U.S. AIR FORCE
RAPID SUSTAINMENT OFFICE RSO

ESTABLISHED IN 2020

WHO WE ARE
The RSO is an acquisition office created by the United States Air Force to increase mission readiness and reduce operations and sustainment costs. Organized with a non-traditional Air Force construct based on agile principles and a short chain of command, we are focused on acquiring and scaling innovative and cost-effective technologies and tools to rapidly advance the Air Force sustainment and operations enterprise. The RSO is located near Wright-Patterson AFB, with a robust presence in AFLCMC's Advanced Technology & Training Centers (Dayton, OH; Warner Robins, GA).

VISION
Transform the acquisition approach and sustainment enterprise vital to the world's most advanced Air Force

OBJECTIVE
Through agile acquisition processes, increase mission readiness and capabilities by identifying, applying and scaling technology and innovative solutions to advance and modernize sustainment operations of the United States Air Force

OUR 6 FOCUS AREAS
The RSO is focused on a set of six core technology areas where emerging and commercial technology solutions have outsized impact on increasing readiness and decreasing costs.

ARTIFICIAL INTELLIGENCE & MACHINE LEARNING
Employing AI/ML to optimize fleet maintenance and predict / prevent aircraft failure.

ADVANCED MANUFACTURING
Utilizing new manufacturing technologies to upgrade fleets, reduce waste, & extend lifespans.

AUTOMATION & ROBOTICS
Implementing technology solutions to accelerate maintenance times, mitigate risks, and positively impact costs.

DATA & DIGITAL ENVIRONMENTS
Using technology to make data more usable with better quality information and consistency.

AUGMENTED & VIRTUAL REALITY
Deploying augmented reality and virtual reality hardware and software to unify expertise and accelerate the speed of training.

RAPID & AUSTERE MAINTENANCE ENVIRONMENTS
Deploying capabilities and providing Airmen with emerging technologies that are rapidly deployable to austere locations.

BOARD OF DIRECTORS

THE RSO TECHNOLOGIES PROVIDE:
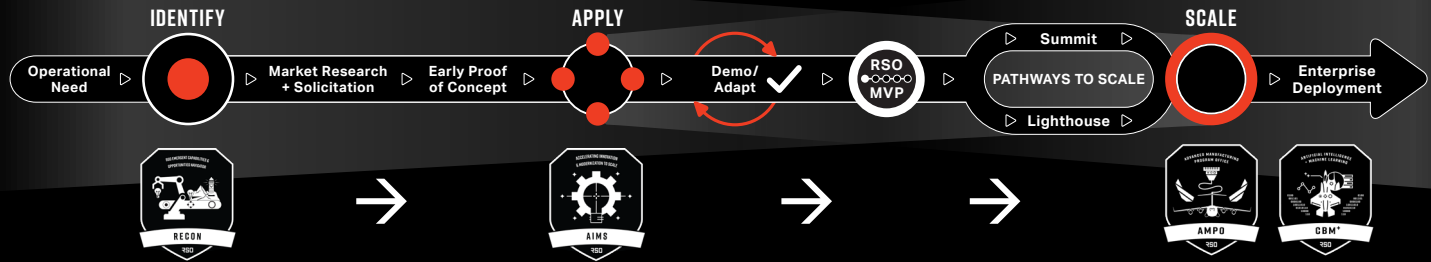
- An ability to have a common operating picture and push information across multiple "battlespaces" from enterprise logistics/sustainment to integrated base defense
- An ability to counteract parts obsolescence issues by capitalizing on a network of advanced manufacturing & repair techniques/tools/equipment, reverse engineering capabilities, and advanced non-destructive inspection techniques, provided at the point of mission generation and throughout the supply chain (e.g. additive manufacturing, 3D printing, cold spray, composite materials/repairs, etc.)
- An ability to reduce the materiel footprint required to establish an operational foothold and generate missions by developing modernized, modular, flexible, multi-capable and interoperable support equipment
- An ability to capitalize on analytical/decision tools, to include ingesting existing, untapped data resident on/in weapon systems, to better understand and predict aircraft, munitions, and equipment condition during operation, and prior to induction into major inspection/maintenance
- An ability to train and experience our workforce faster and more effectively to bring their proficiency levels higher, sooner (e.g. Virtual Training, AR/VR)
- An ability to optimize sortie generation and operational logistics capability & capacity through automation, robotics, etc.
- An ability to distribute and provide secure, on-demand, and mobile access to information (tech data, forms, mission data, engineering documents, schematics, and tech orders) and logistics systems at the point of use
- An ability to leverage and capitalize on accurate maintenance and logistics information from the field and depot that will allow the sustainment enterprise to more effectively plan activities to reduce downtime and increase aircraft and materiel availability
- An ability to modernize and digitalize maintenance processes

CONVERGE SOLUTIONS TO
BEST-OF-BREED PRODUCTS

INCREASE CUSTOMERS &
MARKET IMPACT

IDENTIFY　　**APPLY**　　**SCALE**

Operational Need → ● → Market Research + Solicitation → Early Proof of Concept → ● → Demo/Adapt ✓ → RSO MVP → PATHWAYS TO SCALE (Summit / Lighthouse) → ● → Enterprise Deployment

RECON 350 → AIMS 350 → AMPO 350 / CBM+ 350

EXECUTING FOUR MAJOR FUNCTIONS:

- Technology assessment
- Airworthiness certification support
- Product support management
- Deployment across the Enterprise

Empowering supply chain management and scaling AM across the Department of the Air Force to ensure continuous warfighter advantage and readiness anytime, anywhere in the world

CBM⁺

CBM⁺ Operations

- CBM⁺ implementation and expansion onto USAF weapon systems
- Performing eRCM analysis and delivering remaining useful life forecasts
- Developing sensor based algorithms and creating predictive alerts

Enterprise Integration

- Establishing an end-to-end enterprise CBM⁺ solution
- Identifying and implementing key CBM⁺ enablers
- Removing barriers and addressing technology gaps across the USAF

Sustainment AI

- The Predictive Analytics & Decision Assistant (PANDA) provides an integrated and customized toolkit for the CBM⁺ enterprise
- Leverages industry leading AI technology for advanced analytics and big data transformation
- DevSecOps approach implements a security focused, continuous delivery pipeline of capability

Platform Implementation
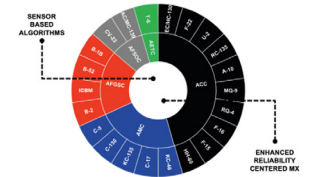
Enterprise Integration

Sustainment Artificial Intelligence

PANDA

AIMS TEAM

Drives and leads the rapid adoption of sustainment-centric technologies to improve readiness and positively impact costs, be that in-garrison, or in both a contested and uncontested deployed environment, while exploiting modern tools to increase expertise, eliminate waste, enhance situational awareness, and produce and restore mission-critical materiel for the Air Force

PATHWAYS TO SCALE

SUMMIT RSO

Summit focuses on expanding the most successful Apply projects to a broad user base across multiple Air Forcebases and units.
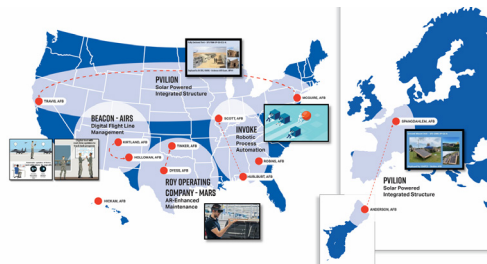
LIGHTHOUSE RSO

Lighthouse seeks to develop an innovative pilot of interconnected emerging and disruptive Industry 4.0 technologies – which include automation, machine learning, and real-time data – at a singular base, unit, or site.
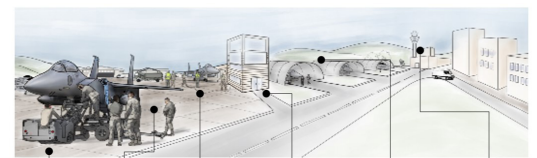
Artificial Intelligence (CBM+) | AR/VR | Automation & Robotics | Data & Digital Environments | Agile Manufacturing | Rapid/Austere MX Environments

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