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Agenda Item 10: A.O.B. Duplicated and “Sound-Like” 5LNCs

EUROPE - ASIA TRANS-REGIONAL SPECIAL COORDINATION MEETING

23rd - 25th September 2013

Beijing, China

ICAO NAT/EUR Office

EUROCONTROL



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Duplicated 5LNCs



Introduction



- ❖ ICAO Annex 11, Appendix 2, paragraph 3.1. stated that “Where a significant point is required at a position not marked by the site of a radio navigation aid, the significant point shall be designated by a **UNIQUE** five-letter pronounceable “name-code”.
- ❖ Based on actions taken by the RDGE/9 (Autumn 2008), ICAO and EUROCONTROL decided to establish a 5LNCs duplication rationalisation process for the ICAO EUR/NAT Region. The aim was to make the process coherent and fully co-ordinated for the entire ICAO EUR/NAT region by establishing common criteria for replacement of duplicated 5LNCs and monitoring bodies - ICAO and RNDSG secretariats.
- ❖ At RNDSG/66 (February 2009) and RDGE/10 (April 2009) ICAO and EUROCONTROL presented working paper which further refined the rationalisation process. Common criteria for replacement of duplicated 5LNCs, list of duplicated 5LNCs in ICARD and list of duplicated 5LNCs used in AIPs but not in ICARD were presented.



Rationalisation process



- ❖ Following the outcome of RND SG/66 and RDGE/10, both secretariats initiated proper actions to eliminate spotted duplication of 5LNCs. The initial list of all duplicated 5LNCs in ICAO EUR/NAT Region was created and circulated to the States concerned for further actions.
- ❖ The conclusion after four and half years is that only few States performed actions to replace relevant 5LNCs.
- ❖ Duplications within ICAO EUR/NAT Region still exist contrary to Annex 11, continue to create severe difficulties and problems in ATC automated systems and might be considered as safety issue. Non-compliance with Annex 11 shall not continue and rationalisation process is proposed again and this time will be closely monitored by ICAO and EUROCONTROL.
- ❖ At RND SG/80 (1st - 3rd October 2013) and RDGE/19 (7th - 11th October 2013) a working paper will be presented by ICAO and EUROCONTROL to further refine the rationalisation process containing the following Annexes:
 - ✓ Annex 1 - Common criteria for replacement of duplicated 5LNCs;
 - ✓ Annex 2 - List of duplicated 5LNCs within ECAC area;
 - ✓ Annex 3 - List of duplicated 5LNCs within ICAO EUR/NAT Region;
 - ✓ Annex 4 - List of duplicated 5LNCs with neighbouring/other ICAO Regions.
- ❖ The next step in resolving the duplicated 5LNCs would be to initiate co-ordination with other ICAO Regions to reach the final goal - worldwide uniqueness of all five-letter name-codes.



Common criteria for replacement of duplicated 5LNCs



(approved at RNDSG/66 and RDGE/10)

- ❖ **First criteria - ICARD / AIP existence comparison:**
 - in ICARD - if two or more 5LNCs are in ICARD - go to Second criteria;
 - in ICARD / not in ICARD - change should be proposed to the State/s concerned with 5LNCs not in ICARD.

- ❖ **Second criteria - ICARD status comparison:**
 - reservation (decision date) - if there are two or more 5LNCs reserved, the FIRST reserved has priority - change should be proposed to the State/s concerned following verification of the real use of the reserved 5LNC;
 - reservation / no reservation - change should be proposed to the State/s concerned with no ICARD allocation;
 - no reservation - if there are two or more not reserved 5LNCs - go to Third criteria.

- ❖ **Third criteria - 5LNCs usage comparison:**

The following characteristics will receive priority:

 - ✓ FIR boundary point (due to the involvement of more than one State);
 - ✓ SID/STAR (more difficult to change procedures than ATS route);
 - ✓ major en-route crossovers;
 - ✓ upper airspace;
 - ✓ lower airspace.

Note: If 5LNCs have the same third criteria, the final judgement will be made by ICAO and/or EUROCONTROL.



List of duplicated 5LNCs within ECAC Area



5LNC	DUPLICATE IN ICARD	FOUND IN JEPPESEN	IN USE BY	ICAO Data Manager (DM) Remarks	ICAO DM Action
BARAX	NO	YES YES YES	FRANCE ITALY SPAIN	Allocated to France - Terminal fix.	DM to request ITA and ESP for replacement.
DEDIN	NO	YES YES	BULGARIA AZERBAIJAN	Allocated to Bulgaria.	DM to request AZE for replacement.
DENEN	NO	YES YES	TURKEY GERMANY	Allocated to Turkey.	DM to request DEU for replacement.
DOGAN	NO	YES YES	MOROCCO TURKEY	Allocated to Morocco.	DM to request TUR for replacement.
FRANK	YES x 4	YES YES YES YES YES YES YES	UNITED KINGDOM GERMANY USA BRASIL PANAMA JAPAN THAILAND	Created by USA in 2005.	DM to request DEU and GBR for replacement.



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List of duplicated 5LNCs within ICAO EUR/NAT Region



5LNC	DUPLICATE IN ICARD	FOUND IN JEPPESEN	IN USE BY	ICAO Data Manager (DM) Remarks	ICAO DM Action
BANAL	YES	YES YES YES	PORTUGAL RUSSIAN FEDERATION BRAZIL	Shared code prioritized.	DM to request RUS for replacement. DM to contact other ICAO regions.
BEREK	YES	YES YES	GREAT BRITAIN ALGERIA	Shared code prioritized.	DM to request GBR for replacement.
BERNO	NO	YES YES	FRANCE RUSSIAN FEDERATION	Allocated to France	DM to request RUS replacement IF used.
BRAVO	NO	YES YES YES YES YES	GREAT BRITAIN SYRIA ITALY SPAIN CHINA INDIA x 2	Allocated to Brazil.	DM to request GBR, ESP and ITA for replacement.



List of duplicated 5LNCs with neighbouring/other ICAO Regions



5LNC	DUPLICATE IN ICARD	FOUND IN JEPPESEN	IN USE BY	ICAO Data Manager (DM) Remarks	ICAO DM Action
MATAR	YES	YES YES	ITALY / AUSTRIA PAKISTAN	Shared code prioritized.	DM to contact other ICAO regions for replacement by Pakistan.
NARKA	NO	YES YES	HUNGARY / ROMANIA GREENLAND	Allocated to Hungary and Romania.	DM to contact other ICAO regions for replacement by Greenland.
ROBIN	YES	YES YES YES	GREAT BRITAIN USA MEXICO	Created by USA in 2008.	DM to request GBR for replacement. DM to contact other ICAO regions.
SOFIA	NO	YES YES YES	SPAIN SYRIA PARAGUAI	No record in ICARD. Name retained by the ICAO SAM Office. <u>JeppView</u> : (ESP) 0916N 00130W <u>JeppView</u> : (SYR) 3323N 03650E <u>JeppView</u> : (PAR) 2424S 05732W	DM to request ESP for replacement. DM to contact other ICAO regions for replacement by Syria.
TROUT	YES	YES YES YES YES	GREAT BRITAIN USA CHINA JAPAN	Created by USA in 2005.	DM to request GBR for replacement.
TURBO	YES	YES YES	SPAIN USA	Created by USA in 2006.	DM to request ESP for replacement.



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“Sound-Like” 5LNCs



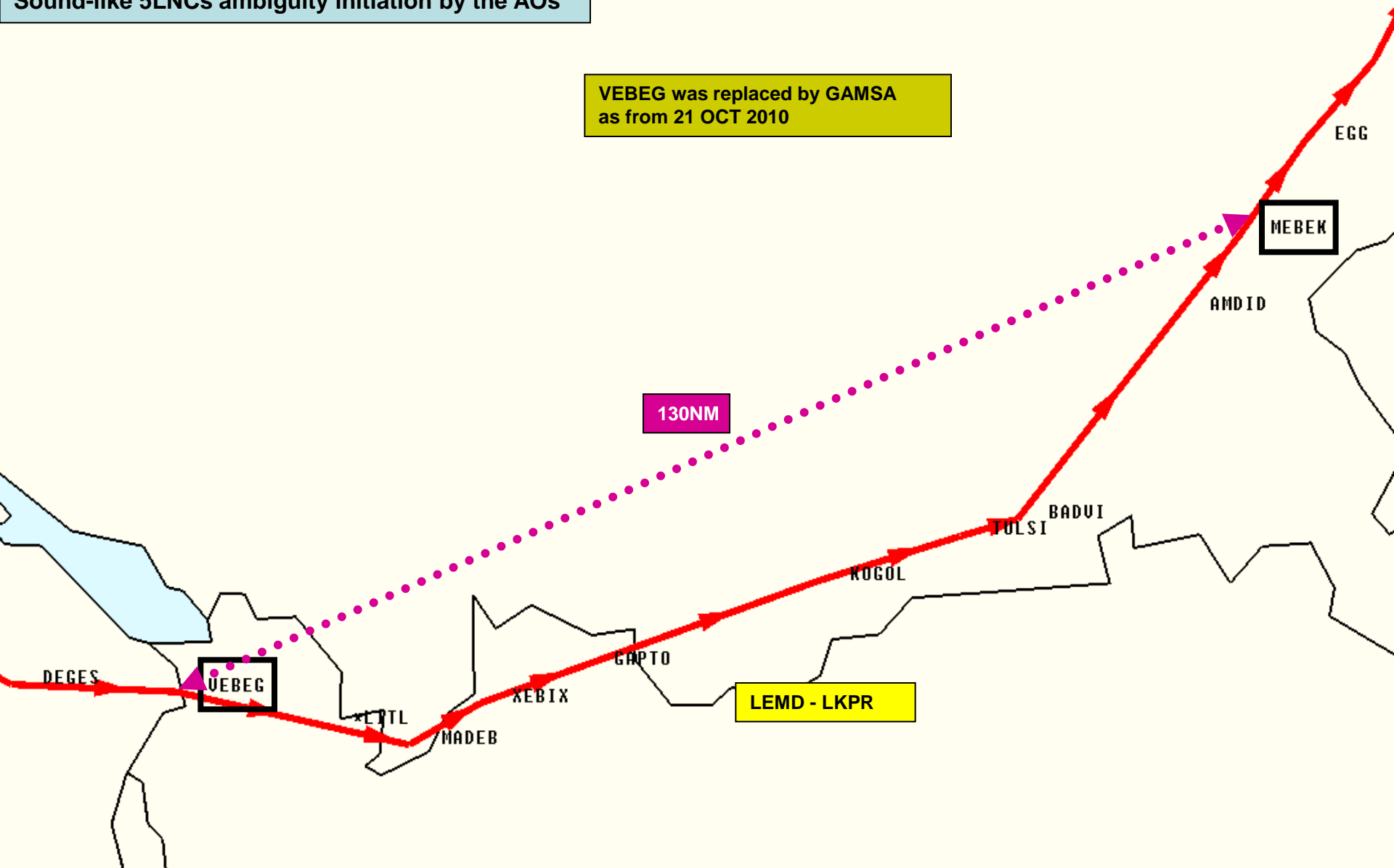
Introduction



- ❖ ICAO Annex 11, Appendix 2, paragraph 3.3. stated that “**The name-code designator shall be easily recognizable in voice communications and shall be free of ambiguity with those used for other significant points in the same general area”.**

Sound-like 5LNCs ambiguity initiation by the AOs

VEBEG was replaced by GAMSA as from 21 OCT 2010



When on airway **UN871** and flying from the west to the east, Swiss ACC often provides clearance direct to **VEBEG** (Swiss/Vienna boundary). Some 130NM further away, waypoint **MEBEK** (FIR Munich) is on the same airway. We have received reports from flight crews that due to phonetic similarity of these two waypoints there is a possibility of confusion when receiving clearance from ATC. Such confusion may pose a threat to safe operations and therefore we would like to bring this issue into your attention.

CSA Director Deputy Flight Safety



Initial idea for “Sound-like” algorithm avoiding existing ambiguity

- ❖ 4 (four) letters should not match if are on the same position.
Example: “BAKOV” should not be used if other code is “BUKOV”.
- ❖ The last 3 letters should not match.
*Examples (“n” - consonant and “y” - vowel):
if in order of “nyn” - “NAKOV” should not be used if other code is “BUKOV”;
if in order of “yny” - “ALAMI” should not be used if other code is “OKAMI”.*
- ❖ The 1st letter, 3rd letter and 5th letter should not match.
*Examples:
if in order of “nyn” - “BAKUV” should not be used if other code is “BUKOV”;
if in order of “yny” - “ALAMI” should not be used if other code is “AGATI”.*
- ❖ The 2nd letter, 3rd letter and 4th letter should not match.
*Examples:
if in order of “nyn” - “ABATI” should not be used if other code is “OBATO”
if in order of “yny” - “VEBEG” should not be used if other code is “MEBEK”.*
- ❖ The already approved (see *RNDSG/66*, *WP/19* and *RDGE/10*, *WP/4*) “Common criteria for replacement of duplicated 5LNCs” will be applied when proposing the withdrawals.
- ❖ Initial radius of proximity check could be established as 500NM.

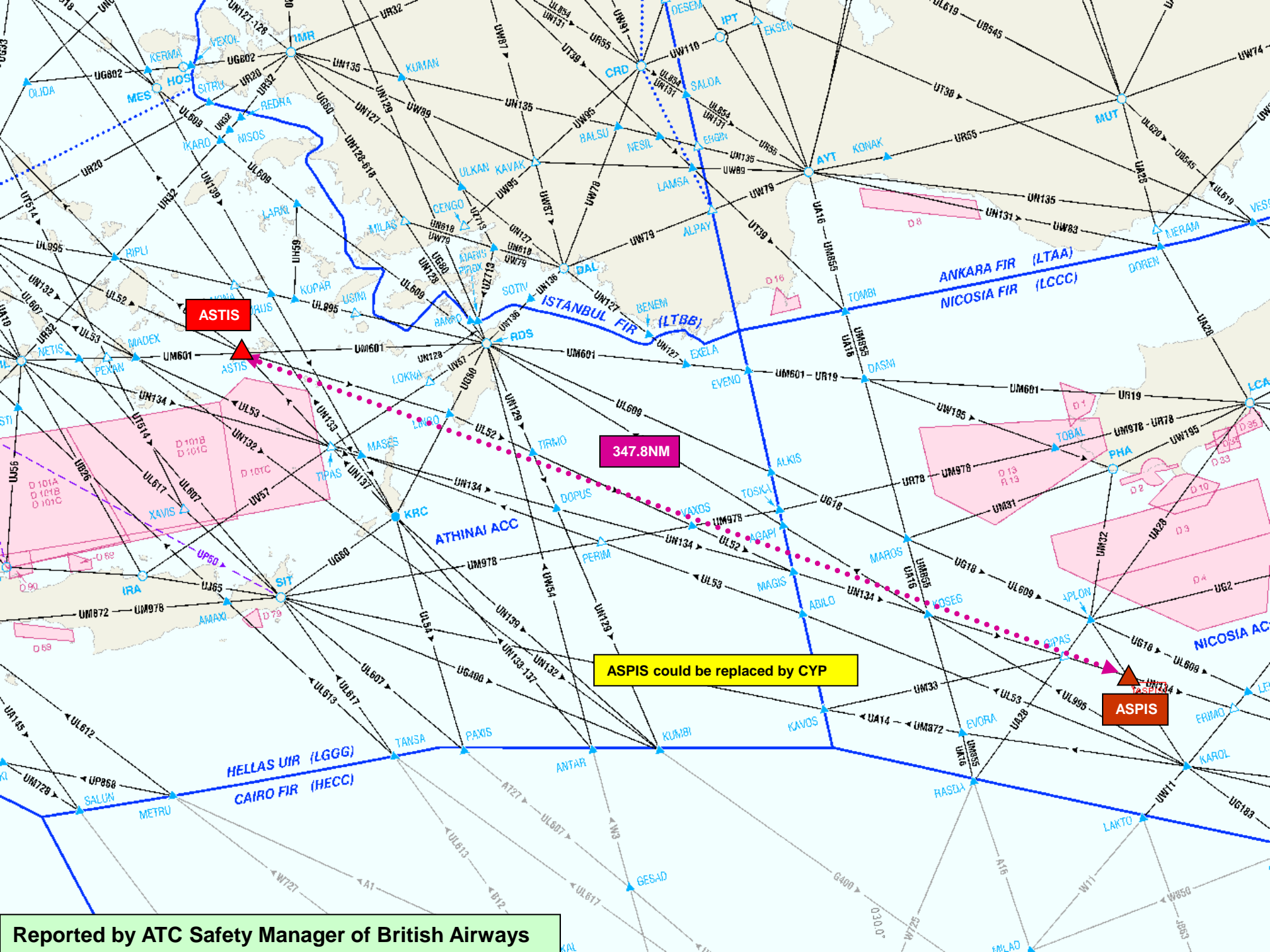


Possible “Sound-like” 5LNCs ambiguity



- ❖ Presented at EUROCONTROL Airspace Design South East Regional Meeting (January 2010).
- ❖ Some were already resolved the other ambiguity remains.

5LNC	States	ICARD Decision Date	Distance between 5LNCs	Comment / Proposal
ALELU	ALB/MNE	27/04/2005	379NM	<i>ALESU could be considered for withdrawal by ROU.</i>
ALESU	ROU	06/04/2006		
BABIT	HUN/SRB	-	230NM	<i>BABIT - double 5LNC with USA. Withdrawal of one of the points to be considered.</i>
BABUT	ROU	12/01/2009		
BABIT	HUN/SRB	-	167NM	<i>BABIT - double 5LNC with USA. Withdrawal of one of the points to be considered.</i>
BARIT	BIH	18/09/2000		
BADOR	HUN/ROU	-	283NM	<i>BADOR could be considered for withdrawal by HUN/ROU.</i>
BADOV	HUN/SVK	23/12/2004		
BASNA	ROU	06/03/2001	220NM	<i>BASNA is located on planned for re-designation ATS route W85. To be further considered.</i>
BOSNA	BIH	15/01/2004		
BUSER	ITA	-	88NM	<i>BUSER to be withdrawn by ITA.</i>
BUSET	HRV/SVN	07/02/2001		
BAKOV	ROU	11/10/2000	122NM	<i>Withdrawal of one of the points to be considered.</i>
BUKOV	UKR/ROU	-		
BUKOV	UKR/ROU	-	293NM	<i>To be further considered.</i>
LUKOV	BGR	02/10/2009		
BALIK	BGR	15/02/2000	270NM	<i>TALIK - double 5LNC with RUS. To be further considered.</i>
TALIK	ROU	18/02/2005		
DABAR	HRV	19/08/2002	310NM	<i>DABAR - double 5LNC with CLN/IND. To be further considered.</i>
DOBAR	ALB/MKD	02/11/1999		



ASTIS

347.8NM

ASPIS could be replaced by CYP

ASPIS

Reported by ATC Safety Manager of British Airways



Recommendation



The Meeting is invited to:

- ❖ consider the content of this presentation and discuss as appropriate;
- ❖ support the rationalization process and efforts of ICAO EUR/NAT Office and EUROCONTROL to resolve the duplicated and sound-like 5LNCs.



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QUESTIONS



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END