

### **DEFENSE LOGISTICS AGENCY**













DLA Troop Support Clothing & Textiles [IST]

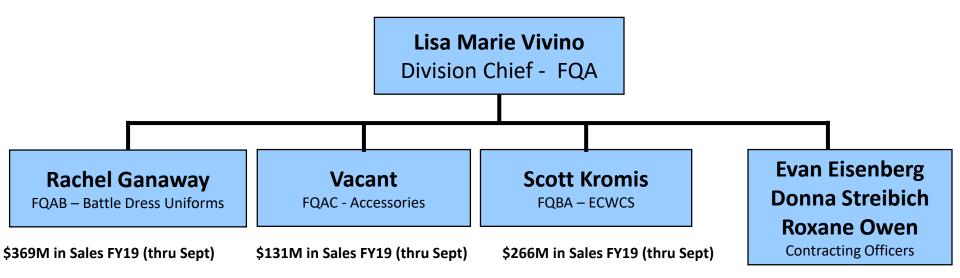
Extended Cold Weather Clothing Systems (ECWCS)





## Field Clothing Division





Evan Eisenberg (KO-Unlimited)
Joseph Parker

Mark McClernan Michael Baron Philip Ward (PACER) ed) Donna Streibich (KO-\$100M)
Dirk Smart (KO – SAT)

Mimi Pham (KO – SAT)

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Roxane Owen (KO-\$10M)
Antoinette Ouattara (KO-\$500K)

**Susan DeMarco** 

Miosotis Gonzalez-Figueroa

Stefanie Caruso

**Patricia Lyles** 

Tiffany Taylor (PACER)

**Blaine Jackson (PACER)** 



### **Division Points of Contact**

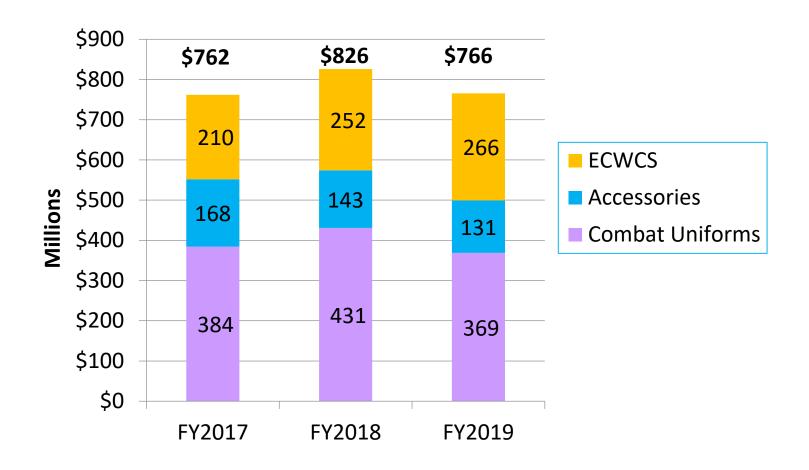


Name	Team	Title	E-mail
Lisa Marie Vivino	Field Clothing	Division Chief	<u>LisaMarie.Vivino@dla.mil</u>
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Roxane Owen	ECWCS	Contracting Officer	Roxane.Owen@dla.mil



# Field Clothing – Sales FY2017-FY2019







### **ProgramOverview**



- C&T ECWCS Team sales exceeded \$200 M per year since FY 17
- ECWCS Team manages over 40 cold weather items
- Past Sales

FY 17 Sales: \$210M

FY 18 Sales: \$252M

FY 19 Sales: \$266M

• Backorder Dollars are down by 29%



## **Obligations**



• Obligations - FY19 \$352 M vs. \$338 M Planned FY20 forecast \$239 M

Prior Year Obligations

FY 17 – \$179 M

FY 18 – \$262 M



### **Open Procurements**



• PGC: 00016 – Cold Weather Parka

SPE1C1-19-R-0142 (Competitive),

Min/ 3,500 pkg. Max: 52,500 pkg.

Target Award Date: February 2020

Small Business Set-Aside

PGC: 00016 – Cold Weather Parka

SPE1C1-19-R-0143 (UNICOR),

Min/ 3,500 pkg. Max: 52,500 pkg.

Target Award Date: February 2020



### **Open Procurements**



• PGC: 00103 – Marine Corps Parka

SPE1C1-19-R-0128,

Base Term and Two Option Terms:

Min/ 3,000. Max: 15,000.

Target Award Date: January 2019

Small Business Set-Aside





MC MW shirts (likely mandatory)

AEQ - 40,000

Issue November 2019

TAD February 2020

• MC MW drawers (likely mandatory)

AEQ - 40,000

Issue November 2020

TAD February 2020

Fleece Caps (likely mandatory)

Issue April 2020

AEQ - 400,000

TAD October 2020





Lightweight exposure Suit Parkas (MC level 5 - similar to layer 6 for Army/AF) To be issued by end of November – Annual Estimated Quantity – 3,180 TAD April 2020

MC/Navy Trousers – TAD June 2020 Expected Issue Date:

December 2019 Annual Estimated Quantity – 16,000

TAD: July 2020





Combined Acquisition To be issued by end of November TAD – APR 2020

Layer 7 (Army/AF Parkas) -30k - 60k

LWES Trousers Annual Estimated Quantity: 3180

MC Extreme Cold Weather Parka (similar to layer 7 Army/ AF) Annual Estimated Quantity: 4600

MC Extreme Cold/Wet Weather Trousers Annual Estimated Quantity: 4500





Flame Resistant Environmental Ensemble (FREE)
Ability One – RFAs targeted to be issued December or Sooner –
Expected to be mandatory TAD APR 2020

- Extreme Weather Outer Layer (EWOL) Parkas AEQ 46,200
- EWOL Pants AEQ 48,120
- Base Layer (2) Undershirts AEQ 65,850





• MW Undershirts Mandatory TAD November 2020 Solicitation expected May 2020 To be split among Various mandatory sources Total AEQ 450,000

• Mid – Weight Drawers Mandatory TAD November 2020 Solicitation expected May 2020 To be split among Various mandatory sources Total AEQ 4500,000



## Other Topics



- Other topics relevant to industry...
- FREE Items have had erratic demands.
- High Visibility Geo Political Events/OCP Transition
- Seam Sealing
- Berry Amendment
- Layer 7 has had significant increase in demand



### **Team POCs**



- Antoinette (Toni) Ouattara Contracting Officer/Acquisition Specialist 215-737-5660
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- Blaine Jackson Acquisition Specialist 215-737-2832 Technical Team
- Dan Carman, Le Nita Mccoy, Stephen Swartz,
   Robert Fitzgerald









# Product Manager Soldier Clothing and Individual Equipment (PM SCIE)

# Environmental Clothing Update for the Joint Advanced Planning Brief to Industry

7 November 2019

Lester Smith
Program Officer
Soldier Clothing and Individual Equipment
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# **Extended Cold Weather Clothing System (ECWCS)**



### Where We Are:

- Legacy system meeting Army requirement
  - Areas for Improvement:
    - > Reduce bulk and weight
    - > Reduce number of layers where possible

### Where We Are Going:

- Fit (reduced bulk/weight) Working with Industry to develop novel material solutions that provide the same cold weather protection with less bulky/lighter materials.
- Working to combine/reduce layers
- Estimated transition to a new cold weather clothing system FY25



# Extreme Cold Weather Flyer Boot- SBIR PHI

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AFLCMC... Providing the Warfighter's Edge

**Program Description:** Flyer boots (Berry Compliant) lack capability to meet protection requirements for extreme cold temperatures in low bulk for flight use; exploring heating solutions

#### **Requirement:**

- Berry compliant
  - Improved cold protection (-20F) (-49F)
  - Maximum insulation without excessive bulk
- Leak resistant, slip resistant, waterproof
- Anklesupport
- Impacts approximately AF 24,000 aviators that "dress to egress"

JOINTLY Funded by: SBIR (AF/AFRL), and (NAVAIR)

Contractors: Kennon, Mantel, Cornerstone Research, Propel

	FY18	FY19	FY20	FY21
3600	N/A	\$150Kea	N/A	N/A
3400	N/A	TBD	TBD	TBD

**Spent Unfunded Obligated** 

#### Recent Highlights (Last 30-60 Days):

■ 4 Companies awarded Ph 1SBIRs 5 Aug 19

■ Technical Evaluations completed 6 May19

■ Post Award/Kick offmeetings 30 Aug19

#### Coming Into View (Next 30-60 Days):

Progress Reports 16 Dec19

#### **Next Major Milestone/Significant Event:**

■ Interim Report 3 Feb20

■ Full Reports 4 May 20

#### Top Issues/Risks:

■ Heating/ Safety (new power and heating technologies)

Projection ▶												
	J	Α	S	0	N	D	J	F	M	Α	M	J
Cost	G	G	G	G	G	G	G	G	G	G	G	G
Schedule	G	G	G	G	G	G	G	G	G	G	G	G
Performance	G	G	G	G	G	G	G	G	G	G	G	G
Logistics												
Funding	G	G	G	G	G	G	G	G	G	G	G	G
Overall	G	G	G	G	G	G	G	G	G	G	G	G







# U.S. ARMY COMBAT CAPABILITIES DEVELOPMENT COMMAND

Cold Temperature and Arctic Protection System

Kate Young

**Textile Technologist** 

**CCDC Soldier Center** 





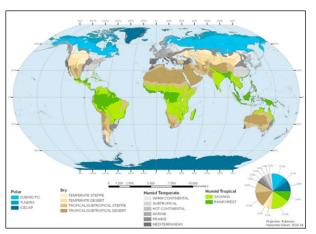
# COLD / EXTREME COLD WEATHER CLOTHING PROGRAM – OVERVIEW



Effort	Acronym	Objective	Scope
RACE-A	Regionally Aligned Combat Ensemble - Arctic	<ul> <li>Lab-based research</li> <li>Will develop analytical tools to assist in defining Soldier protection needs based on regional / climatic operational environments</li> <li>Material and design support to CTAPS</li> </ul>	Clothing
CTAPS	Cold Temperature and Arctic Protection System	<ul> <li>Field-based application</li> <li>Will assess current cold weather clothing to identify capability needs, inform acquisition requirements, and develop innovative cold weather ensembles</li> </ul>	Footwear Handwear Headwear Clothing







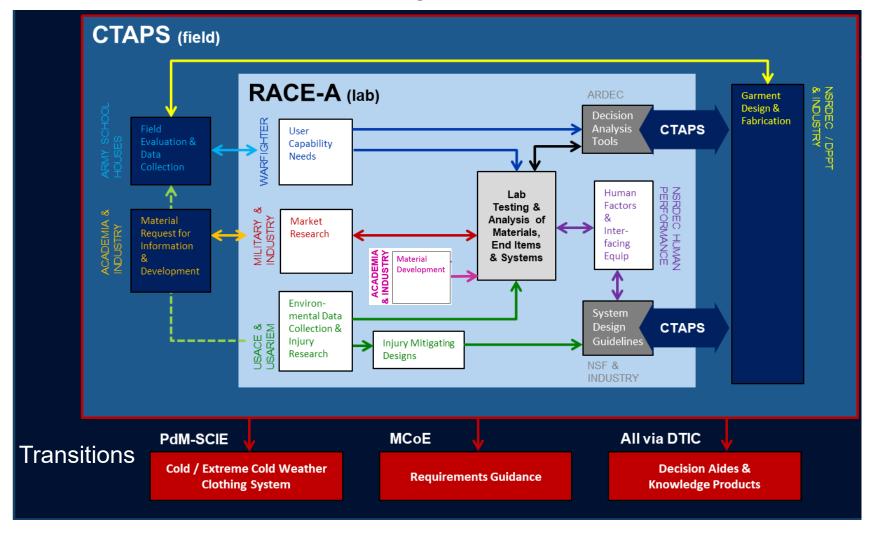




# COLD / EXTREME COLD WEATHER CLOTHING PROGRAM



### TECHNICAL/EXPERIMENTAL APPROACH:







### **COLD TEMPERATURE & ARCTIC PROTECTION**



- Cold Temperature and Arctic Protection System is research effort of Combat Capabilities Development Command-Soldier Center in Natick, Massachusetts in collaboration with Product Manager-Soldier Clothing, Individual Equipment and Maneuver Center of Excellence.
- Areas identified for improvement were: material durability of Soft Shell-Level 5 of ECWCS, moisture management throughout, reduction of weight/bulk where possible, integration with body armor.
- Prototype designs based on Regionally Aligned Combat Ensemble-Arctic (RACE-A) data output and Subject Matter Experts Design Review
  - Material selection from RACE-A data analysis from materials received from but not limited to Request for Information (RFI) for CTAPS in 2017.
  - Design features based on feedback from Subject Matter Experts of various cold weather operations from meeting held consecutively for 3 years in May at Combat Capability Development Command-Soldier Center(CCDC-CS) in Natick, MA.





### **FIELDING LOCATIONS**



From 2017-2019: Locations included Joint Base Elmendorf-Richardson(JBER), Northern Warfare Training Center (NWTC), Ft. Wainwright, Ft. Greely in Alaska, Army Mountain Warfare School(AMWS) in Vermont, and Ft. Drum in upstate New York.







### **CLOTHING ITEMS EVALUATED TO DATE**



### FY2017 Base Layer –

Incorporated No Melt, No Drip (NMND) for Next-to-Skin.

# **CTAPS Prototype Evaluation Base Layer**

BL1 Current Army Extended Cold Weather Clothing System (ECWCS) 100% Polyester

BL2 Army Flame Resistant Environmental Ensemble (FREE) 97% Nomex/3% Spandex

BL3 Marine Corps Flame Resistant Organization Gear (FROG) 78%Modacrylic/22%FR Rayon

BL4 Small Business Innovation Research(SBIR) Wool 88% Wool/12% Nylon











### **CLOTHING ITEMS EVALUATED TO DATE**



# FY2018 Soft Shell, Commercial-Off-The-Shelf(COTS) Light Insulation, Armor Interfacing Garments















### **CLOTHING ITEMS EVALUATED TO DATE**



# FY2019 Small Subset of SBIR Cold/Wet Weather Jacket and Extreme Cold Weather Parka & Trouser











# UPCOMING CLOTHING ITEMS TO BE EVALUATED EVEDM



FY2020 Ensemble Evaluation of Base Layer, Lightweight Insulation, Soft Shell, Cold Wet Weather, and Extreme Cold Weather layers









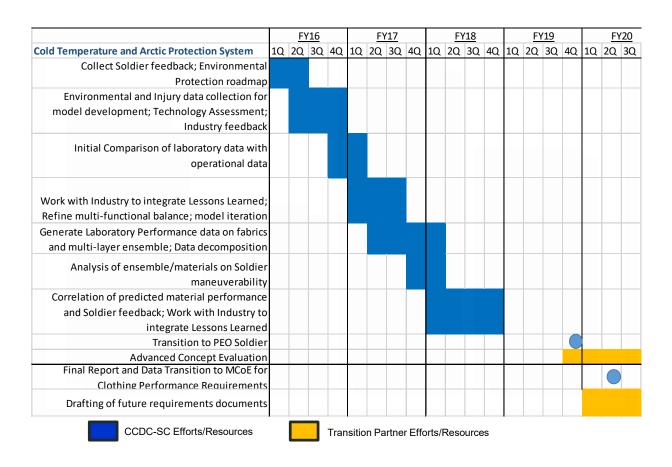
- Evaluation of items will provide data that will determine material increased performance, utility, and compatibility with Personal Protection Equipment and Other Clothing Individual Equipment compared to current system.
- Novel material development will be pursued for appropriate cold weather layers as determined from needs described from Soldier evaluations.
- Inform requirements with material and design inputs for transition to Product Manager for a cold weather ensemble.





### **CTAPS SCHEDULE**











# **QUESTIONS**





# COLD TEMPERATURE AND ARCTIC PROTECTION SYSTEM (CTAPS)



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# **BACK-UP**





### **COLD WEATHER ITEMS EVALUATED BY YEAR**



### Beginning 2016

Solider feedback gathered on current Extended Cold Weather Clothing System (ECWCS) & Fire Resistant Environmental Ensemble (FREE).

Examples of areas identified for improvement were: Handwear and Footwear address temperature range gaps, material durability of Soft Shell-Level 5 of ECWCS, reduction of weight/bulk in other layers.

#### Winter 2016-2017

Evaluation of Commercial Off-The-Shelf/Government Off-The-Shelf (COTS/GOTS) handwear with Cadre (Vermont and Alaska), GOTS Base Layer with Cadre(VT & AK) and Infantry (Ft. Drum). Also included was a Soldier Enhancement Program (SEP) for Mukluks.

#### Winter 2017-2018

Evaluation of COTS and GOTS for active-to-static movement, softshell uniform configuration, headwear(cap & neck gaiter), and cold weather combat boot.

#### Winter 2018-2019

Evaluation of wet-weather and extreme cold weather uniform configurations, headwear (balaclava), socks, and overboot.