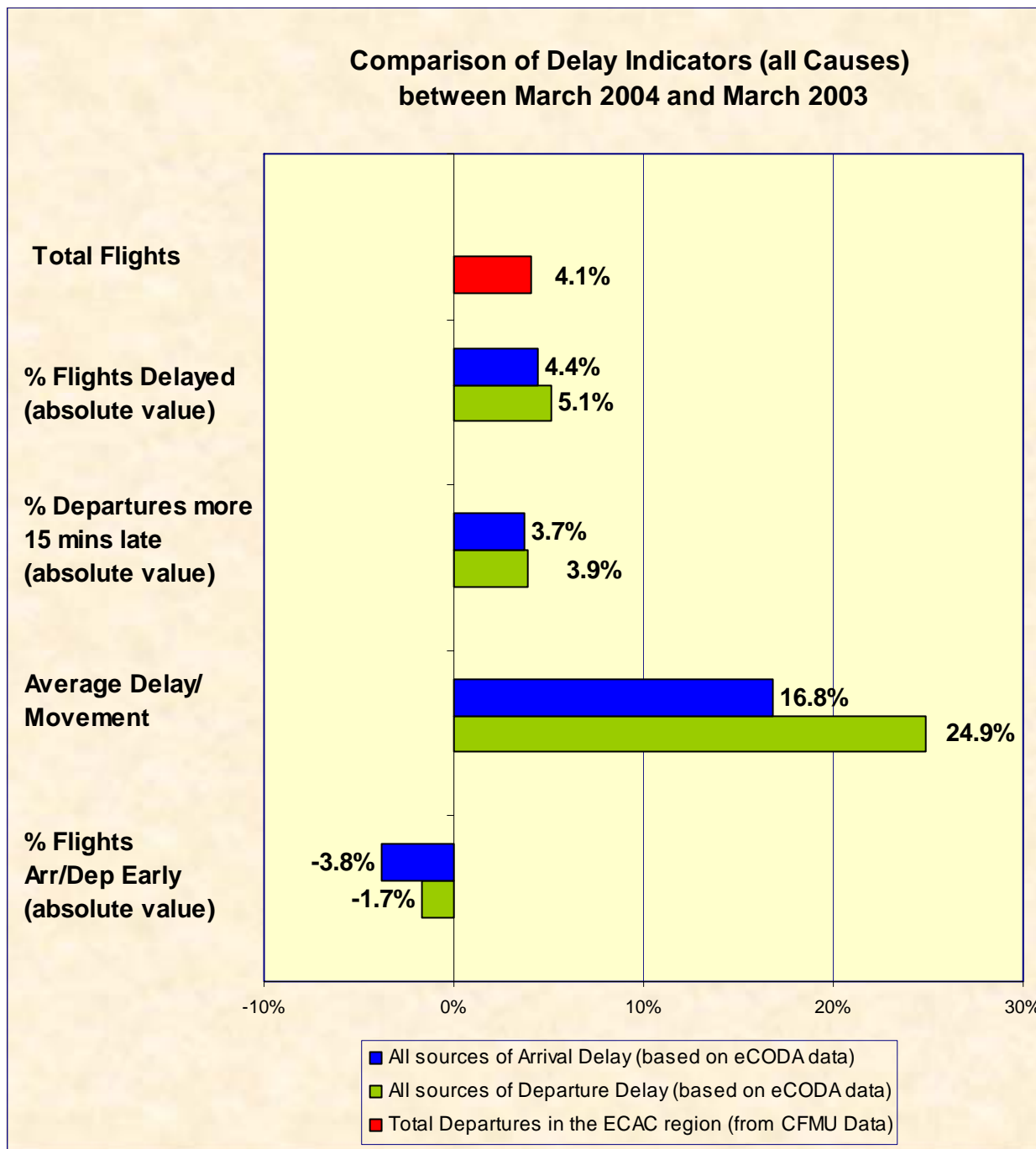


## Delays to Air Transport in Europe March 2004

March 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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**Central Office for  
Delay Analysis**

**EUROCONTROL**

**96 Rue de la Fusée  
B - 1130 Brussels**

**Tel.** : + 32-2-729 35 74  
**Fax** : + 32-2-729 90 03  
**E-Mail** : [coda@eurocontrol.int](mailto:coda@eurocontrol.int)  
**Web Site** : <http://www.eurocontrol.int/eCoda/>  
**SITA** : BRUAT7X

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## 1. SUMMARY OVERVIEW

Traffic in the ECAC region showed a significant growth when compared with March 2003. Delays for all causes rose significantly, with the Average Delay per Movement, for departure traffic, increasing by twenty five percent to eight and a half minutes, and for arrival traffic by seventeen percent to eight and three quarters minutes. ATFM delay showed a small decrease, with the Average Delay per Movement decreasing by five percent to one and a half minutes.

For the first three months of the year, traffic increased by two percent, with delayed flights due to all causes, falling by one percent for departures and three percent for arrivals. The number of flights delayed by more than fifteen minutes rose by three and a half percent for departures and fell by half a percent for arrivals. On the positive side, twelve percent of the departures left early and thirty three percent landed early. Turning to the delays, the Average Delay per Movement was ten and a half minutes for departures and eleven minutes for arrivals. Total ATFM delay fell by less than half a percent, with the Average Delay per Movement falling by almost two percent to just over one and a half minutes.

### TRAFFIC SITUATION FOR MARCH 2004<sup>1</sup>

When compared with March 2003, departures throughout the ECAC region increased by four percent to over seven hundred and ten thousand flights; the highest ever March figure since CFMU started operations in 1996. Domestic traffic increased by three and a half percent while International traffic was up by four and a half percent. Most of the busier countries had an increase in International traffic, with the largest real increases in the United Kingdom, Spain and Germany and the largest real decrease in Switzerland. Spain, the United Kingdom and Norway had the biggest rise in domestic traffic, with France and Italy having the largest fall.

Almost eighty percent of the busier airports (those with more than two thousand five hundred flights per month) saw an increase in traffic, with almost twenty percent having an increase of more than ten percent. The largest real increases were at Athens, Paris/Orly, Vienna and Stockholm. Zurich, Basle/Mulhouse and Nice, on the other hand, had the largest decreases.

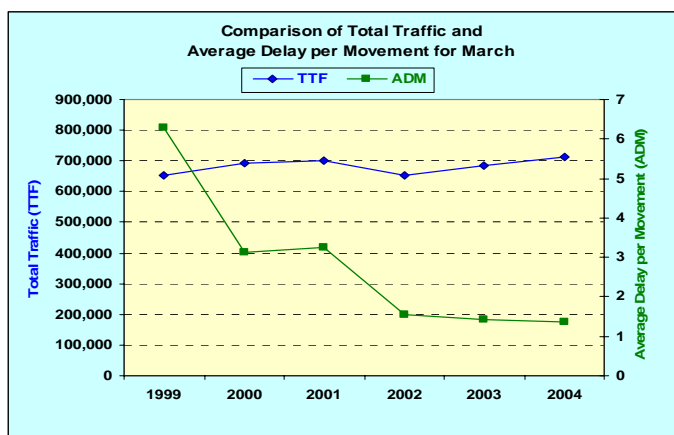
As in previous months, Barcelona-Madrid was the busiest city pair, with more than two thousand and one hundred flights in each direction; there were ten flights during the busiest hour. Once again, Rome-Milan/Linate was the only other pair with more than one thousand flights in each direction. Nearly sixty five percent of the busier pairs had an increase in the number of flights, with thirty three percent of them having an increase of more than ten percent. Stockholm-Oslo had the largest real increases, followed by Tenerife Norte-La Palma and Fuerteventura-Las Palmas. At the other end of the scale, Madrid-Paris/Charles de Gaulle and Cologne/Bonn-Berlin had the largest decreases.

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<sup>1</sup> The analysis was based on the CFMU database which contains details on all IFR flights in the ECAC region.

**ATFM DELAY SITUATION FOR MARCH 2004**

Delays due solely to ATFM measures decreased by just one percent when compared with March 2003. The Average Delay per Movement also had a small decrease and fell by five percent to one and a half minutes. The main cause of the delay was ATC Capacity, followed by Weather and Airport Capacity; altogether, they accounted for more than eighty percent of the ATFM delay.



Delayed flights rose by three percent and the percentage of flights delayed was up one percent on that of March last year and was a little over seven percent. Flights delayed by more than fifteen minutes increased by ten percent, whereas flights delayed by more than one hour decreased by thirty eight percent.

Not all ATFM delay was due to ATC; sixty four percent of all ATFM delay in March was caused by regulations put in place to protect airports. Compared with 2003, the share of the delay was up by eight percentage points and the actual amount of delay imposed rose by thirteen percent. Compared with March last year, Vienna, London, Barcelona and Munich had the largest increases, whereas Amsterdam, Rome, Paris and Verona had the largest decreases. London, Frankfurt and Vienna were the most affected by airport-related regulations. Forty one percent of the airport-related ATC delay was caused by weather, immediately followed by airport capacity (forty percent), ATC capacity (six percent) and ATC Staffing (five percent).

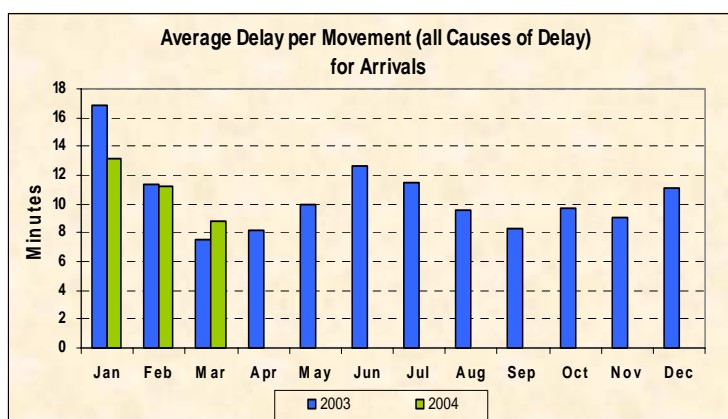
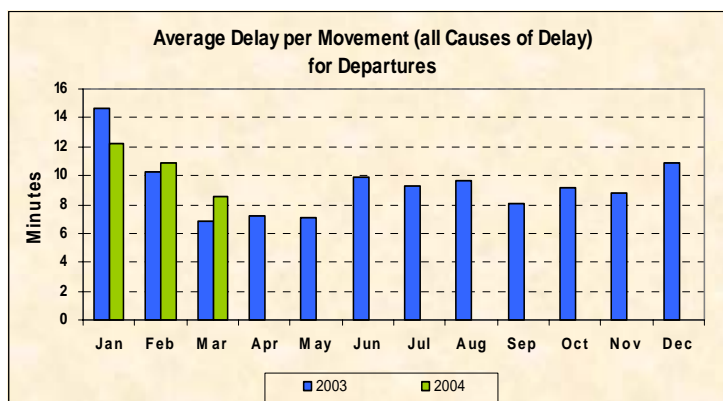
Based on the locations of the most penalising regulations, traffic (including overflights) using the airspace of the United Kingdom, Germany, Switzerland, Italy and France had the largest share of the ATFM delay. Between them, they accounted for almost three quarters of the total ATFM delay in the ECAC region. Compared with March last year, Austria, the United Kingdom and Spain had the largest increases, whereas Italy, the Netherlands and France had the largest falls.

When the traffic handled is taken into account (again including overflights), Switzerland, Austria and Italy were the most penalising countries, with an Average Delay per Movement of one minute or more. Compared with March 2003, Austria was the only country to have an increase in average delay of more than one minute whereas, at the other end of the scale, no country had a decrease of one minute.



**eCODA DATA FOR MARCH 2004**

Although considerably less than for the first two months of the year, the Average Delay per Movement, for departures, for all causes of delay, was eight and a half minutes; an increase of twenty five percent on March 2003. Thirty eight percent of flights were delayed on departure, with sixteen percent delayed by more than fifteen minutes. On the positive side, twelve percent of flights departed before their scheduled time.



The Average Delay per Movement, for arrivals, again for all causes of delay, was almost nine minutes; also less than in January and February of this year but an increase of seventeen percent on March last year. Thirty six and a half percent of flights were delayed on arrival, with sixteen percent delayed by more than fifteen minutes. On the positive side, thirty four percent of flights arrived before their scheduled time.

Thirty five percent of the busier departure airports had an Average Delay per Movement of more than ten minutes, with Vienna having the largest average delay (eighteen minutes), followed by Dublin, New York and Paris/Charles de Gaulle. Compared with March 2003, more than two thirds of the busier airports had an increase in average delay of more than one minute. The largest rise was at Vienna (up twelve minutes), followed by Valencia, Manchester and Bilbao. These increases were offset by reasonable decreases at Malaga (almost four minutes), followed by Zurich, London/Gatwick and Rome/Fiumicino. In all, fourteen percent of the airports had a decrease in average delay of more than one minute. As in the previous months, all the airports had a proportion of their flights departing before their scheduled time, with Bilbao having the largest, with twenty nine percent and Copenhagen having the lowest, with three and a half percent.

Looking at the busier destination airports, traffic arriving at Vienna had the largest Average Delay per Movement, with over seventeen and a half minutes and was followed by Manchester, London/Heathrow, Bologna and Prague. Compared with March 2003, fifty six percent of the busier airports had an increase in average delay of more than one minute, with the largest (up eleven minutes) at Vienna, followed by Manchester, London/Heathrow and Bologna. On the other hand, there were large decreases at Valencia and Prague (down eight minutes).








Fifteen percent of the airports had a decrease in average delay of more than one minute. Again, all the airports had a proportion of their traffic arriving before the scheduled time, with Nuremberg and Palma de Mallorca having forty eight percent of their flights landing early.

The most affected city pairs, due to all causes of delay, were Dublin-London/Heathrow (twenty one and a half minutes), London/Heathrow-Vienna, Vienna-London/Heathrow (both with twenty minutes) and Paris/Charles de Gaulle-Nice (nineteen and a half minutes). Compared with March last year, seventy eight percent of the city pairs had an increase in Average Delay per Movement, with two thirds of them having a rise of more than one minute. The largest increase was between London/Heathrow-Vienna (up fourteen and a half minutes), followed by Munich-Vienna, Dublin-London/Heathrow and Palma de Mallorca-Barcelona. On the other hand, fourteen percent of the city pairs had a decrease of more than one minute, with the largest fall between Chicago-London/Heathrow (down nineteen minutes).

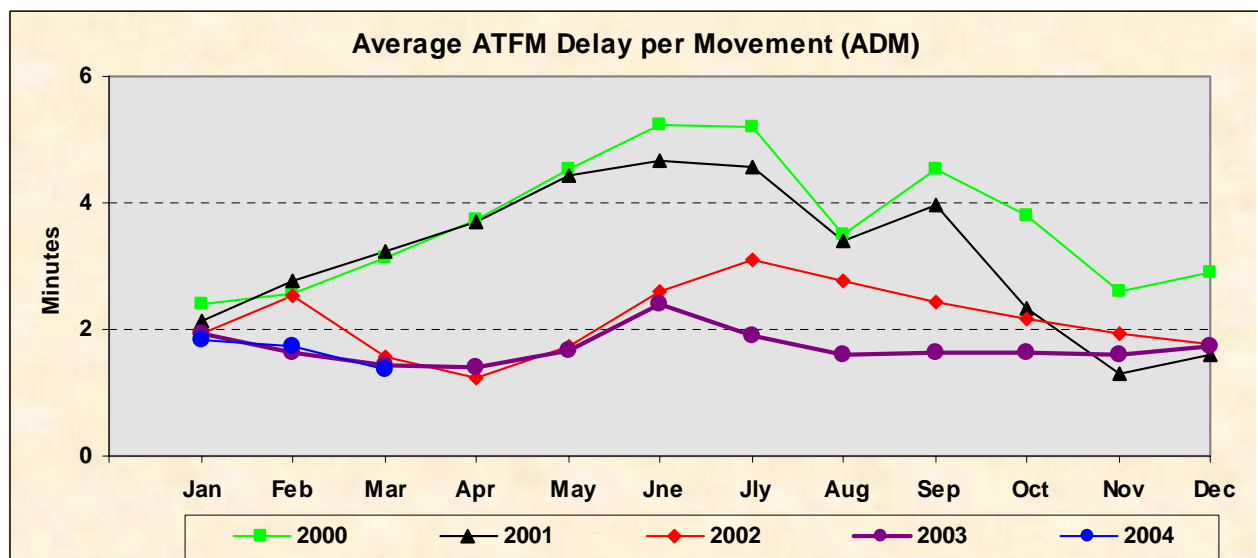
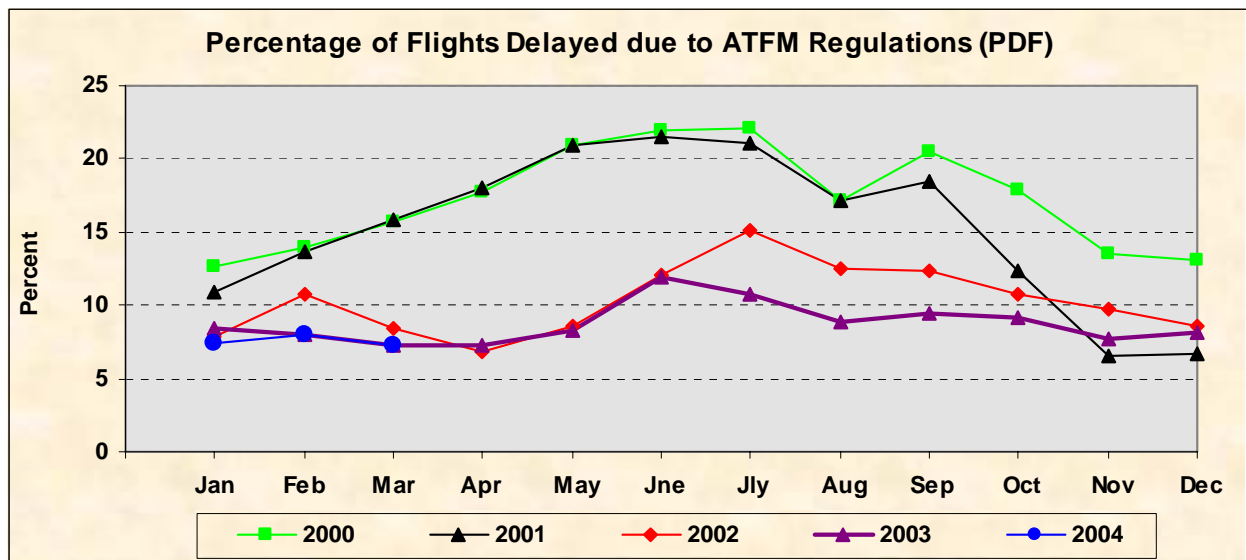
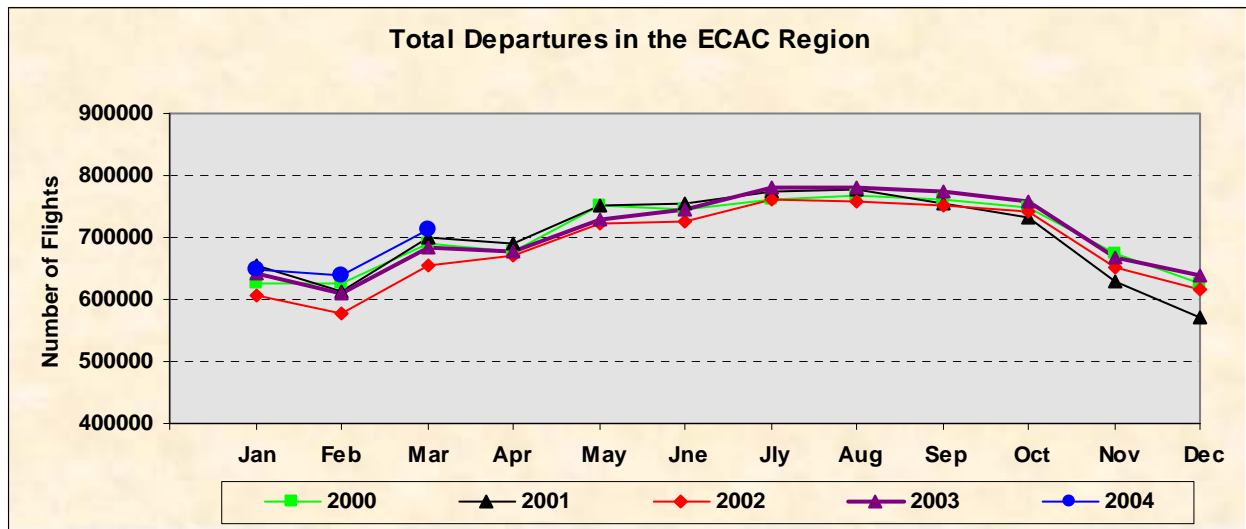
An analysis of the delay causes and categories, grouped by IATA codes, shows that more than half of them had an increase in delay share, with the largest rises in the Miscellaneous, Weather, Others and ATFM Weather at Destination categories. To offset these increases, there were decreases in the ATFM En-Route Demand/Capacity, Restrictions at Departure Airport, Flight Operations & Crewing and Aircraft & Ramp Handling categories (only those categories with more than one percent of the delay were taken into account).

With nine and a half percent share of the delay, Technical & Aircraft Equipment was the most penalising direct delay category and was followed by Restrictions at Departure Airport, Passenger & Baggage and ATFM En-Route Demand Capacity (with five and a half percent of the delay).

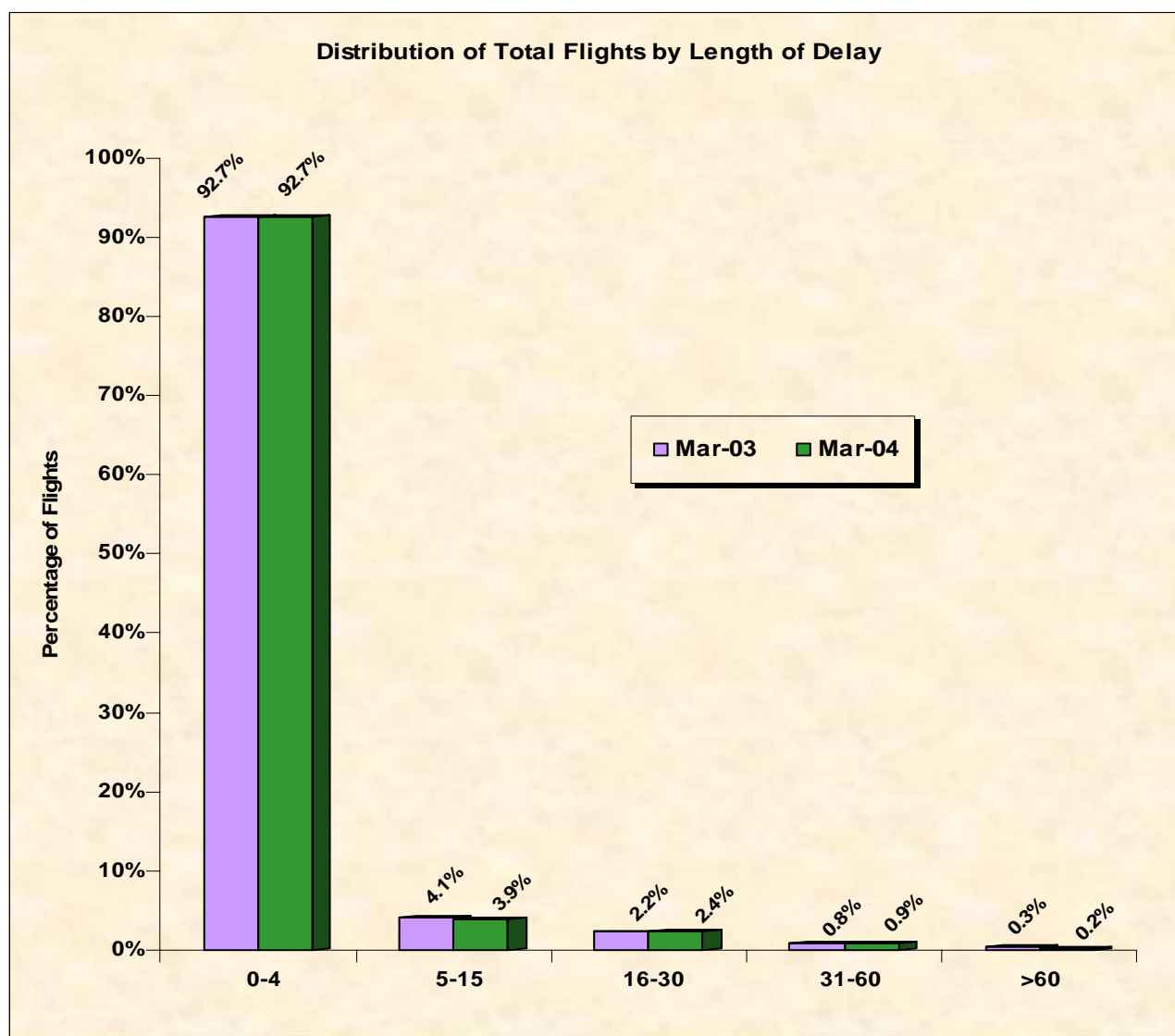
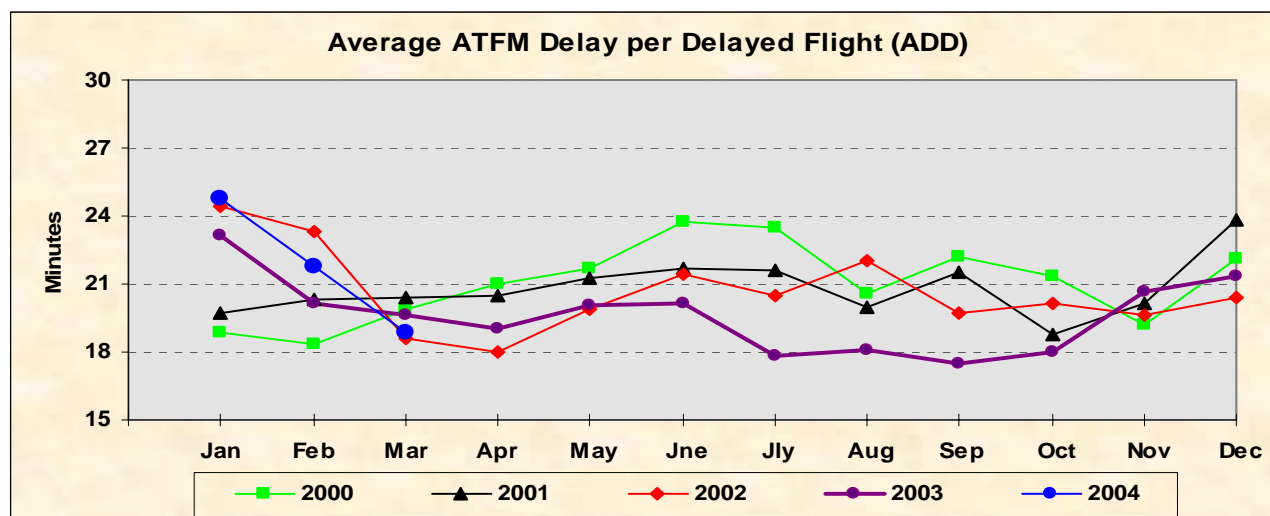
## SUMMARY OF SIGNIFICANT EVENTS

-  Weather conditions including snow, strong winds, fog and low visibility closing some airports or reducing arrival and departure rates for short periods.
-  Technical problems including ILS replacement at Vienna; radar maintenance at Roma ACC; radar problems at Tampere, Marseille and Barcelona ACCs; radar failure at Villafranca and Ljubljana ACCs; power failure at Southampton ACC; FDP failure at Munchen ACC; VOR outage at Larnaca and Lyon; frequency problems at Bordeaux and Stuttgart ACCs.
-  Aircraft accident at Skopje and Florence; disabled aircraft blocking runway at Naples and Jersey; aircraft incident at Brussels.
-  Staff issues at Madrid, Trondheim and London ACCs; industrial action by airport apron staff at Paris/Charles de Gaulle.
-  Work in Progress at Vienna and Catania; single runway operations at Amsterdam and Barcelona; runway closure at Toulouse.
-  Military activity at Shanwick, London, Bordeaux, Zurich and Geneva ACCs.
-  Other items included ATC sector reconfiguration at Zurich; new flight data processing system at Brest ACC; Shannon move to a new site; flight checking at Barcelona; new airspace structure and Motor Show at Geneva; ATC evacuation at London Heathrow; security alert at Athens; Skopje closed due to state funeral; zero rate applied due to ski traffic during the weekends; clock change in Europe but not in the USA causing a period of increased arrival traffic.

## 2. Year on Year Trends in Main Indicators

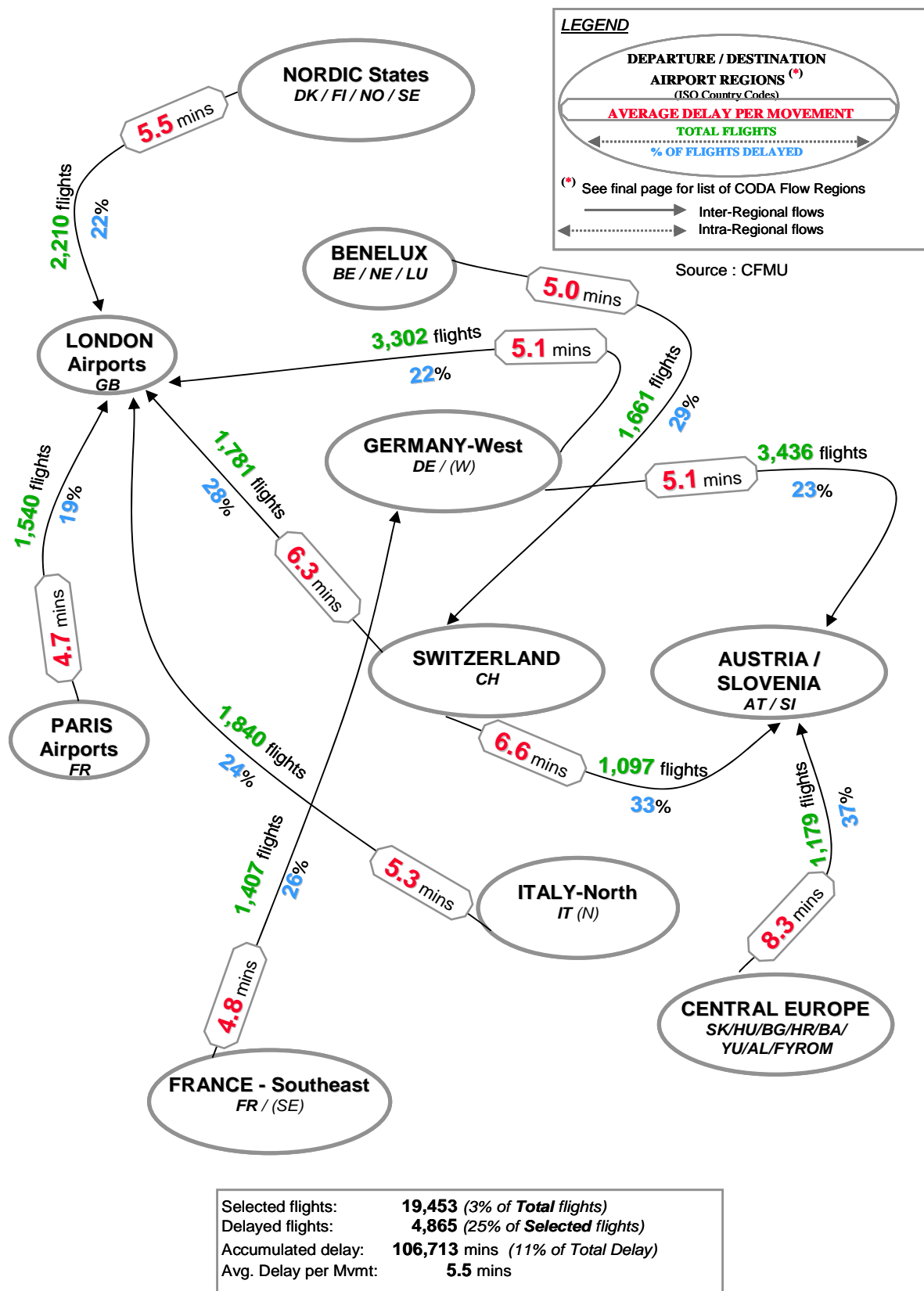


Source : CFMU ATFM Data



Source : CFMU ATFM Data

## 3. Most Affected Traffic Flows by CODA Regions



16/04/04 - FLCF0403.PPT

**ATFM Delay Situation on 10 Regional CODA Traffic Flows (>1,000 flights)  
in March 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	Central Europe	Austria/Slovenia	1,179	696	434	36.81	9,785	22.55	8.30
2	Switzerland	Austria/Slovenia	1,097	583	357	32.54	7,273	20.37	6.63
3	Switzerland	London Airports	1,781	775	506	28.41	11,175	22.08	6.27
4	Nordic States	London Airports	2,210	803	494	22.35	12,131	24.56	5.49
5	Italy-North	London Airports	1,840	753	433	23.53	9,798	22.63	5.33
6	Germany-West	London Airports	3,302	1,323	732	22.17	16,829	22.99	5.10
7	Germany-West	Austria/Slovenia	3,436	1,301	777	22.61	17,475	22.49	5.09
8	BENELUX	Switzerland	1,661	785	479	28.84	8,251	17.23	4.97
9	France Southeast	Germany-West	1,407	566	367	26.08	6,757	18.41	4.80
10	Paris Airports	London Airports	1,540	461	286	18.57	7,239	25.31	4.70
11	Austria/Slovenia	Austria/Slovenia	2,823	750	553	19.59	13,097	23.68	4.64
12	Switzerland	United Kingdom & Ireland	1,132	430	239	21.11	5,154	21.56	4.55
13	London Airports	Switzerland	1,794	631	412	22.97	7,821	18.98	4.36
14	Italy-South/Malta	London Airports	1,028	273	185	18.00	4,480	24.22	4.36
15	United Kingdom & Ireland	Switzerland	1,109	445	254	22.90	4,638	18.26	4.18
16	France Southeast	London Airports	1,175	362	213	18.13	4,872	22.87	4.15
17	Italy-North	Paris Airports	2,034	1,013	481	23.65	8,407	17.48	4.13
18	Other	Austria/Slovenia	1,158	361	235	20.29	4,664	19.85	4.03
19	United Kingdom & Ireland	Paris Airports	2,160	702	445	20.60	8,656	19.45	4.01
20	Paris Airports	Italy-North	2,011	778	452	22.48	7,763	17.17	3.86
Totals			35,877	13,791	8,334	23.23	176,265	21.15	4.91

**MOST DENSE TRAFFIC FLOWS (CFMU)**

Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM	ADM-Rank
1	Nordic States	Nordic States	69,253	990	604	0.87	12,030	19.92	0.17	29
2	United Kingdom & Ireland	United Kingdom & Ireland	31,257	1,762	841	2.69	13,262	15.77	0.42	22
3	Iberian Peninsula/Canaria	Iberian Peninsula/Canaria	26,433	1,601	588	2.22	8,658	14.72	0.33	24
4	Germany-West	Germany-West	23,799	3,143	1,710	7.19	31,874	18.64	1.34	8
5	Greece/Cyprus	Greece/Cyprus	10,969	153	82	0.75	2,382	29.05	0.22	27
6	London Airports	United Kingdom & Ireland	9,766	1,001	553	5.66	8,216	14.86	0.84	16
7	United Kingdom & Ireland	London Airports	9,726	2,281	1,380	14.19	31,464	22.80	3.24	3
8	Italy-South/Malta	Italy-North	9,506	867	510	5.37	10,507	20.60	1.11	12
9	Italy-North	Italy-South/Malta	9,461	1,648	1,104	11.67	33,737	30.56	3.57	2
10	Balearics/Spain East	Iberian Peninsula/Canaria	8,131	1,212	467	5.74	7,328	15.69	0.90	15
11	Iberian Peninsula/Canaria	Balearics/Spain East	8,113	1,588	675	8.32	9,357	13.86	1.15	10
12	Other	London Airports	8,027	251	167	2.08	4,753	28.46	0.59	19
13	London Airports	Other	7,934	979	563	7.10	8,121	14.42	1.02	14
14	Other	Germany-West	7,711	365	191	2.48	3,278	17.16	0.43	21
15	Italy-South/Malta	Italy-South/Malta	7,660	819	460	6.01	13,261	28.83	1.73	6
16	Germany-West	Other	7,645	898	491	6.42	9,173	18.68	1.20	9
17	Germany-East/Czech Rep	Germany-West	7,225	1,039	631	8.73	11,426	18.11	1.58	7
18	Germany-West	Germany-East/Czech Rep	7,188	345	140	1.95	1,982	14.16	0.28	26
19	Balearics/Spain East	Balearics/Spain East	6,875	572	290	4.22	5,450	18.79	0.79	17
20	Turkey	Turkey	6,795	0	0	0.00	0	0.00	0.00	35
21	Other	Paris Airports	6,748	316	94	1.39	1,236	13.15	0.18	28
22	Central Europe	Central Europe	5,396	4	3	0.06	133	44.33	0.02	33
23	BENELUX	Other	5,205	926	345	6.63	5,603	16.24	1.08	13
24	Other	BENELUX	4,958	144	54	1.09	790	14.63	0.16	30
25	France North	France North	4,703	99	44	0.94	586	13.32	0.12	31

Source: CFMU ATFM Data

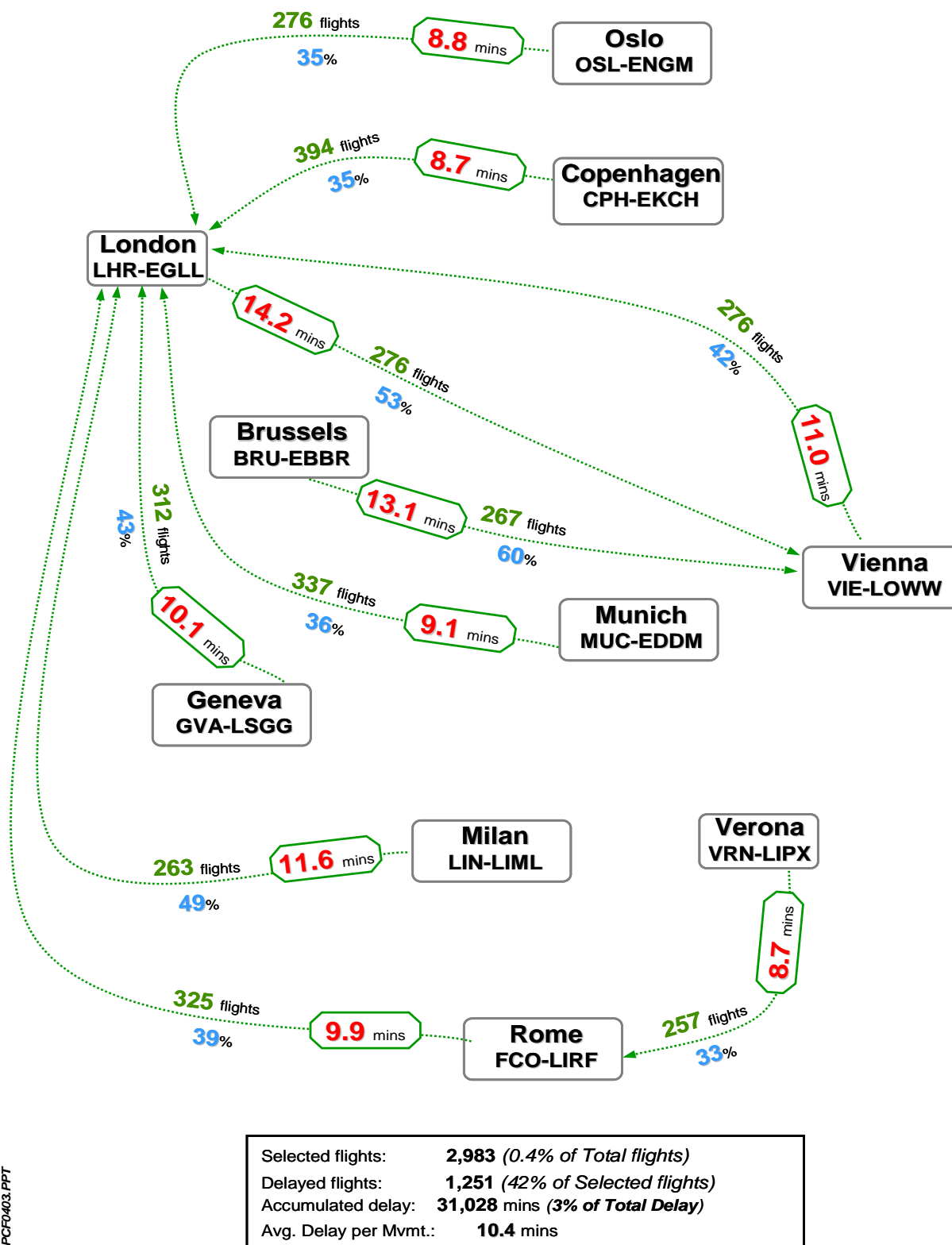


## 5. Most Affected City Pairs

**AVERAGE DELAY PER MOVEMENT**

Source : CFMU

Total Number of Flights &amp; % of Flights Delayed



16/04/04 - CPCF0403.PPT

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



## 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	Vienna	276	190	147	53.26	3,914	26.63	14.18
2	Brussels	Vienna	267	259	160	59.93	3,488	21.80	13.06
3	Milan/Linate	London/Heathrow	263	195	128	48.67	3,043	23.77	11.57
4	Vienna	London/Heathrow	276	164	116	42.03	3,036	26.17	11.00
5	Geneva	London/Heathrow	312	174	135	43.27	3,156	23.38	10.12
6	Rome/Fiumicino	London/Heathrow	325	174	126	38.77	3,203	25.42	9.86
7	Munich	London/Heathrow	337	176	122	36.20	3,067	25.14	9.10
8	Oslo/Gardermoen	London/Heathrow	276	148	97	35.14	2,442	25.18	8.85
9	Verona Villafranca	Rome/Fiumicino	257	119	84	32.68	2,246	26.74	8.74
10	Copenhagen/Kastrup	London/Heathrow	394	200	136	34.52	3,433	25.24	8.71
11	Dublin	London/Heathrow	625	300	209	33.44	5,421	25.94	8.67
12	Dusseldorf	Frankfurt	291	171	121	41.58	2,486	20.55	8.54
13	Venice/Tessera	Rome/Fiumicino	376	134	114	30.32	3,177	27.87	8.45
14	Madrid/Barajas	Frankfurt	311	211	138	44.37	2,617	18.96	8.41
15	Frankfurt	London/Heathrow	531	297	194	36.53	4,461	22.99	8.40
16	Stockholm/Arlanda	London/Heathrow	356	169	114	32.02	2,961	25.97	8.32
17	Brussels	Frankfurt	297	170	128	43.10	2,430	18.98	8.18
18	Zurich	London/Heathrow	406	230	157	38.67	3,293	20.97	8.11
19	Frankfurt	Vienna	363	239	145	39.94	2,941	20.28	8.10
20	Belfast/City Airport	London/Heathrow	261	121	81	31.03	2,082	25.70	7.98
Totals			6,800	3,841	2,652	39.00	62,897	23.72	9.25

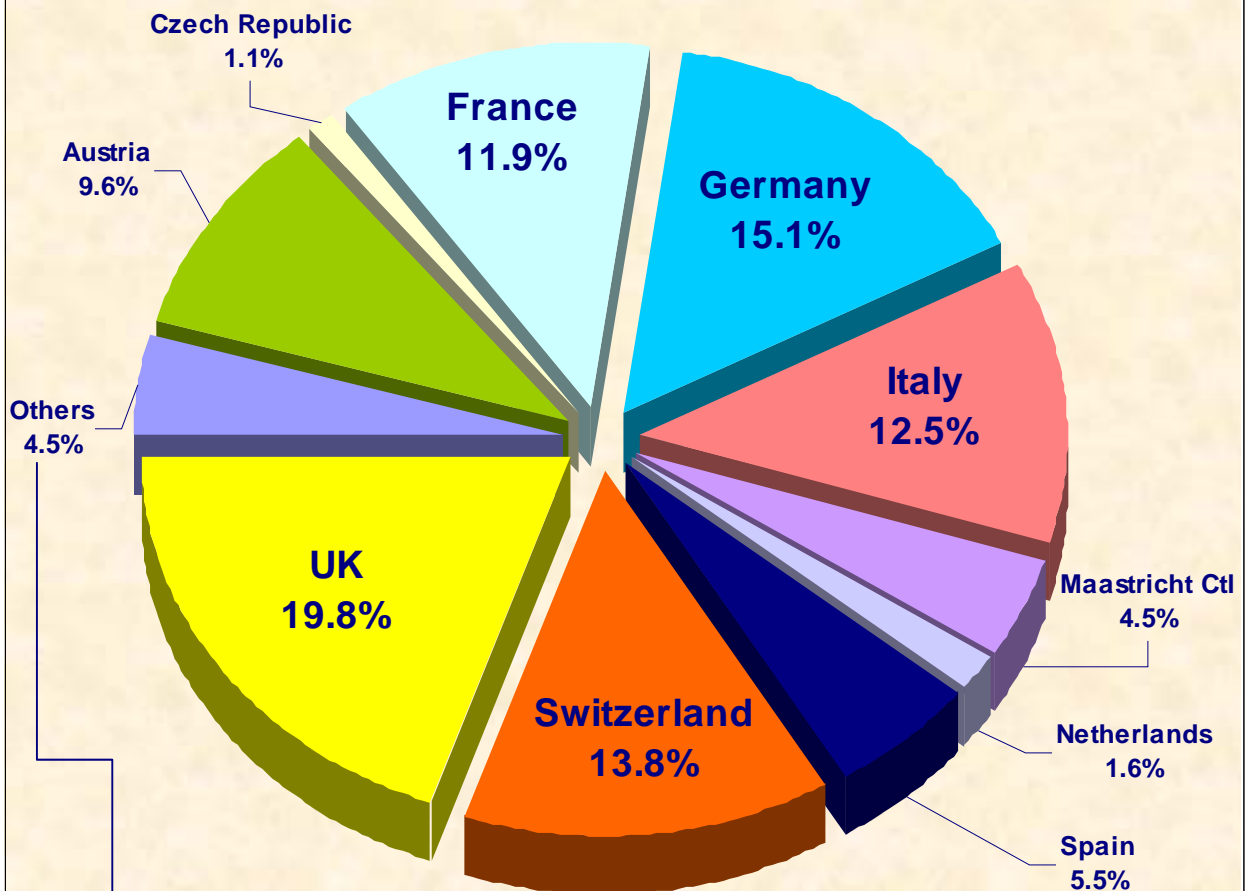
MOST DENSE CITY PAIRS (CFMU)										
Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM	ADM-rank
1	Barcelona	Madrid/Barajas	2,172	628	195	8.98	3,245	16.64	1.49	8
2	Madrid/Barajas	Barcelona	2,134	629	264	12.37	3,534	13.39	1.66	7
3	Milan/Linate	Rome/Fiumicino	1,328	450	251	18.90	8,104	32.29	6.10	3
4	Rome/Fiumicino	Milan/Linate	1,325	31	18	1.36	639	35.50	0.48	19
5	Palma De Mallorca	Barcelona	987	296	139	14.08	2,111	15.19	2.14	5
6	Barcelona	Palma De Mallorca	986	16	14	1.42	405	28.93	0.41	21
7	Paris/Charles-De-Gaulle	London/Heathrow	896	424	264	29.46	6,683	25.31	7.46	1
8	London/Heathrow	Paris/Charles-De-Gaulle	891	238	113	12.68	1,950	17.26	2.19	4
9	Toulouse/Blagnac	Paris/Orly	806	72	23	2.85	180	7.83	0.22	25
10	Paris/Orly	Toulouse/Blagnac	805	49	22	2.73	311	14.14	0.39	22
11	Athens	Makedonia	786	49	29	3.69	928	32.00	1.18	12
12	Makedonia	Athens	769	1	0	0.00	0	0.00	0.00	32
13	Munich	Hamburg	757	145	68	8.98	1,103	16.22	1.46	9
14	London/Heathrow	Amsterdam	754	86	49	6.50	904	18.45	1.20	10
15	Berlin-Tegel	Munich	754	76	37	4.91	620	16.76	0.82	13
16	Munich	Berlin-Tegel	754	29	6	0.80	52	8.67	0.07	30
17	Dusseldorf	Munich	750	114	62	8.27	1,428	23.03	1.90	6
18	Amsterdam	London/Heathrow	749	357	220	29.37	5,172	23.51	6.91	2
19	Hamburg	Munich	744	118	39	5.24	542	13.90	0.73	15
20	Munich	Dusseldorf	743	61	25	3.36	442	17.68	0.59	16
21	Madrid/Barajas	Palma De Mallorca	741	5	3	0.40	84	28.00	0.11	29
22	Palma De Mallorca	Madrid/Barajas	739	155	72	9.74	879	12.21	1.19	11
23	Bergen/Flesland	Oslo/Gardermoen	693	0	0	0.00	0	0.00	0.00	33
24	Oslo/Gardermoen	Bergen/Flesland	692	0	0	0.00	0	0.00	0.00	34
25	Helsinki-Vantaa	Stockholm/Arlanda	686	29	20	2.92	242	12.10	0.35	24

Source: CFMU ATFM Data

## 7. ATFM Delay Share by Country

## ATFM Delay Share as Imposed by Country based on the most penalising regulation

(Source : CFMU)

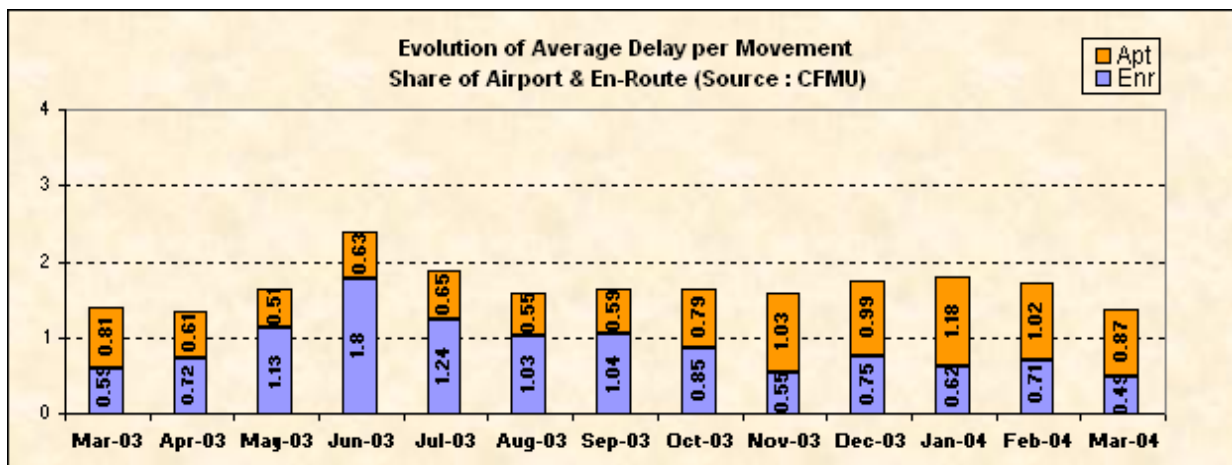
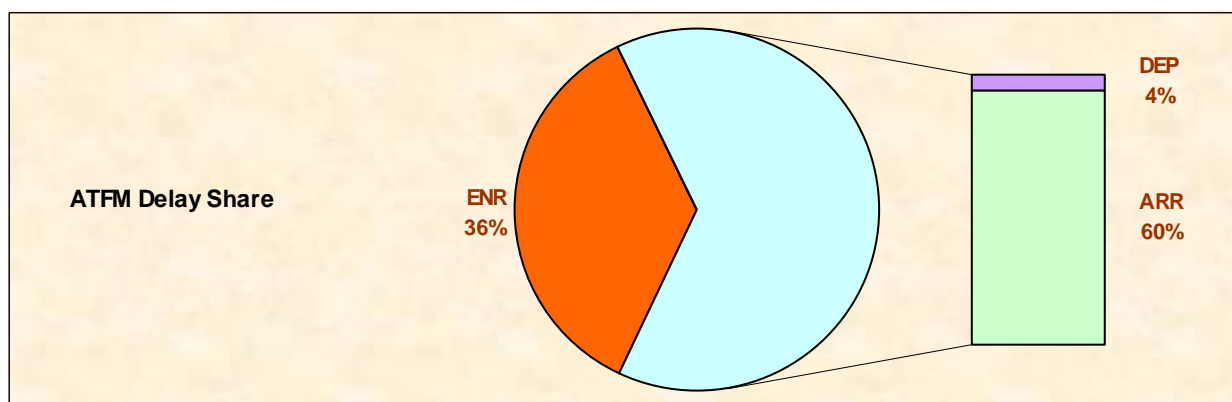
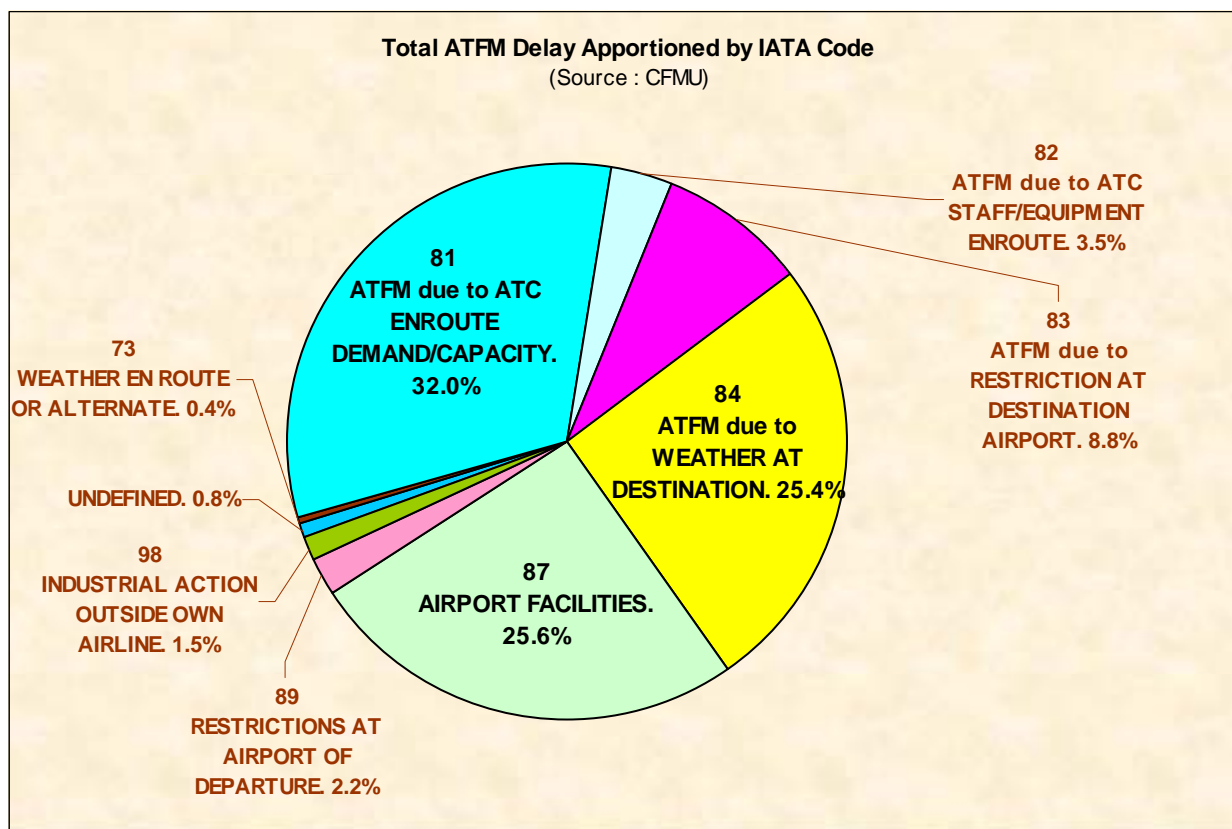


Others = Belgium, Canary Islands, Cyprus, Denmark, Egypt, Finland, Greece, Ireland, Morocco, Norway, Poland, Portugal, Slovakia, Slovenia & Sweden.

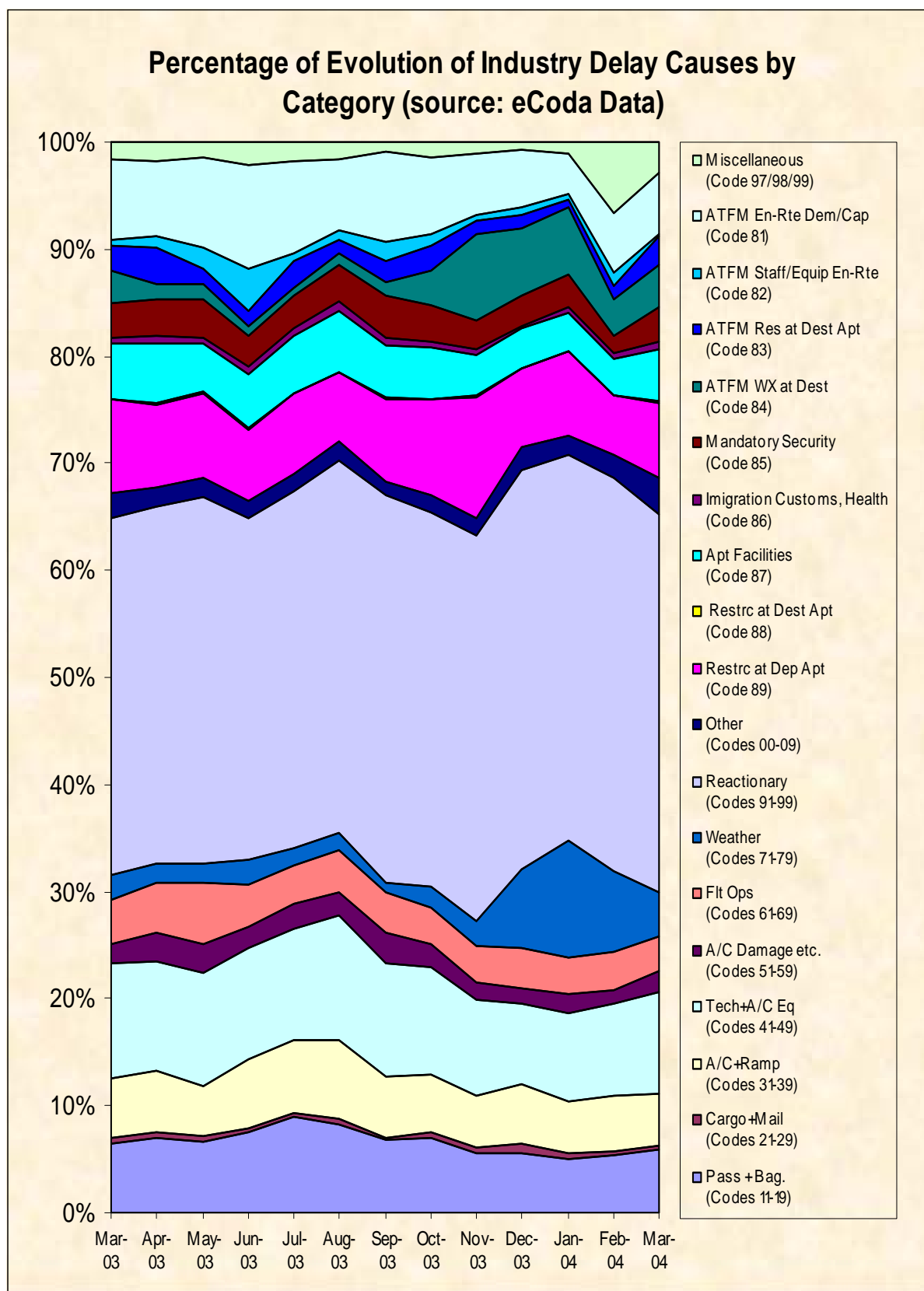
*(The remaining countries did not cause delay)*

Mar 2004

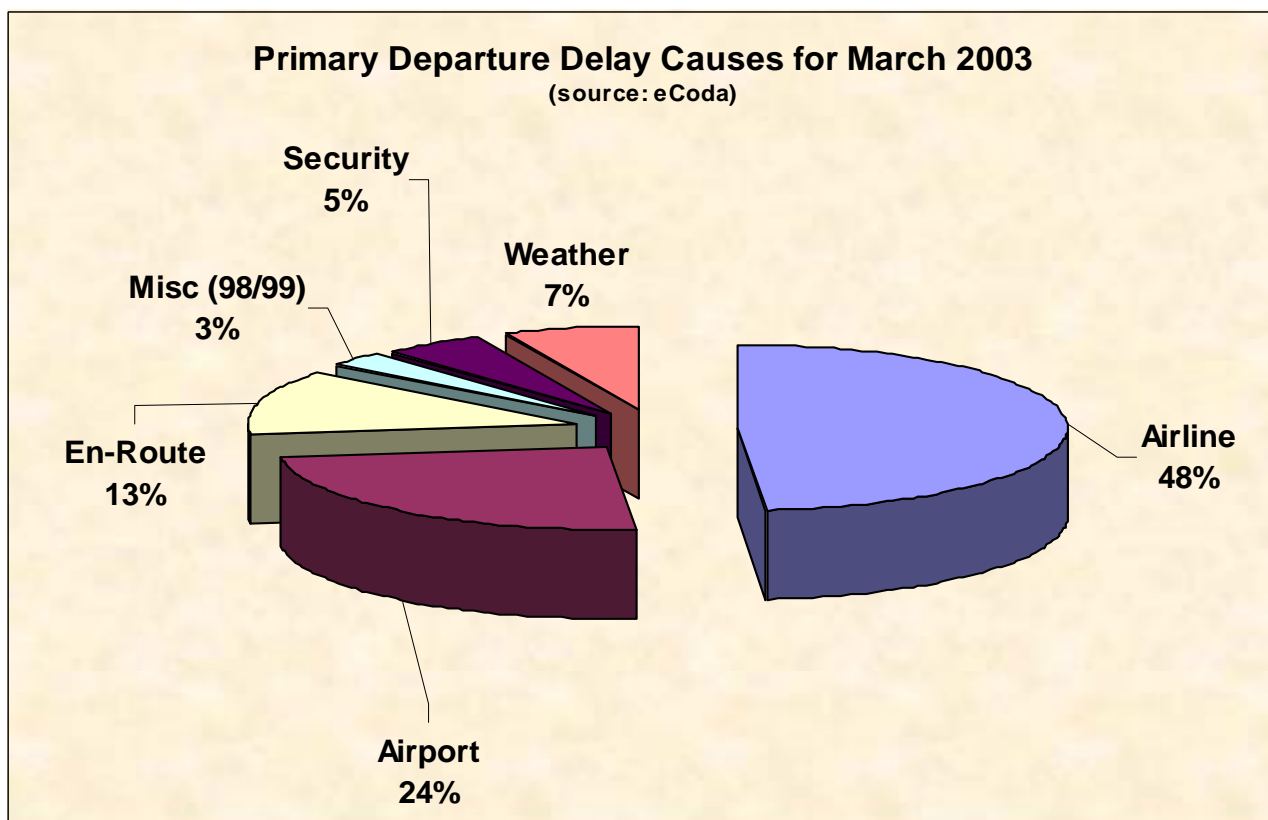
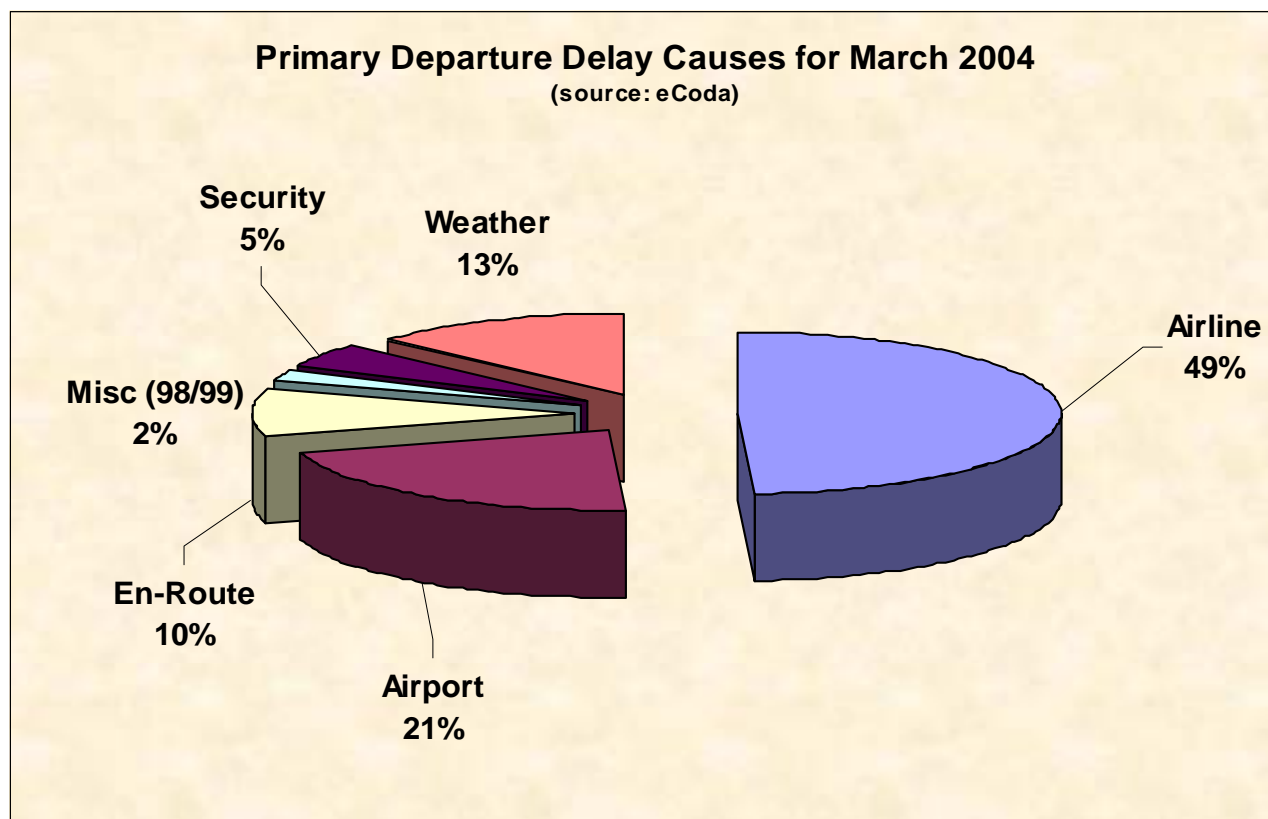
# 8. Reasons for ATFM Delay



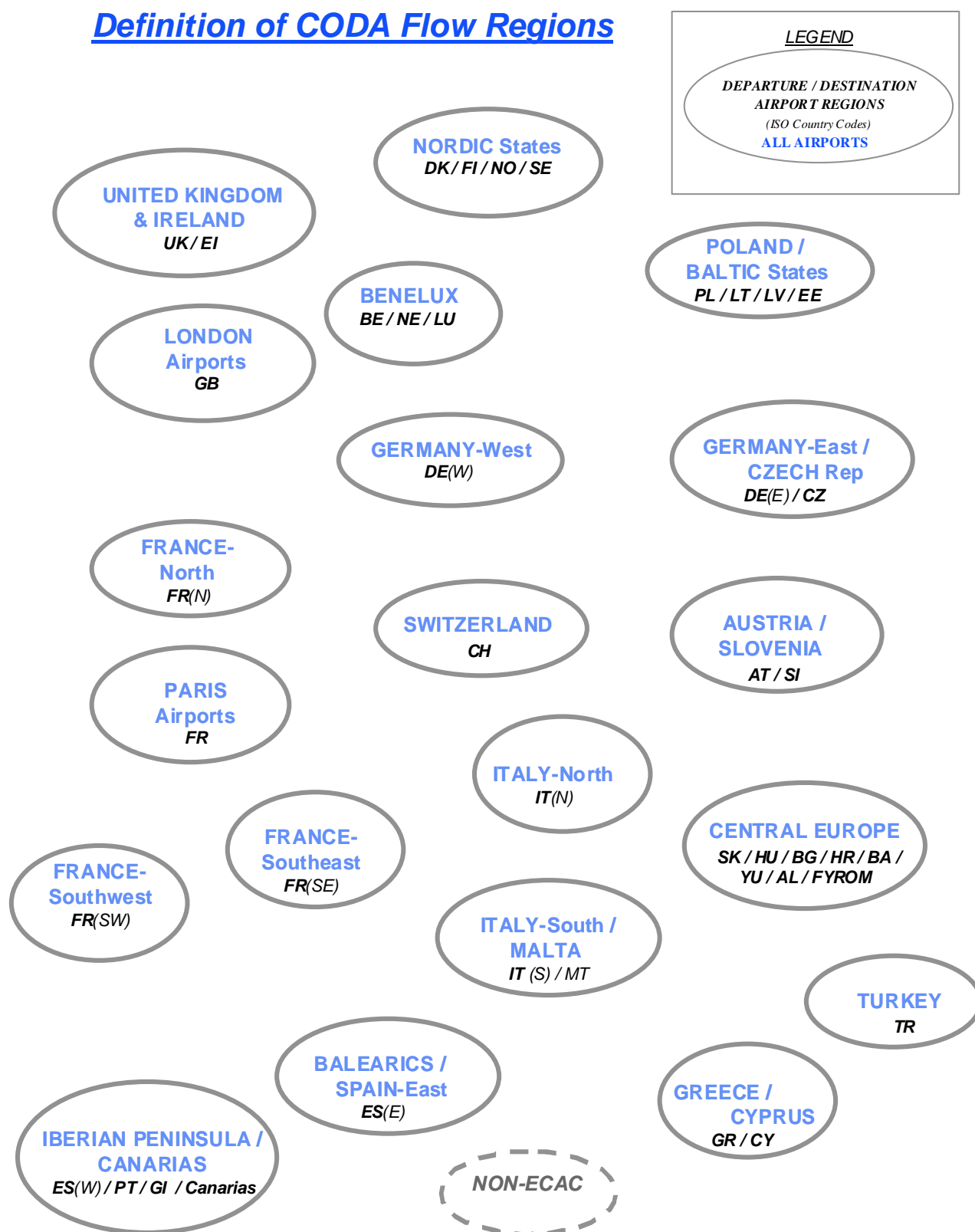
## 9. Consolidated Evolution of Industry Delay Causes by Category



## 10. Primary Departure Delay Causes



## Definition of CODA Flow Regions (Annex 1)

Definition of CODA Flow Regions

## Glossary of Terms and Abbreviations (Annex 2)

### Delay Parameter Abbreviations

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

### Glossary of Terms

<b>AEA</b>	Association of European Airlines
<b>ATFM</b>	Air Traffic Flow Management
<b>ATS</b>	Air Traffic Services
<b>CFMU</b>	Central Flow Management Unit
<b>CODA</b>	Central Office for Delay Analysis
<b>EATMP</b>	European Air Traffic Management Program
<b>ECAC</b>	European Civil Aviation Conference
<b>EDAS</b>	European Delay Analysis System
<b>ERA</b>	European Regions Airline Association
<b>EURACA</b>	European Air Carrier Assembly
<b>IACA</b>	International Air Carrier Association
<b>IATA</b>	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 ( <i>Mail Only</i> )
28 (CL)	LATE POSITIONING ( <i>Mail Only</i> )
29 (CA)	LATE ACCEPTANCE ( <i>Mail Only</i> )

### 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<sup>2</sup>, 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*

<sup>2</sup> 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				IATA	
REASON FOR REGULATION	CODE	REGULATION LOCATION	EXAMPLE	CFMU	
				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
Aerodrome Capacity	G	D	Lack of parking; taxiway closure; areas closed for maintenance; demand exceeds the declared airport capacity	83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
		A		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
Ind Action non-ATC	N	D	Firemen's strike	87	AIRPORT FACILITIES
		A		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
Weather	W	D	Thunderstorm; low visibility; X winds	83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
		E		89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		A		73	WEATHER EN ROUTE OR ALTERNATE
Other	O	D	Security alert	84	ATFM due to WEATHER AT DESTINATION
		E		89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		A		81	ATFM due to ATC ENROUTE DEMAND/CAPACITY
		A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT