

Required Interrogator Code Allocation Coordination

Surveillance/MICA Workshop

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IC Allocation

- An IC allocation grants a Mode S radar to operate
 - on a given IC
 - within a given coverage (surveillance and lockout coverage).

 - Mode S interrogator requires an Interrogator Code (IC) if:
 - It relies on All-Call interrogations and replies to acquire Mode S aircraft
 - It locks out acquired Mode S targets
- ➔ Mode S radars require an Interrogator Code (IC) to operate. The IC is provided in an IC allocation.

Required IC Allocation Coordination

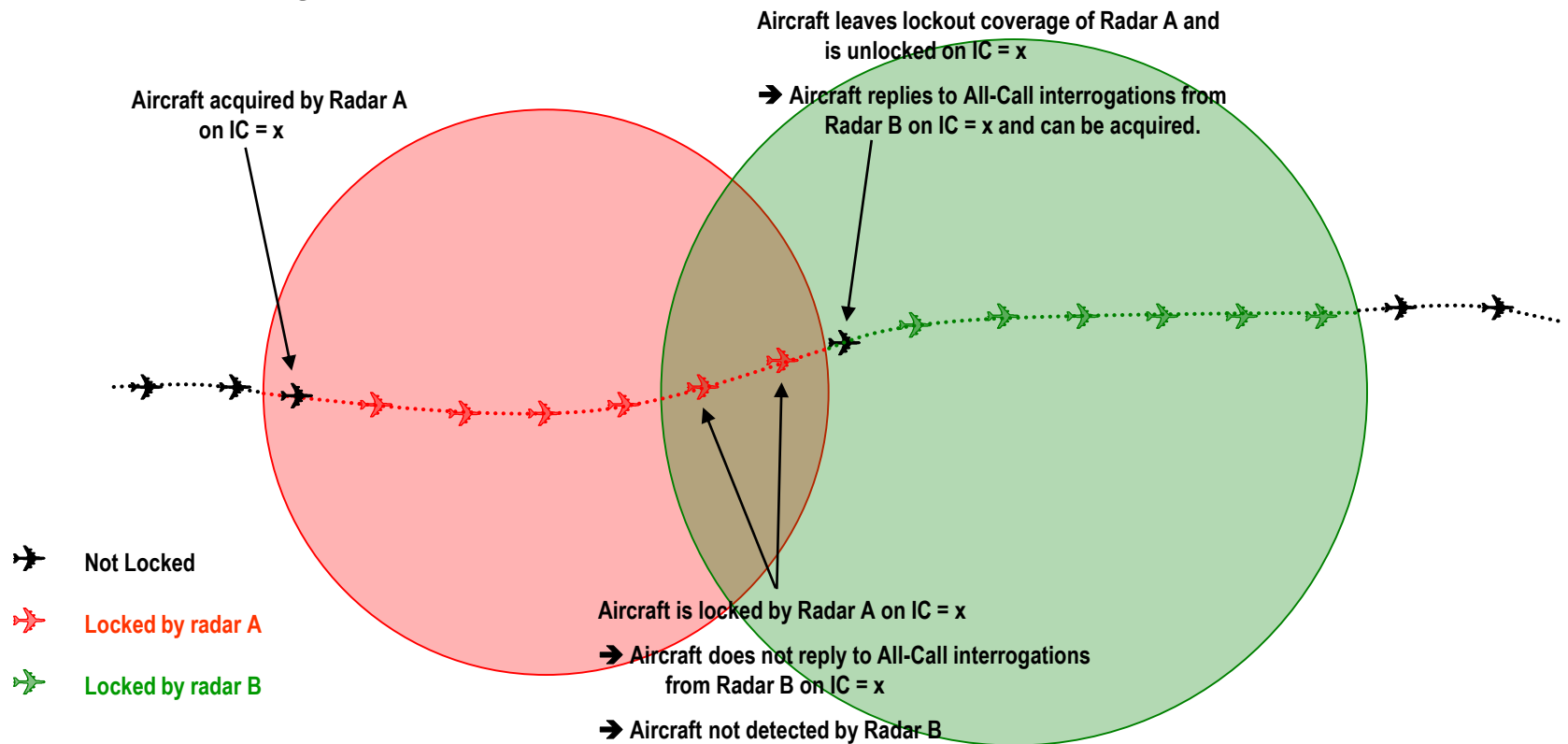
- A Mode S radar requires the programming of an IC to operate
 - The IC identifies the Mode S radar
 - The IC is contained in the Mode S radar interrogations
 - Limited number of IC

- For the safety of the air traffic surveillance system, the coverage of two Mode S radars using the same IC shall not overlap.
 - Mode S radar with overlapping coverage shall operate with different IC
 - Using a wrong IC on a radar can prevent one or several other Mode S radar to reliably detect incoming traffic and create an IC conflict.

→ The allocation of Interrogator Code to Mode S radar needs to be coordinated

Mode S Radars on the same Interrogator Code

- Lockout coverage overlap of two Mode S radar operating on the same Interrogator Code (IC Conflict)



➔ IC Conflict

IC Allocation Coordination in ICAO MID and EUR



- The IC allocation coordination shall take place prior to any Mode S transmission.
- In the **ICAO European region**, the allocation of Interrogator Code (IC) to Mode S radar, civil and military with a fixed position, is coordinated by the EUROCONTROL MICA (Mode S Interrogator Code Allocation) cell on behalf of the ICAO EUR regional office
- In the **ICAO Middle-East region**, the EUROCONTROL MICA cell supports the ICAO Middle-East regional office for Mode S Interrogator Code allocation

Coordination with other ICAO regions

- Mode S radars are installed in ICAO EUR and ICAO MID regions.
- New Mode S radars are currently deployed in neighbouring ICAO regions:
 - Asia and Pacific (APAC)
 - Eastern and Southern Africa (ESAF)
 - Western and Central Africa (WACAF)
- Coordination may be required with neighbouring ICAO regions to avoid IC conflict between Mode S radars
- Any information about the installation or the operation of a Mode S radar in a third country (country outside ICAO EUR or ICAO MID) that may impact the operation of Mode S radars in the ICAO MID region should be provided to the responsible ICAO MID regional officer and the MICA Cell.

Number of Overlapping Mode S Coverage at 30000ft MICA Cycle 28 (effective date 16/08/2018)

