

# Headquarters Pacific Air Forces

*Integrity - Service - Excellence*

## PACIFIC INDUSTRY FORUM

***SAME***

***17-19 SEPT 2024***



KEVIN J. OSBORNE, Colonel, USAF  
Command Civil Engineer  
18 September 2024

UNCLASSIFIED



**Insert Video Here**

A vintage pocket watch with Roman numerals and a chain, resting on a wooden surface next to an ornate book and a wooden cylinder.

**Collaborate**  
**Engage**  
**Deliver**

**WE HAVE A PROBLEM**

WE ARE ON THE



TO HAVE

***INFRASTRUCTURE***

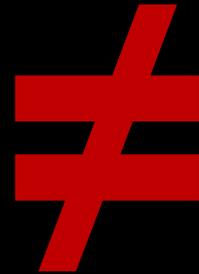
IN PLACE TO

SUPPORT AUSTERE

AIR BASES BY

***2027***

**Peacetime Bureaucracy**



**Wartime Contingency Operations**

**...AND, WE NEED YOUR**

**HELP**



2027



# We Are Being Outcompeted

## PLAAF vs USAF Runway Construction Efforts



Peacetime Bureaucracy

≠

Wartime Contingency  
Operations



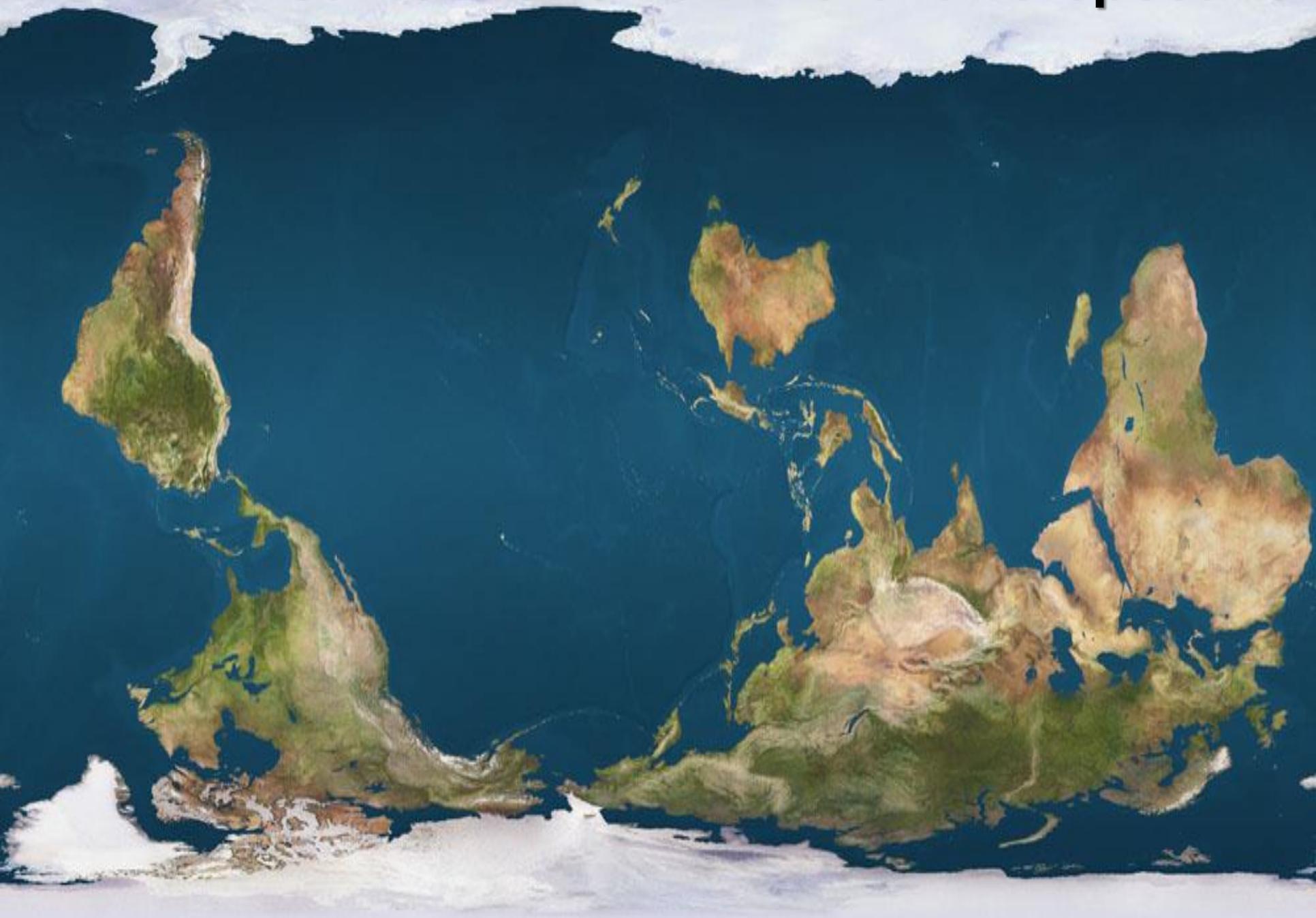
***In Two Years, the PLAAF had expanded airfield capability while the USAF continued to be bogged down by environmental processes at Tinian North Field, CNMI***

*Built on a Legacy ... Engineering for the Future*



**World as We Know It**

# Same World ... Different Perspective



**Think ... Act ... Operate**

**... Differently**





**A**

**Agile Combat Employment (ACE)**



**V**

**Warfighting Capability**





**If You Build It . . . 'They' Will Come**





# Agile Combat Employment

## Tinian North: PACAF Airfield Opportunities



B-29: Enola Gay

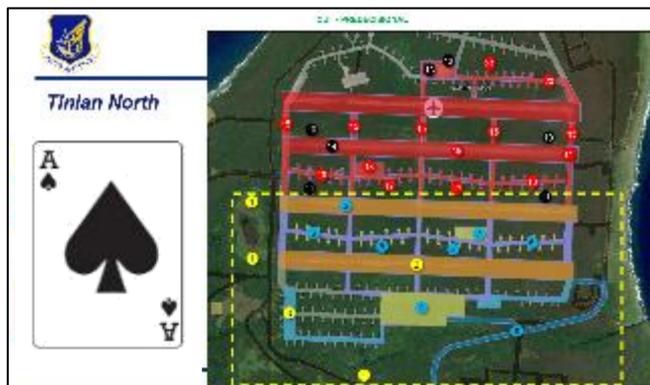
1945: Largest airfield in world during WWII with 269 B-29s flying out of Tinian North Airfield at peak



2022: Only 1 runway of 4 still active. Used for austere cargo plane operations. Airfield overgrown by jungle.



Early 1940s: Construction by Engineer Aviation Battalions



Construction Program – Tinian North



2022: Site survey of taxiway & keyholes between runways

A historic **ADAPTIVE REHABILITATION** of WWII airfields to improve USAF capability for exercises, operations, and security while preserving sites for future generations



**356<sup>th</sup> Expeditionary  
Civil Engineer Group**



Activated: 11 Aug '23

**356<sup>th</sup> Expeditionary  
Prime BEEF Squadron**

**513<sup>th</sup> Expeditionary  
RED HORSE Squadron**

***The First USAF Indo-Pacific Theater Engineer Group Since WWII***



**Colonel Peter Joo**  
Commander

**CMSgt Ty Mitchell**  
Senior Enlisted Leader



356 EPBS  
Maj Cody  
Beemer



513 ERHS  
Maj Blake  
Rothschild



**Close Area**      **Operational Support Area**      **Strategic Support Area**



LOE 1: Restore, construct, and sustain ACE critical Infrastructure  
 LOE 2: Build and foster partnership capacity and interoperability  
 LOE 3: Operate and adapt the organization at the speed of relevancy

## Capabilities

### Horizontal Construction



Concrete & Asphalt



Earthwork

### Vertical Construction



K-Spans, PEBs, PTFS



Utility Installation

### Maintenance and Repair



Clearing & Grubbing



Infrastructure

### Expedient Small Asset Protections Systems (ESAPs)



**Legend**  
 Higher Headquarters  
 ECEG Rotational Force  
 ECEG Exercise Support



# Expedient Small Asset Protection (ESAP) Shelter



# Guam: Northwest Field



<p><b>BASE RESILIENCY</b></p> <ul style="list-style-type: none"> <li>-MAAS Equipment, CTK</li> <li>-WAFERS Fuel &amp; Water</li> <li>-FRP Fiber Reinforced Panels</li> <li>-ADR Supplies</li> <li>-4x4 10 ton Dump Truck (ADR)</li> <li>-CTL Compact Track Loader</li> <li>-EOD Supplies</li> <li>-CBA LOADER Backhoe (EOD)</li> <li>-EXCAVATOR (ADR)</li> <li>-LOADER SCOOP 4CY (ADR)</li> <li>-EALS-C Expeditionary Airfield Lighting</li> <li>-CAMMO SETS Netting</li> <li>-REHM Equipment (EOD)</li> </ul>	<p><b>EMERGENCY</b></p> <ul style="list-style-type: none"> <li>-FIRE Equipment</li> <li>-P-19 Fire Truck</li> <li>-CBRNE Equipment</li> <li>-SF Equipment Bin / Vehicle</li> <li>-SG Medical Support</li> <li>-OSI Equipment</li> </ul> <p><b>CAVSE</b></p> <ul style="list-style-type: none"> <li>-CAVSE Common Aviation Support Equipment</li> </ul> <p><b>LIFE SUPPORT</b></p> <ul style="list-style-type: none"> <li>-ADRK (11-5 + C2) Briefing</li> <li>-CONCERTINA Debrief Facility</li> </ul>	<p><b>FUELS</b></p> <ul style="list-style-type: none"> <li>-POL FORCE STARTER</li> <li>-POL FORCE RECEIPT</li> <li>-R-11 POL Truck</li> <li>-50K BLADDER Bladder (AT Berm)</li> <li>-GROUND FUEL 10K Bladder (AT Berm)</li> <li>-FUEL SYS MX EQUIPMENT</li> </ul> <p><b>LOG MHE</b></p> <ul style="list-style-type: none"> <li>-10K FORKLIFT</li> <li>-25K MALVORSEN</li> <li>-ROBTAL with Pintle Hook</li> </ul>	<p><b>RBCCP</b></p> <p> </p>
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# Tinian (CNMI): North Field



Captured on 8/14/24 by Sgt Henry Do



# 356<sup>th</sup> Expeditionary Civil Engineer Group

## *Operations on Tinian North Field, CNMI*



*Built on a Legacy ... Engineering for the Future*



# 356<sup>th</sup> Expeditionary Civil Engineer Group

## *Paving Operations on Northwest Field, Guam*



# Indo-Pacific Unity Allies and Partners Engineer Summit



**54 Key Leadership Engagement Attendees; 76 Silver Flag Participants; 13 Countries Represented**

*The parent program for all Air Force Engineer engagements throughout the Indo-Pacific region. These engagements provide a forum for allied and partnered engineers to exchange views, create professional relationships, enhance partner capacity, promote regional stability, and increase engineer interoperability in the region.*



**INDOPACOM / PACAF Exercises**  
(e.g. BALIKATAN, COPE NORTH, etc)



**Engineer Civic Action Program**  
(ENCAP)



**Engineer Subject Matter Expert**  
Exchange (SMEE)



**Engineer Key Leader**  
Engagement (KLE) Program



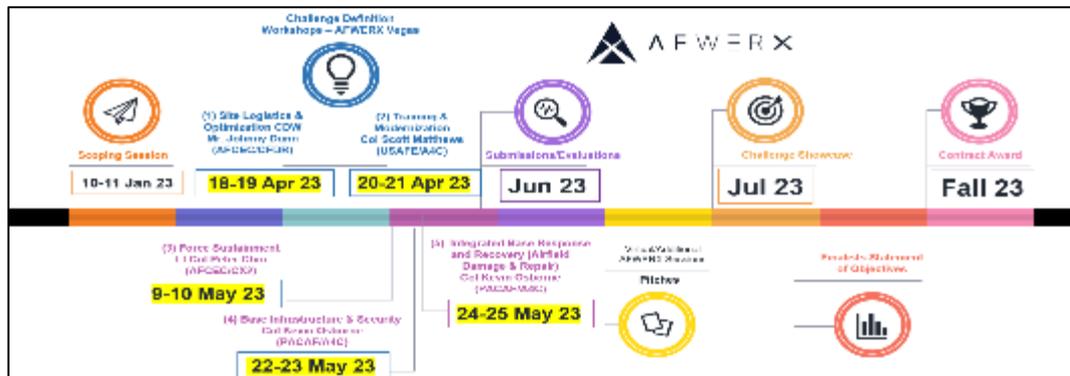
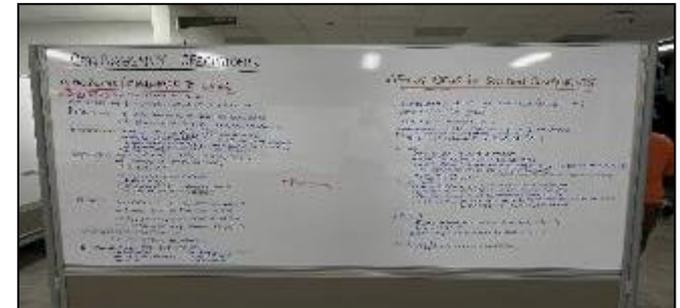
**Engineer Subject Matter Expert**  
Exchange (SMEE)

***Our Enduring Advantage – Strengthen Alliances and Recruit New Partners***



# AFWERX - Expedient Basing Innovation Challenge Definition Workshop

- Topic #1: Force Sustainment
- Topic #2: Training and Modernization
- Topic #3: Site Logistics & Optimization
- Topic #4: *Infrastructure*
- Topic #5: *Readiness (Integrated Base Response and Recovery)*



*Built on a Legacy ... Engineering for the Future*



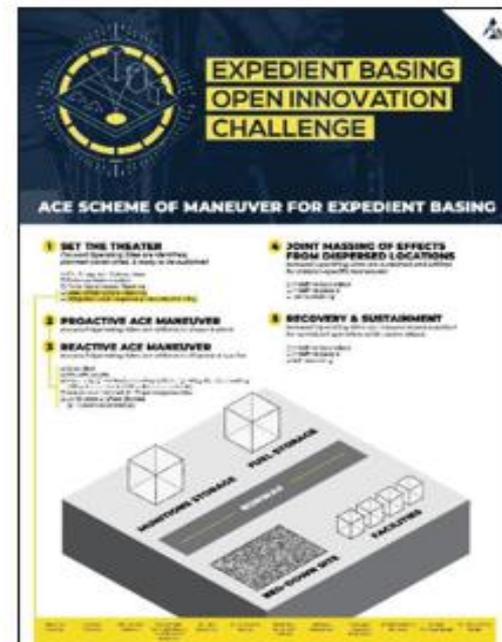
# AFWERX - Expedient Basing

## PACAF Innovation – Focus Area #4 and #5

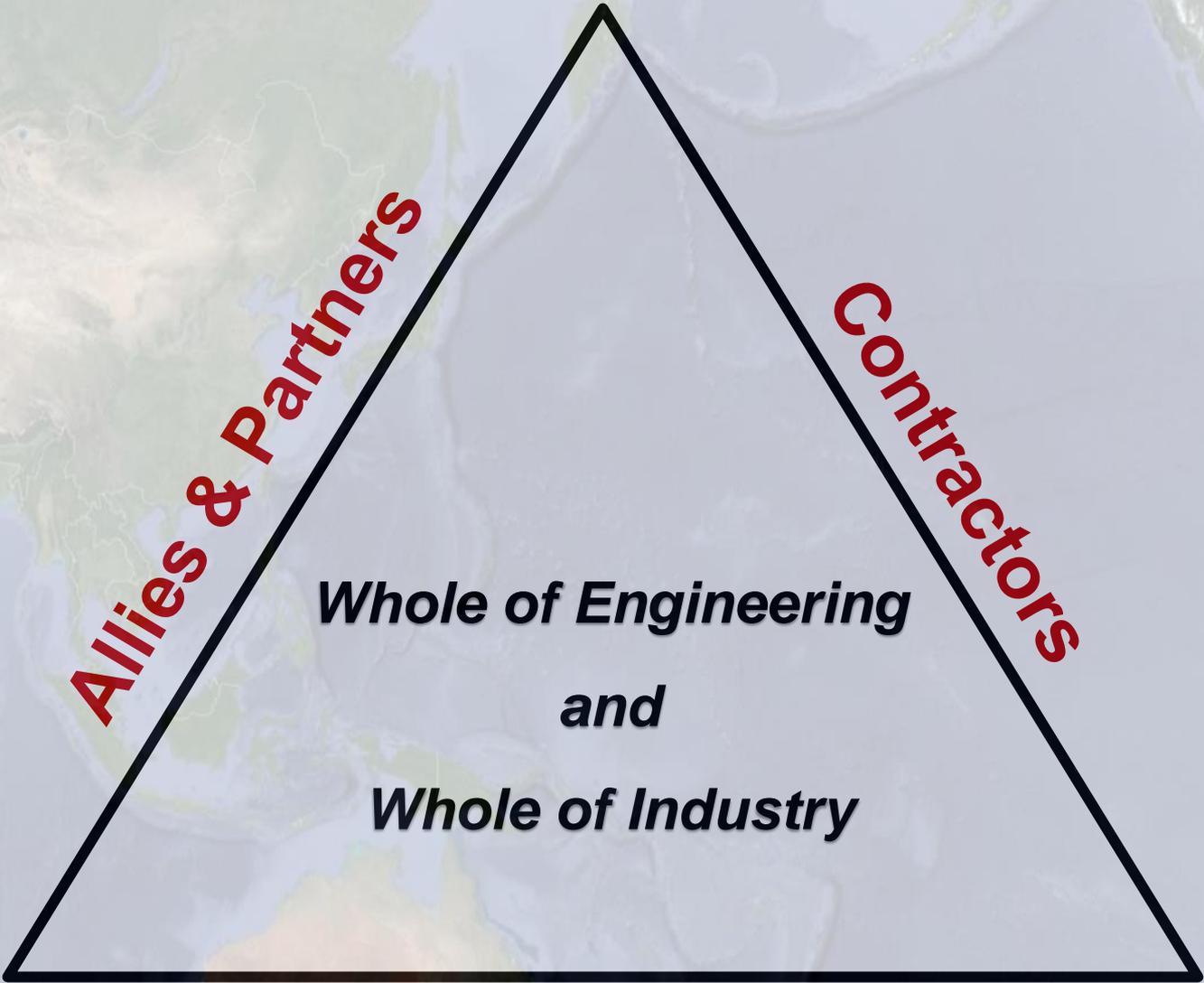


- AeroPel Nanocomposite Protection Layer
- Rapid Bio-Toilet
- Expeditionary Solid Waste Disposal System
- Hybrid Power Shelter
- Mobile Power Station/Modular Work Vehicle
- Atmospheric Fresh WaterCube
- Solar Power Structures
- Applique Autonomy Kit
- MINATOR Shelter

- 
- Nanofibrous Membrane
  - Solar Power Integrated System
  - Biomineralization, Rapid Airfield Repair
  - Agile Combat Energy Storage
  - Smart Electric Vehicles
  - Tactical Surface Board System
  - Water Filtration Devices
  - Passive Runway Lighting
  - APR-Lite, Rapid Repair for Asphalt and Concrete
  - Composite Fabric Inflatable Structures
  - Antares
  - Digital Airbase
  - ATOS Airfield Tracking
  - Runway Surface Monitoring
  - Robotic Airfield Damage Repair
  - Force Multiplier Kit
  - Fast Track – modular road & platform







**Department of Defense & State**



Insert Video Here

ENGINEERING FOR  
**EPD**  
PACIFIC DETERRENCE



**We Need Your Help to 'Seize the Initiative' ...to Think, Act & Operate Differently**

# THE GREATEST

## AIR FORCE

18 September 1947



CELEBRATING 77 YEARS