

# AF Keynote Joint Advanced Planning Brief for Industry 16 November 2022

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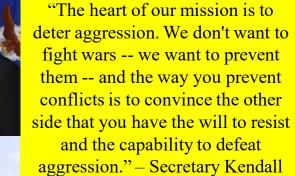


- Operational Imperatives
- Organizational Structure
- Human Systems Division Focus
- Combat Ready Airmen
- On-Going & Near-Term Projects
- Female Fitment Update
- Air Force Uniform Office
- Air Crew Performance Branch
- Questions

# Operational Imperatives from our Secretary of the Air Force

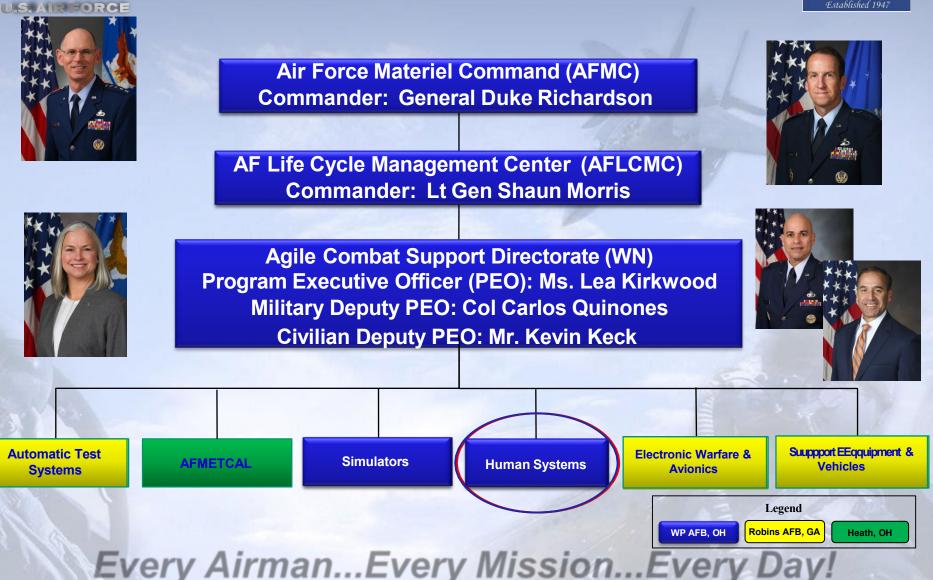


- What: Operational Imperatives (OI) are critical operational capabilities and functions we must invest in to protect our ability to deter conflict and project power against pacing challenges
- Why: China is fielding capabilities designed to defeat our ability to project power in the Western Pacific; Russia is attempting the same in Eastern Europe
  - OI-1: Space Order of Battle
  - OI-2: ABMS/JADC2
  - OI-3: Moving Target Engagement
  - OI-4: NGAD Family of Systems
  - OI-5: Resilient Forward Basing
  - OI-6: B-21 Family of Systems
  - OI-7: Readiness to Mobilize, Deploy, and Fight





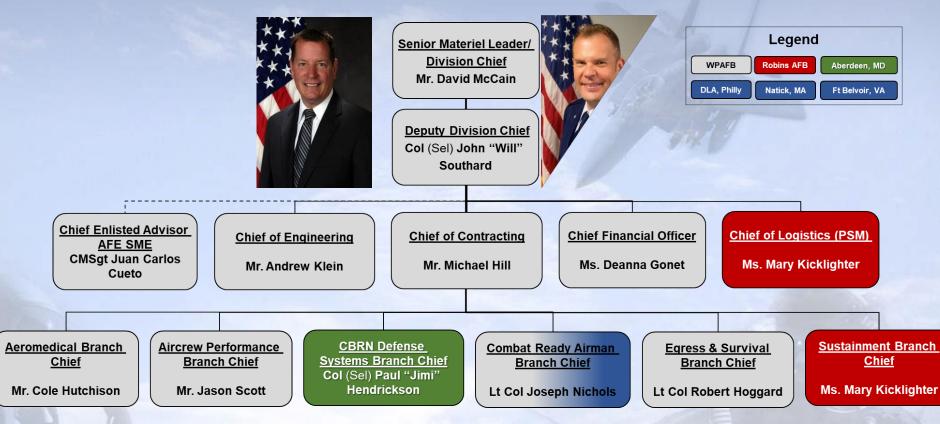






### **Organizational Chart** Human Systems Division







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### Human Systems Division Structure



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AeroMed Branch	Aircrew Performance Branch	6 Brai Chemical, Biological, Radiological, Nuclear CBRN) Defense System Branch	Combat Ready Airman (CRA)	Egress & Survival Branch	Sustainment Branch	
Mr. Hutchison	Mr. Scott	Lt Col Hendrickson	Lt Col Nichols	Lt Col Hoggard	Ms. Kicklighter	
ProjectsLabsPLSAT LabVascularLSE LabShuntM&T LabEVACAA LabSIT-DLSS/STAQThree9(supportingAssaysOBOGS)AVTJ-MCIPCLCAPRU	HelmetsSuitABH,IAENGFWH,CWASLegacyG-SuitsHelmetsAnti-ExposureA2CU Flt SuitAccessoryALEP TIClothingNFBAccessoryPLZTBody ArmorNVGBoots/GlovesDEPBladder ReliefNuclear FlashDIU PPM/WS,BlindnessSTOPSSurvival Vest	HCA for Covid-19 Passengers JUON <u>JPEO JPMs/JPLs</u> Medical Protection Rad/Nuc Defense Sensors, Special Ops <u>Efforts: AF Interest</u> Protection: Percutaneous/ Respiratory/ Collective/ Chem/Bio Detection/ Warning/Reporting Contamination Mit. Medical: Vac; Treat; Diagnostic	Physical Training Gear Female Fitment Female Body Armor GearFit App Armor Armor Annor Armor Accu-Female Manikin Girdle FR Product List Space Force Uniform Exoskeletons	SeatsGearB-2 SSIPSeatNGES,Survival KitT-38 ESUPNCSRACES IINCSRB-52 Seat KitCovertSeat Harness &SignalingLumbar SupportSEARSParachutesIPLDBA-XLPU,HarnessesLife RaftsDrag ChutesNCSR	WML Programs AFEAFECBRN Def Sys PS&RE:NVG1800+ Items Maintained 652 Technical Orders Supports Domains: Egress Survival Head Gear Body Wear CBRN Combat Ready Airman	
∞ Keromedical Head Gear Labs Head Gear Body Wear Chemical, Combat Clothing (neck down) Radiological, Ready & Egress Survival Radiological, Airman Textiles						
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- We are "One Team" as we execute our mission
- Our teammates include:
  - Congress, OSD, HAF, USSF, USN, USA, USMC
  - SAE, SAF/AQ staff, DLA, DCMA
  - AFSOC, ACC, AMC, AFGSC, AFGSC, AETC, ANG, AFRC, PACAF, USAFE, etc.
  - HQ AFMC, AFLCMC, AFTC, AFSC, AFRL, AFOTEC
  - Industry Partners
  - We will execute all Human Systems Division programs according to our warfighter and taxpayer commitments

Mission: Save & Improve Airmen's Lives

<u>Vision:</u> Acquire & Support Human Systems to Enhance Warfighter Performance, Protection & Survivability



### **Combat Ready Airmen Background & Vision**



Increasing lethality ... Cost effective, modernized equipping of all Airmen



- Drivers: AF/A4 thru 2017 / 2018 Ops & Tactics Group, Interservice Commonality Memo, NDAA (FY17, FY18 & FY20)
- Vision: CRA will develop, acquire, field, and sustain standardized, integrated state of the art equipment for all Airmen to maximize readiness enabling global Air Force Dominance

Currently no equipment standardization for the majority of our Airmen



# Combat Ready Airmen as the Solution



#### VALUE PROPOSITON:

- Provides Requirements Integration center of excellence
- Provides Program Office for materiel solutions and OSS&E
- Presents approved materiel solutions in a 'storefront' approach for AF equipment users
- Supports equipment users with procurement or ordering vehicle

#### KEY DOCUMENTS

- Requirements Document (REQT)
- EMD & Low Rate Initial Procurement Contract (K)
- Approved Product List (APL)



## On-going & Near-time Projects (FY23-FY24)



Currently Being Worked by AFLCMC/WNU (FY22)	Awaiting Action (FY23-24)			
Equipment Type	Equipment Type			
Cold Weather Safety-toe Boot	Polo Shirt			
Cold Weather Clothing Modeling & Simulation	ANG Polar Tactical Airlift Extreme Cold Clothing System Arctic Weather			
Athletic Footwear Program	Mobility Battle Belt			
AFRC Quick Don Electrical Hazard Boot (CE Zipper Boot)	Joint Services Mask Leakage Tester Servicing Contract			
Ballistic Combat Shirt	Mobility Vital Torso Protection Hard Armor Adoption Assessment			
Ballistic Pelvic Protection	Mobility Extreme Cold Operation Clothing System Program			
Model Defender Kit	Security Forces Gloves			
Wearables	Acclimate Project			
Maternity Uniform Pilot Program				



### Combat Ready Airmen Future Wearables



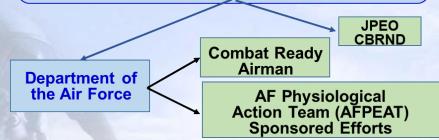
#### "Human Performance" Database

Common database that will turn data collected from the wearables into human performance data that can be used to provide real-time information that enhances readiness

#### Software Tool

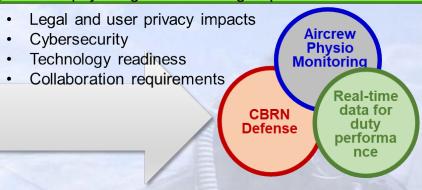
This tool that will be able to translate the data coming from any wearable device into a single standard data format that can be entered into the "Human Performance" Database

#### Department of Defense The Services are moving forward to gain an understanding of joint physiological monitoring capabilities



#### **Solutions Needed**

- Detect/alert aircrew in real time to symptoms of hypo/hyperoxia and hypo/hypercapnia
- Measure head level oxygen delivery and perfusion and alert aircrew if it reaches dangerous levels
- · Calculate inhalation/exhalation work of breathing
- Early warning for chemical and biological threats
- Joint requirements
- Provide early warning for infection, fatigue, stress and other physiological monitoring capabilities





### **Female Fitment**



### Human Systems Division Female Fitment 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 suits (1 & 2 piece variants)
- 2. Advanced Aircrew Combat Uniform Female
- 3. USAF Service Dress slacks, blouse, and skirt
- 4. USAF G-suit redesign
- 5. USAF Mess Dress Slacks
- 6. USAF Service Dress
- 7. USAF and USSF Maternity Service Dress





S. AIR FORCE

### Specific Clothing & Textiles Requirements



Requirements	End Item	
Wool fabric and wool blends	USSF Service Dress uniform	
Washable stretch woolens and alternatives	USSF Service Dress uniform	
Water repellent performance fabrics	Service Dress Coats	
Performance fabrics - athletic	USAF/USSF optional physical fitness items	
Sweater knits or alternative dress knits	USSF Service Dress	
Fit/wear test asset prototype manufacturers (small batch, quick turn)	All uniforms – particularly Service Dress Coats	
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	

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



### Aircrew Performance Branch Mission



Develop, Acquire, Test, Safe to Fly, Field and Sustain Air Force Uniforms and Aircrew Flight Equipment (AFE) to Increase Warfighter Capabilities









- Be ready to support our Air Force
  Operational Imperatives
- We are "One Team" Saving and Improving Airmen's Lives everyday
- Air Force remains committed to executing Combat Ready Airmen initiatives
- Great progress has been made for female fitment and uniform projects
- Continued strong support for our Air Crew Performance Branch