

## 2020 Virtual Joint Advanced Planning Brief for Industry

Our program will begin shortly; please stand by...







## **Environmental Protective Clothing Breakout**

- DLA Troop Support
  - –Roxane Owen
- Product Manager, Soldier Clothing & Individual Equipment
  - -Scott Fernald
- USAF Human Systems Program Office
  - -Debra McLean



Hosted by DLA Troop Support Clothing and Textiles

- For questions, please use the Q&A tab. Type your question ask the speaker is briefing. Questions will be read by the moderator at the end of each presentation
- You are welcome to use the chat, but please do not ask questions there as we may not see them.
- Slides are being posted within a week of the presentation at <u>https://www.dla.mil/TroopSupport/ClothingandTextiles/C-T-Industry/IndustryEvents/2020-JAPBI/</u>







DLA TROOP SUPPORT
Clothing & Textiles
Extended Cold Weather
Clothing Systems
(ECWCS)

Roxane Owen, Branch Chief November 18, 2020





## **Field Clothing Division**

# Rachel Ganaway FQAB - Battle Dress Uniforms Arlett Hartie FQAC - Accessories Roxane Owen FQBA - ECWCS FQBA - ECWCS \$344M in Sales FY20 \$116M in Sales FY20 \$325M in Sales FY20

Evan Eisenberg (KO-Unlimited)
Joseph Parker
Mark McClernan
Michael Baron
Philip Ward
Hien-My Nguyen

**Derek Jones (PACER)** 

Donna Streibich (KO-\$100M)
Dirk Smart (KO – SAT)
Mimi Pham (KO – SAT)
Marcia Henson
Rachel Piecyk (PACER)
Vincent Davis (PACER)

Antoinette Ouattara (KO-\$500K) Susan DeMarco Miosotis Gonzalez-Figueroa Stefanie Caruso Patricia Lyles Tiffany Taylor Blaine Jackson (PACER)

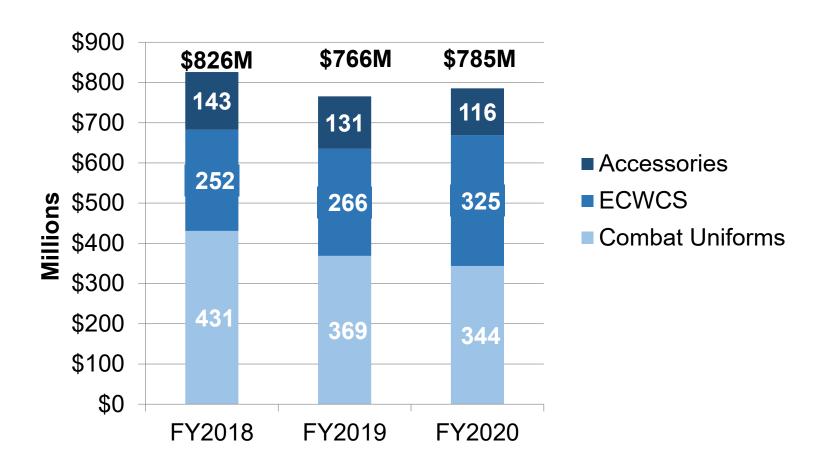


## **Division Points of Contact**

Name	Team	Title	E-mail	
Lisa Marie Vivino	Field Clothing	Division Chief	LisaMarie.Vivino@dla.mil	
Rachel Ganaway	Battle Dress Uniforms	Supervisor	Rachel.Ganaway@dla.mil	
Arlett Hartie	Accessories	Supervisor	Arlett.Hartie@dla.mil	
Roxane Owen	Extreme Cold Weather Clothing System (ECWCS)	Supervisor	Roxane.Owen@dla.mil	
Evan Eisenberg	Battle Dress Uniforms	Contracting Officer	Evan.Eisenberg@dla.mil	
Donna Streibich	Accessories	Contracting Officer	Donna.Streibich@dla.mil	



## Field Clothing Sales FY2018 – FY2020







## **Extreme Cold Weather Uniforms**











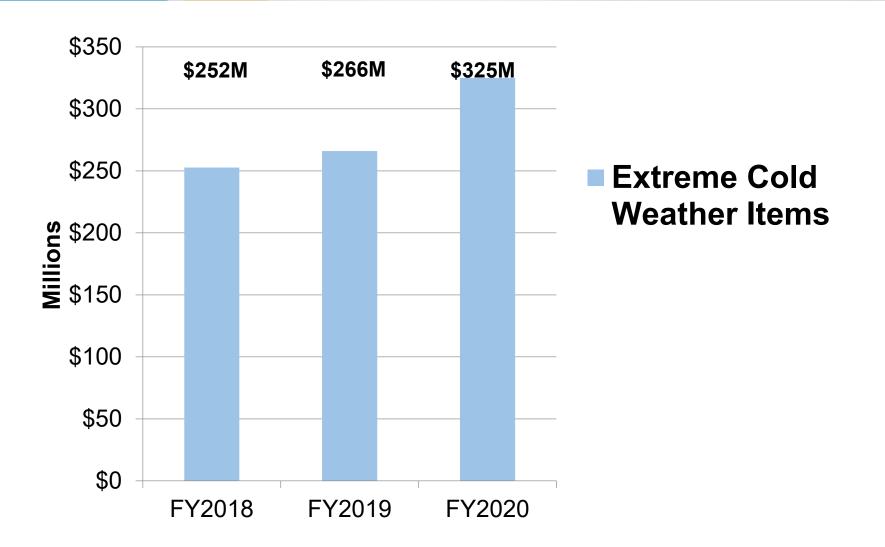


#### **ECWCS Product Line Overview**

- Product Line
  - Extreme Cold Weather Clothing System for the Army, Air Force, Navy, Marine Corps and Coast Guard
    - Base Layer Undershirt/ Drawers, Lightweight, FR Undershirt/ Drawers
    - Silkweight Undershirt and Drawers
    - GEN III Layer 4 Wind Jacket, Layer 5 Jacket, Layer 5 Soft Shell Trouser
    - GEN III Layer 6 Jacket, Layer 6 Trouser
    - GEN III Layer 7 Parka, Layer 7 Trouser
    - Navy, Parka Working Uniform (NWU) Type II and Type III
    - Parka, Cold Weather Navy, Fleece Liner
    - Balaclava Hood, Navy Watch Knit Cap, Cold Weather Cap
    - USMC Layer 6 Jacket/ Trousers, Snow Camo Parker/ Trousers
- Manage over 40 items
- Manage 32 long term contracts

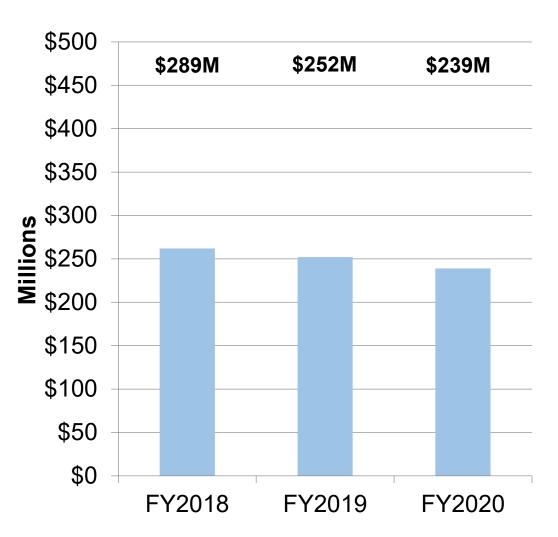


## Extreme Cold Weather Items Sales FY2018 – FY2020





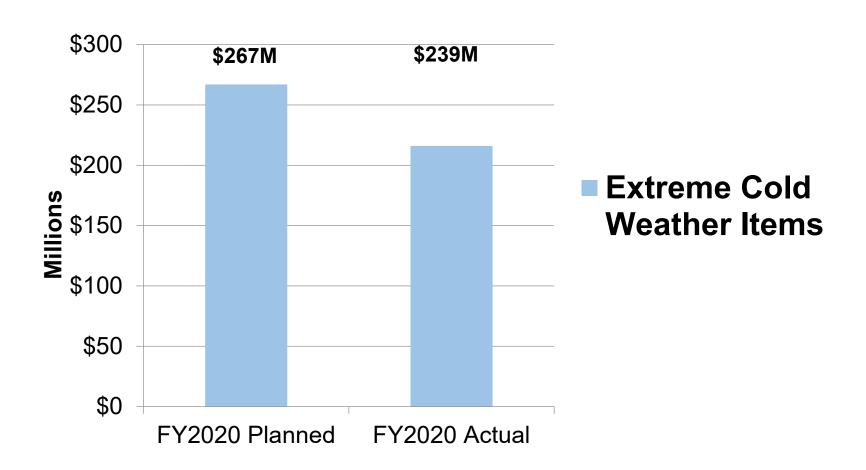
## Obligations FY2018 – FY2020



Extreme Cold Weather Items



## **FY2020 Obligations Planned vs. Actual**





## **Open Procurements**

ITEM	STATUS	TARGET AWARD DATE	
Layer III Fleece	Solicitation Closed	Dec-20	
Layer 4 Jacket	Solicitation Closed	Dec-20	
Black and Green Fleece Caps	Allocation Closed	Dec-20	
Layer 5 Jacket	Solicitation Closed	Jan-21	
Midweight Underhirt	Allocation Closed	Dec-20	
Midweight Drawers	Allocation Closed	Dec-20	



## **Upcoming Opportunities**

ITEM	STRATEGY	EST. CONTRACT LENGTH	ANNUAL EST. QTY.	EST. ISSUE DATE	BUYER
Layer 5 Trouser	Three Lots, Small Bus Aside	Base Term + 3 12M option	34,900 pr.	Dec 2020	Stefanie Caruso
Layer 6 Jacket	Three Lots, Small Bus Aside	Not Yet determined	Not yet determined	Dec 2020	Sue DeMarco
Layer 6 Trousers	Three Lots, Small Bus Aside	Base Term + 3 option Terms	Not Yet Determined	Jan 2021	Blaine Jackson
Aramid Drawers/ Undershirts	Two lots/ various strategies	Base Term + 4 Option Terms	7,644 ea.	November 2020	Blaine Jackson
Layer 7 Trousers	Two Lots, Small Bus Set Aside	Base Term + 3 12M option	71.748 pr.	Nov 2020	Tiffany Taylor



## **Updates and Reminders**

- Delivery Schedules
  - Report delays in advance so we can plan accordingly.
- Review Suppliers Performance Risk System score-SPRS (formerly PPIRS) at <a href="https://www.sprs.csd.disa.mil/">https://www.sprs.csd.disa.mil/</a>
- If there is a discrepancy with your score, contact Tim Atwell (215-737-7844), Procurement Analyst immediately for resolution, so your past performance score is top notch when competing for awards.
- Ensure you have long term agreements with your subcontractors and suppliers prior to submitting a proposal.
- Be ready for the Government to award on initial offers. Provide your best price/proposal up front. Review historical information on DLA Internet Bid Board System (DIBBS) or simply ask the contracting officer.
- Ensure your System for Award Management (SAM) registry is up-to-date and active.
- Know your places of performance at the acquisition stage.

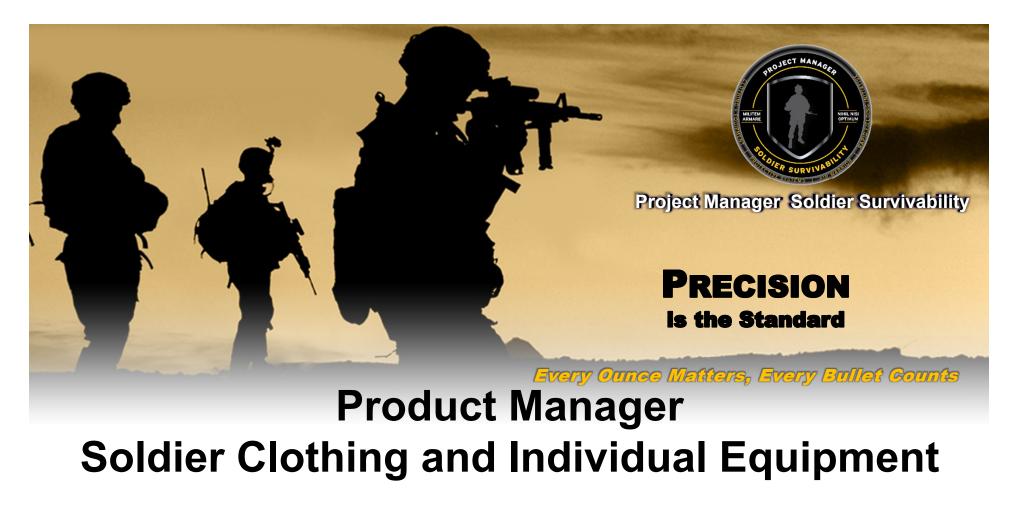


## **Team Points of Contact**

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Blaine Jackson	Acquisition Specialist	Blaine.Jackson@dla.mil
Antoinette Ouattara	Contracting Officer/ Acquisition Specialist	Antoinette.Ouattara@dla.mil







## Joint Advanced Planning Brief to Industry Environmental Protection Clothing Session

**18 November 2020** 

Scott Fernald
Acquisition Support, PM SCIE scott.a.fernald.ctr@mail.mil

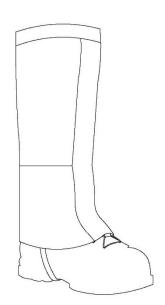


## **Cold Weather Boot Gaiters**



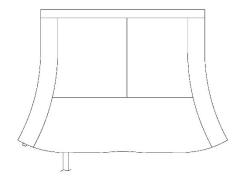
#### Where We Are:

- Capabilities: lightweight; packable; provide improved abrasion resistance for Extended Cold Weather Clothing System (ECWCS) Layer 5 trousers; durable to lessen punctures; snag resistant; water repellent
- Ensured integration with Soldiers' cold weather mobility equipment (snow shoes, crampons, skis)
- FY20 Soldier evaluation conducted at: Fort Drum, NY; Fort Wainwright, AK; Northern Warfare Training Center, AK



#### Where We Are Going:

- Develop Commercial Item Description (CID)
- Transition to Defense Logistics Agency Troop Support (DLA-TS) in March 2021





## **Cold Weather Balaclava**

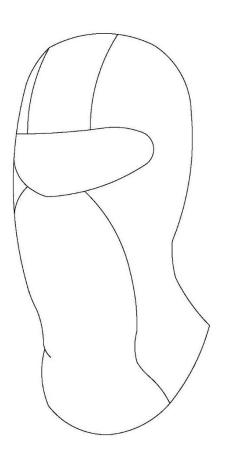


#### Where We Are:

- Capabilities: Lightweight, packable, quick-drying, formfitting, adjustable to varying conditions, covers exposed skin, minimizes eyewear fogging
- Ensured integration with Soldiers' cold weather clothing (ECWCS) and equipment (cold weather eyewear, Advanced Combat Helmet (ACH))
- FY20 Soldier evaluation conducted at: Fort Drum, NY; Fort Wainwright, AK; Northern Warfare Training Center, AK

#### Where We Are Going:

- Develop CID
- Transition to DLA-TS in March 2021 to be added as a revision to the current Commercial Item Description.





## **System of Socks**



#### Where We Are:

- Capabilities: System of Socks required to accommodate different temperatures/climate environments and levels of activity with multiple boot solutions
- FY20 Soldier evaluation conducted at: Fort Drum, NY; Fort Wainwright, AK; Northern Warfare Training Center, AK

#### Where We Are Going:

- Refine System of Socks (sock liner, light, medium, and heavy weight sock with BOI of 1, 2, 2 and 1)
- Develop CID
- Transition to DLA-TS in 2FY21



## Cold Temperature Arctic Protection System (CTAPS)



#### Where We Are:

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

#### Where We Are Going:

- Fit (bulk/weight) Working with Industry to develop novel material solutions
- · Superior system comfort, durability, and integration with body armor and kit

#### Winter 2021 Limited User Evaluation (LUE)

- Fielding 300 ensembles to Soldiers and Airmen in Alaska for evaluation
- 2021 Ensembles for evaluation include:
  - Two (2) knit constructions of mercerized wool blended base layers
  - Two (2) versions of insulated "puffy" jackets with modified venting armpit holes
  - Updated Softshell uniform with increased durability and comfort
  - Re-engineered extreme-cold parka and trouser with novel aerogel incorporated insulation



## Notional Cold Temperature Arctic Protection System (CTAPS)











## USAF PEO Agile Combat Support Human Systems Program Office JAPBI Environmental Session 19 Nov 20

Debra McLean Program Manager/WNU Debra.a.mclean4.civ@mail.mil 508-206-3072





#### **AGENDA**

**New AF Extreme Cold Weather Requirements Pending** 

**Aviation CW Boots and Glove Gaps** 

**AFGSC Heated Extreme CW Ensemble Requirements** 





## New Requirement Pending Polar Tactical Airlift Extreme Cold Clothing System



## Polar Tactical Airlift Extreme Cold Clothing System



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- Polar Tactical Airlift Extreme Environment Clothing System (PTAECCS)
  - Key Perf Parameter (KPP) 1:Environmental Protection 40F down to -60F
  - Key Perf Parameter (KPP) 2:Safe Aircraft Maintenance & Generation: Survivability,
     Higher than normal risk of explosion and fire
- V1) Protect Maintainers on ground dry snow & ice, higher than normal FR risk; proper grounding is not an option
- V2) Protect Aircrew (requires Safe To Fly Approval)



Status: Capabilities Rqmt Doc (CRD) in staffing at ANGB



## Polar Tactical Airlift Extreme Cold Clothing System



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- Clothing, Handwear, Headwear
  - Protect in environment 40F down to -60F
- Boots: Meet ANSI Z F2412 -11/18 &- F2413-11
  - Cold protection rated for -149 degrees Fahrenheit
  - Compression and Impact, and Electrical Hazard Certified, and with Composite Toe
- Eyewear: Rx insert compatible, Prevent Glare, Fogging



Key Locations: Alaska, Antarctica, Greenland, Canada



## Polar Tactical Airlift Extreme Cold Clothing System



- 1) Head and Neck Protection
- 2) Face Protection
- 3) Eye Protection
- 4) Upper Torso Extremity Protection (Jacket/Parka, Thermal Underlayers)
- 5) Extreme Hand Protection
- 6) Lower Torso Extremity Protectoin (Trouser, Thermal Underlayers)
- 7) Foot and Lower Leg Protection, Boot: (-149F) includes protection from liquid O and N
- 8) Foot and Lower Leg Protection, Sock
- 9) Tailorable and scalable
- 10) Maneuverability and Scalability
- 11) POL Resistant and Repellent
- 12) Durability
- 13) Moisture Management











Existing/ Legacy Items



## Polar Tactical Airlift ECCS Additional Performance Attributes



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#### **APAs** To Be Determined (TBD)

- 1) Fit
- 2) Size and Adjustability
- 3) Foreign Object Prevention
- 4) Color





## Polar Tactical Airlift ECCS Other Items TBD



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#### **Other items** To Be Determined (TBD)

- 1) Specific Equipment Compatibility (list)
- 2) Maintainability Use and Care of Ensemble items
- 2) Duration of mission/ between launderings
- 3) Expected Wear Life
- 4) Storage (Heated location?)
- 5) Initial, Full Fielding, and Annual requirement quantity including anticipated new positions
- 6) Expiration of current issued ensemble equipment (FY? 22? 24?); replacements needed?
- 7) Price points: current, maximums (unit costs)?
- 8) Power source desired: unit AFE rechargables, portable mil battery on board, wearable conformal battery?





## Polar Tactical Airlift ECCS Status / Plan Forward



- Staffing Requirement for HQ's approval
- Await AF Funding
- Market Research
- Explore DOD solutions and ongoing programs
- Acquire latest Test Docs, Samples
- Test Plan
- · Procure test assets
- Conduct any Technical Tests Rgd
- Conduct Fit/Sizing and Integration (Grounded Platforms)
- Safety Assessment/ Test Readiness for Wear Testing with Maintainers
- Interim Safe To Fly Recommendation for v2 Flight Tests
- · Conduct Maintainer and Flight Wear Testing
- Configuration Control Board (CCB) / Sr Material Leader Approval Decision for v1 and v2







## Cold Weather Aviation System Gloves and Boots

**Capability Gaps** 





- Key Perf Parameters (KPPs):
- Environmental Protection, Reduce Bulk, Manage Moisture
  - Threshold protect to -20F / Objective protect down to -49F, 6 hrs;
     450KEAS/ 3 sec; wind chills 55 mph
- Clothing ensemble MEETS the CWAS temp requirement for the required protective wear time
  - Layers are less bulky, improved comfort, moisture management, and meet protection down to (-49°F)





- **Boots**: DO NOT MEET the -49F protection requirement (temperature and duration)
  - Current warmest Safe To Fly approved (Berry compliant) boots:
    - total boot clo values range (1.46-1.51 clo)
    - predicted frost bite injury in slightly under 2 hrs (foot endurance time) at -20 deg F
    - modeled with CWAS ensemble in a male, static activity (non-active state)
- **GAP:** Need lower temperature range rating (-49F/ 6hrs) but in low bulk configuration, not Vapor Barrier Bunny boot





- **CW Flyer Gloves** protect at -20F/ 26 hrs; Current warmest Safe To Fly approved gloves: Clo values (Berry compliant) products are in range of
  - total glove clo 1.49
  - predicted frost bite injury occurs after 26 hrs at -20F
  - Predicted to FAIL after 3 hrs (frostbite occurs) at -49F with only 0.4 m/s wind speed
  - GAP: Need gloves that are at least that warm but with way less bulk, thickness: (loss of tactility/ dexterity)!





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#### **FY 21 Looking For**

#### **Footwear:**

- Cold Weather Mukluk Improvement (Funds TBD)
  - add Flame Protection (FR) to upper duck cloth
  - Waterproof breathable membrane into upper/sole
  - Slip Resistant Sole
  - No change needed to Wool Felt Bootie Socks
- CW socks (warm, thin, durable)
- Heating alternatives that can work with approved CWAS insulated Leather Boots and/or Mukluk







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#### **FY 21 Looking For**

#### **Handwear:**

- Improved dexterity/tactility
- Durability
- Petroleum, Oil, Lubricant (POL) resistant
- Flexible in extreme cold
- Flame Protection (FR)
- Waterproof breathable membrane





Exploring heating alternatives with various power sources





### **AF Global Strike Command**

Requirement: Heated Clothing Gloves, and Boots



## AFGSC Heated Clothing, Boots, and Gloves



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### Key Perf Parameters (KPPs):

- Provide active heating garments for aircrew members
   operating in hyper cold environments with high winds for doors off mode
  - Electrically heated (or equivalent) under/outer layer of clothing for covering hands, feet, torso and legs.
  - Solution must withstand -20°F temperatures. Powered by aircraft with battery option
  - Tethered plug in (will consider) for 1 aircraft, but untethered power for others

#### Clothing Ensemble

- Flame Resistant Torso Upper, Lower, and Limbs heating elements
  - Protect from temperatures down to (-60 F) and (-149 F windchill factor)



## AFGSC Heated Clothing, Boots, and Gloves



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#### Key Perf Parameters (KPPs):

 Provide active heating garments for aircrew members operating in hyper cold environments with high winds for doors off mode



#### Footwear:

- Current Boots DON'T meet cold protection requirement (temperature or duration)
- **GAP:** Need heated boot component for lower temperature range rating (-149F/ 1.5 hr) low bulk configuration!

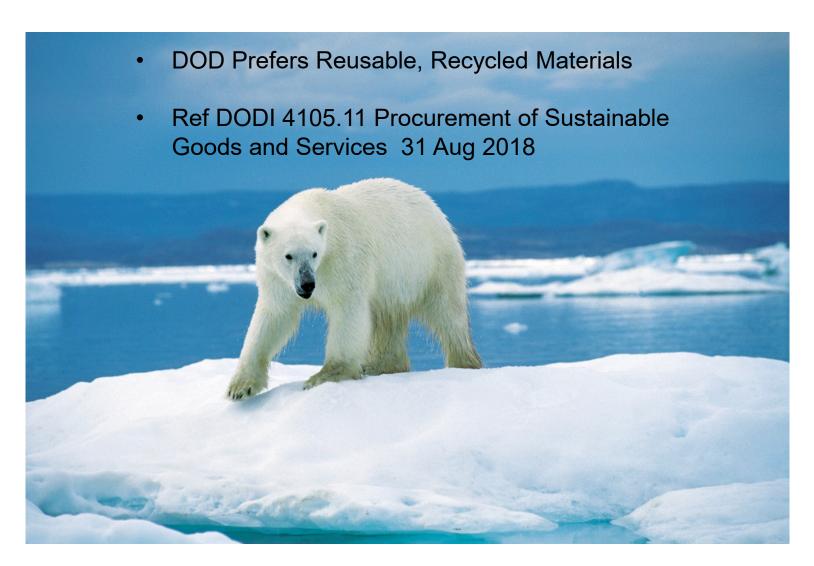
#### Handwear

- Flame Resistant (FR) safe for flight, no EMI, antistatic, avoid shock/ burns/ frost bite
- GAP: Extreme cold protection with no bulk to enable tactility/dexterity



## **Environmentally Conscious Sustainment**









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## **Questions?**





- THANK YOU FOR ATTENDING!
- Slides will be posted within a week of the presentation at <u>https://www.dla.mil/TroopSupport/ClothingandTextiles/C-T-Industry/IndustryEvents/2020-JAPBI/</u>