SECOND ICAO SEMINAR ON RVSM IMPLEMENTATION IN THE CAR/SAM REGIONS

IATA/USERS´ PERSPECTIVES

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Panamá City, 16/17 Jun 2003

Agenda

- Brief Description of the RVSM Program
- Safety First
- Benefits for Operators
- What Operators Have to Do
- RVSM in the CAR/SAM Regions
- RVSM Misconceptions

The RVSM Program

- 1983 – ICAO creates the FANS committee aimed among other issues to alleviate the sky congestion
- 1983 – Studies begin in order to eliminate the interruption of RVSM above FL290
- 1997 – First RVSM operation between FL350 and FL390 in the North Atlantic
- 2002 – All ICAO Regions are in RVSM implementation process or have already implemented RVSM
- RVSM is a Global Program and the most efficient ATM element to increase the airspace

Safety First

- Safety Assessment calculates the risk of accidents index
- Full participation of States and Operators is required
- Information provided by the airlines on any kind of deviation from the planned route, with or without ATC authorization, is collected to evaluate safety level of the proposed RVSM airspace
- Reporting forms have been disseminated by IATA to the airlines
- If safety meets expected levels then RVSM is feasible in CAR/SAM

Benefits for the Operators

- Reduction of airspace congestion
- Reduction of delays
- In long routings up to 1.5 % of fuel saving, some airlines claim up to 2.5 %
- Payload increment
- Fast return of investment in aircraft upgrading
- Ability to cross traffic with a lower vertical deviation
- Low technology cost
- Flights have 6 more FLs to operate

What Operators Have to Do

Two main steps:

- **AIRCRAFT AIRWORTHINESS APPROVAL (aircraft technical modifications and monitoring)**

- **AIRLINE OPERATIONAL APPROVAL (crew, maintenance, dispatch, MEL, contingency procedures, aircraft records maintenance….)**

What Operators Have to Do

- Develop a cost/benefit analysis
- Coordinate with the local Civil Aviation Authority and inform them of airline plans
- Obtain State evaluation and approval of service bulletins, supplemental type certificate, aircraft modification, etc..
- Equip aircraft with RVSM based on manufacturers' service bulletins or STC
- Provide CAA with documents for each aircraft modified or inspected
- Obtain airworthiness approval from the CAA of the State of Registry

What Operators Have to Do

- Contact IATA for GMU monitoring - ARINC will monitor and notify CARSAMMA and the airline of the results
- Provide training to pilots, maintenance personnel and dispatchers
- Obtain operational approval from the CAA of the State of Registry
- Confirm that CAA notifies CARSAMMA of aircraft airworthiness approval and operational approval
- Make sure that the operational approval is released by the CAA to the regional monitoring agency CARSAMMA
- Not all these steps are necessary to obtain airworthiness approval for aircraft already manufactured RVSM

What Operators Have to Do

- Conduct post approval monitoring in order to maintain the integrity of the risk level in the CAR/SAM Region
- Maintain procedures, training and maintenance checks records of the aircraft
- Be aware that CAAs must inspect airline procedures periodically
- Note that CARSAMMA might request post implementation monitoring of any aircraft, fleet or operator when it is considered necessary

RVSM in the CAR/SAM Regions

- 550 to 600 aircraft based in the CAR/SAM will be RVSM approved
- An average investment of 30.000 US$ per aircraft upgrade will be recovered in approximately 250 days
- RVSM cost/benefit savings for airlines based in the CAR/SAM will be 35 million US$ (CSSI source)

RVSM in the CAR/SAM Regions

CAR/SAM Regions RVSM readiness by Jan 2005

AIRCRAFT

Total jet fleet 1.170, including cargo and business

- **898 jet aircraft already RVSM or RVSM capable**
- **272 jet aircraft not economically feasible to convert**

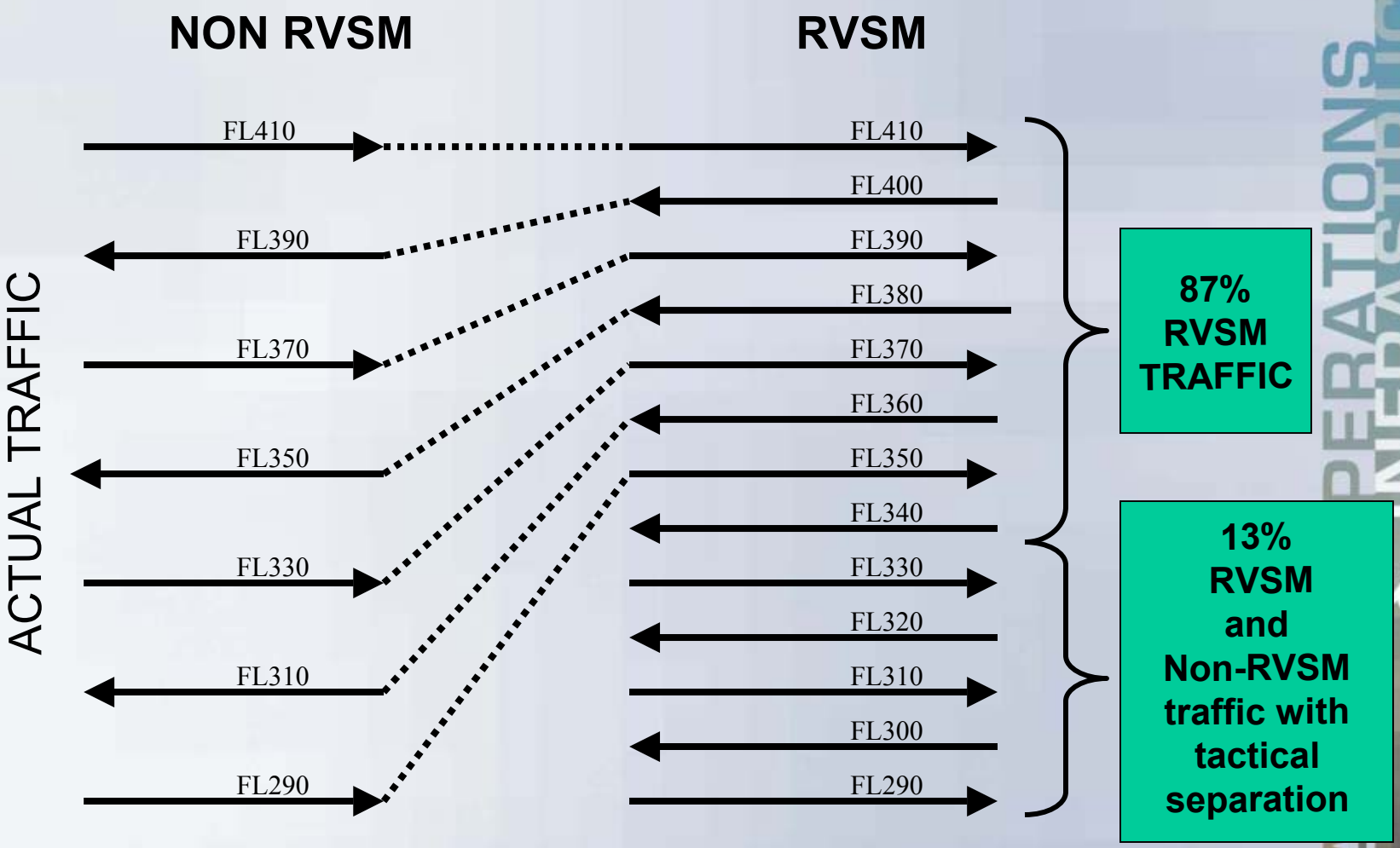
FLIGHTS

Estimated 39.000 weekly flights above FL290 operating in CAR/SAM Regions

- **87.76% are forecast to be RVSM flights**

RVSM in the CAR/SAM Regions

Transition to RVSM Environment



RVSM Misconceptions

RVSM does increase the amount of traffic - False!!!

Operators will not buy more aircraft or increase flight frequency because an air space is RVSM

RVSM does increases the controller work load - False!!!

Reduces it; RVSM increases capacity of air space by 86%; this means that the controller has 86% more flight levels available to accommodate traffic

RVSM is exclusive airspace for RVSM aircraft – False!!!

Controllers can tactically separate non-RVSM aircraft from RVSM aircraft. RVSM will allow them to place modern aircraft at higher levels, leaving the lower levels for non-RVSM aircraft

IMPORTANT!!!!

OPERATORS BASED IN THE CAR/SAM REGIONS MUST START THE RVSM APPROVAL PROCESS AS SOON AS POSSIBLE

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GMU UNITS ARE LIMITED, THEREFORE TO MEET DEADLINES, MONITORING HAS TO START AS SOON AS POSSIBLE

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585 DAYS FOR IMPLEMENTATION

THANK YOU FOR YOUR ATTENTION!

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SAFETY, OPERATIONS & INFRASTRUCTURE