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A sudden jump of Frederick Chopin Airporta (EPWA) to the 1st Vatsim position on 11th Novemeber did not surprise me having in mind Vatsim stats observed from time to time. A large international event – Independence Day – weights significantly here. But I wondered when the same happened on Saturday, 26th November together with LOT VA internal real-ops limited to domestic traffic. Although LOT VA is the largest and the oldest Polish virtual airline, its real model – LOT Polish Airlines is just only a medium-size European airline. LOT domestic traffic means nothing in global scope so what happened that Saturday? I decided to look for proper metrics of our presence on Vatsim. The bottom line shocked me and it is worth to sharing with you.

Global statistics of real air traffic primarily indicate the number of passengers per airport. This is not comparable with virtual data, for obvious reasons. The second indicator is the number of operations at individual airport. This may be easily compared with Vatsim stats. Following ACCPL3 advice, I used official ULC (Civil Aviation Office) publications as the source of real aviation data from 2010. Excellent SAG stats pages provided preprocessed virtual data. I divided the number of virtual operations by the number of real operations per airport, obviously normalized to equal periods. Let me call this factor as "VATSIM To Real" (V/R). Expressed in percentages shows the extent to which the current virtual traffic represents the 2010 real traffic. Refer to footnotes for details on sources and calculations.

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# Average number of operations on Vatsim monthly (Europe)

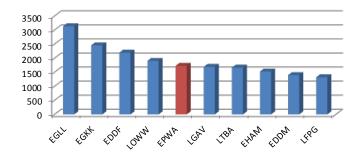


Table 1 presents the results for 25 busiest Vatsim airports in November 2011. November results are compared with the results from last 12 months to avoid mixing short with long term phenomena. No real data is provided for Ruzyne, Fuhlsbuettel and Ferihegy - being beyond the first hundred of the world airports, they are not listed by ULC. But these airports are bigger or comparable with Okecie, definitely few times larger than Balice that enjoys similar virtual traffic. Therefore I did not look further. Innsbruck is obviously another case. Through Wiki I found its real data and added to the table, which made sense. In table 2 observe the results for all other controlled airfields in Poland as well as for uncontrolled Babice (present among Top 200 Vatsim Airports).

The final values of V/R factor shocked me. vFIR Warszawa is

Europe				REAL 2010			VATSIM Nov 2011				VATSIM Dec 2010 -Nov 2011				
Airport	City	Name		operations per day (ULC)	per 30 days		#Europe	Nov operations (SAG)	VATSIM to REAL		#Europe	operations per year (SAG)	per 30 days	VATSIM to REAL	
				(1)	(2)		(3)	(3)	(4)		(5)	(5)	(6)	(4)	
EGLL	London	Heathrow		1385	41550		1	3081	7,4%		1	38111	3132	7,5%	
EGKK	London	Gatwick		705	21150		2	2462	11,6%		2	29843	2453	11,6%	
EDDF	Frankfurt/Main	Frankfurt		1355	40650		3	2424	6,0%		3	26672	2192	5,4%	
EPWA	Warsaw	Okecie		340	10200		4	2069	20,3%		5	20980	1724	16,9%	
LGAV	Athens	Eleftherios Veni	zel	465	13950		5	1943	13,9%		6	20534	1688	12,1%	
LOWW	Vienna	Schwechat		690	20700		6	1939	9,4%		4	23125	1901	9,2%	
EDDM	Munich	Munich		1035	31050		7	1694	5,5%		9	16962	1394	4,5%	
EHAM	Amsterdam	Schiphol		1190	35700		8	1461	4,1%		8	18525	1523	4,3%	
LTBA	Istanbul	Ataturk		740	22200		9	1444	6,5%		7	20197	1660	7,5%	
LFPG	Paris	Charles de Gaul	le	1355	40650		10	1207	3,0%		10	16032	1318	3,2%	
EGCC	Manchester	Manchester		455	13650		11	1194	8,7%		11	15499	1274	9,3%	
LPPT	Lisbon	Lisbon		380	11400		12	1193	10,5%		12	15226	1251	11,0%	
ESSA	Stockholm	Arlanda		625	18750		13	1171	6,2%		13	13233	1088	5,8%	
LSZH	Zurich	Zurich		665	19950		14	1103	5,5%		15	12653	1040	5,2%	
LHBP	Budapest	Ferihegy					15	992			14	12734	1047		
ENGM	Oslo	Gardermoen		630	18900		16	976	5,2%		17	11381	935	4,9%	
LIRF	Rome	Fiumicino		945	28350		17	864	3,0%		21	9502	781	2,8%	
ЕРКК	Krakow	John Paul II Inte	rna	90	2700		18	844	31,3%		27	8731	718	26,6%	
EDDT	Berlin	Tegel		485	14550		19	836	5,7%		25	8749	719	4,9%	
LKPR	Praha	Praha-Ruzyne					20	821			16	11418	938		
LOWI	Innsbruck	Innsbruck		124	3723		21	811	21,8%		19	10518	864	23,2%	
EDDH	Hamburg	Fuhlsbuettel					22	804			18	11079	911		
ЕКСН	Copenhagen	Kastrup		725	21750		23	770	3,5%		20	10088	829	3,8%	
LEMD	Madrid	Barajas		1215	36450		24	705	1,9%		22	9292	764	2,1%	
EPGD	Gdansk	Rebiechowo		84	2526		25	656	26,0%		36	6570	540	21,4%	

Table 1 – Vatsim TOP 25 European Airports



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#### Table 2 - Other Polish airports

POLAND others			REAL		VATSIM Nov 2	011	VATSIM Dec 2010 -Nov 2011				
Airport	City	Name	operations per year (ULC)	per 30 days	# Europe	Nov operations (SAG)	VATSIM to REAL	#Europe	operations per year (SAG)	per 30 days	VATSIM to REAL
			(7)	(6)	(8)	(8)	(4)	(9)	(9)	(6)	(4)
ЕРКТ	Katowice	Pyrzowice	26770	2200	44	425	19,3%	45	4896	402	18,3%
EPPO	Poznań	Ławica	23601	1940	89	164	8,5%	110	1395	115	5,9%
EPSC	Szczecin	Goleniów	3235	266	94	155	58,3%	121	1276	105	39,4%
EPRZ	Rzeszów	Jasionka	10919	897	95	154	17,2%	99	1607	132	14,7%
EPWR	Wrocław	Strachowice	23627	1942	97	147	7,6%	119	1283	105	5,4%
EPLL	Łódź	Lublinek	3267	269	128	90	33,5%	127	1093	90	33,5%
EPBC	Warszawa	Babice			144	75		125	1154	95	
EPBY	Bydgoszcz	Szwederowo	5799	477	200+	34	7,1%	190	589	48	10,2%
EPZG	Zielona Góra	Babimost	673	55	200+	21	38,0%	200+	282	23	41,9%

Table 3 - The largest Vatsim airports in North America

Ameryka Połnocna				REAL 2010			VATSIM Nov 2011				VATSIM Dec 2010 -Nov 2011				
Airport	City	Name		operations per day (ULC)	per 30 days		#NA	Nov operations (SAG)	VATSIM to REAL		#NA	operations per year (SAG)	per 30 days	VATSIM to REAL	
				(1)	(2)		(10)	(10)	(4)		(11)	(11)	(6)	(4)	
KLAX	Los Angeles	Los Angeles		1795	53850		1	2704	5,0%		1	32313	2656	4,9%	
KATL	Atlanta	William B Hartsf	iel	2585	77550		2	2237	2,9%		2	29458	2421	3,1%	
KJFK	New York	John F Kennedy		1145	34350		3	1975	5,7%		3	27529	2263	6,6%	
KSEA	Seattle	Seattle-Tacoma					4	1841			12	14615	1201		
KMIA	Miami	Miami		885	26550		5	1711	6,4%		4	23252	1911	7,2%	
KSFO	San Francisco	San Francisco		1180	35400		6	1612	4,6%		6	20347	1672	4,7%	
KORD	Chicago	O'Hare		2530	75900		7	1522	2,0%		5	20575	1691	2,2%	
KDEN	Denver	Denver		1965	58950		8	1522	2,6%		9	17123	1407	2,4%	
KLAS	Las Vegas	McCarran		1255	37650		9	1496	4,0%		8	17772	1461	3,9%	

unrivaled in the degree of virtual reflection of real traffic. Only Lawica, Strachowice and Szwederowo (but only in November) show one-digit V/R. All others reflect real traffic with two-digit factor and all - with the exception of Babimost - are listed among 200 largest Vatsim airports. Uncontrolled Babice in November had lower traffic than the annual average, however it ranked 144th among Vatsim airports, which is exactly the same position that Okecie had in 2010 in the real world!

Outside vFIR Warszawa just only Innsbruck achieved similar

	XI	.2012		XII.2010 - XI.2011				
Country	#World	h		#World	h	per 30 days		
	(12)	(12)		(13)	(13)	(6)		
UNITED STATES	1	7949		1	115038	9455		
UNITED KINGDOM	2	3174		2	36713	3018		
GERMANY	3	1653		3	22415	1842		
RUSSIAN FEDERATION	4	1325		5	12393	1019		
CANADA	5	1036		4	14719	1210		
BRAZIL	6	888		7	9139	751		
POLAND	7	735		10	6827	561		
SWEDEN	8	673		6	11819	971		
BAHAMAS	9	647		24	3530	290		
VENEZUELA, BOLIVARIAN	REP 10	579		9	7050	579		
DENMARK	11	559		11	6203	510		
AUSTRIA	12	540		8	7235	595		
LATVIA	13	521		18	4397	361		
GREECE	14	511		19	4277	352		
FRANCE	15	423		14	5270	433		

Table 4 – Top hard working Vatsim ATCs

real traffic reflection. Gatwick, Athens and Lisbon had lower, but still two-digit results. Apart from table 1 I found also Istanbul with a two-digit value. One-digit result is a standard in Europe. Similarily in North America (table 3). I did not anyze other continents. Such a phenomenon is called overrepresentation. Polish virtual space is over-represented on Vatsim, with number of operations much higher than it would be expected in the global air traffic. PL-VACC managed to convince virtual pilots to fly to/ from our airports at an unbeatable rate, much higher than the rate indicated by the real potential of the country.

ATC data (table 4) shows that similar overrepresentation also occurs in this area. It would be difficult to compare working hours with real data. But obviously the Polish airspace weighs very little in global traffic (although transit is greater than local operations). PANSA (Polish Air Traffic Control Agnecy) is not a very small operator but certainly does not enjoy the position among the 10 largest such institutions of the world!

Traffic on Polish airfields as well as ATC services have been overrepresented on Vatsim for the last years. The phenomenon is growing. It is worth considering the reasons. Who and/or what caused and continue creation of so much interest in our virtual airspace? A few years ago I heard a simple explanation - "There is no IVAO in Poland". If this text does not bore you, and the editors let me do it in the next section I try to convince you that there is single answer for both question - about the reasons for the lack of Polish IVAO, and about the reasons for the clearly over-representation of the Polish community on Vatsim.

PK\*



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Footnotes:

- http://www.ulc.gov.pl/\_download/publikacje\_/porty\_ swiat10.pdf - daily number of operations. The figures for Innsbruck from http://www.innsbruck-airport.com/scms/ media.php/6914/statistics% 202010.pdf and the annual amount of operations was divided by 365 days. The figures for Gdansk are derived from a source (7) and similarly the annual amount of operations is divided by 365 days.
- 2. Daily figure multiplied by 30 days.
- 3. http://stats.vatsim-germany.org/ > Airport Ranking the sum of operations for the period from 2011-11-01 to 2011-12-01 0:00 and 0:00 for the region of Europe.
- 4. SAG data divided by the real data.
- http://stats.vatsim-germany.org/> Airport Ranking the sum of operations for the period from 2010-12-01 to 2011-12-01 0:00 and 0:00 for the region of Europe.
- 6. Annual figures divided by 365 days, and then multiplied by 30 days.
- http://www.ulc.gov.pl/\_download/publikacje\_/porty\_2010.pdf.
- 8. http://stats.vatsim-germany.org/ > Top 20 Airports By FIR

### POLISH VIRTUAL AREA CONTROL CENTER



Polish VACC (Virtual Area Control Center) is an organization of virtual air traffic controllers. Our goal is to provide a real air traffic control to pilots using computer flight simulators. We do our best to make our virtual ATC world as real as the real world, so we use real world procedures, rules and publications. Polish VACC is proud to be a member of <u>VATSIM-EUR</u> region of <u>VATSIM</u> – world wide virtual air traffic network.

Just enjoy and see you over virtual Poland!

#### pl-vacc.org

- the sum of operations for the period 1111 for FIR EP \*\*.

- http://stats.vatsim-germany.org/> Top 20 Airports By FIR - the sum of operations for the entire year for the FIR EP\*\*.
- http://stats.vatsim-germany.org/ > Airport Ranking the sum of operations for the period from 2011-11-01 to 2011-12-01 0:00 and 0:00 for the region of North America.
- 11. http://stats.vatsim-germany.org/> Airport Ranking the sum of operations for the period from 2010-12-01 to 2011-12-01 0:00 and 0:00 for the region of North America.
- 12. http://stats.vatsim-germany.org/> ATC Summary for All Countries hours of the total for the period from 2011-11-01 to 2011-12-01 0:00 0:00.
- http://stats.vatsim-germany.org/> ATC Summary for All Countries - hours of the total for the period from 2010-12-01 to 2011-12-01 0:00 0:00.

\*) PK is an observer and former pilot of VATSIM network. He has logged over 900hrs TT as a pilot and over 2400hrs as an OBS.



Cassubian Virtual Airlines (ICAO: CSB) were established in 2006 as a regional passenger and cargo carrier operating in the northern Poland. Initially, we were employing three pilots, and number of operations was below 25 per month. Today Cassubian VA, is one of the major carriers in Central Europe, with nearly 20 highly qualified pilots and more than 200 operations per month. The line has a very good reputation among pilots and controllers from different divisions. Cassubian VA actively participates in the development of Vatsim community. We:

- co-organize domestic and international events,
- run Cassubian Pilot School opened to every virtual pilot (we use one pilot – one coach teaching model),
- have found and publish mothly nationwide journal Virtual Pilot (21 issues since 2010),
- developed original system of staff management and operations quality measurement using statistic and economic models.
  We invite you to visit us on <u>www.cassubian.pl</u>.

