

Simplification and Harmonisation of ECAC Airspace

EUROCONTROL Airspace Strategy for the ECAC States

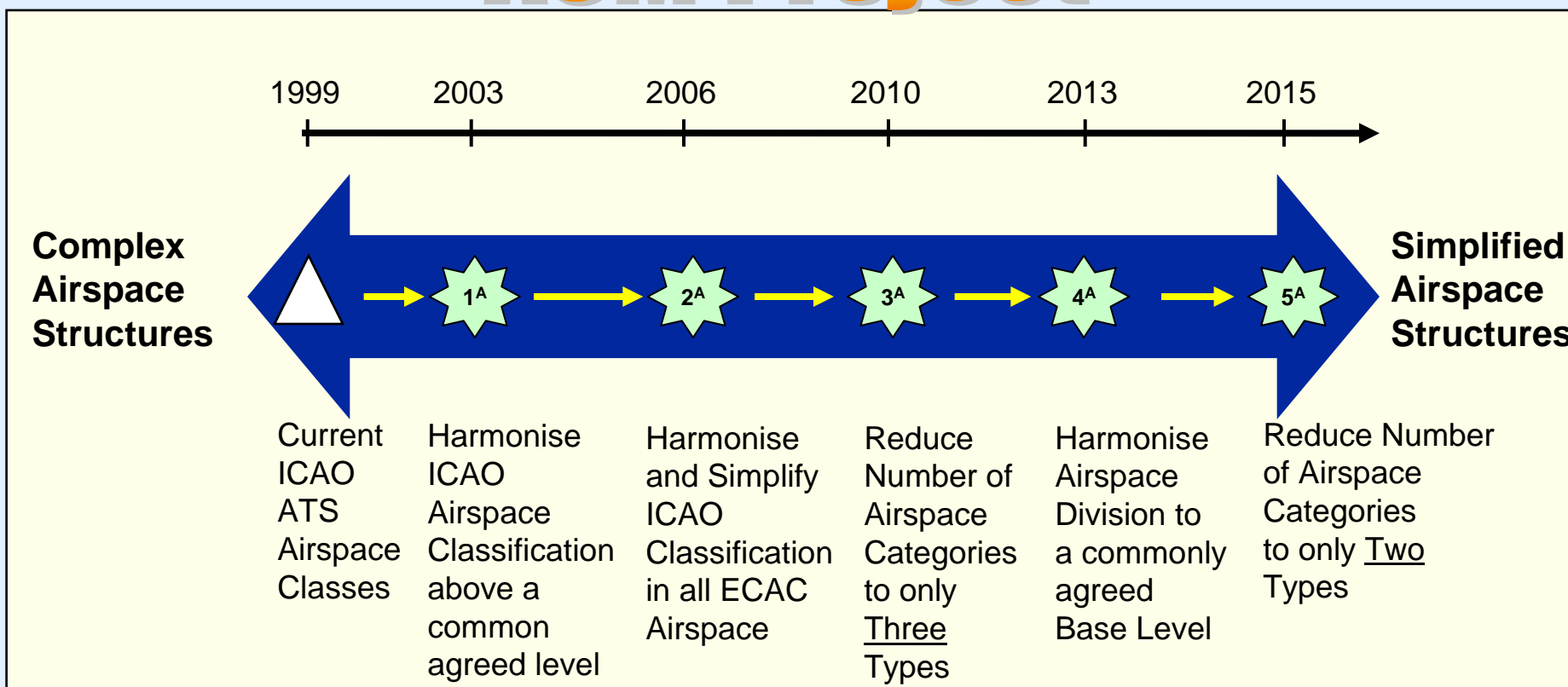
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Simplification of European Airspace Classification Project Manager

Direction for Change A

Simplification of Airspace Organisation

ASM Project



Operational Improvement 1A

Implementation at 25 November 2004

35 States out of 40 ECAC States (Iceland is not included) + Belarus, now have Class C Airspace above FL 195

The UK indicates implementation likely to be after Spring 2006

Azerbaijan possible in 2005

Cyprus uncertain of date

Greece and Turkey have not given any indication at all

OI-1A - Airspace Classifications Before 27 November 2003

FL or Alt Band	Albania	Armenia	Austria	Belgium/ Lux	Bosnia Herz'ina	Bulgaria	Croatia	Cyprus	Czech Rep	Denmark	Estonia	Finland
Up Limit CAS			100 Kms	660	410	460	460		660	460	460	460
245-460					from 285	A				A	A	A
205-245			C						C			
195-205												
150-195			D	B	C 285 to 100	C			D	E	C	D
130*-150			E			E	G		E	G		
95*-130*												
3K*-95*			G	G	G	E	G		G		G	G
SFC-3K*												
Major TMA			C	D	E	B			C	C	C	C
Minor TMA			C	D	E	D			D	D	D	C
CTA/ <u>Avvy</u>			C	D	E	B	D	C above 100	C		C	D
CTR*			D	F	C	D	D	E		D	G*	C

FL or Alt Band	France	FYROM	Germany	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Malta	Moldova	Netherlands
Up Limit CAS	660	460	Unl		460	660	460	460	460	460	490	660
245-460											from 285	
205-245	A	A			A	A	A	A	A	A		A
195-205			C									
150-195	D	D			C	C		C	C	G	C	A
130*-150			C	E			G					B
95*-130*	G				F			G	G	C		
3K*-95*		E	E			G					G	G
SFC-3K*		G	G		G							
Major TMA	A	D	C				A	E	C	D		A
Minor TMA	C	D	E				D	E				B
CTA/ <u>Avvy</u>	D	E	D	E			D	E				A
CTR*	D	E	G				A	C	D			C

FL or Alt Band	Norway	Poland	Portugal	Romania	Slovak Rep	Slovenia	Spain	Sweden	Switzerland	Turkey	Ukraine	UK	Serbia & Montenegro
Up Limit CAS	460	460	460	490	660	460	460	460	600		460	660	
245-460			A		A		A	A				B	
205-245	A		G	C	G	A			C				
195-205													
150-195	D	G				C	D		C	D	E		
130*-150			G	G		C	D		C	G	C	E	
95*-130*								G					
3K*-95*						E	G				C	E	
SFC-3K*					G			G			G		
Major TMA	C						A		C		C	D	A
Minor TMA	D					C	D	E			C	D	E
CTA/ <u>Avvy</u>	D	E	B	C		C	A		C		C	A	D
CTR*	D	G*				C	D		D		C	D	A

OI-1A - Airspace Classifications post 31 January 2005

FL or Alt Band	Albania	Armenia	Austria	Azerbaijan	Belgium/ Lux	Bosnia Herz.	Bulgaria	Croatia	Cyprus	Czech Rep	Denmark	Estonia	Finland			
Up Limit CAS	660	460	660		660	410	660	460	460	660	460	660	660			
245-460																
205-245	C	C	C		C	C	C	C		C	C	C	C			
195-205																
150-195			D		B	C	C	C				C	D			
130*-150	G						E		G	D	E					
95*-130*		G	E				G			E	G					
3K*-95*					G	G	G	D		E		G	G			
SFC-3K*							G	G		G	G					
Major TMA					B	E		C	No TMAs	C	C	C				
Minor TMA	C		C				C	D		D	D	D	C			
CTA/ <u>Awy</u>			C	D	E				200 A B ATZ	up to 195	C	D	E	C	D	D
CTR*	D		D	E		C	D	D		D	D	G*	C	D	G*	D

FL or Alt Band	France/ Monaco	FYROM	Germany	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Malta	Moldova	Netherlands
Up Limit CAS	660	660	660		660	660	460	460 from 285	660	460	660	660
245-460												
205-245	C	C	C		C	C	C		C	C		C
195-205												
150-195					C	C	C	C	C		C	A
130*-150	D	D					G					B
95*-130*			E							G	C	
3K*-95*	G		E		F	G		G	G			
SFC-3K*			G		G						G	G
Major TMA	A	D	C				A	E	C	D		A
Minor TMA	C	D	E			C	D	E				B
CTA/ <u>Awy</u>	D	E	D	E			E		C			A
CTR*	A	D	E	D	F		A	C	D			C

FL or Alt Band	Norway	Poland	Portugal	Romania	Slovak Rep	Slovenia	Spain	Sweden	Switzerland	Turkey	Ukraine	UK	Serbia & Montenegro
Up Limit CAS	660	460	460	660	660	660	460	460	660		660	660	660
245-460												B	
205-245	C		C			C	C		C				C
195-205													
150-195		C			C	D		C	C	D	C	G	
130*-150	D	G							C	D	E		
95*-130*			G	G			G	C	G	C	E		
3K*-95*						E			E		D		
SFC-3K*	G	G			G	G		G	G		G		
Major TMA	C						A		C			A	
Minor TMA	D		C	A	C	D	E		D		C	E	
CTA/ <u>Awy</u>	D	E			C		A	E	C		C	A	D
CTR*	D	G*		C	D	C	D		D		C	D	A



Current Distribution of Airspace Classifications Below FL 195

FL or Alt Band	Albania	Armenia	Austria	Azerbaijan	Belgium/ Lux	Bosnia H'zina	Bulgaria	Croatia	Cyprus	Czech Republic	Denmark	Estonia	Finland	France/ Monaco
150-195		C	D		B	C	C	C		C		C	D	D
130*-150											E	G		
95*-130*	G		E				E	G						
3K*-95*		G			G	G		D				G	G	G
SFC-3K*			G		G	G	G	G		G	G	G	G	
Major TMA					B	E		C	No TMAs		C	C	C	A
Minor TMA	C		C	D	E			D			D	D	C	D
CTA/Awy		C			B	C above 100	C	C	D	above 200	below 200	C	D	E
CTR*	D		D	E	C	D		D		B ATZ	C	D	G*	C

FL or Alt Band	FYROM	Germany	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Malta	Moldova	Netherlands
150-195											
130*-150	D	C		C	C		C	C			A
95*-130*		E				G			G	C	B
3K*-95*	E			F	G		G	G			
SFC-3K*	G	G		G	G		G	G		G	G
Major TMA	D	C				A	E	C	D		A
Minor TMA	E	C	D	E		D	E				B
CTA/Awy	D	E	C	D	E			C			A
CTR*	D	D	F			A	C	D			C

FL or Alt Band	Norway	Poland	Portugal	Romania	Slovak Rep	Slovenia	Spain	Sweden	Switzerland	Turkey	Ukraine	UK	Serbia & Montenegro
150-195									C	D			
130*-150	D	G	C			D		C	C	D	E		
95*-130*			G	G	C		G	C	G	C	E		
3K*-95*						E							
SFC-3K*	G	G			G	G		G	G		G		
Major TMA	C			A	C	D	E		C		C	D	A
Minor TMA	D					C	D		D	E			
CTA/Awy	D	E	C		C		A	E			C	A	D
CTR*	D	G*		C	D	C	D		D		C	D	A

Safety is Paramount

- **Whatever changes are required in a State must satisfy rigorous safety assessment.**
- **The extent and nature of those changes will be determined by a comparison of today's airspace arrangements vs the future harmonised structure.**
- **Different States will have differing degrees of change.**

Criteria/Principles for a Harmonised Classification of ECAC Airspace

- **Classification should observe current level of safety and whenever possible improve it.**
- **Classification should be based on airspace users' requirements.**
- **Classification should allow operations on a permissive or conditional basis rather than requiring individual exemptions to airspace class access criteria.**
- **Classification should consider requirements for ATS provisions in terms of knowledge of traffic (intentions and/or position).**
- **Classification should consider level of differences for ATS provisions to IFR controlled VFR and non-controlled VFR flights in the airspace below FL195.**

General Aviation VFR Activity

Vertical Dimension	ICAO Requirements	GA VFR Requirements	GAT VFR Activity	Airspace Accommodation
FL 285	ICAO Annex 2 – Chapter 4 Authorisation for VFR flights above FL 290 shall not be granted in areas where a vertical separation minima of 300 m		Extremely rare	All GAT VFR in TSA or equivalent – Mandatory No GAT en-route VFR flights allowed OAT VFR managed by responsible authorities – FUA Level 3 – may require TSA
FL 195	ICAO Annex 2 – Chapter 4 Unless authorised by the appropriate ATS authority, VFR shall not be operated	High flying gliders Test flights High level parachuting	Rare	“Specialist” GAT VFR Activity – may require TSA or equivalent OAT VFR managed by responsible authorities – FUA Level 3 – may require TSA No GAT en-route VFR flights allowed
FL Z		Gas balloons Gliders Parachuting Helicopters	Moderate	“Specialist” GAT VFR activity – may require TSA or equivalent OAT VFR managed by responsible authorities – FUA Level 3 – may require TSA
		Sporting – recreational GA Hang Gliders Hot Air Balloons <u>Microlights</u>	Very common	VFR mainly conducted outside controlled airspace

The Known and Unknown Traffic Environments

The Known Traffic Environment

is an environment within which all traffic is known to ATS, both with position and with flight intentions.

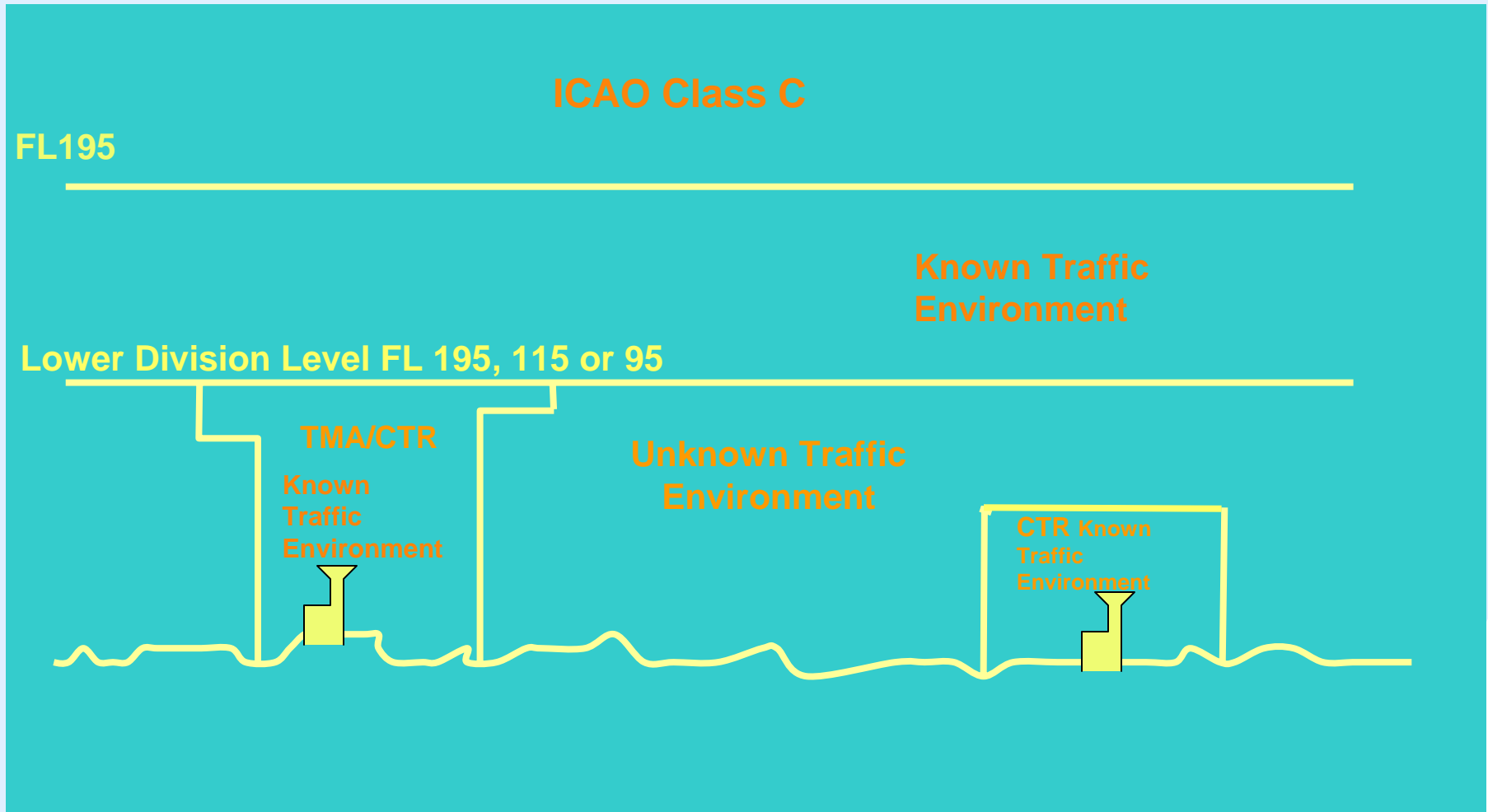
- Continuous two-way communication is always required
- A Transponder is always required
- All traffic is subject to an ATC Clearance

The Unknown Traffic Environment

is an environment within which not all traffic is known to ATS.

- Continuous two-way communication is not always required
- A Transponder is not always required
- Traffic is not always subject to an ATC Clearance

Operational Improvement 2A - Overview



Rationalisation of Regional Lower Division Levels

- **Proposed to rationalise Lower Division Levels to around the three most widely used Flight Levels.**
- **To produce large homogenous volumes of airspace with a common Lower Division Level for each.**
- **Where appropriate, to encourage States to conform to the Lower Division Level in their region.**
- **Apart from local variations due to high terrain, it is proposed that there will be 3 Initial Lower Division Levels:**

FL 95, FL 115 and FL 195

Simplification of Application of Airspace Classifications

Between FL 195 and the Lower Division Level:

Class C and Class D

Below the Lower Division Level to the Surface:

Inside the Known Traffic Environment:

Class C and Class D

Within the Unknown Traffic Environment:

Class G and Class E

Simplification of Application of Airspace Classifications - 2

At ANT 34 in June of 2004 it was agreed that:

In recognition of ATC operations in high density, high complexity TMAs, it is accepted that, if so justified, States may designate high density, high capacity TMAs with a more restrictive Classification.

Consultation so far Undertaken

- August 2001 - Questionnaire to all States & User Organisations
- January 2002 - 2nd Airspace Management Workshop
- October 2002 - 3rd Airspace Management Workshop
- April to September 2003 - Stakeholder Focus Group Meetings:
 - . General Aviation, Sporting and Aerial Work Representatives
 - . IFALPA & IFATCA
 - . Commercial Aviation / IFR Operators
 - . Military Aviation
 - . Air Traffic Service Providers / Regulators - widespread CAS already
 - . Air Traffic Service Providers / Regulators - background of uncontrolled airspace

Proposed VFR Access Rules Below FL 195

Between FL 195 and the Lower Division Level

General Air Traffic VFR flights will be authorised:

- In Reserved Airspace (Temporary Segregated Airspace or its equivalent) or
- In accordance with an ATC Clearance and any other specific arrangements that may be required by the appropriate ATS authority.

Proposed VFR Access Rules Below FL 195

Within the Known Traffic Environments between the Lower Division Level and the Surface -

General Air Traffic VFR flights will be authorised:

- In Reserved Airspace (Temporary Segregated Airspace or its equivalent) or
- In accordance with an ATC Clearance and any other specific arrangements that may be required by the appropriate ATS authority or
- In a corridor of airspace established, either permanently or temporarily, for the use of an aircraft flying under VFR

European Commission – Single European Sky

Restructuring airspace:

- Establishment of Functional Airspace Blocks
- Establishment of European Upper Flight Information Region (EUIR) above FL 285
- Development of rules on Flexible Use of Airspace
- Development of rules on Airspace Classification
- Development of rules on airspace design (Route and Sector design)
- Development of rules on air traffic flow management

The Airspace Design Mandate

Develop Draft Implementing Rules for:

Part 1 – The harmonisation of Airspace Classification in Upper Airspace (above FL285).

- **ATS Route and Sector Design**

Part 2 – The harmonisation of Airspace Classification in the Lower Airspace, on a gradual and progressive basis.

Airspace Design Mandate - Upper Airspace

Harmonised Airspace Classification - Article 3 Draft Implementing Rules

“Member States shall designate and classify airspace above FL285 as Class C airspace, as defined by 2.6.1 of Annex 11 to the Convention on International Civil Aviation.”

“Member States shall, in accordance with 4.5 of Annex 2 to the Convention on Civil Aviation authorise General Air Traffic VFR flights, above FL285 only in an airspace reservation.”

Airspace Design Mandate - Timescales

Part 1 Final Report to EC on 31 December 2004

Part 2 Final Report to EC by May 2005

Airspace Design Mandate Airspace Below FL285

- **Draft Implementing Rules are under development.**
- **Informal consultation workshop took place on 17 January 2005.**
- **Formal consultation using the ENPRM process undertaken 31 January - 11 March 2005**

Airspace Design Mandate Airspace Below FL285

Outcome of ENPRM process

Areas of concern:

- Division at FL95
- Potential for proliferation of Known Traffic Environment
- Need for guidance / criteria to determine high density / high complexity airspace
- Need to accommodate variations to Known Traffic Environment airspace classifications
- Lack of GA VFR access to Known Traffic Environment airspace

Airspace Design Mandate Airspace Below FL285

Way Forward

- Outcome of formal ENPRM consultation being analysed
- Findings of ENPRM analysis to be discussed with European Commission
- Need for any further consultation under consideration

End of Presentation

