“State Aircraft Issues”
2nd RVSM Seminar for CAR/SAM Region
Panama City, Panama

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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
  - ICAO Chicago Convention defines State aircraft as military, customs, and police/firefighter aircraft
  - Military aircraft universally considered State aircraft unless operated for commercial purposes
- State aircraft operating extensively in an area should equip to the maximum extent possible
  - Non-equipped State aircraft have been readily and safely accommodated
- Close coordination required among all airspace users

Integrity - Service - Excellence
...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...
RVSM Implemented & Planned

- North Canada: 4/02
- South Canada: 01/05
- UK/Ireland: 4/01
- Europe: 1/02
- Russian Fed: North Asia: 03
- Pacific: 2/00
- WATRS: 11/01
- NAT: FL330-370 3/97, FL310-390 10/98, FL290-410 1/02
- MidEast: 03
- Caribbean & South America: 01/05
- EUR/SAM Corridor: 1/02
- Asia S Himalayas: 11/03
- Western Pacific S China Sea: 2/02
- New Zealand/ Australia: 2-3/01

Implemented
Planned

**Integrity - Service - Excellence**
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 if ALTRV time requirements not met; inefficient altitudes
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
  Modified one year later where no advance coordination is 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 NAT; FL 290 to FL 410
- Non-approved “State” Aircraft accommodated
  - Filing of a routine flight plan suffices for the advance notification of non-RVSM aircraft
- No problems associated with accommodation
- Implemented 24 January 2002; FL 290 to FL 410
  - 41 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
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
- Modified so no advance coordination required
  - Filing of flight plan suffices for notification
Planned implementation for January 2005

FAA and DoD collaborated on the development and implementation of 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; ensures unique military requirements met
- Applicability and accommodation provisions for State aircraft must be accepted within the entire region
- Allow operators of non-RVSM State aircraft to file a flight plan; suffices for advance notification
- Tools and training required for the accommodation of State aircraft must be provided to ATC staff

Common Goal: The safe and efficient co-existence of civil/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 be developed
- USAF is equipping transport and tanker aircraft to comply with global requirements
- Need to preserve “State” aircraft access to airspace