Introduction to the Army Common Control System (ACCS)

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Outline

- Overview
- Transition
- Capabilities
- Schedule
- Teaming Efforts
- Summary

ACCS Overview

- Army target control system for TMO aerial and ground targets

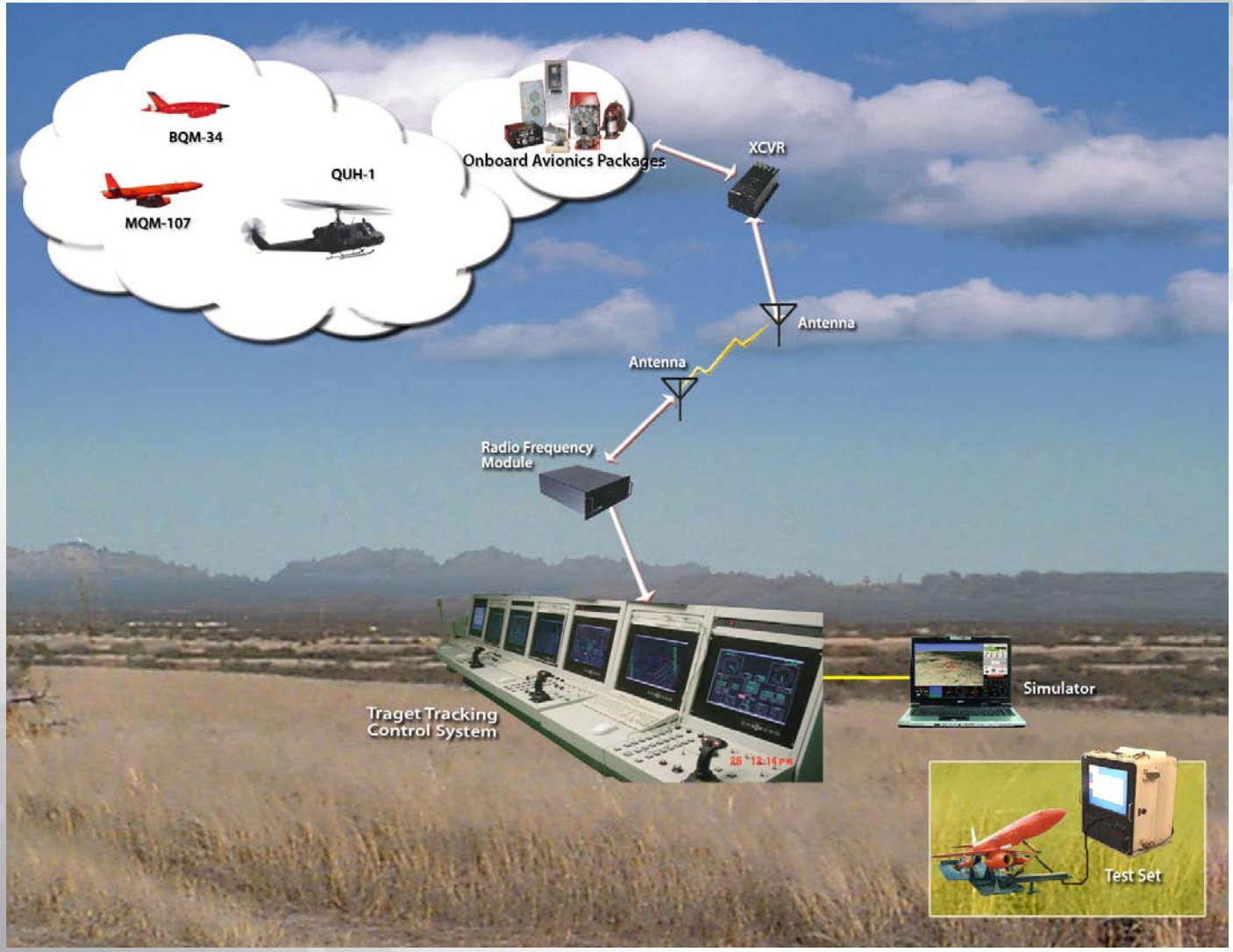
- Leverage the current Target Tracking Control System (TTCS), vehicle avionics, and test set technology

- Meets DoD Information Assurance Certification and Accreditation Process (DIACAP)

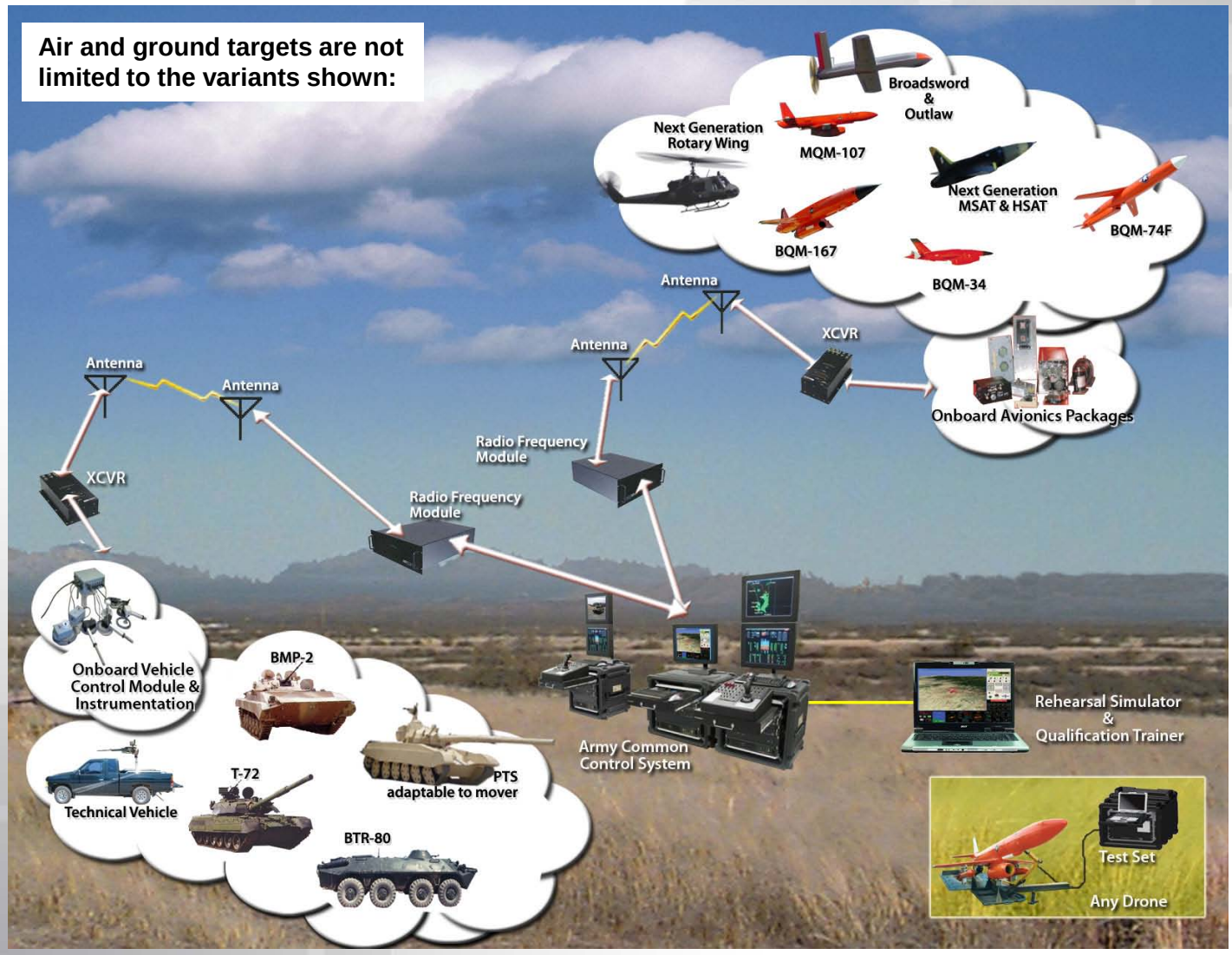
- ACCS will be the primary rotary wing, ground target, and subscale aerial target control system for Army

ACCS Concept

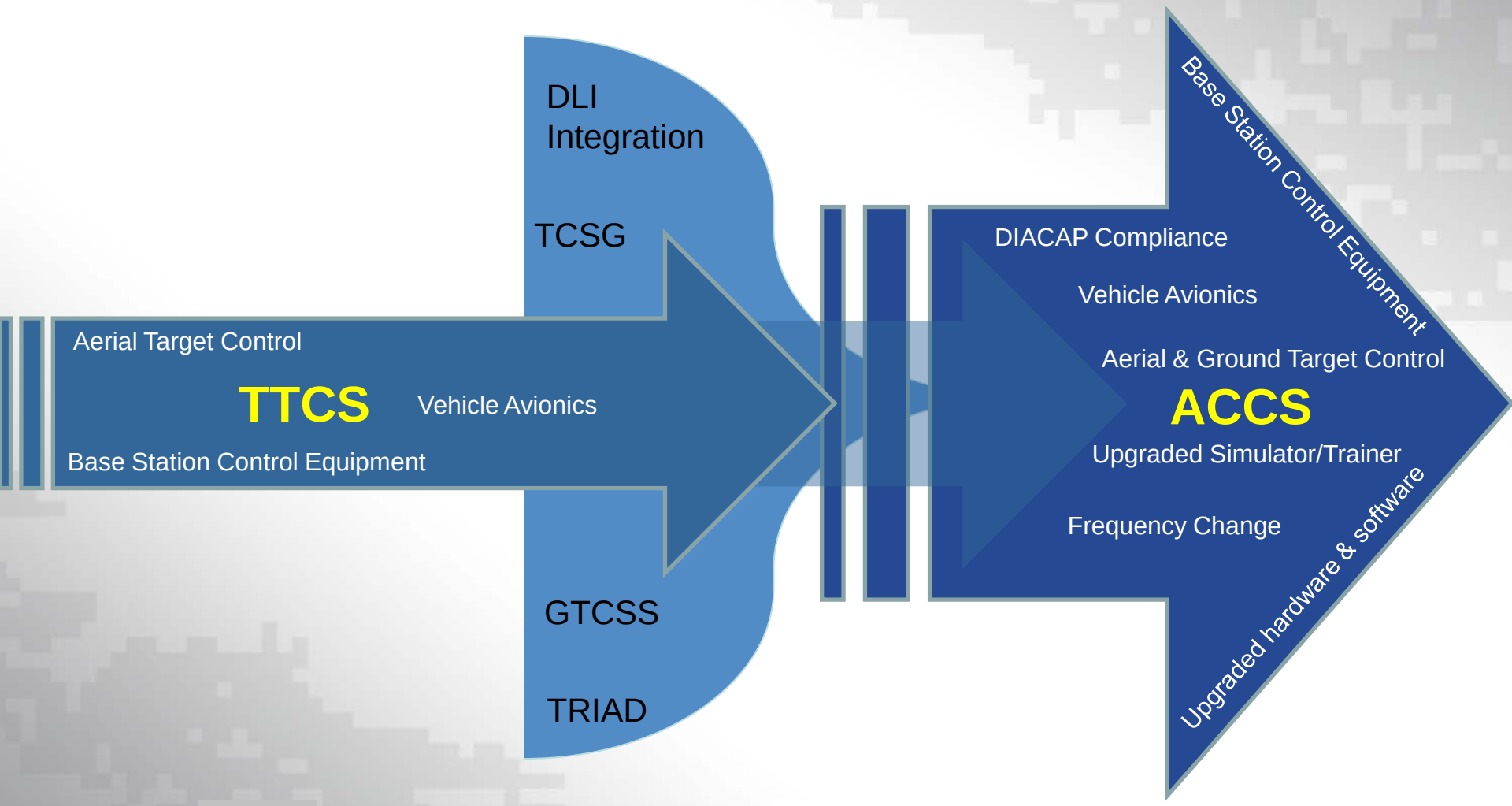
Existing Target Tracking Control System (TTCS) OV-1



ACCS OV-1


Air and ground targets are not limited to the variants shown:
Broadsword & Outlaw
Next Generation Rotary Wing
MQM-107
Next Generation MSAT & HSAT
BQM-74F
BQM-167
BQM-34
Antenna
Antenna
Antenna
Antenna
XCVR
XCVR
Onboard Avionics Packages
Radio Frequency Module
Radio Frequency Module
Onboard Vehicle Control Module & Instrumentation
BMP-2
T-72
PTS adaptable to mover
Technical Vehicle
BTR-80
Army Common Control System
Rehearsal Simulator & Qualification Trainer
Test Set
Any Drone

Way Ahead


DLI
Integration
TCSG
GTCSS
TRIAD
Aerial Target Control
TTCS
Vehicle Avionics
Base Station Control Equipment
DIACAP Compliance
Vehicle Avionics
Aerial & Ground Target Control
ACCS
Upgraded Simulator/Trainer
Frequency Change
Base Station Control Equipment
Upgraded hardware & software
FY11
FY12
FY13
FY17…

ACCS Capabilities

Aerial Target Control

- Provide control of up to 8 airborne targets simultaneously
- Support 2 targets on a single Data Link frequency
- Direct mode (1 target @ 10 Hz or 2 targets @ 7 Hz)
- Target Relay mode (1 target @ 6.5 Hz or 2 targets 4.5 Hz)
- Dedicated Relay mode (1 target @ 5 Hz or 2 targets @ 3.7 Hz)
- Provide GPS differential corrections to the targets (target dependent)

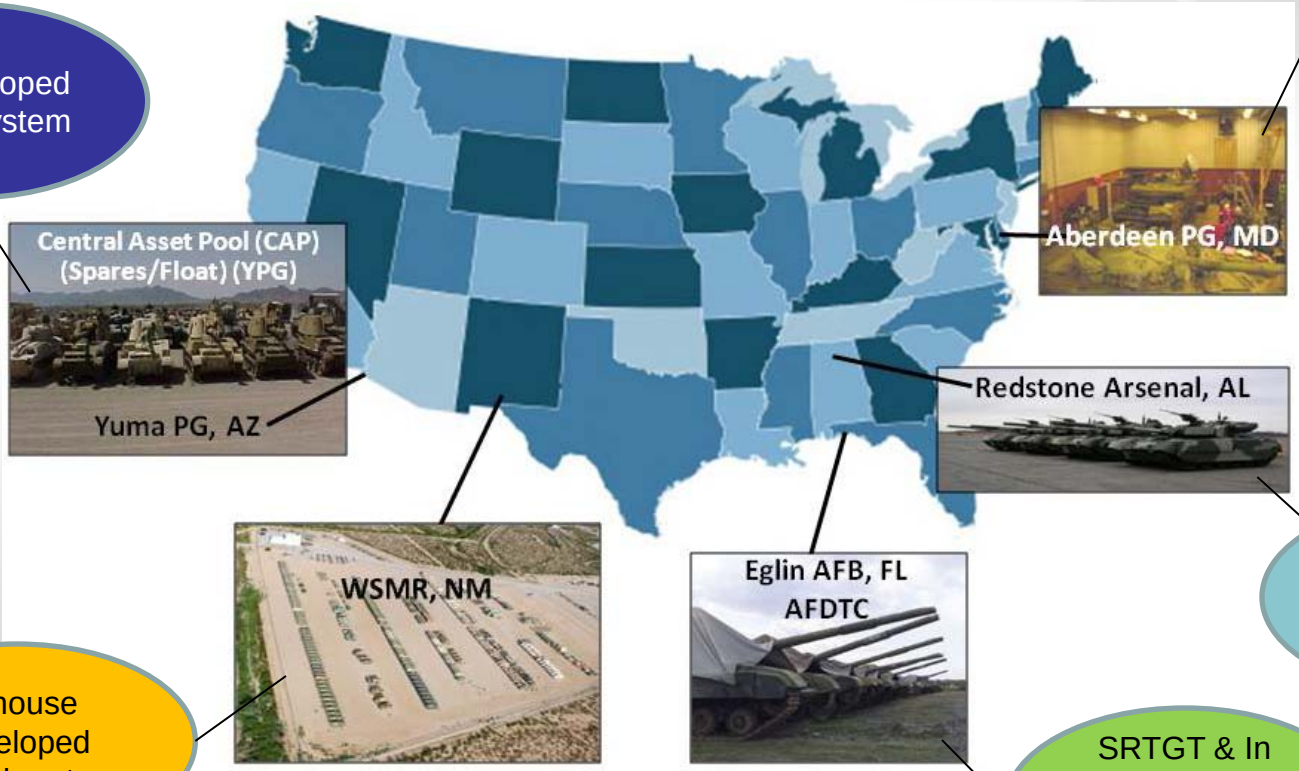
Ground Target Control

- Control of tracked and wheeled vehicles
- Waypoint movement, GPS guidance
- Collision avoidance
- Control of vehicles in formation

Existing Ground Target Locations and Control Systems

ITT developed control system

Kairos Autonomi developed control system



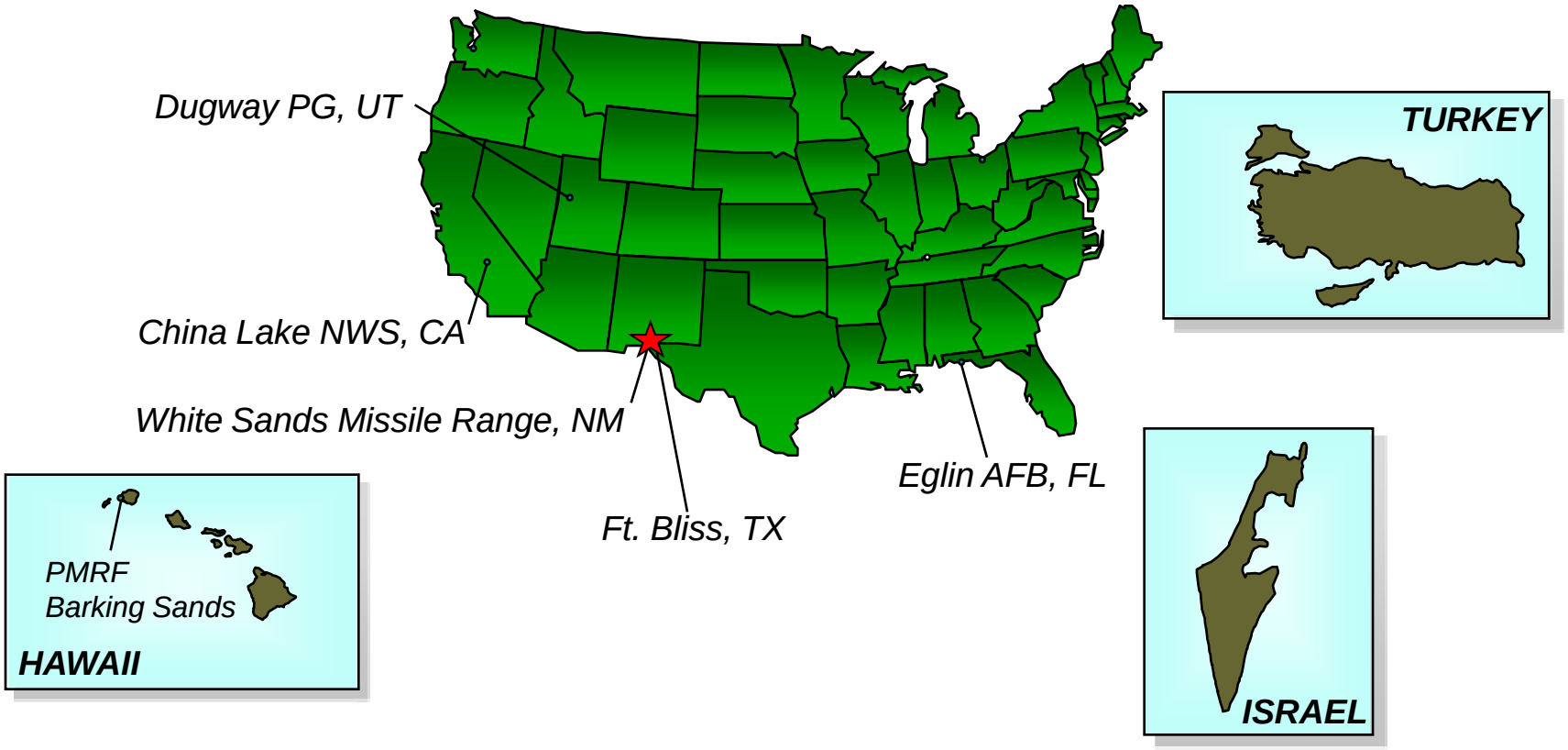
In house developed control system

In house developed control system

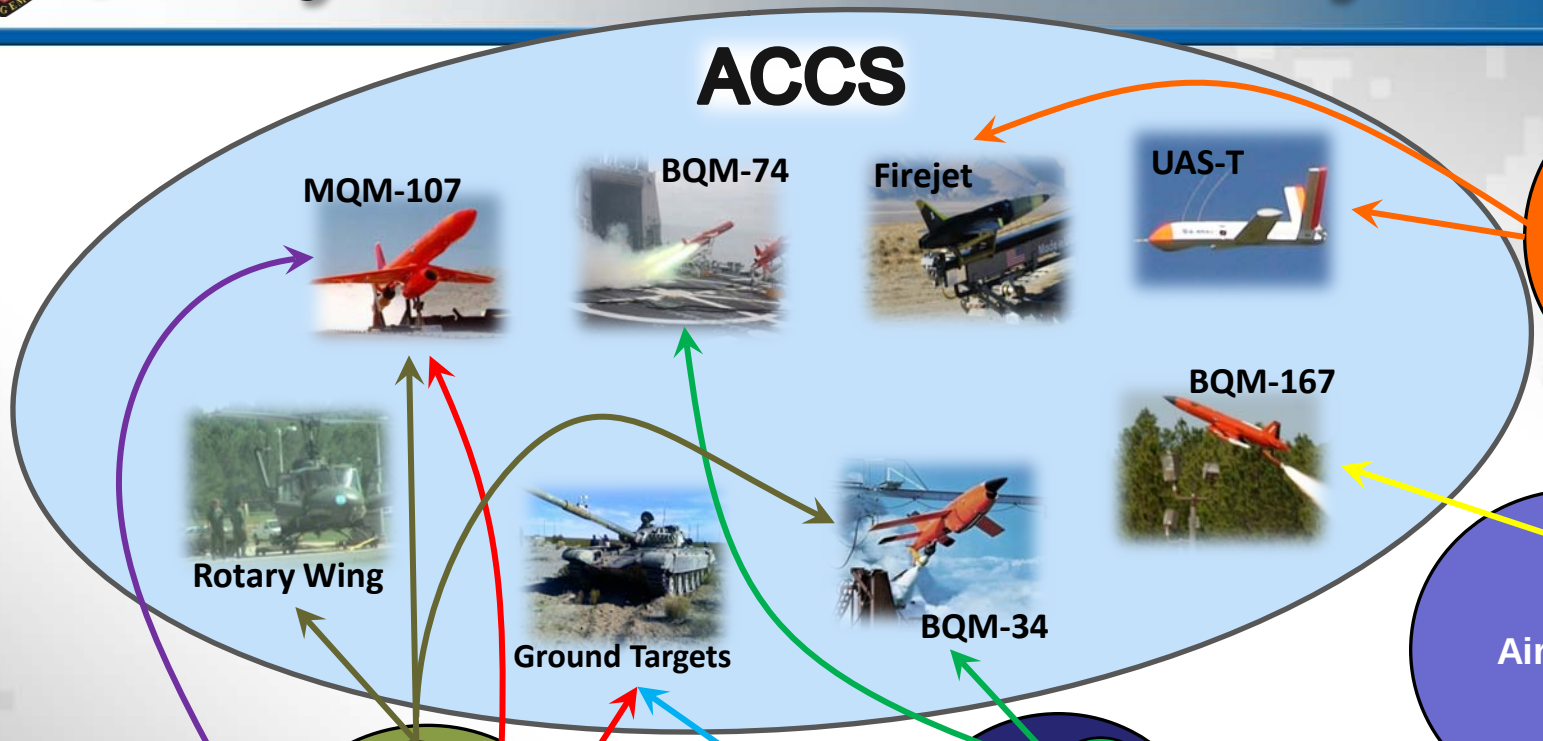
SRTGT & In house developed control system

Each system is independently developed and operated

TMO Aerial Target Operating Locations



Army Common Control System



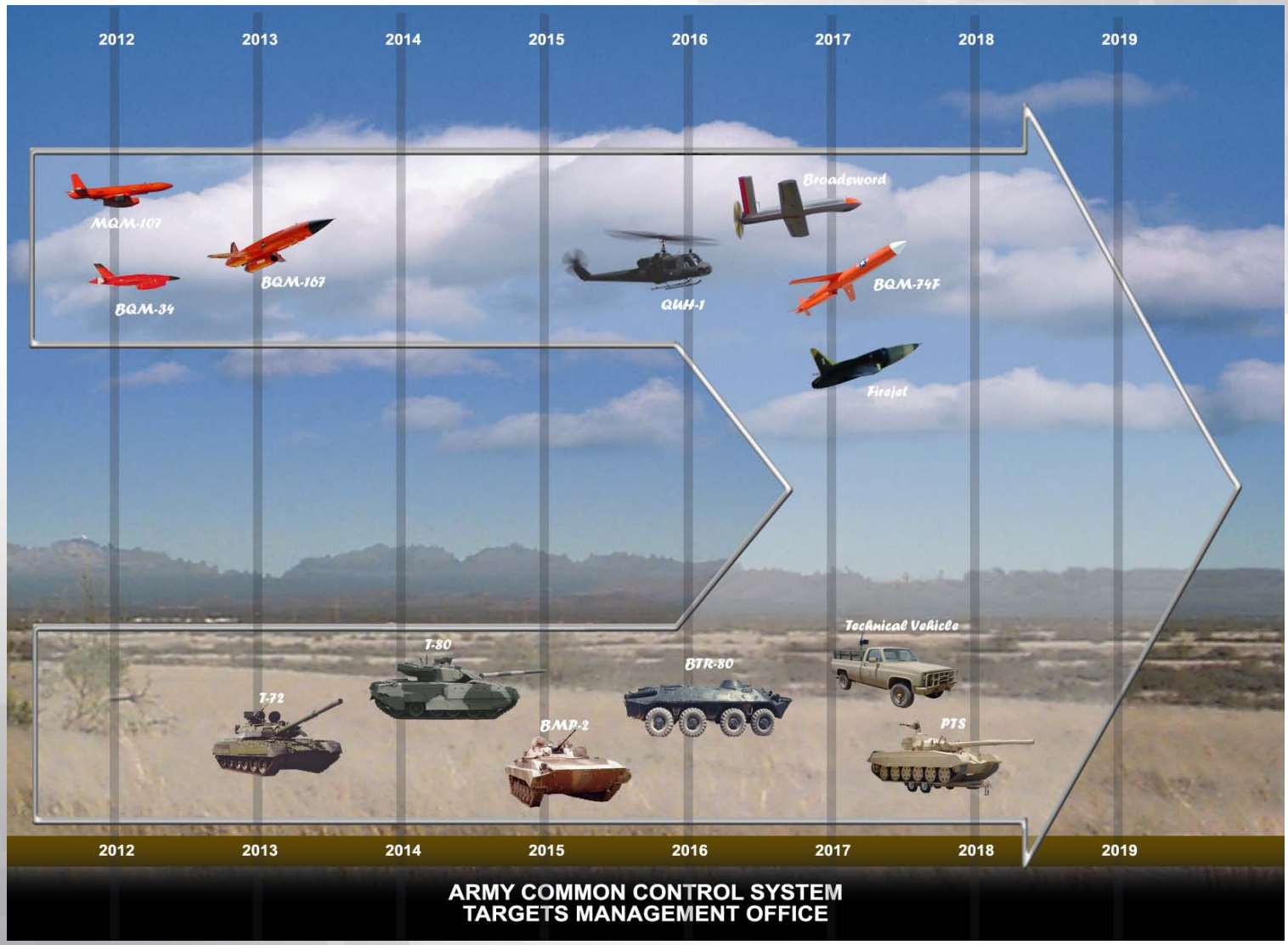
Air Force Gulf Test Range
(Eglin and Tyndall AFB)

Army (White Sands Missile Range
and Fort Bliss - McGregor Range)

NAWCWD Sea Range and Land
Range (Pt. Mugu and China Lake)

Leveraging existing technology to develop the control system for targets of the future

ACCS Schedule



Concepts

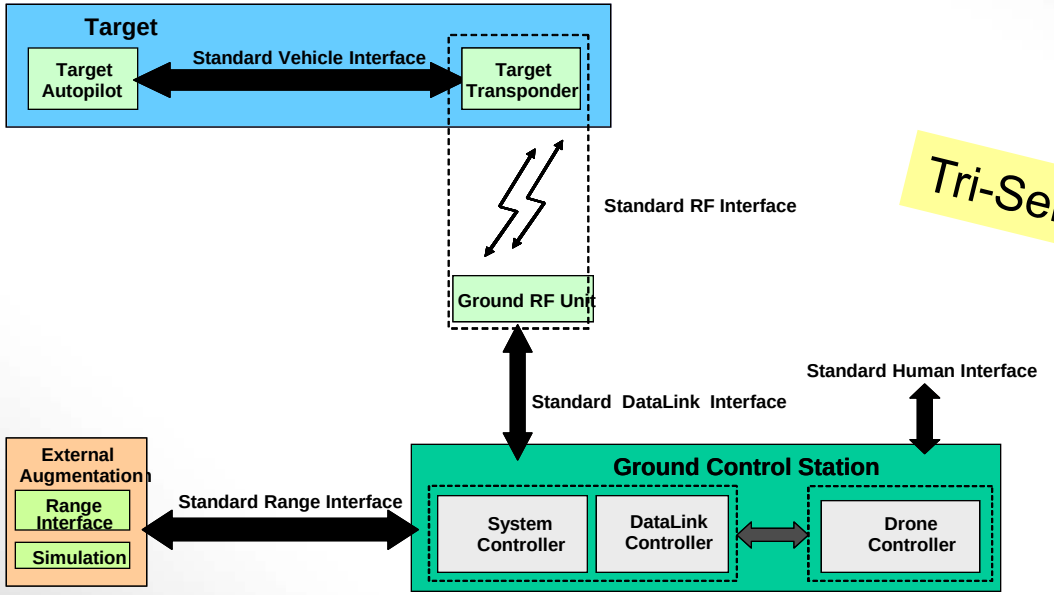
Fixed Site

Rack Mounted and Portable Hardware

Portable Test Set

Target Control Steering Group (TCSG)

- Navy lead Office of the Director, Operational Test and Evaluation (DOT&E) Target Management Initiative (TMI)
- Standardize data interfaces between ground control system, ground radio frequency unit, and target transponders

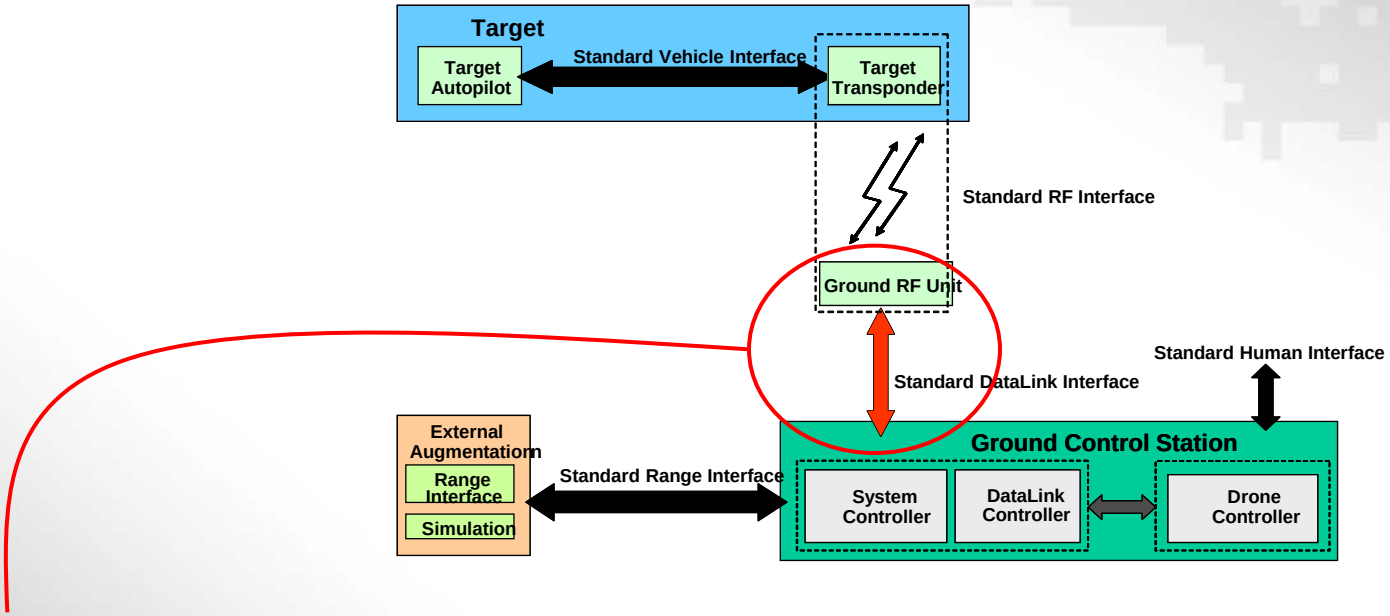


Tri-Service Initiative

- Increase interoperability between all services control systems

Goal : Control Any Target with Any Ground Station

TCSG Data Link Interface (DLI) Integration



- Review DLI for Integration into the Army control system
- Integrate the DLI natively into the control system
- Perform factory qualification tests to certify the DLI integration for field ground testing
- Update user manuals to support field tests
- Conduct required flight test

Summary

- ACCS starts in FY12
- ACCS will meet DIACAP
- Provides Aerial and Ground Target Control across multiple ranges
- Incorporates all TMO T&E Targets into a Single Control System
- Upgrades Hardware and Software for Avionics Packages, Test Sets, and Control System
- Incorporates the standard DataLink Interface developed as part of the TCSG TMI