

Statement of Objectives (SOO) 17 August 2021 Maritime Assault Suit System

1. This program is seeking Commercial-Off-The-Shelf (COTS) surface dry suit variants: (1) Maritime Assault Suit System (MASS) and (2) Lightweight MASS (L-MASS); each consisting of an over-garment, a tension relief and ventilation system, repair kit with instructions, and Use and Care Manual, which can be used as a combat suit of the US Navy in maritime, land, airborne, shipboard, and transitional environments. To keep the user comfortable, the MASS and L-MASS shall provide the greatest degree of water vapor management and must be durable enough for rugged field use.
2. The MASS and L-MASS shall keep the operator dry in maritime and all weather conditions without interfering with typical mission movements or compromising range of motion for activities including, but not limited to swimming, running, assault movements, and weapons manipulation. Both versions must be as lightweight as possible, not exceeding the maximum weights identified in Table 1, to meet associated service life, fit comfortably and must be able to keep the operator as dry as possible during surface swims and while immersed in 10 feet of water for 1 minute without significant weight gain.
3. The MASS and L-MASS and all components and design features shall be compatible with all individual equipment (load bearing equipment, body armor, headwear, hand wear and footwear/fins) used in combat operations and training.
4. Sizing tariff and garment sizing measurements shall accommodate the 5th to the 95th percentile male as identified in Table 1. Contractor shall have the ability to provide special order sizing for males. Contractor shall also have the ability to provide sizing for females.
5. The MASS and L-MASS must have front entry and relief zipper, protection from water intrusion at neck and wrists, integrated socks, non-fixed optional use internal suspender design, easily accessible and an adequate number of shoulder, thigh and calf pockets. The suits must be designed in a manner that reduces the effects of abrasion on key garment stress areas, be adequately quiet during typical mission movements with ease in donning and doffing.
6. The neck and wrist gaskets/seals shall be comfortable, minimize compression on the neck, shall not interfere with individual clothing or equipment, and shall be adequately protected from weather conditions and physical damage. The neck and wrist tension seals shall be customizable to each individual.
7. Vendor shall be capable of delivering initial 200 suits in a subdued color, which shall be approved by the Government, within 60 days of contract award.
8. The garment must have the following design characteristics:

Table 1: Design Characteristics

Design Characteristics	Description
Performance / Environmental Conditions of Use	Worn in maritime environment to include Over the Beach (OTB) operations, surface swims, cast and recover operations from boats, ship assaults, Vessel Boarding, Search, and Seizure (VBSS). Environmental conditions may consist of: temperate to extreme cold, high wind, rain and sea spray on open surface craft; half-nautical mile surface swim on open water, through surf zones, transitioning through sandy or rocky beaches onto inland areas with rocks or hardened terrain; and dives to 10 foot depth for 1 minute. MASS and L-MASS will be worn over SOF cold weather undergarments and other clothing as appropriate for the specific operation or training.
Materials	Lightweight, waterproof, windproof, breathable, durable, rip and tear resistant, comfortable, and as quiet as possible. Material must be Berry Amendment Compliant.
Weight	Weight of MASS not to exceed 5-lbs and L-MASS not to exceed 4-lbs. Both weights apply to a size garment that would fit an individual who has the following measurements: Chest 46", Waist 38", Girth 74", Inseam 34", Height 74", Sleeve 35", Shoe Size 15.
Sizing	The MASS and L-MASS shall, at minimum, accommodate the 5 th to the 95 th percentile male as follows: Chest 36-54", Waist 30-44", Girth 62-80", Inseam 28-38", Height 62-78", Sleeve 30-36", Sock Size 6-15. Offeror shall also confirm the ability to provide sizing for females.
Signature Management	The MASS and L-MASS shall be constructed with materials that minimize the wearer's signature when viewed visually or through Visual Augmentation Sensors (VAS).
Durability	Must be durable enough to perform in operational environments and be rip/tear resistant when used onboard marine surface craft, during OTB operations, maritime

	operations on sharp rocks and hardened terrain, during VBSS, Gas and Oil Platform (GOPlat) assaults, when in contact with Caving Ladders or Standard Ship materials and SOF Combat Equipment.
Collar Construction	<p>The collar shall be comfortable, durable, adjustable, non-restrictive, and waterproof. While in garrison, it must have the ability to relieve tension (on neck) for increased comfort and ventilation via neck ring/other means.</p> <p>A field replaceable neck seal would be beneficial but is not mandatory.</p> <p>A pre-measured/semi-customized neck seal (Small, Medium, Large) is desired to minimize the need to trim after delivery.</p>
Pocket Construction	Does not retain water and can be securely fastened shut with one hand.
Pocket Location	Easily accessible shoulder, thigh, and calf pockets.
Zipper(s) Construction	Lightweight, low profile, waterproof, easy to operate.
Zipper(s) Locations	<p>Entry Zipper: Easy to don/doff capability.</p> <p>Front Relief Zipper: Placement that allows User to relieve themselves.</p>
Cuffs & Sleeves Configuration	<p>The cuffs and sleeves shall be comfortable, durable, adjustable, non-restrictive, waterproof.</p> <p>A field replaceable wrist seals would be beneficial but is not mandatory.</p> <p>Pre-measured/semi-customized wrist seals (Small, Medium, Large) are desired to minimize the need to trim them after delivery.</p>
Sock Configuration	<p>Attached to pant. Will be worn under boot, needs to be comfortable, low profile, and waterproof.</p> <p>Stretch socks are desired.</p>
Unique Patterning	Articulated knees, elbows and hips, reduction of uncomfortable pressure point areas, allows for full range of motion without restrictions.

(seam sizing, seam locations, articulated sleeves, reductions to uncomfortable pressure points, active design cut, reinforced shoulders, elbows and knees)	
Padding	Built in padding and/or ability to add removable knee pads.
Repair kit with instructions	Repair kit with instructions enclosed in waterproof bag that shall keep the kit and instructions dry during normal use. Repair kit contents will include patches and other material necessary to perform field repair, plus zipper lube and other material necessary for daily care and maintenance.
Use and Care Manual	Manual shall include instructions for normal use, proper care, maintenance, repair and storage.
Design capabilities for potential garment modifications or redesign for operational effectiveness	The offeror's design capability for potential garment modifications or redesigns for operational effectiveness will be evaluated for the ability to incorporate minor design mods requested by the government.

10. MASS and L-MASS Suits submitted for Non-Warranted Services, not previously laundered by the Government, should be laundered prior to alterations in accordance with all applicable State and Federal regulations.

11. The MASS shall have a standard operational life of at least three (3) years. The L-MASS shall have a standard operational life of at least one (1) year.

12. Both must be repairable and the contractor shall be capable of providing repair services for components typically damaged by routine wear and tear. At a minimum, the contractor shall be capable of repairing or replacing the following components: entry zipper, relief zipper, wrist seal, neck seal, suspender, and sock.

13. The contractor shall propose improvements and/or be capable of implementing Government required design and material modifications. There is currently no requirement for MASS and L-MASS variants for females. However, contractor shall be capable of implementing Government required design and material modifications for a MASS or L-MASS variant for females should it becomes necessary.

14. Provide five on-site New Equipment Training (NET) classes on measurement and sizing to government/military logisticians, and on use, care, and maintenance to operators and logisticians in San Diego, CA, Virginia Beach, VA, Dam Neck, VA, Stennis, MS, and Kodiak, AK, within the first three months after contract award.