

Air Armament Center

Integrity - Service - Excellence

The Ammunition Enterprise **Ready Today? Ready Tomorrow?** ***An Air Force Perspective***



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U.S. AIR FORCE

18 Feb 2004



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Overview

Transformation Within Armament Acquisition

- **PEO-Weapons**
- **Air Armament Enterprise**
- **Technology Development Focus Areas**
 - **Future Growth Areas and Vision**
- **Focus of Acquisition Energy**
 - **Insight to Our Direction**
- **Challenges to Meet Emerging Requirements**

Mission Transformation



Acquisition Transformation



Acquisition Realignment

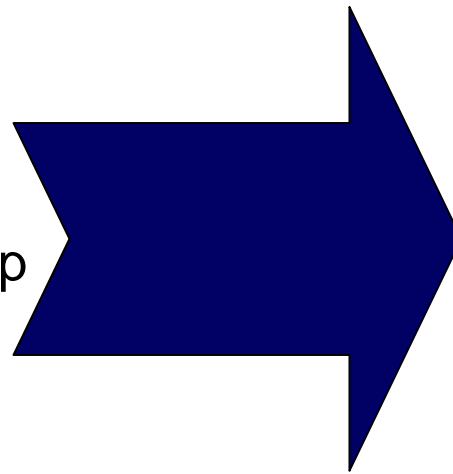
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PEO

- Counter Air
- Area Attack
- JDAM
- Lethal Strike
- Special Projects

DAC

- Armament Product Group
 - Combat Support
 - Precision Strike
 - Range and Targets
 - Advanced Development
 - Air to Surface Munitions Directorate—Hill
 - Armament Directorate- Robins
- Nuclear Weapons – Kirtland
- Cruise Missile Product Group- Tinker



PEO

Counterair Joint Systems

Long Range Attack

Direct Attack

Air Combat Support

Area Attack

Nuclear Weapons

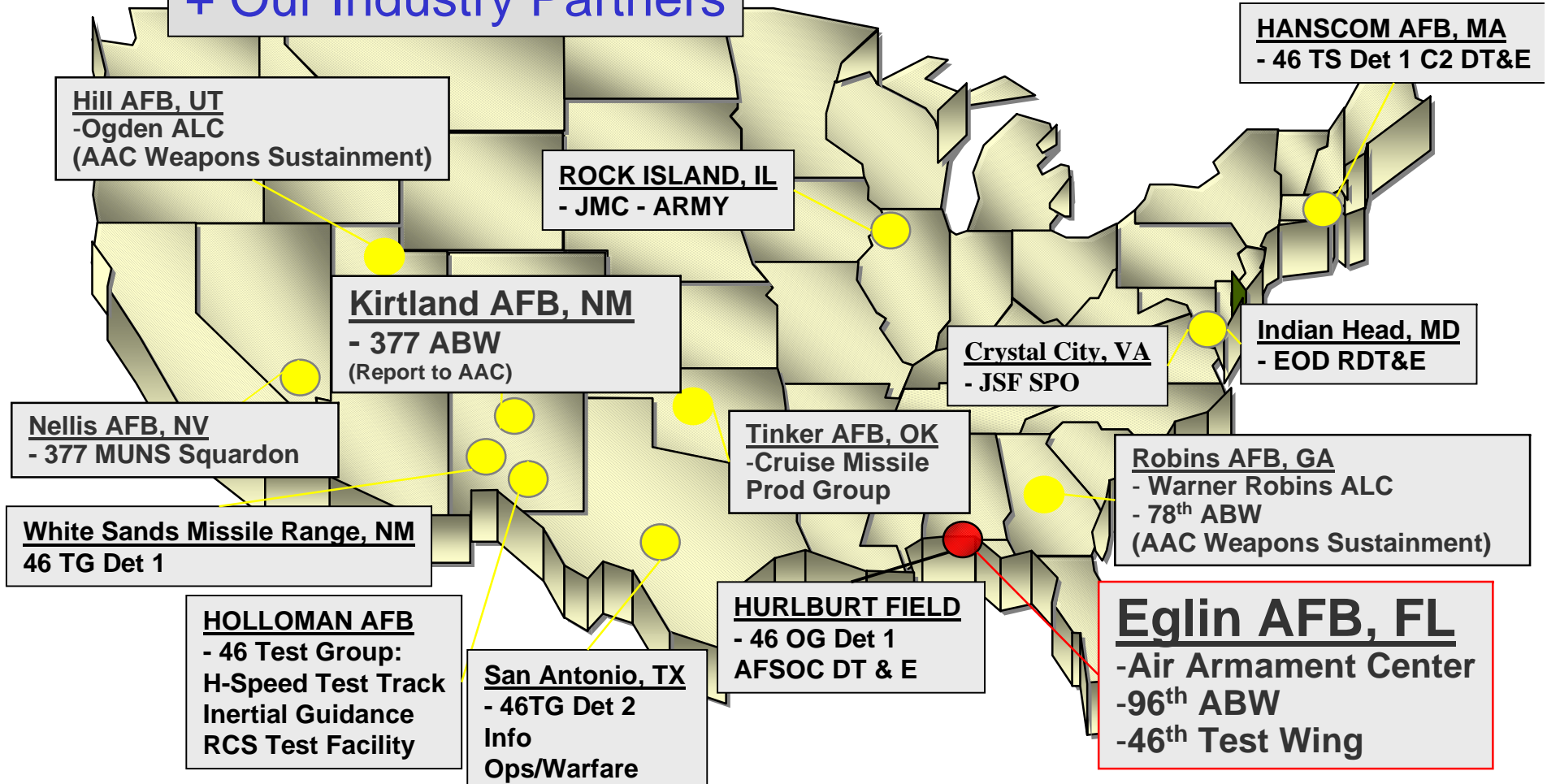
Air Armament Enterprise



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Air Armament Enterprise

+ Our Industry Partners

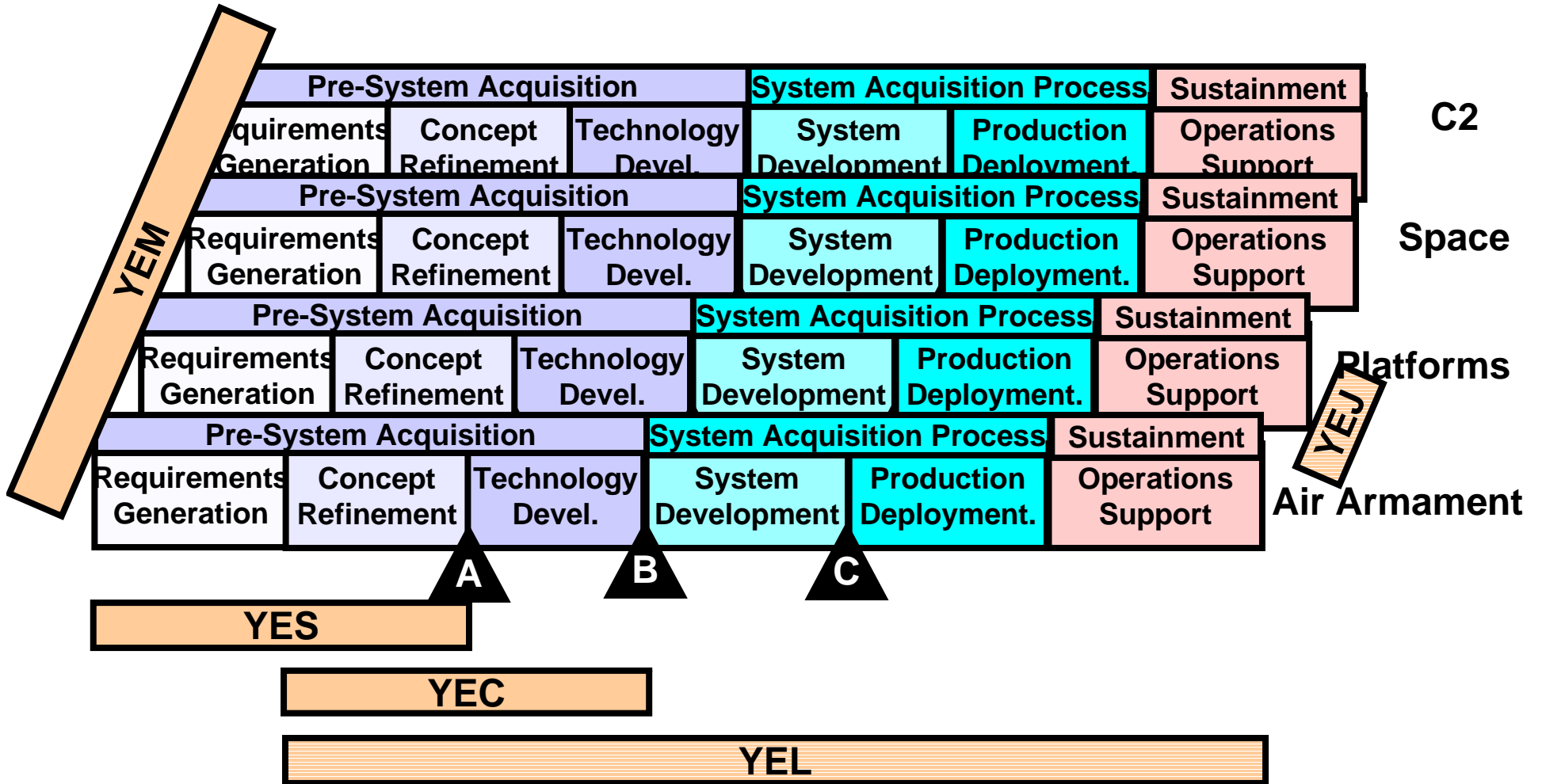


Our Enterprise with Lab, SPO's, Test, and Users Together –
A Great Combination



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Enterprise Perspective





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Future Growth Areas

- **Ability to Integrate Weapons on a Joint Network**
 - **Can Be Re-Targeted and Re-Directed**
- **Joint Capabilities**
 - **Fit On Many/Most Platforms**
- **Universal Armament Interface**
 - **Reducing Cycle Time for Aircraft/Weapon Integration**
- **Smaller, More Lethal, More Precise**
 - **More Targets, Fewer Sorties**
- **Executable Programs**
 - **Doable w/in Cost, Schedule and Performance**
 - **Win-Win, Affordable and Profitable**
 - **Use Less GFE For Better Integration**

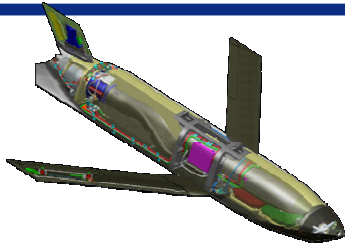


Future Battle Space Access Vision

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SDB



Low Cost Mini Cruise Missile
JASSM P31



Mid Term Attributes
6 – 15 yrs



Hypersonic Standoff
Munitions

Far Term
16 – 25 yrs

Near Term
0 – 5 yrs

- High Leverage Munition Capability Supporting Near Term GSTF CONOPS
 - Multiple Kills Per Pass/Sortie
 - Standoff Outside Point Defenses
- Improved Accuracy (Better Than JDAM)

- Long Range Internal Carriage Munition
- Reduced Platform Attrition
- Flexible Carriage Enabled by Miniaturization
- Multiple Kills Per Munition
 - Defeat Mobile and Fixed Targets
 - Smaller More Lethal Warhead
 - Multiple Dispense of Guided Micro-Munitions
 - Minimal Collateral Damage
- Munition Borne BIA
- Compatible with Global Information Grid
- Low Logistics Footprint

- Rapid Defeat of Time Critical Anti-Access Targets
 - Hypersonic Cruise Missile Option
- Subsonic Global Attack Capability from International Air Space
 - ≥ 20 Kills/Munition
 - Lethal Micro Munitions
 - Non-Lethal Directed Energy Payloads

**Rapid Decisive Forced Entry
Into High Threat Environments**



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Insight to Our Direction

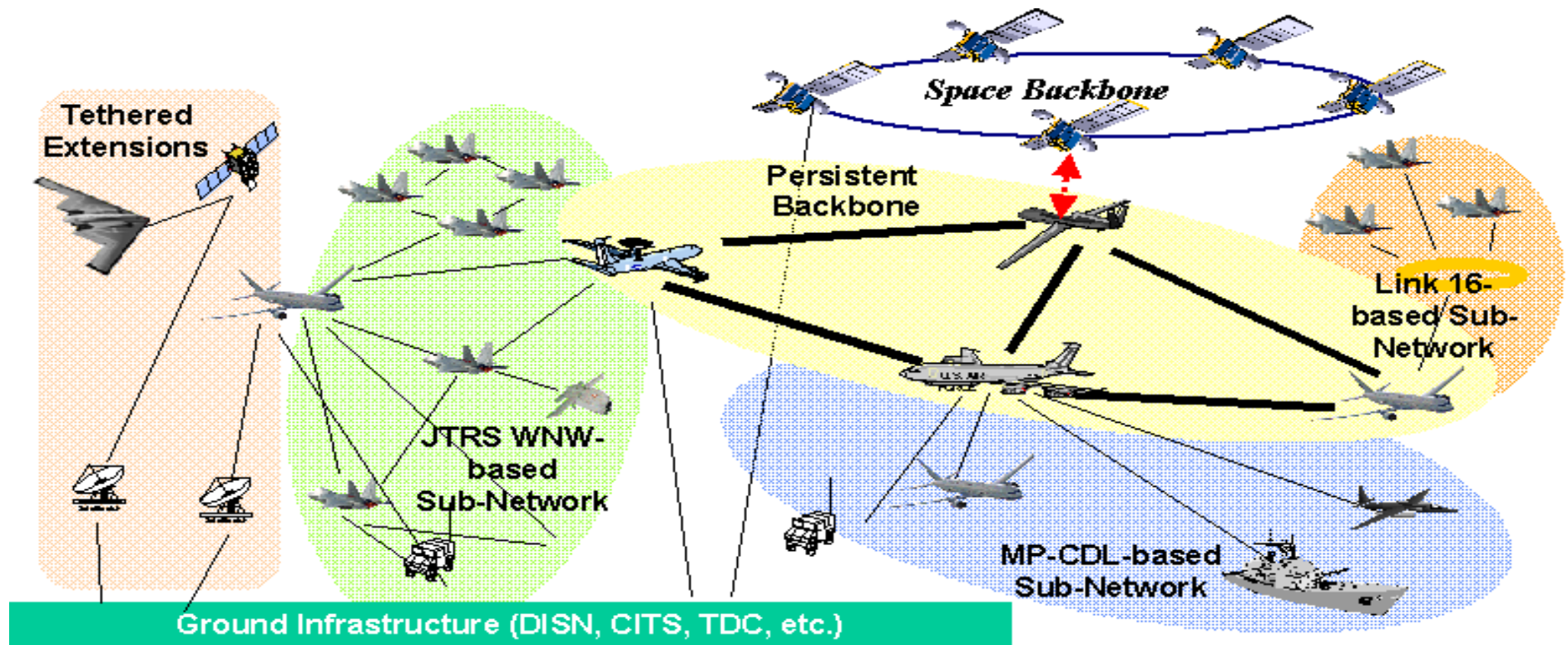
Weapons Technology

- **Networked Weapon Technology**
 - **Time Critical Targeting**
 - **Mobile Targets**
- **Data Link Between Weaponry and C2 Nodes**
 - **Weapon Data Link ACTD**
- **Multi-Event Fuze Technology**
 - **Technology Transition Candidate**
- **Improved GPS Accuracy and Security**
- **Integrated Battle Damage Indicator Capture**



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Networked Weapons



Persistent backbone emulates characteristics of stable terrestrial networks
Edge networks manage their own mobility
Tethered extensions support en-route missions
Built through evolution from current data link gateway initiatives
Structured to evolve to ad-hoc mobile networking as technology matures

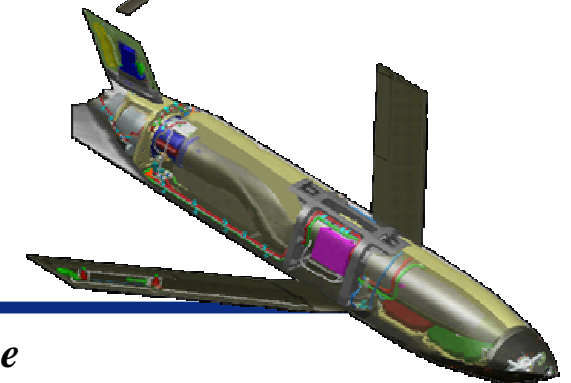
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Insight to Our Direction

- **Insensitive Munitions**
 - **General Purpose Bombs**
 - **MK-84 Design In Progress**
 - **MK-82 Design Next**
 - **Shift to a New BLU Family**
 - **Leaning Towards AFX 794 Fill**
 - **Small Diameter Bomb**
 - **Next Spiral- Weapon Data Link Possibility**
 - **Joint Air-to-Surface Stand-Off Missile**
 - **Extended Range Spiral**
 - **Continued Movement from Kits to AUR**



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Insight to Our Direction

- **AFSOC 105mm**
 - **Separate AF Tech Data Packages**
 - **New PGU-44 HE Round**
 - **Followed by PGU-43 Training Round and PGU-45 High Frag Round**
- **Medium Caliber**
 - **Comparative Testing for 20mm Kinetic Kill Capability**
 - **No War Fighter Requirement for Depleted Uranium Replacement**
 - **Need a Multi-Purpose Combat Round for F-35 25mm Gun**



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Tomorrow's Challenges

- “Smart Fuze” technology and manufacturing
- Propellant production for medium caliber and small caliber rounds
- Stabilizing SMCA procurements
 - Long Term vs. Single Year Actions



- TNT Recycling vs. Demand
- TNT Production Flexibility to Support Insensitive Munitions Fills



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Summary

- **Shared Insight to OIF Effort**
- **Rapid Transformation Within Armament Acquisition**
 - **Enterprise and Capabilities Focus**
- **Technology Investment Direction, Growth Areas and Vision**
- **Insight to Our Energy, Focus and Direction**
 - **Insight to Our Direction**
- **Challenges to Meet Emerging Requirements**

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