SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

Accelerating SOF Innovation

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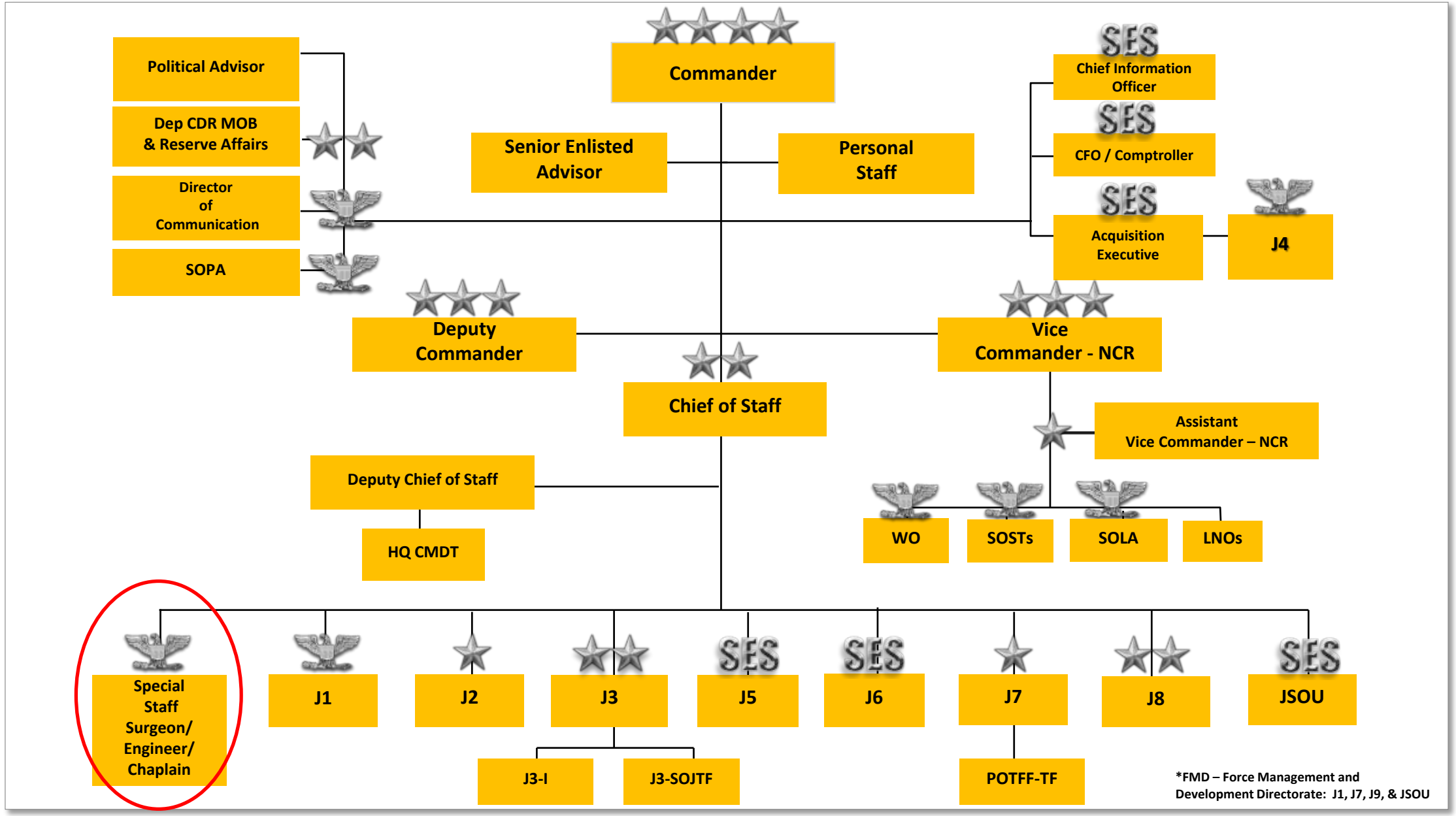
Command Engineer

TRUSTED EXPERTS FOR SOF ENGINEERING

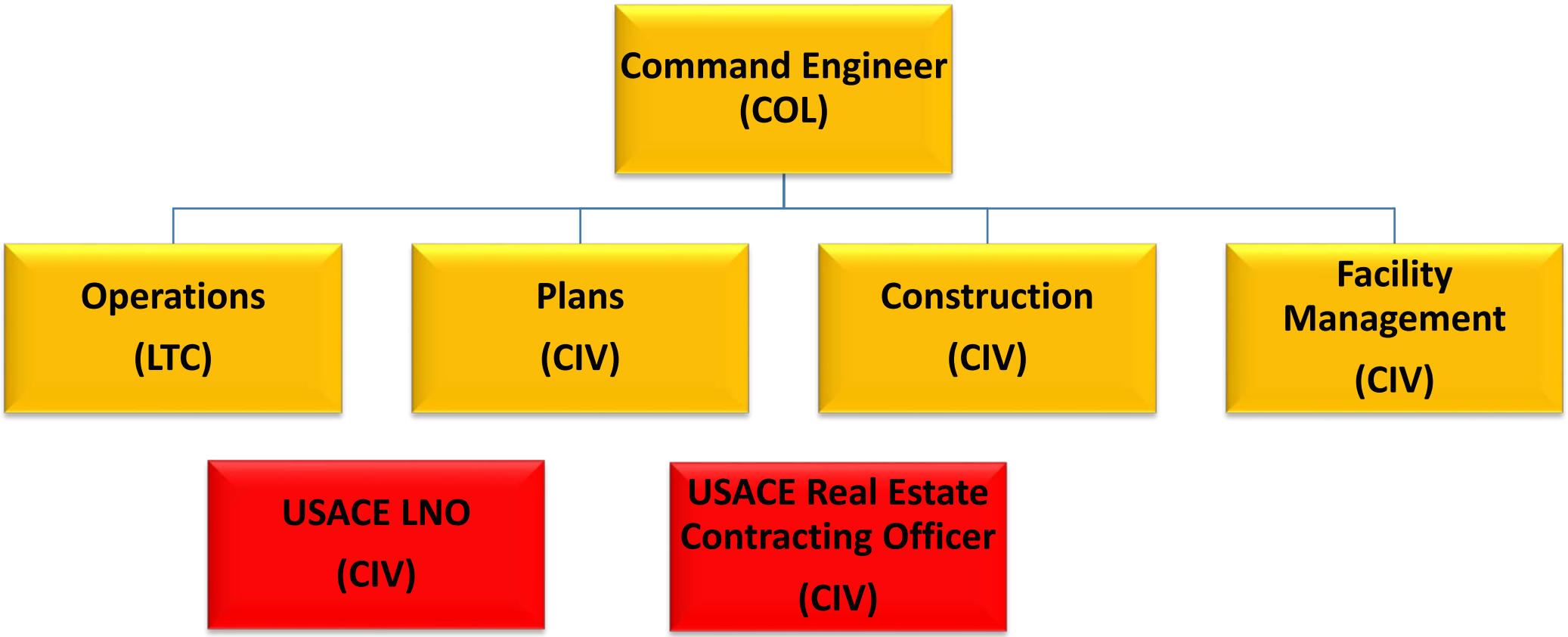
Agenda

- Introduction
- SOF Engineering Overview
- SOF Engineering Technology Challenges
- Discussion/Engagement

USSOCOM Headquarters



Engineer Organization



Roles and Responsibilities

- **Provide oversight and advocacy with OSD, Joint Staff, Geographic Combatant Commands, Service Components and Construction Agents on SOF engineering equities.**
- **Integrate into USSOCOMs strategic planning process, providing engineering subject matter expertise and input.**
- **Plan, program, budget, and execute military construction (MILCON) in support of USSOCOMs train, man and equip mission.**
- **Direct, coordinate and manage USSOCOMs Alternate DoD Construction Agent authority for contingency construction in support of counter-terrorism operations**
- **Program management of the facility service, repair and maintenance of HQUSSOCOM campus.**

Global SOF Engineer Support

SOCOM Enterprise
- 70,000 SOF
- 12,000 Contractors
- 8,000 SOF Deployed

Protect the Homeland
- MILCON and FSRM

Counter VEO
- Contingency Basing
- Exercise Related Construction
- Partner Force Capacity Building

Counter Iranian Influence/VEO
- Basing and Posture
- Exercise Related Construction

Counter Russian Aggression
- Exercise Related Construction
- Security Cooperation
- Operational Planning

Counter DPRK
- MILCON and FSRM
- Exercise Related Construction
- Operational Planning

Challenges

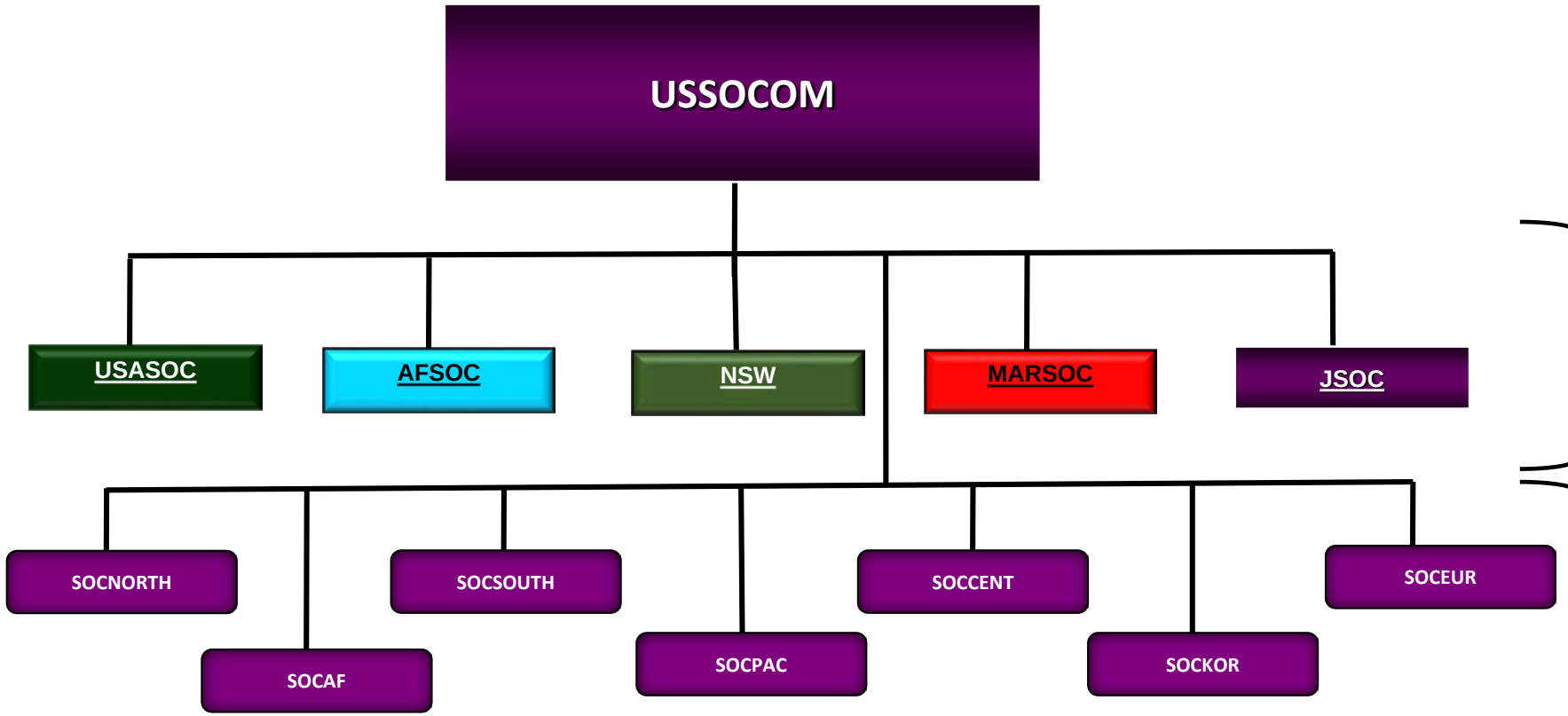
Operational Engineering Planning

Responsiveness to emerging engineering requirements

Ability to leverage Design Construction Agents to emerging requirements

Depth of knowledge and capability of engineering organization

Global Special Operations Engineer Structure

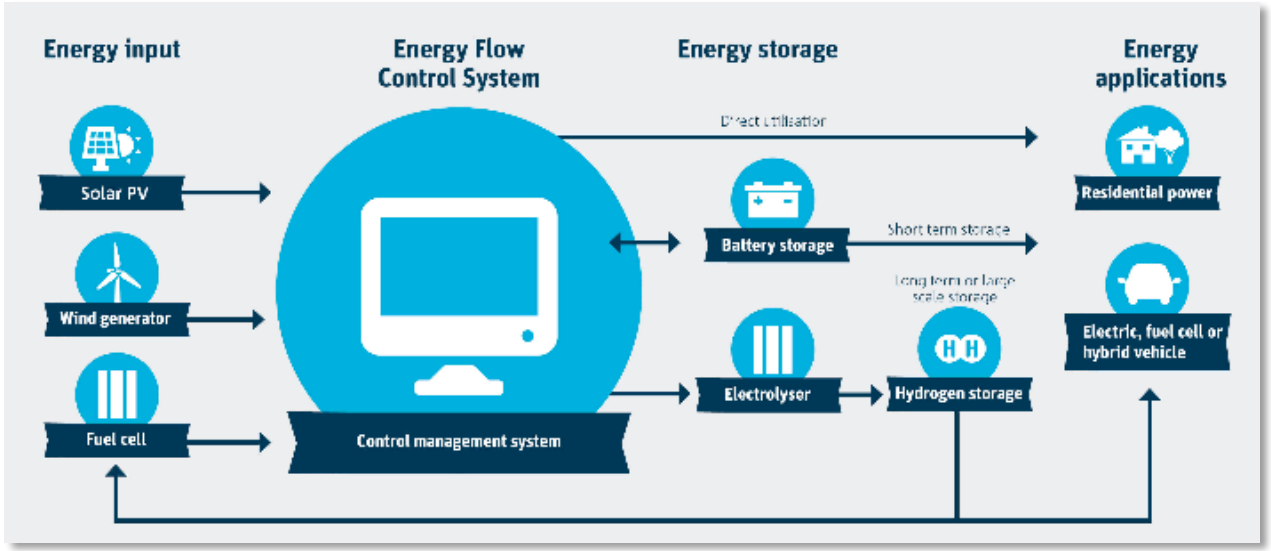


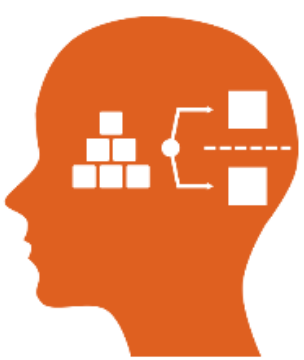
SOF Service Component Engineers:
Led by: Colonel – Civilian Mission: MILCON and FSRM

Theater Special Operations Command Engineer:
Led by: LTC - Civilian Mission: Operational Engineer Support, UMMC and FSRM OPCON to GCC

In our Playground we must have Innovative Technology

TECHNOLOGY CHALLENGES





Pick a Challenge

Submit a Solution

Help the Warfighter

Generation X Austere Basecamp

- **Our focus is on austere basecamps**
  - They are small, dispersed, resilient and adaptive (National Defense Strategy)
  - Scalable from small teams of 12 to 400 personnel

- **Seeking innovative technology in four principal areas**
  - Power
  - Sanitation and Water Management
  - Construction Materials/Methods
  - Force Protection/Sensitive Compartmented Information Facilities (SCIF)

Power

- **Energy Storage Unit**
  - (Short Term – 2 to 5 Years) Ruggedized inverter capable of providing at a minimum 100A at 3 phase 50/60 Hz and compatible with AMMPs generators.
  - (Long Term – 5 Years) Ruggedized invertor capable of providing at a minimum 200A at 3 phase 50/60 Hz, with additional capability of paralleling, synching and load sharing with all military and commercial technologies.
- **Attributes**
  - Man-portable in single or multiple packages weighing less than 350 lbs. per package
  - Air transportable in a C-146
  - Ground transportable in a Hilux truck

Construction Methods/Materials

1. **Construction material and method for temporary facilities which meet or exceed structural performance criteria of construction grade lumber**
   - Readily available and cost effective
   - Complies with local building codes and UFC criteria
   - Durable against insects, chemical and environmental threats for at least 5 years

2. **Deployable, steel frame construction capability**
   - Ability to fabricate custom steel framed facilities
   - Mobile factory and workshop will be self-contained with dedicated power source
   - Containerized or palletized transportable on C-17

Sanitation and Water Management

Advance sanitation and water management technologies and systems

- Water purification
- Water generation
- Black water treatment
- Gray water reuse
- Low flow or waterless toilets
- Solid waste incineration and disposal

Capabilities

- Able to run on military standard generators
- Use JP8 or capable of using hybrid or renewable power
- Compatible with military, sea and ground transportation
- Not to exceed 10,000 pounds

Force Protection/SCIFs

1. **Rapidly deployable, modular and fully certified SCIF in accordance with Intelligence Community Standards (ICS)**
   - Single modules shall accommodate 10 – 12 workstations
   - Air transportable by C-130 or equivalent
   - Containerized or palletized for transport
   - Assembled/dissembled using standard power tools
2. **Retrofit SCIF**
   - Tailorable system that can be used to retrofit an existing room or facility
   - Meets ICS requirements
   - Component are man-lift able
3. **Retrofit Anti-Terror/Force Protection**
   - Tailorable solutions to retrofit existing facilities to provide blast and ballistic protection IAW STANAG 2280