“State Aircraft Issues”
ICAO’s 1st RVSM Seminar for CAR/SAM Region
Lima, Peru

Allan D. Storm
Air Force Flight Standards Agency
Civil/Military Aviation Issues
Global Air Navigation Plan for CNS/ATM Systems

- All airspace users should have access to airspace based on flexible use concept

- State aircraft must be considered and accommodated to the maximum extent possible

- State aircraft operating extensively in an area should equip to the extent possible

- Close coordination required among all airspace users
The following factors, where applicable, should be considered in the process of reaching a decision to implement RVSM:

a) the costs that operators will incur in order to meet RVSM MASPS;

b) system users: types/mix of aircraft (military and civil); origin and destination of flights; primary routes and flight levels; aircraft passing frequency...
ICAO provides State aircraft definition guidance
- Generally: military, customs, and police/firefighter aircraft
- Nations have varying legal definitions of State aircraft
  - Some nations also consider: aircraft ownership, operators, type of passengers/cargo, etc.
- Military aircraft universally considered State aircraft unless operated for commercial purposes
- “State” designation does not preclude compliance with civil airspace access rules and procedures -- State aircraft can be restricted/denied access to civil controlled airspace
- Frequent users of civil airspace expected to comply -- State aircraft can be accommodated for some requirements when safety, procedures and workload permit
First implemented March 27, 1997 -- FL 330 to FL 370
- October 8, 1998 extended to FL 310 to 390
- January 24, 2002 further expanded FL 290 to FL 410
- Exclusionary Airspace
- No military exemption
  - Aircraft must file ALTRV
- Causes difficulty for “State” Aircraft who have to fly utilizing less-economical altitudes if cannot meet ALTRV time requirements
First implemented 24 February 2000; FL 290 to FL 390
1 October 2000 expanded to FL 410 (non-exclusionary)
Exclusionary Airspace
Non-RVSM “State” Aircraft accommodated
  Initially prior notification required (4-72 hour coordination)
    Anchorage and Oakland ARTCC/Naha and Tokyo ACC
    FAX Form developed
  No problems associated with notification procedures
Modified so no advance coordination required
  Filing of flight plan suffices for notification
No problems associated with accommodation
Western Atlantic (WATRS)

- Phased implementation; FL 310 to FL 390
  - Phase 1: 30 September 2000
    - Non-exclusionary/mixed
  - Phase 2: 1 November 2001
    - Exclusionary Airspace
- 24 January 2002 expanded to match NATS; FL 290 to FL 410
- Non-equipped “State” Aircraft accommodated
  - Filing of a routine flight plan suffices for the advance notification of non-RVSM equipped aircraft
- No problems associated with accommodation
European

- Implemented 24 January 2002; FL 290 to FL 410
  - 39 European States
- Due to the physical limitations of certain aircraft – “State” aircraft are exempted
  - No advance coordination required
  - Military operators shall insert “M” in item 8 of the ICAO Flight Plan
- Civil registered aircraft used in military, customs and police service, shall qualify as “State” aircraft
- Non-RVSM Military aircraft being accommodated
  - Some cases of Non-RVSM aircraft not being accommodated within France’s airspace
South Atlantic EUR/SAM Corridor

- First implemented 24 January 2002; FL 290 to FL 410
- Exclusionary Airspace
- Non-RVSM “State” Aircraft accommodated
  - Aircraft indicate Non-RVSM in Flight Plan
  - No advance notification required
    - Specific procedures in place for Non-RVSM aircraft crossing corridor
- No problems identified
Phased Implementation

- Phase 1: 24 February 2000, East Coast Oceanic
  - FL 290 to FL 390
- Phase 2: 22 March 2001
  - Expanded from FL 290 to FL 410
- Phase 3: 1 November 2001
  - RVSM for all domestic and oceanic airspace

- Oceanic is exclusionary
  - Domestic non-exclusionary (mixed environment)
- “State” aircraft accommodated
- No problems associated with accommodation
Planned implementation for November 2003
Proposal that filing of a routine flight plan will suffice for the advance notification of Non-RVSM aircraft
Sample AIP allows for military accommodation
South China Sea/Bay of Bengal

- Implemented February 2002
- Exclusionary Airspace
- Non-RVSM “State” Aircraft accommodated
  - Initially prior notification required (4-72 hour)
    - FAX Form used
  - No problems associated with notification procedures
- Modified so no advance coordination required
  - Filing of flight plan suffices for notification
Planned implementation for December 2004

FAA and DoD collaborate on the development and implementation DRVSM

MOU between FAA and DoD

- FAA will accommodate non-compliant U.S. military aircraft operation within RVSM airspace
- Military to flight plan and fly within exclusionary RVSM airspace
“State” Aircraft Perspective

- Military authorities must be comprehensively involved from the outset; ensuring military requirements
- Applicability and accommodation provisions for State aircraft must be accepted within the entire region
- Operators of State aircraft (military, customs or police service) that are not RVSM compliant may flight plan within FIR RVSM airspace
- Filing of a routine flight plan suffices for the advance notification of Non-RVSM equipped State aircraft
- Relevant air traffic control staff and appropriate tools and training required for the accommodation of State aircraft must be provided where necessary
- The safe and efficient co-existence of civil and military activity in a common airspace
Conclusion

The global air traffic architecture is changing to meet current and future demands

Emerging Requirements
Demand New Equipment and Procedures

GOAL
Preserve State Aircraft Access to Global Airspace