

# RVSM

## The Controllers' Perspective Presented by IFATCA



# FEDERATION OBJECTIVES

- ◆ **Safety**
- ◆ **Assist Development**
- ◆ **Promote Knowledge**
- ◆ **Co-operate with Authorities**
- ◆ **Sponsor Legislation**
- ◆ **World -wide Representation**

# IFATCA OBJECTIVES

## SAFETY

To Promote safety, efficiency and regularity in international air navigation

# IFATCA OBJECTIVE

## Assist Developments

To assist and advise in the development of safe and orderly systems of air traffic control and new procedures and facilities.

# IFATCA OBJECTIVE

## Promote Knowledge

To promote and uphold a high standard of knowledge and professional efficiency among air traffic controllers

# IFATCA OBJECTIVE

## ◆ Co-operate with Authorities

To closely co-operate with international and national aviation authorities and institutions concerned with air navigation

# IFATCA OBJECTIVE

## Sponsor Legislation

To sponsor and support the passage of legislation and regulations which will increase and protect the safety of air navigation.

# IFATCA OBJECTIVE


## World-wide Representation

To strive for a world-wide Federation of  
Air Traffic Controllers' Associations

# STATEMENT

**The reduction of vertical separation above FL290 should not be implemented in CAR/SAM Region until the necessary procedures, staff and equipment are available to safely and expeditiously handle aircraft in the airspace experiencing the reduction and also in systems responsible for transition areas to airspace not affected by reduction.**

- **Only aircraft capable of meeting the Minimum Aircraft Systems Performance Specifications (MASPS), upon which reduced separation is dependent, be permitted to operate in areas where reduced vertical separation is in effect. Exceptionally, State aircraft may be accepted when appropriate procedures have been evaluated, validated and ATCOs' are trained in the operation of a mixed traffic environment. If non MASPS e.g. military state aircraft, are required**

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- **to operate in RVSM airspace, then, in order to preserve system safety , their number should be kept to the absolute minimum.**

# Policy continued

- ◆ Failing a clear operational advantage for either the single or the double alternate FLOS, IFATCA proposes that RVSM trials utilise the single alternate FLOS in order to achieve the global application in accordance with ICAO Annex 2. In order to validate the results during this trial period, enhancements on a sub-regional level may become necessary through adequate FLAS.

# Policy continued

- ◆ IFATCA urges all states concerned to ensure that the appropriate infra-structure will be in place prior to the commencement of these trials , this involves **staff**, **equipment** , **training**, **airspace and route structure**, including the transition areas. All factors must be verified and validated through simulations prior to implementation.

# What reassures the Controller?

- ◆ That adequate studies to assess quantitative methods of **risk assessment** i.e. both *risk estimation* and *risk evaluation* have been employed to support the operational decision on the feasibility of reducing the VSM.
- ◆ That the **TLS** was technically feasible when supported by :

- ◆ Airworthiness performance requirements embodied in a comprehensive MASPS for all aircraft utilising the reduced separation
- ◆ New operational procedures
- ◆ A comprehensive means of monitoring the safe operation of the system.

# TRIAL PHASE

- ◆ This must be used to confirm and to build statistical confidence that the risk in the system is at or below the TLS and then to assess whether it will remain so, taking into account , increases in traffic volume and complexities , together with whatever improvements which may arise in lateral navigation performance.

# What Support Functions are required?

- ◆ PROCEDURES
- ◆ STAFF
- ◆ EQUIPMENT
- ◆ TRAINING
- ◆ AIRSPACE & ROUTE STRUCTURE



- To **safely** and expeditiously handle aircraft in the airspace experiencing the reduction and also in systems responsible for transition areas to airspace not affected by the reduction.

# Flight Planning

- ◆ **Type of flight** ( state military /non state)
- ◆ **RVSM approved status**
- ◆ **Flight Level requested**  
(entry/exit)

# OPERATIONALLY REQUIRED

- ◆ An accurate , timely and unambiguous display in **Radar Environment** of :  
**position symbols** and/or **labels** of **state non RVSM approved** operating within RVSM airspace with clearly distinguishable features different from the position symbols of RVSM approved aircraft.
- ◆ Information on non-RVSM compliant aircraft shall be displayed on **flight strip** (**paper or electronic**)

# STCA and MTCD

- ◆ **STCA and MTCD systems in ACC's applying RVSM should be able to assess the selective application of a VSM of 1000FT. or 2000FT. as determined by the approval or non-approval status of the aircraft concerned.**

# Oceanic versus Continental RVSM

- ◆ **Oceanic** RVSM is generally uni-directional i.e. EAST/WEST or WEST/EAST and in level flight
- ◆ **Continental** RVSM will be multi-directional with high proportion of climbs/descents giving totally different complexities.

# *Contingency Procedures*

- Commons Failure
- Hijack
- Emergency Descent

- ◆ **Should it be a world-wide ICAO Procedure or Regional Procedure or in the GREPECAS a Sub-Regional procedure?**
- ◆ **What impact or effect would any contingency have on Transition areas or Non RVSM Areas if it arises in close proximity to the lateral limits of RVSM airspace?**

# Wake Turbulence

Some problems were encountered in the NAT region and in the Transition Areas when originally introduced.

The procedure of Off-SETTING up to two miles left or right of track appears to have greatly reduced reports for wake turbulence

# TCAS T/As'

- ◆ TCAS 2, Version 7.0 should assist in dispensing with nuisance T/As' when introduced provided it has the capability to differentiate between MASPS approved and NON-MASPS approved aircraft.

# Conclusions

- ◆ **IFATCA** has endeavoured to constructively assist international and national authorities and institutions concerned with the introduction of RVSM and thanks them for inviting their Professional and Technical input

- ◆ **IFATCA** in view of its goal for global application in the future would like to see a single system (either flight level or metric) applied worldwide thus removing the need for alteration at future Transition or non RVSM areas.

- ◆ **IFATCA** urges all states and institutions to ensure that the appropriate infrastructure will be in place prior to the commencement of the **RVSM Trials**

## Conclusions continued

- ◆ This involves
- ◆ STAFF
- ◆ EQUIPMENT
- ◆ TRAINING
- ◆ AIRSPACE & ROUTE STRUCTURE

# DIC. 2004– Proposed introduction of RVSM

# FINALLY

- ◆ **IFATCA** believes that it is only by mutual co-operation with the systems and tools that will support ATM control activities that a control service can be provided with safety and efficiency , and provide the experience to grow in the future.

THANK YOU & HAVE A NICE  
DAY

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