



International Civil Aviation Organization

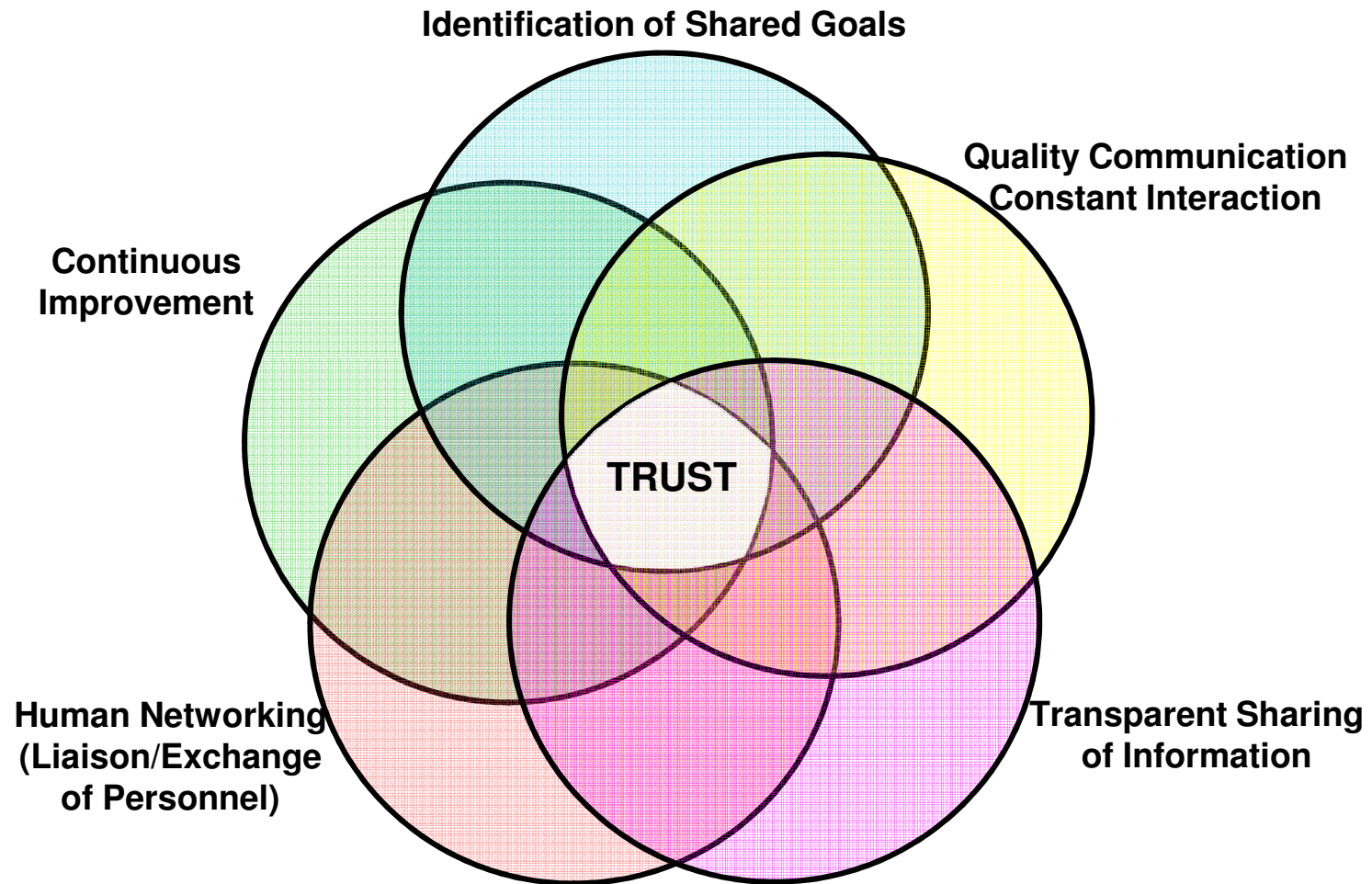
**NAM/CAR/SAM
Civil/Military Cooperation
Seminar/Workshop
Lima
16 – 19 August 2011**



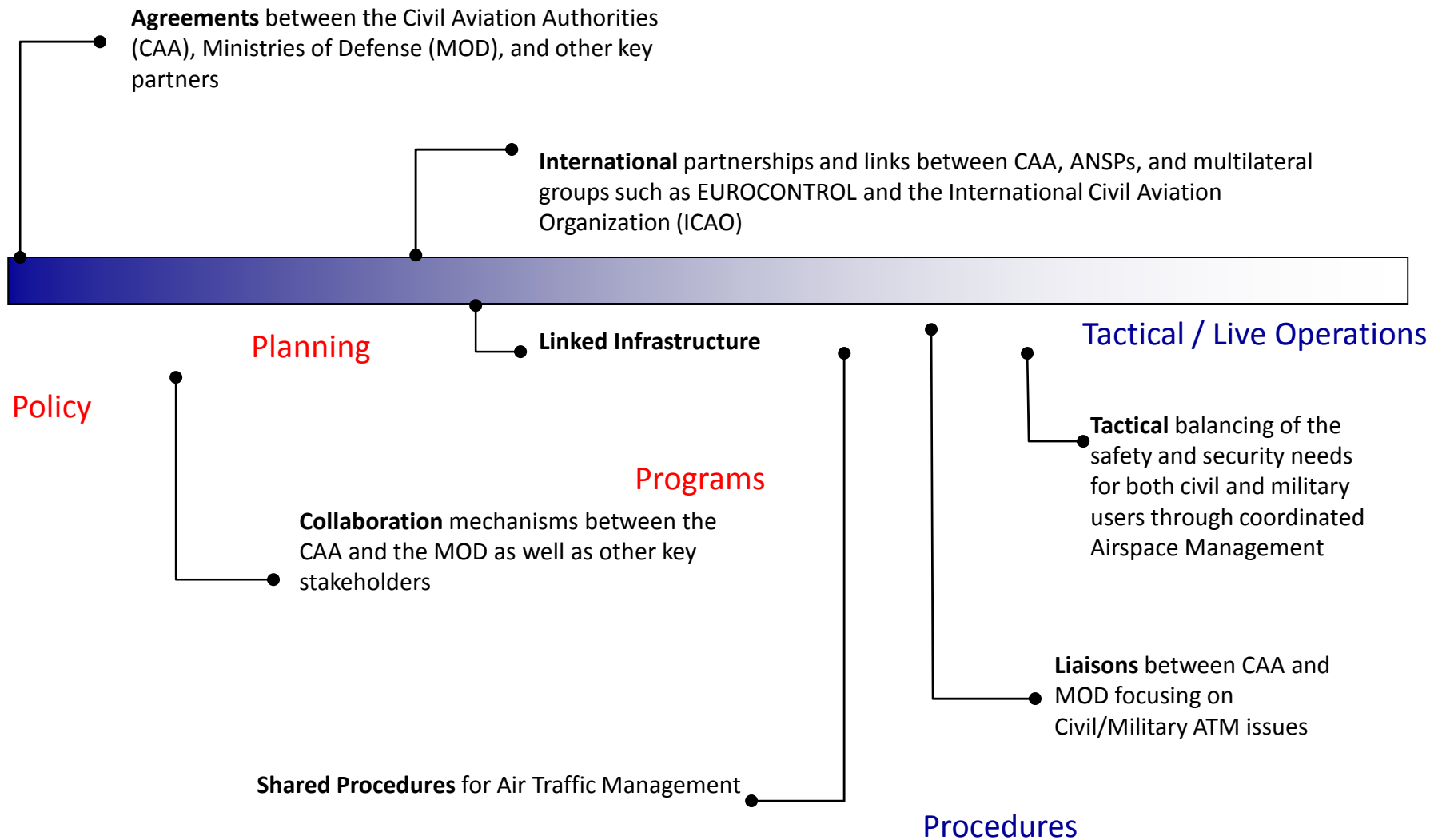
Optimizing the Relationship: Why Should Civil/Military Cooperate?

Paul Bartko/FAA

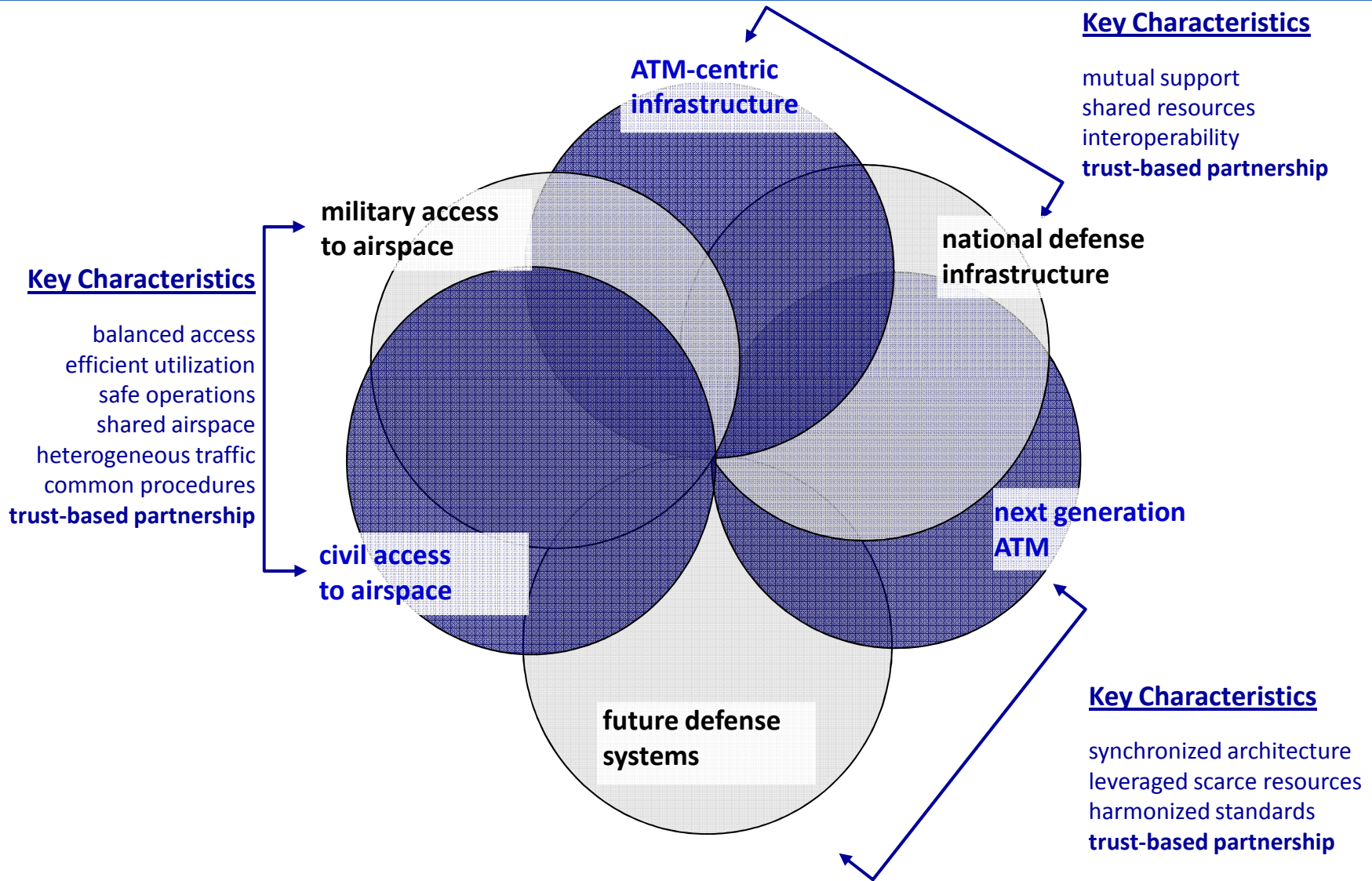
What is Cooperation?



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 solutions:** procedures and automation to improve the efficient use of airspace used by the military
- Military air missions should be integrated with civil air traffic in a way that supports effective defense efforts and safe and efficient civil aviation
 - **Cooperative solutions:** interagency coordination, especially needed for Unmanned Aerial Systems (UAS)



Complexities Require Cooperation

- The emergence of divergent technologies (e.g., GPS verses ground based navigation aids) are challenging established arrangements for the sharing of infrastructure and shared situational awareness
 - **Cooperative solutions:** the integration of civil ATM and defense system needs through national programs
- Near and cross border defense and law enforcement operations are sometimes complicated by differing ATM and military procedures
 - **Cooperative solutions:** joint planning involving the neighboring military, law enforcement, CAAs and ANSPs.

Productive Partnerships Require Cooperation

- More efficient / optimized shared utilization of scarce airspace
- Safer military operations interacting with civil flights
- Safer and more efficient ATM through common procedures
- Better mitigated impacts of incidents and security responses
- Leveraged scarce resources through shared / interoperable systems (radios, radars, etc.)
- Shared situational awareness
- Improved, more coherent cooperation with other States on ATM and aviation related military matters
- Synchronized development of future architecture
- Cooperation on transformational technologies
- Harmonization of key standards



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

Why Cooperate?



- Civil/Military Cooperation in Air Traffic Management (ATM) is essential because of:
 - Intersecting mission responsibilities, infrastructure needs, and technology development trends
 - Mutual benefits (safety, security, efficiency) of enhanced cooperation between Air Navigation Service Providers (ANSP) and their respective national militaries
 - Key areas of shared complexity (e.g. airspace and crisis management) and promising ways forward through strengthened cooperation

Why Cooperate?



- The ANSP plays a critical role in supporting 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, including air traffic control (ATC) and shared comm/navigation/surveillance systems
- Respect, collaboration, trust, and understanding of each other's missions come only through Civil/Military engagement