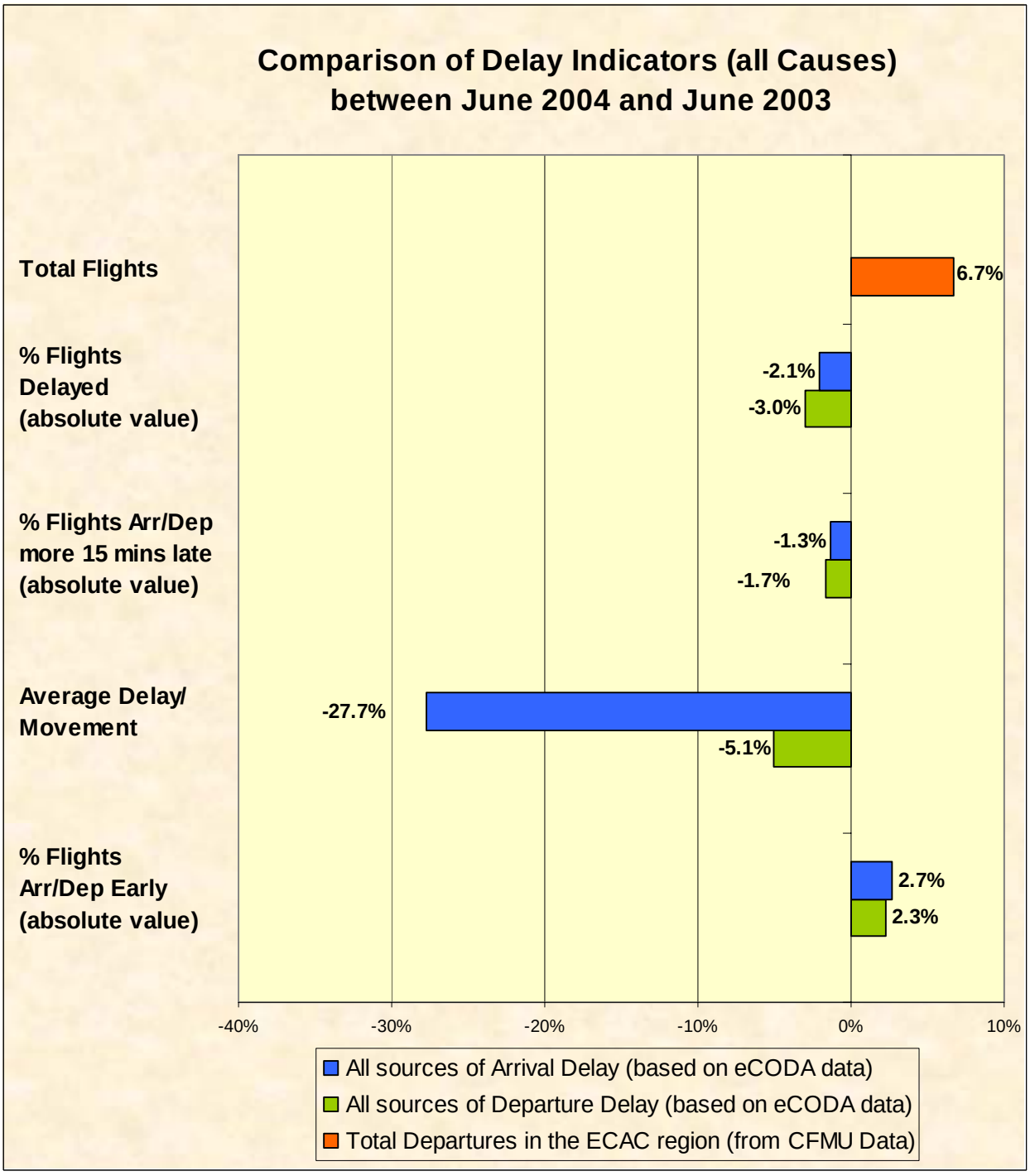
Delays to Air Transport in Europe
June 2004



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FOREWORD

This report represents an overview of the delay situation in the European Civil Aviation Conference Area. It is based on delay data supplied by the CFMU and airline data from eCODA, and has been prepared by the Central Office for Delay Analysis (CODA), a service of the European Air Traffic Management Programme (EATMP).

The report consists of an overview of the reporting period, a summary of the main delay effects, and a series of charts and graphics, which illustrate the main characteristics of the reporting period. A glossary of terms and abbreviations used throughout the report is given in Annex 2.

In this report the definition of the CFMU ATFM departure delay is based on the difference between the scheduled off-block time and the calculated off-block time, taking into account slot time and estimated taxi time. Airline data from eCODA is based on real recorded delays.

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1. SUMMARY OVERVIEW

Traffic in the ECAC region increased by 6.7% when compared with June 2003. The Average Delay per Movement, due to all causes of delay, for departure traffic, had a small decrease (-5.1%), to 9.4 minutes. The Average Delay per Movement for arrival traffic, on the other hand, had an important decrease of 28%, falling to 9.1 minutes. ATFM delay decreased by 20% with the Average Delay per Movement decreasing by 25% to 1.8 minutes.

For the first half of the year as a whole, traffic increased by 4%, with delayed flights due to all causes increasing by 10% for departures and by 9% for arrivals. The number of flights delayed by more than fifteen minutes was up 13% for departures and 10% for arrivals. Turning to the delays, the Average Delay per Movement was 9.4 minutes for departures and 9.7 minutes for arrivals. Total ATFM delay fell by 10%, with the Average Delay per Movement falling by 13% to 1.5 minutes.

TRAFFIC SITUATION FOR JUNE 2004[1]

When compared with June 2003, departures throughout the ECAC region increased significantly and with almost eight hundred thousand flights, it was the highest ever June figure since CFMU started operations in 1996 (up thirty one percent on June 1996). Domestic traffic increased by four and a half percent while International traffic was up eight percent. Over ninety percent of the busier countries had an increase in International traffic, with the largest real increases in Germany, the United Kingdom, France and Spain, and the largest real decreases in the Canary Islands, Greece and the Former Yugoslav Republic of Macedonia; these were the only three countries to have a modest real decrease. Turning to the domestic traffic, the United Kingdom, Germany, Sweden and Spain had the largest rises whereas Italy and France had the largest falls.

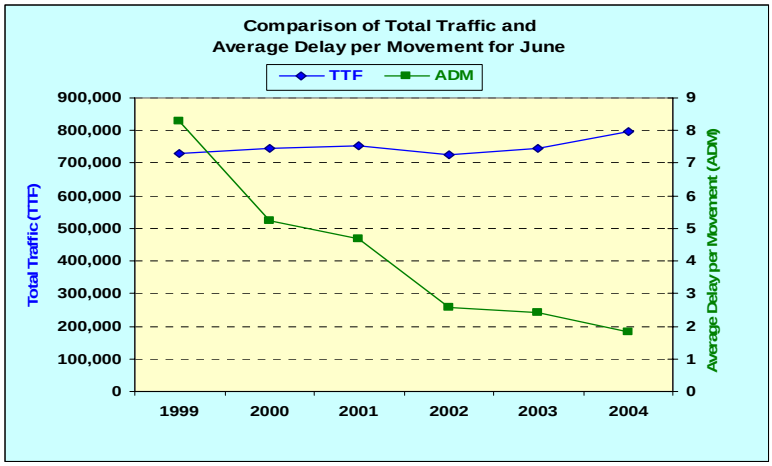
Eighty four percent of the busier airports (those with more than two thousand five hundred flights per month) saw an increase in traffic, with thirty percent of them having a rise of more than ten percent. The largest real increases were at Munich, Prague, Vienna and Stockholm. Nice, Birmingham, Naples and Las Palmas, on the other hand, had the largest real decreases.

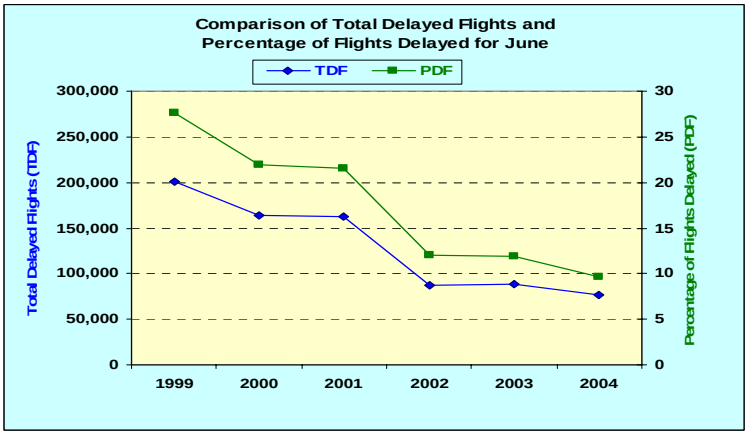
As usual, Barcelona-Madrid was the busiest city pair, with almost nineteen hundred and fifty flights in each direction and ten flights during the busiest hour. Milan/Linate-Rome was the only other pair with more than one thousand flights in each direction. Two thirds of the busier pairs (those with at least two hundred and fifty flights per month) had an increase in the number of flights, with one third of them having an increase of ten percent or more. Jersey-Guernsey had the largest real increase (up 523 flights, most of them operated by a new airline on this route) and was followed by Gotenborg-Stockholm whereas Cologne/Bonn-Berlin and Barcelona-Palma de Mallorca had the largest real decreases.

[1] The analysis was based on the CFMU database which contains details on all IFR flights in the ECAC region.

ATFM DELAY SITUATION FOR JUNE 2004

Delays due solely to ATFM measures decreased by twenty percent when compared with June 2003. The Average Delay per Movement also had a significant decrease and fell by twenty five percent to less than two minutes. The main cause of the delay was ATC Capacity which accounted for more than half of all the ATFM delay and was followed by Airport Capacity (fifteen percent), Weather (twelve percent) and ATC Equipment (seven percent).





Delayed flights decreased by fourteen percent and the percentage of flights delayed fell by two percentage points to ten percent. Flights delayed by more than fifteen minutes decreased by twenty percent.

Not all ATFM delay was due to ATC; thirty seven percent of the total ATFM delay in the ECAC region was caused by regulations put in place to protect airports. Compared with the same month last year, the share of the delay due to these restrictions increased by twelve percentage points and the actual amount of the delay rose by seventeen percent. The airports of Zurich, Frankfurt, Vienna, London and Amsterdam were the most affected by airport-related regulations.

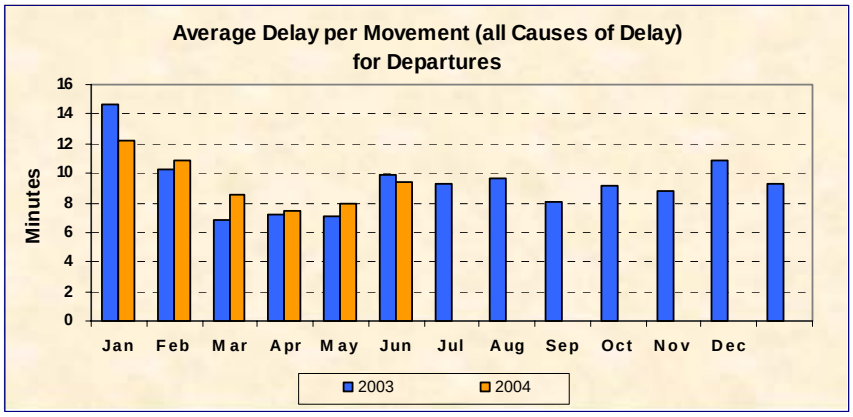
Based on the locations of the most penalising regulations, traffic (including overflights) using the airspace of the United Kingdom, France, Switzerland, Germany and Maastricht accumulated the largest share of the ATFM delay. Between them, they accounted for more than half of the total ATFM delay in the ECAC region. Compared with the same month last year, Austria, Ireland[2] and Poland had the largest increases whereas France and Italy had the largest decreases.

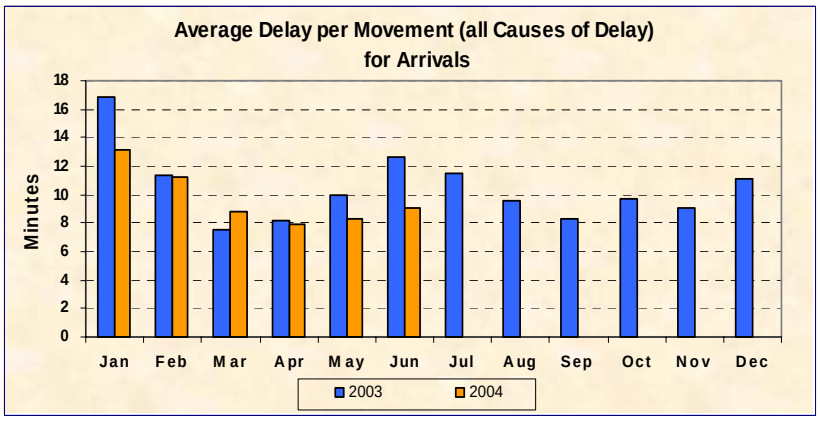
When the traffic handled is taken into account, Poland, Ireland, Switzerland, Greece, Czech Republic, Austria and Maastricht were the most penalising countries with an Average Delay per Movement of one minute or more. Compared with June 2003, Ireland had the largest increase (up almost two minutes) and was followed by Poland and Austria. At the other end of the scale, with a fall of almost two minutes, France had the largest decrease and was followed by Italy and Switzerland.

[2] Temporary regulations were put in place to facilitate Dublin's move to a new centre.

eCODA DATA FOR JUNE 2004[3]

The Average Delay per Movement, for departures and for all causes of delay, was just above nine minutes; a decrease of five percent on June 2003. Forty percent of flights were delayed on departure, with sixteen percent delayed by more than fifteen minutes. On the other hand, twelve percent of flights departed before their scheduled time.





The Average Delay per Movement for arrivals, again for all causes of delay, was nine minutes; a decrease of twenty eight percent on June last year. Thirty seven percent of flights were delayed on arrival, with sixteen percent delayed by more than fifteen minutes. However, thirty three percent of flights arrived before their scheduled time.

Forty one percent of the busier departure airports (those with at least nine hundred and fifty flights per month) had an Average Delay per Movement of more than ten minutes. East Midlands and New York were the most affected airports, with average delays of twenty two minutes, and were followed by Dublin (eighteen minutes) and London/Luton (sixteen minutes). Compared with June 2003, thirty six percent of the airports had an increase in average delay of more than one minute, with the largest rise at London/Luton (up twelve minutes) followed by East Midlands (up nine minutes), New York (up eight minutes) and Warsaw (up seven minutes). These increases were offset by decreases at Paris/Orly and Marseille (both down ten minutes), followed by Nantes and Venice (both down by eight minutes). All the airports had a proportion of their traffic departing before their scheduled time; with Alicante having the largest, with thirty percent and Copenhagen the lowest, with two percent.

Turning to the busier destination airports shows that the traffic arriving at East Midlands had the largest Average Delay per Movement, with twenty five minutes and was followed by Dublin (sixteen minutes), Manchester (fifteen minutes), London/Heathrow and London/Luton (both with an average delay of almost fourteen minutes). Compared with June 2003, thirty percent of the busier destination airports had an increase in average delay of more than one minute, with the largest rise at East Midlands (up eight minutes) followed by Manchester, Frankfurt, Copenhagen and Vienna.

[3] The analysis was based on airline data from eCODA which, for June 2004, contains details on 34.3% of IFR GAT flights in Europe.

At the other end of the scale, there was a large decrease at Prague (down eighteen minutes), followed by Venice and London/Stansted (both down sixteen minutes), with Marseille, Alicante, Nantes and Bristol, all four down by more than ten minutes. Again, all the airports had a proportion of their flights arriving before their scheduled time, with Palma de Mallorca having almost fifty percent of its flights landing early, followed by Malaga and Bristol. At the other end of the scale, Amsterdam had eleven percent of its flights landing early.

The most affected city pair, due to all causes of delay, was Vienna-London/Heathrow with an average delay of twenty two minutes and was followed by London/Heathrow-Nice (twenty one minutes), London/Heathrow-Vienna and New York-London/Heathrow (both with an average delay of twenty minutes). It is worth noting that London/Heathrow appeared seven times as either the departure or destination airport in the first ten most affected city pairs (there was a system failure in the London ACC in June). Compared with June last year, more than half of the pairs had an increase in Average Delay per Movement, with forty eight percent of them having a rise of one minute or more. The largest increase was between Stockholm-Frankfurt (up twelve minutes), followed by New York-London/Heathrow (up eleven minutes). On the plus side, thirty six percent of the pairs had a decrease of one minute or more, with eighteen percent having a decrease of five minutes or more. With a fall of almost fifteen minutes, Paris/Charles de Gaulle-Prague had the largest decrease and was followed by Paris/Charles de Gaulle-Marseille (down fourteen minutes) and Paris/Charles de Gaulle-New York (down thirteen minutes).

An analysis of the delay causes and categories, grouped by IATA codes, shows that twenty one percent of them had an increase in delay share, with the largest rises in the Others and Reactionary categories. To offset these increases, there were decreases in the ATFM Staff/Equipment En-Route, ATFM En-Route Demand/Capacity, Restriction at Departure Airport, Weather and Passenger and Baggage categories (only those categories with more than one percent of the delay were taken into account).

With ten percent share of the delay, Technical & Aircraft Equipment was the most penalising direct delay category and was followed by ATFM En-Route Demand Capacity and Others.

SUMMARY OF SIGNIFICANT EVENTS

- Weather conditions including wind, thunderstorms, low visibility closing some airports for short periods.

- Technical problems including radar failure at Berlin, Vienna, Ljubljana, Malta and Bremen ACCs; frequency problems at Stavanger, Makedonia and Bordeaux ACCs, power failure at Stockholm and Cahors; Flight Data Processing System problems at Tampere and Luxembourg ACCs; system failure at London ACC; computer failure at Barcelona and Copenhagen ACCs; technical problems at Zagreb ACC; TACT unserviceable at CFMU; ILS calibration at Barcelona ACC; coordination problems between Norwegian and Swedish centres.

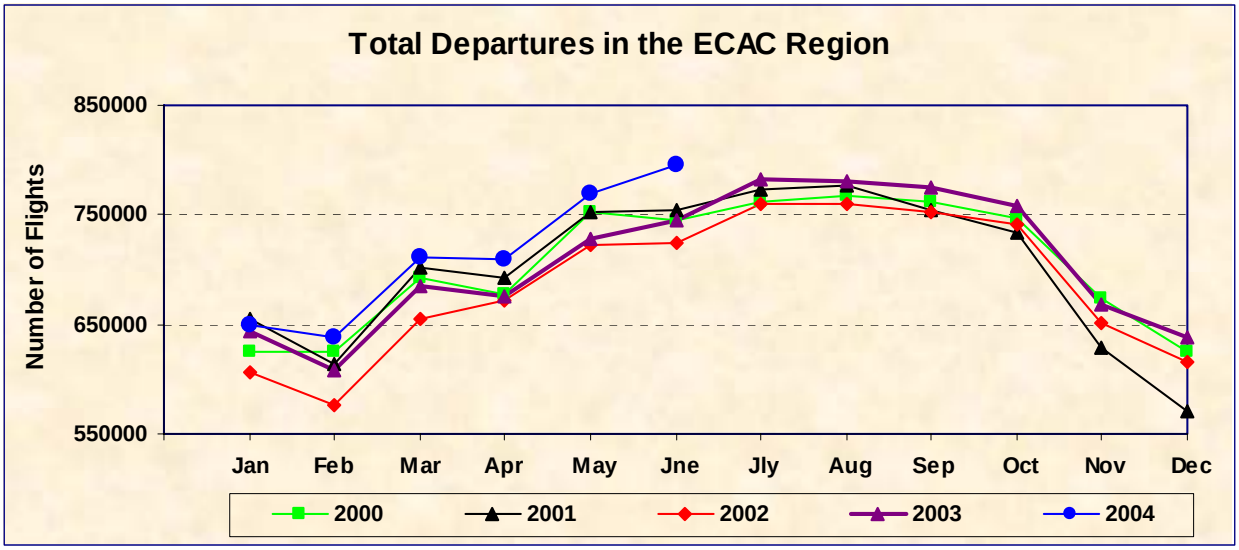
- Staff issues including industrial action at Chania, staff shortage at Paris/Charles de Gaulle approach; ATC industrial action in Greece.

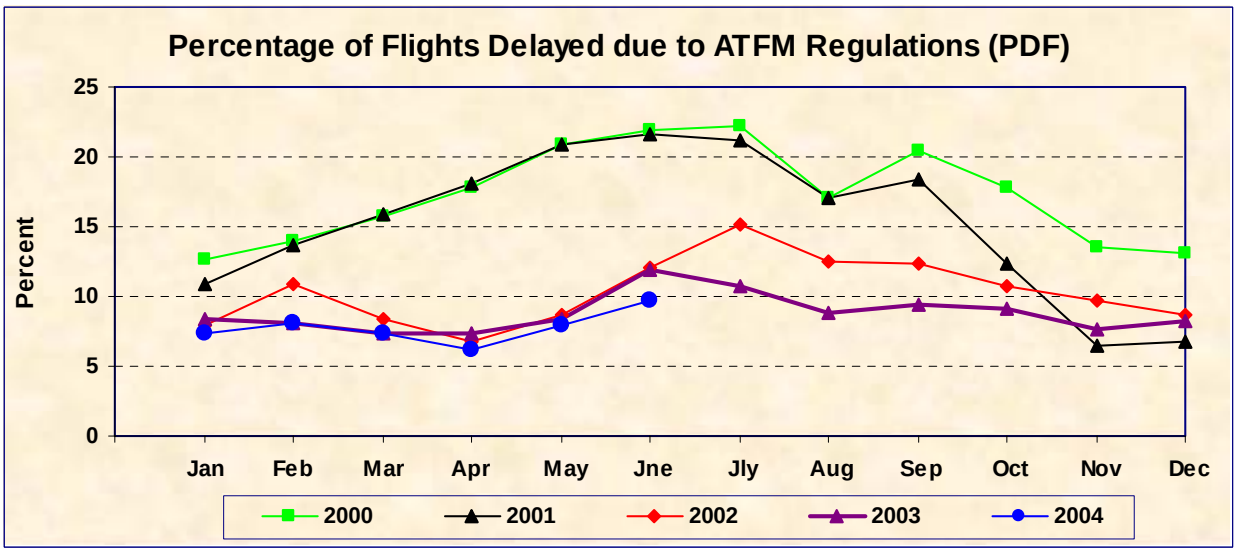
- Aircraft accident/incident at Paris/Charles de Gaulle, London/Stansted, Milan/Linate, Florence and Billund; zero rate applied due to emergency landing at Dublin; lighting problem at Makedonia; WIP (single runway operations) at Rome/Fiumicino; blocked runway at Geneva; damaged aircraft at Lampedusa.

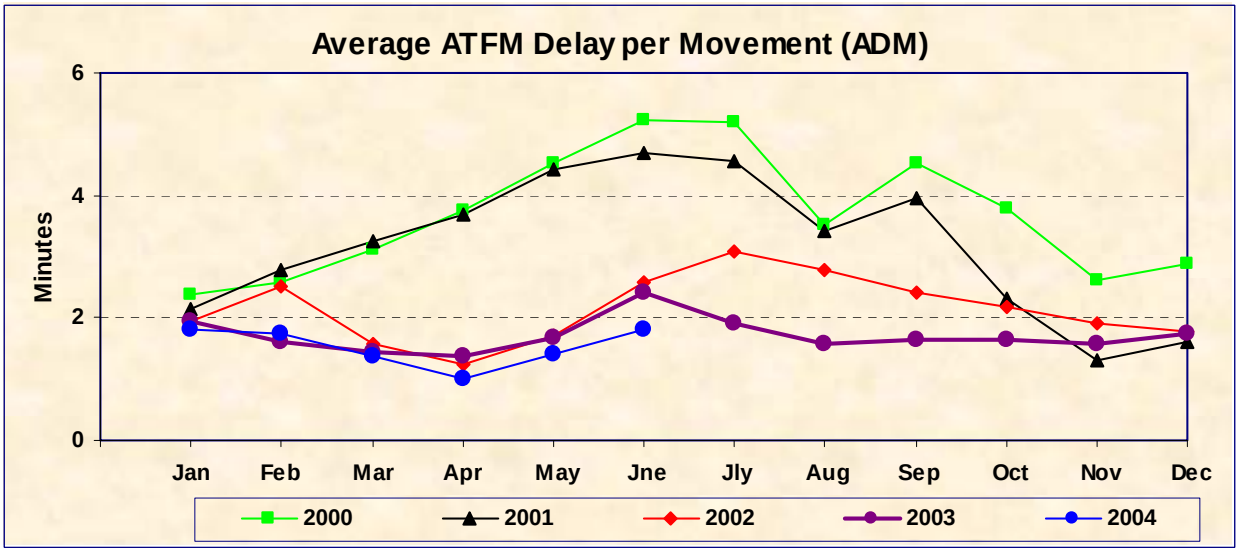
- Military activity at Geneva, Paris, London, Maastricht, Brest and Dublin ACCs.

- Other items included VIP visit at Rome/Ciampino; D-Day 60th Anniversary remembrance during the first weekend of the month; phase 5 operations for Dublin moving to its new Ops room; EURO 2004 in Portugal; International Market for Aircraft Sales in Friedrichshafen; NATO summit in Istanbul.

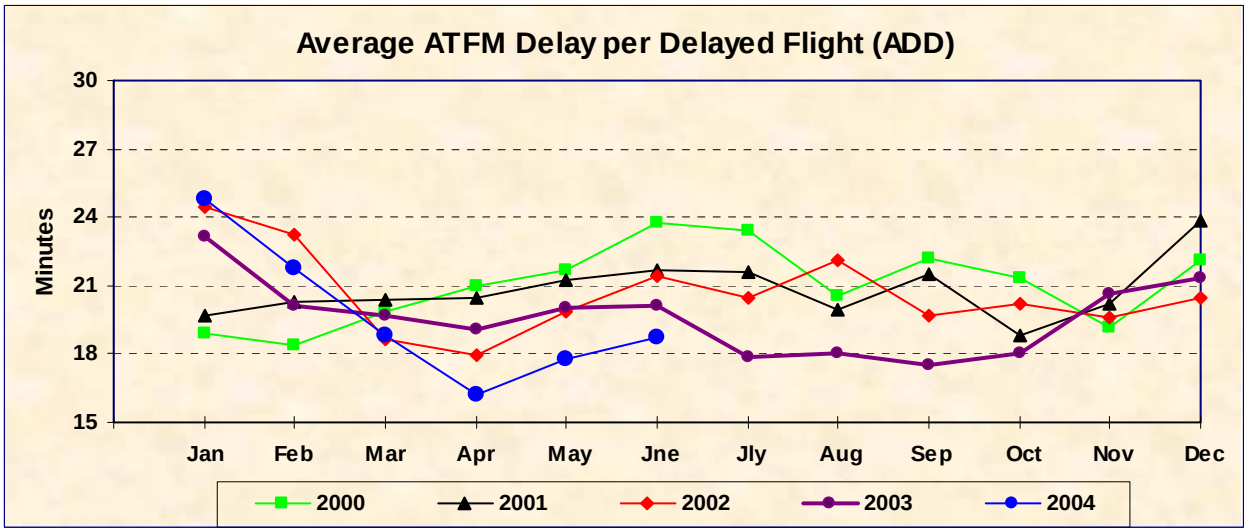
2. Year on Year Trends in Main Indicators

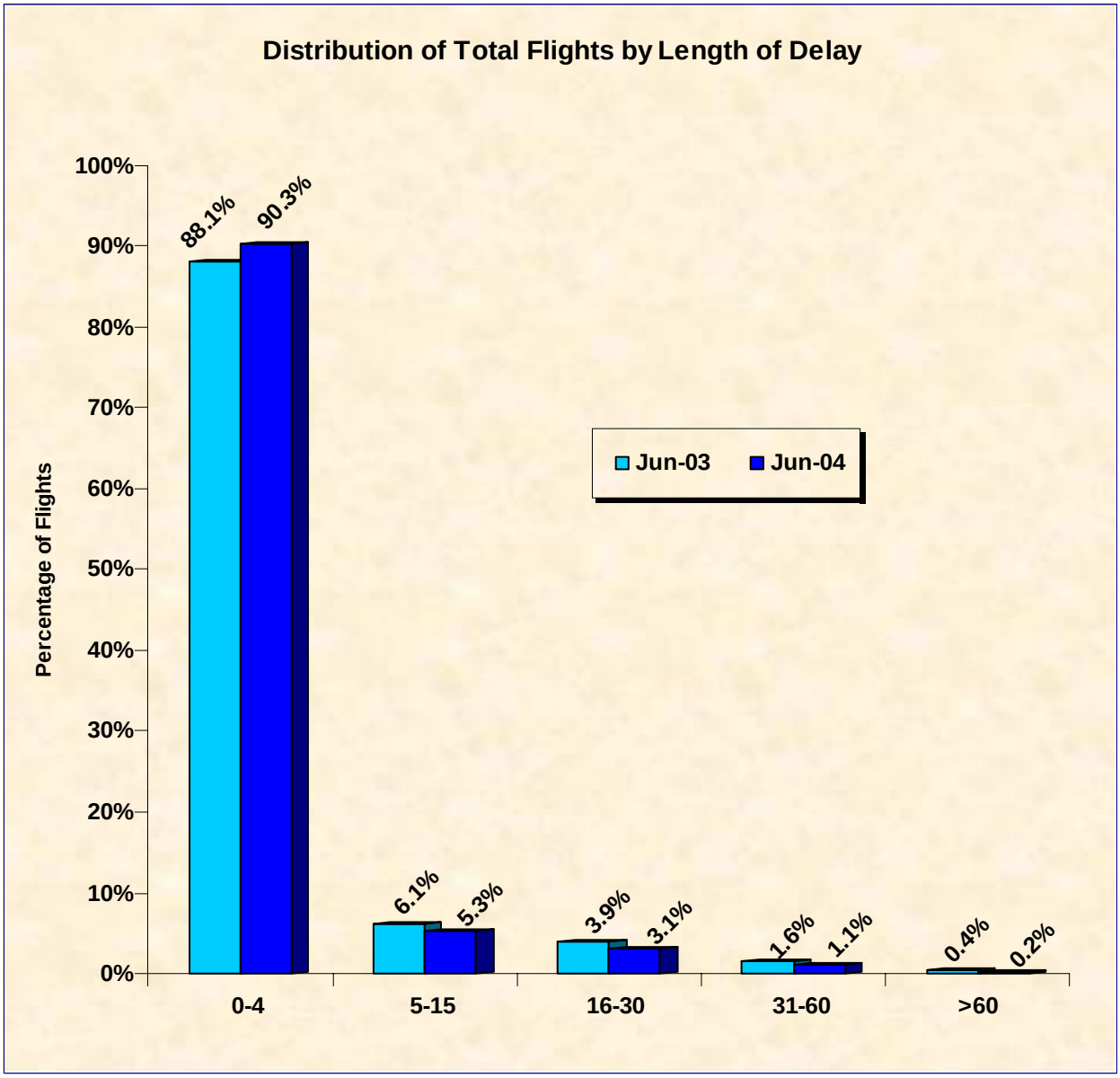






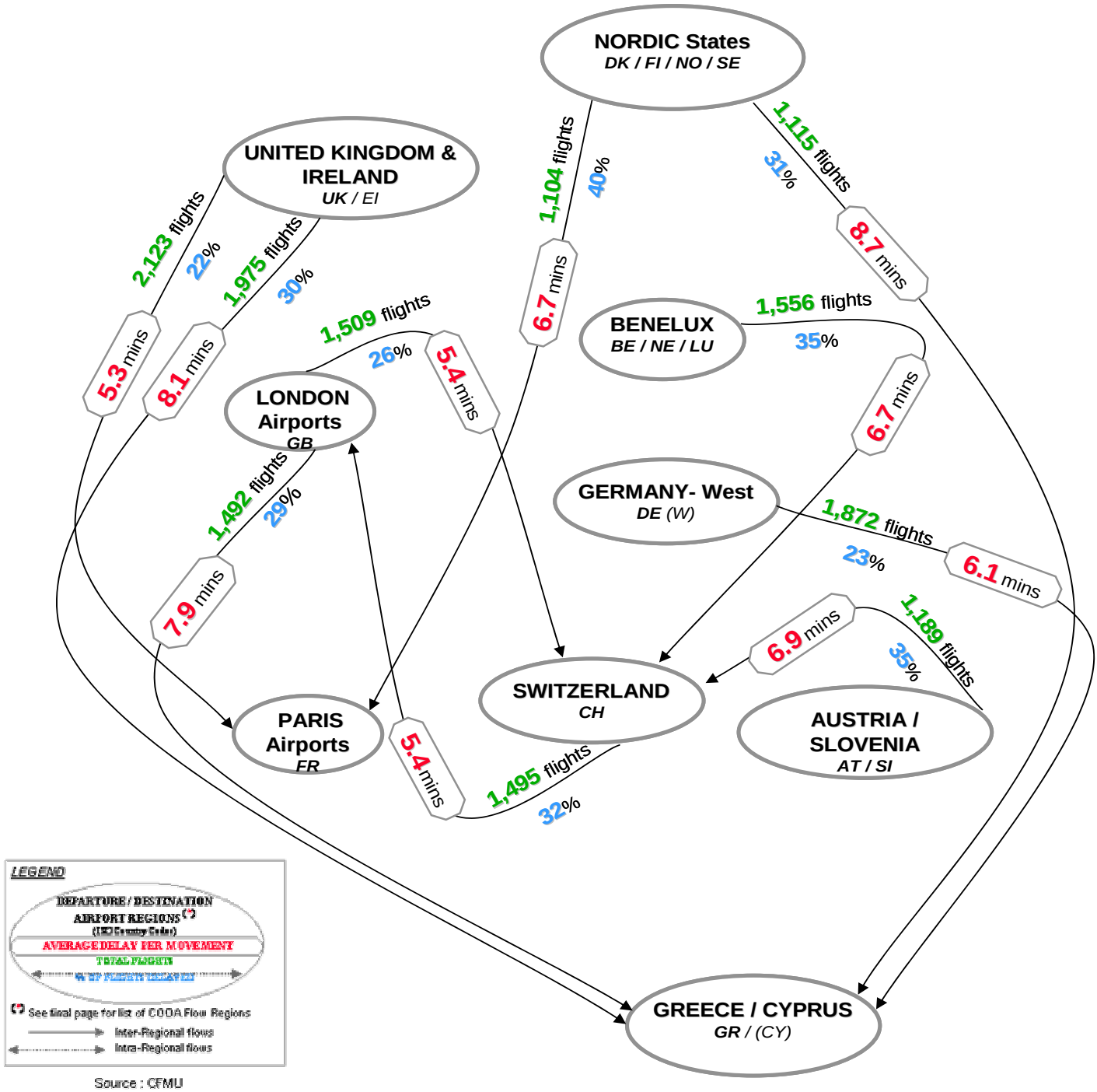
Source : CFMU ATFM Data





Source : CFMU ATFM Data

3. Most Affected Traffic Flows by CODA Regions



Source : CFMU

Selected flights:	**15,430** *(2% of **Total** flights)*
Delayed flights:	**4,539** *(29% of **Selected** flights)*
Accumulated delay:	**102,522** mins *(7% of Total Delay)*
Avg. Delay per Mvmt:	**6.6** mins

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ATFM Delay Situation on 10 Regional CODA Traffic Flows (>1,000 flights) in June 2004

4. Most Affected and Most Dense Traffic Flows

MOST AFFECTED TRAFFIC FLOWS (CFMU)

Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM
1	Nordic States	Greece/Cyprus	1,115	535	351	31.48	9,641	27.47	**8.65**
2	United Kingdom & Ireland	Greece/Cyprus	1,975	872	595	30.13	16,098	27.06	**8.15**
3	London Airports	Greece/Cyprus	1,492	623	434	29.09	11,787	27.16	**7.90**
4	Austria/Slovenia	Switzerland	1,189	777	422	35.49	8,241	19.53	**6.93**
5	Nordic States	Paris Airports	1,104	732	438	39.67	7,433	16.97	**6.73**
6	BENELUX	Switzerland	1,556	875	548	35.22	10,356	18.90	**6.66**
7	Germany-West	Greece/Cyprus	1,872	688	424	22.65	11,484	27.08	**6.13**
8	Switzerland	London Airports	1,495	866	475	31.77	8,051	16.95	**5.39**
9	London Airports	Switzerland	1,509	614	386	25.58	8,098	20.98	**5.37**
10	United Kingdom & Ireland	Paris Airports	2,123	853	466	21.95	11,333	24.32	**5.34**
11	Italy-North	London Airports	1,828	1,050	558	30.53	9,728	17.43	**5.32**
12	Central Europe	Austria/Slovenia	1,711	914	541	31.62	8,549	15.80	**5.00**
13	Switzerland	Austria/Slovenia	1,189	610	355	29.86	5,870	16.54	**4.94**
14	Germany-West	Switzerland	3,499	1,517	843	24.09	16,868	20.01	**4.82**
15	Austria/Slovenia	Other	1,423	641	376	26.42	6,689	17.79	**4.70**
16	Greece/Cyprus	London Airports	1,497	665	401	26.79	6,950	17.33	**4.64**
17	Switzerland	BENELUX	1,534	826	396	25.81	7,027	17.74	**4.58**
18	Greece/Cyprus	United Kingdom & Ireland	1,952	755	467	23.92	8,925	19.11	**4.57**
19	United Kingdom & Ireland	Iberian Peninsula/Canaria	3,671	1,029	638	17.38	16,537	25.92	**4.50**
20	BENELUX	Greece/Cyprus	1,009	400	206	20.42	4,291	20.83	**4.25**
Totals			**34,743**	**15,842**	**9,320**	**26.83**	**193,956**	**20.81**	**5.58**

MOST DENSE TRAFFIC FLOWS (CFMU)

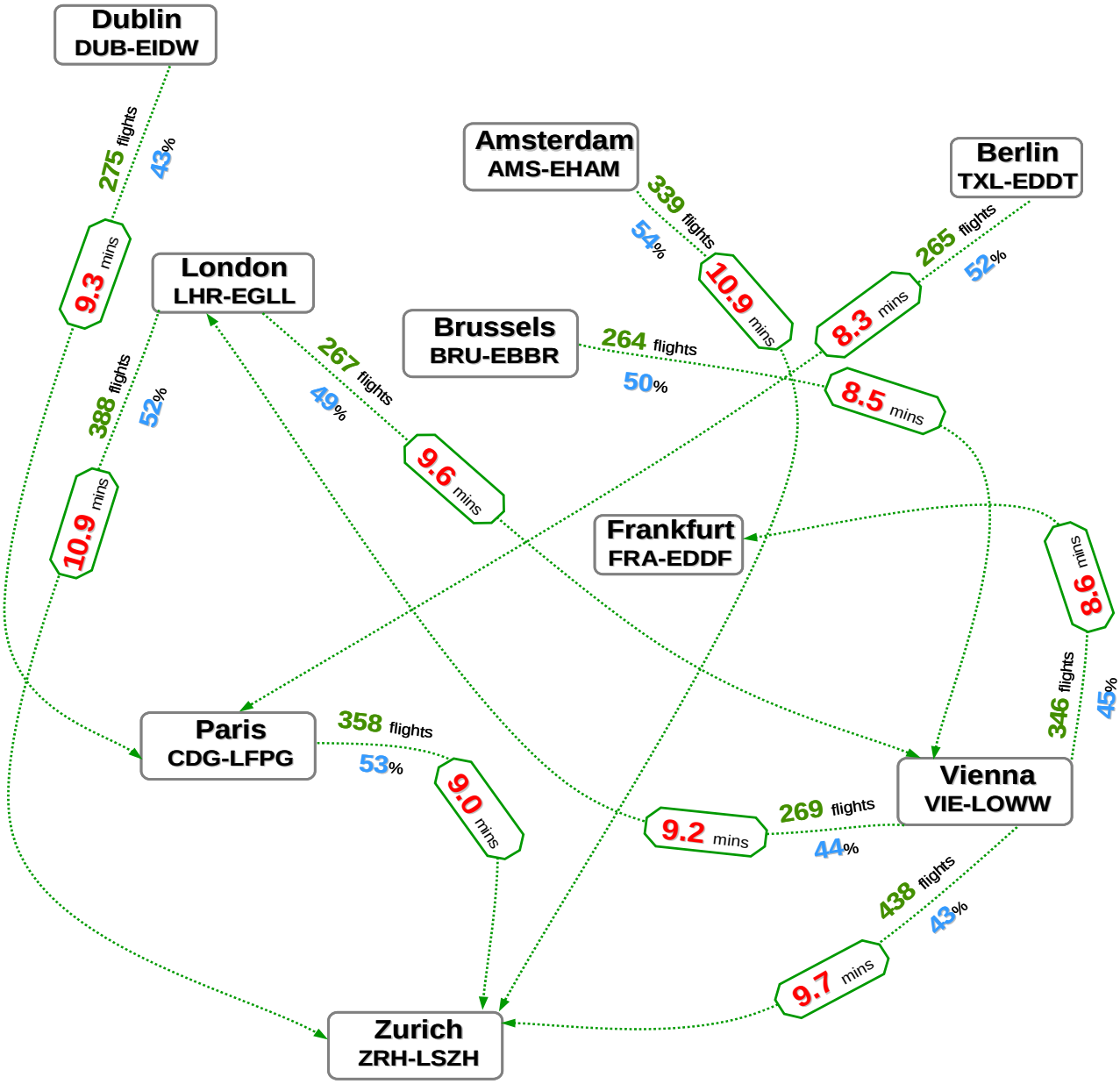
Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM	ADM-Rank
1	Nordic States	Nordic States	**64,663**	1,799	817	1.26	17,044	20.86	0.26	32
2	United Kingdom & Ireland	United Kingdom & Ireland	**31,085**	4,768	2,432	7.82	49,557	20.38	1.59	12
3	Iberian Peninsula/Canaria	Iberian Peninsula/Canaria	**27,628**	2,554	896	3.24	13,813	15.42	0.50	24
4	Germany-West	Germany-West	**22,180**	3,250	1,592	7.18	29,180	18.33	1.32	14
5	Greece/Cyprus	Greece/Cyprus	**12,375**	1,032	578	4.67	18,293	31.65	1.48	13
6	Other	Other	**11,750**	73	46	0.39	906	19.70	0.08	34
7	Italy-South/Malta	Italy-North	**10,741**	1,155	618	5.75	12,998	21.03	1.21	16
8	Italy-North	Italy-South/Malta	**10,711**	1,549	904	8.44	17,269	19.10	1.61	11
9	London Airports	United Kingdom & Ireland	**9,626**	1,702	942	9.79	19,985	21.22	2.08	6
10	United Kingdom & Ireland	London Airports	**9,544**	2,231	1,200	12.57	26,597	22.16	2.79	3
11	Italy-South/Malta	Italy-South/Malta	**9,104**	938	461	5.06	9,946	21.57	1.09	17
12	Other	London Airports	**8,652**	302	178	2.06	3,460	19.44	0.40	27
13	Turkey	Turkey	**8,539**	0	0	0.00	0	0.00	0.00	35
14	London Airports	Other	**8,514**	1,493	886	10.41	15,308	17.28	1.80	10
15	Other	Germany-West	**8,341**	391	178	2.13	2,902	16.30	0.35	29
16	Germany-West	Other	**8,280**	2,221	1,154	13.94	19,396	16.81	2.34	5
17	Iberian Peninsula/Canaria	Balearics/Spain East	**8,239**	1,245	353	4.28	4,710	13.34	0.57	22
18	Balearics/Spain East	Iberian Peninsula/Canaria	**8,217**	1,537	559	6.80	8,179	14.63	1.00	18
19	Germany-West	Germany-East/Czech Rep	**7,087**	854	265	3.74	4,207	15.88	0.59	21
20	Balearics/Spain East	Balearics/Spain East	**7,035**	449	152	2.16	2,077	13.66	0.30	30
21	Paris Airports	Other	**7,027**	1,424	801	11.40	12,934	16.15	1.84	9
22	Other	Paris Airports	**7,024**	361	106	1.51	1,968	18.57	0.28	31
23	Germany-East/Czech Rep	Germany-West	**6,956**	1,187	515	7.40	8,855	17.19	1.27	15
24	Central Europe	Central Europe	**6,532**	443	200	3.06	2,765	13.83	0.42	25
25	France North	France North	**6,410**	146	53	0.83	741	13.98	0.12	33

Source: CFMU ATFM Data

5. Most Affected City Pairs

AVERAGE DELAY PER MOVEMENT Source : CFMU

Total Number of Flights & % of Flights Delayed



Selected flights:	**3,209** *(0.4% of Total flights)*
Delayed flights:	**1,559** *(49% of Selected flights)*
Accumulated delay:	**30,421** mins *(2% of Total Delay)*
Avg. Delay per Mvmt.:	**9.5** mins

ATFM Delay Situation on 10 City Pairs (>250 flights) in June 2004

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6. Most Affected and Most Dense City Pairs

MOST AFFECTED CITY PAIRS (CFMU)

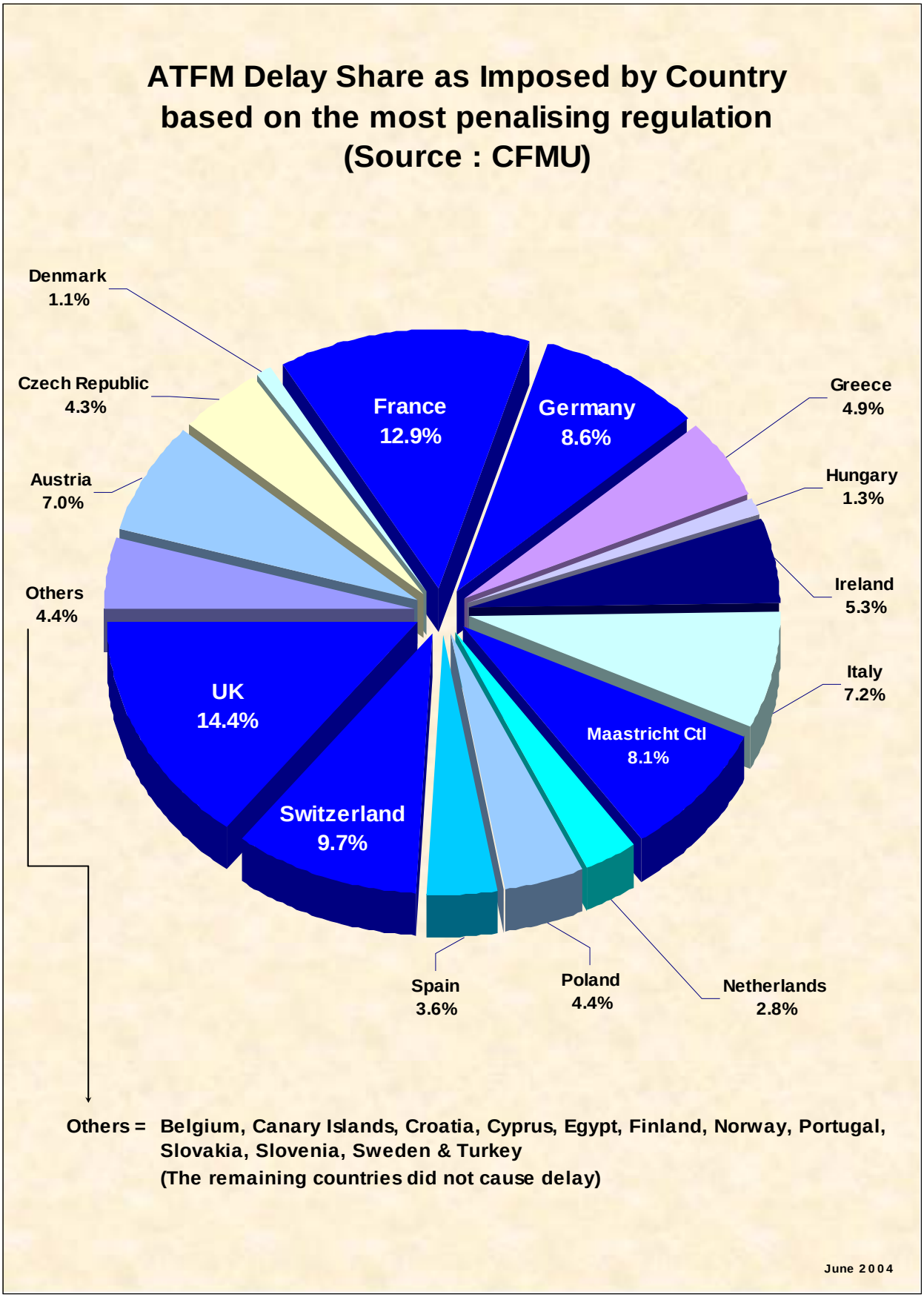
Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM
1	London/Heathrow	Zurich	388	314	203	52.32	4,248	20.93	**10.95**
2	Amsterdam	Zurich	339	258	182	53.69	3,689	20.27	**10.88**
3	Vienna	Zurich	438	319	189	43.15	4,237	22.42	**9.67**
4	London/Heathrow	Vienna	267	184	130	48.69	2,554	19.65	**9.57**
5	Dublin	Paris/Charles-De-Gaulle	275	191	119	43.27	2,554	21.46	**9.29**
6	Vienna	London/Heathrow	269	188	118	43.87	2,471	20.94	**9.19**
7	Paris/Charles-De-Gaulle	Zurich	358	282	191	53.35	3,236	16.94	**9.04**
8	Vienna	Frankfurt	346	229	155	44.80	2,984	19.25	**8.62**
9	Brussels	Vienna	264	199	133	50.38	2,257	16.97	**8.55**
10	Berlin-Tegel	Paris/Charles-De-Gaulle	265	203	139	52.45	2,191	15.76	**8.27**
11	Paris/Charles-De-Gaulle	Dublin	270	185	114	42.22	2,088	18.32	**7.73**
12	Zurich	Amsterdam	342	242	120	35.09	2,613	21.78	**7.64**
13	London/Gatwick	Dublin	308	187	112	36.36	2,280	20.36	**7.40**
14	Munich	Zurich	346	186	115	33.24	2,483	21.59	**7.18**
15	Zurich	London/Heathrow	385	281	167	43.38	2,650	15.87	**6.88**
16	Dusseldorf	Zurich	342	231	126	36.84	2,323	18.44	**6.79**
17	Geneva	London/Heathrow	296	184	100	33.78	1,998	19.98	**6.75**
18	Manchester	Dublin	285	155	108	37.89	1,885	17.45	**6.61**
19	Dublin	London/Heathrow	581	293	181	31.15	3,746	20.70	**6.45**
20	Cork	Dublin	254	141	68	26.77	1,637	24.07	**6.44**
Totals			**6,618**	**4,452**	**2,770**	**41.86**	**54,124**	**19.54**	**8.18**

MOST DENSE CITY PAIRS (CFMU)

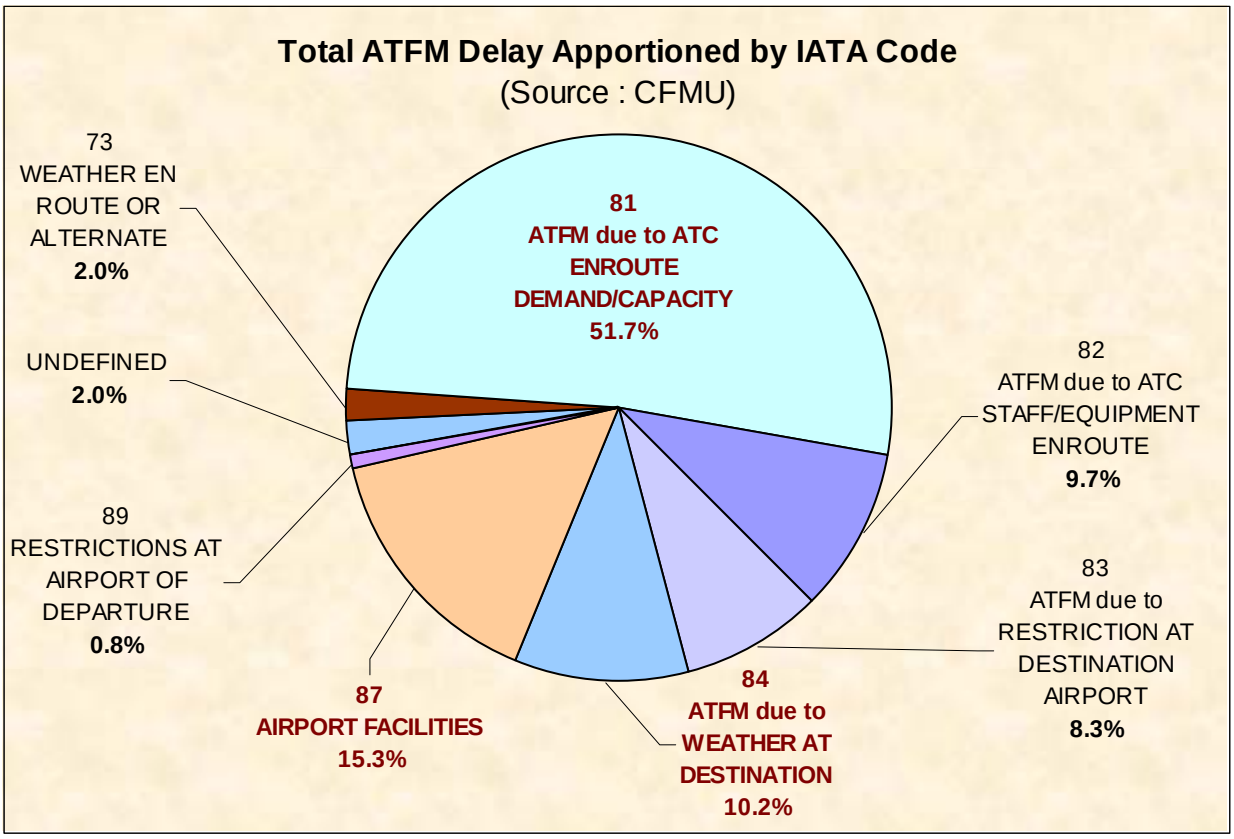
Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM	ADM-rank
1	Barcelona	Madrid/Barajas	**1,946**	772	276	14.18	3,803	13.78	1.95	10
2	Madrid/Barajas	Barcelona	**1,926**	447	130	6.75	1,861	14.32	0.97	17
3	Milan/Linate	Rome/Fiumicino	**1,191**	291	157	13.18	2,505	15.96	2.10	8
4	Rome/Fiumicino	Milan/Linate	**1,179**	5	2	0.17	51	25.50	0.04	32
5	Barcelona	Palma De Mallorca	**866**	19	7	0.81	66	9.43	0.08	30
6	Toulouse/Blagnac	Paris/Orly	**849**	19	5	0.59	57	11.40	0.07	31
7	Paris/Orly	Toulouse/Blagnac	**847**	69	29	3.42	356	12.28	0.42	23
8	London/Heathrow	Paris/Charles-De-Gaulle	**824**	203	91	11.04	1,919	21.09	2.33	7
9	Paris/Charles-De-Gaulle	London/Heathrow	**822**	189	111	13.50	2,099	18.91	2.55	6
10	Palma De Mallorca	Barcelona	**822**	167	47	5.72	718	15.28	0.87	18
11	Athens	Makedonia	**746**	262	129	17.29	3,234	25.07	4.34	1
12	Makedonia	Athens	**744**	5	1	0.13	14	14.00	0.02	33
13	Cologne/Bonn	Munich	**736**	128	58	7.88	1,091	18.81	1.48	12
14	Paris/Orly	Nice	**731**	41	21	2.87	504	24.00	0.69	19
15	Nice	Paris/Orly	**731**	36	19	2.60	299	15.74	0.41	24
16	Madrid/Barajas	Palma De Mallorca	**728**	25	10	1.37	106	10.60	0.15	28
17	Amsterdam	London/Heathrow	**715**	178	81	11.33	1,989	24.56	2.78	3
18	London/Heathrow	Amsterdam	**714**	66	49	6.86	1,843	37.61	2.58	5
19	Munich	Cologne/Bonn	**713**	78	25	3.51	383	15.32	0.54	22
20	Palma De Mallorca	Madrid/Barajas	**706**	178	69	9.77	867	12.57	1.23	15
21	Dusseldorf	Munich	**697**	153	63	9.04	1,126	17.87	1.62	11
22	Helsinki-Vantaa	Stockholm/Arlanda	**694**	30	19	2.74	409	21.53	0.59	21
23	Munich	Dusseldorf	**692**	110	48	6.94	1,013	21.10	1.46	13
24	Munich	Hamburg	**691**	213	112	16.21	2,032	18.14	2.94	2
25	Munich	Berlin-Tegel	**686**	144	29	4.23	413	14.24	0.60	20

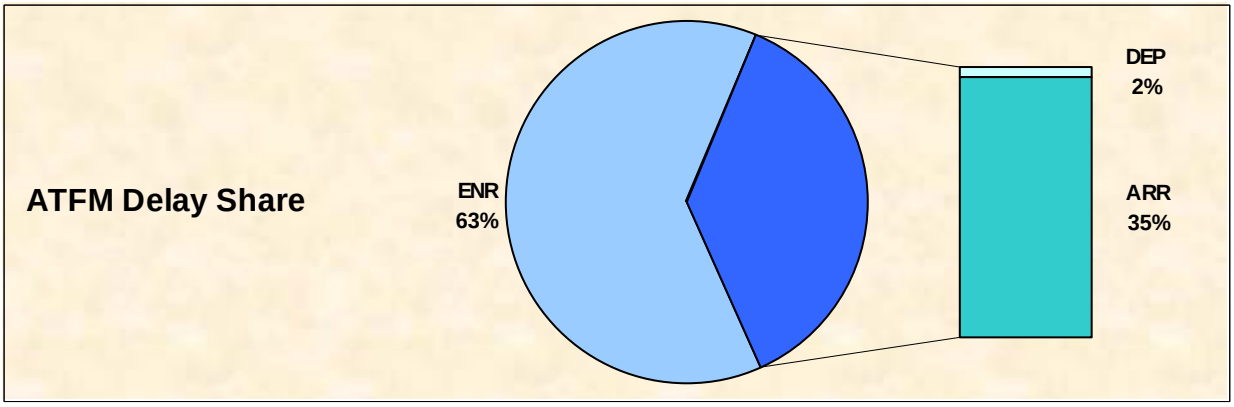
Source: CFMU ATFM Data

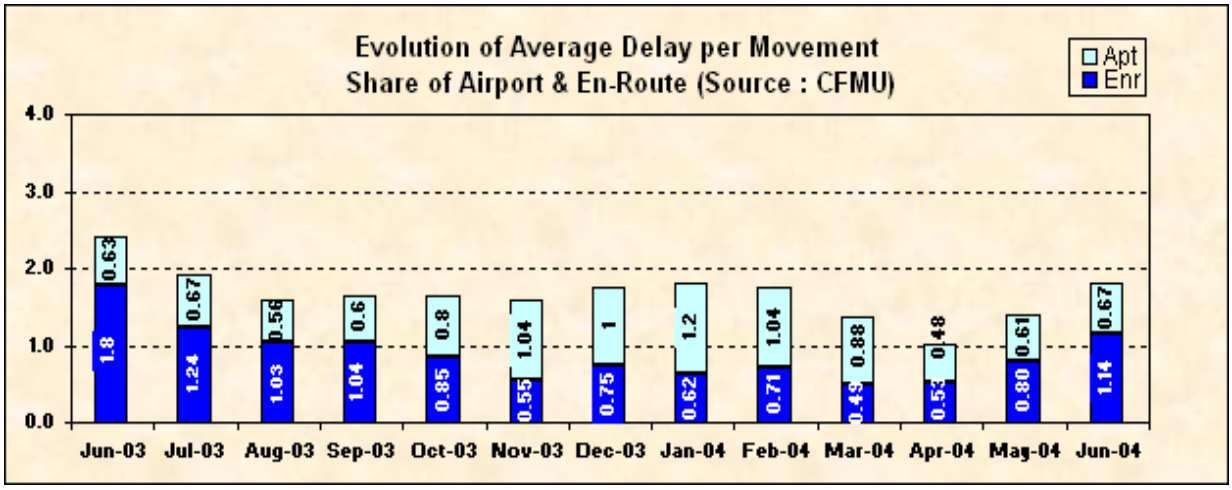
7. ATFM Delay Share by Country



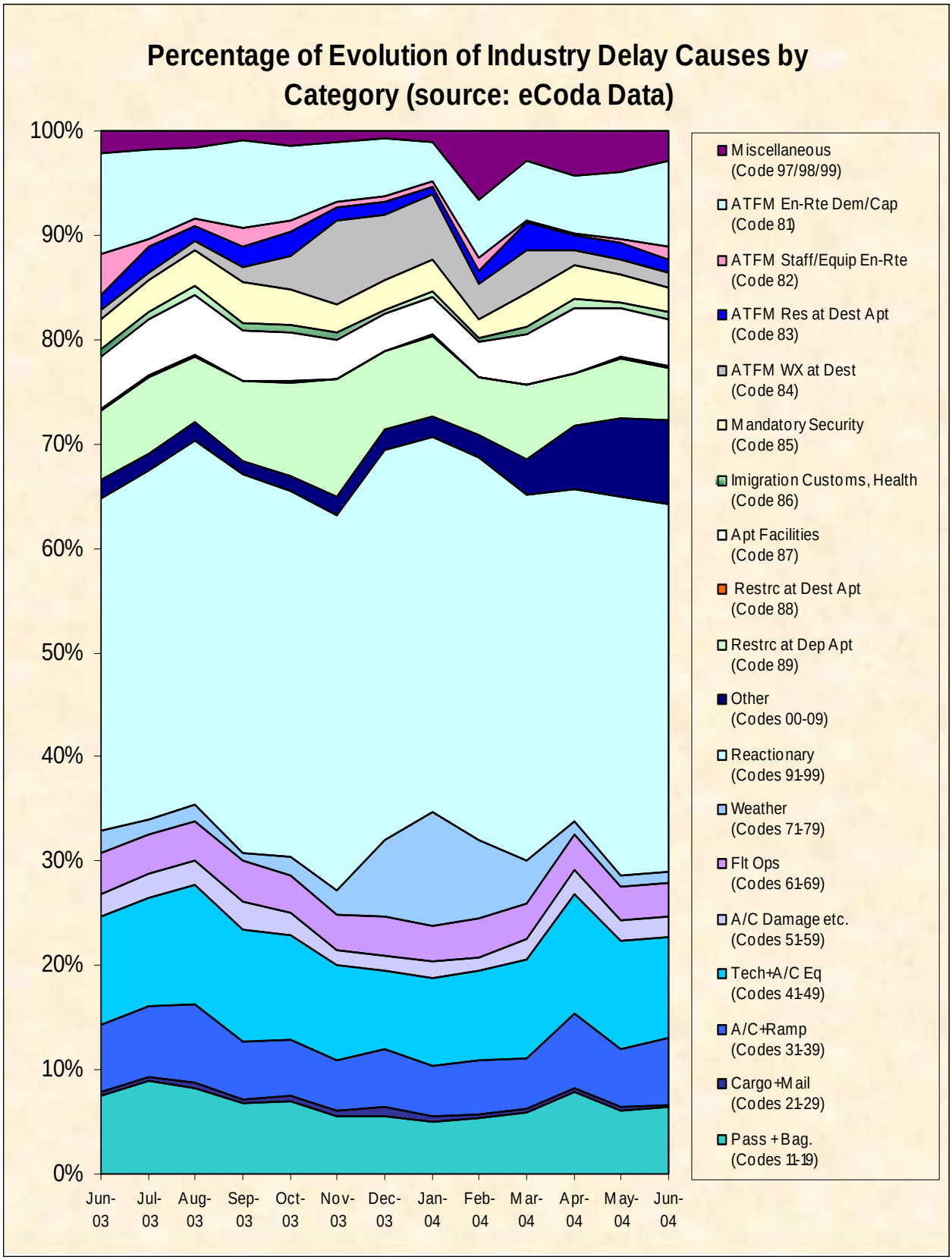
8. Reasons for ATFM Delay



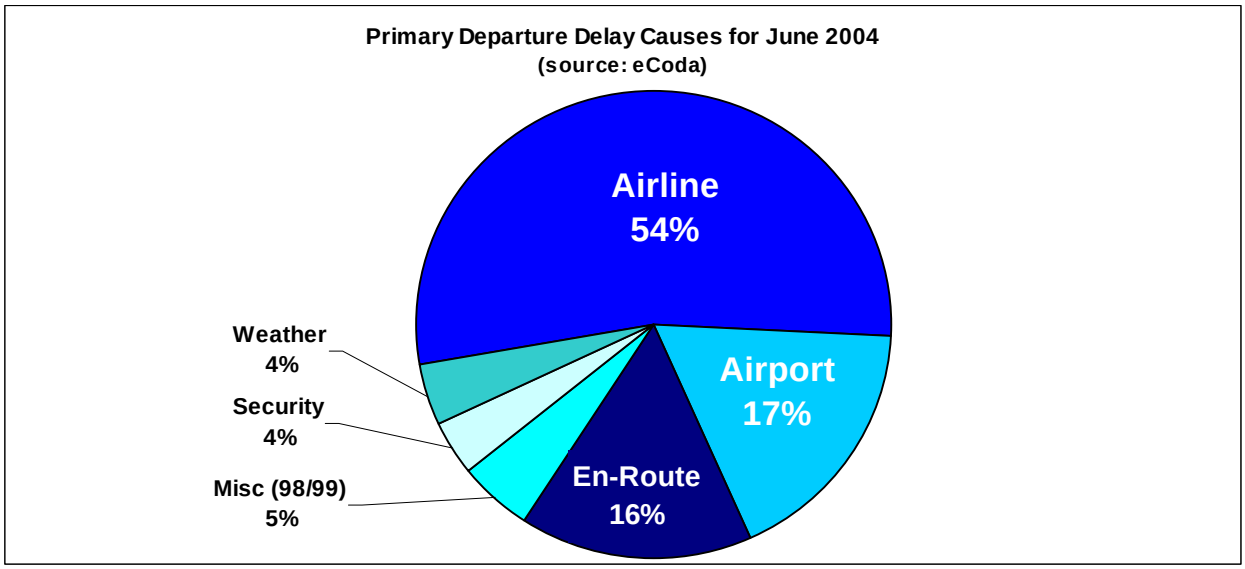


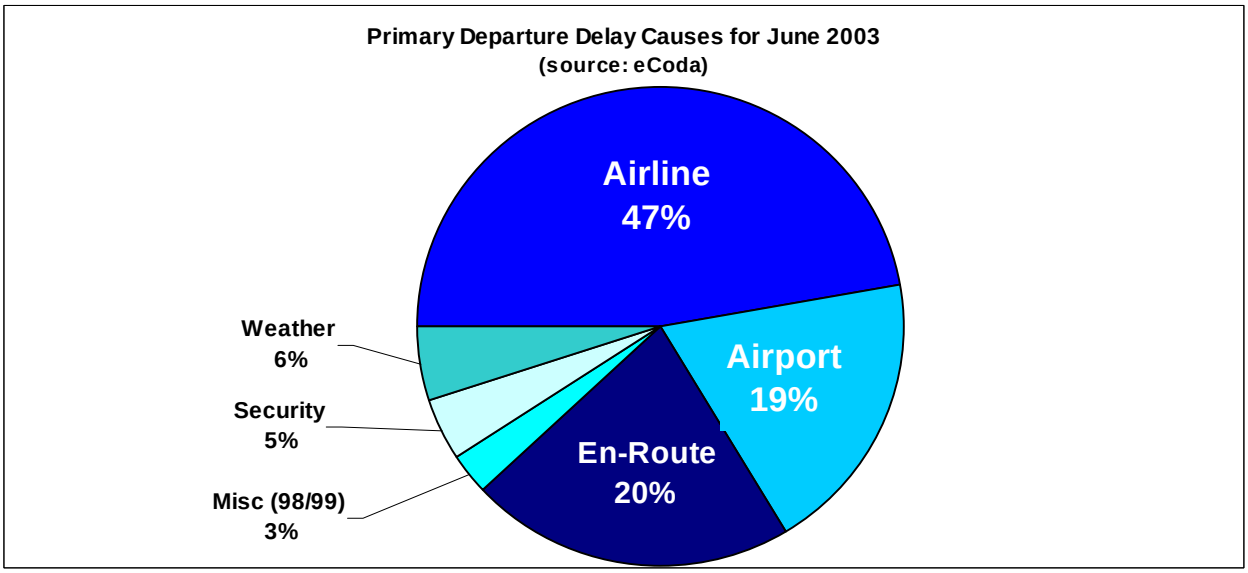


9. Consolidated Evolution of Industry Delay Causes by Category



10. Primary Departure Delay Causes





eCODA Cause	Description	IATA Code
Airline	Passengers + Baggage	11-19
	Cargo + Mail	21-29
	Aircraft + Ramp Handling	31-39
	Technical + Aircraft Equipment	41-49
	Aircraft Damage and Ops Computer Failure	51-59
	Flight Operations	61-69
	Other Airline-Related Causes	Others
Airport	ATFM due to Restriction at Destination Airport	83
	Immigration, Customs, Health	86
	Airport Facilities	87
	Restriction at Destination Airport	88
	Restriction at Airport of Departure, with or without ATFM	89
En-Route	ATFM due to ATC En-Rte Demand Capacity	81
	ATFM due to ATC Staff/Equipment En-Route	82
Misc	Miscellaneous	98-99
Security	Mandatory Security	85
Weather	Weather	71-79
	ATFM due to Weather at Destination	84

Definition of CODA Flow Regions (Annex 1)

Glossary of Terms and Abbreviations (Annex 2)

Delay Parameter Abbreviations

TTF	Total Flights
TRF	Total Regulated Flights
TDF	Total Delayed Flights
PRF	Percentage of Regulated Flights
PDF	Percentage of Delayed Flights
TDM	Total Delay in Minutes
ADM	Average Delay per Movement
ADR	Average Delay per Regulated Flight
ADD	Average Delay per Delayed Flight

Glossary of Terms

AEA	Association of European Airlines
ATFM	Air Traffic Flow Management
ATS	Air Traffic Services
CFMU	Central Flow Management Unit
CODA	Central Office for Delay Analysis
EATMP	European Air Traffic Management Program
ECAC	European Civil Aviation Conference
EDAS	European Delay Analysis System
ERA	European Regions Airline Association
EURACA	European Air Carrier Assembly
IACA	International Air Carrier Association
IATA	International Air Transport Association

Standard IATA Delay Codes (Annex 3)

Others

00-05 AIRLINE INTERNAL CODES
06 (OA) NO GATE/STAND AVAILABILITY DUE TO OWN AIRLINE ACTIVITY
09 (SG) SCHEDULED GROUND TIME LESS THAN DECLARED MINIMUM GROUND TIME

Passenger and Baggage

11 (PD) LATE CHECK-IN, acceptance after deadline
12 (PL) LATE CHECK-IN, congestions in check-in area
13 (PE) CHECK-IN ERROR, passenger and baggage
14 (PO) OVERSALES, booking errors
15 (PH) BOARDING, discrepancies and paging, missing checked-in passenger
16 (PS) COMMERCIAL PUBLICITY/PASSENGER CONVENIENCE, VIP, press, ground meals and missing personal items
17 (PC) CATERING ORDER, late or incorrect order given to supplier
18 (PB) BAGGAGE PROCESSING, sorting etc.

Cargo and Mail

21 (CD) DOCUMENTATION, errors etc.
22 (CP) LATE POSITIONING
23 (CC) LATE ACCEPTANCE
24 (CI) INADEQUATE PACKING
25 (CO) OVERSALES, booking errors
26 (CU) LATE PREPARATION IN WAREHOUSE
27 (CE) DOCUMENTATION, PACKING etc *(Mail Only)*
28 (CL) LATE POSITIONING *(Mail Only)*
29 (CA) LATE ACCEPTANCE *(Mail Only)*

Aircraft and Ramp Handling

31 (GD) AIRCRAFT DOCUMENTATION LATE/INACCURATE, weight and balance, general declaration, pax manifest, etc.
32 (GL) LOADING/UNLOADING, bulky, special load, cabin load, lack of loading staff
33 (GE) LOADING EQUIPMENT, lack of or breakdown, e.g. container pallet loader, lack of staff
34 (GS) SERVICING EQUIPMENT, lack of or breakdown, lack of staff, e.g. steps
35 (GC) AIRCRAFT CLEANING
36 (GF) FUELLING/DEFUELLING, fuel supplier
37 (GB) CATERING, late delivery or loading
38 (GU) ULD, lack of or serviceability
39 (GT) TECHNICAL EQUIPMENT, lack of or breakdown, lack of staff, e.g. pushback

Technical and Aircraft Equipment

41 (TD) AIRCRAFT DEFECTS.
42 (TM) SCHEDULED MAINTENANCE, late release.
43 (TN) NON-SCHEDULED MAINTENANCE, special checks and/or additional works beyond normal maintenance schedule.
44 (TS) SPARES AND MAINTENANCE EQUIPMENT, lack of or breakdown.
45 (TA) AOG SPARES, to be carried to another station.
46 (TC) AIRCRAFT CHANGE, for technical reasons.
47 (TL) STAND-BY AIRCRAFT, lack of planned stand-by aircraft for technical reasons.
48 (TV) SCHEDULED CABIN CONFIGURATION/VERSION ADJUSTMENTS.

Damage to Aircraft & EDP/Automated Equipment Failure

51 (DF) DAMAGE DURING FLIGHT OPERATIONS, bird or lightning strike, turbulence, heavy or overweight landing, collision during taxiing
52 (DG) DAMAGE DURING GROUND OPERATIONS, collisions (other than during taxiing), loading/off-loading damage, contamination, towing, extreme weather conditions
55 (ED) DEPARTURE CONTROL
56 (EC) CARGO PREPARATION/DOCUMENTATION
57 (EF) FLIGHT PLANS

Flight Operations and Crewing

61 (FP) FLIGHT PLAN, late completion or change of, flight documentation
62 (FF) OPERATIONAL REQUIREMENTS, fuel, load alteration
63 (FT) LATE CREW BOARDING OR DEPARTURE PROCEDURES, other than connection and standby (flight deck or entire crew)
64 (FS) FLIGHT DECK CREW SHORTAGE, sickness, awaiting standby, flight time limitations, crew meals, valid visa, health documents, etc.
65 (FR) FLIGHT DECK CREW SPECIAL REQUEST, not within operational requirements
66 (FL) LATE CABIN CREW BOARDING OR DEPARTURE PROCEDURES, other than connection and standby
67 (FC) CABIN CREW SHORTAGE, sickness, awaiting standby, flight time limitations, crew meals, valid visa, health documents, etc.
68 (FA) CABIN CREW ERROR OR SPECIAL REQUEST, not within operational requirements
69 (FB) CAPTAIN REQUEST FOR SECURITY CHECK, extraordinary

Weather

71 (WO) DEPARTURE STATION
72 (WT) DESTINATION STATION
73 (WR) EN ROUTE OR ALTERNATE
75 (WI) DE-ICING OF AIRCRAFT, removal of ice and/or snow, frost prevention excluding unserviceability of equipment
76 (WS) REMOVAL OF SNOW, ICE, WATER AND SAND FROM AIRPORT
77 (WG) GROUND HANDLING IMPAIRED BY ADVERSE WEATHER CONDITIONS

ATFM + AIRPORT + GOVERNMENTAL AUTHORITIES

AIR TRAFFIC FLOW MANAGEMENT RESTRICTIONS

81 (AT) ATFM due to ATC EN-ROUTE DEMAND/CAPACITY, standard demand/capacity problems
82 (AX) ATFM due to ATC STAFF/EQUIPMENT EN-ROUTE, reduced capacity caused by industrial action or staff shortage, equipment failure, military exercise or extraordinary demand due to capacity reduction in neighbouring area
83 (AE) ATFM due to RESTRICTION AT DESTINATION AIRPORT, airport and/or runway closed due to obstruction, industrial action, staff shortage, political unrest, noise abatement, night curfew, special flights
84 (AW) ATFM due to WEATHER AT DESTINATION

AIRPORT AND GOVERNMENTAL AUTHORITIES

85 (AS) MANDATORY SECURITY
86 (AG) IMMIGRATION, CUSTOMS, HEALTH
87 (AF) AIRPORT FACILITIES, parking stands, ramp congestion, lighting, buildings, gate limitations, etc.
88 (AD) RESTRICTIONS AT AIRPORT OF DESTINATION, airport and/or runway closed due to obstruction, industrial action, staff shortage, political unrest, noise abatement, night curfew, special flights
89 (AM) RESTRICTIONS AT AIRPORT OF DEPARTURE WITH OR WITHOUT ATFM RESTRICTIONS, including Air Traffic Services, start-up and pushback, airport and/or runway closed due to obstruction or weather[4], industrial action, staff shortage, political unrest, noise abatement, night curfew, special flights

Reactionary

91 (RL) LOAD CONNECTION, awaiting load from another flight
92 (RT) THROUGH CHECK-IN ERROR, passenger and baggage
93 (RA) AIRCRAFT ROTATION, late arrival of aircraft from another flight or previous sector
94 (RS) CABIN CREW ROTATION, awaiting cabin crew from another flight
95 (RC) CREW ROTATION, awaiting crew from another flight (flight deck or entire crew)
96 (RO) OPERATIONS CONTROL, re-routing, diversion, consolidation, aircraft change for reasons other than technical

Miscellaneous

97 (MI) INDUSTRIAL ACTION WITH OWN AIRLINE
98 (MO) INDUSTRIAL ACTION OUTSIDE OWN AIRLINE, excluding ATS
99 (MX) OTHER REASON, not matching any code above

SOURCE: Provisional list composed by IATA

[4] Restriction due to weather in case of ATFM regulation only, else refer to code 71 (WO)

Correlation between IATA Delay Codes and the CFMU Reasons for Regulation (Annex 4)

CORRELATION BETWEEN IATA DELAY CODES AND THE CFMU REASONS FOR REGULATION

CFMU				IATA	
REASON FOR REGULATION	CODE	REGULATION LOCATION	EXAMPLE	CODE	DELAY CAUSE
ATC Capacity	C	D	*Demand exceeds the capacity*	89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		E		81	ATFM due to ATC ENROUTE DEMAND/CAPACITY
		A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
ATC Ind Action	I	D	*Controllers' strike*	89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		E		82	ATFM due to ATC STAFF/EQUIPMENT ENROUTE
		A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
ATC Routeings	R	E	*Phasing in of new procedures*	81	ATFM due to ATC ENROUTE DEMAND/CAPACITY
ATC Staffing	S	D	*Illness; traffic delays on the highway*	89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		E		82	ATFM due to ATC STAFF/EQUIPMENT ENROUTE
		A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
ATC Equipment	T	D	*Radar failure; RTF failure*	89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		E		82	ATFM due to ATC STAFF/EQUIPMENT ENROUTE
		A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
Accident/Incident	A	D	*RWY23 closed due accident*	89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
Aerodrome Capacity	G	D	*Lack of parking; taxiway closure; areas closed for maintenance; demand exceeds the declared airport capacity*	87	AIRPORT FACILITIES
		A		87	AIRPORT FACILITIES
De-Icing	D	D	*De-icing*	89	RESTRICTIONS AT AIRPORT OF DEPARTURE
Equipment non-ATC	E	D	*Runway or taxiway lighting failure*	87	AIRPORT FACILITIES
		A		87	AIRPORT FACILITIES
Ind Action non-ATC	N	D	*Firemen's strike*	98	INDUSTRIAL ACTION OUTSIDE OWN AIRLINE
		A		98	INDUSTRIAL ACTION OUTSIDE OWN AIRLINE
Military Activity	M	D	*Brilliant Invader; ODAX*	89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		E		82	ATFM due to ATC STAFF/EQUIPMENT ENROUTE
		A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
Special Event	P	D	*European football cup; Heads of Government meetings*	89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
Weather	W	D	*Thunderstorm; low visibility; X winds*	89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		E		73	WEATHER EN ROUTE OR ALTERNATE
		A		84	ATFM due to WEATHER AT DESTINATION
Other	O	D	*Security alert*	89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		E		81	ATFM due to ATC ENROUTE DEMAND/CAPACITY
		A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT