



# MOMRP

## Mission and Portfolios



Develop effective biomedical countermeasures against operational stressors and to prevent physical and psychological injuries during training and operations in order to maximize the health, readiness and performance of Service members and their Families, in support of Multi-Domain Operations, Army CFT and SECDEF Lethality Priorities, and Human Performance Optimization & Enhancement and DoD Total Force Fitness concepts.

***JROC approved Joint Military Operational Medicine Initial Capabilities Document, NOV 2018***

### Science

#### ENVIRO

Environmental Health and Protection

THREATS

- Heat/Humidity Stress
- Dehydration
- Cold Stress
- Dust/Air Pollution
- Toxic Industrial Chemicals/Materials
- Water Contaminants
- Altitude & Undersea Hypoxia

#### INJURY

Injury Prevention and Reduction

THREATS

- Musculoskeletal Injury
- Blast Overpressure
- Blunt Head/Body Trauma
- Face/Eye/Spinal Injury
- Acoustic Trauma
- Directed Energy Injury
- Degraded Visual Environment

#### PHYSIO

Physiological Health and Performance

THREATS

- Disaggregated/Continuous Operations
- Sleep Deficit and Circadian Desynchrony
- Sustained Fatiguing Work (Physical/Mental)
- Malnutrition
- Dietary Supplements Misuse

#### PSYCH

Psychological Health (PH) and Resilience

THREATS

- PTSD/Other PH Disorders
- Suicide Behavior
- Alcohol/Other Drug Use
- Co-occurring Mental Disorders
- Access/Retention in Behavioral Health Care
- Family Transitions and Well-being

MILCOHORT Epidemiology Efforts  
 Biomedical Performance Enhancement  
 Wearables for Health, Readiness and Performance

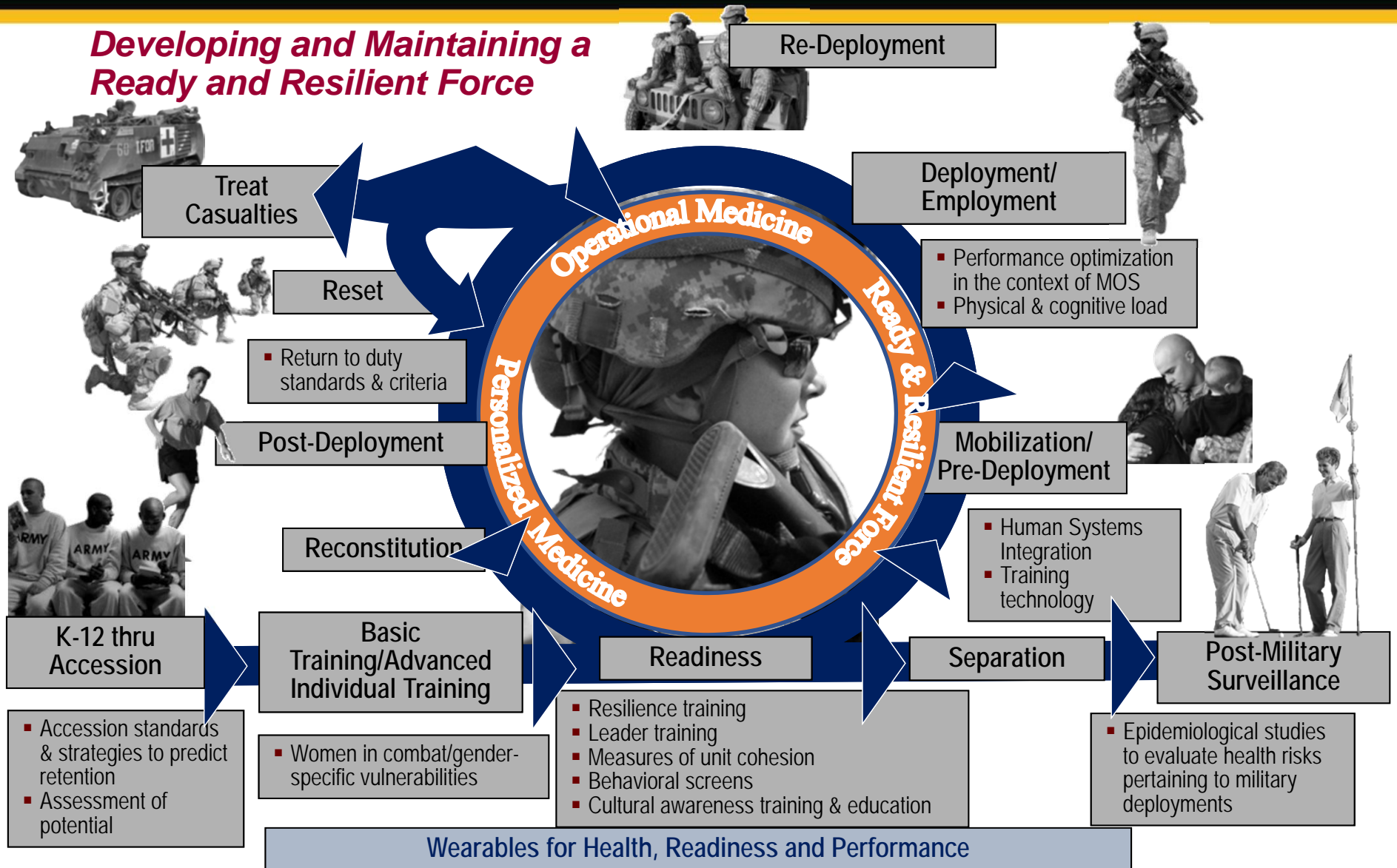
### Service Member



# MOMRP Solutions Across the Military Lifecycle



## Developing and Maintaining a Ready and Resilient Force





Commander Christopher T. Steele, PhD  
Director, Military Operational Medicine Research Program

Commander Steele is the Director of the Military Operational Medicine Research Program (MOMRP) at the US Army Medical Research and Materiel Command, FT Detrick, MD and Chair of Joint Program Committee (JPC-5) for the Defense Health Agency. CDR Steele drives planning, programming and budgeting for medical research to protect the health, support readiness and sustain/enhance performance of warfighters faced with environmental extremes, inappropriate nutrition, physical degradation, sleep and circadian disruption, toxic chemical exposures, blast and physical injuries and under acute & chronic psychological stress.

Commander Steele received a Ph.D. from North Carolina State University (Raleigh, NC) in 2005, and subsequently accepted a commission as a Navy officer to support the Navy and Marine Corps Combat Team as a Chronobiologist. CDR Steele, a Navy Research Physiologist, spearheaded work to promote submarine crew endurance and reduce unwarranted circadian rhythm disruption and sleep inefficiency at the Naval Submarine Medical Research Laboratory (Groton, CT) in 2006. CDR Steele designed and executed at-sea research on submarines to demonstrate improved watchstanding schedules and developed a fatigue management awareness module at NSMRL for submarine officers. In 2009, Steele became an Assistant Professor at the Uniformed Services University (Bethesda, MD) where he directed a Military Applied Physiology course and led a field leadership exercise of 65 officers and enlisted cadre that exposed over 800 medical officers to operational challenges faced by warfighters. In 2012, CDR Steele reported to the Office of Naval Research (ONR) as a Program Officer in the Warfighter Performance Department (Code 34). He provided leadership and direct oversight for a \$45M annual portfolio in Military Operational Medicine, Combat Casualty Care, and Medical Radiological Defense comprising 70 research groups at over 25 Department of Defense and civilian institutions. At ONR, CDR Steele consolidated a program on warfighter health protection and performance sustainment under environmental stressors including hypoxia, thermal challenges, non-isobaric conditions, and quickly grew a “Circadian, Sleep and Fatigue” program. This program drove basic and applied biomedical sciences in order to translate findings into useable information and functional products to support operational communities.

CDR Steele has served on organizing committee and as session chair of two NSF-funded US-South American workshops on Neuroendocrinology to promote scientific discourse between the US and seven South American countries. He is an active participant in Sleep and Circadian Research Society Trainee workshops designed to emphasize the difficulties and importance of transitioning basic science to fielded applications. In a Joint leadership role, Steele led a task area for JPC-5 on operational performance sustainment in extreme environments across the DoD and served as the Navy’s JPC-5 S&T representative to ensure the Navy Medical Research enterprise is represented and Navy/Marine Corps gaps were addressed in Defense Health Agency programs. He served as the MOMRP Deputy Director from 2015 to 2018 prior to being named in his current position as Director.

CDR Steele’s operational background includes three years in the U.S. Army as an artilleryman and twelve years in the Army National Guard serving in Aviation, Armor and Engineering units as a non-commissioned officer in both Nuclear Biological & Chemical Operations and Military Intelligence. Steele has deployments to Iraq and Afghanistan and has supported Humanitarian Service operations in the state of North Carolina. CDR Steele is the current Specialty Leader for the Navy’s Medical Service Corps Research Physiology community.

Certifications: Member, Navy Acquisition Corps; Defense Acquisition Workforce Science and Technology Manager (III) and Program Manager (II).

Awards: Defense Meritorious Service Medal, Navy Commendation Medal (2), Army Commendation Medal, Navy Achievement Medal (2), Army Achievement Medal (2), National Defense Service Medal (2), Army Good Conduct Medal, Armed Forces Reserve Medal (w/ Bronze hourglass, M device), Army Reserve Components Achievement Medal (3), Global War on Terrorism Service Medal, Humanitarian Service Medal, and various unit citations and campaign medals.