Data Driven Decision Model | Providing Facility Capabilities Meeting Mission Needs

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Key Objectives

1. Learn how to develop a business case weighing risk to mission, force, and institution, & cost
2. Learn how functional communities can play a key role in asset management
3. Learn how to establish a lifecycle roadmap of an asset, simultaneously improving PPBE
4. Learn effective change management and facility asset management system implementation strategies
5. Learn how leveraging Data Driven Decision Models help decision makers make more informed decisions
Overview

• Key events
• Status of Ranges (SoR) Dashboard
• Portfolio Snapshot
• Business Case
• Managing Change
• Lifecycle Approach
• Data Driven Decision
Key Events | How Organizing, Training, & Equipping Effect Facilities

The USAF

• Typically mobilizes in individual/small group approach
• Training is conducted by CATM
• As result our training, scheduling, operating, and managing of ranges follows suit
• Majority of USAF property used for Air operations - limited real-estate available for other mission areas (including SAR)
• 25 Meter Qualification – Scaled down silhouettes out to 300M
Key Events | Casual Factors

- **Corporate Decisions over last 70+ yrs**
  - Limited real-estate drove the use of 25M ranges
  - Design and Engineering
  - Modernization of New Bullets
Key Events | Findings

- SARs are often closed due to health concerns
  - Muzzle blowback creates unhealthy carbon monoxide and particulate matter (lead/copper) exposure levels
  - Most Problems seen w/r to 25M partially enclosed baffled
- Conditions of existing ranges deteriorating
  - On indoor ranges
    - Bullet trap maintenance an issue
    - Ventilation systems inadequate/not operational
- Ranges are underutilized at some locations
  - Too many firing points for population = lower utilization rate
Status of Ranges (SoR) Dashboard

- Security Force Management Information System (SFMIS)
  - Contains Training Throughput and Range information
- Automated-Civil Engineer System (ACES)
  - Contains Firing Range Facility Information, Category Codes, Projects, Mission Dependency Indexes, and Funding
- Wings
  - Information not in a database today is manually loaded by wing personnel
- Status of Ranges (SoR) Dashboard
  - Contains current Status, Condition, Safety, and Risk to Mission from SFMIS, ACES, and Wings
Portfolio Snapshot

Metrics Overview
• Status of Air Force Ranges: aging & degraded
• 100% of Airmen requiring training are being trained
  • But at a cost of health and efficiency
• Affects Air Force’s warfighter readiness
• Inventory of Ranges: 198 ranges
  - Main Operating Ranges = 148
  - Specialized Ranges = 50
• Air Force Weapons Training
  - Combat Arms Missions = 219

Definitions
• Current Performance (Mission Impact)
  • Operational: Capable of supporting SAR mission w/minor issues
  • Moderate: Has RAC 3/4 and/or <50% lanes down
  • Significant: Has RAC 1/2 and/or >50% lanes down, or Range down
• Range Types
  • Non-Contained Impact – (NCI)
  • Indoor Fully Contained – (IFC)
  • Modular Indoor Firing Range – (MIFR)
  • Outdoor Fully Contained Baffled – (OFCB)
  • Outdoor Partially Contained Baffled – (OPCB)

Common Range Deficiencies
- Backstop
- Baffle Construction
- Firing Platform
- Side Berm/Wall
- Noise Levels
- Surface Danger Zone Issue
- Ventilation/Air Quality
Business Case

- 29% of Small Arms Ranges in degraded conditions
- Average age Small Arms Ranges (SAR) is 26 years
  - Exceeded life expectancy by 6 years
  - Selected ranges shutdown due to unsafe range and health conditions
- Decreased SAR availability affects readiness training and deployment
  - Majority of Air Force bases have only one SAR
  - Closed firing points/lanes increases range time to accommodate training throughput
- Lack of investment increasing rate of degradation driving large recap costs
  - Projected MILCON (2016 – 2025) to replace/recapitalize approaching $450M
- Delay in training = delay in deployment
Business Case | Desired End State

- Provide 100% Airmen qualification/proficiency
- Eliminate unhealthy exposure conditions
- Small Arms training delivered effectively and efficiently
  - Right range type, place, condition, & size
  - Right number of instructors, right place
- “Right Size” Lane Utilization Rate
- Eliminate Inadequate Ranges
  - 21 Outdoor Fully Contained (OFCB) Ranges
  - 48 Outdoor Partially Contained (OPCB) Ranges
Managing Change

• Identifying Stakeholders at all levels
  • Units, Installations, MAJCOMs, AFIMSC, HAF, COCOMs, and the Taxpayer
• Communication
  • Proactively involve all stakeholders from the beginning ... transparency is key!
• Taylor the message to the stakeholder
  • How are we supporting & impacting their people, mission, & resources
  • How are we managing risk associate with people, mission, & resources
  • How are we ensuring the highest quality training at the best price
  • How are we being the best stewards of taxpayer dollars
    ... get the best bang for the buck!
Lifecycle Approach

• Developed options (AF Owned, Partnership, or TDY) to determine under what conditions each is viable/preferred for the mission
  • Define how we will identify ‘preferred’ option in varying condition scenarios, in terms of
    • Cost
    • Risk to Mission
    • Risk to Force
    • Risk to Institution
  • Considering the following:
    • Range Sizing
    • Applicability of Environmental Regulations
    • Evaluate current MILCON & partnership program
    • Recommend changes to policy w/ milestones to implement
    • Recommend forcing function for driving toward compliance
Lifecycle Approach

Total Portfolio Management

- Modernized and Standardized configurations
  - Ensures a proper LHS compliant facility (e.g. Right Type)
  - Ensures facility are sized to meet the Combat Arms Mission needs (e.g. Right Sized)

Planned vs Actual w/Life Cycle Cost

- Initial CNSTR
- Actual BCI – 83
  - AGE – 11
- Planned Life Cycle
- 75 - 65 BCI - Last Cost-Effective Investment point to bring back to 95
- Replacement

Data Driven Decision

• Using data, produce and prioritize courses of action
  • Utilization rate and condition are primary factors

• GOAL: Provide cost effective combat arms training capability to meet mission requirements (e.g. AF owned, in a Partnership, or TDY)

• WG End State:
  • Provide AFIMSC/CC with 3 COAs

• COAs Analyzed
  • On-base range government owned
  • On-base range with partnership
  • Off-Base range with partnership
  • Regionalized (TDY)
  • Centralized within local area
  • Combat Readiness Training Center (CRTC)
Data Driven Decision

• Model Guidelines/Requirements (Managed by AFSFC)
  • 3-year average SAR throughput (FY 14, 15, and 16)
  • SAR Operational Readiness Output to determine Priority
  • Number of Lanes currently available to use
  • Utilization Rate
  • Adjusted for new (not yet executed) qualification frequencies

• Model Results (Used by Execution Corporate Board)
  • Single strategy for SARs (Retain, Community Partnership, TDY)
  • Desired Utilization Rate per SAR
  • Utilization Threshold Determination
  • FSRM/MILCON Programming years
Data Driven Decision | Assumptions

• **Manpower**
  • Current range operations manpower will not be reduced and can be reallocated to new SAR (if strategy changes)
  • Increased manpower requirements will be supported

• **Local Range Availability**
  • Range defined as “local” if within 30 minutes of installation
  • Range can meet AF criteria (will need on site verification)
  • Local range priority can be increased due to ops tempo

• **Funding**
  • Local O&M and TDY budgets will be increased to support if required

• **Facilities**
  • Advocacy to support Modular/FSRM/UMMC/MILCON projects
  • Prefabricated range solution viable for SAR solution < 14 lanes
Data Driven Decision | Model Process

Requirements → SAR Size & Utilization Rate → Determine CoA → Current Range Analysis → CoA Action

Step 1: Determine CoA
Step 2: Current Range Analysis
Step 3: CoA Action
Step 4: Requirements
Step Into Model
## Conclusion

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