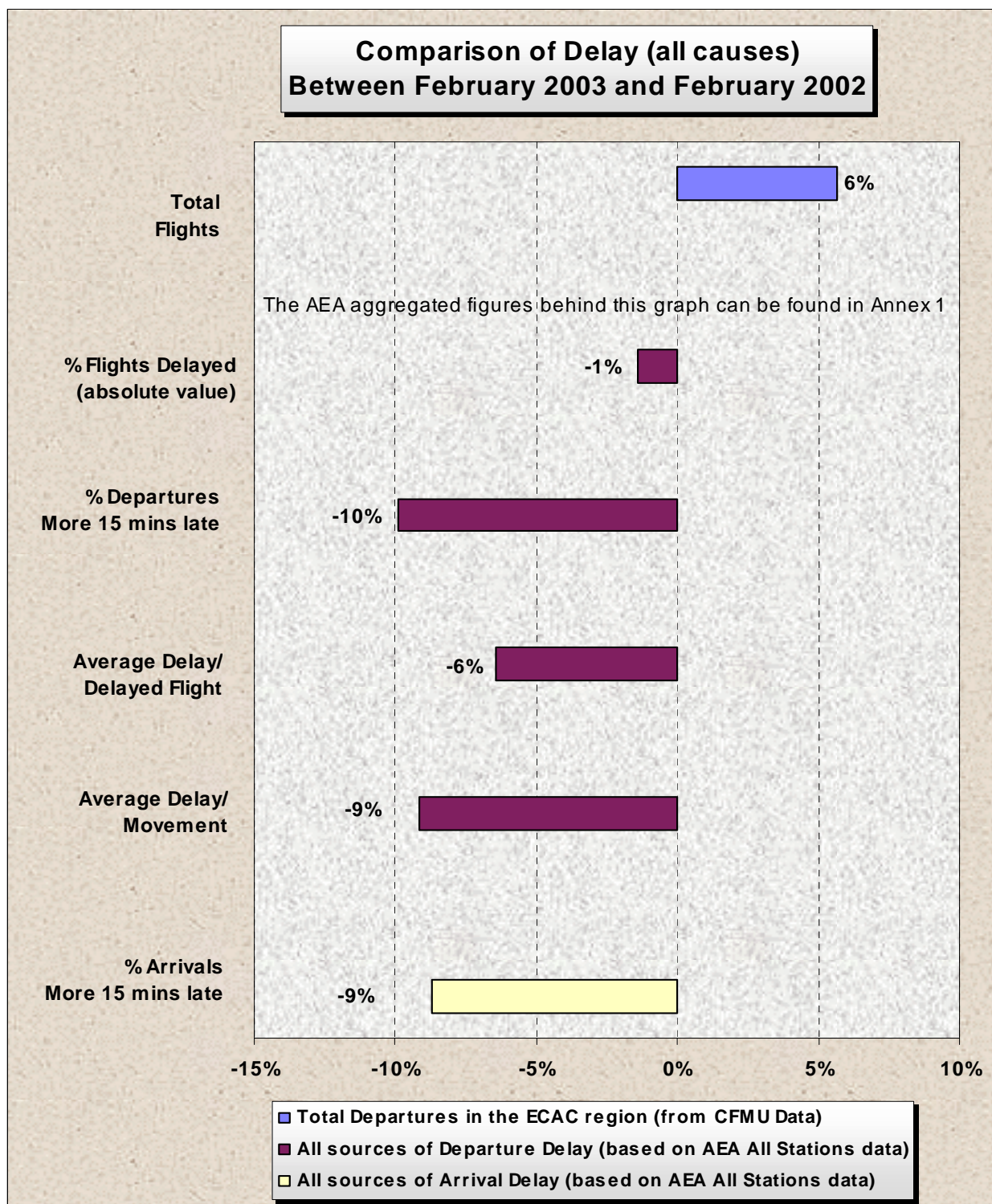


# Delays to Air Transport in Europe February 2003

February 2003



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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, AEA 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. However, as a result of the current form of the database, **the graphics and charts refer only to departure delays (except in the Flights within 15 minutes of Schedule graph)**. A glossary of terms and abbreviations used throughout the report is given in Annex 3 and a complete list of the IATA codes used for the AEA graphs is given in Annex 4.

*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. Aggregated data from AEA and airline data from eCODA, on the other hand, are based on real recorded delays.*

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## 1. ANALYSIS

Traffic in the ECAC region rose significantly when compared with February 2002, but it was still slightly below that of February 2001. Unlike January where delays increased, due mainly to severe weather at the airports, delays in February fell to their lowest level since 1998. There were similarly large decreases in the number of flights delayed by fifteen minutes and those delayed by over sixty minutes. The main reasons for the application of regulations were a lack of ATC capacity, weather, airport capacity and staffing issues.

### ATFM DELAY SITUATION FOR FEBRUARY 2003

Departures throughout the ECAC region increased by six percent when compared to February 2002, but were still slightly below the February 2001 level. Domestic flights increased by two and a half percent and international traffic rose by eight percent. Most of the busier countries had an increase in International traffic, with the largest real increases in the United Kingdom, Germany, Italy and Spain. These countries also had the largest rise in domestic flights, with Sweden having the largest decrease in International traffic and France having the largest fall in domestic traffic.

While the traffic figures showed strong growth, delays fell sharply to their lowest February level since 1998. The Average Delay per Movement (due solely to ATFM measures) also fell significantly to just over one and a half minutes; a fall of over thirty five percent. As the amount of delay fell by more than the number of delayed flights, the Average Delay per Delayed Flight fell by thirteen percent. The main causes of delay were a lack of ATC capacity, weather, airport capacity and staffing issues. A graphical representation of the delay reasons is given on page 22.

Delayed flights decreased by over twenty percent, with the Percentage of Flights delayed decreasing by almost three percentage points to eight percent. Flights delayed by more than sixty minutes also fell, going down by forty four percent. Less than one in three hundred flights in February had an ATFM delay of more than one hour.

Not all ATFM delay was caused by ATC; almost sixty percent of the total ATFM delay in the ECAC region was due to regulations put in place to protect airports because of lack of capacity, parking problems, low visibility procedures, etc. The amount of delay due to these restrictions rose by only six percent. The relationship between airport delay and en-route delay is given on page 22. Weather accounted for over fifty percent of airport related delay, followed by airport capacity with twenty nine percent and ATC at the airport with ten percent. The main real increases were in the airport capacity, weather and ATC staffing categories.

Airports with the largest levels of delay due to this type of regulations were Rome and Frankfurt. Compared with February 2002, the largest real increases were at Rome, followed by the Paris airports and Zurich, with the largest decrease at Amsterdam. Five airports within the ECAC region, Rome, Naples, Barcelona, Frankfurt and Zurich, had more than fifty percent of their total ATFM delay due to their own restrictions, with Rome, Naples and Barcelona having more than seventy percent.

As was the case in January, 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 a double figure increase. The largest real increases were at London/Stansted, Munich, Frankfurt and Madrid, with London/Stansted also having the largest percentage increase. At the other end of the scale, Stockholm and Basle/Mulhouse had the largest real decreases with Basle/Mulhouse having the largest percentage fall.

Turning to delays, Zurich and Paris/Charles de Gaulle had the largest amount of delay imposed on departing traffic<sup>1</sup>. Less than thirty percent of the airports had a real increase in delay, with the largest of these at Milan/Linate, Zurich and Dusseldorf. At the other end of the scale, there was a large real decrease at Amsterdam, followed by London/Heathrow. When traffic levels were taken into account, Geneva had the largest Average Delay per Movement with over five and a half minutes, followed by Zurich, Milan/Linate, Dusseldorf and Venice; each with an average delay of more than four minutes. Compared with February last year, only three airports, Milan/Linate, Venice and Dusseldorf had an increase of one minute or more whereas at the other end of the scale, almost thirty five percent of the airports had a decrease of more than one minute. Amsterdam had the largest decrease with a fall of eight minutes, coming down from ten minutes last year to two minutes.

Looking at airports as destinations shows that traffic arriving at Frankfurt and Rome accumulated the most ATFM delay. Only around twenty percent of the airports had an increase in delay, with the largest real increase at Rome and Munich. At the other end of the scale, there were large decreases at London/Heathrow and Amsterdam. Taking traffic levels into account, Rome had the largest Average Delay per Movement with nine minutes, followed by Frankfurt with six minutes and Zurich with five minutes. Only twenty percent of the airports had an increase in average delay, with only five of them, Rome, Naples, Munich, Zurich and Barcelona, having an increase of more than one minute. The largest decreases, on the other hand, were at Amsterdam, London/Heathrow and Milan/Malpensa. In all, more than forty percent of the airports had a decrease of more than one minute, with sixteen percent having a decrease of more than three minutes.

The busiest city pair in February was Madrid-Barcelona, with almost two thousand flights in each direction. Rome-Milan/Linate was the only other pair with more than a thousand flights in each direction. A more complete list of the busier city pairs is given at the bottom of page 17. Just over fifty five percent of the busier pairs (those with more than two hundred and fifty flights per month) had an increase in flights, with more than a quarter of them having an increase of ten percent or more. Cologne/Bonn-Berlin had the largest real increase with Nice-Paris/Orly having the largest decrease.

The most affected city pairs (due solely to ATFM) were Torino-Rome, with an Average Delay per Movement of twelve minutes, followed by Milan/Linate-Rome with eleven minutes and Geneva-London/Gatwick, Catania-Rome, Frankfurt-Rome and Cagliari-Rome, all with average delays of more than ten minutes. For a schematic

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<sup>1</sup> It must be remembered that these are total ATFM delays to flights departing from/arriving at these airports and does not necessarily imply that these delays are due to action at these airports.



representation of the top ten most affected pairs, see the diagram on page 16 and for a more detailed list of the most affected pairs, see the table at the top of page 17.

Compared with February last year, well over a third of the pairs had an increase in Average Delay per Movement, with over twenty percent of them having an increase of more than one minute. The largest increase, more than nine minutes, were between Milan/Linate-Rome and Cagliari-Rome. Rome was the destination in each of the top ten worst affected pairs. At the other end of the scale, there were decreases of over fifteen minutes between Amsterdam-Birmingham, Amsterdam-London/Heathrow and Amsterdam-London/Gatwick, with a further seven pairs having a decrease of more than ten minutes. Overall, a quarter of the pairs had a decrease of more than one minute, with almost ten percent having a reduction of five minutes or more.

The countries (those with more than one thousand two hundred and fifty flights per month) with the largest Average Delay per Movement, for departure traffic, were Switzerland and Hungary. Compared with February last year, only four of the busier countries, Italy, Tunisia, Switzerland and Romania, had an increase in average delay, but none of them had an increase of more than one minute. At the other end of the scale, more than a quarter of the countries had a decrease of more than one minute, with the largest falls in the Netherlands (down by seven minutes) and the United Kingdom (down by three minutes).

Looking at countries as destinations shows that arrivals in Switzerland, the United States (from airports within the ECAC region) and the Netherlands, had the largest Average Delay per Movement; more than three minutes. Compared with the same month of last year, only six countries had an increase in average delay, but once again, none of them had an increase of more than one minute. At the other end of the scale, it was a different story with more than one third of the countries having a decrease of more than one minute, with the largest decreases in the Netherlands, the United States and the United Kingdom.

The most affected flows between countries were Switzerland-United Kingdom and the United Kingdom-Switzerland (see table at the bottom of page 19). Compared with February last year, almost forty percent of the flows had an increase in Average Delay per Movement, with thirteen percent of them having an increase of more than one minute. The largest rises were between Germany-France, Belgium-Italy and Switzerland-Germany. On the other hand, a third of the flows had a decrease of one minute or more, with the largest decreases on the flows between the Netherlands-United Kingdom (down nearly fourteen minutes), the United Kingdom-Netherlands (down ten minutes) and Belgium-United Kingdom (down nine minutes).

Based on the locations of the most penalising regulations, traffic (including overflights) using the airports of the United Kingdom, Germany, France, Switzerland and Italy had the largest share of ATFM delay and between them, they accounted for over eighty percent of the total ATFM delay. Compared with February last year, Germany had the largest increase, followed by Switzerland, France and Italy. The United Kingdom<sup>2</sup> had the largest decrease with a fall of over twenty seven percentage points. The Netherlands also had a significant fall.

<sup>2</sup> There were still regulations in force in February last year to facilitate the move of London ACC to the new premises.

Looking at the amount of delay imposed shows that the United Kingdom imposed the most delay on flights using its airspace, closely followed by Germany and France. Compared with February last year, one third of the countries had an increase in delay, with Germany, Switzerland, Italy and France having the largest real rises. At the other end of the scale, there was a large decrease in the United Kingdom (down almost half a million minutes) and the Netherlands. Switzerland had the largest percentage of flights delayed with eleven percent.

Taking traffic handled (again including overflights) into account shows that Switzerland was the most penalising country with an Average Delay per Movement of two minutes, followed by Italy and the United Kingdom, the only other countries to have an average delay of more than one minute. Compared with February last year, Switzerland had the largest increase in average delay, but it was less than one minute. At the other end of the scale, both the United Kingdom and the Netherlands had decreases of more than three minutes and were the only two countries to have a fall of more than one minute.

The most penalising UACs/ACCs were London, Zurich and Paris, but whereas both Zurich and Paris had an increase in delay, London ACC had a decrease of four hundred and fifty thousand minutes.

## AIRLINE DATA

Delays on air traffic in the ECAC region, due to all causes, increased by nine percent, when compared with February last year, due mainly to increases in the reactionary, weather and technical & aircraft equipment categories. However, because of the large increase in flights, the Average Delay per Movement actually fell by nine percent to twelve minutes. Istanbul was the most penalising airport, with an average delay of twenty four minutes, whereas at both Stockholm and Brussels, the average delay was seven minutes. Compared with February last year, fifty percent of the airports had an increase in average delay, with the largest increase, fourteen minutes at Istanbul (due mainly to the weather and reactionary categories), followed by Zurich, with a rise of eight minutes and Rome, with a rise of seven minutes. Istanbul also had the largest percentage increase. At the other end of the scale, there was a decrease of nine minutes at Amsterdam and five minutes at Brussels. Brussels and Amsterdam also had the largest percentage falls.

Delays due solely to ATFM measures fell by nearly twenty three percent, with the Average Delay per Movement decreasing by over thirty five percent to two minutes. This was higher than that calculated from CFMU data.

The number of flights delayed increased by sixteen percent but because of the large increase in total traffic, the percentage of flights delayed fell by one and a half percentage points to forty seven percent. Flights delayed by more than fifteen minutes also decreased, with departures going down by two and half percentage points to twenty one percent and arrivals going down two percentage points to twenty four percent.

The graph of the comparison of the main indicators shows that for the two sources, both the observed and the derived indicators followed the same trend (see page 24). There were however, some differences in the values and these were due in part to

the way the data was recorded, the mix of traffic and the way the delays were calculated (see note in the Foreword). These differences, however, do not affect the long term correlation of the ATFM delay of the two sources as the graph on page 25 illustrates. This is also true when the eCODA airline data is added to the graph.

An analysis of delay causes and categories, grouped by IATA categories, shows that a majority of them had an increase in delay share, with ATFM Restrictions at Destination Airport having by far the largest increase, followed by the Other, Weather and Airport Facilities categories. To offset these increases, there were falls in the ATFM En-Route Demand/Capacity and ATFM Weather at Destination categories. Technical and Aircraft Equipment was the most penalising direct delay category, with eleven percent, followed by weather with eight percent and ATFM En-Route Demand/Capacity with six percent. Reactionary had by far the largest real increases, with Weather and Technical and Aircraft Equipment also having significant increases. At the other end of the scale, there was a large decrease in the delay due to ATFM En-Route Demand/Capacity, with ATFM Weather at Destination having a smaller, yet none the less significant fall.

### eCODA Data

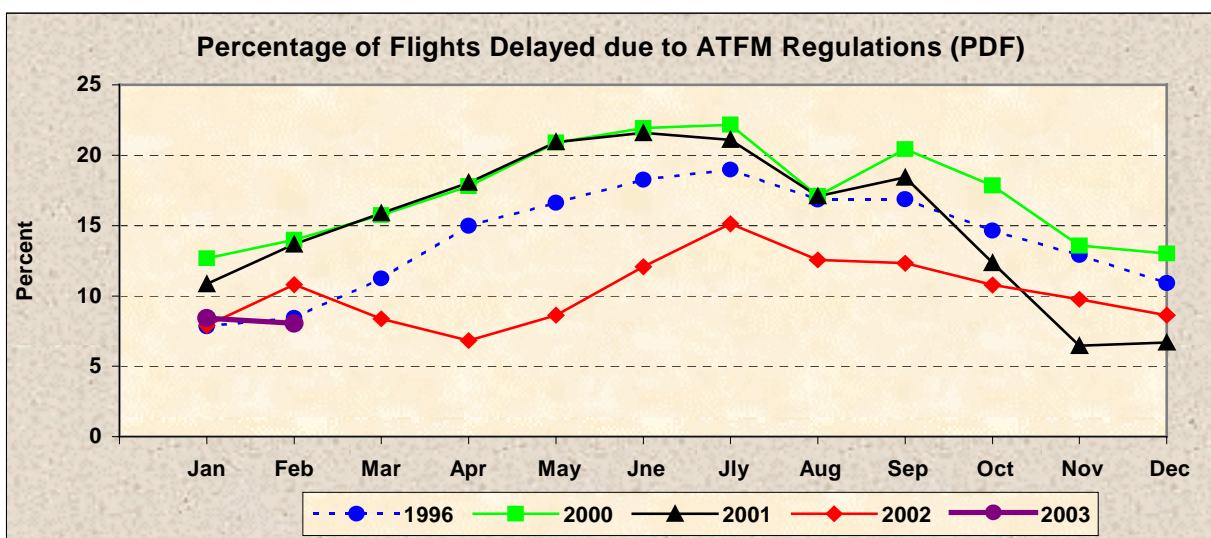
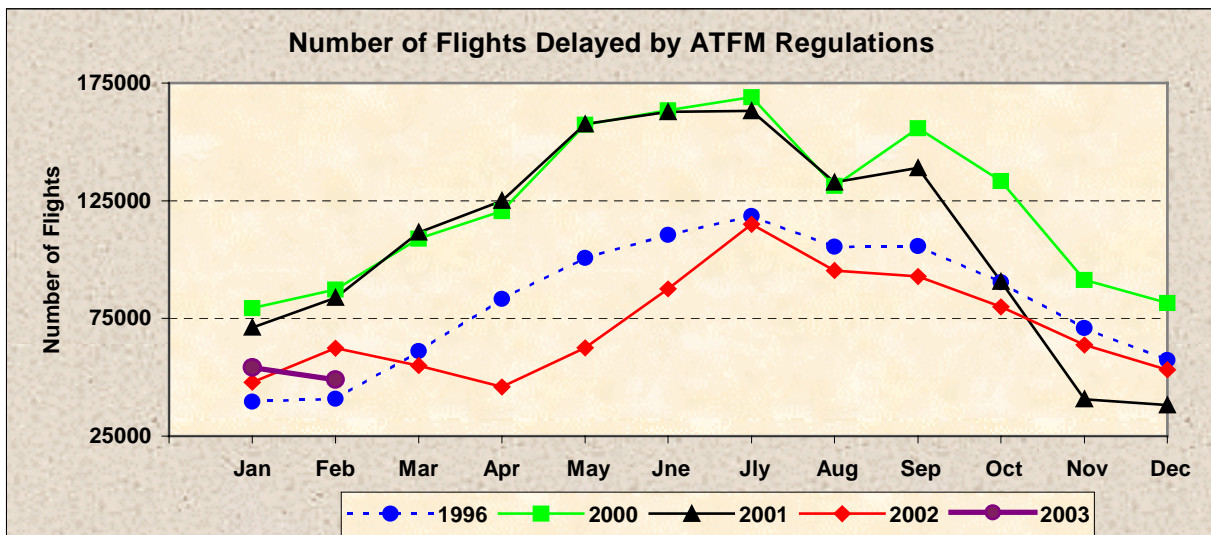
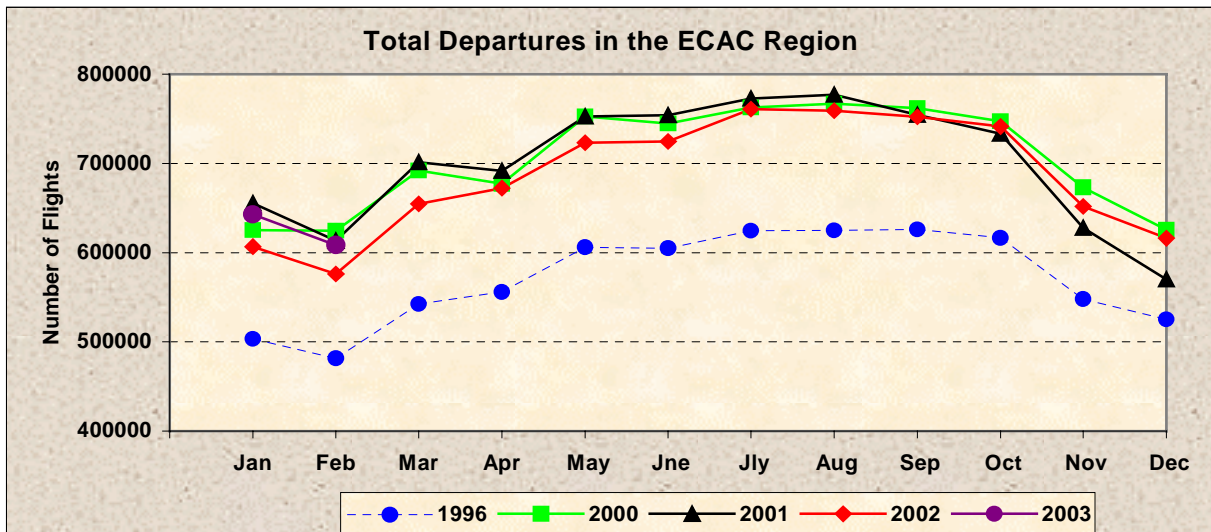
The Average Delay per Movement for departures was eleven minutes; an increase of seven percent on February last year. This was slightly lower than that calculated from the AEA aggregated data, and reflects the greater data capture and the different mix of traffic. While forty four percent of flights were delayed (nineteen percent by more than fifteen minutes), ten percent departed before their scheduled departure time.

Turning to arrivals, the Average Delay per Movement was slightly higher at twelve minutes which was also a seven percent increase on February last year. Forty two percent of the flights were delayed, with twenty percent delayed by more than fifteen minutes. On the other hand, thirty one percent of flights arrived ahead of schedule.

### SUMMARY OF SIGNIFICANT ATFM DELAY EVENTS

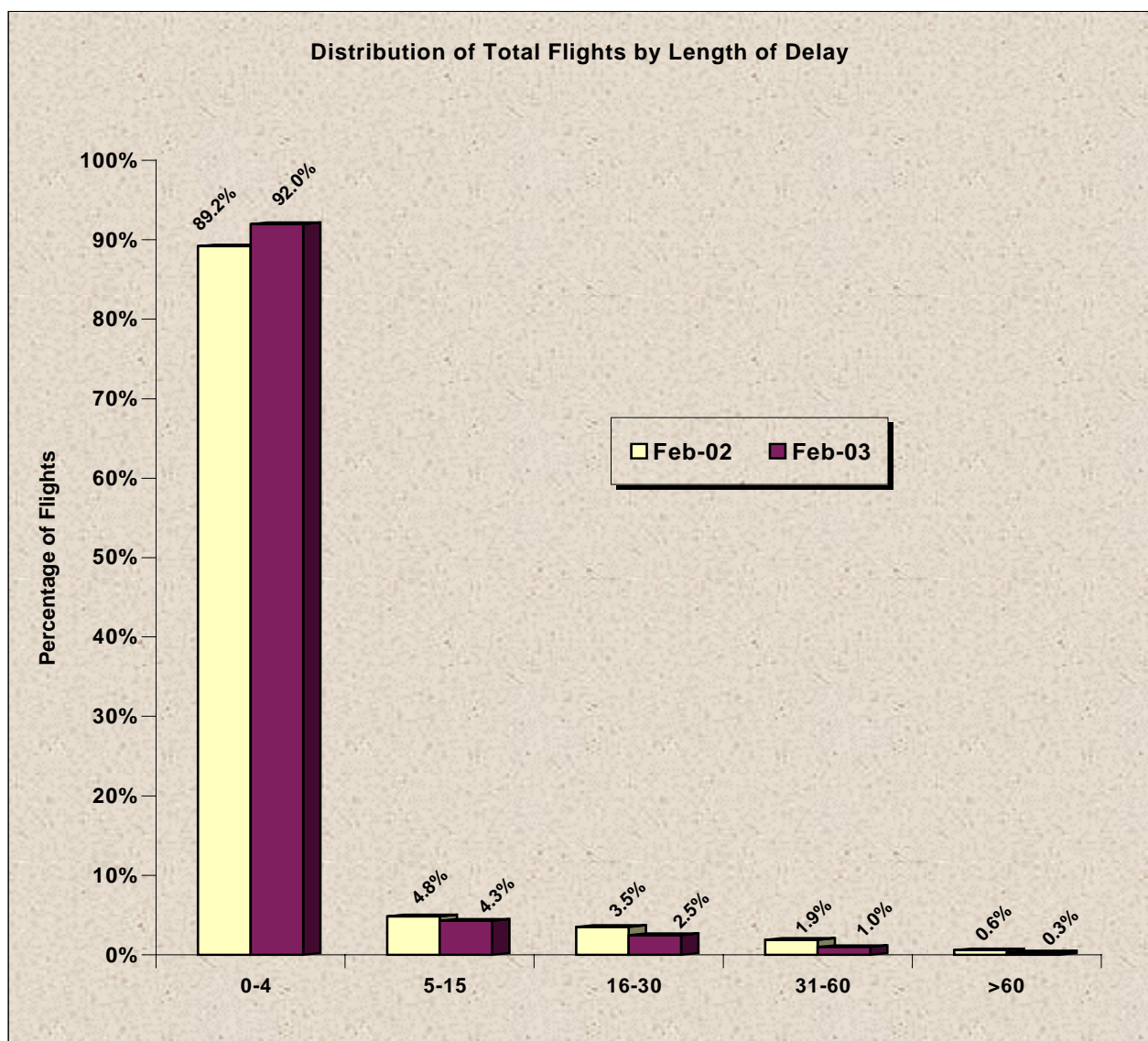
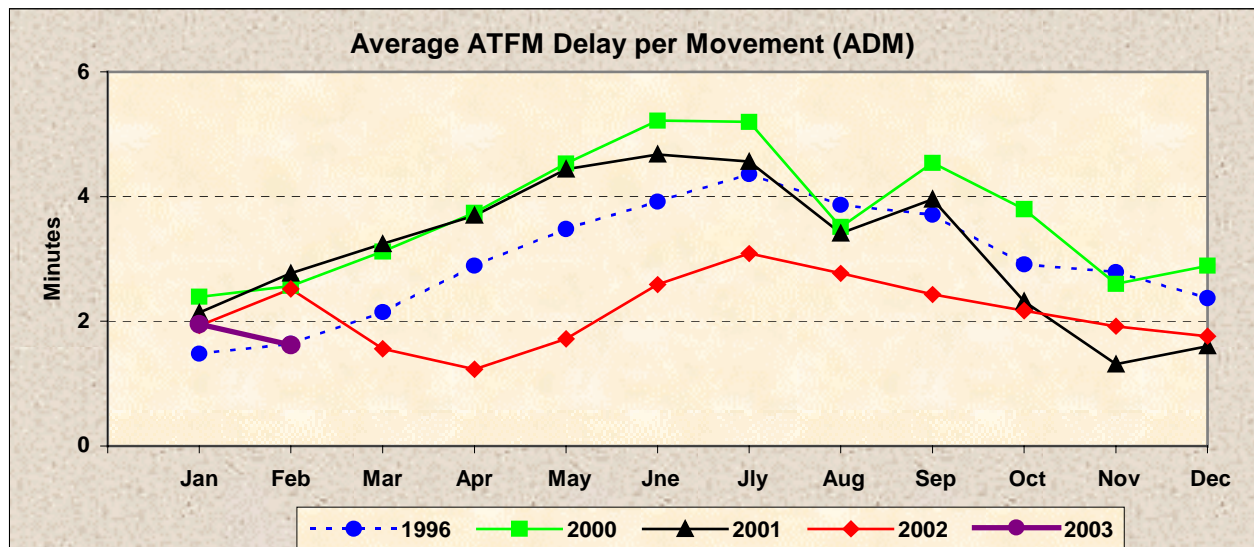
- ✧ Weather conditions including low visibility, strong winds and snow.
- ✧ Radar maintenance at Scottish ACC; radar failure at Nice.
- ✧ Catania closed overnight on more than one occasion for WIP; there was also WIP at Rome and single runway operations in Barcelona.
- ✧ Staff shortages at London and Scottish ACCs.
- ✧ Military activity in Germany and Shanwick; NATO military exercise.
- ✧ Industrial action at Milan/Malpensa and Bari; handling personnel at the Milan airports and Bergamo.
- ✧ Emergency situation at Dublin and Prague.
- ✧ Marseille ACC implemented new procedures and Amsterdam opened a new runway and renumbered other parallel runways.

## 2. Year on Year Trends in Main Indicators



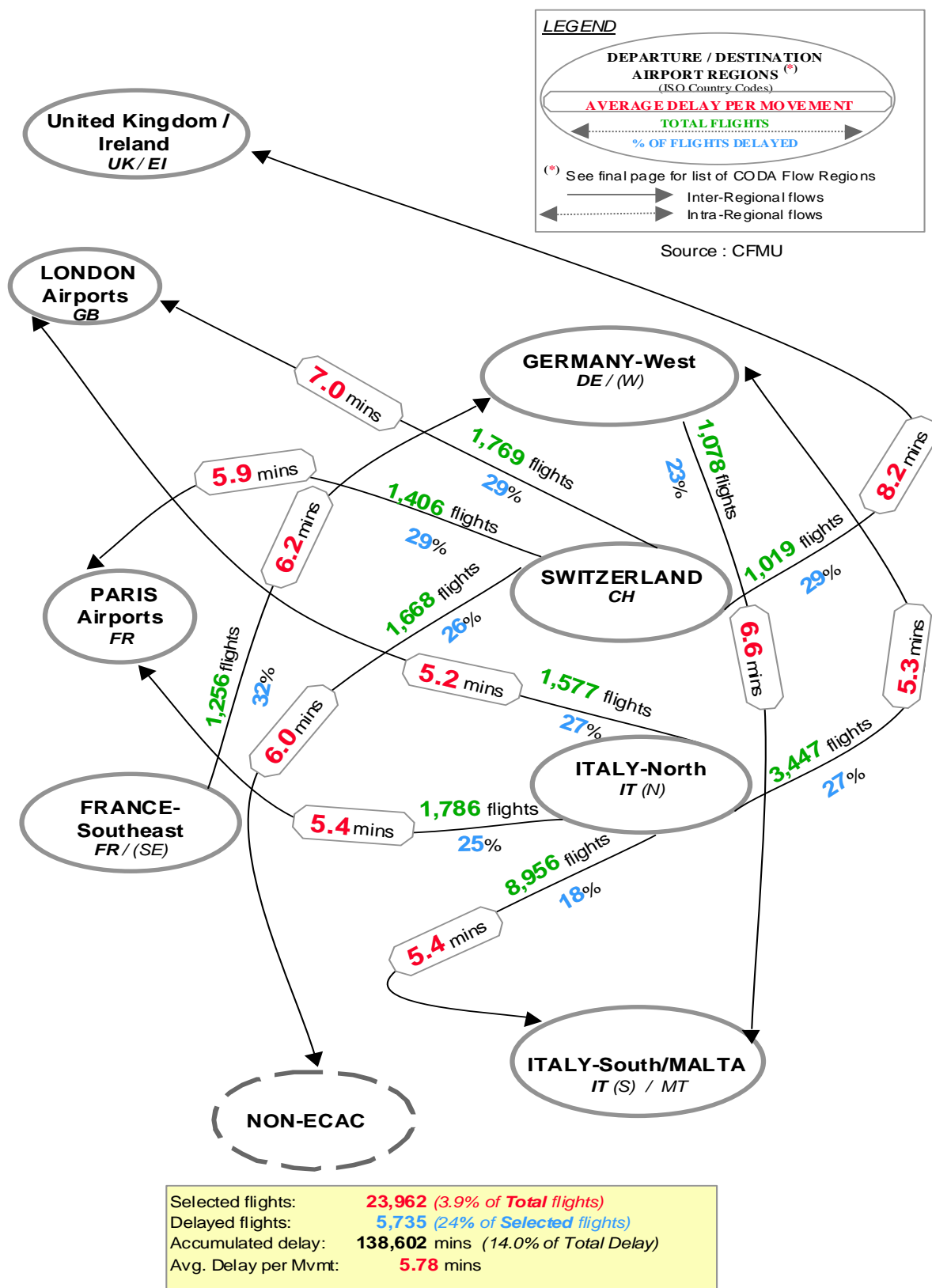
Source: CFMU ATFM Data





Source : CFMU ATFM Data

### 3. Most Affected Traffic Flows by CODA Regions



04/03/03 - FLCF0302.PPT

ATFM Delay Situation on 10 Regional CODA Traffic Flows (>1,000 flights)  
in February 2003

## 4. Most Affected and Most Dense Traffic Flows

**MOST AFFECTED TRAFFIC FLOWS (CFMU)**

Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM
1	Switzerland	United Kingdom & Ireland	1,019	514	294	28.85	8,360	28.44	8.20
2	Switzerland	London Airports	1,769	843	505	28.55	12,426	24.61	7.02
3	Germany-West	Italy-South/Malta	1,078	388	252	23.38	7,166	28.44	6.65
4	France Southeast	Germany-West	1,256	626	398	31.69	7,778	19.54	6.19
5	Switzerland	Other	1,668	647	428	25.66	9,949	23.25	5.96
6	Switzerland	Paris Airports	1,406	781	413	29.37	8,248	19.97	5.87
7	Italy-North	Paris Airports	1,786	888	447	25.03	9,702	21.70	5.43
8	Italy-North	Italy-South/Malta	8,956	2,215	1,632	18.22	48,382	29.65	5.40
9	Italy-North	Germany-West	3,447	1,461	936	27.15	18,339	19.59	5.32
10	Italy-North	London Airports	1,577	734	430	27.27	8,252	19.19	5.23
11	Switzerland	BENELUX	1,363	686	340	24.94	6,627	19.49	4.86
12	France Southeast	London Airports	1,063	265	184	17.31	5,056	27.48	4.76
13	London Airports	Switzerland	1,778	672	393	22.10	8,330	21.20	4.69
14	BENELUX	Switzerland	1,359	694	381	28.04	6,212	16.30	4.57
15	Switzerland	Germany-West	3,666	1,324	834	22.75	16,471	19.75	4.49
16	Nordic States	London Airports	1,818	629	369	20.30	7,995	21.67	4.40
17	Germany-West	Paris Airports	2,479	1,099	490	19.77	10,855	22.15	4.38
18	Iberian Peninsula/Canaria	Germany-West	2,857	1,238	718	25.13	12,087	16.83	4.23
19	United Kingdom & Ireland	Paris Airports	1,939	661	333	17.17	7,693	23.10	3.97
20	United Kingdom & Ireland	BENELUX	4,282	1,261	708	16.53	16,813	23.75	3.93
<b>Totals</b>			<b>46,566</b>	<b>17,626</b>	<b>10,485</b>	<b>22.52</b>	<b>236,741</b>	<b>22.58</b>	<b>5.08</b>

**MOST DENSE TRAFFIC FLOWS (CFMU)**

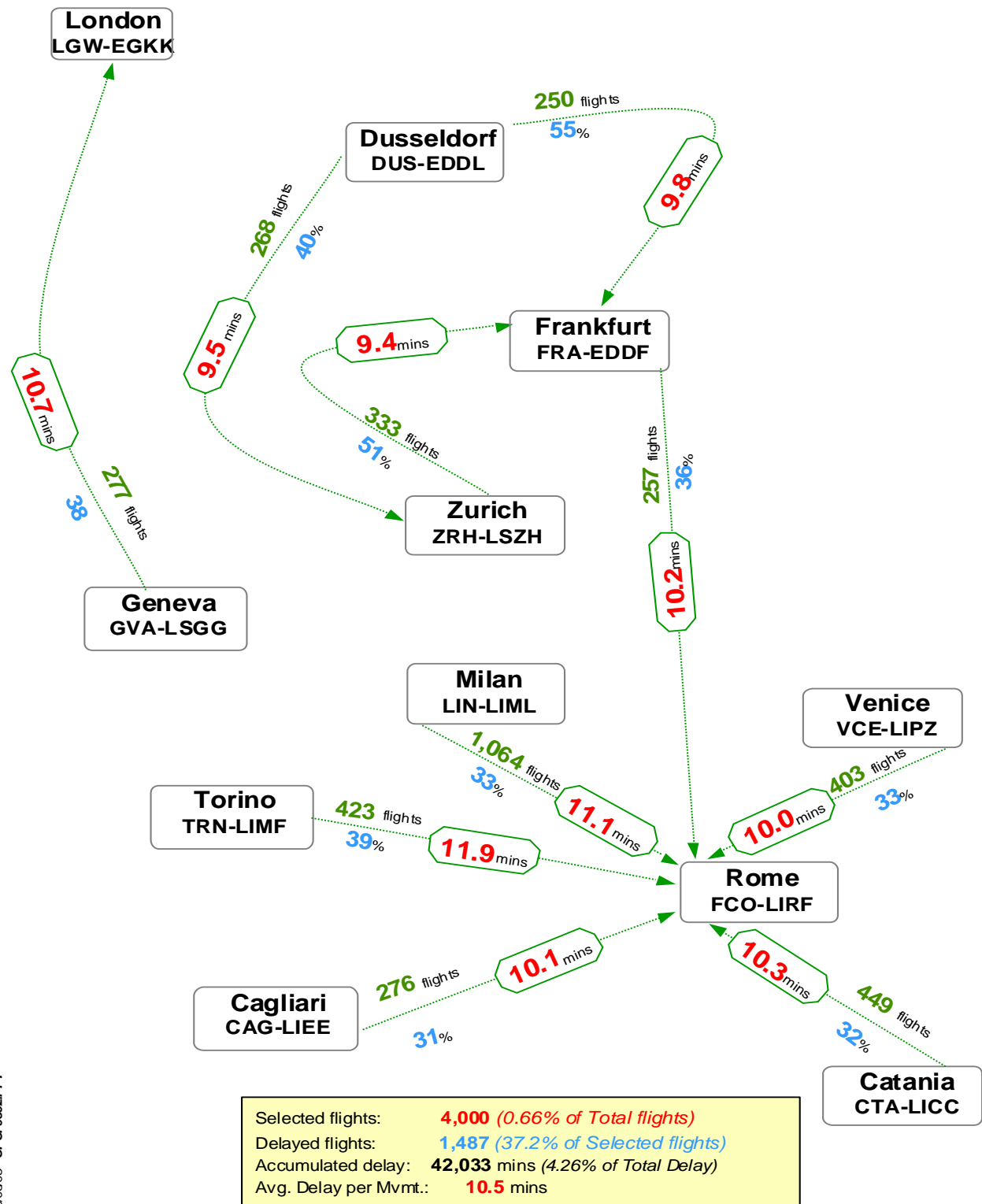
Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM	ADM-Rank
1	Nordic States	Nordic States	55,872	735	347	0.62	12,168	35.07	0.22	28
2	United Kingdom & Ireland	United Kingdom & Ireland	26,162	1,751	922	3.52	15,300	16.59	0.58	21
3	Germany-West	Germany-West	22,176	3,331	2,005	9.04	40,217	20.06	1.81	15
4	Iberian Peninsula/Canaria	Iberian Peninsula/Canaria	21,573	767	309	1.43	4,645	15.03	0.22	29
5	Italy-South/Malta	Italy-North	9,003	601	253	2.81	4,002	15.82	0.44	23
6	Italy-North	Italy-South/Malta	8,956	2,215	1,632	18.22	48,382	29.65	5.40	1
7	London Airports	United Kingdom & Ireland	8,705	1,158	574	6.59	9,615	16.75	1.10	18
8	United Kingdom & Ireland	London Airports	8,698	1,987	953	10.96	20,457	21.47	2.35	8
9	Greece/Cyprus	Greece/Cyprus	7,917	1	0	0.00	0	0.00	0.00	34
10	Other	Other	7,914	49	22	0.28	392	17.82	0.05	31
11	Italy-South/Malta	Italy-South/Malta	7,657	1,251	821	10.72	24,023	29.26	3.14	5
12	Other	Germany-West	6,775	366	217	3.20	3,708	17.09	0.55	22
13	Germany-West	Other	6,754	1,152	709	10.50	12,857	18.13	1.90	14
14	London Airports	Other	6,615	869	479	7.24	7,466	15.59	1.13	17
15	Other	London Airports	6,611	161	101	1.53	2,107	20.86	0.32	26
16	Germany-East/Czech Rep	Germany-West	6,541	1,039	673	10.29	13,092	19.45	2.00	13
17	Balearics/Spain East	Iberian Peninsula/Canaria	6,487	475	184	2.84	2,596	14.11	0.40	24
18	Germany-West	Germany-East/Czech Rep	6,481	241	124	1.91	2,415	19.48	0.37	25
19	Iberian Peninsula/Canaria	Balearics/Spain East	6,436	1,679	942	14.64	16,200	17.20	2.52	7
20	Balearics/Spain East	Balearics/Spain East	5,758	561	337	5.85	6,534	19.39	1.13	16
21	Paris Airports	Other	5,703	927	637	11.17	12,950	20.33	2.27	10
22	Other	Paris Airports	5,621	498	227	4.04	4,929	21.71	0.88	19
23	France North	France North	5,245	23	14	0.27	169	12.07	0.03	33
24	Turkey	Turkey	4,751	0	0	0.00	0	0.00	0.00	35
25	France Southeast	France Southeast	4,604	19	6	0.13	156	26.00	0.03	32

## 5. Most Affected City Pairs

### AVERAGE DELAY PER MOVEMENT

Source : CFMU

Total Number of Flights &amp; % of Flights Delayed



05/03/03 - CPCR0302.PPT

ATFM Delay Situation on 10 City Pairs (>250 flights) in February 2003



## 6. Most Affected and Most Dense City Pairs

MOST <u>AFFECTED</u> CITY PAIRS (CFMU)									
Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM
1	Torino/Caselle	Rome/Fiumicino	423	198	167	39.48	5,043	30.20	11.92
2	Milan/Linate	Rome/Fiumicino	1,064	476	347	32.61	11,854	34.16	11.14
3	Geneva	London/Gatwick	277	151	105	37.91	2,959	28.18	10.68
4	Catania Fontanarossa	Rome/Fiumicino	449	184	142	31.63	4,613	32.49	10.27
5	Frankfurt	Rome/Fiumicino	257	131	92	35.80	2,626	28.54	10.22
6	Cagliari Elmas	Rome/Fiumicino	276	108	85	30.80	2,795	32.88	10.13
7	Venice/Tessera	Rome/Fiumicino	403	161	134	33.25	4,024	30.03	9.99
8	Dusseldorf	Frankfurt	250	195	137	54.80	2,451	17.89	9.80
9	Dusseldorf	Zurich	268	160	107	39.93	2,542	23.76	9.49
10	Zurich	Frankfurt	333	221	171	51.35	3,126	18.28	9.39
11	Milan/Malpensa	Rome/Fiumicino	371	129	94	25.34	3,395	36.12	9.15
12	Vienna	Frankfurt	297	229	154	51.85	2,637	17.12	8.88
13	Rome/Fiumicino	Frankfurt	262	227	147	56.11	2,304	15.67	8.79
14	Zurich	Amsterdam	282	172	95	33.69	2,444	25.73	8.67
15	Palermo Punta Raisi	Rome/Fiumicino	543	208	153	28.18	4,690	30.65	8.64
16	Amsterdam	Frankfurt	276	204	149	53.99	2,366	15.88	8.57
17	Zurich	Paris/Charles-De-Gaulle	308	224	132	42.86	2,567	19.45	8.33
18	Brussels	Frankfurt	261	177	121	46.36	2,170	17.93	8.31
19	Paris/Charles-De-Gaulle	Rome/Fiumicino	431	158	107	24.83	3,415	31.92	7.92
20	London/Heathrow	Frankfurt	528	339	258	48.86	4,155	16.10	7.87
Totals			7,559	4,052	2,897	38.33	72,176	24.91	9.55

MOST <u>DENSE</u> CITY PAIRS (CFMU)										
Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM	ADM-rank
1	Barcelona	Madrid/Barajas	1,973	265	93	4.71	1,301	13.99	0.66	20
2	Madrid/Barajas	Barcelona	1,965	778	450	22.90	7,835	17.41	3.99	5
3	Milan/Linate	Rome/Fiumicino	1,064	476	347	32.61	11,854	34.16	11.14	1
4	Rome/Fiumicino	Milan/Linate	1,052	5	4	0.38	86	21.50	0.08	25
5	Barcelona	Palma De Mallorca	810	6	4	0.49	81	20.25	0.10	24
6	Palma De Mallorca	Barcelona	783	246	147	18.77	2,663	18.12	3.40	9
7	Paris/Charles-De-Gaulle	London/Heathrow	776	216	119	15.34	2,564	21.55	3.30	10
8	London/Heathrow	Paris/Charles-De-Gaulle	773	223	104	13.45	2,911	27.99	3.77	7
9	Berlin-Tegel	Munich	660	81	52	7.88	2,146	41.27	3.25	11
10	Cologne/Bonn	Berlin-Tegel	659	19	14	2.12	302	21.57	0.46	22
11	Berlin-Tegel	Cologne/Bonn	650	3	2	0.31	38	19.00	0.06	28
12	Munich	Berlin-Tegel	649	2	1	0.15	6	6.00	0.01	31
13	Amsterdam	London/Heathrow	640	218	118	18.44	2,358	19.98	3.68	8
14	London/Heathrow	Amsterdam	640	123	70	10.94	2,057	29.39	3.21	12
15	Makedonia		637	0	0	0.00	0	0.00	0.00	32
16	Dusseldorf	Munich	636	131	87	13.68	3,022	34.74	4.75	3
17	Athens	Makedonia	632	0	0	0.00	0	0.00	0.00	33
18	Munich	Dusseldorf	629	36	31	4.93	798	25.74	1.27	16
19	Trondheim/Vaernes	Oslo/Gardermoen	628	14	2	0.32	27	13.50	0.04	30
20	Oslo/Gardermoen	Trondheim/Vaernes	628	0	0	0.00	0	0.00	0.00	34
21	Paris/Orly	Toulouse/Blagnac	626	24	19	3.04	912	48.00	1.46	14
22	Toulouse/Blagnac	Paris/Orly	625	32	13	2.08	601	46.23	0.96	18
23	Bergen/Flesland	Oslo/Gardermoen	623	19	3	0.48	33	11.00	0.05	29
24	Oslo/Gardermoen	Bergen/Flesland	616	0	0	0.00	0	0.00	0.00	35
25	Dublin	London/Heathrow	579	191	112	19.34	2,281	20.37	3.94	6

## 7. Most Penalised Airports (with more than 2,500 flights per month)

Ranked by Average Delay per Movement (ADM)

### Departure Airports

Airport	Total Flights (TTF)	Delayed Flights (TDF)	% of Delayed Flights (PDF)	Total Delay (TDM)	Flights Delayed > 60 mins	Av.Delay/ Delayed Flt (ADD)	Av.Delay/ Movement (ADM)
Geneva	5,954	1,506	25	33,733	47	22.4	5.7
Zurich	10,183	1,928	19	46,494	144	24.1	4.6
Milan/Linate	4,557	758	17	19,190	69	25.3	4.2
Dusseldorf	6,894	1,218	18	28,720	67	23.6	4.2
Venice/Tessera	2,661	497	19	10,719	36	21.6	4.0
Budapest/Ferihegy	2,808	365	13	8,627	19	23.6	3.1
Lyon/Sartolas	4,780	593	12	13,101	27	22.1	2.7
Hanover	2,682	393	15	7,140	9	18.2	2.7
Milan/Malpensa	7,843	933	12	19,667	40	21.1	2.5
Nice	4,706	553	12	11,619	24	21.0	2.5
London/Stansted	6,806	878	13	16,179	29	18.4	2.4
Berlin-Tegel	5,105	628	12	12,028	17	19.2	2.4
Manchester	6,699	820	12	15,735	23	19.2	2.4
Paris/Charles-De-Gaulle	19,496	2,227	11	45,331	66	20.4	2.3
Brussels	9,088	1,146	13	20,922	31	18.3	2.3
Basle/Mulhouse	3,183	458	14	7,194	6	15.7	2.3
Edinburgh	4,341	500	12	9,711	13	19.4	2.2
Prague/Ruzyně	3,514	445	13	7,839	10	17.6	2.2
London/Luton	2,786	277	10	6,201	12	22.4	2.2
Stuttgart	4,857	575	12	10,629	19	18.5	2.2

### Destination Airports

Airport	Total Flights (TTF)	Delayed Flights (TDF)	% of Delayed Flights (PDF)	Total Delay (TDM)	Flights Delayed > 60 mins	Av.Delay/ Delayed Flt (ADD)	Av.Delay/ Movement (ADM)
Rome/Fiumicino	11,061	3,228	29	100,335	457	31.1	9.1
Frankfurt	18,394	6,611	36	105,166	21	15.9	5.7
Zurich	10,138	2,642	26	47,169	35	17.9	4.7
Barcelona	10,539	2,481	24	42,784	21	17.2	4.1
Amsterdam	14,828	2,110	14	53,945	189	25.6	3.6
Munich	13,357	1,462	11	48,435	254	33.1	3.6
Paris/Charles-De-Gaulle	19,499	3,204	16	68,288	186	21.3	3.5
Napoli Capodichino	2,599	418	16	9,076	5	21.7	3.5
Geneva	5,990	935	16	18,682	14	20.0	3.1
Milan/Malpensa	7,859	1,614	21	23,938	5	14.8	3.1
London/Heathrow	17,686	2,537	14	53,702	93	21.2	3.0
London/Stansted	6,835	708	10	16,018	52	22.6	2.3
Copenhagen/Kastrup	9,806	666	7	21,683	76	32.6	2.2
Manchester	6,675	608	9	14,467	39	23.8	2.2
Vienna	7,704	1,065	14	15,794	7	14.8	2.1
London/Gatwick	8,452	787	9	16,949	22	21.5	2.0
London/Luton	2,794	245	9	5,470	12	22.3	2.0
Birmingham	4,575	451	10	8,122	12	18.0	1.8
Glasgow	3,446	321	9	5,785	3	18.0	1.7
Edinburgh	4,340	435	10	7,217	1	16.6	1.7

Source : CFMU ATFM Data

**8. Most Dense Traffic Flows** (Country to Country with more than 1,250 flights per month)

From	To	Total Flights (TTF)	Delayed Flights (TDF)	% of Delayed Flights (PDF)	Total Delay (TDM)	Av.Delay/ Delayed Flt (ADD)	Av. Delay/ Movement (ADM)
FRANCE	FRANCE	39,550	1,177	3%	29,204	24.8	0.7
UNITED KINGDOM	UNITED KINGDOM	36,800	2,000	5%	37,146	18.6	1.0
GERMANY	GERMANY	34,270	2,673	8%	53,536	20.0	1.6
ITALY	ITALY	28,342	2,878	10%	79,024	27.5	2.8
SPAIN	SPAIN	27,319	1,479	5%	25,211	17.1	0.9
NORWAY	NORWAY	19,317	25	0%	203	8.1	0.0
SWEDEN	SWEDEN	15,242	85	1%	1,817	21.4	0.1
GREECE	GREECE	6,985	0	0%	0	0.0	0.0
FRANCE	UNITED KINGDOM	6,476	737	11%	17,993	24.4	2.8
UNITED KINGDOM	FRANCE	6,467	741	11%	18,522	25.0	2.9
FINLAND	FINLAND	5,984	3	0%	112	37.3	0.0
UNITED KINGDOM	GERMANY	5,909	1,057	18%	18,134	17.2	3.1
GERMANY	UNITED KINGDOM	5,878	1,034	18%	20,251	19.6	3.5
GERMANY	FRANCE	5,369	890	17%	17,003	19.1	3.2
FRANCE	GERMANY	5,340	1,111	21%	20,818	18.7	3.9
CANARY ISLANDS	CANARY ISLANDS	5,030	79	2%	1,299	16.4	0.3
TURKEY	TURKEY	4,751	0	0%	0	0.0	0.0
GERMANY	ITALY	4,668	848	18%	16,805	19.8	3.6
ITALY	GERMANY	4,658	1,139	24%	21,755	19.1	4.7
IRELAND	UNITED KINGDOM	4,522	302	7%	6,137	20.3	1.4

Ranked by Total Number of Flights (TTF)

**9. Most Penalised Traffic Flows** (Country to Country with more than 1,250 flights per month)

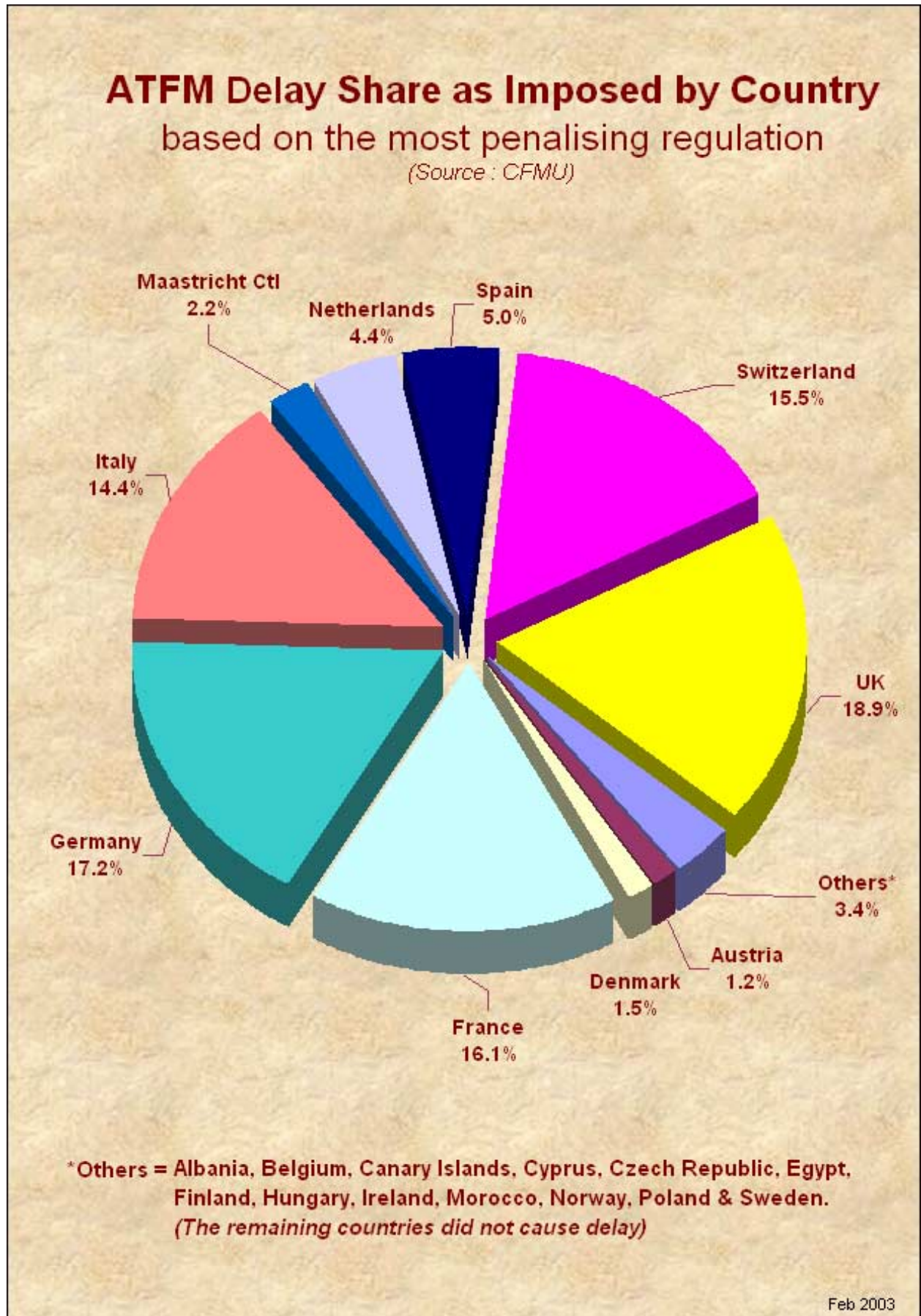
Ranked by Average Delay per Movement (ADM)

From	To	Total Flights (TTF)	Delayed Flights (TDF)	% of Delayed Flights (PDF)	Total Delay (TDM)	Av.Delay/ Delayed Flt (ADD)	Av. Delay/ Movement (ADM)
SWITZERLAND	UNITED KINGDOM	2,474	713	29%	19,515	27.4	7.9
UNITED KINGDOM	SWITZERLAND	2,463	676	27%	14,802	21.9	6.0
ITALY	UNITED KINGDOM	2,896	687	24%	13,589	19.8	4.7
ITALY	GERMANY	4,658	1,139	24%	21,755	19.1	4.7
SWITZERLAND	GERMANY	3,423	747	22%	15,249	20.4	4.5
GERMANY	SWITZERLAND	3,410	787	23%	14,500	18.4	4.3
GERMANY	UNITED STATES	1,902	448	24%	8,063	18.0	4.2
BELGIUM	ITALY	1,270	298	23%	5,365	18.0	4.2
UNITED KINGDOM	NETHERLANDS	4,367	678	16%	17,661	26.1	4.0
SWITZERLAND	FRANCE	2,294	419	18%	9,243	22.1	4.0
GERMANY	CANARY ISLANDS	1,347	320	24%	5,288	16.5	3.9
FRANCE	GERMANY	5,340	1,111	21%	20,818	18.7	3.9
GERMANY	ITALY	4,668	848	18%	16,805	19.8	3.6
FRANCE	NETHERLANDS	1,258	200	16%	4,391	22.0	3.5
GERMANY	UNITED KINGDOM	5,878	1,034	18%	20,251	19.6	3.5
ITALY	FRANCE	3,943	668	17%	13,622	20.4	3.5
SPAIN	GERMANY	3,292	648	20%	11,082	17.1	3.4
GERMANY	FRANCE	5,369	890	17%	17,003	19.1	3.2
UNITED KINGDOM	ITALY	2,873	495	17%	9,089	18.4	3.2
FRANCE	ITALY	3,944	591	15%	12,374	20.9	3.1

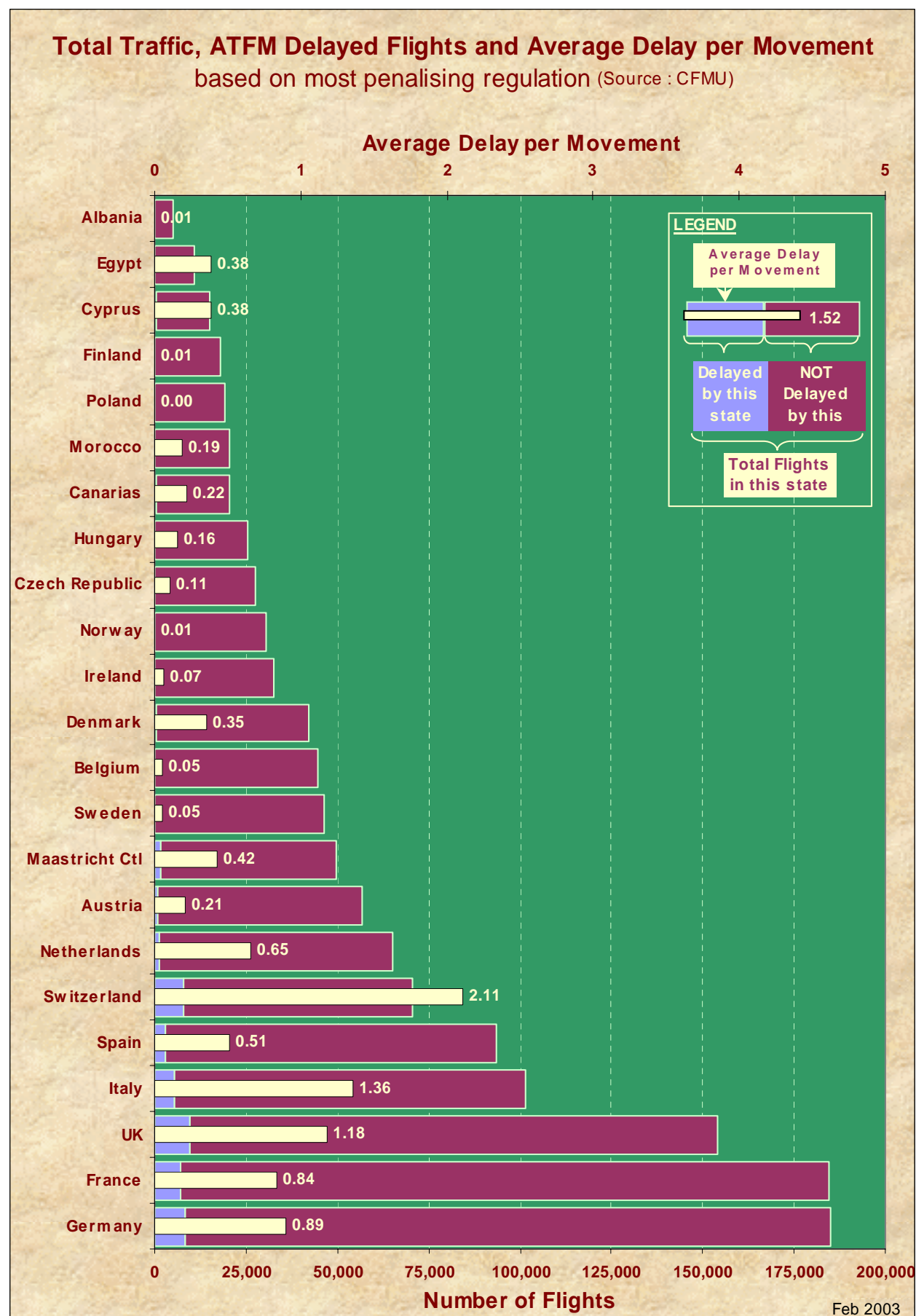
Source: CFMU ATFM Data



## 10. Delay Share by Country

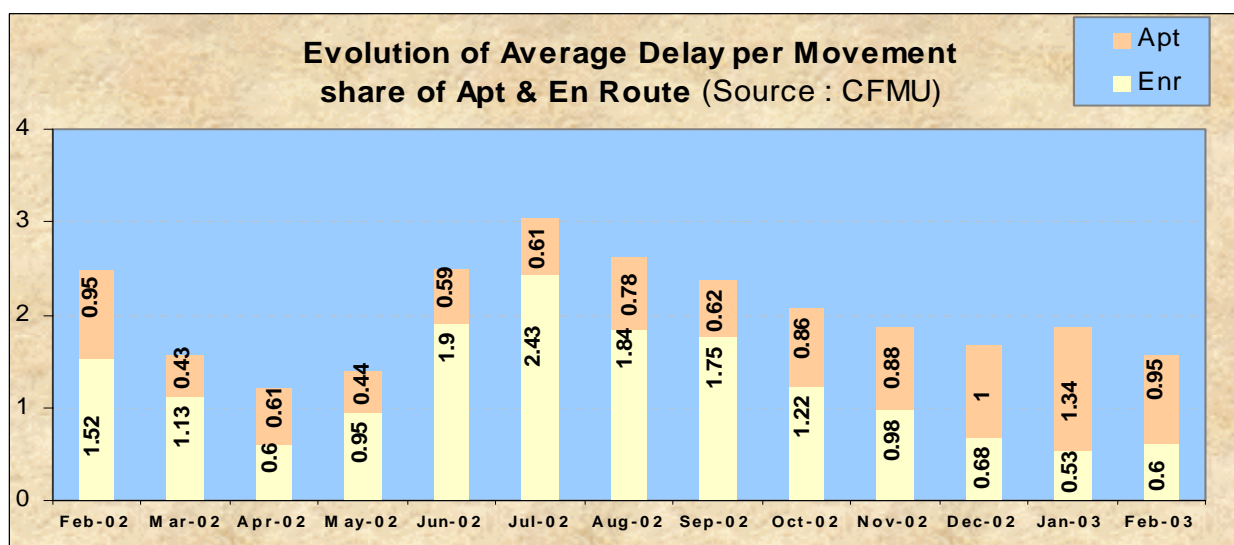
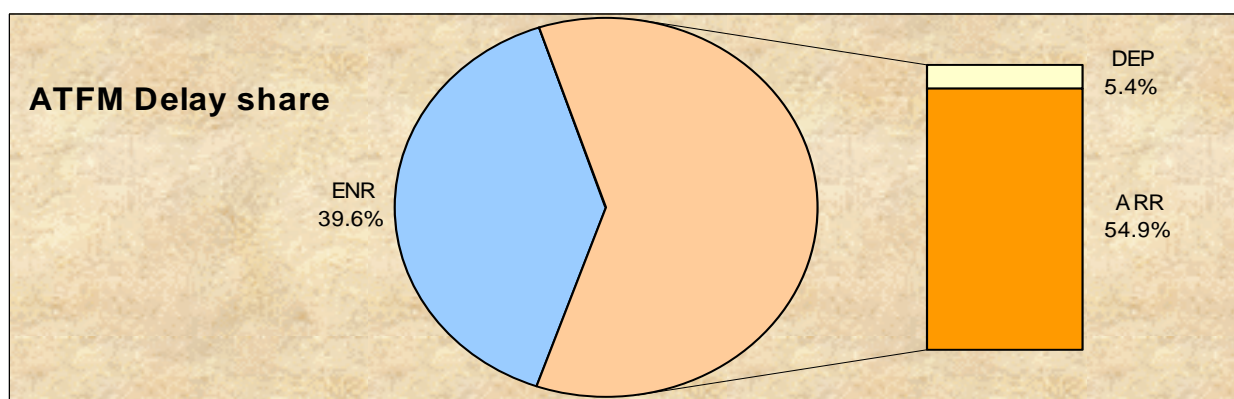
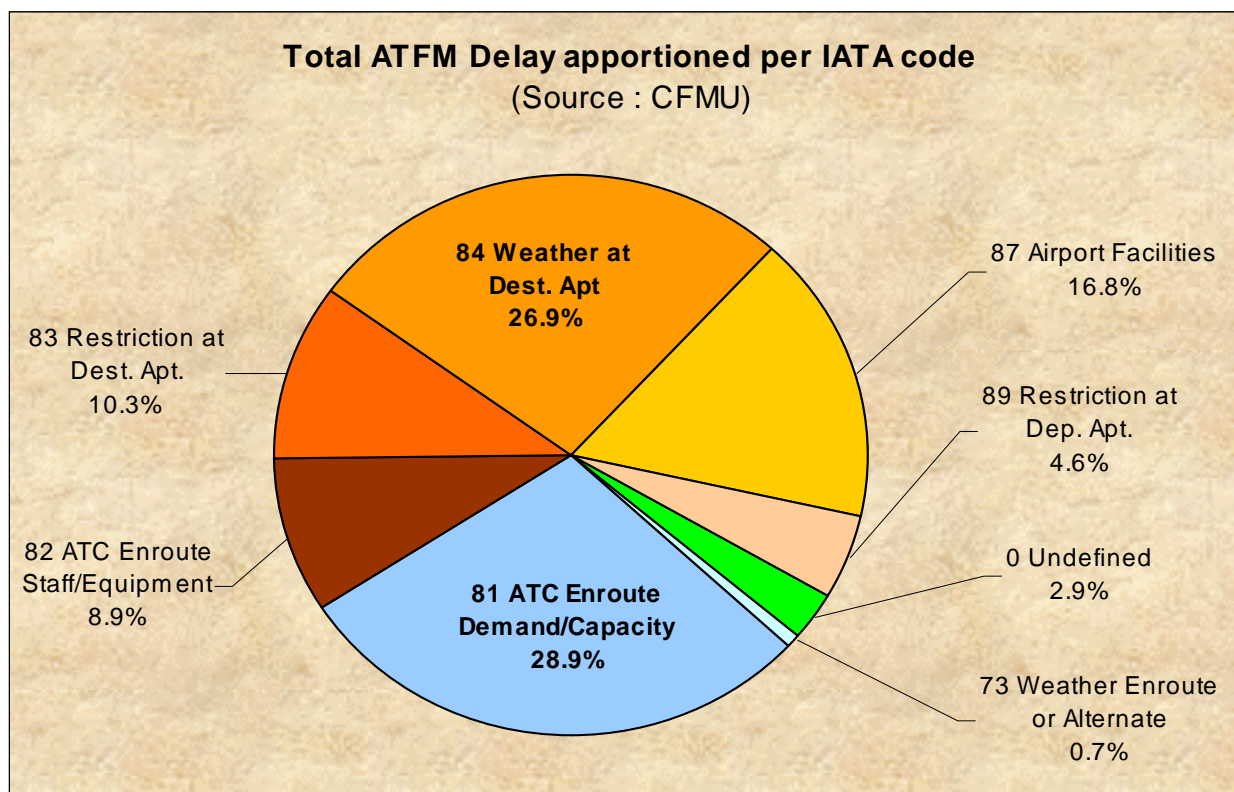


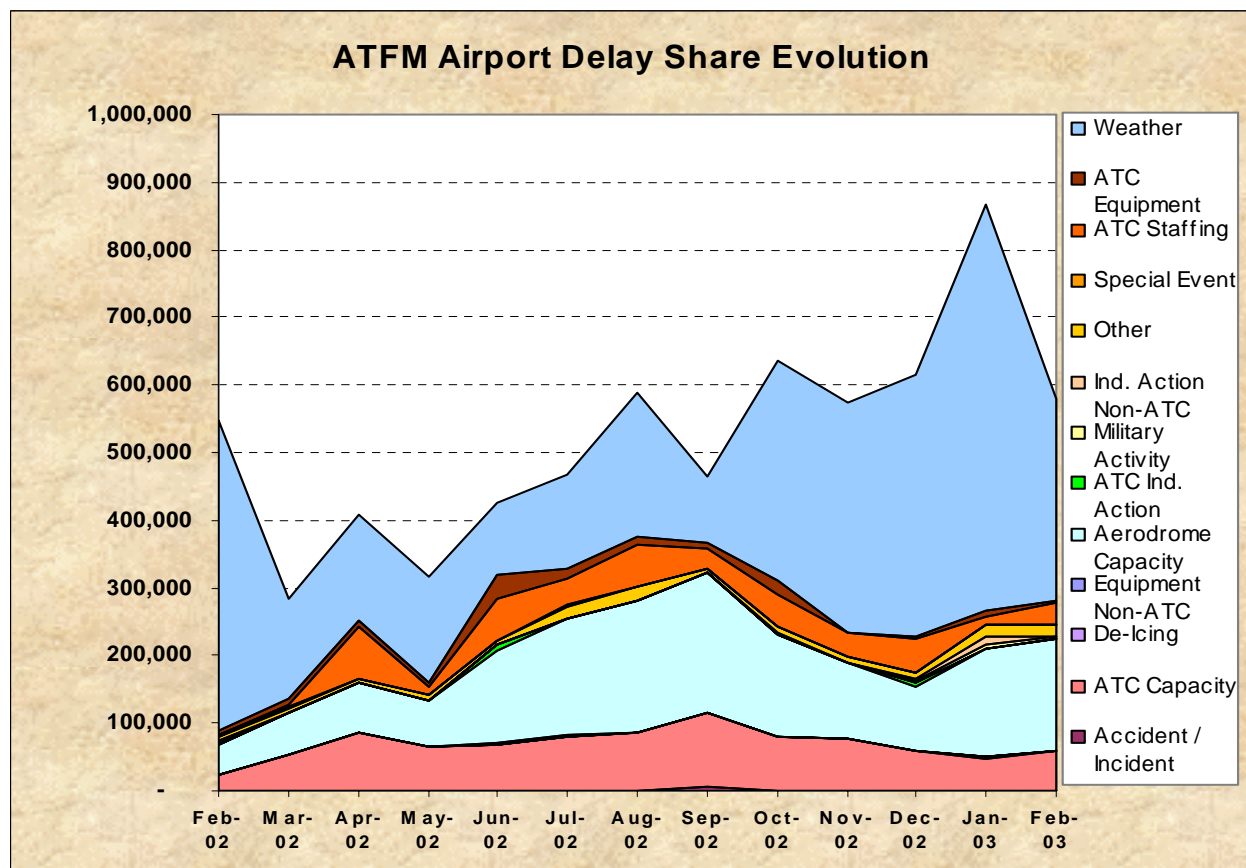
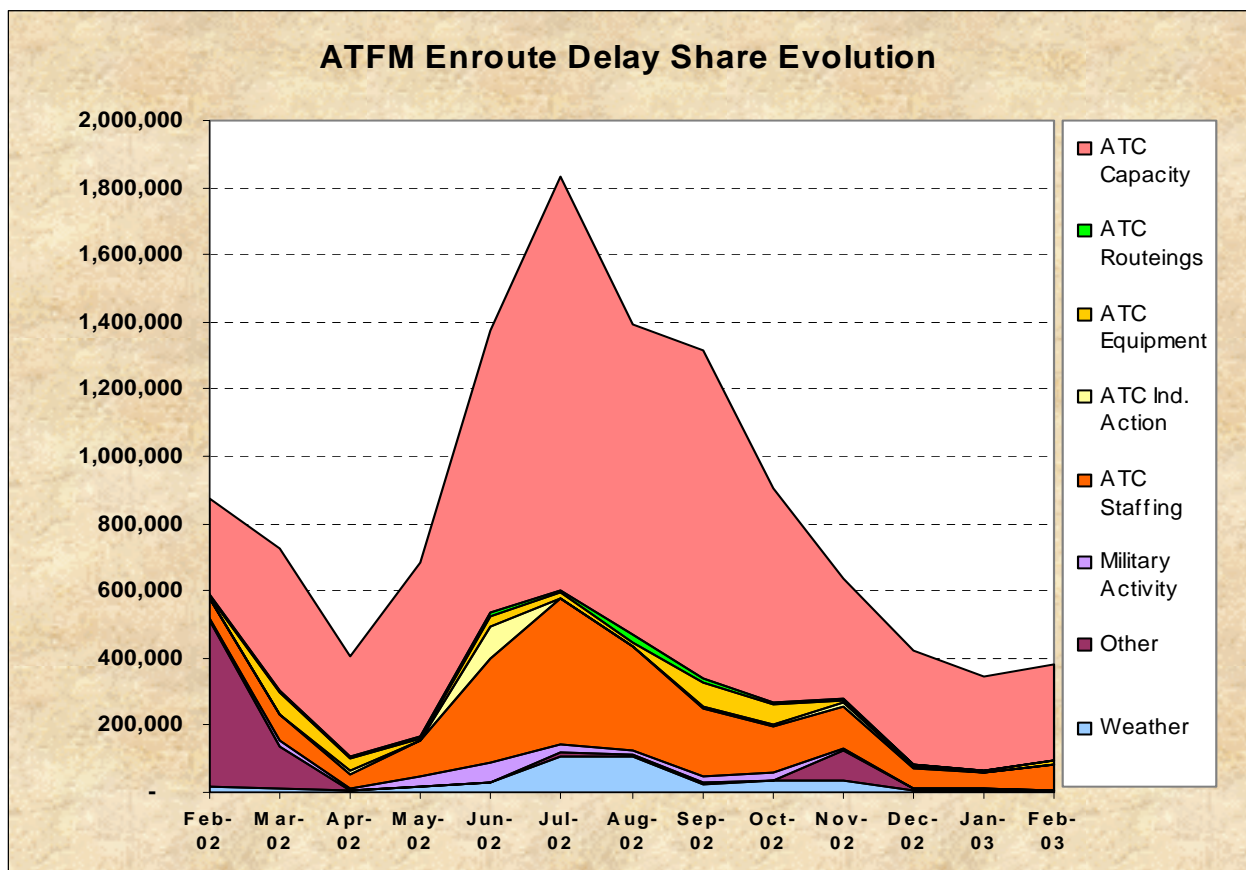
## 11. Delayed Flights and Delay Indicator by Country



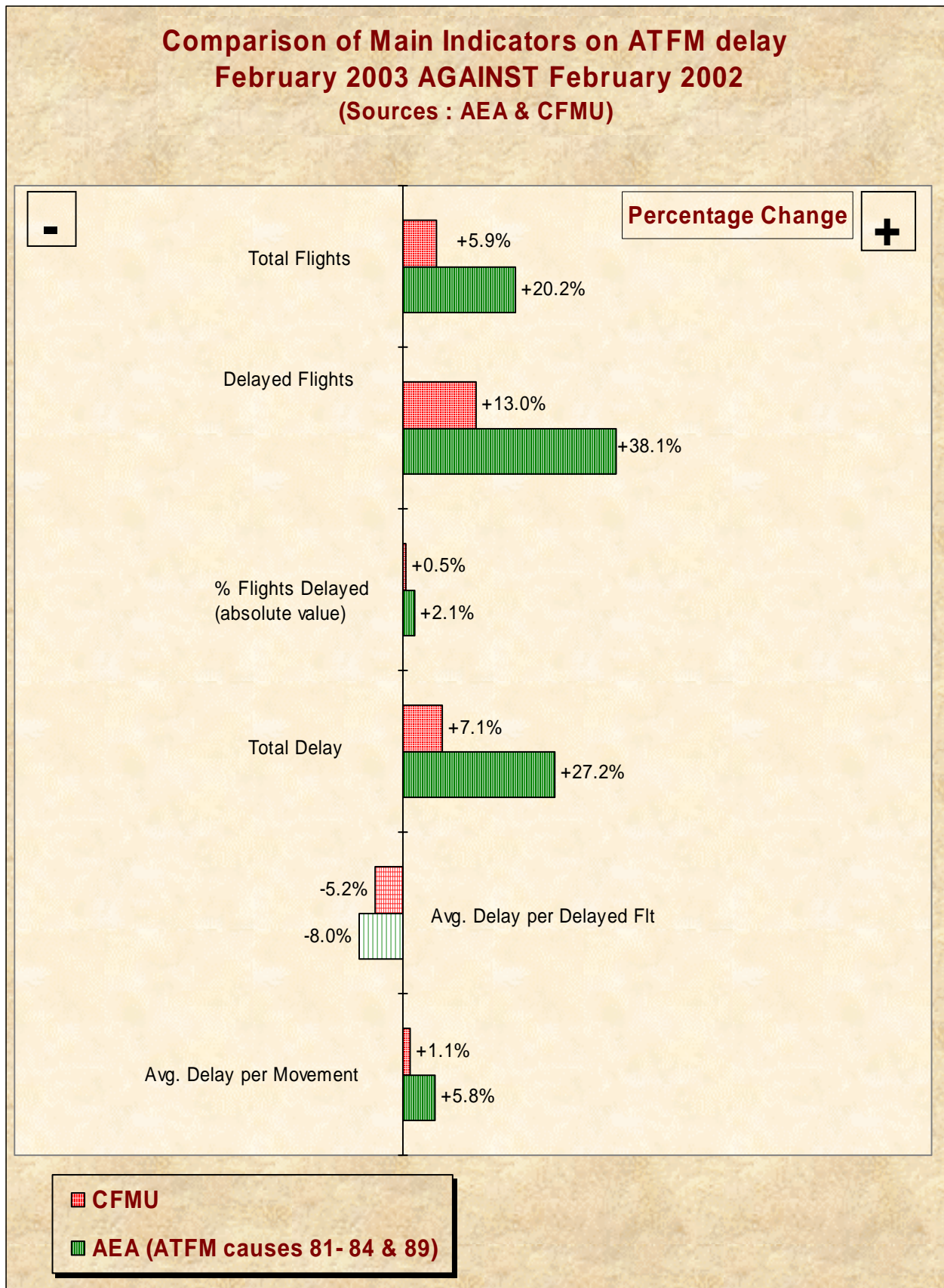


## 12. Reasons for ATFM Delay



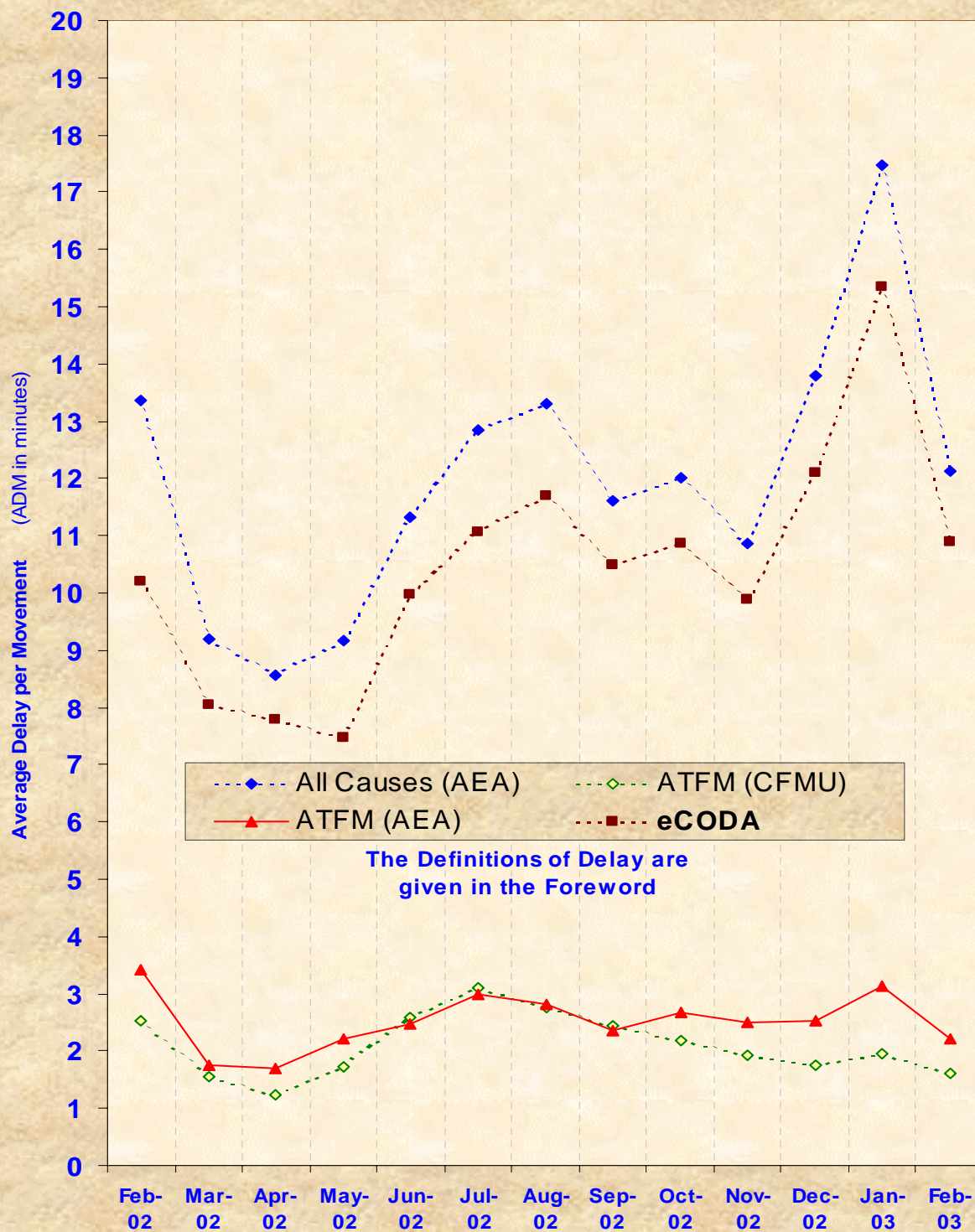


## 13. Correlation of the two Data Sources

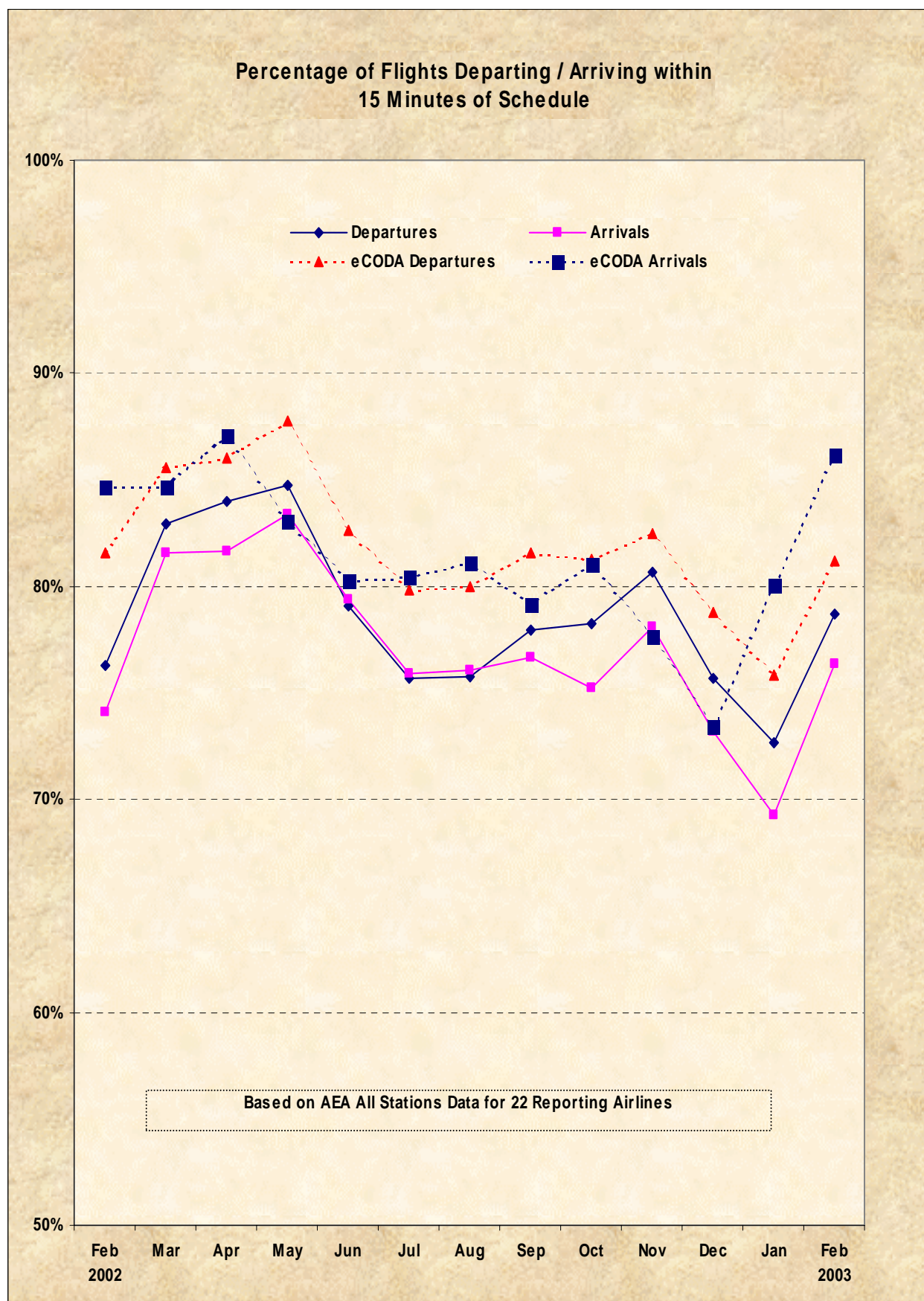




Comparative trends of monthly  
Average Delay per Movement  
ALL CAUSES and ATFM (IATA codes 81 - 84 & 89)  
(Sources : AEA & CFMU)

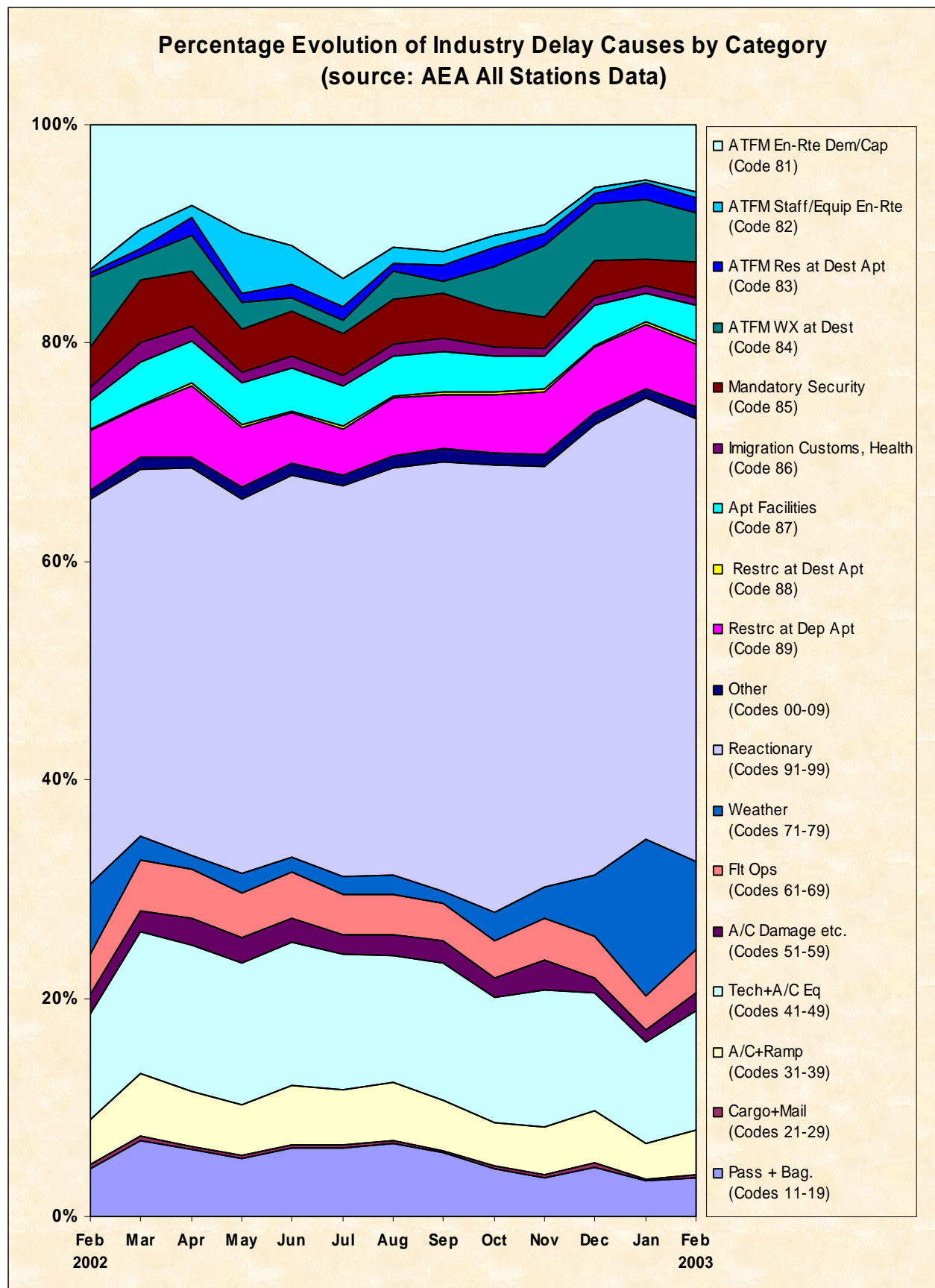


## 14. Flights within 15 minutes of Schedule

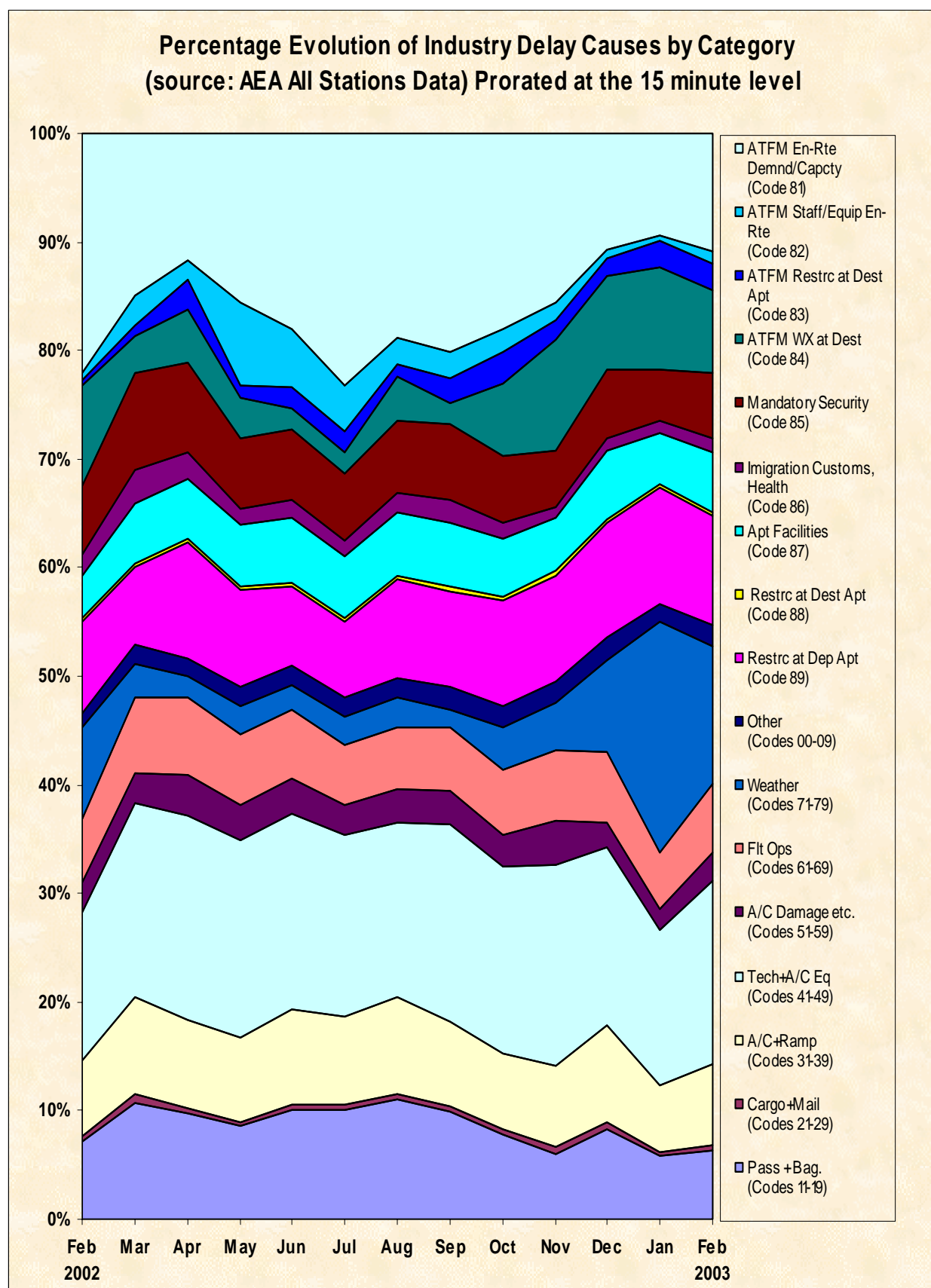




## 15. Consolidated Evolution of Industry Delay Causes by Category



## 16. Prorated Percentage Evolution of Industry Delay Causes



## Table of Comparison of Delay (all causes) (Annex 1)

AEA Aggregated Data

	TTF*	TDF	PDF	TDM	ADM	ADD	% > d15 Departure	% > a15 Arrivals
Feb-01	613,354	86,897	52%	2,436,087	14.5	28.0	24.4%	27.7%
Mar-01	701,519	105,779	56%	2,881,917	15.1	27.2	26.7%	29.6%
Apr-01	691,844	103,541	54%	2,510,807	13.1	24.2	25.0%	26.9%
May-01	752,537	107,883	54%	2,632,652	13.2	24.4	25.4%	27.0%
Jun-01	754,315	112,905	58%	2,725,860	13.9	24.1	27.2%	26.9%
Jul-01	773,056	116,487	58%	2,912,275	14.4	25.0	27.4%	26.3%
Aug-01	777,176	107,496	53%	2,583,995	12.8	24.0	23.8%	22.9%
Sep-01	754,408	114,827	59%	3,139,759	16.2	27.3	29.8%	29.5%
Oct-01	733,676	87,961	47%	2,052,824	11.0	23.3	19.8%	21.5%
Nov-01	627,860	70,772	43%	1,803,138	11.1	25.5	19.0%	21.2%
Dec-01	569,860	79,350	52%	2,536,812	16.8	32.0	27.5%	30.2%
Jan-02	606,782	71,713	47%	2,218,551	14.7	30.9	23.5%	25.3%
Feb-02	576,224	68,605	49%	1,878,854	13.3	27.4	23.7%	25.9%
Mar-02	654,994	69,678	43%	1,486,155	9.2	21.3	17.1%	18.4%
Apr-02	672,384	67,729	41%	1,407,502	8.6	20.8	16.0%	18.3%
May-02	723,329	67,571	40%	1,566,614	9.2	23.2	15.3%	16.6%
Jun-02	725,090	80,710	48%	1,886,408	11.3	23.4	20.9%	20.6%
Jul-02	760,905	93,409	53%	2,285,630	12.9	24.5	24.3%	24.1%
Aug-02	759,141	92,447	51%	2,398,151	13.3	25.9	24.3%	23.9%
Sep-02	752,213	86,143	50%	1,983,620	11.6	23.0	22.0%	23.4%
Oct-02	741,388	85,868	49%	2,106,196	12.0	24.5	21.8%	24.8%
Nov-02	651,894	73,172	45%	1,769,417	10.9	24.2	19.3%	21.9%
Dec-02	616,158	78,038	50%	2,163,102	13.8	27.7	24.3%	26.8%
Jan-03	642,851	93,974	52%	3,175,593	17.5	33.8	27.3%	30.7%
Feb-03	608,815	79,808	47%	2,045,190	12.1	25.6	21.3%	23.6%

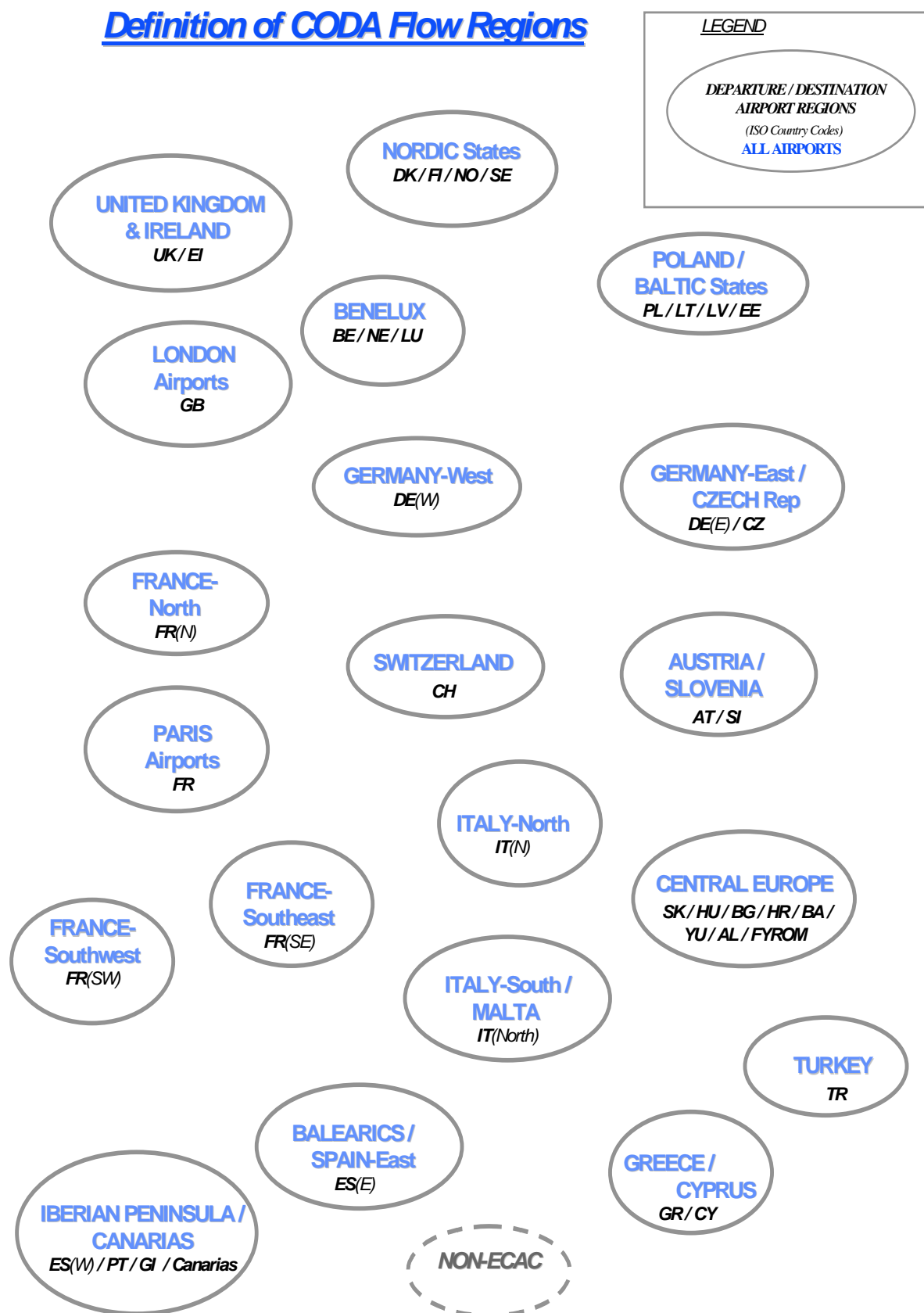
Month on Month Percentage Evolution

	TTF	TDF	PDF**	TDM	ADM	ADD	% > d15** Departure	% > a15** Arrivals
Feb-02	-6.1%	-21.1%	-3.1%	-22.9%	-8.1%	-2.3%	-0.7%	-1.8%
Mar-02	-6.6%	-34.1%	-12.5%	-48.4%	-39.3%	-21.7%	-9.6%	-11.1%
Apr-02	-2.8%	-34.6%	-12.8%	-43.9%	-34.7%	-14.3%	-8.9%	-8.6%
May-02	-3.9%	-37.4%	-14.6%	-40.5%	-30.6%	-5.0%	-10.1%	-10.3%
Jun-02	-3.9%	-28.5%	-9.2%	-30.8%	-18.6%	-3.2%	-6.3%	-6.3%
Jul-02	-1.6%	-19.8%	-5.2%	-21.5%	-10.9%	-2.1%	-3.1%	-2.2%
Aug-02	-2.3%	-14.0%	-1.9%	-7.2%	4.0%	7.9%	0.4%	1.0%
Sep-02	-0.3%	-25.0%	-9.0%	-36.8%	-28.6%	-15.8%	-7.8%	-6.2%
Oct-02	1.1%	-2.4%	1.9%	2.6%	9.3%	5.1%	1.9%	3.3%
Nov-02	3.8%	3.4%	1.4%	-1.9%	-2.0%	-5.1%	0.3%	0.7%
Dec-02	8.1%	-1.7%	-2.7%	-14.7%	-17.8%	-13.3%	-3.2%	-3.4%
Jan-03	5.9%	31.0%	4.3%	43.1%	19.1%	9.2%	3.8%	5.4%
Feb-03	5.7%	16.3%	-1.4%	8.9%	-9.1%	-6.4%	-2.4%	-2.2%

\* From CFMU Data

\*\* These are ABSOLUTE percentage differences (i.e. PDF Jan02 - PDF Jan01)

## Definition of CODA Flow Regions (Annex 2)

Definition of CODA Flow Regions

## Glossary of Terms and Abbreviations (Annex 3)

### 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>CDI</b>	CODA Delay Indicator
<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 4)

### 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>3</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>3</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 5)

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 Routings	R	E	Phasing in of new procedures	81	ATFM due to ATC ENROUTE DEMAND/CAPACITY
		D		89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		E		82	ATFM due to ATC STAFF/EQUIPMENT ENROUTE
ATC Staffing	S	A	Illness; traffic delays on the highway	83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
		D		89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		E		82	ATFM due to ATC STAFF/EQUIPMENT ENROUTE
ATC Equipment	T	A	Radar failure; RTF failure	83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
		D		89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		E		82	ATFM due to ATC STAFF/EQUIPMENT ENROUTE
Accident/Incident	A	D	RWY23 closed due accident	89	RESTRICTIONS AT AIRPORT OF DEPARTURE
		A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
		E		87	AIRPORT FACILITIES
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
		D		89	RESTRICTIONS AT AIRPORT OF DEPARTURE
Equipment non-ATC	E	D	Runway or taxiway lighting failure	87	AIRPORT FACILITIES
		A		87	AIRPORT FACILITIES
		D		98	INDUSTRIAL ACTION OUTSIDE OWN AIRLINE
Ind Action non-ATC	N	A	Firemen's strike	98	INDUSTRIAL ACTION OUTSIDE OWN AIRLINE
		D		98	INDUSTRIAL ACTION OUTSIDE OWN AIRLINE
		E		89	RESTRICTIONS AT AIRPORT OF DEPARTURE
Military Activity	M	D	Brilliant Invader; ODAX	82	ATFM due to ATC STAFF/EQUIPMENT ENROUTE
		E		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT
		A		89	RESTRICTIONS AT AIRPORT OF DEPARTURE
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
		D		89	RESTRICTIONS AT AIRPORT OF DEPARTURE
Weather	W	E	Thunderstorm; low visibility; X winds	73	WEATHER EN ROUTE OR ALTERNATE
		A		84	ATFM due to WEATHER AT DESTINATION
		D		89	RESTRICTIONS AT AIRPORT OF DEPARTURE
Other	O	E	Security alert	81	ATFM due to ATC ENROUTE DEMAND/CAPACITY
		A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT