



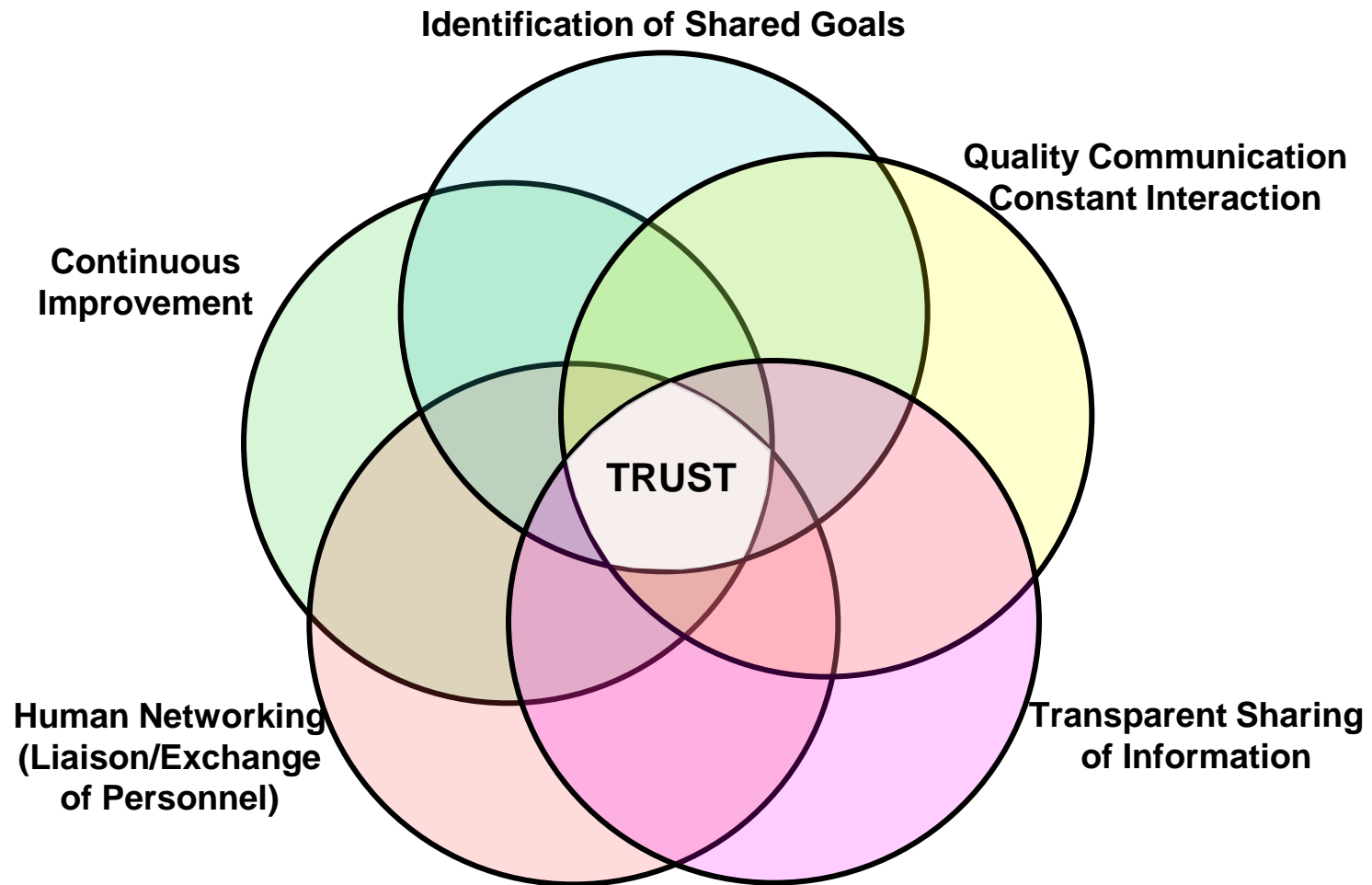
International Civil Aviation Organization

MIDDLE EAST
Civil/Military Cooperation
in Air Traffic Management (ATM)
Seminar
Jeddah
16 – 19 September 2012

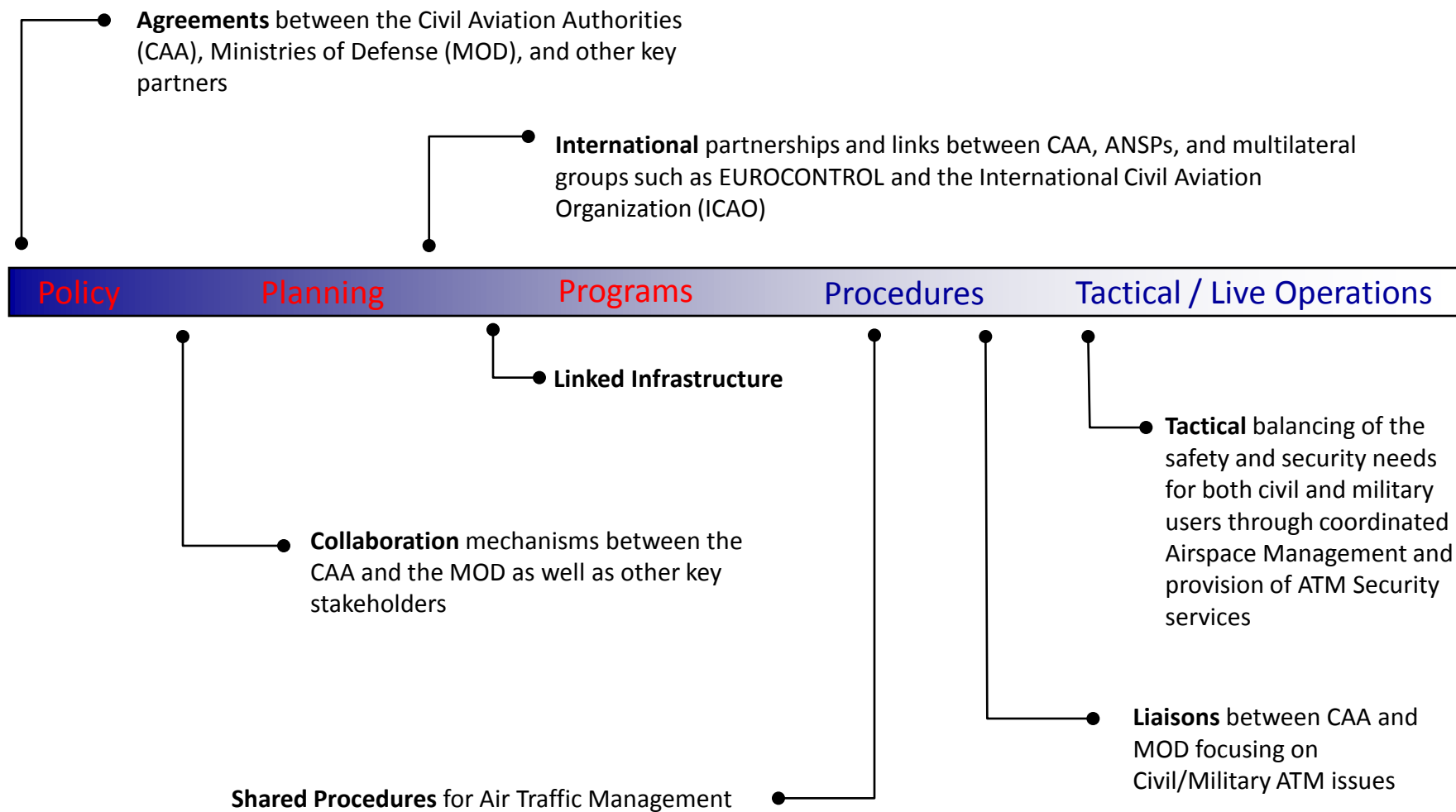
Optimizing the Relationship: Why Should Civil/Military Cooperate?

Roger Rapiere/FAA

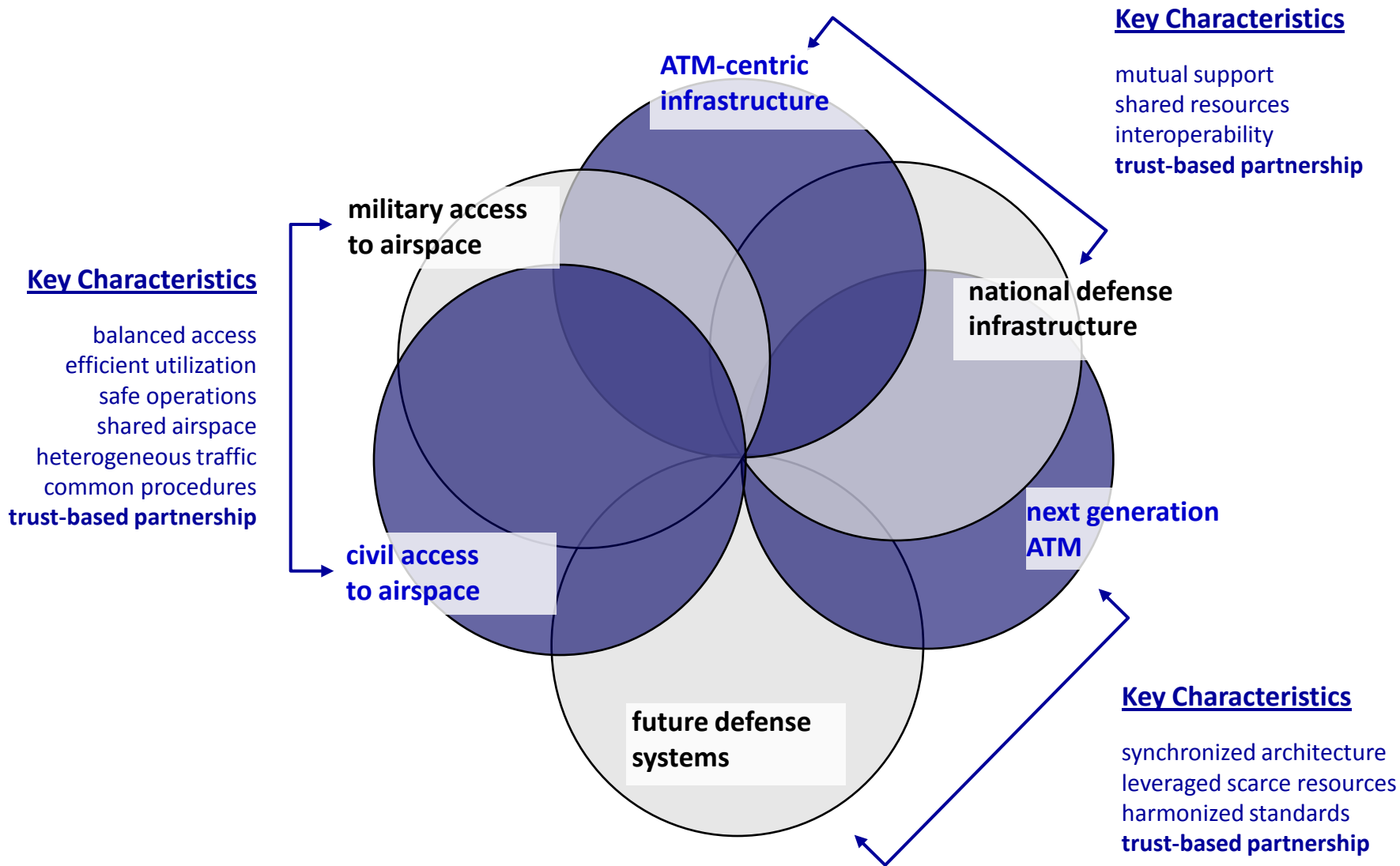
What is Cooperation?



Civ/Mil ATM Linkages Require Cooperation



Shared Resources Require Cooperation



Complexities Require Cooperation

- Work between civil operators, the military, and other stakeholders to balance competing demands for airspace access and air navigation services takes constant effort
 - **Cooperative solution:** procedures and automation to improve the efficient use of airspace used by the military

Complexities Require Cooperation

- Military flights should be integrated with civil air traffic in a way that supports effective defense efforts by the military, enables effective provision of ATM security services by the ANSP, and ensures safe and efficient civilian and military flight operations
 - **Cooperative solution:** interagency coordination, especially needed for ANSP procedures supporting national defense including procedures for use of military Remotely Piloted Aircraft Systems (RPAS) in the airspace

Complexities Require Cooperation

- The emergence of divergent ATM technologies (e.g., GPS based verses ground based navigation aids) are challenging established arrangements for the sharing of infrastructure and shared situational awareness
 - **Cooperative solution:** the integration of civil ATM and defense system needs through national programs

Complexities Require Cooperation

- Near and cross border defense and law enforcement operations are sometimes complicated by differing ATM security and military procedures
 - **Cooperative solution:** joint planning for ATM security procedures involving the neighboring military, law enforcement, CAAs and ANSPs.

Productive Partnerships Require Cooperation

- More efficient / optimized sharing of scarce airspace
- Safer interactions of military operations with civil flights
- Safer and more efficient ATM through common procedures
- Better ATM security services that mitigate impacts of incidents and security responses
- Faster identification of anomalies posing potential threats
- Improved discrimination between legitimate traffic and genuine threats
- Leveraged scarce resources through shared / interoperable systems (radios, radars, etc.)
- Shared situational awareness
- Improved Crisis Management
- Improved, more coherent cooperation with other States on ATM and aviation related military matters
- Synchronized development of future ATM architecture
- Cooperation on transformational ATM technologies
- Harmonization of key ATM standards



**Creating a safe, efficient,
and secure integrated
ATM system**

Why Cooperate?

- Civil/Military Cooperation in ATM is essential because of:
 - Intersecting mission responsibilities, infrastructure needs, and technology development trends
 - Mutual benefits of safety, security, efficiency from enhanced cooperation between the ANSP and military
 - Key areas of shared complexity (e.g. airspace and crisis management) and promising ways forward through strengthened cooperation

Why Cooperate?

- The ANSP supports the military's national defense mission in terms of:
 - Legal responsibilities and authorities, including the ANSP's responsibilities and authority over airspace to support air commerce (i.e, civil air traffic) and national defense
 - Operational ATM capabilities and security services involving air traffic control (ATC) and shared communications/navigation/surveillance systems

Why Cooperate?



- Respect, collaboration, cooperation, and understanding of each other's missions come only through Civil/ Military engagement and building of trusted relationships