



AFLCMC... Providing the Warfighter's Edge

Joint Advanced Planning Briefing to Industry

U.S. Air Force Overview

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Lt Col John "Will" Southard
Deputy Chief, Human Systems Division
Agile Combat Support Directorate
Air Force Life Cycle Management Center
john.southard@us.af.mil

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Agenda



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- **Organizational Charts**
- **Vision & Mission Statements**
- **Future requirements**
 - **Combat Ready Airman**
 - **Female Fitment**
 - **USSF uniforms**



Thank You



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Thank you Industry for continuing to find innovative ways to adapt to Covid-19, and persisting to deliver critical product to our warfighters



Agile Combat Support (ACS) Directorate



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CMSgt Theodore Angel
Senior Enlisted Advisor

Colonel Lea Kirkwood
PEO/Director

Kevin Keck
Deputy Director

VACANT
Sr IMA to Directorate



Mr. William Williams
Chief, Auto Test Sys

Mr. Carl Unholz
Chief, AFMETCAL

Colonel John Kurian
Chief, Simulators

Mr. Emilio Varcarel
Chief, Human Systems

Colonel Gregg Jerome
Chief, EW & AV

Colonel James Brenning
Chief, Spt Equip/Veh



Vacant Chief,
Contracting
WPAFB

Mr. Marty Ledden
Chief,
Contracting
Robins AFB

Ms Lynne Leftwich
Chief,
Financial
Management

Mr. Alvin "Clay" Mims
Director of
Engineering

Mr. Neil Erno
Chief,
Logistics

Ms. JoAnn Freburg
Chief,
Management
Operations

Mr. Dennis Deitner
Chief,
Portfolio
Analysis

Mr. Ron Hannan
Chief,
Security

Mr. Michael Duron
Chief,
FMS

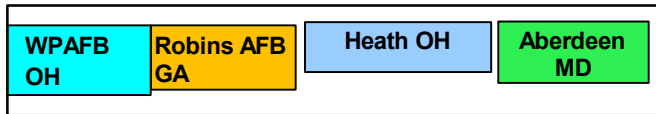
Mr. Jeffrey Thetford
Chief,
Intelligence

Vacant Chief,
Test



Agile Combat Support (ACS) Directorate

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ColorLegend

Air Force Materiel Command (AFMC) ☆ ☆ ☆ ☆

Air Force Life Cycle Management Center (AFLCMC) ☆ ☆ ☆

Agile Combat Support Directorate (WN)
 PEO/Director: Colonel Lea Kirkwood
 Deputy Director: Mr Kevin Keck, NH-IV
 Exec: Captain David Beale 937-904-2271



Human Systems
 Mr. Emilio Varcarel
 937-938-3157
 Dep Lt Col Will Southard
 937-938-4320

Egress & Survival
 Maj Robert Hoggard
 (Acting)
 937-938-4072

Aircrew Performance
 Mr. Jason Scott
 937-938-4073

Aeromedical
 Mr. Cole Hutchison 937-938-2737

Combat Ready Airman
 Ms Deb McLean
 (Acting)
 508-206-3072

AF Chem-Bio Defense
 Lt Col Paul Hendrickson
 867-3209

Sustainment Branch
 Ms Mary Kicklighter
 478-222-7414





Human Systems Division AFLCMC/WNU

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Vision:

Save or improve Airmen's lives

Mission:

Acquire and support human systems to enhance warfighter performance, protection, and survivability



Every Airman...Every Mission...Every Day!

Human Systems at a Glance

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Aeromedical Mr. Hutchinson

Aircrew Performance Mr. Scott

CBRN Lt Col Hendrickson

CRA Ms. McLean (acting)

Egress & Survival Maj Hoggard

Sustainment Ms. Kicklighter

Head Gear
(neck up) **Body Wear**
(neck down)

Egress **Survival**

Cole Hutchinson LtCol Impastato
AML Programs RAC Centrifuge CLS
DHP Projects MCiPe FIVES AVT Biomeme Three9 PLS SIT-D TS-VIS CLC Aeromed Test Lab

Mr. Perine	Mr. Tobin, Chris Ms. Bembry
Helmet ABH NGFWH Legacy Helmets	Suit IAE CWAS G-Suits Anti-Exposure A2CU Fit Suit
Accessory ALEP 2 & 3 NFB PLTZ NVG DEP	Accessory Body Armor Boots/Gloves Bladder Relief

Lt Col Hendrickson
JPEO JPMs/JPLs Info Mgmt/Tech Medical Protection Rad/Nuc Defense Sensors Special Ops
Efforts: AF Interest Percutaneous Prot. Chem/Bio Detection Respiratory Prot. Collective Prot. Warning/Reporting Contamination Mit. Medical: Vac; Treat; Diagnostic

Ms. McLean Ms. Taylor Harrison Ms. Roan
Exoskeleton TEP Female Fitment
Garments A2CU-F Maternity FDU USSF Service Dress CPI New PTU FR Product List ECW Clothing ECW Boots/ Gloves
AFUO
DLA Philly
Natick Liaison

Ms. Bridges, Mr. Melvin	Jason Scott
Seat B-2 ACES2 SSIP NGES T-38 ESUP ACES2 Legacy B-52 Egress Fixed Seats	Gear PLB AirSave Kit/Vest Beacon/Radio PRC-90 DMS IPLD
Parachute LPP BA-X All Chutes Harnesses Drag Chutes	Flotation LPU Raft/Slides

Domain Aligned Egress Survival Head Gear Body Wear CBRN WML Programs AFE CBRN Def Sys PS&R:NVG

LABS: **Airmen Accommodation Lab** -- **Life Sciences Equipment Lab** -- **Materials & Textiles Lab** -- **Aeromedical Test** -- **On Board Oxygen Generating Systems (OBOGS)**





Materials & Textiles Lab



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- **Mission: verify Air Force Life Support Equipment (LSE) meets contractual specifications**
 - Testing of raw textiles to be used in manufacture of LSE
 - Testing/Inspection of First Articles & production lot samples
- **Wide array of equipment to test full-range of textiles properties against contractual requirements**
- **Supports DLA and HSD contracts**
- **15-25% rejection rate - Typically results in contractor corrective action or contract termination**



Combat Ready Airman

- Standardize Enterprise Requirements Management & Acquisition
- Move Planning, Programming, & Advocacy to the Enterprise Level
- Management Capability with Central Oversight
- Tie Enterprise Processes Together with Enabling IT
- Specialized Warfare: **1%** of Airmen
- Aircrew Flight Equip: **8%** Airmen
- CRA: **91%** Airmen*





Combat Ready Airman



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ISR / SOF PEO

Battlefield Airmen (BA)

PEC: 48011F
AFSCs: 13CX
1C2X1
1W0X2



Guardian Angel

PEC: 27227F
AFSCs: 13DX
12TX1
1T0XX

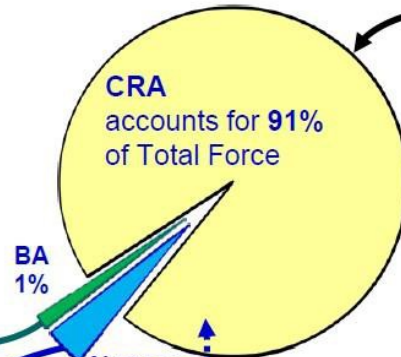
Agile Combat Support (ACS) PEO

Aircrew Flight Equipment (AFE)

PEC: 72833F
AFSCs: 11XX, 12XX, 1AXX



Air Force Uniform Office (AFUO) already manages uniforms and boots /gloves



Combat Ready Airmen (CRA)

- PEC: No dedicated PEC for OCIE
- AFSCs: 21RXX, 3P0XX, 2F0XX, and others
- No PEO responsible for all OCIE
- No dedicated program office to develop OCIE



PROBLEM:

- 91% of Total Force has no advocate to develop and field OCIE
- Unit-level purchasing results in:
 - Non-Standard equipment – increases training burden & risk of injury
 - Higher costs – no economies of scale

"I'm tired of my Airmen looking like a militia." AF Senior Leader

Develop, acquire, field, and sustain affordable integrated state of the art equipment for all Airmen to maximize full-spectrum readiness enabling global Air Force dominance.



Female Fitment Major Milestones



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- ✓ Capturing current anthropometric data
- ✓ Replacing legacy AFE
- ✓ Solving needs for CRA
- ✓ Creating interim & true solutions
- ✓ Making options available

Advanced Aircrew Combat Uniform- Female Fielding – Apr 22
 AF Women's Fly-In event – May 22

"Female Fitment Event/Boot Study" – Aug 21

FBA Full Operational Capability (total force) – Jul 21

FBA Initial Operational Capability – Jan 21

SAFE Female Fitment Industry Day – Oct 19

Security Forces Female

Body Armor (FBA) Requirement – Jul 19

"Female Aircrew Fitment Event"

(Flight suits) – Jun 19

Joint Women's
Leadership Symposium
(AF uniforms) – Aug 19

**Industry Support
 Needed → Aircrew &
 Ground Forces
 Funding \$\$ will
 continue**

Feb 19 – HSD creates Female Fitment PM

- Integrate Female Fitment into **ALL** programs
- Liaise with HSD-external organizations

Mar 18 – "We owe it to them to have gear that fits" – Gen Goldfein, AF Times

Deliver and Support Agile War-Winning Capabilities



Female Flame Manikin- “Franny”



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- **No** female burn manikin existed in the world for testing burn predictions of female sizes
 - All Services previously utilized unisex burn manikins as baseline for female uniform sizes
- AF funded Army CDC-SC (DEVCOM) Natick lab to complete build of female burn manikin and addition of removable maternity bump
- Female Manikin complete in December 2020; first burn test was completed on A2CU-F





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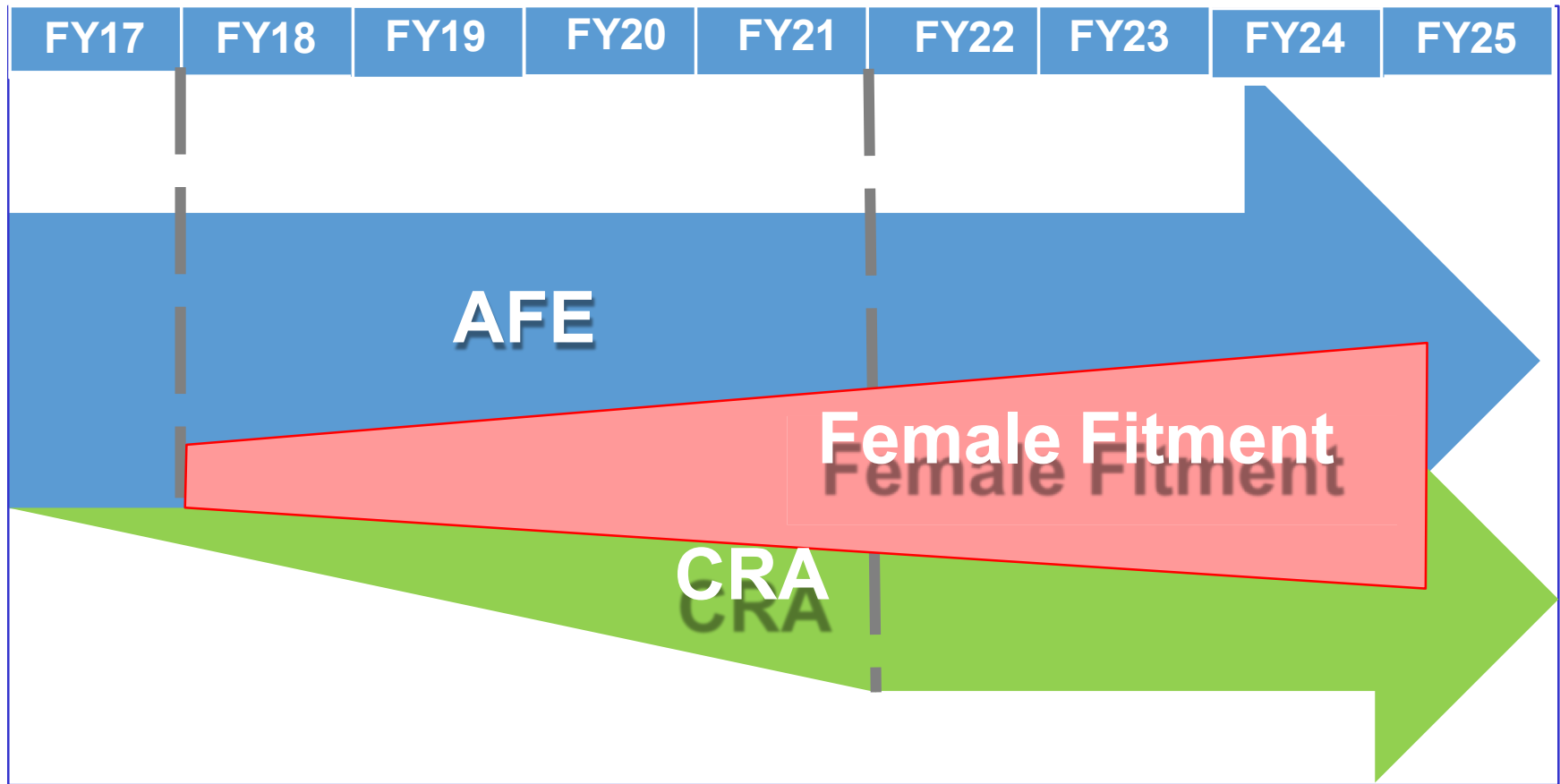
Future Requirements



CRA Way Ahead



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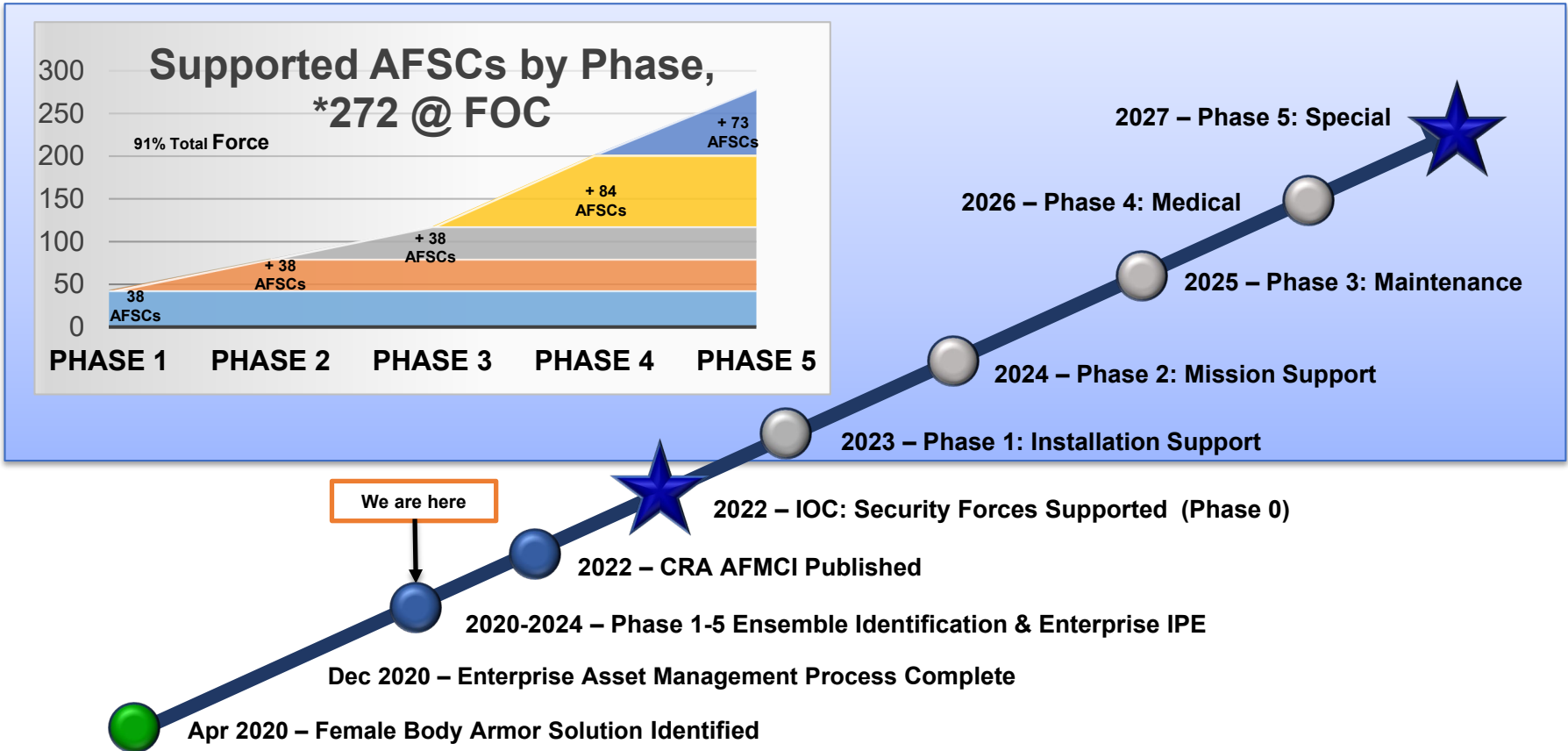
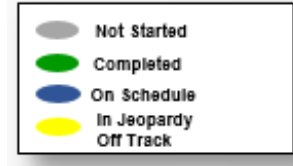




CRA Strategic Plan



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AFSC – Air Force Specialty Code, Comm – Communications, AFMCI – Air Force Installations & Mission Support Center, IOC – Initial Operating Capability, IPE – Individual Protective Equipment

* Includes Phase 0 (Security Forces)



Combat Ready Airman FY21-FY25 Prioritized



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Priorities To Date

- ✓ **Mobility Torso Extremity Protection**
- ✓ **Mobility Cold/Extreme Cold Weather Footwear**
- **Mobility Cold/Extreme Cold Weather Headwear**
- **Cold Weather Gear**
- **Mobility Cold/Extreme Cold Weather Handwear**
- **Eye Protection**
- **Gloves**
- **Wet Weather Gear**
- **Hearing Protection**
- **3-Day Backpack w/ Personal Hydration System**
- **Flashlight**
- **Holster (Baton)**
- **Tactical Battle Belt**
- **M18 Ammo Pouch OCP**
- **M4A1 Ammo Pouch**
- **Handcuff Pouch OCP**
- **Flashlight Pouch OCP**
- **Accessories Pouch OCP**
- **Load-Out Bag OCP**
- **Rifle Sling**
- **Handcuffs & Key**
- **Whistle**



Looking for latest Commercial Off The Shelf to evaluate



Update outdated kit

All projects currently unfunded; AFSC market search; starting FY22 efforts based on avail of funds



FY21- FY25 Prioritized Mobility B Bag Requirements

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- **Body Armor**

- ✓ Torso Extremity Protection (MSV upgrade) FY21 order submitted
- Additional order in FY22 (both AF funded DLA)

- **Cold/Extreme Cold Weather**

- **Footwear**
 - Adopted new Army Cold Weather Boot! Added AF to DLA contract prep
 - Looking at Army CW Overboot limited user eval (AF results)/decision TBD
- **Headwear**
 - Reviewing new Army balaclava PD, other COTS
- **Handwear**
 - **Looking for COTS options to replace outdate CW Handwear (now)**
 - Looking for multi-Service common solutions for future sustainment

Female Body Armor (FBA) buy filled interim need until Soldier Protection System MSV upgrades avail

Female BodyArmor (FBA)

Soldier Protection System (SPS)

Modular Scalable Vest (MSV)

Torso Extremity Protection System (TEPS)



AF

Safety Boots

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- **Zippered Safety Toe Boot**

- AF Civil Engineering Command need
- Not available in military supply system
- Needed for niche AF specialty occupations
 - Rescue / Fire Fighters
 - EOD Technicians
- Must be quick to doff to allow rapid donning of specialty ensembles/boots for response
- Seeking manufacturers to meet
 - New Purchase Description
- Validate availability/producability
- Looking to set up in supply at DLA

FY22 start



Looking for commercial Berry compliant options / Contact us ! Watch for announcements



Female Fitment



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Human Systems Division Female Fitment (FF) Goals

- Integrate female fitment into *ALL* current and future HSD programs
- Liaise with HSPO-external organizations and communities

Near Term Clothing & Textiles FF efforts:

1. Maternity flight suit (2 piece variant)
2. USAF Service Dress slacks, blouse, maternity blouse
3. USAF g-suit redesign



US Space Force Uniforms



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- **USSF established as separate branch of US Armed Forces, 20 Dec 19, under the Dept of the Air Force**
- **USAF Uniform Office delegated USSF uniform design & development responsibility**
- **AFUO working with USSF leadership on requirements development and designs for a full range of uniforms**
 - **Current emphasis on Service Dress & Physical Fitness uniforms**
 - **Service Dress: Development and testing will occur in 2022**
 - **Physical Fitness Uniforms: Completed testing Sep 2021, awaiting final approval for Supply Request Package**





Clothing & Textiles Gaps Require Industry Help

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Requirement	End Item
Wool fabric alternatives or wool blends due to supplier reduction	USAF Service Dress uniform
Washable stretch woolens and alternatives	USSF Service Dress uniform
Stretchable fire-retardant fabrics	Maternity 2-piece flight suit; other uniforms
Performance fabrics	USAF/USSF optional physical fitness items
Fit/wear test asset prototype manufacturers (small batch, quick turn)	All uniforms – supply chain
Composite toe, ASTM-compliant boots w/zipper for easy on/off	Boots for emergency responders
Safe heating technologies	Extreme cold weather clothing
Female anthropometric-compliant sized footwear	Female boots
Improved (quality/reliability) closure systems	Protective clothing and accessories
FR waterproof breathable, POL Resistant, Antistatic, Duck Cloth	

Requirements to be covered in greater detail during Air Force breakout sessions



Heated Flight Clothing



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Program Description



Program Description:

- Provide active heating for aircrew members operating in extreme cold weather environments such as Northern Tier bases, the mountains of Afghanistan, and the Korean Peninsula.
- Create/obtain an electrically or criteria equivalent heated under-layer/outer-layer of clothing covering feet, hands, torso, and legs.
- Current clothing options become too bulky and do not provide enough warmth while seated in a sedentary position

Major Customers:

- Air Force Global Strike Command, Air Mobility Command

Status

- Active Heated Flight Clothing program is ongoing
- RFI announced last JAPBI led to new Commercial Off The Shelf candidates that we are putting through Test and Eval this winter.
- Challenges: human factors integration , power, comfort, safety, and limited USA Made

Requirements

Physical Features	<ul style="list-style-type: none"> • Will be modular/configurable to enable the user to tailor the capability to each mission profile. (Each component should be able to be used separately if desired). • Will not degrade tactility and dexterity for mission requirements. Aircrew must be able to perform tasks for pre-flight, in-flight, post flight and emergency procedures. • Will enable the Commercial Mobile Devices (CMD) touch screen to be operated by touching
Power Source	<ul style="list-style-type: none"> • Electronically Powered/Portable Battery System or combination (no aircraft modifications) • If electronically battery powered, battery will weigh no more than 15 lbs. and be man-portable and or able to be aircraft secured to an 8G minimum IAW aircraft flight manual. • Man-portable battery should be capable of operating unit for a minimum of 1.5 hours without recharge with a target capability of 4 hours without recharge.
Capability (cold protection)	<ul style="list-style-type: none"> • Active controlling measures for increase/decrease of heat power source. • Shall be capable of withstanding the extreme environmental conditions induced by aircraft operation, ground transport, storage and rough handling. • Shall perform as required with ambient temperature range of -65°F (-54°C) and with wind-chill to -140°F (-96.5°C)

AF purchased some samples to test; Still open to evaluating other COTS items; no Dev funding



HSD Points of Contact



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Name	Position	Email
Mr Emilio Varcарcel	Chief, Human System Division	emilio.varcarcel@us.af.mil
Lt Col John Southard	Deputy Chief, Human Systems Division	john.southard@us.af.mil
Ms. Debra McLean	Acting Chief, Combat Ready Airman Branch	Debra.a.mclean4.civ@mail.mil
Ms. Taylor Harrison	Dep Chief CRA, and AF Lead for Female Fitment	Taylor.harrison.3@us.af.mil
Ms Tracy Roan	Chief, Air Force Uniform Office	tracy.roan.1@us.af.mil