



DEFENSE LOGISTICS AGENCY

AMERICA'S COMBAT LOGISTICS SUPPORT AGENCY



Extended Cold Weather Clothing System

Scott Kromis

10/20/2016



Program Overview

- C&T Extended Cold Weather Clothing System (ECWCS) cold weather gear sales exceeded
- C&T manages 80 cold weather gear items
- FY 13 Sales: 202M
FY 14 Sales: 217M
FY 15 Sales: 184M
FY 16 Sales: 201M



Obligations

- Obligations - FY16 plan vs. actual
 - Plan \$129M
 - Actual \$144M

- FY17 Obligation Forecast \$191M



Open Procurements Actions

- **03358 – AF APECS Trouser**
 - SPE1C1-15-R-0101,
 - Base and each of two option years:
 - Min 5,394 AOLQ 26,850
 - Closed 7/18/16
 - Total Small Business Set aside
 - APECS Stands for All Purpose Environmental Camouflage

- **04059 - Gen III Layer IV Wind shirts**
 - Estimated Quantities base and each of 2 options
 - Min 7K AOLQ 35K
 - Estimated Solicitation Issue Date DEC 2016
 - Anticipated Small Business Set Aside
 - Target award date June 2017



Open Procurements Actions

- **04057/8415-01-641-1633(s) Gen III Layer 5 Midweight Jacket, OCP**
 - SPE1C1-16-R-0037
 - Base and each of two option years:
 - Min 10,000; AOLQ 50,000
 - Closed May 6, 2016
 - TAD Dec 16
 - Total Small Business Set-Aside



Upcoming Procurement Actions

- **Various Sleep System items**

- Solicitation TBA
- Base and each of two option years:
- Quantities Outer Bag – Approx. min per year, 5k, Approx. AOLQ 22K/Year
- Quantities Stuff Sack - Approx. min per year, 8k, Approx. AOLQ 40K/Year
- Estimated Solicitation issue date: OCT 2016
- Unrestricted

- **Various Parkas**

- Solicitation TBA
- Base and each of two option years:
- Quantities TBA
- Estimated Solicitation issue date: NOV
- Anticipated Total Small Business Set aside
- TAD March 2017



Upcoming Procurement Actions

- **Various Afghan Field Coats**
 - Market Research to begin by end of OCT 2016
 - Quantities TBA
 - Estimated Date of Solicitation Issuance: DEC 2016
 - Target Award Date – July 2017
- **PGC: 04058 – Gen III Layer 5 Trousers**
 - Analyzing Market Research.
 - Estimated Quantities Base and each of 2 options
 - Min 10K AOLQ 50K
 - Estimated Date of Solicitation Issuance: NOV 2016
 - Target Award Date – July 2017



Other Potential Upcoming Acquisition

Various Navy/MC Trousers --

Market Research to Commence shortly

Particulars TBA



Points of Contact

Acquisition Team

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Cold Weather / Environmental Protection Advance Planning Brief to Industry

Kate Young
Project Officer
NSRDEC Soldier Clothing and
Configuration Management Team
20 OCT 16



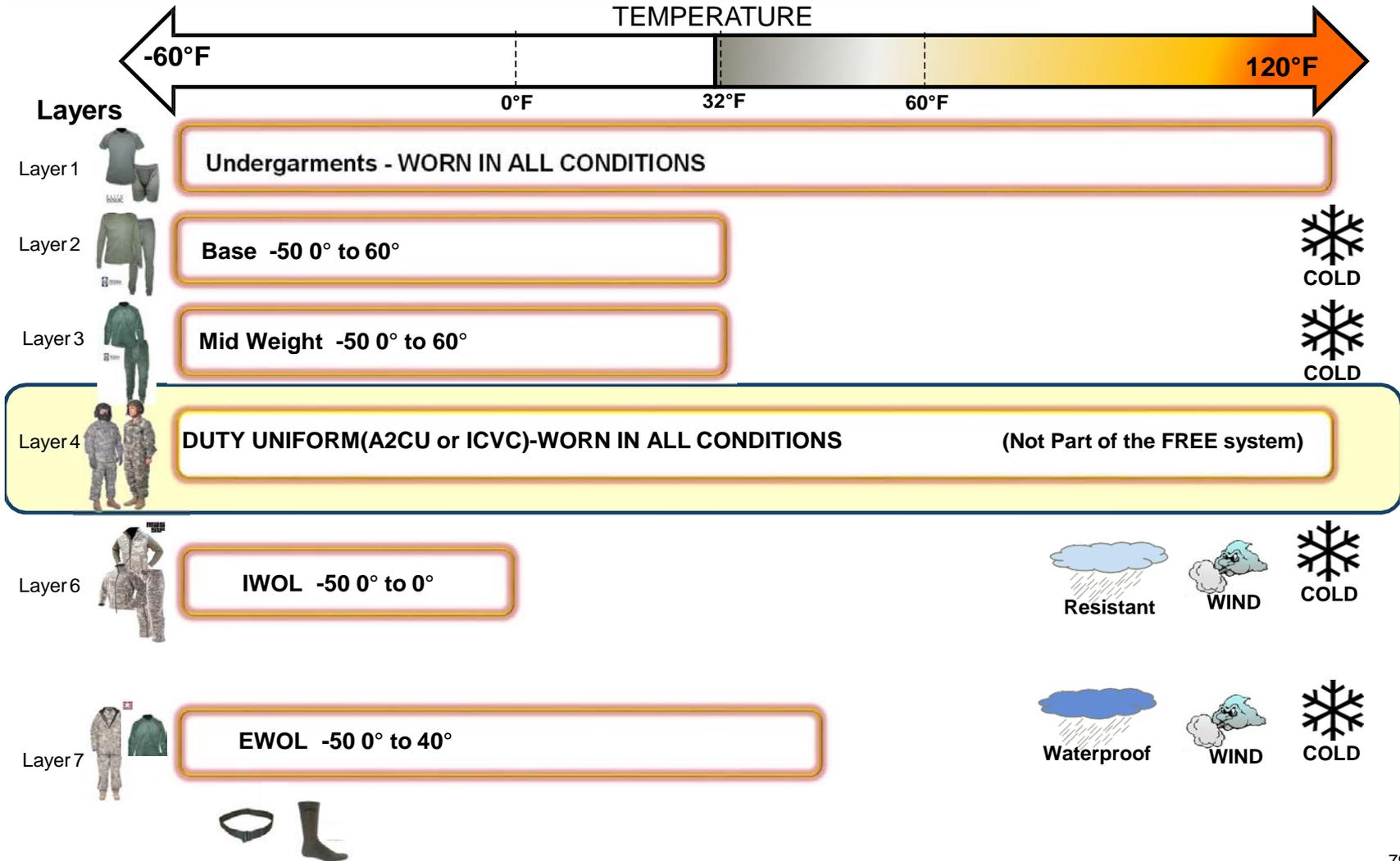
- Purpose
- FREE Overview
- ECWCS Overview
- Environmental Protection System (EPS)
- Cold Temperature and Arctic Protective System
- Military Free Fall (MFF)
- Points of Contact
- Questions



Update industry on the status of current and future U.S. Army Cold Temperature initiatives



Fire Resistant Environmental Ensemble





Objective: Improve Soldier acceptance in form, fit, function in field and garrison environment, and improve compatibility with body armor

BOI: One per deploying Soldier (if required)

NSN: Available by component

System Description:

- A multi-component, versatile clothing system that allows the Soldier to adapt to mission requirements and environmental conditions
- Designed to be used in several possible layered configurations
- 12 different components issued as follows:
 - 2 x Lightweight Cold Weather Undershirts/Drawers
 - 1 x Mid-weight Cold Weather Shirt/Drawers
 - 1 x Fleece Cold Weather Jacket
 - 1 x Wind Cold Weather Jacket
 - 1 x Soft Shell Cold Weather Jacket/Trousers
 - 1 x Extreme Cold/Wet Weather Jacket/Trousers
 - 1 x Extreme Cold Weather Parka/Trousers

Current Systems

Extended Cold Weather Clothing System (ECWCS) Gen III

- Lightweight, many layers, not tailorable with BodyArmor
- No Flame Resistant (FR) Properties at all
- No Gloves tied to this system
- Does not allow for additional Technology Insertion

***DOES NOT SERVE POTENTIAL SAFETY NEEDS OF STRYKER, BRADLEY FIGHTING VEHICLE (BFV), OR OTHER MOUNTED SOLDIERS NOT CONSIDERED VEHICLE CREWMEMBERS**

Footwear

- Capability gap for -20 to 14 degrees (F)
- No domestic production of boot for -65 to -20 degrees (F)

Handwear

- No domestic source for the insulated knit liners for the mitten sets
- The majority of cold weather handwear currently in the system was designed 30-plus years ago (eg. Extreme Cold Weather Mitten, Trigger-Finger Mitten, Intermediate Cold/Wet Glove)

Proposed EPS System Provides:

Modernized combat clothing that spans the entire environmental spectrum

- Issued to All Soldiers
- Environmental System w/ FR capabilities *where needed*
- Lightweight, Tailorable, Durable
- Modernizes Jungle and Cold Weather (CW) Footwear
- Glove Modularity
- Allows for Technology Insertion

EPS Components

- Cold Weather Clothing System
- Glove Systems
- Multi-utility cold weather boots (for use w/ skis, crampons, etc.)

Last Modernized

2000
1980's
Never



Dismounted



Mounted



Military Freefall

EPS enables the Warfighter to tailor environmental clothing to fit specific mission requirements; Directly addresses Mounted, Dismounted, and Military Freefall capability gaps



Description: The US Army Natick Soldier Research, Development, and Engineering Center (NSRDEC) in collaboration with the Product Manager for Soldier Clothing and Individual Equipment (PdM-SCIE), and the Maneuver Center of Excellence (MCoE) have launched a developmental program for a Cold Temperature and Arctic Protective System (CTAPS). The intent of CTAPS is to assess the currently fielded and commercial cold weather protective footwear, handwear, and clothing to identify capability areas of interest and inform acquisition requirements to develop a novel and innovative cold weather ensemble solution. It will be the next progression in cold weather protection.

Purpose: CTAPS will protect against external extreme cold wet/dry environments while regulating internal system comfort and maintaining Soldier core body temperature during mission operations.





Cold Temperature and Arctic Protective System (CTAPS)



Current Status:

- Initial Focus Groups in cold wet/dry regions (AK,VT,NY)
- Formation of Military Cold Weather Working Group
- Government and Commercial-Off-the-Shelf survey of items
- Subject Matter Expert(SME) Design Review for FY17 Concept Evaluation

Concept Evaluations (CE):

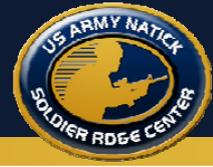
- 1) Fiscal year(FY) Winter 2017 -Footwear, Handwear, and Base Layer. Market research and testing on all materials in system.
- 2) Fiscal year(FY) Winter 2018 -Footwear and Handwear, Insulative layer.
- 3) Fiscal year(FY) Winter 2019 –Clothing ensemble

Future plan:

		FY16				FY17				FY18				FY19				FY20			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Cold Temperature and Arctic Protection System(CTAPS)																					
I	NearTerm																				
	Current Ensemble Focus group data collection	█	█																		
	Commercial Market Research		█	█	APBI	█															
	Concept Evaluation (CE) 1				█	█	█	█													
II	LongTerm																				
	Market Research for State of the Art (SOA) Technology					█	█	█	█	█	█	█	█								
	Evaluate Emerging Technology for Tech Insertion in CE									█	█	█	█								
	Data Transition to EPS CPDHandwear																				
	Advanced System Capabilities Development													█	█	█	█	█	█		
	Advanced Concept Evaluation																				
Data Transition to EPS CPDClothing																					
Feed requirements to EPSPilestone																				▲	



Cold Temperature and Arctic Protective System (CTAPS)



Environmental Protection System (EPS) Key Features of Ensemble	Notional Performance Matrix
Provide environment protection with Threshold (minimum) -50°F and Objective (maximum) - 65°F maintaining thermoregulation core temperature of 98°F-100°F.	Thermal Resistance ASTM D1518, ASTM F1291 Evaporative Resistance ASTM F1868, ASTM F2370 Breathability-Air Perm ASTM D737
Durability	Weight ATSM D3776 Break strength ASTM D5034 Tear strength ASTM D1424
Cold/Cold Extreme Wet and Dry environments	Water resistance AATCC 22 Wind resistance-Air Perm ASTM D737
Moisture management throughout all layers	Wicking ability AATCC 198 Drying time AATCC MM-TS-07 Moisture Vapor Transmission Rate (MVTR) ASTM E96
Next-to-skin must be no melt and no drip; ie., must not contribute to additional injury	Melt behavior based on ASTM D6413

Six (6) Capability Production Documents will spin off of the EPS Capabilities Development Document



1. Jungle Combat Boot (JCB)



2. Jungle Combat Clothing Ensemble (JC2E)



3. Cold/Extreme Cold Weather Boot



4. Cold/Extreme Cold Weather Glove System



5. Cold/Extreme Cold Clothing System



6. Military Free Fall Parachutists' Environmental Kit



Cold Temperature and Arctic Protective System (CTAPS)



Other Important aspects of the Ensemble:

Operationability:

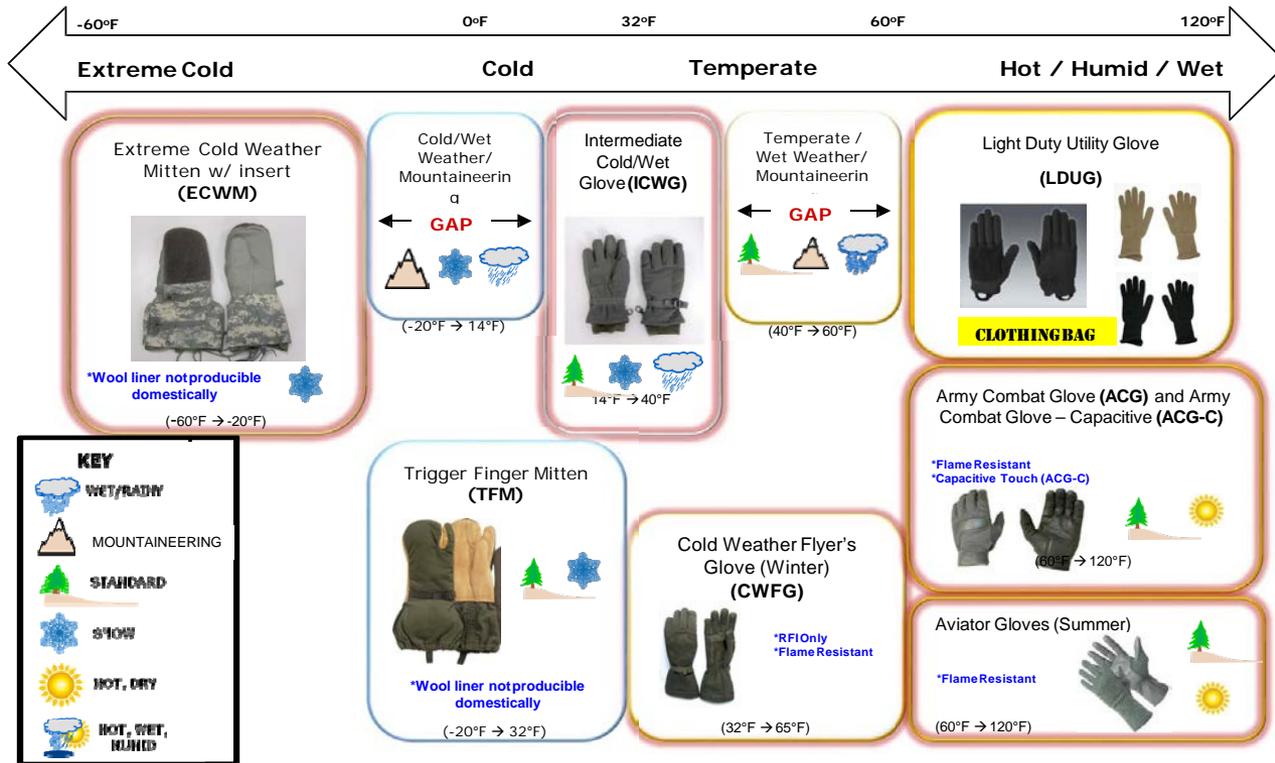
- Enhance survivability, sustainability and mobility
- Mission tailorable-quick don/doff, layer up/down, adjustability, secure closures
- Uniform design-fit/sizing of layering, vents, pockets, access points
- Full integration with Other Clothing and Individual Equipment (OCIE)

Final ensemble must be Berry Compliant

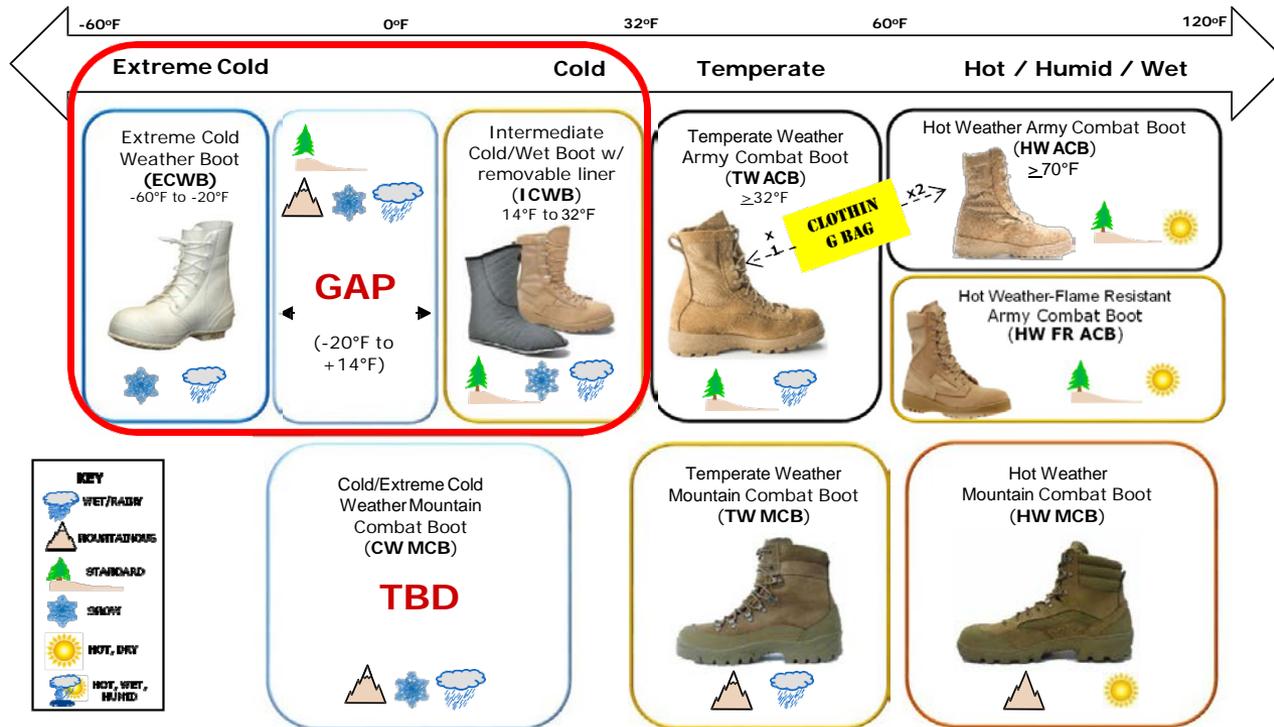
Flame Resistance:

Protection level and layer To Be Determined.

TEMPERATURE CONDITIONS



TEMPERATURE CONDITIONS





Points of Contact



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QUESTIONS and/or DISCUSSION