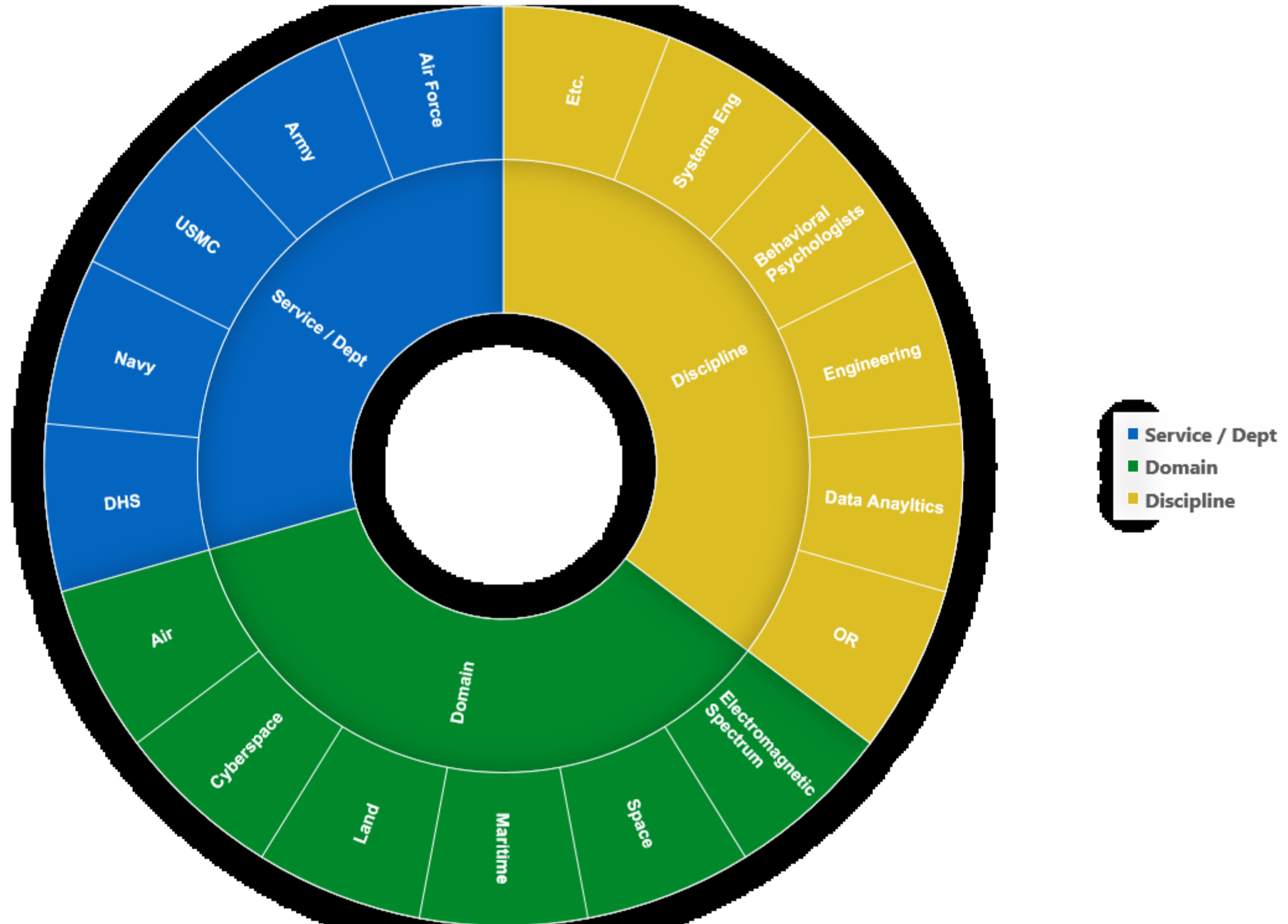
2019-2020 Big Rock

1. Increase knowledge sharing and the exchange of ideas among MORS members (Multi-Discipline)
2. Increase opportunities for MORS to help the community address national security strategic needs (Multi-Domain)
3. Increase MORS membership among uniformed and civilian junior analysts (Multi Service/Organization)





Multi-Discipline Analysis of Multi-Domain Issues in Support of National Security





Who are we – the MORS Community

Government Sponsors

- Army
- Navy
- Air Force
- Marine Corps
- Office Secretary of Defense
- Department of Homeland Security

Partners

- Industry
- Non-Profit
- Academic
- Federally Funded Research Center
- University Affiliated Research Center

Individual Member and Non-Member Participants

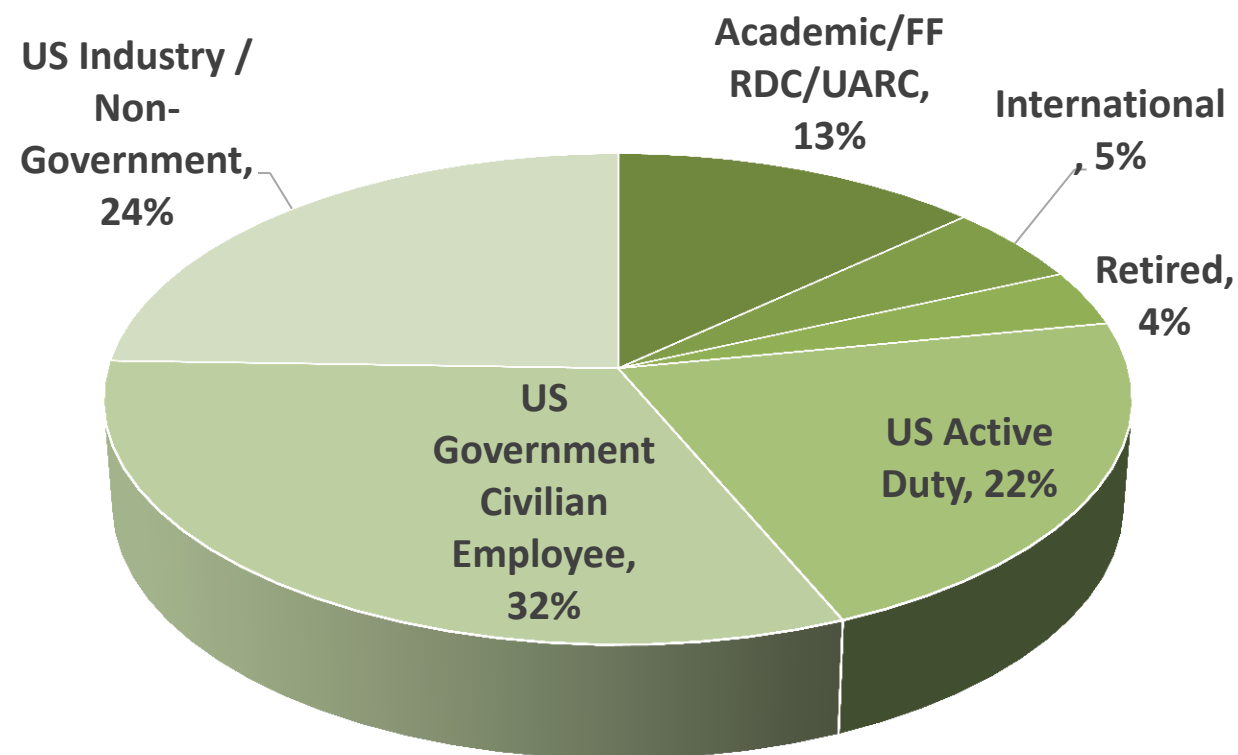
- OR Professional
- Fellows of the Society
 - International
- Junior Analyst
- Student



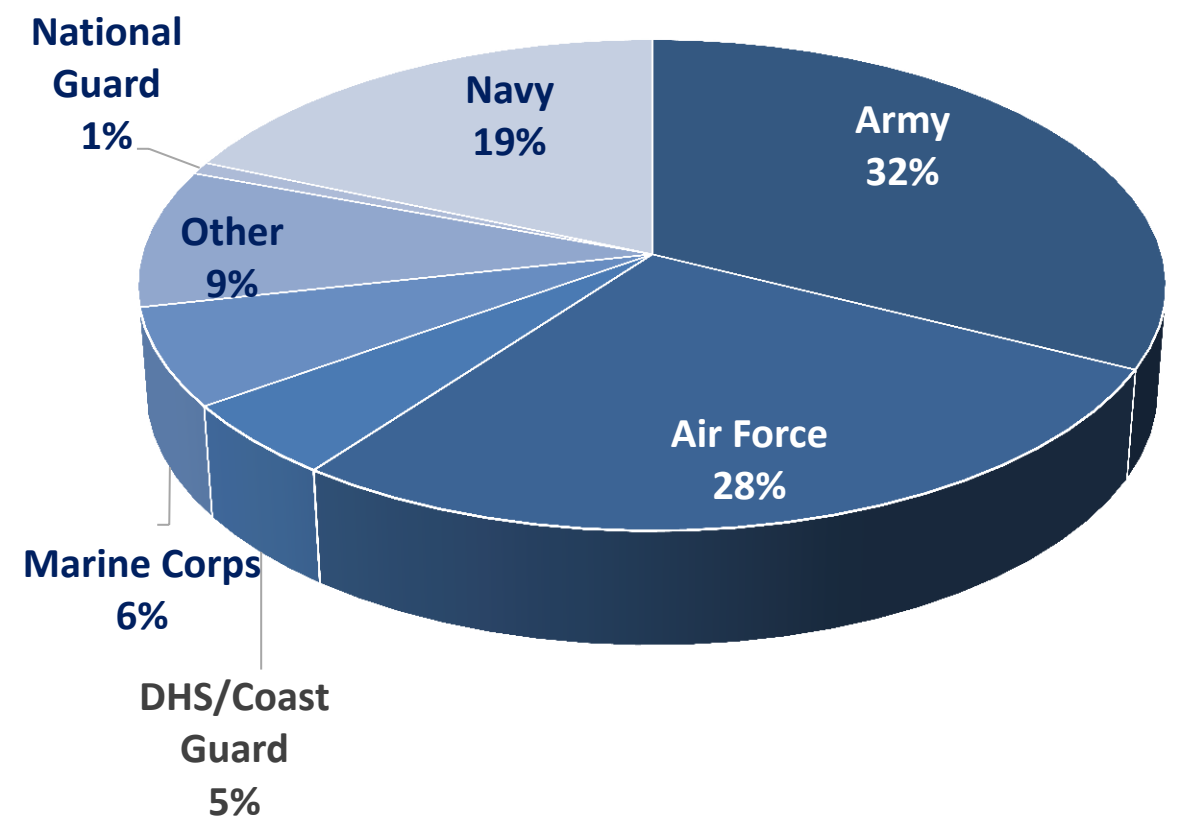
Participation By Source

(based on membership and meeting attendance)

Participation by Type



U.S. Government Participation





MORS Government Sponsors



- **Army: Center for Army Analysis**



- **Navy: Assessment Division**



- **Air Force: Studies, Analyses, and Assessments**



- **Marines: Marine Corps Combat Development Command**



- **Office of the Secretary of Defense, Office of the Under Secretary of Defense for Acquisition and Sustainment**



- **Department of Homeland Security, Operations and Requirements Analysis Division, Science and Technology Directorate**



MORS Industry and Organization Partners (as of Feb 2019)

Platinum



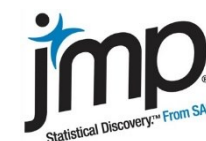
Gold



Silver



Bronze





MORS National Research Partner



Institute for Defense Analyses

- Systems and Analyses Center
- Science and Technology Policy Institute
- Center for Communications and Computing



Professional Development

Tutorials
Training
Mentorship
Certificates
Awards & Prizes



Networking & Collaboration

Membership
Communities of Practice
Social Media
Chapters



Information Sharing

Symposia
Special Meetings
Colloquia
Online
Communities



Technical Publishing

PHALANX
MOR Journal
Books & Reports
Heritage-Archives

The Only Professional Society of the Multi-Disciplined Field of Military Operations Research and Operations Analysis

Find out more at www.MORS.org



Annual Symposium

- The annual MORS Symposium is the premier national and homeland security event for exchanging information, examining research and discussing critical national security topics.
- Usually held the 3rd week in June at a major national or homeland security venue (e.g. Service Academies, Naval Postgraduate School, and Marine Corps University)
- Four-day event
 - Attendance typically exceeds 850 Participants
 - Over 600 presentations are given in 33 Working Groups
 - Keynote by senior national security leader
 - With many special sessions (tutorials, demonstrations, Service focused meetings, continuing education, posters, etc.)
 - Networking opportunities and events



Annual Symposium Continued

- Strong focus on building analytical capacity and quality with an emphasis on the junior analyst
- Attendees include military, government, non-profit, academic institutions, FFRDCs, UARCs, industry, consultants, contractors, research organizations and international participants.
- Symposium Working Group structure illustrates the extensive reach of our analytical activities



15 - 18 June 2020 • U.S. Coast Guard Academy, New London, CT



Multi-Discipline Analysis in National Security

Current Symposium Working Groups

CG-A	Homeland and International Operations
WG-1	Strategic Operations National Security Analysis
WG-2	Chemical, Biological, Radiological, Nuclear, and Advanced Explosives (CBRNE) Defense
WG-3	Infrastructure Analysis, Protection and Recovery
WG-4	Homeland Security, Homeland Defense and Civil Support
CG-B	C4ISR and Cyber Operations
WG-5	Information and Cyber Operations
WG-6	Battle Management Command and Control (BMC2)
WG-7	ISR and Intelligence
WG-8	Space Acquisition, Testing and Operations
CG-C	Joint Warfare
WG-9	Air and Missile Defense
WG-10	Joint Campaign Analysis
WG-11	Land and Expeditionary Warfare
WG-12	Maritime Operations
WG-13	Power Projection and Strike
WG-14	Air Warfare
CG-D	Resources/Readiness/Training
WG-15	Casualty Estimation and Force Health Protection
WG-16	Strategic Deployment and Distribution
WG-17	Logistics, Reliability and Maintainability
WG-18	Manpower and Personnel
WG-19	Readiness
WG-20	Analytic Support to Training and Education
WG-21	Operational Energy



Current Symposium Working Groups Continued

CG-E	Acquisition and Capability Development
WG-22	Experimentation
WG-23	Measures of Merit
WG-24	Test and Evaluation (T&E)
WG-25	Analysis of Alternatives (AoA) and Capability Development
WG-26	Cost Analysis
WG-27	Decision Analysis
CG-F	Interdisciplinary Advances in OR
WG-28	Advances in Modeling and Simulation Techniques
WG-29	Computational Advances in OR
WG-30	Wargaming
WG-34	Data Science and Analytics
CG-G	Hybrid Warfare
WG-31	Operational Environments
WG-32	Special Operations and Irregular Warfare
WG-33	Social Science Methods and Applications
Distributed Working Groups	
DWG-1	Human Behavior and Performance
DWG-2	Unmanned Systems
DWG-3	Emerging Operations Research
Focus Session	
Fs-1	AI and Autonomous Systems
FS-2	Assessments



Upcoming Event (Special Meetings)

2019

Cyber Wargaming and Analytics II

22-24 October 2019

Hilton Mark Center and IDA
Alexandria, VA

Advancing Campaign Analytics

18-21 November 2019

Institute for Defense Analyses
Alexandria, VA

Emerging Techniques Forum

4-5 December 2019

Hilton Mark Center
Alexandria, VA

2020

Cost Analysis in National and Homeland Security Decisions

25-27 February 2020

AUSA Conference & Event Center
Arlington, VA

Education & Professional Development Colloquium

TBD

88th MORS Symposium

15-18 June 2020

U.S. Coast Guard Academy
New London, CT

Artificial Intelligence and Autonomy II

27-29 October 2020

Johns Hopkins Applied Physics Lab
Laurel, MD



MORS Publications



Phalanx

The Magazine of National
Security Analysis



MOR Journal

Peer Reviewed Academic
Journal



MORS Books

Important Resources



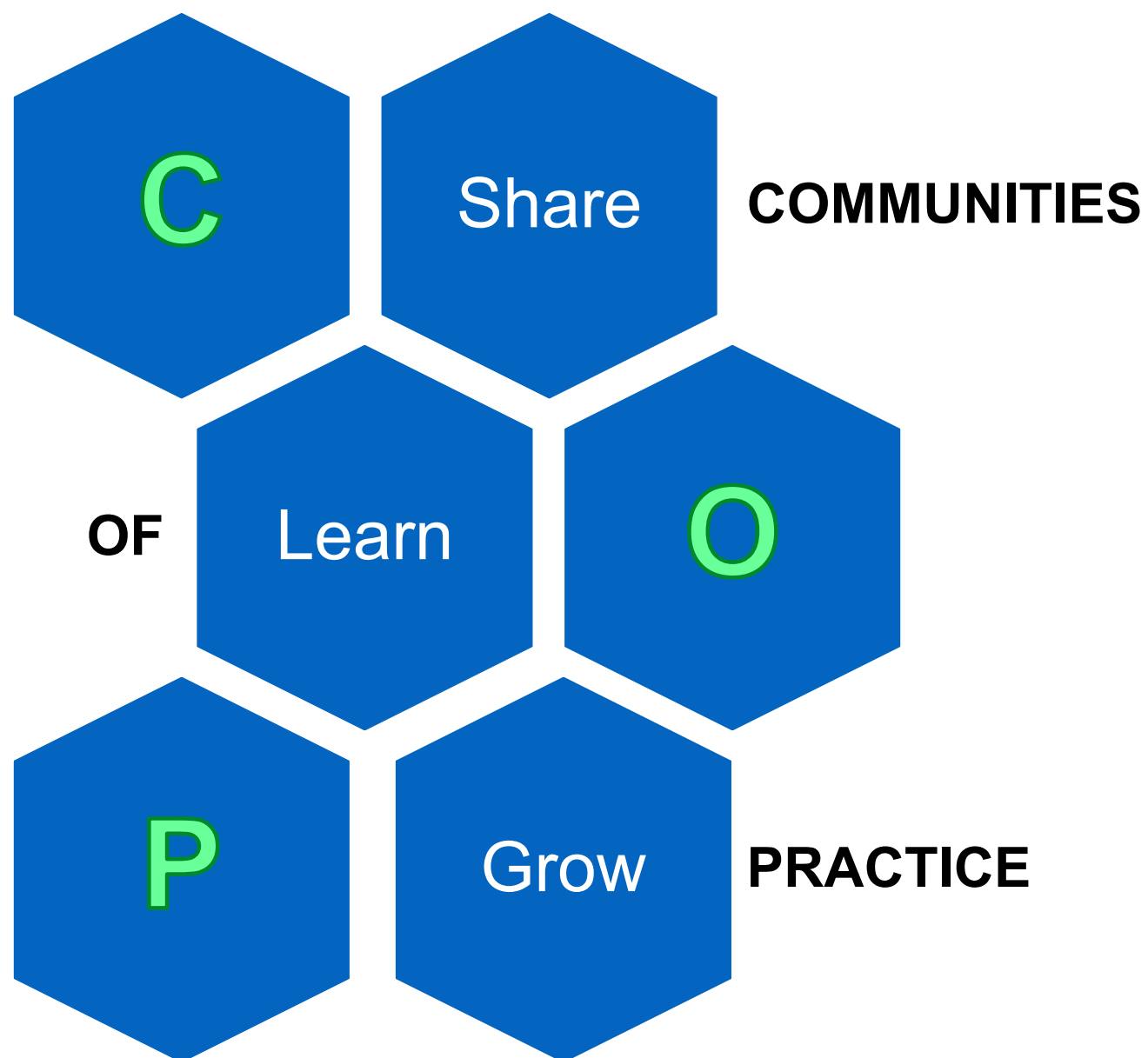
• Enhancing the Professional Portfolio of Our Analysts

- Certificate Programs
- Career Center / Job Board
- Volunteer Opportunities-committees, working groups
- Networking / Membership Receptions
- Mentor Program / Young Analyst Initiatives
- MORS Awards and Prizes
- (NPS) Tisdale & Moore (AFIT) Grad Student Awards
- Junior Analyst Programs





MORS Communities of Practice Growing and Thriving



- Affordability Analysis
 - Cost Analysis
- Data Science and Analytics
 - Logistics
- National Security Risk Analysis
 - Military Assessments
 - Modeling and Simulation
 - Red Teaming
 - Undersea Warfare
 - Wargaming



Multi-Discipline Analysis in National Security

MORS Web and Collaboration Site

Comprehensive online resources with customized Community pages for online collaboration, communications, information sharing and career opportunities





Certificate Course Schedule

- **U.S. National Security Risk Analysis Certificate**
23-27 September 2019
- **Wargaming Certificate**
4-8 November 2019
- **Critical Skills for Analytics Professionals (CSAP)**
18-22 November 2019

Private and custom courses available upon request. Organizations using MORS custom courses include: *Naval Safety Center, Alaska National Guard and the National Geospatial Intelligence Agency.*



New Course Under Development

Critical Tools for Analytics Professionals

5 Days Topics Covered Included:

- Analytic Problem Framing
- Probability
- Statistics
- Regression
- Data Visualization
- Time Series
- Optimization
- Simulation
- Decision Analysis
- Causal and Route Analysis



A Brief Synopsis of MORS

For more than 50 years, MORS remains the premier government sponsored professional society whose goal is to “Enhance the quality of analysis that informs national and homeland security decisions”

What we do

1. **Conduct meetings to share ideas and obtain peer review**
 - Annual symposium that spans the disciplines in the profession
 - Special meetings that focus on problems in one specific area
3. **Provide workforce development/ professional development opportunities**
 - Certificate classes
 - Executive seminars using analytics
 - Tutorials
 - Guides to managing analysts
4. **Foster collaboration and networking**
 - Communities of Practice
 - Web-based networking
2. **Provide publications (classified and unclassified)**
 - Quarterly newsletter
 - Quarterly Journal
5. **Recognize excellence with awards and prizes**
6. **Sustain our analyst traditions, culture, and history**

What makes MORS unique: *classified* meetings – OR and National Security focus



Military Operations Research Society

Present and Future

36th The International Symposium on Military Operational Research (ISMOR)

Royal Holloway, University of London

23 July 2019

Simon R. Goerger, PhD
2019-2020 MORS President