



FAB Central Europe



ASMT Operational Experience LPS SR



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Cyprus, May 2015



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- 2001 Contract with Eurocontrol for The Provision of Advisory Services
- 2002 Connection to operational system Eurocat 2000, ASMT version 2.3
- 2004-2005 Transition to version 2.7
- 2006-3/2009 Evaluation period at LPS SR
- 4/2009 ASMT version 2.7 in use
- 2014 New contract for version 4.X
- 1/2015 First kick off meeting on ASMT version 4.X
- 2 2015 On-going validation with Eurocontrol – version 4



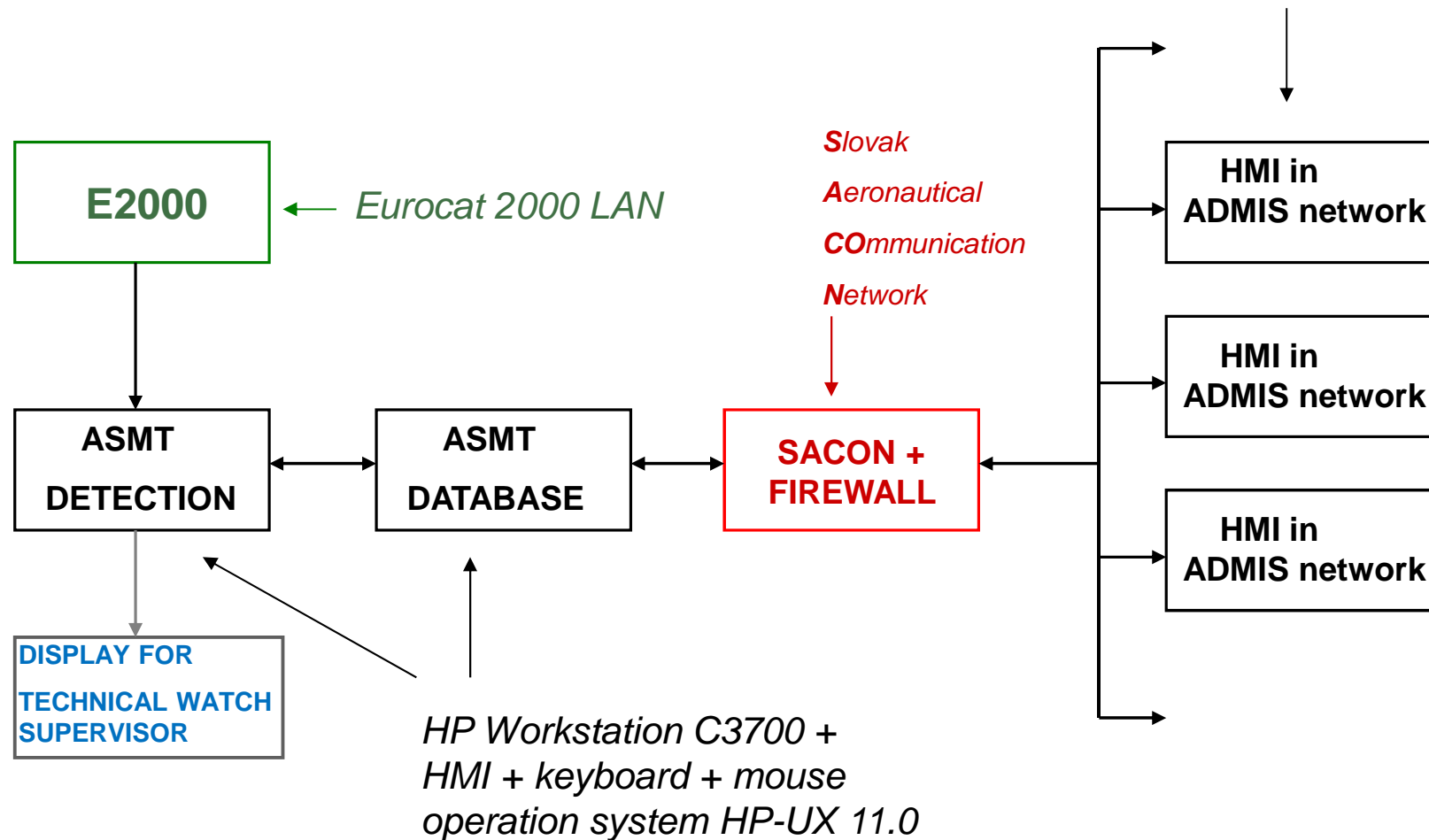
Use of ASMT in LPS

- Statistics and monitoring
 - distribution by type of ASMT occurrence
 - hot spot maps
 - correlation between STCA and SMI
 - correlation between **STCA (180 sec.)** and **Precaution (5 min.)**
- Evaluation activities
 - Evaluate the actions provided by ATCO (ES, SAF)
 - Lessons dissemination of sufficient and „good practices“ cases and problematic situations
 - Situation overview for head of units (how many of STCA per day comparing to volume of traffic)



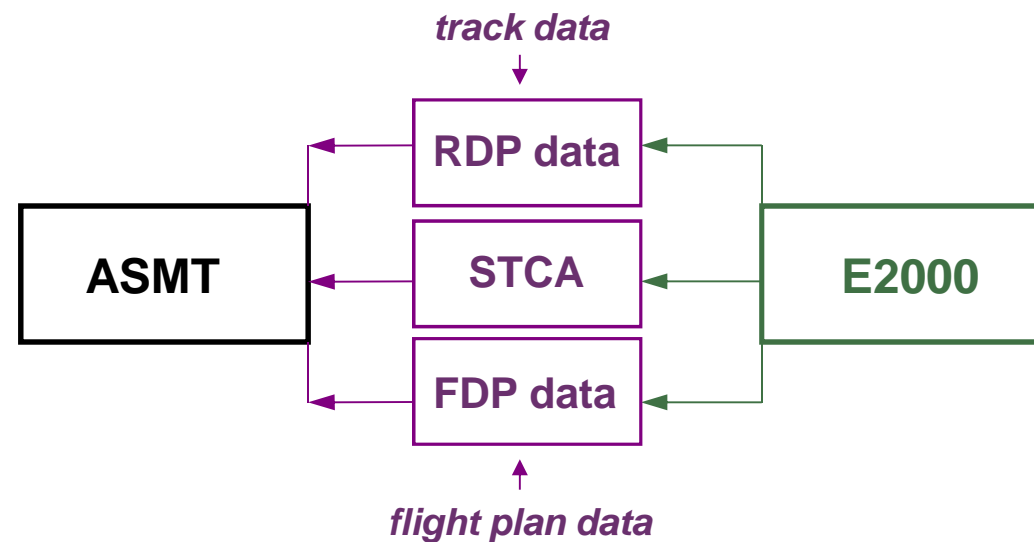
LPS Technical Architecture

*direct access to ASMT DATABASE
via login & password*





LPS ASMT Data Flow



One-way data flow, NOT affecting real operation!

ASMT operates 24/7 acquiring data from system Eurocat 2000.



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LPS ASMT Users

Executive S upervisor ACC Executive S upervisor APP Štefánik	Supervisor 12 HR	initial check of situation SMI occurrence report – ATCO withdrawal of duty
Head of ACC Head of APP Štefánik	Supervisor 7 DAYS	supervision of ASMT use
Head of SAF ety Head of En-Route S ervices Head of Airport / Approach S ervices	Investigator NOT limited	supervision of ASMT use immediate access to basic data
SAF Investigators	Investigator NOT limited	analyses of initial data Categorization (serious incident/incident)
Administrator	System Administrator	administration and maintenance parameter setting user administration
Technical room/Department of Data Systems(ODS)	Technical Watch Supervisor	H24 maintenance

Limited number of users !



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ASMT Statistics

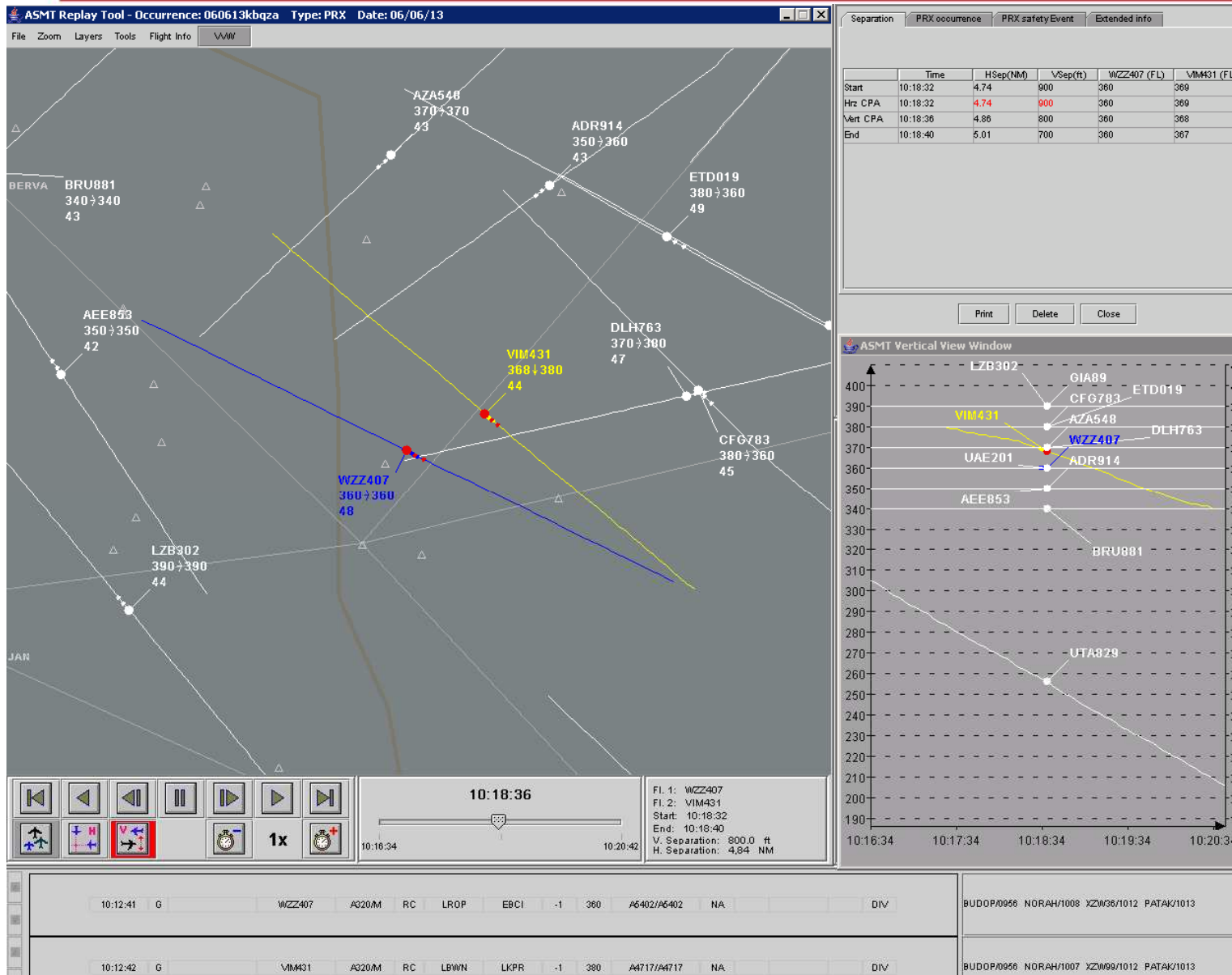
- information is stored in .xls file containing overview of all occurrences including summary numbers
- 2 days from June 2013

ASMT_2013 - Microsoft Excel

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
	Čas	STCA	FL	CS	ACC/AP	FIR	STCA	TYP STCA	Znížený rozstř	Po STCA	P/CAUTION	Level Bust	Garbli	nesprávný postup RI	Unkno	Poznámka
1964	19:20:13	STCA	350/216	DLH762/A0065	ACC	IN	P/CAUTION									MIL
1965	19:19:57	STCA	212/380	A0065/BER3045	ACC	IN	P/CAUTION									MIL
1966	19:06:54	STCA	370/380	JOR206B/A6242	ACC	OUT	STCA	Nežiadúce								
1967	17:52:58	STCA	340/350	A5135/PIA710	ACC	OUT	P/CAUTION									
1968	17:03:18	STCA	400/398	VJS318F/RYS8656	ACC	IN	P/CAUTION									
1969	16:00:17	STCA	611/107	MJF68B/TVS1496	ACC	OUT	P/CAUTION									
1970	15:58:50	STCA	360/370	A5136/TVS1104	ACC	OUT	STCA	Nežiadúce								
1971	15:40:33	STCA	341/310	A0067/POT762	ACC	IN	P/CAUTION									MIL
1972	11:56:58	STCA	317/204	QNX251/AUA51	ACC	IN	P/CAUTION									
1973	10:48:13	STCA	390/400	CSA352/A5136	ACC	OUT	STCA	Nežiadúce								
1974	10:46:25	STCA	400/390	A5136/ROT302	ACC	OUT	STCA	Nežiadúce								
1975	9:39:53	STCA	360/370	A6142/MHV604	ACC	OUT	STCA	Nežiadúce								
1976	9:10:33	STCA	350/340	RCH897/A1452	ACC	OUT	STCA	Nežiadúce								
1977	7:01:25	STCA	380/370	A1470/CF6522	ACC	OUT	STCA	Nežiadúce								
1978	5:10:10	STCA	341/341	AUI499/TWI359	ACC	IN	P/CAUTION									
1979	4:55:13	STCA	350/360	TFL835/KLM462	ACC	IN	STCA	Nežiadúce								
1980	4:15:10	STCA	330/340	TAY079H/A5126	ACC	OUT	STCA	Nežiadúce								
1981	3:52:21	STCA	360/370	A6250/TUI444	ACC	OUT	STCA	Nežiadúce								
1982	3:17:21	STCA	200/200	T0326/AUA744S	ACC	IN	STCA	Falošné						1		
1983	22:45:17	STCA	370/360	VIR400M/TFL928	ACC	OUT	STCA	Nežiadúce								
1984	17:44:09	STCA	319/350	A1444/THY8KT	ACC	OUT	STCA	Opodstatnené								
1985	16:04:30	STCA	360/370	A4276/PRI405	ACC	IN	P/CAUTION									
1986	15:54:13	STCA	197/294	AUA787RA1765	ACC	IN	STCA	Opodstatnené			1					
1987	15:29:57	STCA	390/336	UAE2/THY1900	ACC	IN	P/CAUTION									
1988	15:28:54	STCA	380/370	A5137/THY1962	ACC	OUT	STCA	Nežiadúce								
1989	15:07:41	STCA	379/400	A5174/SXS8EY	ACC	IN	P/CAUTION									
1990	14:36:14	STCA	402/390	AIA3415/WZZ9MA	ACC	IN	STCA	Nežiadúce								
1991	14:03:26	STCA	334/350	EZY880G/THY3SL	ACC	IN	STCA	Opodstatnené								1
1992	13:49:22	STCA	370/350	AUA602/BRU882	ACC	OUT	P/CAUTION									
1993	13:19:09	STCA	360/350	A6263/TMA128	ACC	OUT	STCA	Nežiadúce								
1994	13:03:02	STCA	360/350	WRC7251/AUI486	ACC	OUT	STCA	Nežiadúce								
1995	12:34:41	STCA	370/359	TUI9LKEZY4622	ACC	OUT	STCA	Nežiadúce								
1996	12:15:01	STCA	380/390	AE860/A6550	ACC	OUT	STCA	Nežiadúce								
1997	11:57:09	STCA	220/191	TVS2308/UTA830	ACC	IN	P/CAUTION									
1998	11:56:06	STCA	340/330	A5101/AUA381	ACC	IN	STCA	Nežiadúce			1					
1999	11:22:40	STCA	360/350	AZQ4141/A2617	ACC	OUT	STCA	Nežiadúce								
2000	11:12:13	STCA	130/127	OEDRS/AUA603	ACC	IN	P/CAUTION									
2001	10:18:50	STCA	368/360	VIM431A/WZZ407	ACC	IN	STCA	Opodstatnené								
2002	10:10:13	STCA	370/360	AZA548/A5372	ACC	OUT	STCA	Nežiadúce								
2003	9:59:29	STCA	45/51	CIA41/OMRWI	APP IB	IN	P/CAUTION									
2004	8:55:37	STCA	87/110	SQF2901/SQF2721	ACC	IN	P/CAUTION									
2005	8:36:06	STCA	330/340	ORB9390/BER8903	ACC	OUT	STCA	Nežiadúce								MIL
2006	6:47:54	STCA	370/349	RYS4964/BAW865	ACC	OUT	STCA	Nežiadúce								
2007	6:01:29	STCA	360/370	A1454/PRI461	ACC	OUT	STCA	Nežiadúce								
2008	6:00:17	STCA	361/350	A1351/BEL3WH	ACC	IN	STCA	Nežiadúce								
2009	5:07:17	STCA	361/370	A7274/CLX798	ACC	OUT	STCA	Nežiadúce								
2010	4:16:14	STCA	377/360	CAL063/BAW138	ACC	IN	STCA	Opodstatnené								
2011	20:32:01	STCA	360/370	A4542/WZZ865	ACC	OUT	STCA	Nežiadúce								
2012	20:21:21	STCA	340/330	A7260/DLH1RV	ACC	OUT	STCA	Nežiadúce								



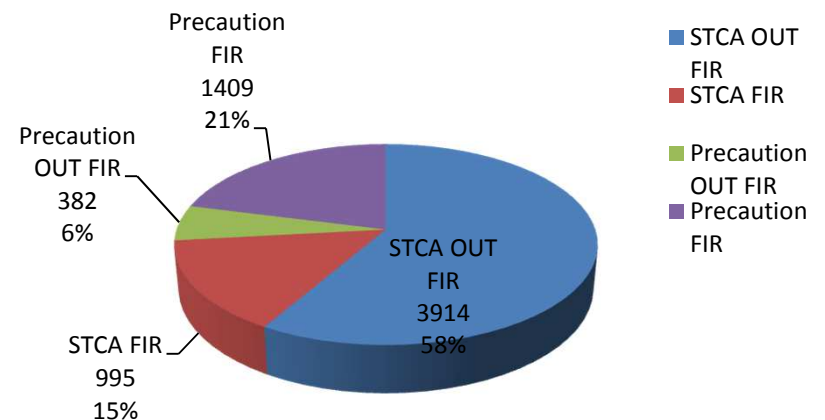
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ASMT Occurences Statistics 2013

type	occurences	%
STCA out FIR	3914	58%
STCA in FIR	995	15%
Precaution out FIR	382	6%
Precaution in FIR	1409	21%



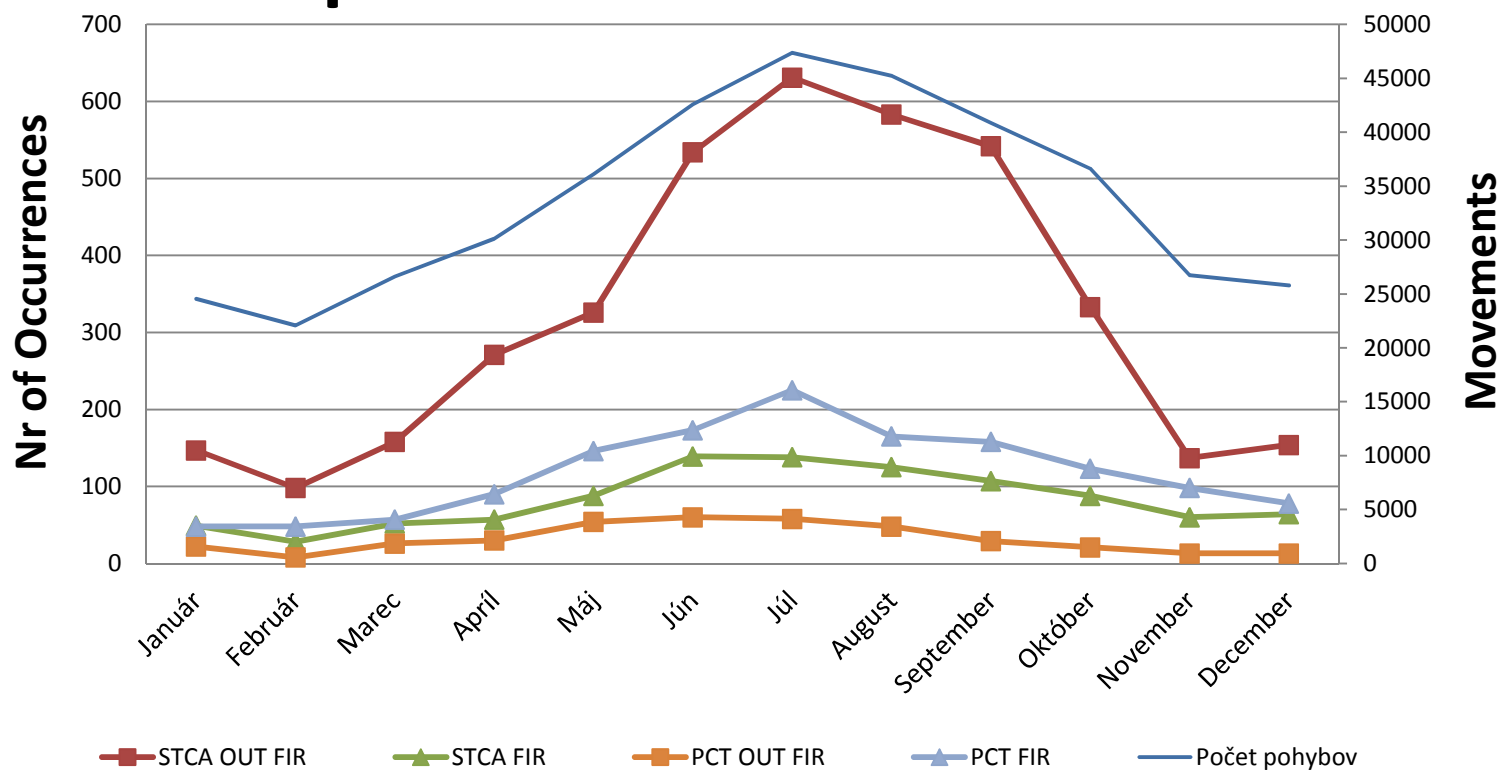
- Average 3,3 STCA in FIR per 1000 flights.
- In 2013 were recorded **6700** ASMT occurrences



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Comparison of ASMT occurrences





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ASMT Occurrence Statistics 2013

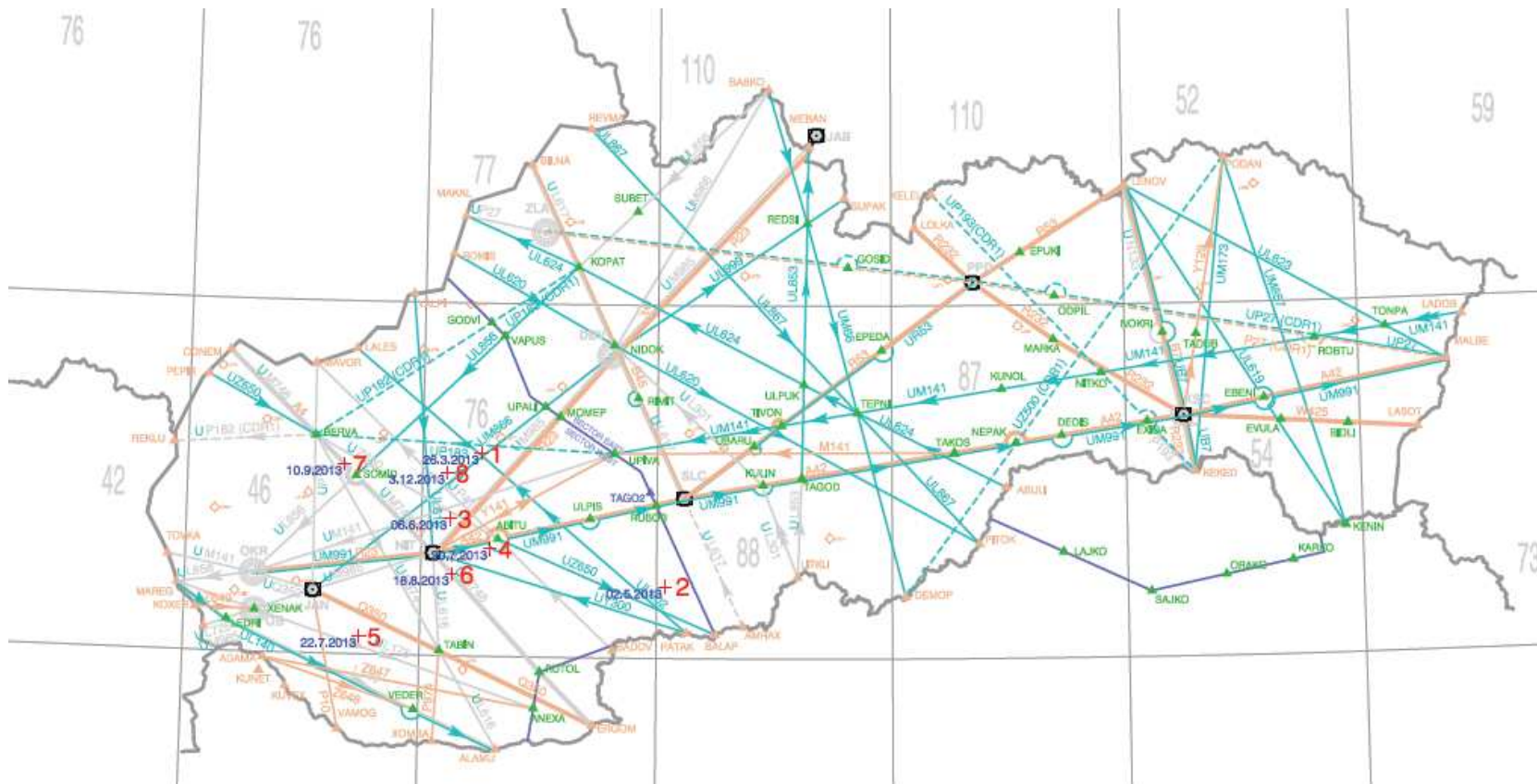
	Nr STCA	STCA OUT FIR	STCA FIR	Relevant STCA	False STCA	Nuisance STCA	SMI	Level Bust	P/CAUTION went to relevant STCA	Garbling	Unknown
January	196	147	49	28	9	159	0	0	8	9	5
February	126	98	28	13	8	109	0	0	5	9	3
March	210	158	52	30	14	166	0	0	8	14	4
April	328	271	57	32	8	288	0	0	12	9	5
May	414	326	88	36	7	371	1	0	15	11	7
Jun	673	534	139	70	10	593	1	0	26	12	6
July	769	631	138	57	16	692	2	0	20	20	8
August	708	583	125	64	9	635	1	0	14	10	3
September	649	542	107	45	6	598	1	0	11	6	7
October	421	333	88	26	7	388	0	0	1	7	3
November	197	137	60	24	7	166	0	0	8	6	4
December	218	154	64	19	17	182	0	0	5	17	5
Total	4909	3914	995	444	118	4347	6	0	133	130	60



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Hot Spot Analysis





ASMT and SMS

- ATCO were properly informed – ASMT was planned to being used for monitoring purpose on daily basis
- SMI – ATCO withdrawal by ES – ES checks contribution of ATCO (direct/indirect)
- Head of units – regular checks of real operation performance on unit, statistics
- Head of tech/units – statistics – input for „tuning“ of STCA parameters, areas of STCA generation



ASMT in FAB CE

- 7 ANSPs in FAB CE:
 - CroatiaControl – implementation phase
 - Hungarocontrol – only TCAS monitoring
 - LPS SR – use in real OPS and for analysis
 - Others – not implemented yet or using another safety monitoring tool



ASMT benefits

- Validation of safety nets tools (STCA, PRC)
- Input for change of airspace design
- Provide input for ES – ATCO withdrawal process
- Lessons dissemination, best practices



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