# Sensor Open Systems Architecture (SOSA)

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**Lead Manager**

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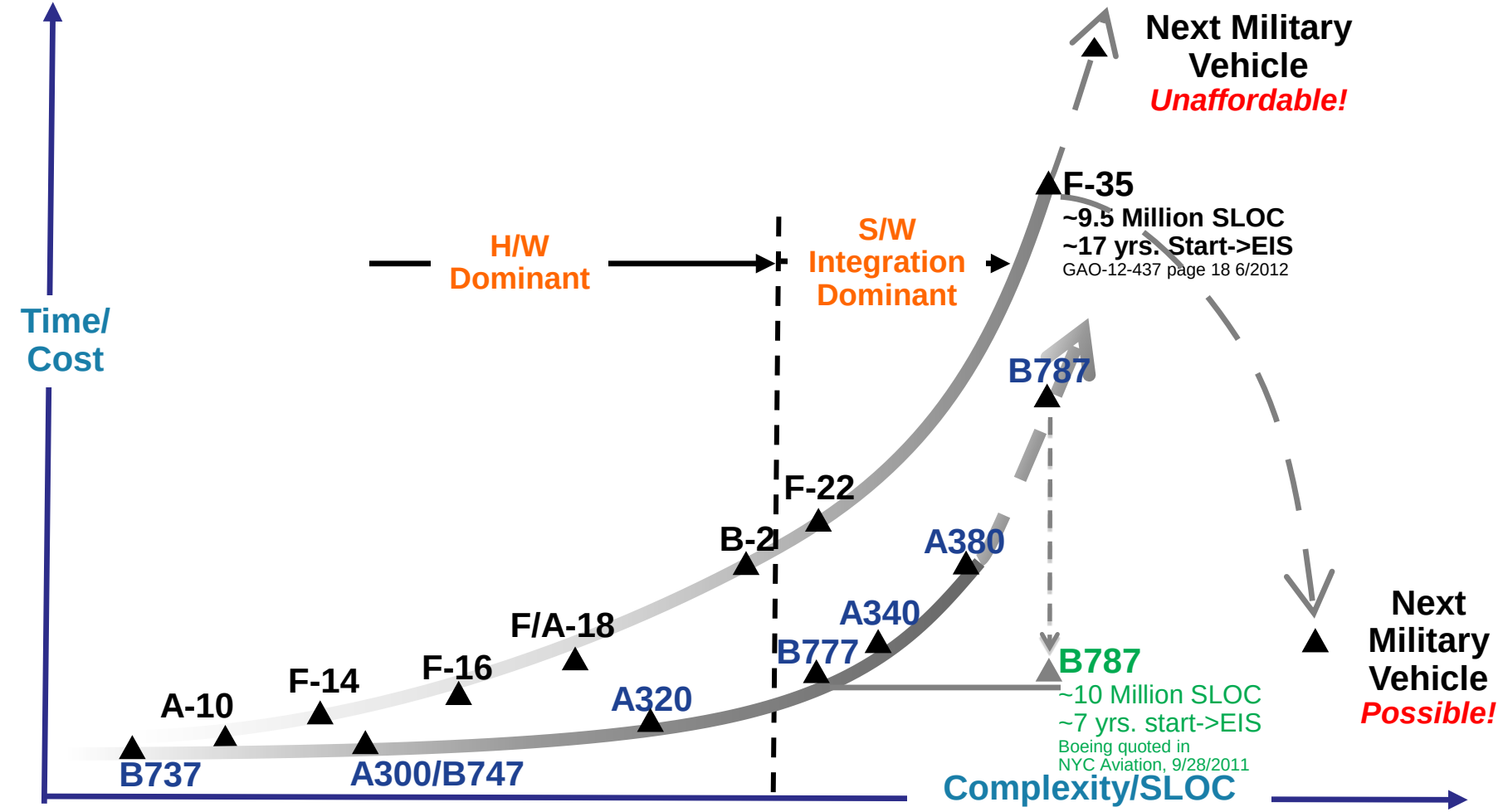
**Technical Lead**

# Trend in Modern Systems






* Source FACE Consortium

# What is SOSA ?

*AFLCMC… Providing the Warfighter's Edge*

2. Decomposition into Functional Components

1. Curren d

3. Recomposition
Into Reusable Capabilities

4. Affordable Mission Effectiveness Through Systematic Reuse



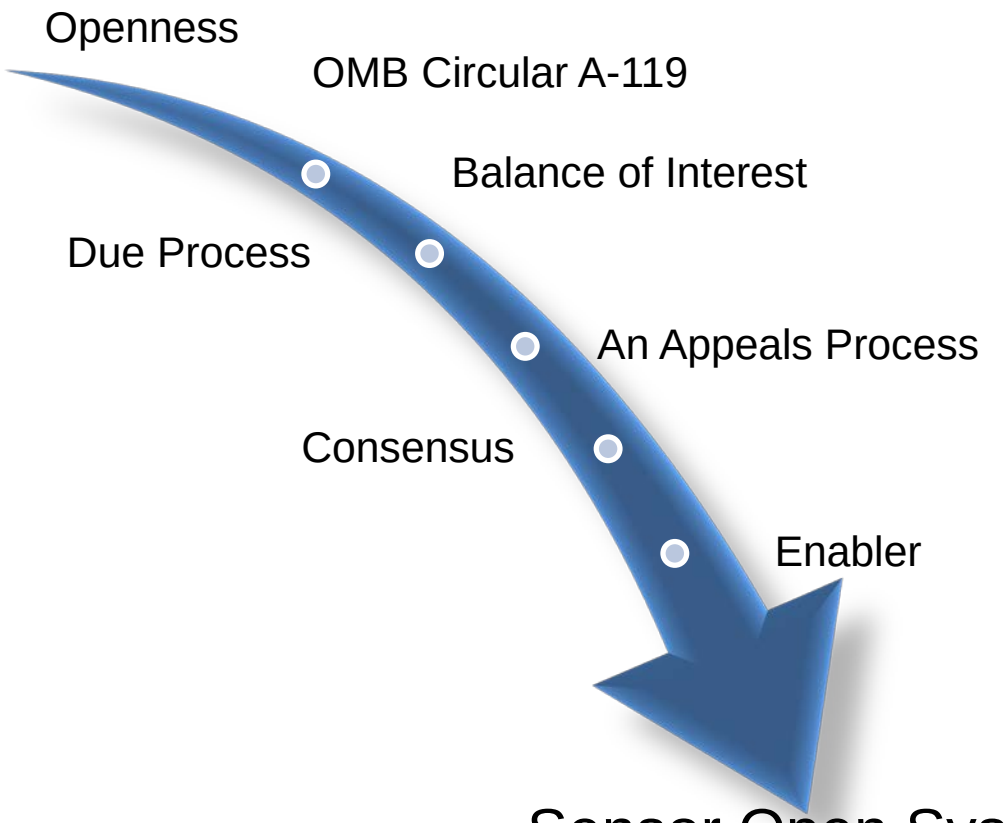
PA # 88ABW-2016-2131

# Where Do We Start?

*AFLCMC… Providing the Warfighter's Edge*

# Why a SOSA Consortium?



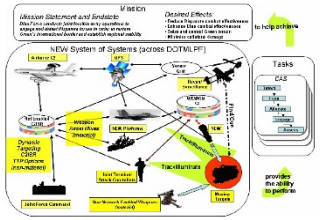


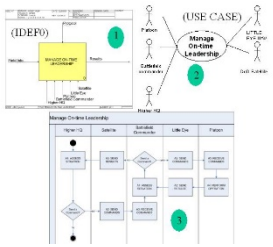

Sensor Open System Architecture - SOSA

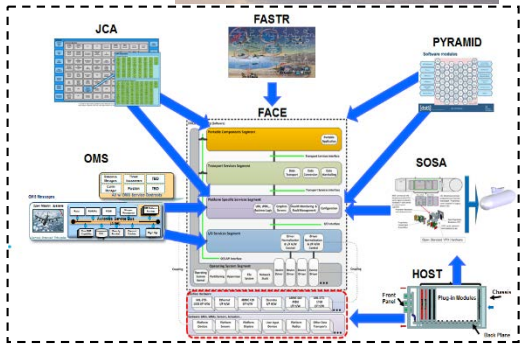
Independent Consortium Provides an honest broker between Industry and Government partners

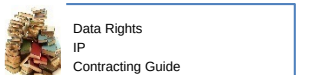
# SOSA Scope and Working Groups

*AFLCMC… Providing the Warfighter's Edge*





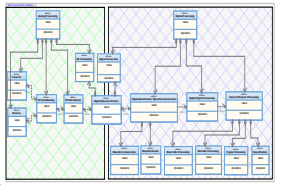


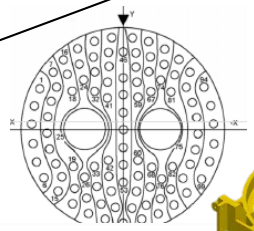



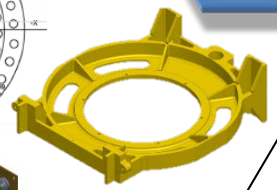
Data Rights
IP
Contracting Guide

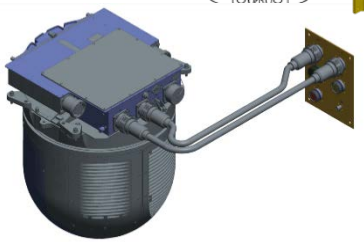
SOW
CDRL
DID
Section L, M Support

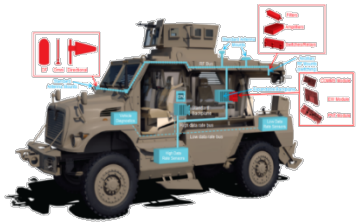
Marketing
Outreach
Business Development
Open Acquisition Guide

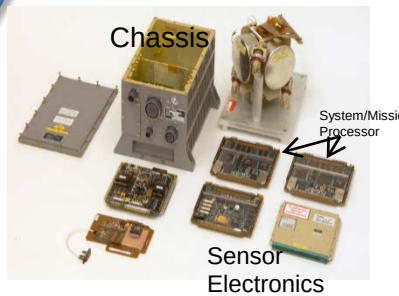


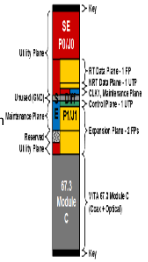






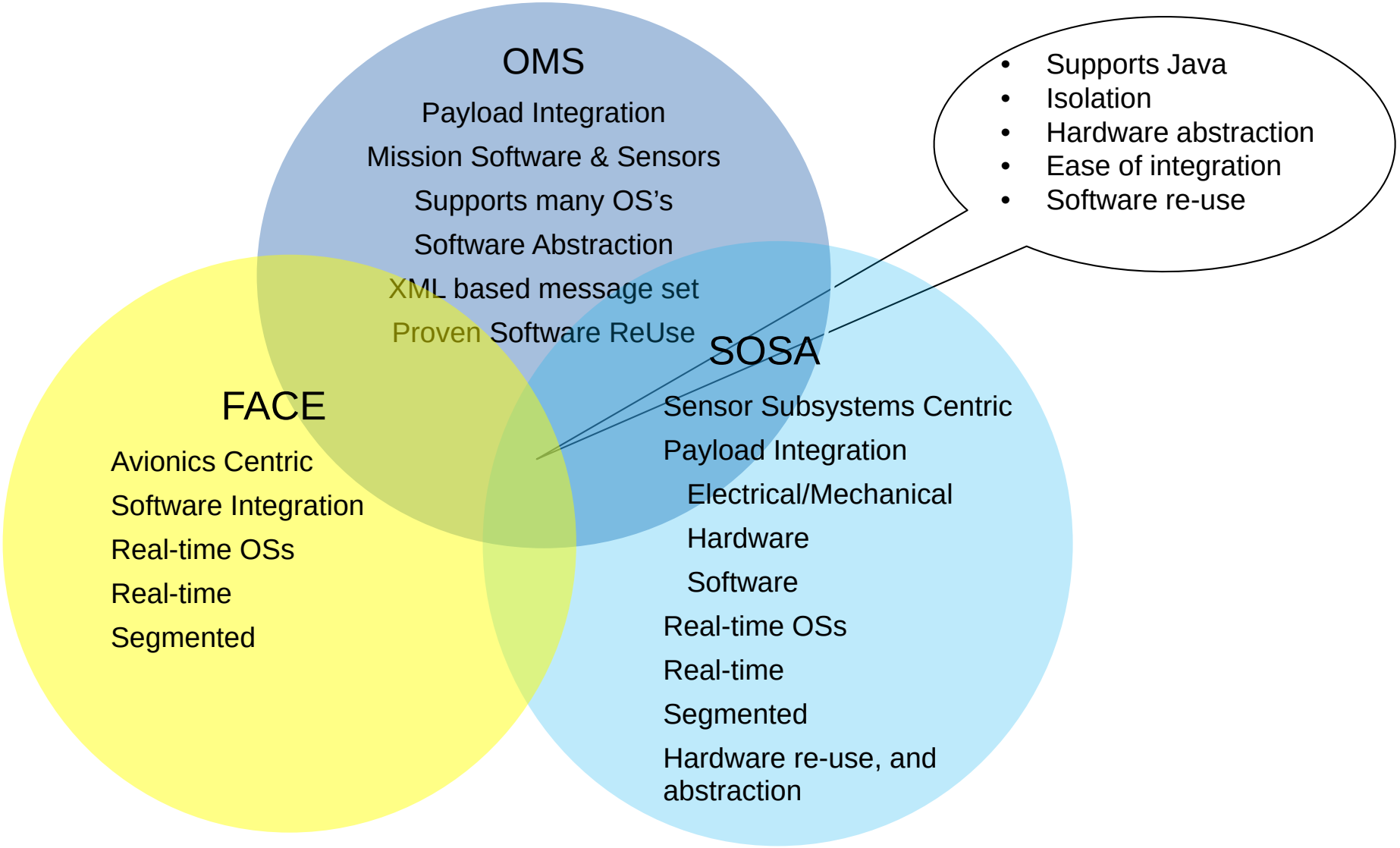




# Quick Comparison Table





# Vision, Goals & End Products



***VISION*** - Business/acquisition practices and a technical environment for sensors and C4ISR payloads that foster ***innovation***, industry ***engagement, competition***, and allow for ***rapid fielding*** of cost-effective capabilities and platform mission reconfiguration while ***minimizing logistical*** requirements

| ***Open:*** | ***Standardized:*** | ***Harmonized:*** | ***Aligned:*** | ***Cost Effective:*** | ***Adaptable:*** |
|---|---|---|---|---|---|
| Vendor- and platform-agnostic open modular reference architecture and business model | Software, hardware, and electrical-mechanical module interface standards | Leverage existing and emerging open standards such as: FACE, OMS, SPIES, CMOSS, VICTORY, VITA | Consistent with DoD acquisition policy guidance | Affordable C4ISR systems including lifecycle costs | Rapidly responsive to changing user requirements |

# SOSA Organizations

*AFLCMC… Providing the Warfighter's Edge*

| Government Organizations | Industry Organizations | | | | |
|---|---|---|---|---|---|
| AFLCMC | Abaco Systems | General Atomics | Leidos | Sierra Nevada Corporation | Wind River Systems |
| AFRL | BAE Systems | General Dynamics | Lockheed Martin | Sikorsky Aircraft | Zodiac Data Systems |
| AMRDEC | Boeing | Georgia Tech | Mercury Systems | SimVentions | |
| CERDEC | CALCULEX | Green Hills Software | Northrop Grumman | Southwest Research Institute | |
| Joint Tactical Networking Center | Curtiss-Wright Controls Defense Solutions | Harris Corporation | OAR Corporation | TES-SAVI, Inc. | |
| NAVAIR | DDC-I, Inc. | Honeywell Aerospace | Presagis USA, Inc | Textron Systems | |
| PEO Aviation | DornerWorks | Intrepid | Raytheon | Trideum Corporation | |
| | Elbit Systems of America | KEYW Corporation | Real Time Innovations | UCS Advisory Group | |
| | GE Aviation | L-3 Communications | Rockwell Collins | Vencore | |
| | GECO | LDRA Technology | SELEX Galileo Inc. | VTS, Inc. | |



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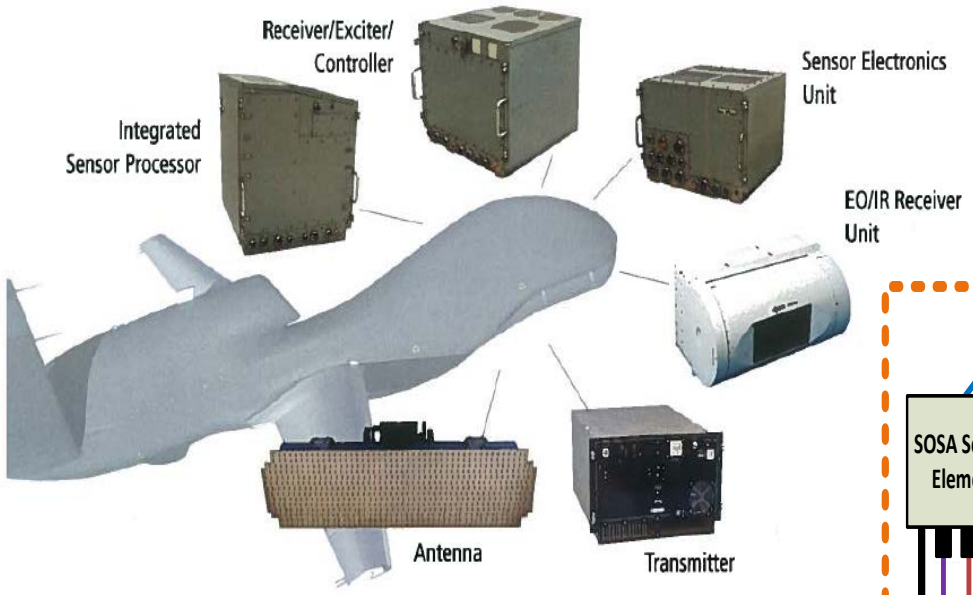
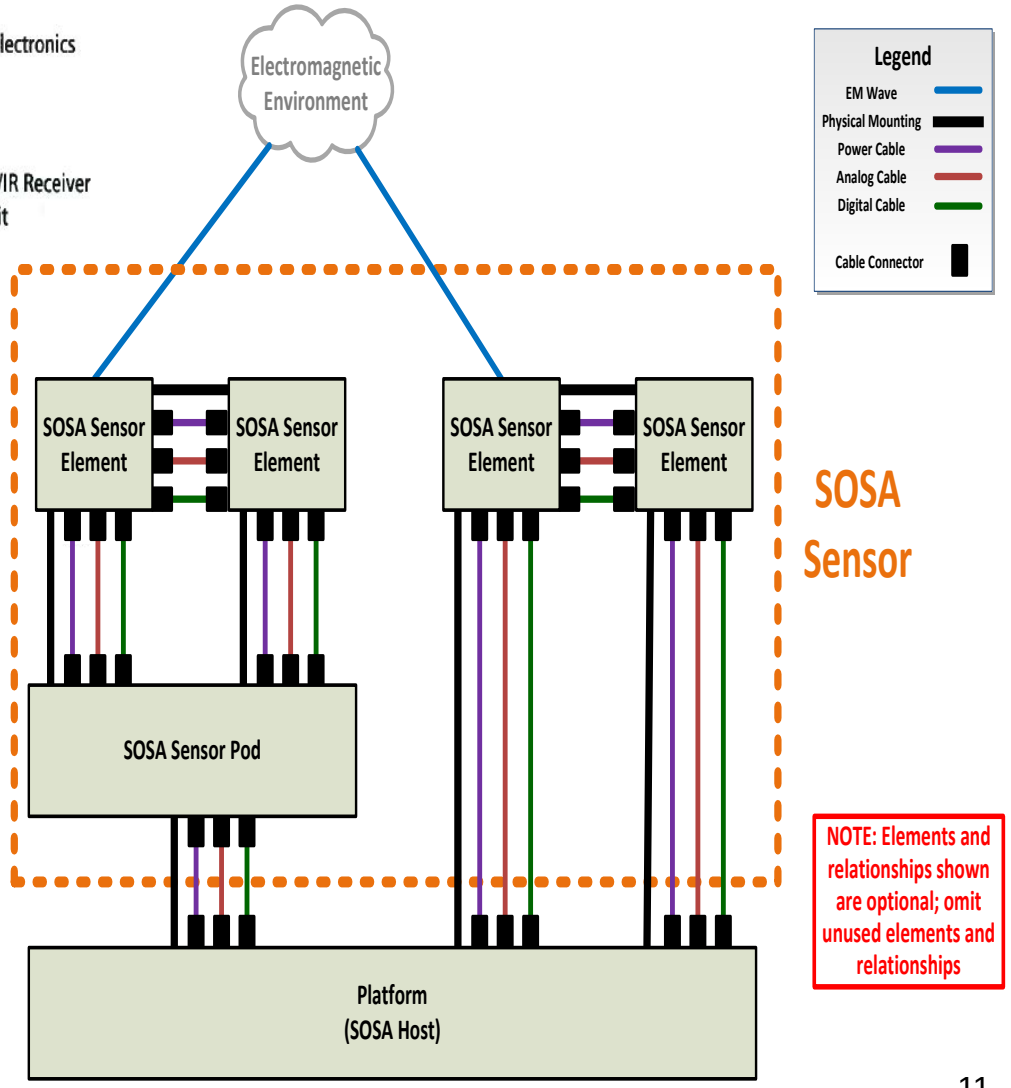
# SOSA Draft Overview







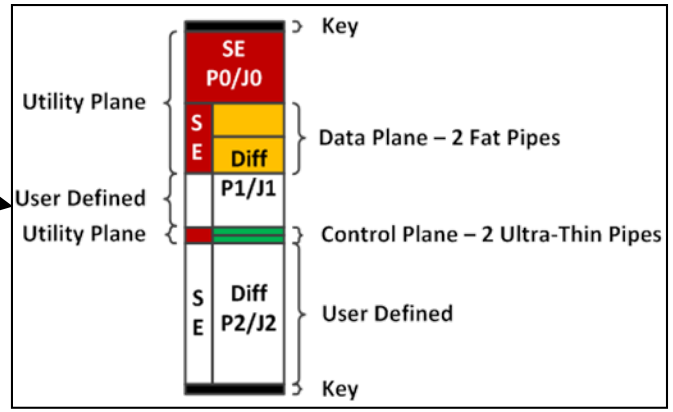
# Air Force, Navy, and Army Hardware Alignment

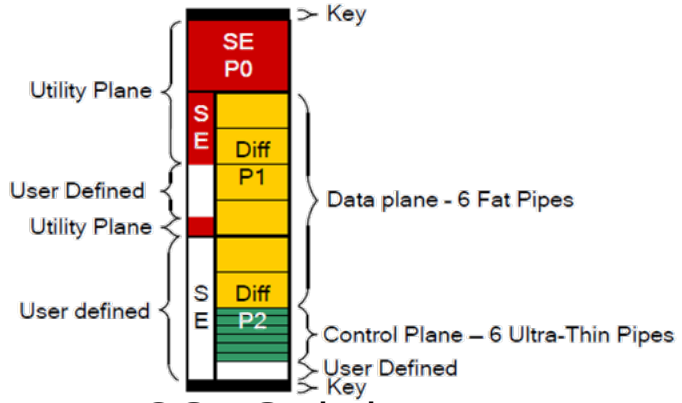
*AFLCMC… Providing the Warfighter's Edge*

## Current Hardware Alignment effort between Air Force (AFLCMC), NAVAIR PMA209, and Army CERDEC

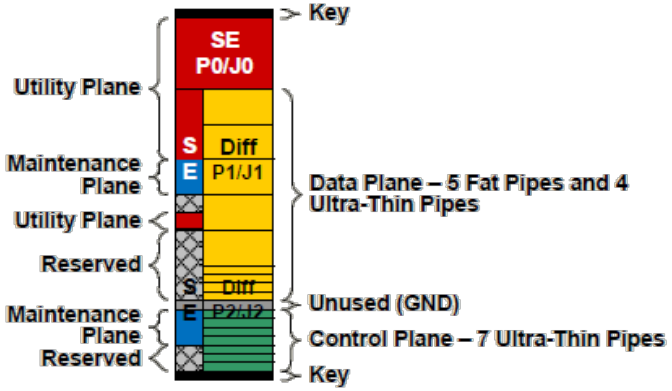
### Slot Profiles

Agreement between NAVAIR and CERDEC to use the same Payload profile for HOST and CMOSS

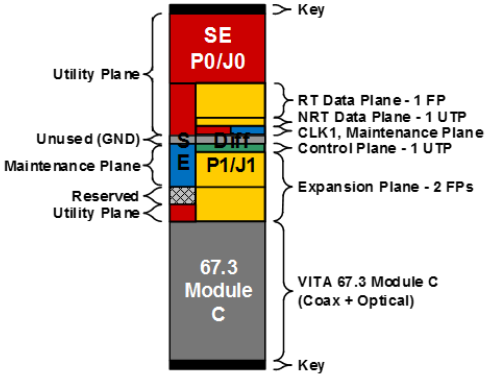



HOST Switch




CMOSS Switch




SOSA RF Payload

# Electrical/Mechanical Decomposition – Platform to Pod



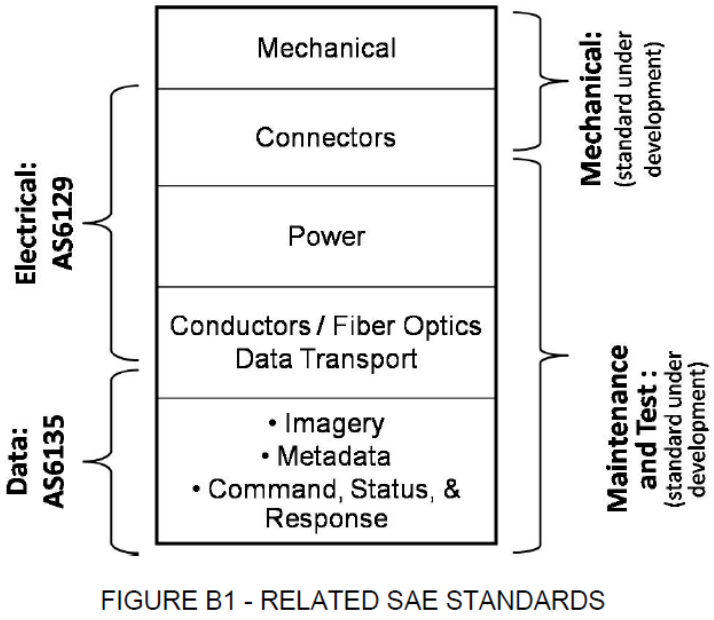
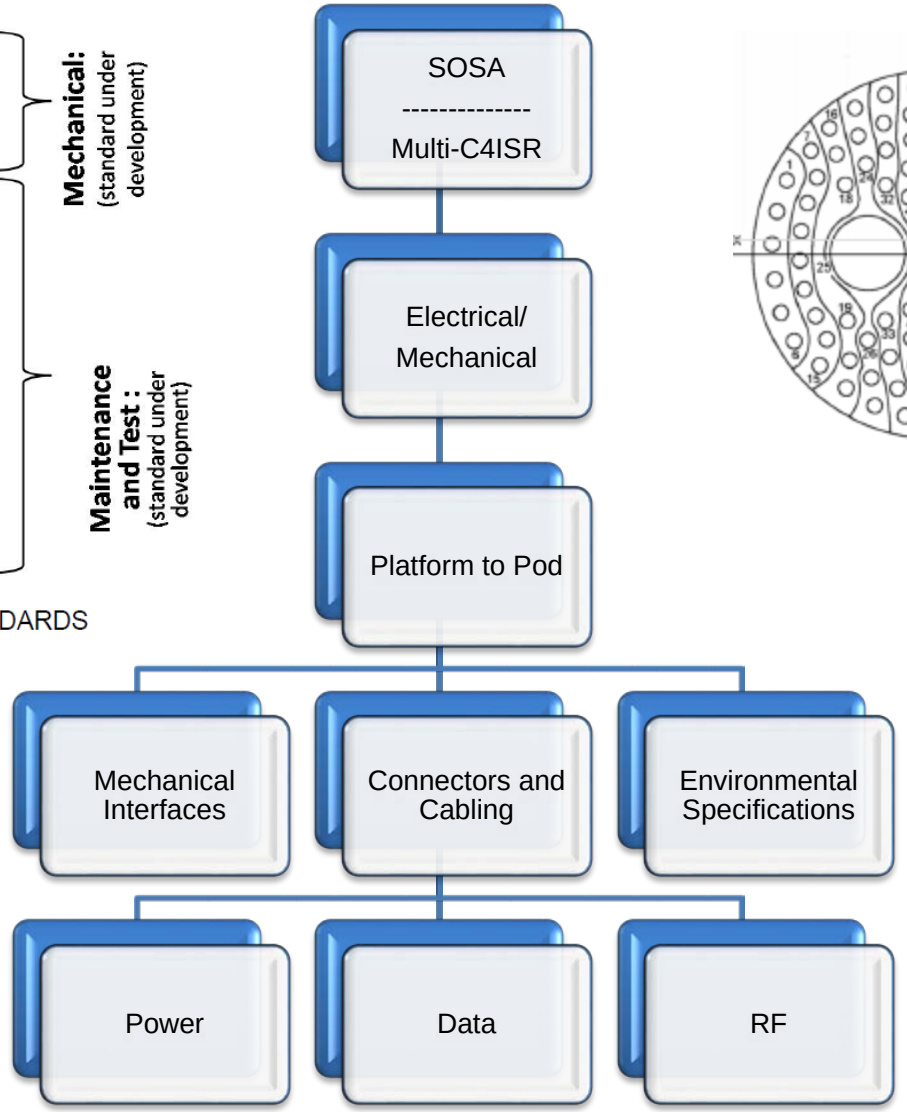
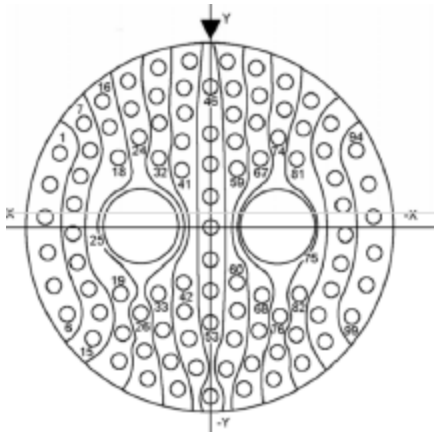


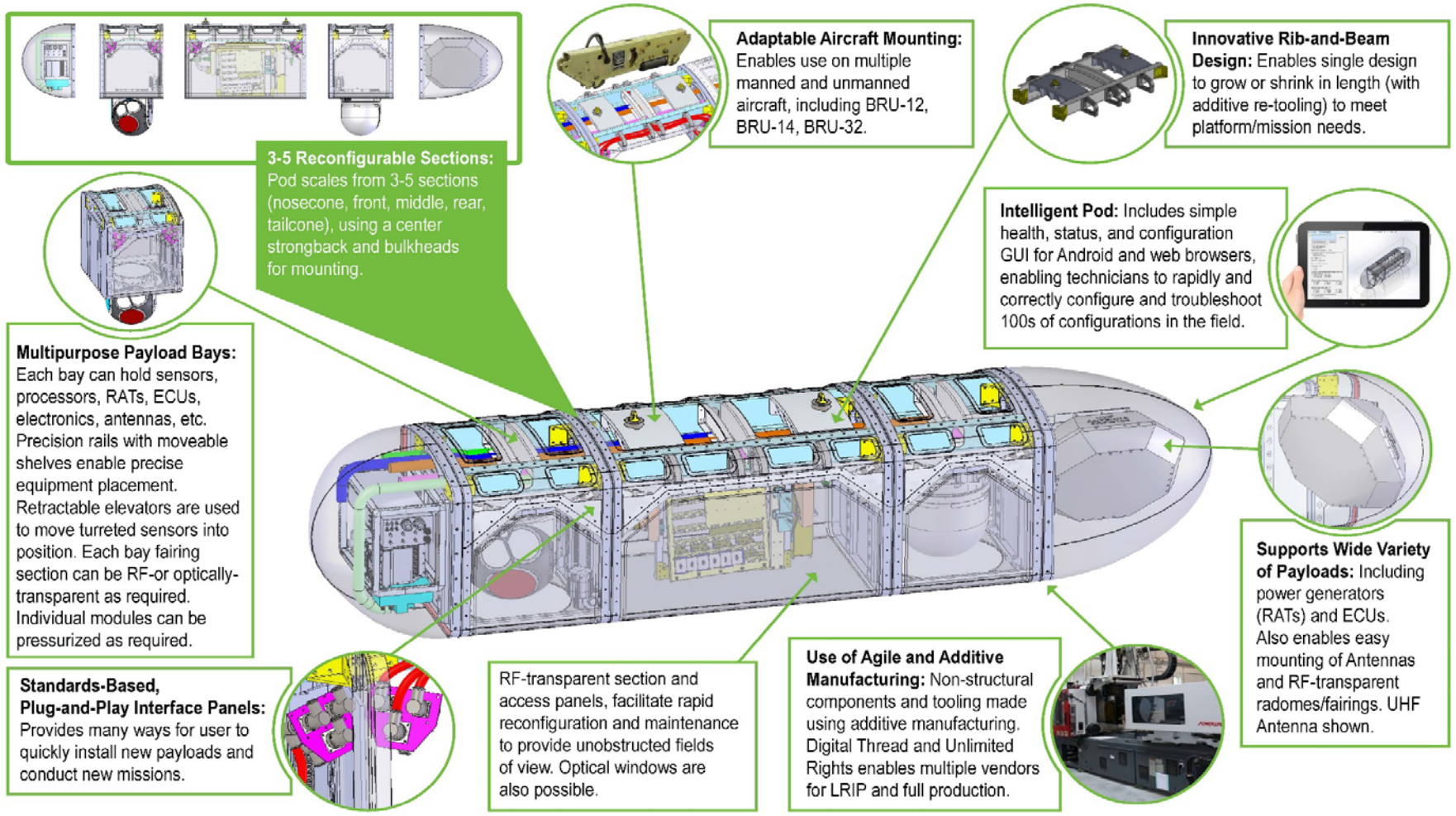

FIGURE B1 - RELATED SAE STANDARDS



# Leveraging and Supporting AM-ISR POD





AIR FORCE LCMC