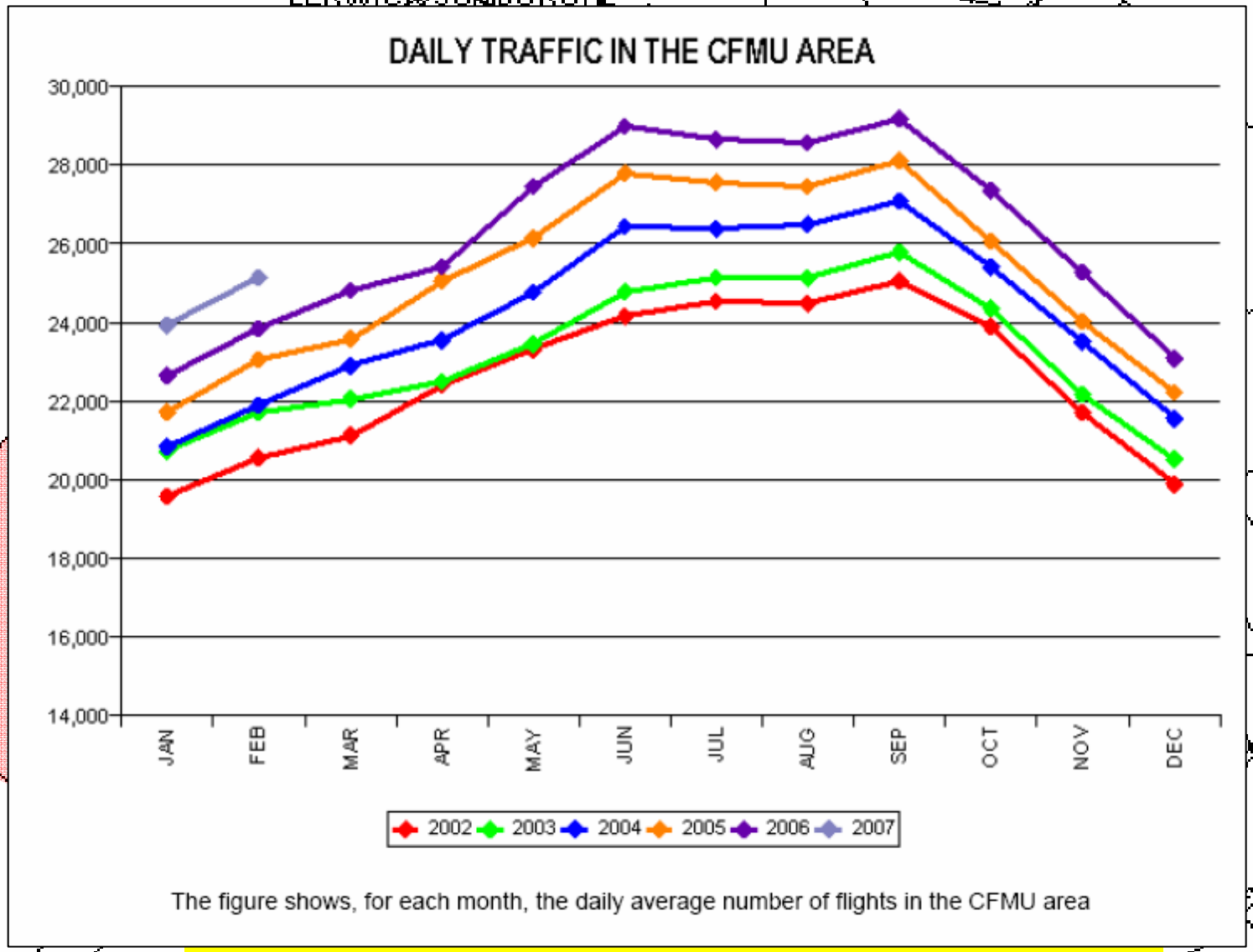
Sustaining Frequency Demand (118-137 MHz)

ICNS, Session J, 3 May 2007

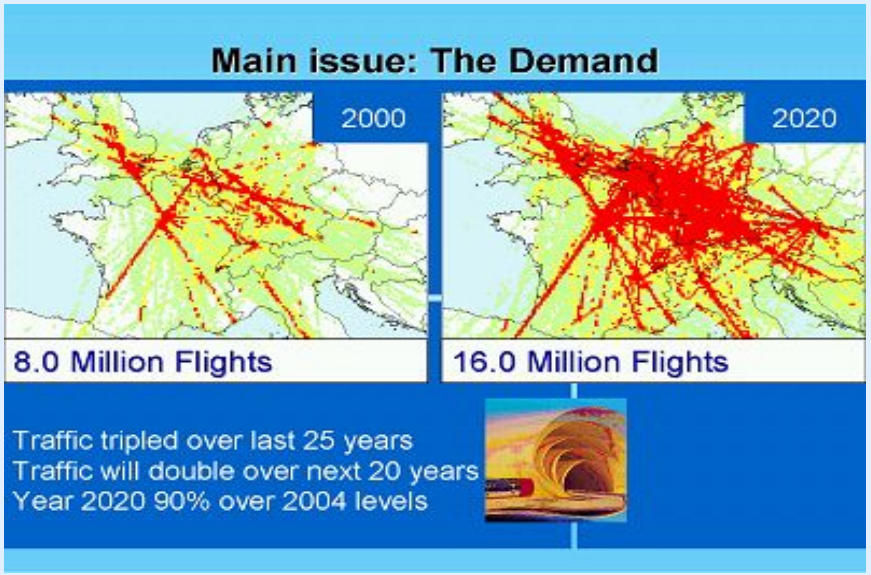
peter.alty@eurocontrol.int

COM 118-137 MHz

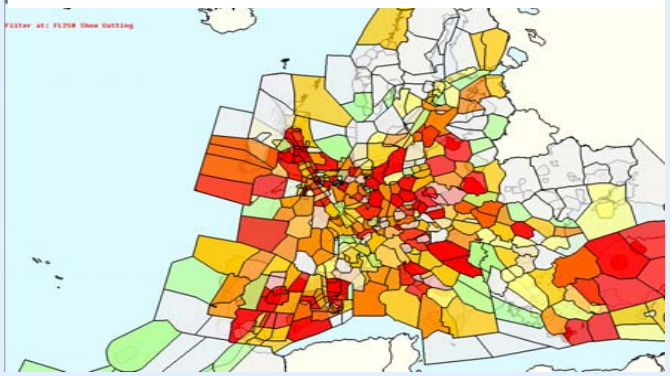


11,200+ assignments

118-137 MHz DEMAND 2020?

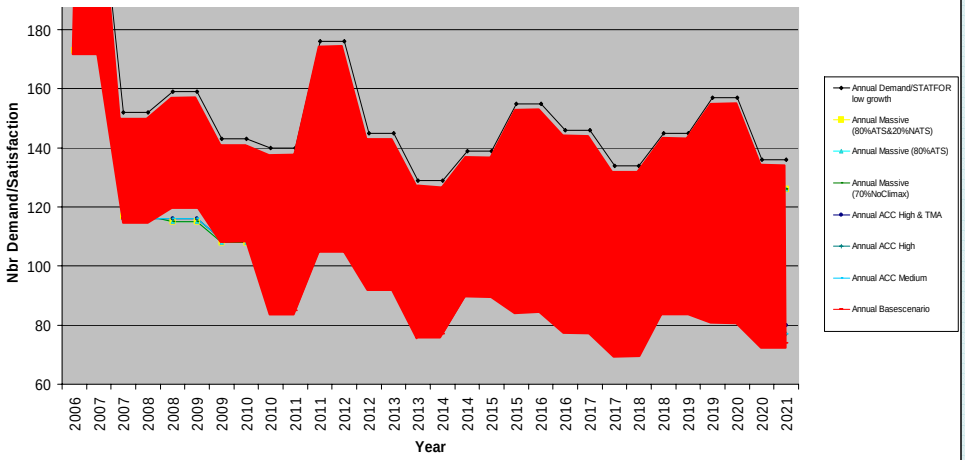


Resectorisation? (2020)



Airports?

VHF demand versus satisfaction

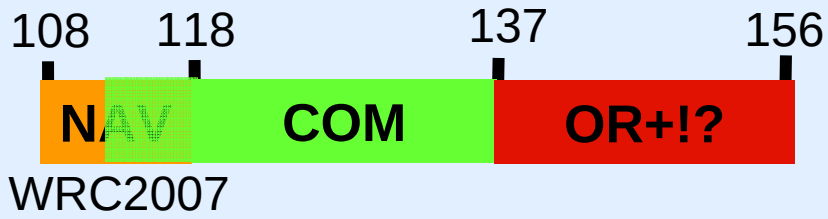


STATFOR → **FREQUENCY DEMAND MODEL (movements ~ VHF)** → **VHF demand 2006 - 2020**

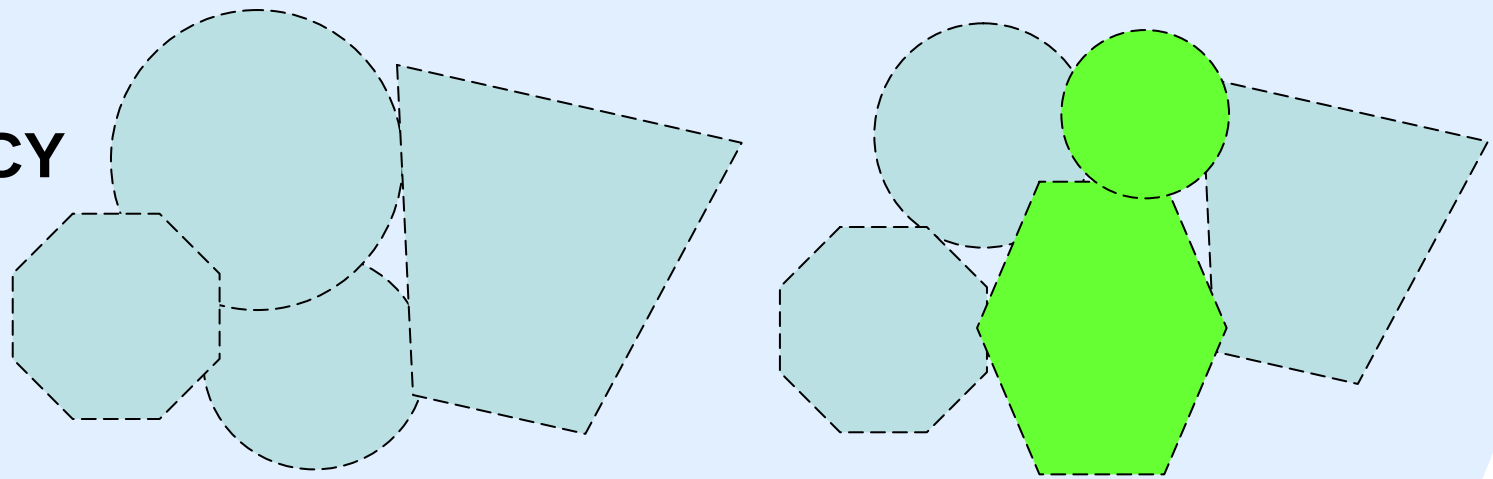
Area	SERVICE/AIRSPACE TYPE	Total	Yearly
7 “Core Area” States	ACC_HIGH	130	9
	ACC_LOW	117	8
	APP_ATIS	128	9
	TWR_AFIS	266	18
	Total	641	43
23 Adjacent States	ACC_HIGH	255	17
	ACC_LOW	186	13
	APP_ATIS	448	30
	TWR_AFIS	348	24
	Total	1237	83
Other States	ACC_HIGH	114	8
	ACC_LOW	40	3
	APP_ATIS	132	9
	TWR_AFIS	122	8
	Total	408	28
OVERALL TOTAL		**2286**	**153**

Satisfying VHF demand?

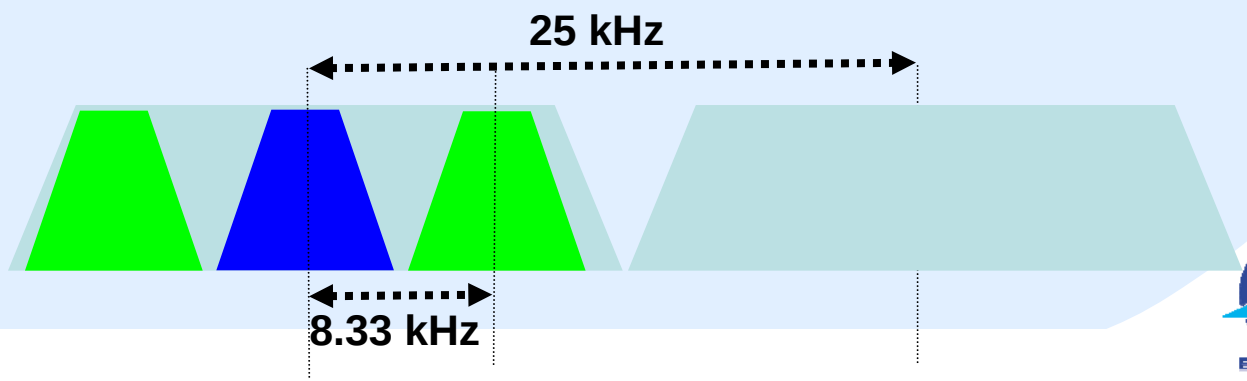
MORE SPECTRUM



FREQUENCY REUSE



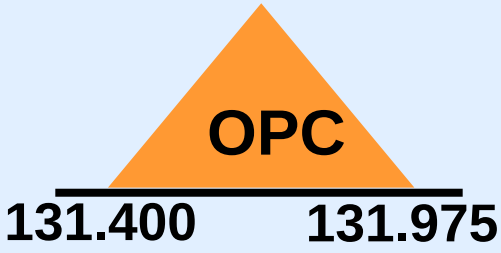
CHANNEL SPACING



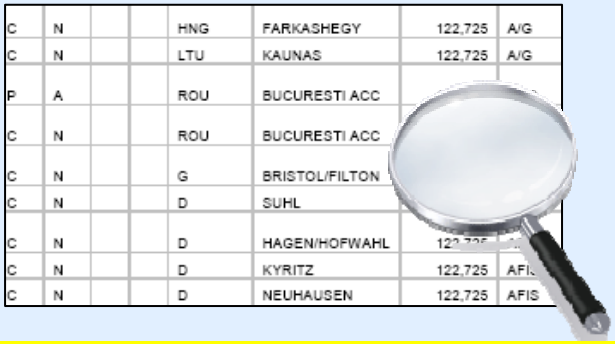
FREQUENCY REUSE

http://www.SAFIRE

Enhanced coordination tool coming on-line



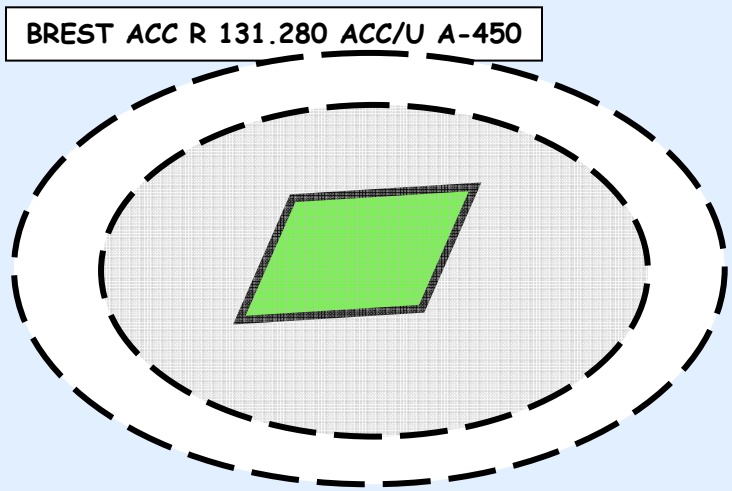
Limit OPC to sub-band?

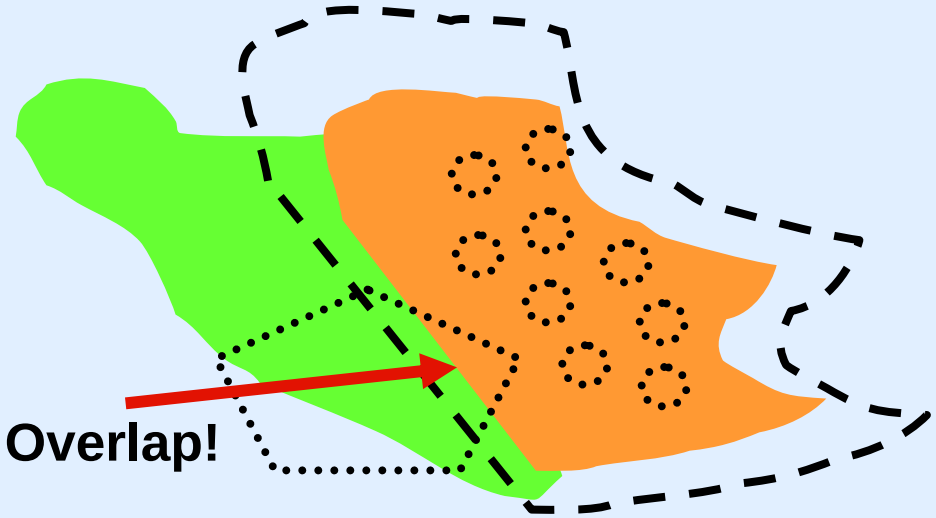


C	N			HNG	FARKASHEGY	122,725	A/G
C	N			LTU	KAUNAS	122,725	A/G
P	A			ROU	BUCURESTI ACC		
C	N			ROU	BUCURESTI ACC		
C	N			G	BRISTOL/FILTON		
C	N			D	SUHL		
C	N			D	HAGEN/HOFWAHL		
C	N			D	KYRITZ	122,725	AFI
C	N			D	NEUHAUSEN	122,725	AFIS

Major audit proposed Mid-2007 – early 2008

FREQUENCY REUSE

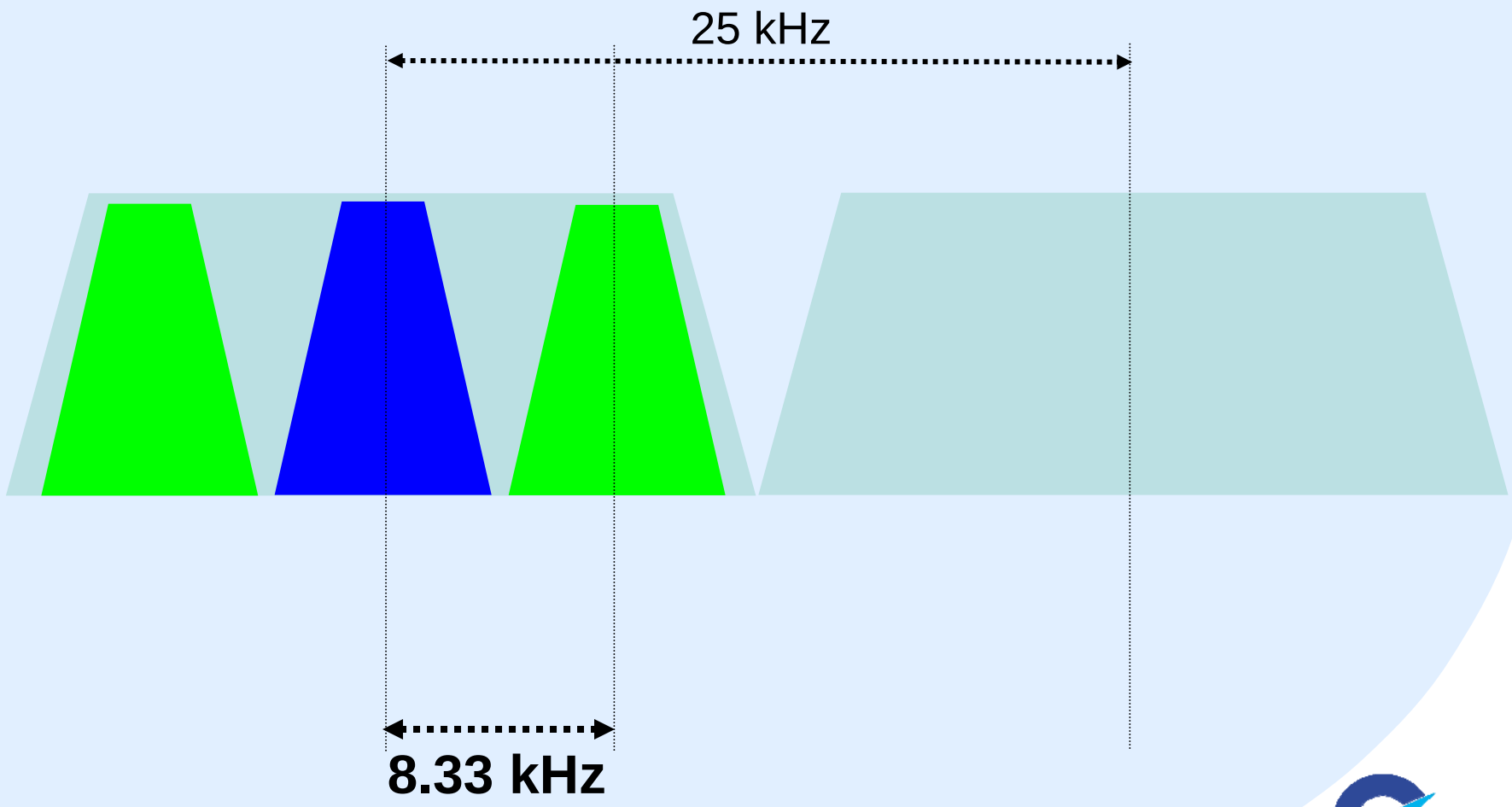




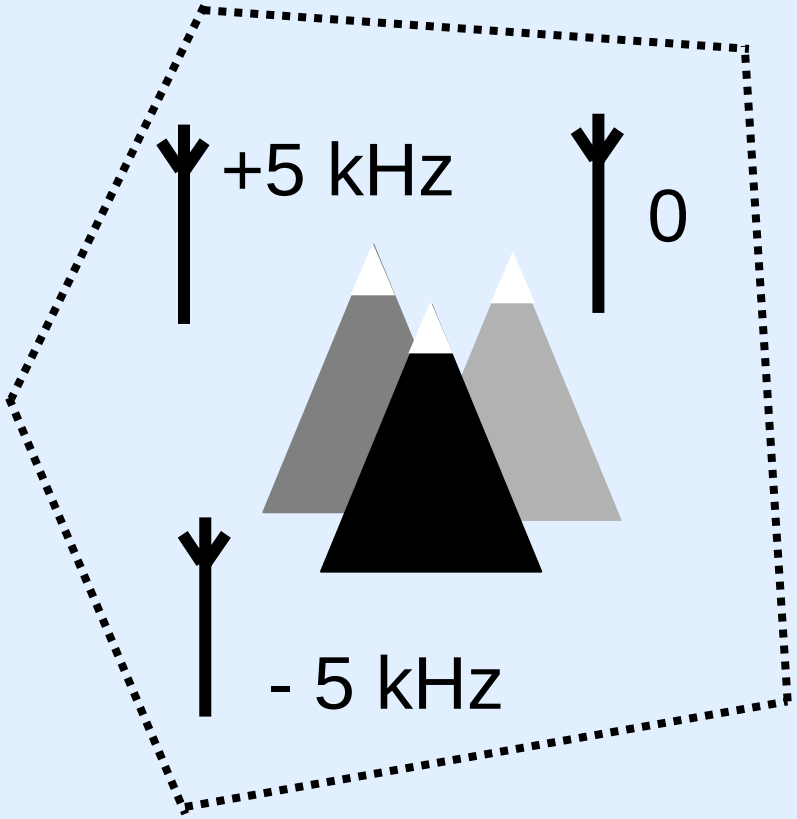
Reduce ACC protection 14 dB D/U?

Limit National Aerodrome Concept?

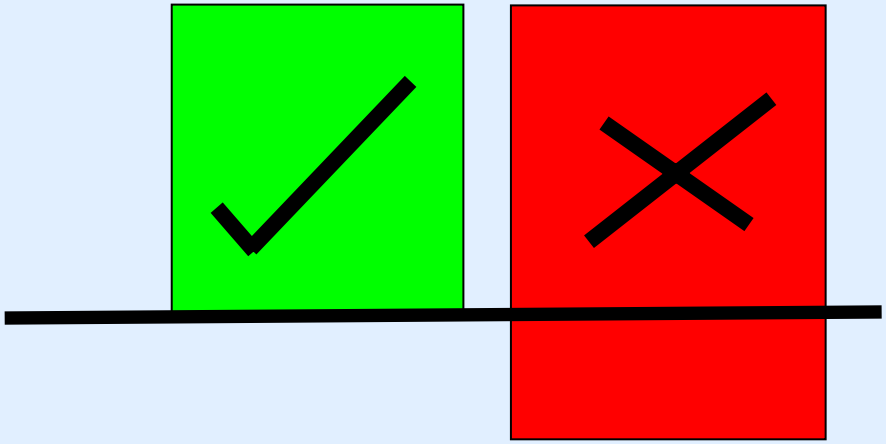
25 to 8.33 kHz conversions



8.33 kHz conversion constraints



Climax



Sector lower-limit

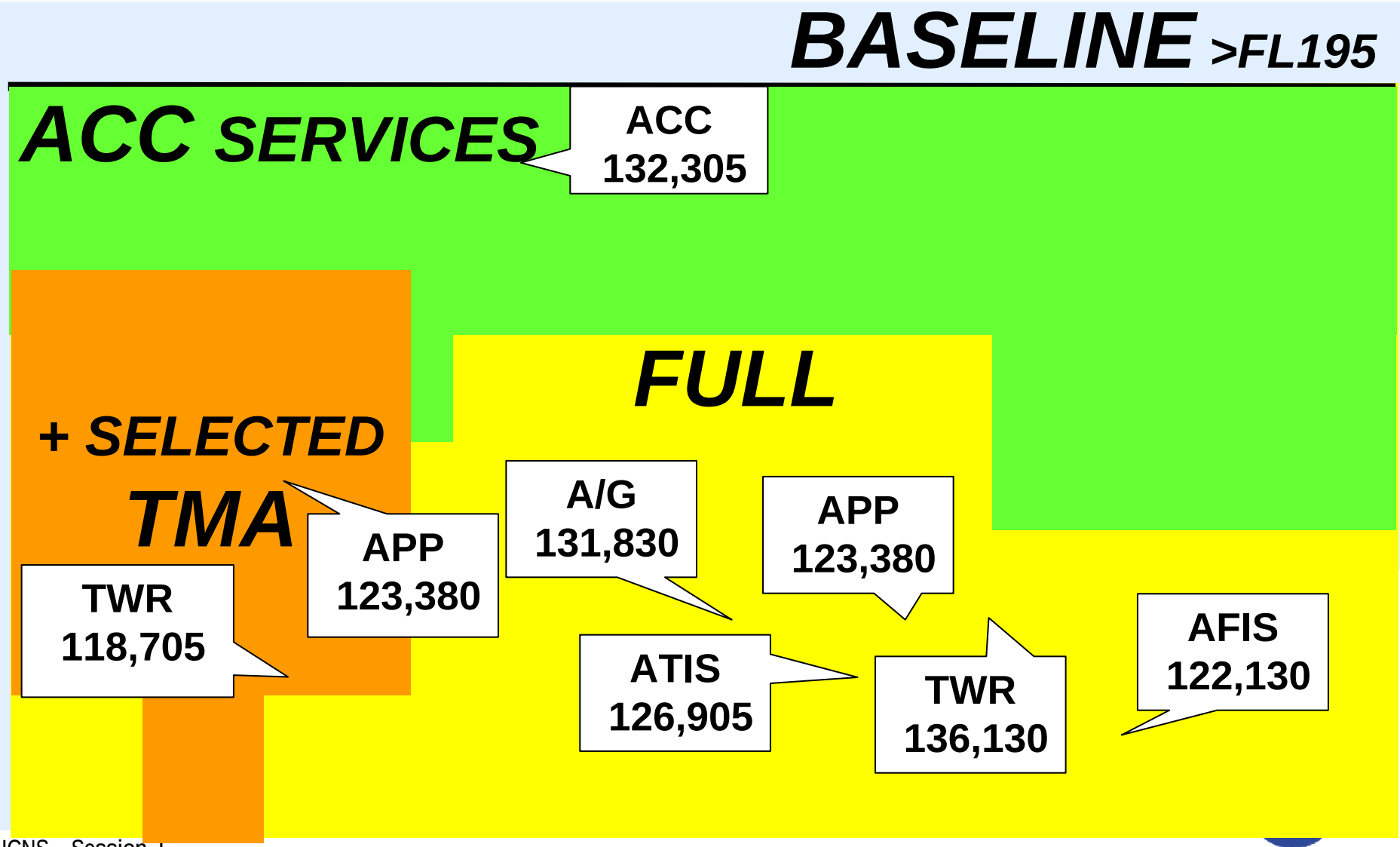
15 March 2007
EUROPE TUNES
8.33 kHz ABOVE FL195

EUROCONTROL

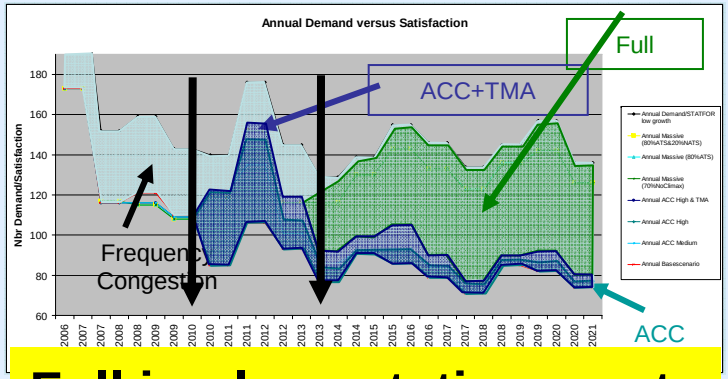
www.eurocontrol.int/833

8.33 kHz below FL195

Below FL195 Scenarios



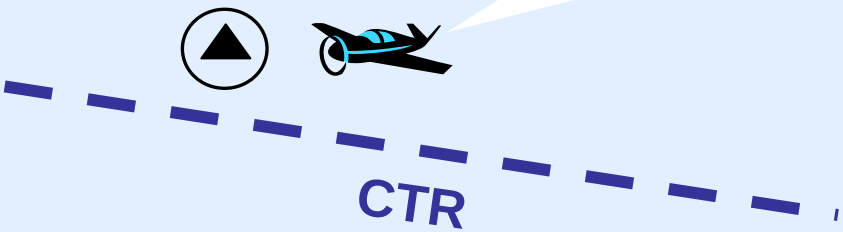
Business Case <FL195



Full implementation meets long-term demand

Major fleet impact

Negative 8.33



Safety

>FL195

ACC services

Full

Phased approach

Consultation

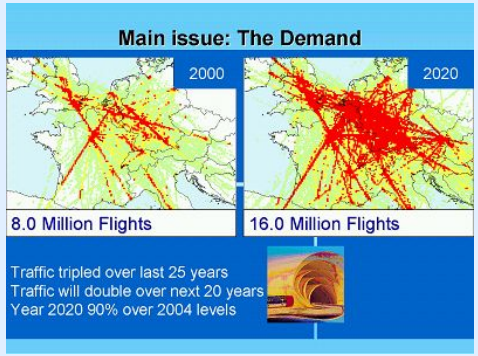
ICAO EANPG48 Conclusions

- Proceed “Full” 8.33 kHz Implementation
- Develop Implementation Plan
- Request modification EC Implementing Rule
- Advanced notice potential dates
  - *ACC services impacting IFR, Controlled VFR & Night VFR: **from 2010***
  - *Full implementation = **from 2013***

Spectrum concern/ highlight 8.33 kHz requirement

EUROCONTROL Action Lines (118-137 MHz)

FAA approach?



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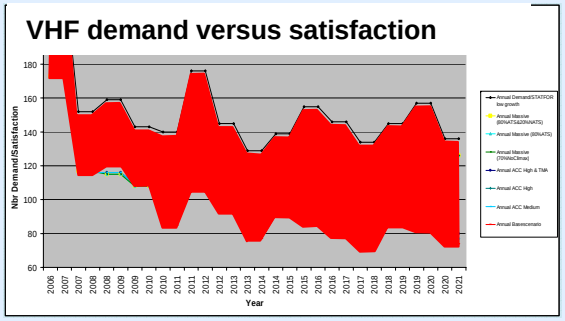
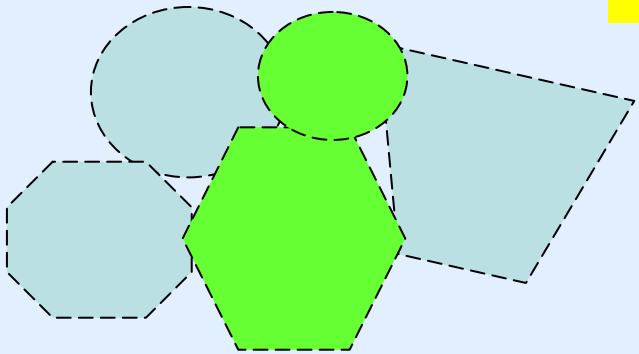
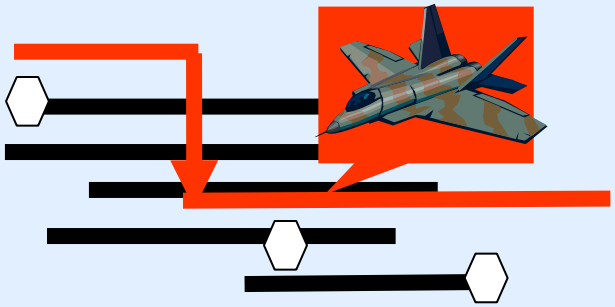


Estimate demand





Optimise frequency reuse

Develop 8.33 kHz<FL195 Implementation Plan

www.eurocontrol.int/833
8.33@eurocontrol.int