EUROPEAN ORGANISATION
FOR THE SAFETY OF AIR NAVIGATION

EUROCONTROL EXPERIMENTAL CENTRE

COVERAGE OF 2015 EUROPEAN AIR TRAFFIC

FOR THE BASE OF AIRCRAFT DATA (BADA) - VERSIONS BADA 3.13.1 & BADA 4.2

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Project BADA

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Abstract :

The air traffic statistics obtained from the NMOC for the ECAC airspace are used to determine the coverage of European air traffic by the Base of Aircraft Data (BADA). BADA consists of a set of aircraft models used at EUROCONTROL and other organisations, such as ANSP's, research organisations, governmental regulatory transport agencies and universities. The uses of BADA vary from aircraft trajectory simulation in Air Traffic Management (ATM) research and development to the modelling and strategic planning of traffic flows in ground based ATM operations. For the statistics provided in this report, a 12 month period of traffic data has been used (Jan-Dec 2015). The results show that the aircraft types within BADA 3.13.1 cover 95.98% of the European air traffic for the whole period, compared to the annual target of 90%. The synonym aircraft occupy a further 3.98% share of the total traffic. BADA 4.2 models cover 78.06% of the traffic data.

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SUMMARY

This document reviews the air traffic statistics for 2015 from the EUROCONTROL Network Manager Operations Center (NMOC) in order to determine the coverage of European air traffic provided by BADA (Base of Aircraft Data), family 3, version 3.13.1 and family 4, version 4.2.

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1. INTRODUCTION

1.1. IDENTIFICATION AND SCOPE

There are two families of the BADA aircraft performance models (APM), based on the same modelling approach and components:

BADA Family 3: The primary objective of BADA 3 is to model aircraft behaviour over the normal operations part of the flight envelope and to meet today's requirements for aircraft performance modelling and simulation. BADA 3.13.1 specifies aircraft performance and operating procedure parameters for 195 different aircraft types (original models). From these models, a further 516 other aircraft types can be supported as being equivalent. They are referred to in this document as synonym types.

BADA Family 4: This model is intended to meet advanced functional and precision requirements of the new ATM systems and R&D. BADA 4 provides accurate modelling of aircraft over the entire flight envelope and enables modelling and simulation of advanced concepts of future systems.

The BADA information is designed initially for use in trajectory simulation and prediction algorithms within the domain of Air Traffic Management (ATM). All files are maintained within a configuration management system at EUROCONTROL Validation Infrastructure Centre of Expertise (VIF) located at the EUROCONTROL Experimental Centre at Brétigny-sur-Orge, France.

This document reviews the air traffic statistics for 2015 from the EUROCONTROL Network Manager Operations Center (NMOC) in order to determine the coverage of European air traffic provided by BADA (Base of Aircraft Data), revisions 3.13.1 [RD1] and 4.2.

1.2. ORGANISATION

This document is presented in three sections. The first section includes a list of referenced documents and a glossary of acronyms. The coverage statistics are summarised in Section 2 with a conclusion in Section 3.

Appendix A provides the 2015 NMOC traffic data showing both BADA 3.13.1 (models and synonyms) and BADA 4.2 coverage.

1.3. REFERENCED DOCUMENTS

RD1 User Manual for the Base of Aircraft Data (BADA) Revision 3.13; EEC Technical/Scientific Report No.15/04/02-43, May 2015

RD2 Synonym Aircraft Report for the Base of Aircraft Data (BADA) Revision 3.13.1; EEC Technical/Scientific Report No. 16/05/04-96, May 2016

RD3 Coverage of 2013 European Air Traffic for the Base of Aircraft Data (BADA) – Versions BADA 3.12 & BADA 4.1; EEC Technical/Scientific Report No. 14/11/13-54, March 2015

RD4 ICAO Document 8643, Edition 44, March 2016

1.4. GLOSSARY OF ACRONYMS

APM	Aircraft Performance Model
BADA	Base of Aircraft Data
EEC	EUROCONTROL Experimental Centre
ICAO	International Civil Aviation Organisation
NMOC	Network Manager Operations Center
RD	Reference Document
VIF	Validation Infrastructure

2. NMOC TRAFFIC STATISTICS

The NMOC air traffic is used as a representative sample to identify the current traffic mix of aircraft types. The choice of BADA aircraft models is targeted to reflect this traffic make-up. When a corresponding BADA model is not available, a synonym equivalent can be proposed.

For each BADA release, a sample traffic provided by the NMOC is used to provide a statistical comparative coverage of the BADA current models. For this coverage report, a 12 month period of traffic data has been used (January-December 2015). The NMOC registered traffic figures list all aircraft types that flew through ECAC airspace. Aircraft are listed in descending order based on the number of flights per aircraft type. For each aircraft type the following information is provided in Appendix A:

- Rank, determined by the significance of the aircraft type in the traffic
- Aircraft type identifier and full name
- Reference to BADA family 3 model/synonym type and BADA family 4 model; for synonyms, the original aircraft model considered as equivalent is indicated, together with a percentage value quantifying the mismatch between the actual aircraft type and the equivalent original model (more details in [RD2])
- Percentage of the total number of flights operated with the aircraft type
- Cumulative percentage of the total number of flights operated with aircraft types from rank 1 to current.

The following table provides a summary of information for the 2015 statistics.

Table 1: Traffic Sample Summary Information

	Sample traffic 12 months (2015)
Total number of flights	9898261
Number of aircraft types in traffic sample	583
Number of aircraft types for 90% coverage	62
Number of aircraft types for 99% coverage	176
Number of aircraft types for 99.90% coverage	297
Number of aircraft types for 99.99% coverage	399

3. COMPARISON WITH BADA

3.1. BADA FAMILY 3

BADA 3.13.1 covers 711 different aircraft types. 195[1] of these aircraft types are directly supported and referred to as original aircraft models. For the other 516 aircraft types, the data is specified to be the same as one of the directly supported 195 aircraft types. These aircraft types have been identified as being 'equivalent' to original aircraft models. They are referred to as synonym aircraft.

In total, BADA 3.13.1 covers **99.96%** of the European air traffic as specified by the EUROCONTROL NMOC for the reference period Jan-Dec 2015. The original aircraft models represent **95.98%**, while synonym aircraft represent **3.98%** of the total traffic sample.

Some highlights:

1. Compared to BADA 3.12 [RD3], BADA 3.13.1 provides 29 additional original models and 244 additional synonym types.
2. Compared to the coverage by BADA 3.12 of the 2013 traffic data [RD3]:
    a. The coverage by original models is up by **1.48%**.
    b. The overall coverage is up by **0.13%**.
3. 179 of the 195 BADA original aircraft models, and 315 of the 516 BADA synonym aircraft, were found among the traffic sample. BADA original models and synonyms that do not appear in the traffic consist mainly of:
    a. aircraft types that recently entered into service,
    b. aircraft types not (yet) operated in ECAC but operated in other geographical areas,
    c. aging or decommissioned aircraft types.

    These aircraft types are being conserved or added, with the aim of covering 100% of the European traffic and fulfilling the EUROCONTROL requirement to reference ICAO designators for the need of flight plan processing systems.
4. 4 aircraft types identified in the traffic sample do not hold an official ICAO identifier. Those are generic types used by NMOC when only the aircraft category is known: TJJJ (turbojet), TPPP (turboprop), SEEE (single engine), MEEE (multiple engines). In addition, the special ICAO designator ZZZZ is used by NMOC when the aircraft type of a flight is unknown. Overall, those special types that cannot be modelled in BADA represent **0.04%** of the traffic.

[1] *Three generic fighter models FGTN, FGTH, and FGTL do not hold an official ICAO designator and do therefore not appear amongst the NMOC traffic data. They will however be referenced to when covering the synonym aircraft.*

5. The F18 aircraft type designator has been split in [RD4] into two different types, F18H and F18S. Aircraft type designators used in BADA 3.13.1 conform to [RD4], which took effect in March 2016, while previous editions of this document where in force at the time of the considered traffic sample (Jan-Dec 2015). For that reason, the F18 aircraft type present in the traffic is not available in BADA 3.13.1, but the replacing F18H and F18S are available as synonyms.
6. The generic helicopter synonym (HELI) is considered as an equivalent for all helicopter types. In this traffic sample, it represents 53 helicopter types and **1.00%** of the traffic. Particular attention to this will be addressed by BADA in the future to account for the diversity of rotocraft performances (e.g. number and type of engines, rotorcraft weight).
7. The 30 remaining aircraft types identified in the traffic sample, representing less than **0.001%** of the traffic, were not present in the previous traffic sample from 2013 [RD3]: they are not available in BADA 3.13.1, but will be added in the next BADA 3 release.

The addition of the most significant aircraft types that are not represented by original models in BADA 3.13.1 would increase by **1.24%** the coverage by original models (Table 2).

Table 2: Significant aircraft types not modelled in BADA 3.13.1 & traffic share

Rank Number	Aircraft Code	Full name	Traffic %
34	CRJX	BOMBARDIER CRJ-1000	**0.497**
59	CRJ7	BOMBARDIER CRJ-700	**0.226**
66	CL30	BOMBARDIER Challenger 300	**0.176**
68	DH8B	DEHAVILLAND CANADA DHC-8 200	**0.175**
72	GLF4	GULFSTREAM IV	**0.162**

3.2. BADA FAMILY 4

BADA 4.2 provides original aircraft models for 64 aircraft types, as identified by ICAO designator. For some aircraft types, however, BADA 4.2 provides models for different aircraft versions (e.g. different engine options, long/extended range versions). As such, BADA 4.2 provides 104 original aircraft models.

All 64 directly supported aircraft types appear in the NMOC traffic sample and cover **78.06%** of the European air traffic.

4. CONCLUSION

BADA 3.13.1 currently covers **99.96%** of the European air traffic as specified by the EUROCONTROL NMOC. The 195 original BADA aircraft models account for **95.98%**, while 516 synonym aircraft account for **3.98%** of the traffic data. The remaining traffic share is composed of special designators that cannot be modelled in BADA (**0.04%**), and 30 aircraft types not yet covered by BADA (less than **0.001%**).

The total coverage of the BADA 4.2 models amounts to **78.06%**.

In view of the wide-spread operational use of BADA, increased aircraft coverage will remain a continual aim for BADA.

ANNEX A: 2015 NMOC Traffic data

Non-ICAO code	Original model	Synonym	Helicopter

RANK	ICAO ID	FULL NAME	BADA 3 MODEL	BADA 4 MODEL	TRAFFIC %	CUMULATIVE TRAFFIC %
1	B738	BOEING 737-800			16.715128	16.715128
2	A320	AIRBUS A-320			16.301399	33.016527
3	A319	AIRBUS A-319			9.615851	42.632378
4	A321	AIRBUS A-321			5.476255	48.108632
5	E190	EMBRAER ERJ-190			3.421055	51.529688
6	DH8D	DE HAVILLAND CANADA DHC-8-400 Dash 8			3.175750	54.705438
7	B737	BOEING 737-700			2.076658	56.782095
8	A332	AIRBUS A-330-200			1.598139	58.380235
9	CRJ9	CANADAIR CL-600 Regional Jet CRJ-900			1.575863	59.956097
10	B77W	BOEING 777-300ER			1.460923	61.417021
11	E170	EMBRAER ERJ-170-100			1.391871	62.808891
12	AT75	ATR ATR-72-500			1.297622	64.106513
13	A333	AIRBUS A-330-300			1.272628	65.379141
14	B763	BOEING 767-300			1.257342	66.636483
15	B733	BOEING 737-300			1.218355	67.854838
16	B752	BOEING 757-200			1.161446	69.016285
17	AT72	ATR ATR-72-202			1.033252	70.049537
18	B772	BOEING 777-200			1.028767	71.078304
19	B744	BOEING 747-400 (international, winglets)			0.984799	72.063103
20	DH8A	DE HAVILLAND CANADA DHC-8-100 Dash 8			0.896511	72.959614
21	E145	EMBRAER EMB-145RS			0.775015	73.734629
22	B734	BOEING 737-400			0.757537	74.492166
23	B736	BOEING 737-600			0.719429	75.211595
24	RJ1H	BRITISH AEROSPACE RJ-100			0.714055	75.925650
25	AT76	ATR ATR-72-600			0.633546	76.559196
26	B788	BOEING 787-8 Dreamliner			0.589023	77.148218
27	B735	BOEING 737-500			0.577758	77.725976
28	BE20	BEECHCRAFT King Air 250			0.557866	78.283842
29	C56X	CESSNA 560XL Citation XLS			0.549693	78.833534
30	F100	FOKKER 100			0.531679	79.365214
31	SB20	SAAB 2000			0.521869	79.887083
32	A388	AIRBUS A-380-800			0.501159	80.388242
33	SF34	SAAB-FAIRCHILD SF-340			0.500351	80.888592
34	CRJX	BOMBARDIER CRJ-1000	5% (CRJ9)		0.497057	81.385649
35	A343	AIRBUS A-340-300			0.483408	81.869058
36	F70	FOKKER 70			0.476649	82.345707
37	AT45	ATR ATR-42-500			0.422236	82.767943
38	A318	AIRBUS A-318			0.421589	83.189532
39	B77L	BOEING 777-200LR			0.419983	83.609515
40	S92	SIKORSKY S-92 Helibus			0.418902	84.028417
41	B739	BOEING 737-900			0.387502	84.415919
42	B712	BOEING 717-200			0.377491	84.793410
43	CRJ2	CANADAIR CL-600 Regional Jet RJ-200			0.355163	85.148573

RANK	ICAO ID	FULL NAME	BADA 3 MODEL	BADA 4 MODEL	TRAFFIC %	CUMULATIVE TRAFFIC %
44	A346	AIRBUS A-340-600			0.320642	85.469215
45	H25B	HAWKER SIDDELEY HS-125-700			0.311014	85.780229
46	RJ85	BRITISH AEROSPACE RJ-85			0.306973	86.087203
47	AT43	ATR ATR-42-320			0.295193	86.382396
48	F2TH	DASSAULT Falcon 2000			0.283262	86.665658
49	A306	AIRBUS A-300F4-600			0.282090	86.947748
50	PC12	PILATUS PC-12			0.280706	87.228454
51	DA42	DIAMOND DA-42 Guardian			0.280120	87.508573
52	C525	CESSNA CitationJet (525)			0.279584	87.788158
53	C510	CESSNA 510 Citation Mustang			0.270846	88.059003
54	CL60	CANADAIR Challenger 605			0.264299	88.323302
55	ATP	BRITISH AEROSPACE ATP			0.257965	88.581267
56	C25A	CESSNA 525A Citation CJ2			0.251458	88.832725
57	GLF5	GULFSTREAM AEROSPACE Gulfstream 5			0.232101	89.064827
58	D328	DORNIER 328			0.226818	89.291644
59	CRJ7	BOMBARDIER CRJ-700	6% (CRJ9)		0.226434	89.518078
60	DH8C	DE HAVILLAND CANADA Dash 8 (300)			0.224898	89.742976
61	GLEX	BOMBARDIER Global Express			0.219089	89.962065
62	B748	BOEING 747-8			0.213674	90.175739
63	F900	DASSAULT Falcon 900			0.204501	90.380240
64	JS41	JETSTREAM Jetstream 41			0.199732	90.579972
65	F50	FOKKER Fokker50Freighter			0.186366	90.766338
66	CL30	BOMBARDIER Challenger 300	1% (E550)		0.175758	90.942096
67	C550	CESSNA 550 Citation 2			0.175142	91.117238
68	DH8B	DEHAVILLAND CANADA DHC-8 200	5% (DH8C)		0.174869	91.292107
69	B190	BEECH 1900			0.174243	91.466349
70	FA7X	DASSAULT Falcon 7X			0.172172	91.638521
71	MD82	MCDONNELL DOUGLAS MD-82			0.163190	91.801711
72	GLF4	GULFSTREAM IV	6% (FA7X)		0.162473	91.964184
73	B753	BOEING 757-300			0.159685	92.123869
74	A310	AIRBUS A-310			0.158695	92.282564
75	PA34	PIPER PA-34 Seneca			0.158361	92.440925
76	E135	EMBRAER ERJ-135			0.156199	92.597124
77	C172	CESSNA 172			0.154896	92.752020
78	EC25	EUROCOPTER EC-725 Caracal			0.154684	92.906704
79	B764	BOEING 767-400			0.146298	93.053002
80	A139	AGUSTA AW-139			0.144429	93.197431
81	SR22	CIRRUS SR-22			0.142843	93.340275
82	B762	BOEING 767-200			0.140843	93.481118
83	C130	LOCKHEED C-130 Karnaf			0.139469	93.620586
84	SW4	SWEARINGEN Merlin 4			0.138752	93.759338
85	P180	PIAGGIO P-180 Avanti			0.137216	93.896554
86	P28A	PIPER PA-28-161 Cadet			0.135004	94.031558
87	C25B	CESSNA 525B Citation CJ3			0.130477	94.162035
88	MD11	MCDONNELL DOUGLAS MD-11			0.128821	94.290856

RANK	ICAO ID	FULL NAME	BADA 3 MODEL	BADA 4 MODEL	TRAFFIC %	CUMULATIVE TRAFFIC %
89	C17	BOEING C-17 Globemaster 3	6% (B764)		0.124284	94.415140
90	BE9L	BEECHCRAFT King Air 90			0.121223	94.536364
91	E55P	EMBRAER EMB-505 Phenom 300			0.121102	94.657466
92	JS32	JETSTREAM Jetstream Super 31			0.118799	94.776264
93	L410	LET L-410 Turbolet			0.118566	94.894831
94	C680	CESSNA 680 Citation Sovereign			0.117273	95.012104
95	B350	BEECHCRAFT King Air 350			0.116637	95.128740
96	DA40	DIAMOND DA-40 Katana			0.116091	95.244831
97	P46T	PIPER PA-46-500TP Malibu Meridian			0.109100	95.353931
98	LJ35	LEARJET 35			0.107352	95.461284
99	J328	DORNIER 328 Jet	11% (E135)		0.106584	95.567868
100	TB20	SOCATA TB-20 Pashosh			0.097704	95.665572
101	GL5T	BOMBARDIER Global 5000			0.093643	95.759215
102	TBM7	TBM TBM-700			0.093016	95.852231
103	LJ45	LEARJET 45			0.092804	95.945035
104	SU95	SUKHOI Superjet 100-95			0.090905	96.035940
105	PA44	PIPER PA-44 Seminole			0.086874	96.122814
106	C30J	LOCKHEED-MARTIN C-130J Hercules	4% (C130)		0.082257	96.205071
107	E120	EMBRAER EMB-120 Brasilia			0.076145	96.281215
108	LJ60	LEARJET 60			0.076054	96.357269
109	BE40	BEECH 400 Beechjet			0.070770	96.428039
110	B463	BRITISH AEROSPACE BAe-146-300			0.069931	96.497971
111	EC55	EUROCOPTER EC-155			0.069093	96.567064
112	PRM1	HAWKER BEECHCRAFT Premier 1			0.068477	96.635540
113	P28R	PIPER PA-28R-201 Arrow			0.067891	96.703431
114	E35L	EMBRAER EMB-135BJ Legacy			0.067002	96.770433
115	B789	BOEING 787-9 Dreamliner			0.062476	96.832908
116	PA31	PIPER PA-31-310 Navajo			0.061839	96.894747
117	E50P	EMBRAER EMB-500 Phenom 100			0.060980	96.955728
118	C160	TRANSALL C-160			0.059798	97.015526
119	C25C	CESSNA 525C Citation CJ4			0.059384	97.074910
120	AN26	ANTONOV An-26	5% (AN30)		0.058738	97.133648
121	TRIS	BRITTEN-NORMAN Trislander	14% (DA42)		0.057970	97.191618
122	PA46	PIPER PA-46-310P Malibu			0.057556	97.249173
123	D228	RUAG Dornier 228			0.057535	97.306709
124	C295	CASA C-295	8% (F27)		0.057374	97.364082
125	C560	CESSNA 560 Citation 5			0.056869	97.420951
126	K35R	BOEING KC-135R Stratotanker	7% (B703)		0.056737	97.477688
127	CN35	CASA CN-235	5% (AT43)		0.056040	97.533728
128	BE58	BEECH 58 Baron			0.055383	97.589112
129	GLF6	GULFSTREAM G650	2% (GLEX)		0.053464	97.642576
130	E121	EMBRAER EMB-121 Xingu	12% (PAY2)		0.051676	97.694252
131	C182	CESSNA 182			0.050221	97.744472
132	B462	BRITISH AEROSPACE BAe-146-200			0.049736	97.794208
133	FA50	DASSAULT Falcon 50			0.049504	97.843712

RANK	ICAO ID	FULL NAME	BADA 3 MODEL	BADA 4 MODEL	TRAFFIC %	CUMULATIVE TRAFFIC %
134	GALX	IAI 1126 Galaxy	4% (HA4T)		0.048564	97.892276
135	C650	CESSNA 650 Citation 7			0.048120	97.940396
136	C208	CESSNA 208 Caravan 1			0.044301	97.984697
137	ZZZZ	Aircraft type not (yet) assigned a designator			0.041755	98.026451
138	SR20	CIRRUS SR-20			0.040512	98.066963
139	A3ST	AIRBUS A-300ST Beluga			0.035926	98.102889
140	DHC6	DEHAVILLAND CANADA DHC-6 Twin Otter	14% (C208)		0.034481	98.137370
141	S22T	CIRRUS SR-22T	10% (PA34)		0.034067	98.171436
142	CRJ1	CANADAIR CL-600 Regional Jet RJ-100			0.033925	98.205362
143	AN12	ANTONOV An-12			0.033905	98.239266
144	IL76	ILYUSHIN Il-76			0.033642	98.272909
145	TBM8	SOCATA TBM-850			0.031652	98.304561
146	M20P	MOONEY M-20L PFM			0.029429	98.333990
147	C750	CESSNA 750 Citation 10			0.029268	98.363258
148	C27J	ALENIA C-27J Spartan	7% (AN30)		0.029157	98.392415
149	AS32	AEROSPATIALE AS-332L Tiger			0.028298	98.420712
150	JS31	BAE Jetstream 31	2% (JS32)		0.027783	98.448495
151	C310	CESSNA 310	16% (P28U)		0.027641	98.476136
152	EC35	EUROCOPTER EC-635			0.027500	98.503636
153	M20T	MOONEY M-20M TLS			0.027419	98.531055
154	F16	GENERAL DYNAMICS F-16 Fighting Falcon	6% (FGTN)		0.025964	98.557019
155	PAY3	PIPER PA-42-720 Cheyenne 3			0.025833	98.582852
156	EC75	EUROCOPTER-HARBIN EC-175			0.024924	98.607776
157	P06T	TECNAM P-2006T			0.024287	98.632063
158	P28T	PIPER PA-28RT-201 Arrow 4			0.023186	98.655249
159	T204	TUPOLEV Tu-204			0.023135	98.678384
160	FA10	DASSAULT Falcon 10			0.022863	98.701247
161	P3	LOCKHEED P-3 Orion	14% (AN12)		0.022267	98.723513
162	EUFI	EUROFIGHTER 2000	5% (FGTN)		0.021943	98.745456
163	A189	AGUSTAWESTLAND AW-189			0.021266	98.766723
164	F406	CESSNA F406 Vigilant	7% (PAY3)		0.021216	98.787939
165	C425	CESSNA 425 Corsair	21% (BE20)		0.020650	98.808589
166	SW3	SWEARINGEN Merlin 3	7% (PAY3)		0.019822	98.828410
167	A345	AIRBUS A-340-500			0.019761	98.848171
168	PAY2	PIPER PA-31T-620 Cheyenne 2			0.019347	98.867518
169	A359	AIRBUS A-350-900 XWB			0.018821	98.886340
170	G150	GULFSTREAM G150	6% (C650)		0.018741	98.905080
171	LJ55	LEARJET 55	5% (LJ60)		0.018549	98.923629
172	BE36	BEECHCRAFT G36 Bonanza			0.018347	98.941976
173	B773	BOEING 777-300			0.017710	98.959686
174	TOBA	SOCATA TB-10 Tobago	7% (C172)		0.017650	98.977336
175	BE33	BEECH 33 Bonanza	6% (P28T)		0.017619	98.994955
176	EA50	ECLIPSE Eclipse 500			0.017296	99.012251
177	LJ31	LEARJET 31	6% (LJ45)		0.016761	99.029011
178	FA20	DASSAULT Falcon 20			0.016296	99.045307

RANK	ICAO ID	FULL NAME	BADA 3 MODEL	BADA 4 MODEL	TRAFFIC %	CUMULATIVE TRAFFIC %
179	M28	PZL-MIELEC M-28	18% (JS32)		0.015882	99.061189
180	PA30	PIPER PA-30B Twin Comanche	6% (M20P)		0.015578	99.076767
181	P68	PARTENAVIA P-68 Observer	11% (C82S)		0.015306	99.092073
182	C5	LOCKHEED C-5 Galaxy	6% (A345)		0.015124	99.107197
183	G280	GULFSTREAM G280	2% (HA4T)		0.014205	99.121401
184	A400	AIRBUS A-400M	14% (IL76)		0.013861	99.135262
185	SH36	SHORT 360			0.013811	99.149073
186	C551	CESSNA 551 Citation 2SP			0.013437	99.162509
187	PUMA	AEROSPATIALE Puma			0.013356	99.175865
188	C340	CESSNA 340	11% (C421)		0.013285	99.189151
189	DC10	MCDONNELL DOUGLAS DC-10			0.013083	99.202234
190	LJ40	LEARJET 40	1% (LJ45)		0.013022	99.215256
191	BE30	BEECH 300 Super King Air			0.012891	99.228147
192	AS55	AEROSPATIALE AS-555 Fennec			0.012831	99.240978
193	C501	CESSNA 501 Citation 1SP	5% (C551)		0.012719	99.253697
194	A124	ANTONOV An-124 Ruslan			0.012659	99.266356
195	PAY1	PIPER PA-31T1-500 Cheyenne 1	6% (PAY2)		0.012234	99.278590
196	C210	CESSNA 210 Centurion	7% (SR22)		0.012164	99.290754
197	ASTR	IAI 1125 Astra	7% (FA10)		0.011992	99.302746
198	BE55	BEECH 55 Baron	4% (PA27)		0.011770	99.314516
199	AN24	ANTONOV An-24			0.011739	99.326255
200	MD83	MCDONNELL DOUGLAS MD-83			0.010951	99.337207
201	AN28	ANTONOV An-28			0.010679	99.347885
202	A148	ANTONOV An-148			0.010578	99.358463
203	TOR	PANAVIA Tornado	15% (FGTN)		0.010305	99.368768
204	DHC7	DEHAVILLAND CANADA DHC-7 Dash 7	10% (AN30)		0.009982	99.378749
205	V22	BELL-BOEING V-22 Osprey	22% (SF34)		0.009982	99.388731
206	AT73	ATR ATR-72-212			0.009860	99.398591
207	LJ75	LEARJET 75	3% (C650)		0.009840	99.408431
208	AS3B	AEROSPATIALE AS-532A2 Cougar Mk2			0.009790	99.418221
209	A342	AIRBUS A-340-200			0.009689	99.427910
210	AS65	AEROSPATIALE AS-565 Panther			0.009416	99.437325
211	HA4T	HAWKER BEECHCRAFT Hawker 4000			0.009345	99.446670
212	EC45	EUROCOPTER-KAWASAKI EC-145			0.009284	99.455955
213	PA32	PIPER PA-32 Cherokee Six	6% (PA44)		0.009234	99.465189
214	A109	AGUSTA A-109			0.009022	99.474211
215	BE76	BEECH 76 Duchess	9% (C82S)		0.008901	99.483111
216	G120	GROB G-120A	7% (BE36)		0.008698	99.491810
217	P210	CESSNA P210 Pressurized	8% (PA34)		0.008638	99.500448
218	YK40	YAKOVLEV Yak-40			0.008567	99.509015
219	C500	CESSNA 500 Citation 1	8% (C551)		0.008517	99.517531
220	COL4	CESSNA 400 Corvalis TT	7% (M20T)		0.008446	99.525977
221	C421	CESSNA 421			0.008426	99.534403
222	C414	CESSNA 414 Chancellor	12% (C421)		0.008345	99.542748
223	BE10	BEECH 100 King Air	8% (BE9L)		0.007981	99.550729

RANK	ICAO ID	FULL NAME	BADA 3 MODEL	BADA 4 MODEL	TRAFFIC %	CUMULATIVE TRAFFIC %
224	A10	FAIRCHILD A-10 Thunderbolt II	64% (FGTN)		0.007698	99.558427
225	AN72	ANTONOV An-72	9% (F100)		0.007618	99.566045
226	AC11	ROCKWELL Commander 115	5% (M20T)		0.007607	99.573652
227	GLF3	GULFSTREAM III	6% (FA7X)		0.007446	99.581098
228	T154	TUPOLEV Tu-154			0.007395	99.588493
229	E3TF	BOEING E-3A (TF33) Sentry	5% (B762)		0.007385	99.595879
230	H60	SIKORSKY HH-60 Jayhawk			0.007254	99.603132
231	B461	BAE 146-100 Statesman	3% (B462)		0.007143	99.610275
232	AC90	ROCKWELL Turbo Commander 690	3% (PAY3)		0.006931	99.617205
233	C10T	CESSNA P210 Turbine	8% (E500)		0.006840	99.624045
234	C82R	CESSNA R182 Skylane RG	3% (TB20)		0.006718	99.630763
235	ATLA	DASSAULT Atlantic	16% (AN12)		0.006334	99.637098
236	P32R	PIPER PA-32R-301 Saratoga SP	6% (C82S)		0.006244	99.643341
237	AN30	ANTONOV An-30			0.006173	99.649514
238	BN2T	BRITTEN-NORMAN BN-2T Turbine Islander	11% (C208)		0.006092	99.655606
239	AJET	DASSAULT-DORNIER Alpha Jet	92% (FGTN)		0.006082	99.661688
240	C72R	CESSNA 172RG Cutlass RG	7% (DA40)		0.005930	99.667618
241	NH90	NHI NH-90			0.005860	99.673478
242	C303	CESSNA Crusader	10% (PA31)		0.005819	99.679297
243	CL2T	CANADAIR CL-415	15% (SH36)		0.005789	99.685086
244	S76	SIKORSKY S-76			0.005607	99.690693
245	TB30	SOCATA TB-30 Epsilon	17% (TB20)		0.005557	99.696250
246	MU2	MITSUBISHI MU-2			0.005516	99.701766
247	BE35	BEECH 35 Bonanza	7% (BE36)		0.005435	99.707201
248	C441	CESSNA 441 Conquest	9% (BE20)		0.005395	99.712596
249	A30B	AIRBUS A-300B2			0.005354	99.717950
250	C206	CESSNA 206 Stationair	7% (DA40)		0.005264	99.723214
251	H25C	HAWKER 1000	5% (H25B)		0.005112	99.728326
252	P28U	PIPER PA-28RT-201T Turbo Arow 4			0.005092	99.733418
253	A140	ANTONOV An-140			0.005061	99.738479
254	Z43	ZLIN Z-43	6% (C172)		0.004930	99.743409
255	C402	CESSNA 402	19% (PA31)		0.004789	99.748198
256	AA5	GRUMMAN AMERICAN AA-5 Cheetah	9% (P28A)		0.004718	99.752916
257	B742	BOEING 747-200			0.004688	99.757604
258	B06	COMMONWEALTH BA-206 Kiowa			0.004455	99.762059
259	PAY4	PIPER Cheyenne 400	7% (P180)		0.004364	99.766424
260	AEST	PIPER Aerostar	11% (B58T)		0.004354	99.770778
261	PC6T	PILATUS PC-6C Turbo-Porter	29% (C208)		0.004294	99.775072
262	F260	SIAI-MARCHETTI SF-260	12% (M20P)		0.004213	99.779284
263	MIR2	DASSAULT Mirage 2000	12% (FGTN)		0.004112	99.783396
264	C55B	CESSNA 550B Citation Bravo			0.004071	99.787468
265	E3CF	BOEING E-3A (CFM56) Sentry	4% (B762)		0.004061	99.791529
266	BE9T	BEECH 90 (F90) King Air	7% (BE9L)		0.004061	99.795590
267	F4	MCDONNELL F-4 Phantom 2	13% (FGTN)		0.004041	99.799631
268	SB39	SAAB 39 Gripen	30% (FGTN)		0.004031	99.803662

RANK	ICAO ID	FULL NAME	BADA 3 MODEL	BADA 4 MODEL	TRAFFIC %	CUMULATIVE TRAFFIC %
269	BN2P	BRITTEN-NORMAN BN-2 Islander	13% (DA42)		0.004021	99.807683
270	C135	BOEING C-135 Stratolifter	6% (B703)		0.003980	99.811664
271	HAR	HAWKER SIDDELEY Harrier	41% (FGTN)		0.003970	99.815634
272	B412	BELL 412			0.003869	99.819504
273	HAWK	HAWKER SIDDELEY Hawk	76% (FGTN)		0.003778	99.823282
274	C212	CASA C-212 Aviocar	17% (JS32)		0.003738	99.827020
275	YK42	YAKOVLEV Yak-42			0.003728	99.830748
276	U2	LOCKHEED U-2	264% (FGTL)		0.003708	99.834456
277	TB21	SOCATA TB-21 Trinidad TC			0.003688	99.838143
278	COL3	CESSNA 350 Corvalis	5% (SR22)		0.003607	99.841750
279	P28B	PIPER PA-28-236 Dakota	6% (C182)		0.003597	99.845347
280	BE60	BEECH 60 Duke	7% (C421)		0.003475	99.848822
281	M339	AERMACCHI MB-339	87% (FGTN)		0.003435	99.852257
282	MD87	MCDONNELL-DOUGLAS MD-87	1% (MD82)		0.003395	99.855651
283	DR40	ROBIN DR-400	14% (DA40)		0.003374	99.859026
284	IL96	ILYUSHIN Il-96			0.003314	99.862339
285	PC7	PILATUS PC-7 Turbo Trainer	11% (E500)		0.003233	99.865572
286	PA27	PIPER PA-23-235 Aztec			0.003192	99.868765
287	SW2	SWEARINGEN Merlin 2	5% (BE9L)		0.003162	99.871927
288	F18				0.003152	99.875079
289	B74S	BOEING 747SP	3% (B742)		0.003091	99.878171
290	GA7	GRUMMAN AMERICAN GA-7 Cougar	7% (SR22)		0.003031	99.881201
291	E550	EMBRAER EMB-550 Legacy 500			0.003001	99.884202
292	PC9	PILATUS PC-9	36% (P180)		0.002920	99.887122
293	EH10	EHI EH-101			0.002788	99.889910
294	E500	EXTRA EA-500			0.002768	99.892678
295	PC21	PILATUS PC-21	19% (PAY2)		0.002768	99.895446
296	F15	BOEING F-15 Eagle	45% (FGTN)		0.002647	99.898093
297	C404	CESSNA 404 Titan	15% (B58T)		0.002516	99.900609
298	B703	BOEING 707-300			0.002425	99.903033
299	MG29	MIKOYAN MiG 29	12% (FGTN)		0.002324	99.905357
300	R90R	RUSCHMEYER R-90-230RG	10% (SR20)		0.002233	99.907590
301	C337	CESSNA 337 Super Skymaster	11% (C82S)		0.002192	99.909782
302	PA24	PIPER PA-24 Comanche	11% (M20T)		0.002172	99.911954
303	PA23	PIPER PA-23-160 Apache	5% (C182)		0.002142	99.914096
304	B722	BOEING 727-200			0.002101	99.916197
305	MF17	SAAB MFI-17 Supporter	10% (P06T)		0.002071	99.918268
306	C77R	CESSNA 177RG Cardinal RG	7% (P28A)		0.002051	99.920319
307	AS50	AEROSPATIALE AS-350 AStar			0.001899	99.922219
308	C177	CESSNA 177 Cardinal	5% (C172)		0.001808	99.924027
309	S65C	AEROSPATIALE SA-365C Dauphin 2			0.001798	99.925825
310	BE95	BEECH 95 Travel Air	10% (P28T)		0.001748	99.927573
311	DC93	DOUGLAS DC-9-30			0.001667	99.929240
312	L39	AERO L-39 Albatros	25% (C510)		0.001637	99.930877
313	MI8	MIL Mi-8			0.001586	99.932463

RANK	ICAO ID	FULL NAME	BADA 3 MODEL	BADA 4 MODEL	TRAFFIC %	CUMULATIVE TRAFFIC %
314	P66T	PIAGGIO P-166DL3	4% (BE99)		0.001566	99.934029
315	BK17	MBB-KAWASAKI BK-117			0.001495	99.935524
316	TAMP	SOCATA TB-9 Tampico	10% (P28A)		0.001495	99.937019
317	E400	EXTRA EA-400	1% (PA34)		0.001475	99.938494
318	EVOT	LANCAIR Evolution Turbine	15% (TBM7)		0.001455	99.939949
319	T6	NORTH AMERICAN T-6 Texan	11% (PA46)		0.001394	99.941343
320	L200	LET L-200 Morava	8% (BE36)		0.001334	99.942677
321	AT44	ATR ATR42-400	0% (AT45)		0.001323	99.944000
322	P32T	PIPER Turbo Lance 2	8% (C82S)		0.001303	99.945304
323	RF6	FOURNIER RF-6	11% (C162)		0.001283	99.946587
324	F5	NORTHROP F-5	60% (FGTN)		0.001253	99.947839
325	B36T	BEECH Bonanza 36 Turbine	18% (E500)		0.001243	99.949082
326	S61	SIKORSKY S-61A			0.001202	99.950284
327	TUCA	EMBRAER EMB-312 Tucano	8% (TBM7)		0.001182	99.951466
328	BLCF	BOEING 747-400LCF Dreamlifter	2% (B77W)		0.001132	99.952598
329	C101	CASA Aviojet	11% (C525)		0.001111	99.953709
330	CE43	CERVA CE-43 Guepard	6% (SR22)		0.001111	99.954820
331	C2	GRUMMAN C-2 Greyhound	37% (C160)		0.001071	99.955891
332	M346	AERMACCHI M-346 Master	51% (FGTN)		0.001061	99.956952
333	H47	BOEING HH-47			0.001061	99.958013
334	S2T	GRUMMAN S-2 Turbo Tracker	14% (JS41)		0.001030	99.959043
335	IL62	ILYUSHIN Il-62	3% (A30B)		0.000940	99.959983
336	LYNX	WESTLAND Lynx			0.000929	99.960912
337	KODI	QUEST Kodiak	9% (C208)		0.000929	99.961842
338	L159	AERO L-159 Albatros 2	72% (FGTN)		0.000919	99.962761
339	XL2	LIBERTY XL-2	13% (C162)		0.000909	99.963670
340	W3	PZL-SWIDNIK W-3 Erka			0.000828	99.964499
341	SB05	SAAB 105	28% (C25A)		0.000828	99.965327
342	MD88	MCDONNELL-DOUGLAS MD-88	0% (MD82)		0.000818	99.966146
343	B732	BOEING 737-200			0.000808	99.966954
344	A743	ANTONOV An-74-300	15% (A148)		0.000768	99.967722
345	AN32	ANTONOV An-32			0.000748	99.968469
346	RFAL	DASSAULT Rafale	9% (FGTN)		0.000717	99.969187
347	T134	TUPOLEV Tu-134			0.000677	99.969863
348	AC95	ROCKWELL Jetprop Commander 980	7% (BE20)		0.000667	99.970530
349	C150	CESSNA 150	16% (MAGC)		0.000657	99.971187
350	B212	BELL 212			0.000657	99.971844
351	AT46	ATR ATR42-600	0% (AT45)		0.000636	99.972480
352	RJ70	AVRO RJ70	1% (RJ85)		0.000626	99.973106
353	LNC4	LANCAIR IV-P	27% (TBM7)		0.000616	99.973723
354	E2	GRUMMAN E-2 Hawkeye	9% (SB20)		0.000606	99.974329
355	P68T	PARTENAVIA AP-68TP-300 Spartacus	7% (E500)		0.000566	99.974895
356	M7	MAULE M-7-235/MT-7/M	9% (TB20)		0.000556	99.975450
357	B105	BOLKOW BO-105			0.000525	99.975976
358	BE24	BEECH 24 Sierra	5% (P06T)		0.000525	99.976501

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359	DC3T	BASLER Turbo 67	17% (F27)		0.000515	99.977016
360	TEX2	HAWKER BEECHCRAFT T-6 Texan 2	9% (TBM7)		0.000505	99.977521
361	S330	SCHWEIZER 330			0.000485	99.978006
362	S05R	SIAI-MARCHETTI S-205-20R	4% (C182)		0.000485	99.978491
363	SC7	SHORT SC-7 Skyvan	11% (D228)		0.000475	99.978966
364	P28S	PIPER PA-28R-201T Turbo Arrow	1% (P28U)		0.000475	99.979441
365	EXPL	BOEING Explorer			0.000455	99.979895
366	IL18	ILYUSHIN Il-18	12% (C130)		0.000445	99.980340
367	P8	BOEING P-8 Poseidon	1% (B739)		0.000434	99.980774
368	AT8T	AIR TRACTOR AT-802	18% (AN38)		0.000424	99.981199
369	F27	FAIRCHILD HILLER F-27			0.000394	99.981593
370	DC3	DOUGLAS DC-3	24% (F27)		0.000384	99.981977
371	VTOR	PARTENAVIA AP-68TP-600 Viator	10% (E500)		0.000374	99.982350
372	B52	BOEING B-52 Stratofortress	22% (FGTL)		0.000364	99.982714
373	R722	BOEING 727-200RE Super 27	2% (B722)		0.000364	99.983078
374	LJ25	LEARJET 25	14% (LJ45)		0.000343	99.983421
375	B429	BELL 429 GlobalRanger			0.000323	99.983745
376	TBM9	SOCATA TBM-900	0% (TBM8)		0.000323	99.984068
377	B743	BOEING 747-300			0.000323	99.984391
378	G12T	GROB G-120TP	16% (E500)		0.000323	99.984714
379	GLF2	GULFSTREAM II	6% (FA7X)		0.000323	99.985038
380	MU30	MITSUBISHI MU-300 Diamond	2% (BE40)		0.000313	99.985351
381	LNP4	LANCAIR IV PropJet	24% (TBM7)		0.000313	99.985664
382	CL35	BOMBARDIER Challenger 350	3% (E550)		0.000313	99.985977
383	A225	ANTONOV An-225 Mriya	20% (B744)		0.000303	99.986280
384	HR10	ROBIN HR-100 Tiara	9% (M20P)		0.000283	99.986563
385	E314	EMBRAER EMB-312H/314	36% (BE20)		0.000273	99.986836
386	C152	CESSNA 152	9% (C162)		0.000273	99.987109
387	R44	ROBINSON R-44 Raven			0.000253	99.987361
388	AMX	AMX A-1	65% (FGTN)		0.000253	99.987614
389	SS2T	THRUSH S-2R-H80 Turbo Thrush	28% (P750)		0.000253	99.987867
390	DA2	DAVIS DA-2	20% (MAGC)		0.000253	99.988119
391	S601	AEROSPATIALE SN-601 Corvette	9% (C525)		0.000232	99.988351
392	TJJJ				0.000232	99.988584
393	B721	BOEING 727-100	18% (B752)		0.000222	99.988806
394	R721	BOEING 727-100	5% (B722)		0.000222	99.989028
395	F1	MITSUBISHI F-1	38% (FGTN)		0.000212	99.989241
396	MG21	MIKOYAN MiG 21	44% (FGTN)		0.000212	99.989453
397	ETAR	DASSAULT Super Etendard	66% (FGTN)		0.000212	99.989665
398	LNC2	LANCAIR LANCAIR 200/235	42% (TB20)		0.000202	99.989867
399	R300	ROBIN R-300	8% (C172)		0.000202	99.990069
400	F22	LOCKHEED-MARTIN F-22 Raptor	22% (FGTN)		0.000192	99.990261
401	RV8	VAN'S RV-8	31% (TB21)		0.000192	99.990453
402	SU24	SUKHOI Su-24	36% (FGTN)		0.000182	99.990635
403	TWEN	TECNAM P-2010 Twenty Ten	11% (DA40)		0.000172	99.990806

RANK	ICAO ID	FULL NAME	BADA 3 MODEL	BADA 4 MODEL	TRAFFIC %	CUMULATIVE TRAFFIC %
404	SB35	SAAB 35 Draken	19% (FGTN)		0.000172	99.990978
405	E6	BOEING E-6 Mercury	6% (DC87)		0.000162	99.991140
406	IR23	ICA IAR-823	7% (SR20)		0.000162	99.991301
407	T38	NORTHROP T-38 Talon	114% (FGTN)		0.000162	99.991463
408	C185	CESSNA 185 Skywagon	4% (C182)		0.000162	99.991625
409	TS11	PZL-MIELEC TS-11 Iskra	13% (E50P)		0.000152	99.991776
410	PZ3T	PZL-OKECIE PZL-130TC-1	41% (PAY3)		0.000152	99.991928
411	TBM	GENERAL MOTORS TBM Avenger	8% (JS32)		0.000152	99.992079
412	B1	ROCKWELL B-1 Lancer	2% (FGTL)		0.000152	99.992231
413	P750	PACIFIC AEROSPACE P-750 XStol			0.000141	99.992372
414	C207	CESSNA 207 Stationair 7	8% (PA44)		0.000141	99.992514
415	M22	MOONEY M-22 Mustang	10% (PA34)		0.000141	99.992655
416	GLAS	GLASAIR Glasair	27% (M20P)		0.000141	99.992797
417	SU17	SUKHOI Su-17/20/22	28% (FGTN)		0.000141	99.992938
418	ST10	SOCATA ST-10 Diplomate	7% (P28R)		0.000141	99.993080
419	DC6	DOUGLAS DC-6	18% (ATP)		0.000141	99.993221
420	MI26	MIL Mi-26			0.000141	99.993362
421	S208	SIAI-MARCHETTI S-208	4% (C182)		0.000121	99.993484
422	A4	DOUGLAS A-4 Skyhawk	66% (FGTN)		0.000121	99.993605
423	TR20	TECH AERO TR-200	25% (P28R)		0.000121	99.993726
424	PINO	GENERAL AVIA F.22 Pinguino	20% (TB20)		0.000121	99.993847
425	STAR	BEECH 2000 Starship	17% (P180)		0.000121	99.993969
426	EGRT	GROB G-520 Strato 1	69% (LJ45)		0.000111	99.994080
427	SIRA	TECNAM P-2002 Sierra	6% (C162)		0.000111	99.994191
428	UH1	FUJI UH-1			0.000111	99.994302
429	MI14	MIL Mi-14			0.000111	99.994413
430	K35A	BOEING KC-135A Stratotanker	5% (B703)		0.000111	99.994524
431	LEG2	LANCAIR Legacy	29% (BE36)		0.000101	99.994625
432	S360	AEROSPATIALE SA-360 Dauphin			0.000101	99.994726
433	T206	CESSNA T206 Turbo Stationair	27% (PA31)		0.000101	99.994827
434	PA38	PIPER PA-38 Tomahawk	11% (C162)		0.000091	99.994918
435	A1	DOUGLAS A-1 Skyraider	26% (E120)		0.000091	99.995009
436	TIGR	AUSTRALIAN AEROSPACE Tiger			0.000091	99.995100
437	S05F	SIAI-MARCHETTI S-205-20F	4% (DA40)		0.000091	99.995191
438	C06T	CESSNA 206 Turbine	28% (P750)		0.000091	99.995282
439	A270	AERO Ae-270 Ibis			0.000091	99.995373
440	TPPP				0.000091	99.995464
441	AC68	AERO Commander 680 Super	11% (C421)		0.000081	99.995545
442	BT36	BEECH Bonanza B36TC	5% (PA34)		0.000081	99.995625
443	SU27	SUKHOI Su-27	16% (FGTN)		0.000081	99.995706
444	AC50	ROCKWELL Commander 500	17% (SR22)		0.000081	99.995787
445	DV20	DIAMOND DV-20 Katana	16% (C172)		0.000081	99.995868
446	IL38	ILYUSHIN Il-38			0.000071	99.995939
447	SB37	SAAB 37 Viggen	6% (FGTN)		0.000071	99.996009
448	SB29	SAAB 29	69% (FGTN)		0.000071	99.996080

RANK	ICAO ID	FULL NAME	BADA 3 MODEL	BADA 4 MODEL	TRAFFIC %	CUMULATIVE TRAFFIC %
449	K35E	BOEING KC-135E Stratotanker	8% (B703)		0.000071	99.996151
450	LGEZ	RUTAN Long-EZ	101% (PA31)		0.000071	99.996222
451	AN22	ANTONOV An-22 Antheus	13% (A332)		0.000071	99.996292
452	RV9	VAN'S RV-9A	25% (TB21)		0.000071	99.996363
453	BE50	BEECH 50 Twin Bonanza	15% (C421)		0.000071	99.996434
454	BE18	BEECH 18 Twin Beech	15% (PA46)		0.000071	99.996504
455	H53	SIKORSKY HH-53			0.000071	99.996575
456	DHC5	DE HAVILLAND CANADA DHC-5 Buffalo			0.000071	99.996646
457	C335	CESSNA 335	6% (PA31)		0.000061	99.996706
458	CONI	LOCKHEED (Super) Constellation	12% (C160)		0.000061	99.996767
459	T2	ROCKWELL T-2 Buckeye	8% (PRM1)		0.000061	99.996828
460	WA42	WASSMER WA-421/235	8% (P28T)		0.000061	99.996888
461	AT5T	AIR TRACTOR AT-502/503/504	20% (P750)		0.000061	99.996949
462	ERCO	ERCO Ercoupe 415-C	7% (C162)		0.000061	99.997010
463	DC7	DOUGLAS DC-7 Seven Seas	11% (C130)		0.000061	99.997070
464	T210	CESSNA T210 Turbo Centurion	15% (C421)		0.000061	99.997131
465	GC1	GLOBE GC-1 Swift	27% (C182)		0.000061	99.997191
466	BL17	BELLANCA 17 Viking	4% (TB21)		0.000061	99.997252
467	E737	BOEING Wedgetail			0.000061	99.997313
468	D28T	DORNIER 128-6 Turbo Skyservant	22% (P46T)		0.000051	99.997363
469	SC01	GYROFLUG SC-01 Speed Canard	28% (P28R)		0.000051	99.997414
470	R200	ROBIN R-2100 Super Club			0.000051	99.997464
471	TBEE	UNITED CONSULTANT Twin Bee	16% (C182)		0.000051	99.997515
472	L70	VALMET L-70 Vinka	6% (DA40)		0.000051	99.997565
473	B2	NORTHROP B-2 Spirit	22% (FGTL)		0.000051	99.997616
474	LJ24	LEARJET 24	15% (C25A)		0.000051	99.997666
475	HUNT	HAWKER Hunter	53% (FGTN)		0.000051	99.997717
476	EVSS	EVEKTOR SportStar			0.000051	99.997767
477	AN70	ANTONOV An-70			0.000051	99.997818
478	MI2	MIL Mi-2			0.000051	99.997868
479	B58T	BEECH Baron (58TC)			0.000040	99.997909
480	GA8	GIPPSAERO GA-8 Airvan TC	9% (P28U)		0.000040	99.997949
481	D250	CENTRE EST DR-200/250	12% (C162)		0.000040	99.997990
482	CL2P	CANADAIR CL-215			0.000040	99.998030
483	AT6T	AIR TRACTOR AT-602			0.000040	99.998070
484	P337	CESSNA P337 Pressur. Skymaster	12% (C82S)		0.000040	99.998111
485	WW24	IAI 1124 Westwind	7% (BE40)		0.000040	99.998151
486	LA25	LAKE LA-250/270	9% (C172)		0.000040	99.998192
487	RF4	FOURNIER RF-4	74% (C182)		0.000040	99.998232
488	SH33	SHORT 330	8% (SH36)		0.000040	99.998272
489	YK18	YAKOVLEV Yak-18			0.000040	99.998313
490	Z42	ZLIN Z-42/142/242	9% (C172)		0.000040	99.998353
491	L59	AERO L-59	21% (PRM1)		0.000040	99.998394
492	SU25	SUKHOI Su-25 Scorpion	72% (FGTN)		0.000040	99.998434
493	SEEE				0.000040	99.998474

RANK	ICAO ID	FULL NAME	BADA 3 MODEL	BADA 4 MODEL	TRAFFIC %	CUMULATIVE TRAFFIC %
494	BE19	BEECH 19 Sport	8% (P28A)		0.000040	99.998515
495	A6	GRUMMAN A-6E Intruder	33% (FGTN)		0.000030	99.998545
496	HR20	ROBIN HR-200	13% (MAGC)		0.000030	99.998576
497	LJ70	LEARJET 70	3% (C650)		0.000030	99.998606
498	DC91	MCDONNELL-DOUGLAS DC-9-10	9% (B712)		0.000030	99.998636
499	C170	CESSNA 170	23% (EV97)		0.000030	99.998666
500	C180	CESSNA 180			0.000030	99.998697
501	RANG	NAVION Rangemaster	5% (TB21)		0.000030	99.998727
502	P2	LOCKHEED P-2 Neptune			0.000030	99.998757
503	D253	CENTRE EST DR-253 Regent	14% (DA40)		0.000030	99.998788
504	G200	GILES G-200	32% (E300)		0.000030	99.998818
505	B25	NORTH AMERICAN B-25 Mitchell	9% (AT43)		0.000030	99.998848
506	MEEE				0.000030	99.998879
507	B430	BELL 430			0.000030	99.998909
508	P149	PIAGGIO P-149	5% (C82S)		0.000030	99.998939
509	ATL	ROBIN ATL	20% (EV97)		0.000030	99.998970
510	H2	KAMAN Seaprite			0.000030	99.999000
511	P60	POTTIER P-60 Minacro	38% (MAGC)		0.000030	99.999030
512	DC87	DOUGLAS DC-8-70			0.000030	99.999060
513	MI24	MIL Mi-24			0.000020	99.999081
514	VAMP	DE HAVILLAND DH-100 Vampire	14% (C25A)		0.000020	99.999101
515	C82	FAIRCHILD C-82 Packet			0.000020	99.999121
516	S3	LOCKHEED S-3 Viking			0.000020	99.999141
517	LANC	AVRO 683 Lancaster	17% (F27)		0.000020	99.999161
518	G115	GROB G-115	9% (P28U)		0.000020	99.999182
519	HUSK	CHRISTEN Husky			0.000020	99.999202
520	DR22	CENTRE EST DR-221 Dauphin	22% (P28A)		0.000020	99.999222
521	LA4	LAKE LA-4			0.000020	99.999242
522	LNCE	LANCAIR Lancair ES-P	3% (M20T)		0.000020	99.999262
523	PA36	PIPER PA-36 Pawnee Brave	31% (P28A)		0.000020	99.999283
524	PA22	PIPER PA-22 Tri-Pacer	17% (DA40)		0.000020	99.999303
525	DH60	DE HAVILLAND AUSTRALIA DH-60 Moth			0.000020	99.999323
526	WT9	AEROSPOOL WT-9 Dynamic	6% (C162)		0.000020	99.999343
527	L101	LOCKHEED L-1011 TriStar			0.000020	99.999364
528	BE23	BEECH 23 Musketeer	8% (C172)		0.000020	99.999384
529	F28	FOKKER F-28 Fellowship			0.000020	99.999404
530	JU52	JUNKERS Ju-52/3m	38% (SH36)		0.000020	99.999424
531	BE99	BEECH 99 Airliner			0.000020	99.999444
532	TRIM	FORD Tri-Motor	34% (DA42)		0.000020	99.999465
533	M6	MAULE M-6 Super Rocket	11% (C82S)		0.000020	99.999485
534	DO28	DORNIER Do-28A/B	13% (PA27)		0.000020	99.999505
535	MD81	MCDONNELL-DOUGLAS MD-81	1% (MD82)		0.000010	99.999515
536	BE12	BERIEV Be-12 Tchaika	23% (C160)		0.000010	99.999525
537	B407	BELL 407			0.000010	99.999535
538	C195	CESSNA 195	3% (C182)		0.000010	99.999545

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539	ULAC	(ANY MANUFACTURER) Ultralight aircraft			0.000010	99.999555
540	SK70	STARKRAFT SK-700			0.000010	99.999566
541	A119	AGUSTA A-119 Koala			0.000010	99.999576
542	DH83	DE HAVILLAND DH-83 Fox Moth			0.000010	99.999586
543	R135	BOEING RC-135	9% (B703)		0.000010	99.999596
544	C120	CESSNA 120			0.000010	99.999606
545	JS1	HANDLEY PAGE Jetstream 1	9% (BE20)		0.000010	99.999616
546	B222	BELL 222			0.000010	99.999626
547	FDCT	FLIGHT DESIGN CT	4% (C162)		0.000010	99.999636
548	GLST	GLASAIR GlaStar	15% (P28U)		0.000010	99.999646
549	R22	ROBINSON R-22			0.000010	99.999657
550	RV10	VAN'S RV-10			0.000010	99.999667
551	IR99	AVIOANE IAR-99 Soim	16% (C25A)		0.000010	99.999677
552	BX2	BRANDLI BX-2 Cherry			0.000010	99.999687
553	B701	BOEING 707-100	3% (B752)		0.000010	99.999697
554	T37	CESSNA T-37-B	10% (EA50)		0.000010	99.999707
555	H269	HUGHES 269			0.000010	99.999717
556	M21	PZL-MIELEC M-21 Dromader Mini			0.000010	99.999727
557	EC20	EUROCOPTER EC-120 Colibri			0.000010	99.999737
558	PA11	PIPER PA-11 Cub Special	20% (EV97)		0.000010	99.999747
559	KA27	KAMOV Ka-27			0.000010	99.999758
560	DHC4	DEHAVILLAND CANADA DHC-4 Caribou	9% (DH8A)		0.000010	99.999768
561	P38	LOCKHEED P-38 Lightning	13% (C56X)		0.000010	99.999778
562	B741	BOEING 747-100	4% (B743)		0.000010	99.999788
563	A149	AGUSTA AW-149			0.000010	99.999798
564	DHC2	DEHAVILLAND CANADA DHC-2 Beaver	20% (C182)		0.000010	99.999808
565	D140	JODEL D-140 Abeille			0.000010	99.999818
566	C141	LOCKHEED C-141 Starlifter	5% (A310)		0.000010	99.999828
567	TFUN	VALENTIN Taifun	10% (DIMO)		0.000010	99.999838
568	M18	PZL-MIELEC M-18 Dromader	41% (TB21)		0.000010	99.999848
569	DHC1	DE HAVILLAND CANADA DHC-1 Chipmunk			0.000010	99.999859
570	B209	BOLKOW BO-209 Monsun			0.000010	99.999869
571	A205	OSKBES-MAI MAI-205			0.000010	99.999879
572	PAT4	PIPER PA-31T-3 T-1040	10% (BE99)		0.000010	99.999889
573	DLTA	VERHEES Delta			0.000010	99.999899
574	BE77	BEECH 77 Skipper	9% (C162)		0.000010	99.999909
575	GAZL	AEROSPATIALE Gazelle			0.000010	99.999919
576	C526	CESSNA 526 CitationJet	15% (E50P)		0.000010	99.999929
577	F104	LOCKHEED F-104 Starfighter	36% (FGTN)		0.000010	99.999939
578	DOVE	DE HAVILLAND DH-104 Dove	17% (PA31)		0.000010	99.999949
579	E45X	EMBRAER EMB-145XR	2% (E145)		0.000010	99.999960
580	PA18	PIPER PA-18 Super Cub	26% (P28T)		0.000010	99.999970
581	C15	MCDONNELL DOUGLAS YC-15			0.000010	99.999980
582	F8L	SEQUOIA F-8L Falco	19% (P28T)		0.000010	99.999990
583	C125	NORTHROP C-125 Raider	33% (AN38)		0.000010	100.000000

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