



## Civil – military collaboration (Military view)

Colonel : majed al-malkawi



# Presentation Structure



**Civil-Military Collaboration**

**Military Airspace Utilisation**

**Regional Constraints and limitations**

**Military Airspace Requirements**

**Airspace Management**

**Conclusions**

**Recommendations**



# Civil-Military Collaboration



Optimizing the Civil-Military collaboration process can be achieved by focusing on: commonly specified criteria for operating procedures, equipment, implementation, and harmonized control and coordination procedures.

Joint collaboration throughout the planning and execution of full spectrum operations, maximize effectiveness, and minimize operational risk.



## Current Operations



The current airspace structure no longer satisfies all the requirements and needs of civil and military users. Some of the military operations are carried out within already assigned training areas. However, because of the consuming volume of the airspace by civil air traffic, other military operations have to be exported to remote areas.



## **Military Airspace Utilisation**



**Military airspace requirements vary from state to state and even from region to region, mostly because of the difference in the nature of the potential threat, diversity of aircraft types and air defence weapon systems, Military airspace utilisation falls into three main different categories:**



**1. Basic & Advanced training**

**2. Air defense flights. (Training exercise or live mission)**

**3. Ground based Air defense. (Surface-to-surface, surface-to-air firing)**



## **Regional Constraints and limitations**



**There are still many roadblocks that do not allow civil and military aviation to benefit from the existing airspace capacity, Each region is unique and comes with its own set of Constraints and limitations restricting mission success:**

- ❖ Still major areas in the region of non-radar coverage (Training areas used for air combat maneuvering should be under the radar coverage of military air defense units).**
- ❖ Political instability in the region has meant there are large areas of no-fly zones for security reasons and huge areas of airspace which have to be avoided for safety reasons.**



## Regional Constraints and limitations



- ❖ **Multiple airspace boundaries, means more entry and exit points at each state boundary, it does not reflect the most efficient route.**
- ❖ **Route restrictions due to military restricted airspace in the region result in airlines having to fly detours.**





## Regional Constraints and limitations



- ❖ **Air space education** , there is a lack of information to the airspace users about some concepts such as ASM, ATM. Difficulties facing the airspace planners , the new technologies in use , airspace organization , relationship with military.
- ❖ **Military activities, could endanger civil aviation , such as:**
  - (1) **Unmanned aerial sys.**
  - (2) **Missile testing.**
  - (3) **AAA testing.**



## Regional Constraints and limitations



- ❖ War and emergency conditions, military flights increase combat air patrol.
- ❖ Reconnaissance missions sometimes go beyond the national airspace and definitely affect the regional and global civil aviation.



## **Regional Constraints and limitations**



- ❖ **Safety of civil aviation flying in vicinity of hostilities.**
- ❖ **Modernizing military aircraft, training and teaching a pilot to fly a modern aircraft and this going to require more and more flying hours and this in turn increase the rate of occupying the airspace.**



## **Airspace Management (military perspective)**



**National Security and safety will not be compromised at any stage, Airspace security means: safeguarding airspace from unauthorized use, intrusion, illegal activities or any other violation. To protect the sovereignty of a State, military airspace requirements may have to take priority over civil aviation in some circumstances. But Airspace Management needs to serve both civil and military aviation. In order to enable all stakeholders to use all of the available airspace in a flexible and efficient manner, a mutual airspace management at all levels is required.**



## **Airspace Management (military perspective)**



**In order to optimize the use of airspace for all stakeholders, airspace management procedures must be subject to common approval, in all planning processes from the beginning, constraints or limitations could thus be minimized.**

**The main Airspace Management tool is coordination, to eliminate the conflicting interests of military and civil aviation and use the airspace in Flexible manner.**



## Conclusions



- ❖ Each state has its own policy regarding national security and defense.
- ❖ The current airspace available for military training within the region airspace structures is hardly sufficient to execute present military activities.
- ❖ Improved civil-military cooperation and day-to-day coordination is of greatest importance and the key of success to support civil and military airspace needs, especially under the light of growth demands.



## Conclusions



- ❖ **Military airspace requirements are not static; they are dynamic and need to be adapted to support the aerial capabilities of future aircraft and weapon systems.**
- ❖ **To accommodate defense and security needs, sufficient airspace is to be provided for military utilization.**
- ❖ **The common goal of all efforts is to meet the requirements of all airspace users to the maximum extent possible.**



## Recommendations



To execute the requirements of airspace users, the following should be taken into account:

- ❖ Joint planning should be enhanced at strategic level to increase the opportunities for sharing airspace and to search for new airspace management techniques, which would have a positive impact on efficiency and capacity.
- ❖ Appropriate civil/military coordination to ensure the periods during which actual utilization is intended.





## Recommendations



- ❖ Implementation and enhancement of the Flexible use of airspace Concept is needed to optimize civil and military airspace usage, in respect to the growth demand of both sides.
- ❖ Flexible use of airspace Concept must ensure military priority when needed for national security and defense interests, to Protect the safety measures of the nation in peace and war times.



# Recommendations



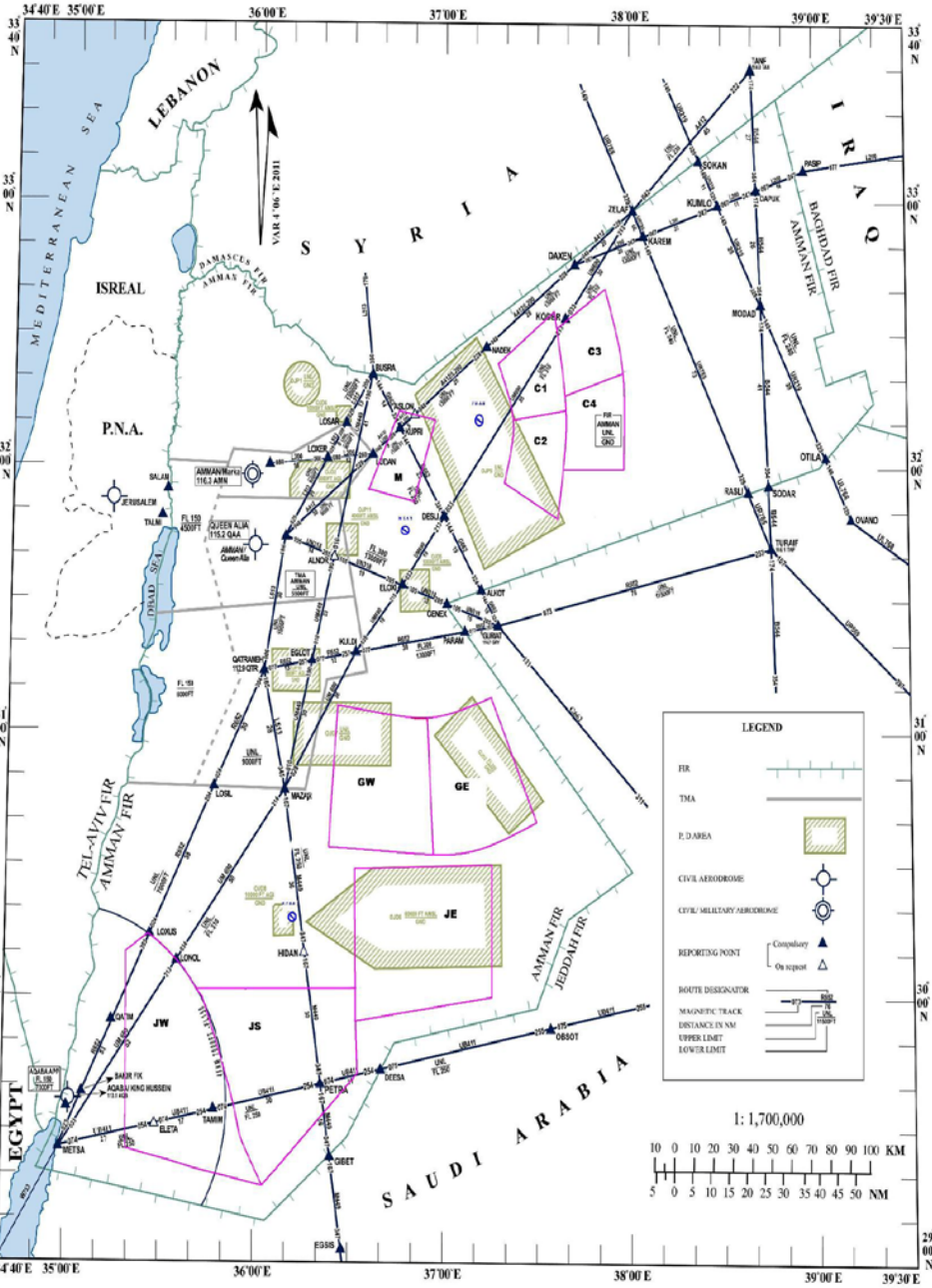
- ❖ **Acceptable balance in accommodating the aspects of economy, as well as defense and security.**
- ❖ **Current airspace structure needs to be adapted to meet today's military requirements.**

EN-ROUTE CHART-ICAO



# Royal Jordanian air force ensure your safety in Jordan's sky

# Thank you for attention



Within East Sector, Non RNAV equipped ACFT may operate only along Airway B544.