



U.S. Navy Standing Up All-Domain Task Force in Europe/Africa: CTF-66

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Talk Overview

- Why Integrated All-Domain Ops are essential to the future fight
- Why unmanned systems (UxS) at scale must be integrated into Fleet Ops
- How innovation and standardization accelerate UxS development supporting All-Domain Ops



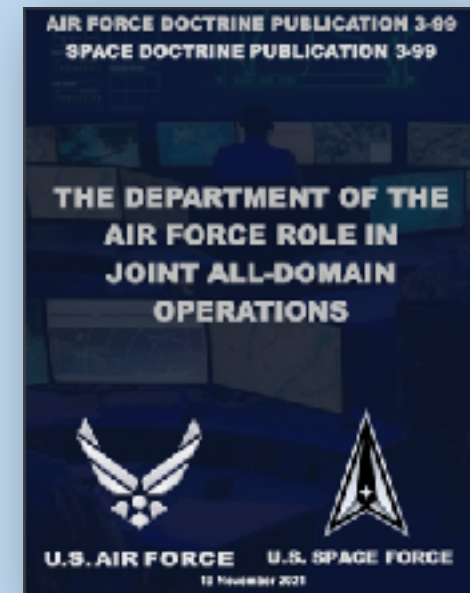
Joint All-Domain Operations (JADO)

- Comprised of air, land, maritime, cyberspace, and space domains, plus electromagnetic spectrum
- Actions by Joint Force in multiple domains integrated in planning and synchronized in execution, at speed and scale needed to gain advantage and accomplish mission

JADO Principles

- Mission Command through centralized command, distributed control, and decentralized execution through mission-type orders
- Delegation of authority to lower echelons and to other component and Service leaders as required
- Integrated multi-domain planning
- Risk identification and mitigation
- Synergistic effects
- Flexibility and Versatility
- Concentration

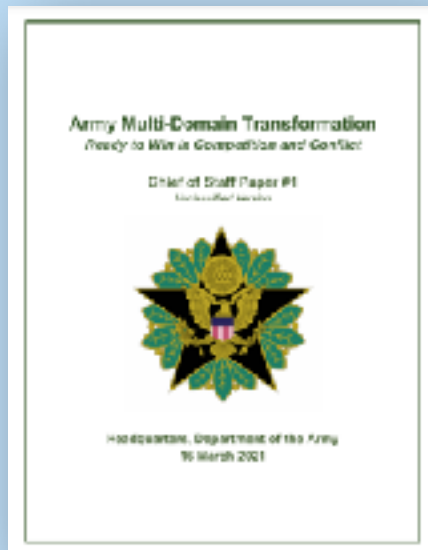
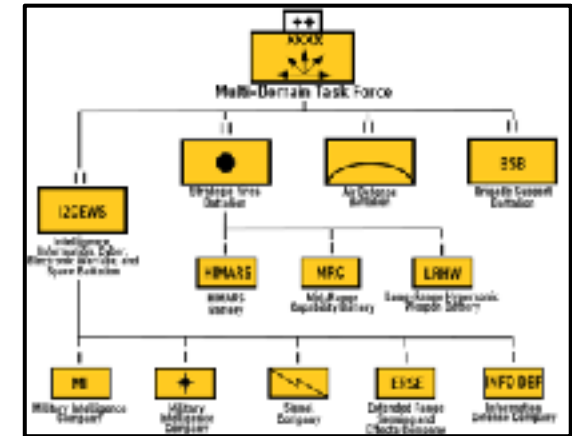
– AIR FORCE DOCTRINE PUBLICATION 3-99, p. 4





U.S. Army Multi-Domain Task Force (MDTF)

As theater-level maneuver elements, MDTFs synchronize precision effects and precision fires in all domains against adversary anti-access/area denial (A2/AD) networks in all domains, enabling Joint Forces to execute their OPLAN-directed roles.



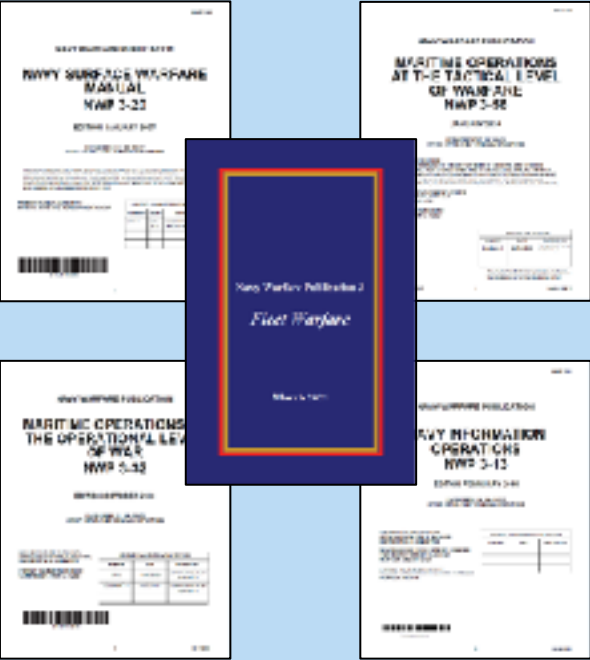
What Does an MDTF Do?

- To advance our interests in competition more broadly, Army maintains forward presence and fosters enduring land power partnerships around world.
- Army also leverages an array of capabilities to operate in the information space and ensure that the nation can consistently win with truth.
- We provide mobile long range fires, sustainment, protection, and forces able to maneuver within an adversary's A2/AD layer.
- We boost credibility of our deterrent message with our demonstrated commitment to closely integrate with rest of Joint Force.



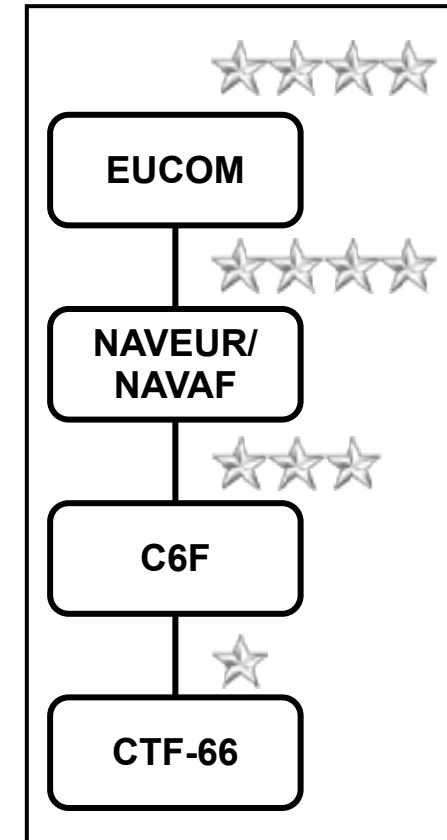
U.S. Navy All-Domain Task Force: CTF-66

Commander Task Force SIX SIX (CTF-66) serves as a forward-deployable headquarters that orchestrates Joint, All-Domain effects in a specific region through asymmetric and unconventional CONOPS that deliver full-spectrum maritime operations in concert with Allied, Coalition, Joint, interagency, and other partners in order to protect U.S. interests, deter aggression, reassure Allies and partners, promote security and stability, and maintain All-Domain access in the SIXTH Fleet (C6F) areas of operation.



What Does an All-Domain Task Force Do?

- Orchestrate counter-reconnaissance in support of maritime maneuver to enable survivability within an adversary's anti-access/area denial (A2/AD) bubble
- Orchestrate reconnaissance in support of long-range fires to enable lethality and effect sea denial
- Closely integrate with the rest of the Joint Force to ensure the Task Force's scheme of maneuver and scheme of fires are integrated with the Joint Force to deliver Integrated All-Domain effects





The Changing Character of Warfare

“In his report to the 20th National Congress of the Communist Party of China (Beijing, 16-22 Oct. 2022), Xi Jinping emphasized the need to accelerate the development of unmanned intelligent combat forces.”

Looking at the practice of local wars in recent years, unmanned combat forces as represented by drones have become an important part of the joint operational force system, playing an increasingly prominent role as an effectiveness multiplier.

Especially with the advent of artificial intelligence technology and its rapid development and widespread use in the military field, unmanned systems are becoming more intelligent and autonomous, and unmanned intelligent operations are showing advantages and effectiveness that are different from those in the past.”

Dominating the Battlefield—The Advantages of Unmanned Intelligent Combat Forces





Characteristics of Modern Maritime Warfare

Bimodal Fleet*

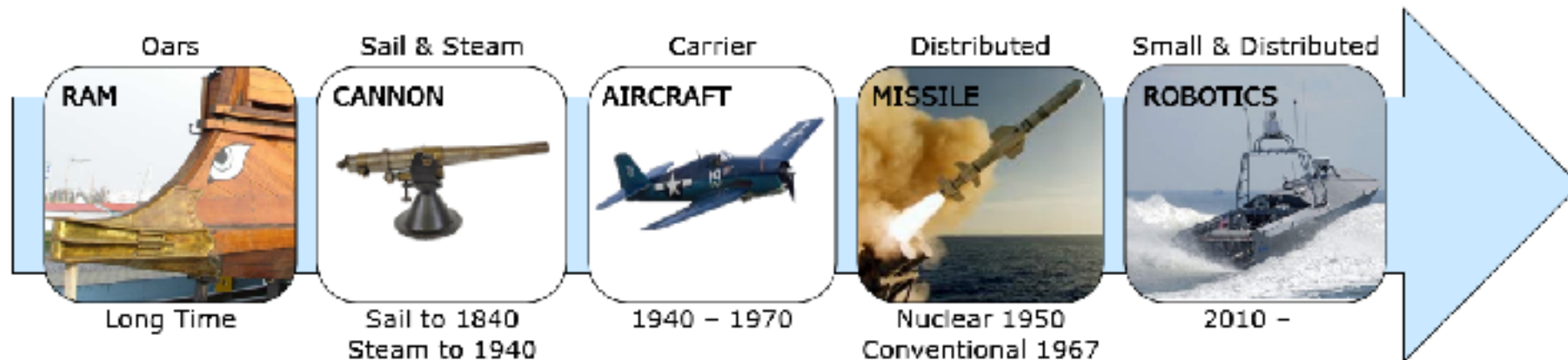
A Sea Denial-Sea Control Force

- *Offense* is the stronger form of naval tactical warfare
“Fire effectively first” (Hughes)
- *Defense* is the stronger form of naval operational warfare
Sea Denial is easier than Sea Control

* Doug Otte, CAPT, USN (Ret.)
Jeff Kline, CAPT, USN (Ret.)

“We observe U.S. Navy is currently on the disadvantaged side in both these areas in warfighting and procurement”

Naval Warfighting Ages:



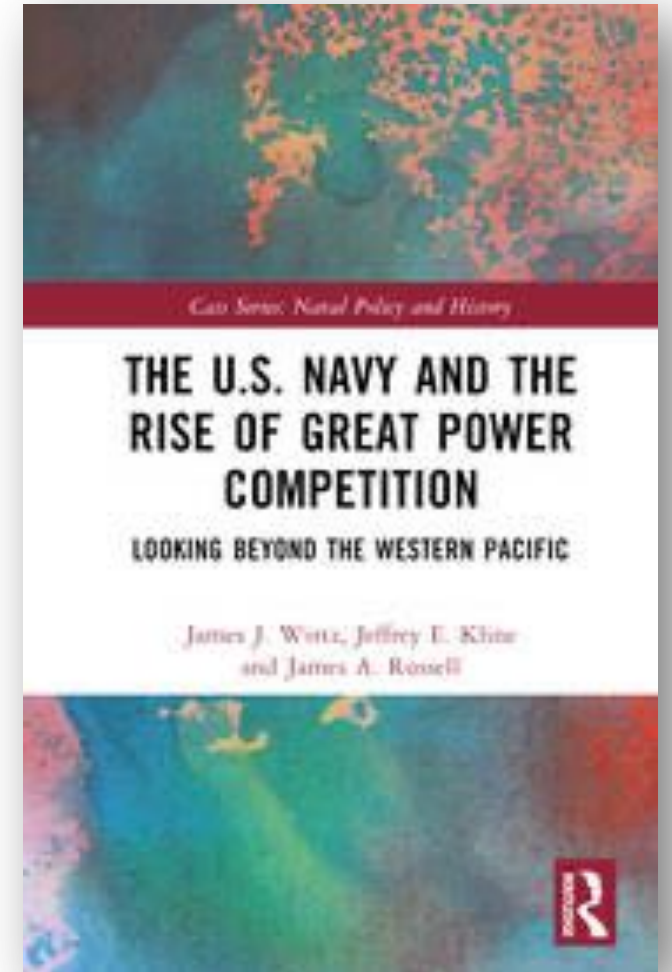


Characteristics of Modern Maritime Warfare

Description of a Sea Denial Force:

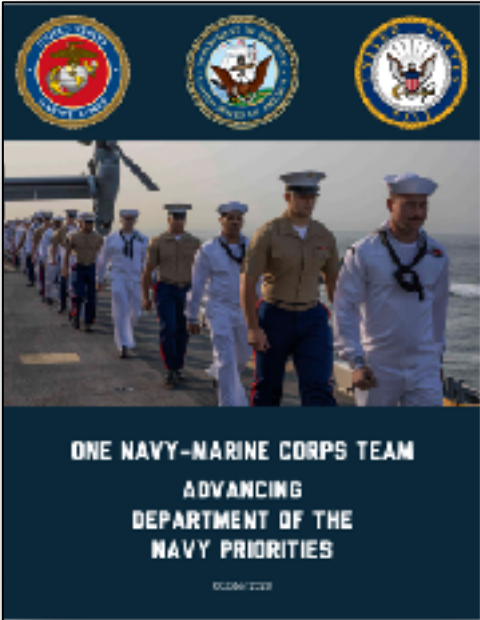
“... composed of numerous, smaller, yet lethal manned and unmanned systems connected as local reconnaissance networks. The sea denial force is tactically offensive, combining local surveillance and targeting systems with local kinetic and non-kinetic weapons to deny an adversary’s access to maritime regions. Depending on the employed region, a system may include land, littoral, sea, air, undersea, space, and cyber elements. Of course, the sea denial force may also act as reconnaissance for the targeting of longer-range fires from coalition and Joint Forces.”

– *Jeff Kline, CAPT, USN (Ret.)*





SECNAV & CNO Guidance



UNCREWED TECHNOLOGY

- We have made profound progress by employing our unmanned systems on ranges and long-range deployments in the Pacific, and in actual contact with adversaries in 5th Fleet.
- We ensured Navy UAVs, USVs, and UUVs routinely participate in multinational exercises with partners and allies and are integrated into the joint force.
- We are prioritizing contract agreements to support maritime domain awareness using long-dwell unmanned surface vessels to aid in the fight against illegal fishing and drug trafficking.

STRENGTHENING MARITIME DOMINANCE

So that we can deter potential adversaries, and if called upon, fight and decisively win our Nation's wars

Strengthening Industrial Base	Combatting Climate Change	Innovating Uncrewed Technology	Rearm Refuel Repair Revive Resupply
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We will put more players on the field—platforms that are ready with the right capabilities, weapons and sustainment, and people who are ready with the right skills, tools, training, and mindset.



U.S. Navy Disruptive Capabilities Office (DCO)

- DCO designed to push the bound of delivering warfighter capabilities
- DCO is fielding capabilities for our Combatant and Fleet Commanders through innovative applications of existing and new systems to provide near term-solutions
- Integrated unmanned systems and artificial intelligence does not decrease role of warfighter; rather, it enables decision superiority for our warfighters





NATO

- NATO is the bedrock of enduring trans-Atlantic security and serves as the bulwark of our shared values of democracy, individual liberty, and rule of law.
- Diplomacy and working with our Allies and partners is the basis for our global power and collective security.
- United States commitment to NATO is ironclad. We will continue efforts to further strengthen our relationships with NATO Alliance.



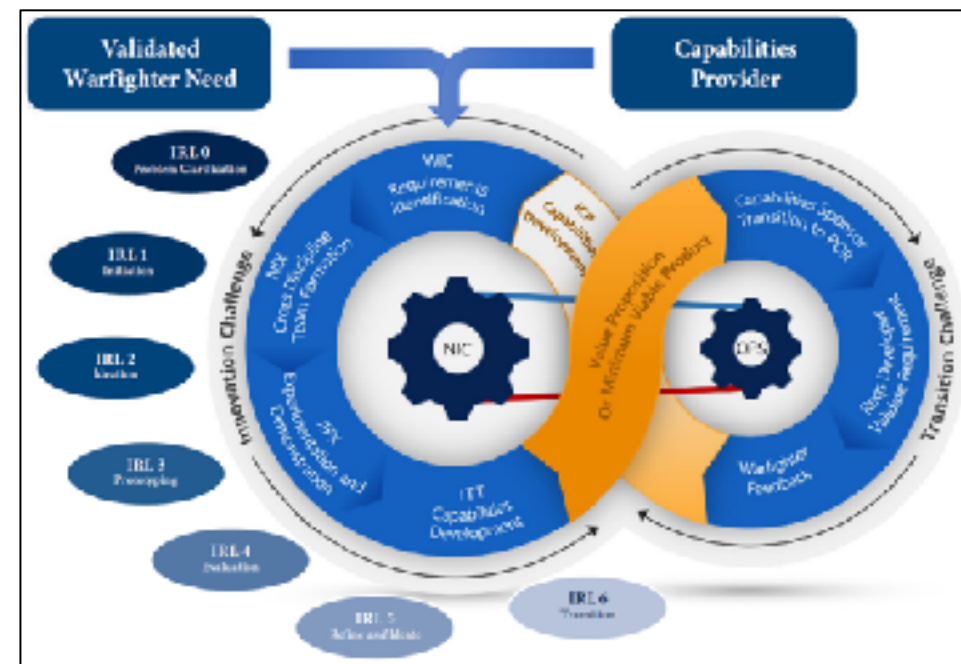
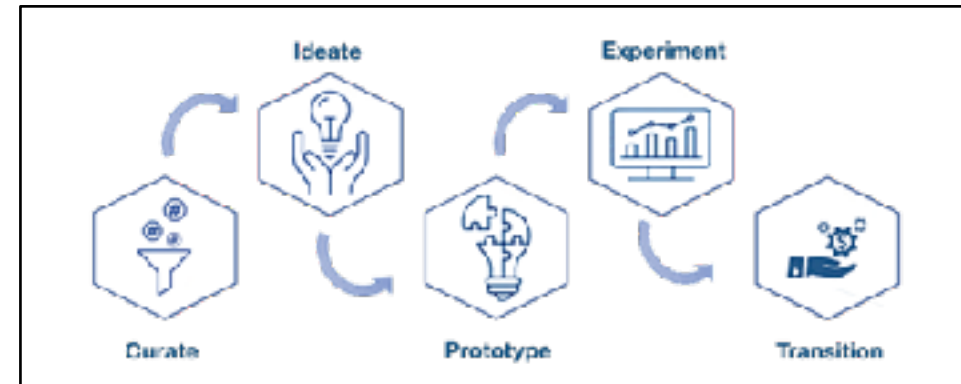


REPLICATOR Initiative

- The defense industrial base must provide the required capabilities at the speed and scale necessary for the U.S. military to engage and prevail in a near peer conflict.
- DoD recognizes the need to modernize the industrial base to make it more resilient. Just as our military adapts to new threats, we must enable the creating of a modernized defense industrial ecosystem.
- The efforts to implement the industrial modernization will not and cannot be a DoD-only solution. It requires great effort, commitment, and cooperation between the entire U.S. government, private industry, and our international Allies and partners.
- The Replicator initiative (“Replicator”) is the Defense Department’s effort to accelerate delivery of innovation to the warfighter at speed and scale through senior leader focus on a specific operational challenge and capability.
- Replicator is the latest piece of our comprehensive, warfighter-centric approach to innovation, and will help DoD overcome the PRC’s biggest advantage, which is mass.
- DOD set a big goal for Replicator: to field attritable autonomous systems at a scale of multiple thousands, in multiple domains, within next 18-to-24 months.
- We must out-match adversaries by out-thinking, out-strategizing, and out-maneuvering them by augmenting manufacturing and mobilization with our real comparative advantage, which is the innovation and spirit of the American people.



Naval Postgraduate School (NPS) Naval Innovation Center (NIC)





DOTmLPF-P

DOTmLPF-P describes non-material solutions for capability requirements, standing for:

- Doctrine: the way we fight
- Organization: how we organize to fight
- Training: how we prepare to fight
- material: all the “stuff” necessary to equip our forces that DOES NOT require a new development effort
- Leadership and education: how we prepare our leaders to lead the fight
- Personnel: availability of qualified people for peacetime, wartime, and various contingency operations
- Facilities: real property, installations, and industrial facilities
- Policy: DoD, interagency, or international policy that impacts other seven non-material elements





Build Environment that Enables Standardization and Interoperability

Ability to rapidly adopt and employ emerging technology must be coordinated with existing force, industry, society, and environment it will operate in

- Standards
 - Technical Standards to integrate sensors, payloads and control systems with industry and partners
 - Unmanned Maritime Autonomy Architecture (UMAA)
 - NATO Standardization Agreements (STANAGs)

Legal Policies, Domestic and International

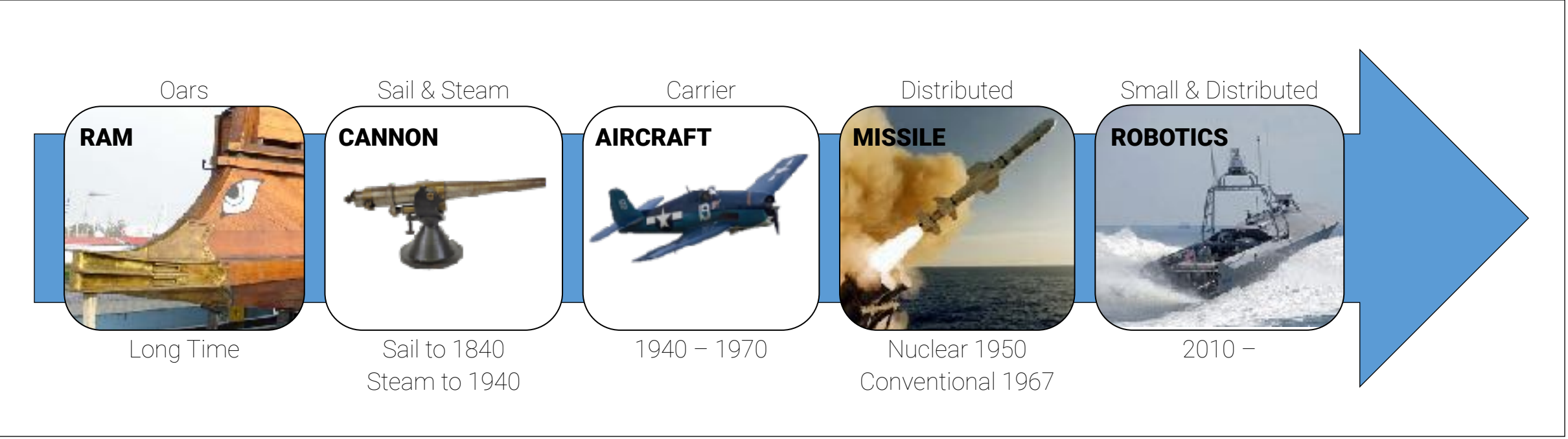
- Lethal Autonomous Weapons (DoDD 3000.5)
- International Humanitarian Law
- United Nations Convention on Certain Conventional Weapons (CCW)
- Vessel Flagging
- International Regulations for Preventing Collisions at Sea (COLREGs)
- International Civil Aviation Organization “Due Regard”



Need for Standards and Interoperability becomes critical to enable UxS at scale. We will never be able to manage thousands of assets as individual cases and programs.



BACKUP



- Delivering emerging capabilities at speed and scale requires every member of our DoN team, including our industry, academic, and research partners to embrace the urgency of the moment; our maritime supremacy is being challenged.
- We will continue to integrate across the Joint Force and with industry partners to maintain our maritime strength.
- Your Navy is world-class and worldwide - whether in the Red Sea ensuring the free flow of commerce, or in the Indo-Pacific, your Navy stands ready.
- We stand ready to respond with the agility and lethality the American people require, wherever, and whenever. We will be there and we will be ready.
- We will continuously identify opportunities for all Sailors, Marines, and civilians to develop warfighting and leadership skills throughout the ranks, in every aspect of our force.