

# CODE 353

## MISSION

The mission of the Office of Naval Research's Marine Corps Science and Technology (S&T) Program is to exploit science and technology opportunities that will produce enhanced expeditionary warfighting capabilities of the Naval Services.

## THE DIVISION

The division is organized around six "thrust areas", each of which seeks to develop and leverage advanced technologies for application in the areas of C4ISR, Mine Countermeasures, Logistics, Human Performance and Training and Education, Maneuver and Firepower. The division funds and manages a wide array of aggressive projects to ensure USMC access to leading edge S&T. Each thrust area is managed by a Project Officer, who participates as a core team member within a respective ONR Department. Project officers are responsible for advising their respective ONR department on USMC missions and requirements, and ensuring that Marine programs are coordinated and aligned throughout ONR.

Through close interaction and consistent effort, ONR 353 works to remain situationally aware of developing opportunities within the Navy/Marine Corps team, for which promising S&T solutions may exist to answer operational requirements.

## HISTORY

**Oct 1998** - Commandant Marine Corps (CMC) decision to move United States Marine Corps (USMC) Science and Technology (S&T) to Office of Naval Research (ONR) **Jun 1999** - CNR/CMC message directing transfer of

management of USMC S&T programs to ONR 16 JUN 99 CNR/CMC Message" Effective 20 Jun 99, Marine Corps Science and Technology programs less those executed by MCWL, will be executed by the Office of Naval Research.....Management of these programs will be the responsibility of the Expeditionary Warfare Operations Technology Division (Code 353) within the Naval Expeditionary Warfare Department at ONR." **Jul 1999** - Flag level Memorandum for Record codifying USMC/ONR S&T Integration and transfer of programs. **Jul 1999** - Covered terms of transfer of program management of S&T programs to ONR- "ONR will manage program execution"- Places USMC Officers on staff at ONR **Dec 2000** - Program Review Group (PRG) confirmed need for Marine Corps Science and Technology to remain integrated at ONR. **Apr 2001** - Naval Science Board concurrence with ONR integration Flag level Memorandum For Record Details.

**Director, 703-696-2789,  
353\_Contact@onr.navy.mil**

**Deputy, 703-588-0549,  
353\_Contact@onr.navy.mil**

**For more information about ONR 353, visit  
our web site:**

[http://www.onr.navy.mil/sci\\_tech/special/353\\_exped/](http://www.onr.navy.mil/sci_tech/special/353_exped/)

Office of  
Naval Research  
800 N. Quincy Street, Arlington, VA 22217-5660



# EXPEDITIONARY WARFARE OPERATIONS TECHNOLOGY DIVISION



***Managing Naval  
Science and  
Technology for the  
Marine Corps***



## SCIENCE & TECHNOLOGY CODE 353 THRUST AREAS

### **BASIC RESEARCH**

---

*703.696.4485, 353\_BR@onr.navy.mil*

The USMC Basic Research Program was established at the Office of Naval Research in FY00 to provide a mechanism for accelerating scientific discovery in areas pertinent to the unique aspects of Marine Corps operations.

Communications  
Lightweight Power Sources  
Information Efficiency  
Enhanced Lethality  
Sensing  
Human Sensory Enhancement  
Landmine Detection  
Laser Eye Protection  
Corrosion Prevention

### **MANEUVER THRUST**

---

*703-588-2552, 353\_M@onr.navy.mil*

This area focuses on the development, demonstration, and transition of technologies that will increase the warfighting capabilities and effectiveness of current and future Marine Corps vehicles. This Thrust aims at capturing emerging and "leap ahead" technologies in the areas of mobility, materials, propulsion, survivability, durability, signature reduction, and modularity.

Tactical Unmanned Ground Vehicle (TUGV)  
Technologies for the MAGTF Expeditionary Family of Fighting Vehicles (MEFFV)  
Reconnaissance, Surveillance and Targeting Vehicle (RST-V)  
Advanced Amphibious Assault Vehicle (AAAV) Band Track.

### **HUMAN PERFORMANCE AND TRAINING AND EDUCATION THRUST**

---

*703-696-9313, 353\_TE@onr.navy.mil*

This thrust area has been defined more broadly to include all aspects of human performance in the domains of human cognition and decision-making.

Tactical Decision Making Simulations (TDS)  
Training Instrumentation and Situational Awareness Technology  
Synthetic Environments  
Augmented Cognition (AugCog)

### **COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE (C4ISR) THRUST**

---

*703-696-2492, 353\_C4ISR@onr.navy.mil*

The goal of the C4ISR Thrust is to fund applied research and advanced technology development science and technology (S&T) projects that can enable network centric warfare and initiatives such as FORCEnet.

Communications, Applied Research  
Communications, Advanced Technology Development:  
Command and Control, Applied Research  
Command and Control, Advanced Technology Development  
Intelligence, Surveillance and Reconnaissance, Applied Research

### **MINE COUNTERMEASURES THRUST**

---

*703-696-1299, 353\_MCM@onr.navy.mil*

The purpose of this Thrust is to identify, quantify, prioritize and deliver MCM S&T technologies to meet Naval Expeditionary Forces deficiencies (Naval Strategy-21/Sea Shield capabilities). This includes near-term to far-term MCM S&T initiatives required to make Sea Based MCM (OTH to Objective) a functional component of all elements of Naval Expeditionary Maneuver Warfare (EMW).

Development of Land Mine Detection Systems Utilizing  
Quadrupole Resonance  
Combination of QR With GPR and Metal Detection.

---

### **FIREPOWER THRUST**

---

*703-696-6801, 353\_FP@onr.navy.mil*

To develop advanced technology for application on current and future Marine Corps' Expeditionary weapons, targeting systems.

M1A1 Firepower Enhancement  
Objective Crew Served Weapon (OCSW)  
Unmanned Aerial Vehicle(UAV)  
Non-lethal Weapons Technologies

### **LOGISTICS THRUST**

---

*703-696-2561, 353\_LOG@onr.navy.mil*

The objectives of the logistics thrust area are to develop, demonstrate and transition technologies that will support United States Marine Corps future warfighting concepts (Expeditionary Maneuver Warfare and Sea Based Logistics).

Expeditionary Energy Program  
Expeditionary Water Program  
Rapidly Deployable Non Standard Composite Bridging  
High Velocity Particle Consolidation Program

### **LITTORAL COMBAT FUTURE NAVAL CAPABILITY PROGRAM**

---

*703-696-6943, 353\_FNC@onr.navy.mil*

The Littoral Combat Future Naval Capability (LC FNC) addresses critical gaps in the ability of naval forces to successfully execute an expeditionary warfare campaign and is specifically focused on the twin pillars of assured access and sustained operations ashore.

Expeditionary Intelligence, Surveillance and Reconnaissance (ISR)  
for the Amphibious Force (AF) Enabling Capability  
Amphibious Force Command and Control Enabling Capability  
MAFTG Maneuver in the Littorals Enabling Capability