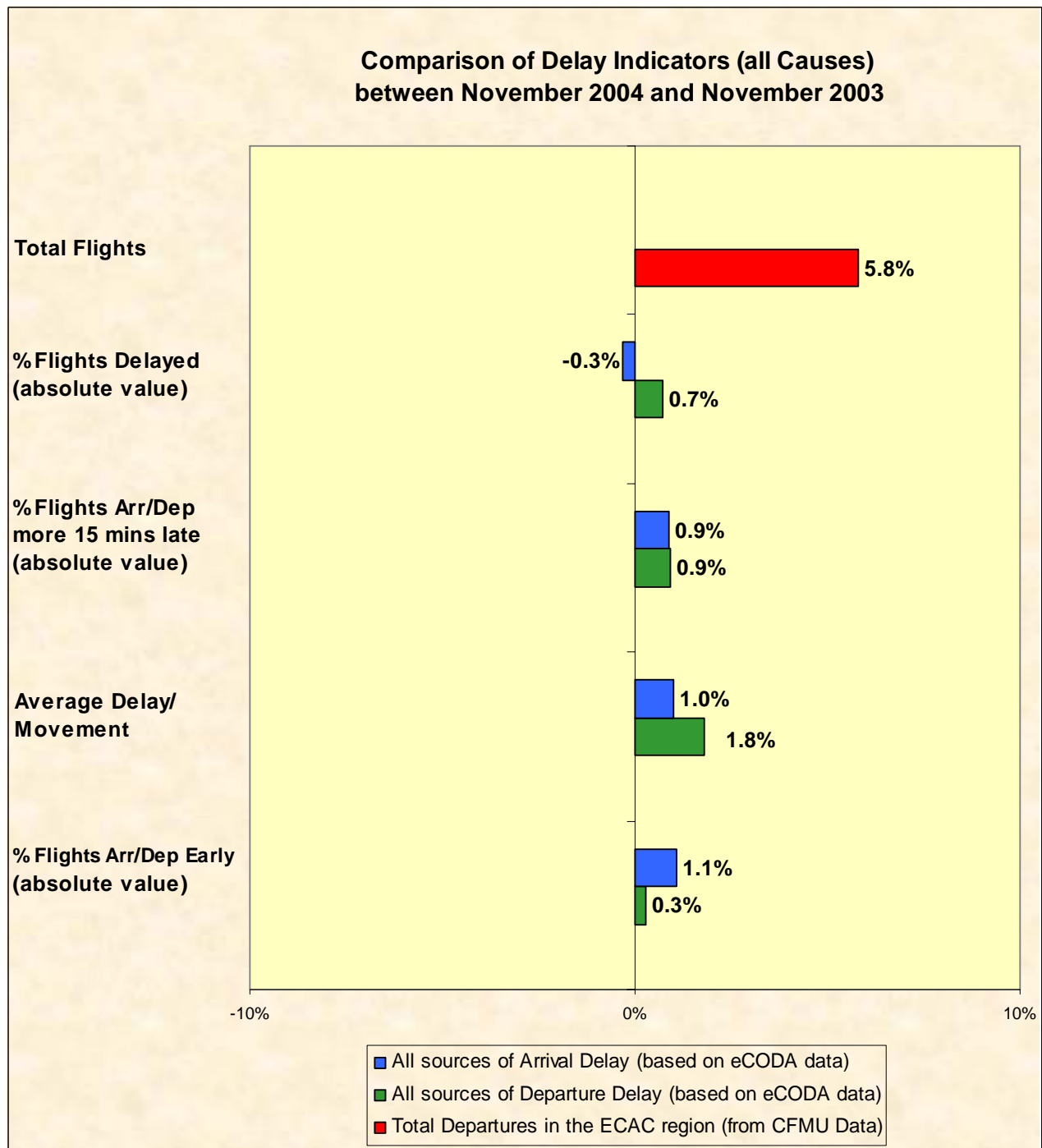


Delays to Air Transport in Europe November 2004



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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 5.8% when compared with November 2003. The Average Delay per Movement due to all causes of delay increased by 1.8% to 9 minutes for departure traffic and by 1% to 9.2 minutes for arrival traffic. ATFM delay decreased by 10%, with the Average Delay per Movement decreasing by 14.5% to 1.4 minutes.

For the first eleven months of the year, traffic grew by 4.5%, with delayed flights due to all causes increasing by 26% for both departures and arrivals. The number of flights delayed by more than 15 minutes increased by 33% for both departure and arrival traffic. Turning to the delays, the Average Delay per Movement was 9.8 minutes for departures and 10.1 minutes for arrivals. Total ATFM delay increased by 2.7%, with the Average Delay per Movement falling by 1.7% to 1.7 minutes.

TRAFFIC SITUATION FOR NOVEMBER 2004¹

Departures throughout the ECAC region increased by almost six percent when compared with November 2003 and with 705,934 flights, this was the highest ever November figure since CFMU started operations (up thirty percent on November 1996 and up eight percent on November 2002). Domestic traffic rose by four percent and International traffic was up by seven percent. Ninety five percent of the busier countries had an increase in international traffic, with the largest real increases in Germany, Spain, the United Kingdom, Poland, Czech Republic and Italy and the largest real decreases in Serbia & Montenegro and Canary Islands. Turning to the domestic traffic, the United Kingdom, Turkey, Spain and Greece had the largest rises whereas France had the largest fall.

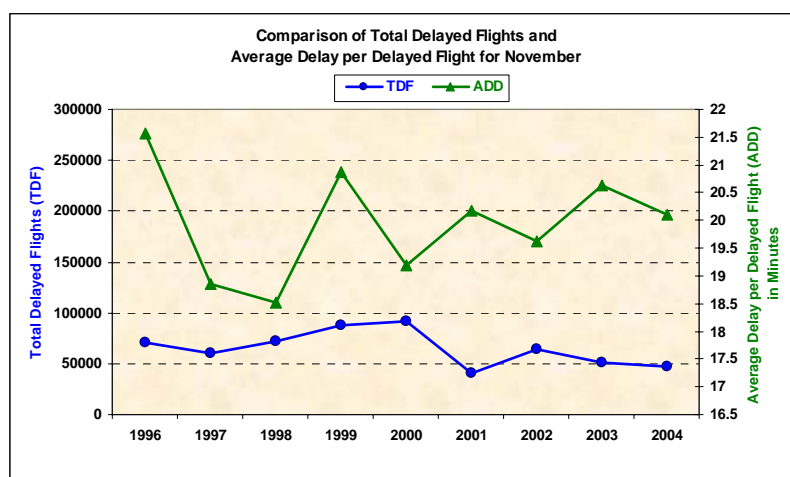
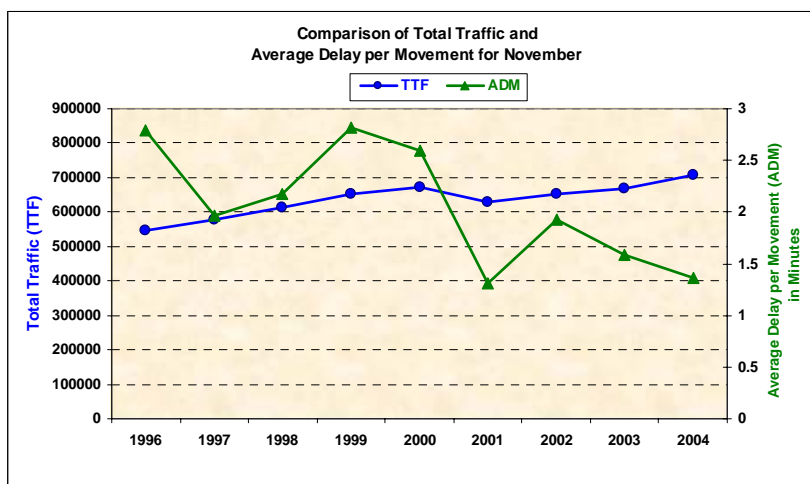
Ninety percent of the busier airports (those with at least two thousand and five hundred flights per month) saw an increase in traffic, with twenty two percent having a rise of more than ten percent. The largest real increases were at Prague, Munich, Budapest, Istanbul and Vienna. At the other end of the scale, Nice, Birmingham, Paris/Charles de Gaulle and Palma de Mallorca had the largest real decreases.

Although four percent down on November last year, Barcelona-Madrid was still the busiest city pair (ten flights during the busiest hour) and was followed by Rome/Fiumicino-Milan/Linate (up eighteen percent on November last year and eight flights during the busiest hour). Sixty percent of the busier pairs (those with at least two hundred and fifty flights per month) had an increase in the number of flights, with twenty seven percent having a rise of more than ten percent. Jersey-Guernsey (due to a new airline operating on this route) had the largest real increase whereas Copenhagen-Aarhus and Berlin-Zurich had the largest 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 NOVEMBER 2004

Delays due solely to ATFM measures decreased by ten percent when compared with November 2003. The Average Delay per Movement also saw a decrease and fell by fourteen and a half percent to just under one and a half minutes. Weather was the main cause of the delay (forty percent), followed by ATC Capacity (twenty seven percent) and Airport Facilities (nineteen percent).



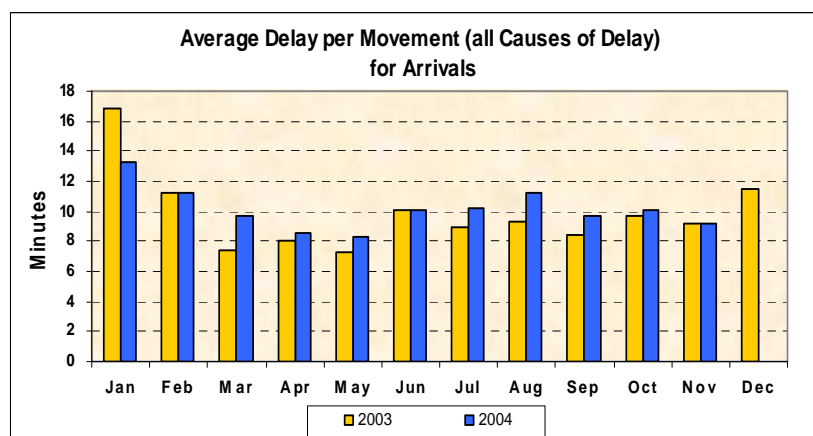
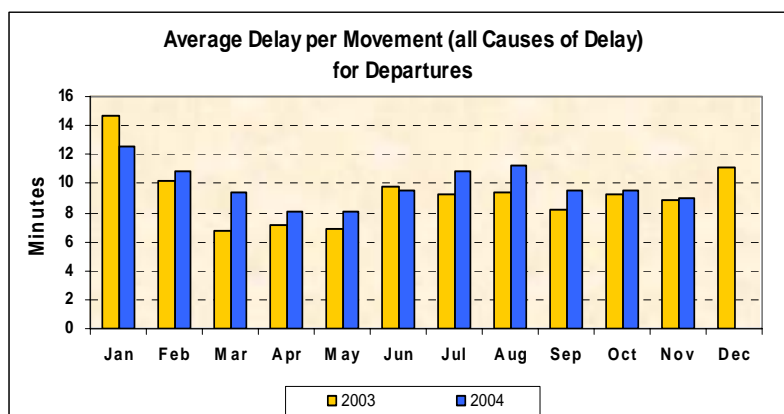
Delayed flights decreased by seven and a half percent, with the percentage of flights delayed falling by one percentage point to just under seven percent. Compared with November 2003, flights delayed by more than fifteen minutes decreased by nine percent and flights delayed by more than one hour fell by ten percent.

Seventy five percent of all ATFM delay in the ECAC region was due to 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 nine percentage points and the actual amount of the delay rose by less than one percent. Weather accounted for fifty four percent of the airport delay, with Airport Capacity (twenty six percent) and ATC Capacity (eleven percent) being the other major causes. Compared with November 2003, there was an increase in ATC Capacity, Military Activity, ATC Equipment and Airport Capacity. The airport of Frankfurt was the most affected by airport-related regulations and was followed by Paris, Madrid and Amsterdam.

Based on the locations of the most penalising regulations, traffic (including overflights) using the airspace of Germany, France, Italy and Spain had the largest share of the delay and accounted for fifty five percent of the total ATFM delay in the ECAC region. Compared with November 2003, the Czech Republic had the largest increase (up five percentage points) and was followed by Spain (up four percentage points) and Austria (up three percentage points). To offset these increases, there were decreases in France (down twelve percentage points), the United Kingdom (down six percentage points), Maastricht and Switzerland (both down three percentage points).

ALL CAUSES DELAY SITUATION FOR NOVEMBER 2004² (eCODA)

The Average Delay per Movement for departure traffic and for all causes of delay was nine minutes; a small increase of two percent on November 2003. Thirty nine percent of flights were delayed on departure, with seventeen percent delayed by more than fifteen minutes. On the plus side, thirteen percent of flights departed before their scheduled time.



The Average Delay per Movement for arrival traffic and for all causes of delay was just above nine minutes; an increase of one percent on November last year. Thirty seven percent of flights were delayed on arrival, with eighteen percent delayed by more than fifteen minutes. On the positive side, thirty five percent of flights landed before their scheduled time.

Twenty five percent of the busier departure airports (those with at least nine hundred flights per month) had an Average Delay per Movement of more than ten minutes. With an Average Delay per Movement of thirteen minutes, Prague was the most affected departure airport and was followed by Warsaw (twelve minutes), Frankfurt (eleven and a half minutes), Vienna, Paris/Charles de Gaulle and Belfast (all three with an average delay of eleven minutes). Compared with November 2003, twenty nine percent of the airports had an increase in average delay of more than one minute. The largest rise was at Oslo (up six minutes), followed by Stockholm and Frankfurt (both up four and a half minutes). These increases were balanced by decreases at Birmingham, Otopeni and Paris/Charles de Gaulle (all three down four minutes). As in the previous months, all the airports had a proportion of their traffic departing before their scheduled time, with East Midlands having the largest, with thirty three percent and Copenhagen the lowest, with two percent.

Turning to the busier destination airports, eighteen percent had an Average Delay per Movement of more than ten minutes. Traffic arriving at Oslo had the largest Average Delay per Movement, with sixteen minutes and was followed by Prague (fifteen and a half minutes) and Frankfurt (fourteen minutes). Compared with November 2003, twenty four percent of the busier destination airports had a rise in average delay of more than one minute, with the largest at

² The analysis was based on airline data from eCODA, which for November 2004 contains details on **34.6%** of IFR GAT flights in Europe.







Oslo (up eleven minutes) followed by Stockholm (up five and a half minutes) and Frankfurt (up five minutes). At the other end of the scale, there were decreases at Milan/Malpensa (down five minutes) and Paris/Charles de Gaulle (down four minutes).

The most affected city pair, due to all causes of delay, was Prague-Vienna, with an Average Delay per Movement of eighteen minutes and was followed by London/Heathrow-Oslo and Amsterdam-Frankfurt (both with an average delay of seventeen minutes). It is worth noting that Frankfurt appears as the most affected destination airport (due to weather, which accounted for eighty four percent of the delay). Compared with November 2003, fifty three percent of the city pairs had an increase in Average Delay per Movement, with forty percent having an increase of more than one minute. The largest increase (up ten minutes) was between Stockholm-Oslo, followed by Trondheim-Oslo, Bergen-Oslo and Oslo-Stockholm. To offset these increases, thirty eight percent of the city pairs had a decrease of more than one minute, with the largest fall between Birmingham-Paris/Charles de Gaulle (down twelve minutes).

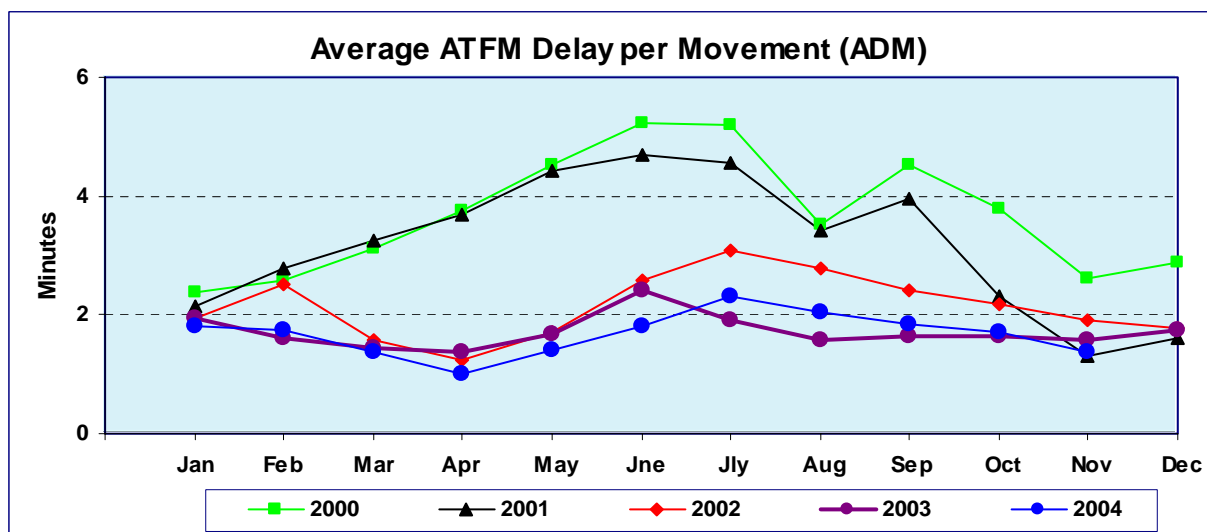
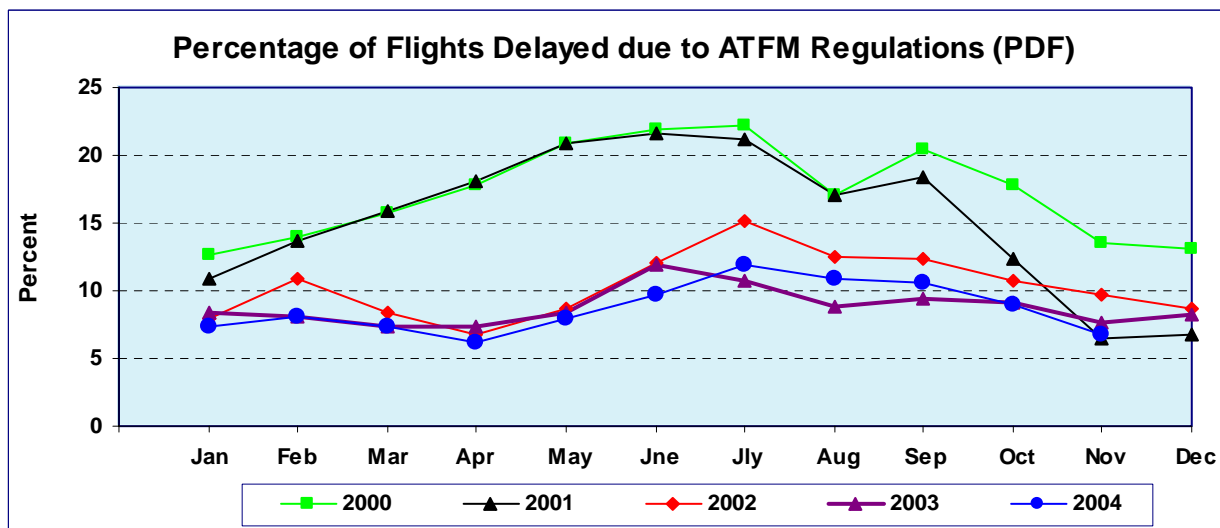
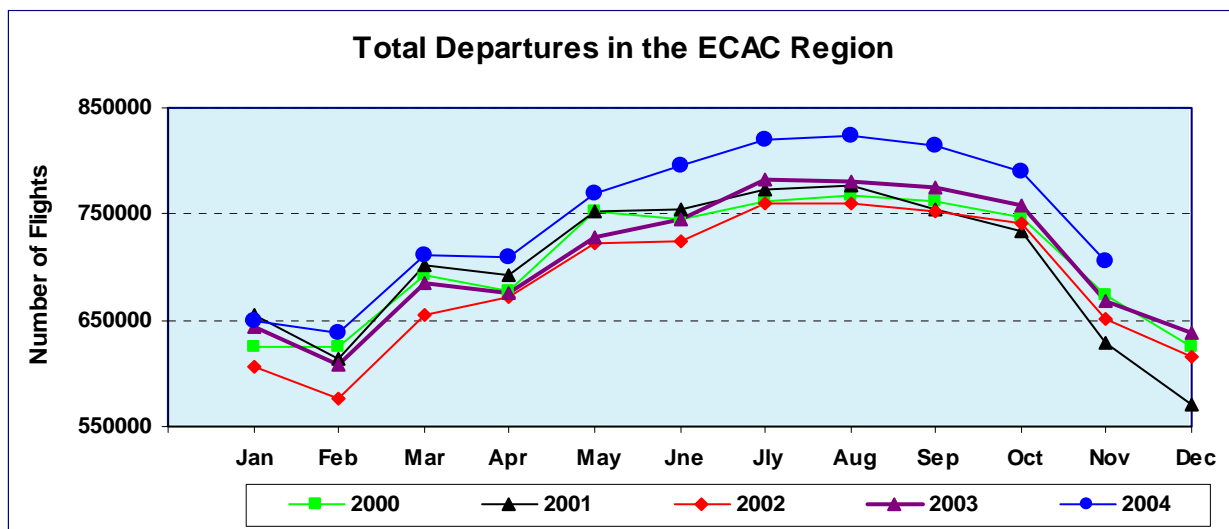
An analysis of the delay causes and categories, grouped by IATA codes, shows that fifty three percent had an increase in delay share, with the largest rises in the Miscellaneous, Others, ATFM Restriction at Destination Airport and Weather. To balance these increases, there were decreases in the ATFM Weather at Destination, Restriction at Departure Airport and ATFM En-Route Demand Capacity categories (only those categories with more than one percent of the delay were taken into account).

With nine percent share of the delay, Technical & Aircraft equipment was the most penalising direct delay category and was followed by Restriction at Departure Airport (eight percent) and Aircraft & Ramp Handling (five and a half percent). ATFM En-Route Demand Capacity accounted for five percent of the delay, a decrease of seventeen percent on November last year.

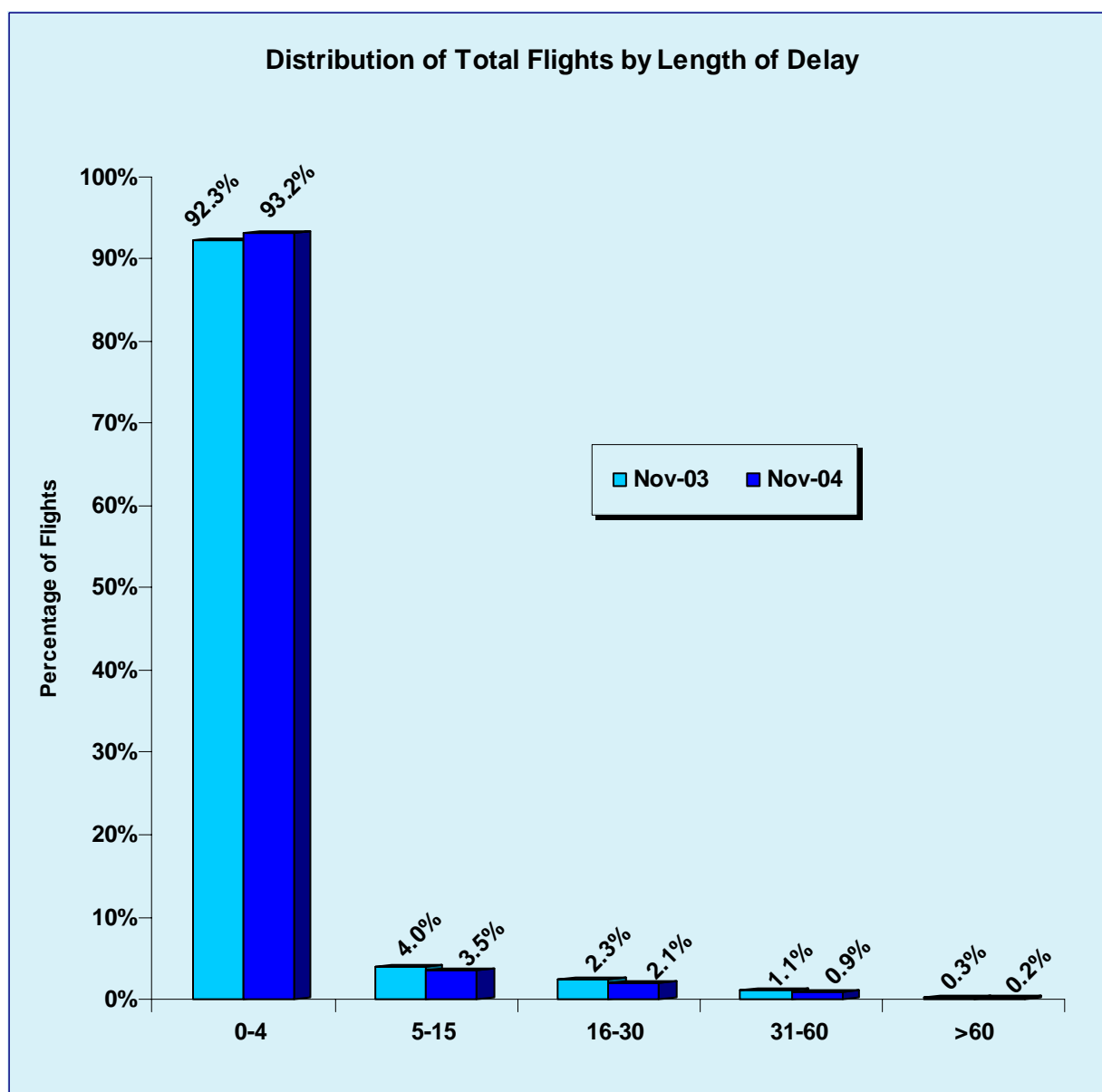
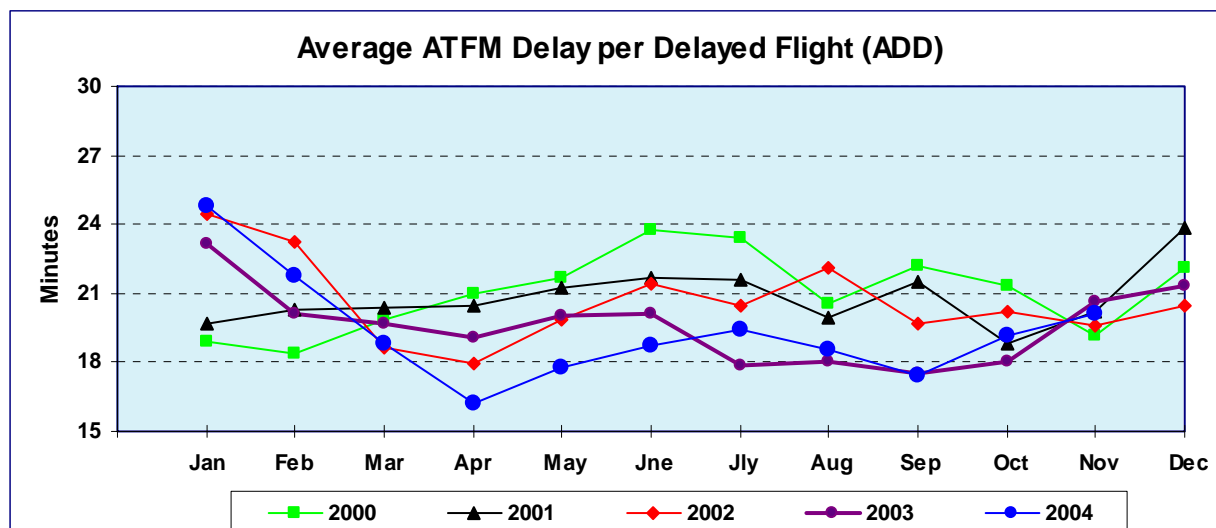
SUMMARY OF SIGNIFICANT EVENTS

-  Severe weather conditions including fog, strong winds and snow closing some airports for short periods.
-  Technical problems including electrical power failure at Frankfurt and Warsaw; introduction of new ATC system at Tampere; frequency problems at Frankfurt, Dusseldorf and Bordeaux ACCs; radar maintenance at Rome/Fiumicino and Brindisi ACCs; radar failure at Prague, Venice, Naples and Edinburgh ACCs; ILS failure at Munich and Malta; system instability at Maastricht; new electronic strip distribution system at London/Stansted; implementation of new VOR/DME procedures at Tirana ACC; temporary closure of Dusseldorf FMP; power failure in tower at Barcelona.
-  WIP at Munster; aircraft incidents at Paris/Charles de Gaulle, Manchester and Lisbon; single runway operations at Amsterdam; disabled aircraft on runway at Barcelona, Frankfurt, London/Heathrow, Nurnberg and Bologna; problems with runway lights at Strasbourg.
-  Staff shortages at Madrid and Bodo ACCs; industrial action of ATC personnel in Italy.
-  Military exercises at Brest, Bordeaux, Marseille, Shanwick ACCs.
-  Other items: migration of CFMU 10; introduction of new approach procedures at Liège; high altitude test flights in Atlantic Ocean; 'Santa Claus' traffic at Bodo ATCC; emergency landing due to bomb alert at Brussels.

2. Year on Year Trends in Main Indicators

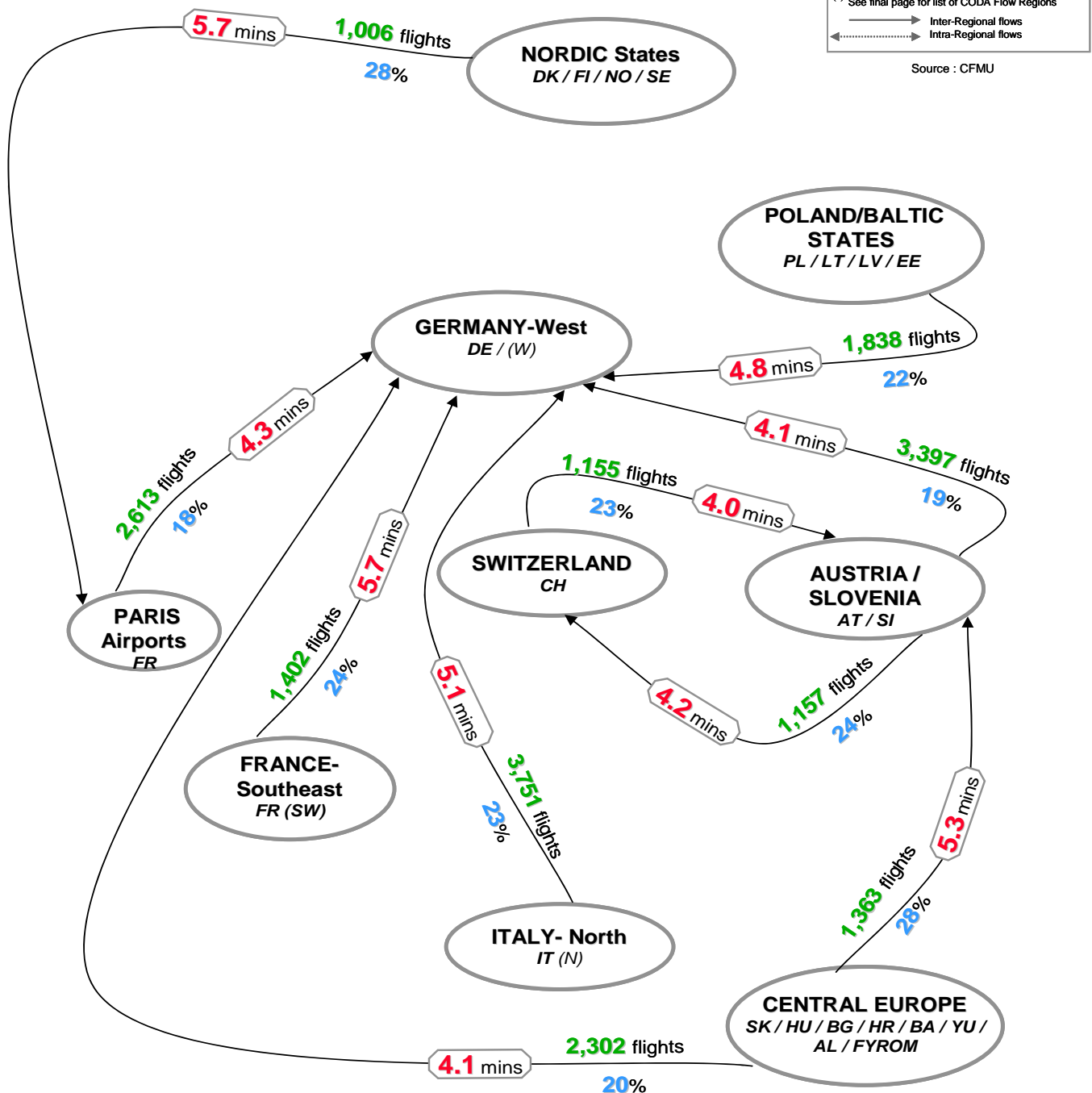


Source : CFMU ATFM Data



Source : CFMU ATFM Data

3. Most Affected Traffic Flows by CODA Regions



Selected flights: 19,984 (3% of Total flights)
 Delayed flights: 4,348 (22% of Selected flights)
 Accumulated delay: 92,752 mins (10% of Total Delay)
 Avg. Delay per Mvmt: 4.6 mins

ATFM Delay Situation on 10 Regional CODA Traffic Flows (>1,000 flights) in November 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	France Southeast	Germany-West	1,402	470	340	24.25	8,041	23.65	5.74
2	Nordic States	Paris Airports	1,006	521	281	27.93	5,749	20.46	5.71
3	Central Europe	Austria/Slovenia	1,363	671	375	27.51	7,256	19.35	5.32
4	Italy-North	Germany-West	3,751	1,274	859	22.90	19,084	22.22	5.09
5	Poland/Baltic States	Germany-West	1,838	680	397	21.60	8,777	22.11	4.78
6	Paris Airports	Germany-West	2,613	694	459	17.57	11,168	24.33	4.27
7	Austria/Slovenia	Switzerland	1,157	466	272	23.51	4,852	17.84	4.19
8	Central Europe	Germany-West	2,302	724	468	20.33	9,401	20.09	4.08
9	Austria/Slovenia	Germany-West	3,397	1,243	631	18.58	13,861	21.97	4.08
10	Switzerland	Austria/Slovenia	1,155	460	266	23.03	4,563	17.15	3.95
11	United Kingdom & Ireland	Paris Airports	2,054	582	337	16.41	7,893	23.42	3.84
12	United Kingdom & Ireland	Germany-West	2,747	640	433	15.76	10,129	23.39	3.69
13	Nordic States	Germany-West	3,652	1,059	621	17.00	13,205	21.26	3.62
14	BENELUX	Switzerland	1,421	480	277	19.49	5,123	18.49	3.61
15	Switzerland	BENELUX	1,409	447	211	14.98	4,984	23.62	3.54
16	Paris Airports	Switzerland	1,528	407	246	16.10	5,382	21.88	3.52
17	Paris Airports	Italy-North	1,723	496	272	15.79	5,595	20.57	3.25
18	Italy-North	Paris Airports	1,709	526	245	14.34	5,544	22.63	3.24
19	Switzerland	Germany-West	3,472	842	510	14.69	11,231	22.02	3.23
20	London Airports	Germany-West	3,489	729	476	13.64	11,141	23.41	3.19
Totals			43,188	13,411	7,976	18.47	172,979	21.69	4.01

MOST DENSE TRAFFIC FLOWS (CFMU)

Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM	ADM-Rank
1	Nordic States	Nordic States	65,141	5,109	2,071	3.18	34,611	16.71	0.53	24
2	United Kingdom & Ireland	United Kingdom & Ireland	31,419	1,511	718	2.29	11,908	16.58	0.38	27
3	Iberian Peninsula/Canaria	Iberian Peninsula/Canaria	26,683	3,065	1,469	5.51	26,450	18.01	0.99	13
4	Germany-West	Germany-West	22,560	3,586	2,076	9.20	44,980	21.67	1.99	7
5	Non ECAC	Non ECAC	10,789	65	32	0.30	489	15.28	0.05	33
6	Greece/Cyprus	Greece/Cyprus	10,408	37	19	0.18	247	13.00	0.02	35
7	Italy-North	Italy-South/Malta	9,863	1,728	1,020	10.34	19,489	19.11	1.98	8
8	Italy-South/Malta	Italy-North	9,855	743	307	3.12	6,006	19.56	0.61	21
9	London Airports	United Kingdom & Ireland	9,734	641	361	3.71	6,335	17.55	0.65	19
10	United Kingdom & Ireland	London Airports	9,629	1,194	492	5.11	8,697	17.68	0.90	16
11	Balearics/Spain East	Iberian Peninsula/Canaria	8,336	1,880	969	11.62	20,123	20.77	2.41	5
12	Iberian Peninsula/Canaria	Balearics/Spain East	8,320	818	270	3.25	5,604	20.76	0.67	17
13	Non ECAC	London Airports	8,203	76	25	0.30	414	16.56	0.05	32
14	Germany-West	Non ECAC	8,154	921	436	5.35	7,427	17.03	0.91	15
15	London Airports	Non ECAC	8,135	611	273	3.36	3,884	14.23	0.48	25
16	Turkey	Turkey	8,098	44	28	0.35	777	27.75	0.10	31
17	Non ECAC	Germany-West	8,086	360	208	2.57	4,691	22.55	0.58	22
18	Italy-South/Malta	Italy-South/Malta	7,899	926	420	5.32	8,317	19.80	1.05	10
19	Germany-West	Germany-East/Czech Rep	7,341	1,028	430	5.86	8,026	18.67	1.09	9
20	Germany-East/Czech Rep	Germany-West	7,336	1,667	872	11.89	18,378	21.08	2.51	3
21	Paris Airports	Non ECAC	6,470	962	650	10.05	16,085	24.75	2.49	4
22	Non ECAC	Paris Airports	6,434	277	102	1.59	2,689	26.36	0.42	26
23	Balearics/Spain East	Balearics/Spain East	5,628	208	85	1.51	3,194	37.58	0.57	23
24	France North	France North	5,565	29	8	0.14	148	18.50	0.03	34
25	Central Europe	Central Europe	5,530	302	191	3.45	3,627	18.99	0.66	18

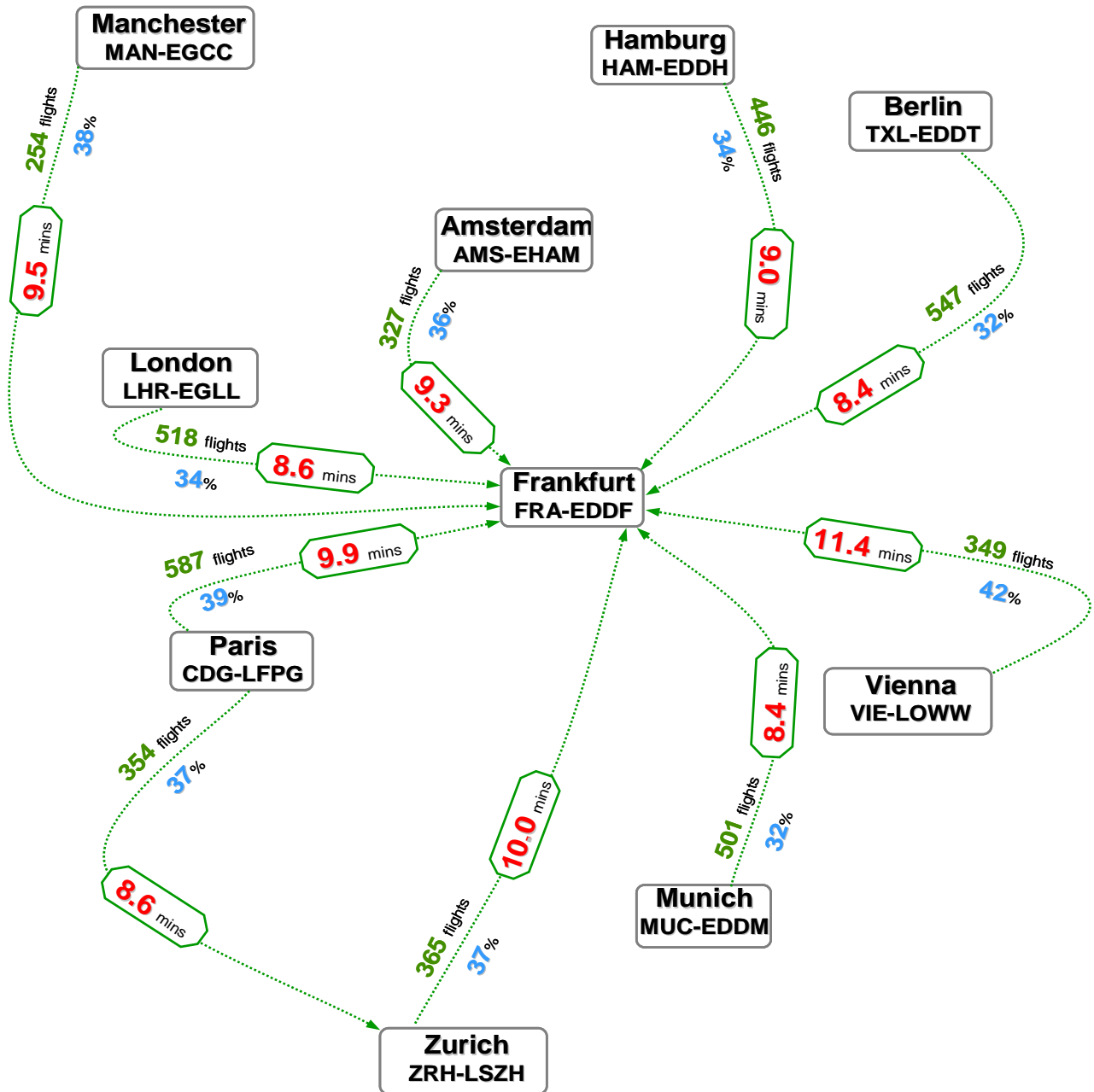
Source: CFMU ATFM Data

5. Most Affected City Pairs

AVERAGE DELAY PER MOVEMENT

Source : CFMU

Total Number of Flights & % of Flights Delayed



Selected flights: **4,248** (0.6% of Total flights)
 Delayed flights: **1,515** (36% of Selected flights)
 Accumulated delay: **39,225** mins (4% of Total Delay)
 Avg. Delay per Mvmt.: **9.2** mins

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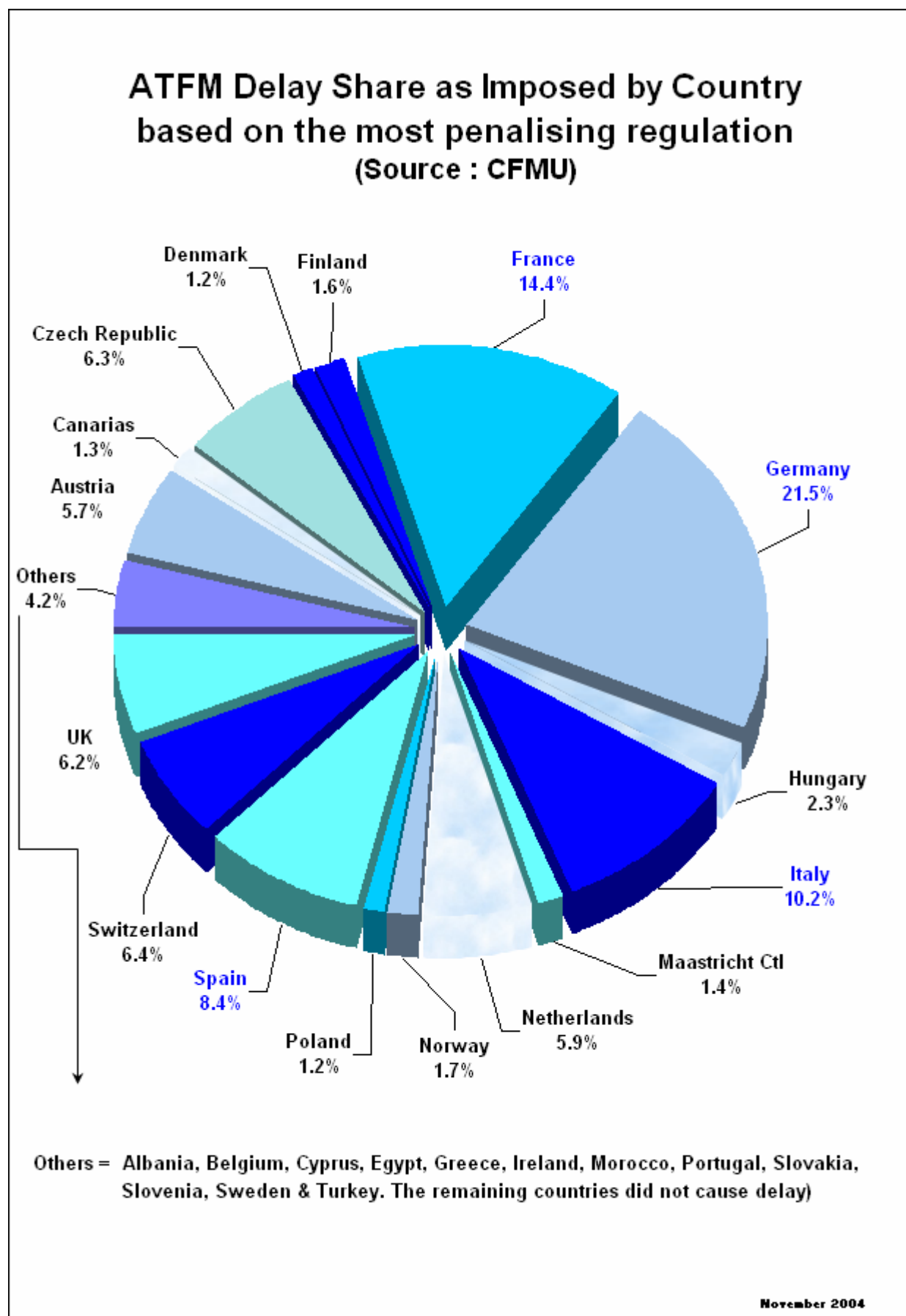
ATFM Delay Situation on 10 City Pairs (>250 flights) in November 2004

6. Most Affected and Most Dense City Pairs

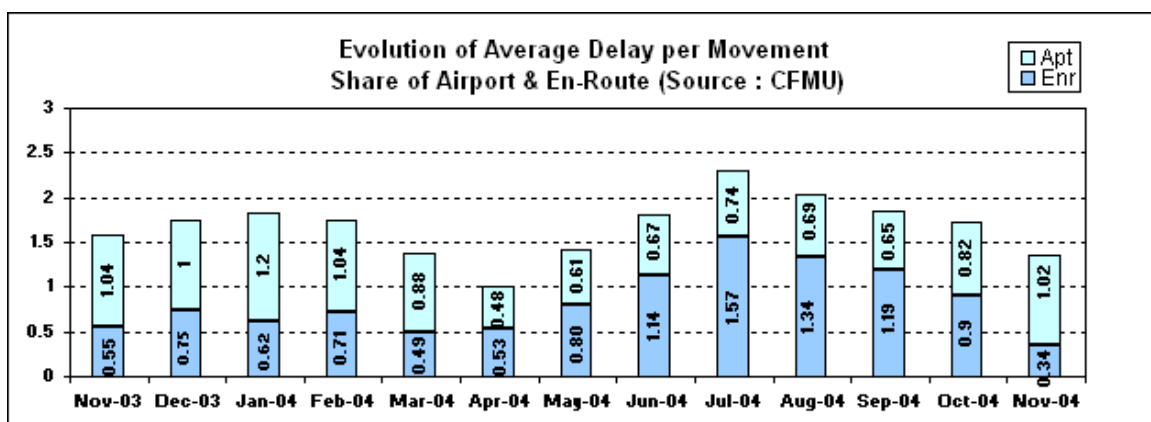
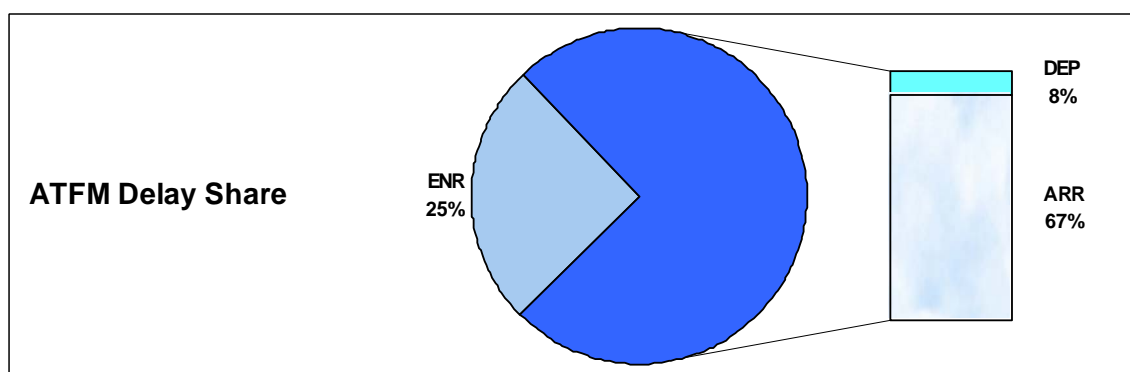
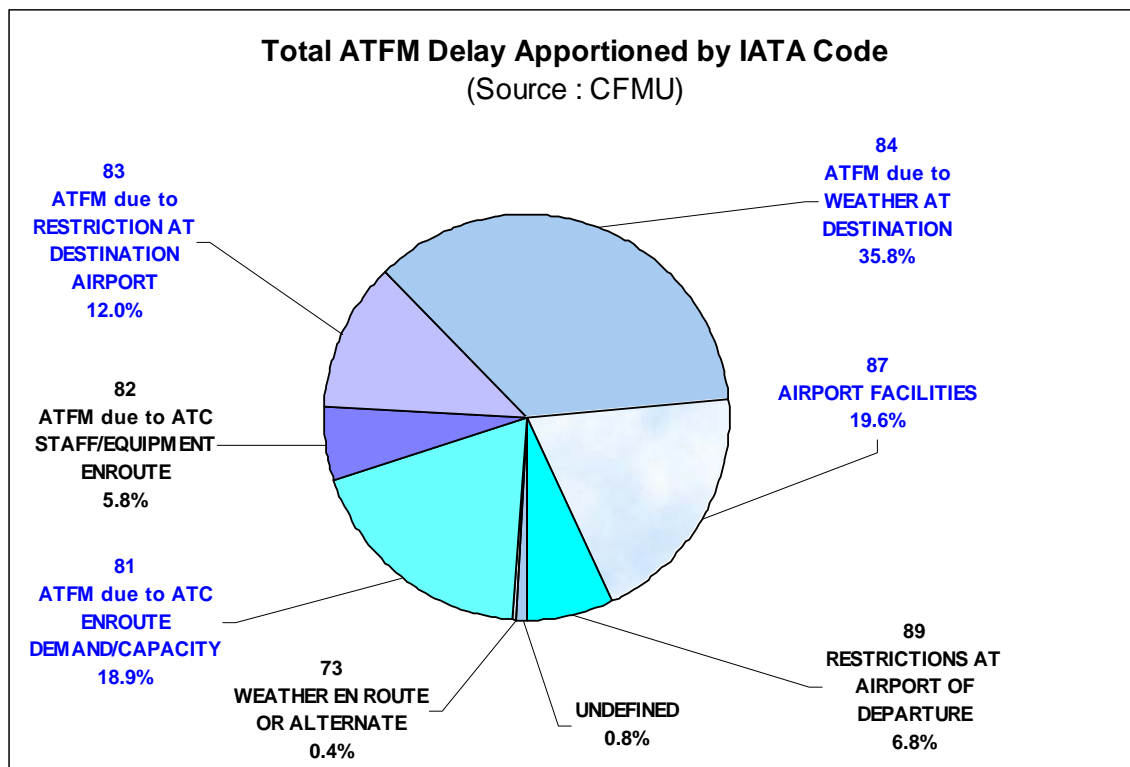
<u>MOST AFFECTED CITY PAIRS (CFMU)</u>										
Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM	
1	Vienna	Frankfurt	349	195	145	41.55	3,990	27.52	11.43	
2	Zurich	Frankfurt	365	180	135	36.99	3,637	26.94	9.96	
3	Paris/Charles-De-Gaulle	Frankfurt	587	310	230	39.18	5,821	25.31	9.92	
4	Manchester	Frankfurt	254	125	96	37.80	2,409	25.09	9.48	
5	Amsterdam	Frankfurt	327	149	118	36.09	3,045	25.81	9.31	
6	Hamburg	Frankfurt	446	197	150	33.63	4,009	26.73	8.99	
7	Paris/Charles-De-Gaulle	Zurich	354	194	132	37.29	3,056	23.15	8.63	
8	London/Heathrow	Frankfurt	518	255	174	33.59	4,459	25.63	8.61	
9	Munich	Frankfurt	501	227	160	31.94	4,222	26.39	8.43	
10	Berlin-Tegel	Frankfurt	547	244	175	31.99	4,577	26.15	8.37	
11	Dusseldorf	Frankfurt	317	148	105	33.12	2,422	23.07	7.64	
12	Brussels	Frankfurt	286	127	87	30.42	2,163	24.86	7.56	
13	Madrid/Barajas	Frankfurt	325	150	101	31.08	2,383	23.59	7.33	
14	Rome/Fiumicino	Frankfurt	283	132	103	36.40	2,052	19.92	7.25	
15	Vienna	Zurich	437	237	160	36.61	3,148	19.68	7.20	
16	London/Heathrow	Zurich	362	195	123	33.98	2,607	21.20	7.20	
17	London/Heathrow	Vienna	270	141	93	34.44	1,913	20.57	7.09	
18	Amsterdam	Zurich	299	158	103	34.45	2,080	20.19	6.96	
19	Zurich	Amsterdam	301	131	79	26.25	1,997	25.28	6.63	
20	Brussels	Vienna	263	148	96	36.50	1,657	17.26	6.30	
Totals			7,391	3,643	2,565	34.70	61,647	24.03	8.34	
<u>MOST DENSE CITY PAIRS (CFMU)</u>										
Rank	Departure	Destination	TTF	TRF	TDF	PDF	TDM	ADD	ADM	ADM-rank
1	Barcelona	Madrid/Barajas	1,971	953	466	23.64	9,921	21.29	5.03	1
2	Madrid/Barajas	Barcelona	1,957	280	95	4.85	2,214	23.31	1.13	17
3	Rome/Fiumicino	Milan/Linate	1,326	5	2	0.15	12	6.00	0.01	33
4	Milan/Linate	Rome/Fiumicino	1,323	429	215	16.25	3,875	18.02	2.93	5
5	Barcelona	Palma De Mallorca	868	8	6	0.69	658	109.67	0.76	19
6	Toulouse/Blagnac	Paris/Orly	823	62	27	3.28	390	14.44	0.47	24
7	Paris/Orly	Toulouse/Blagnac	820	158	75	9.15	1,673	22.31	2.04	10
8	Palma De Mallorca	Barcelona	815	89	32	3.93	928	29.00	1.14	16
9	Athens	Makedonia	795	3	1	0.13	15	15.00	0.02	32
10	Paris/Charles-De-Gaulle	London/Heathrow	792	181	95	11.99	2,626	27.64	3.32	3
11	London/Heathrow	Paris/Charles-De-Gaulle	789	191	121	15.34	2,559	21.15	3.24	4
12	Oslo/Gardermoen	Bergen/Flesland	774	42	18	2.33	226	12.56	0.29	27
13	Makedonia	Athens	769	3	2	0.26	15	7.50	0.02	31
14	Helsinki-Vantaa	Stockholm/Arlanda	753	198	78	10.36	1,391	17.83	1.85	12
15	Bergen/Flesland	Oslo/Gardermoen	751	135	42	5.59	649	15.45	0.86	18
16	Munich	Dusseldorf	722	74	51	7.06	968	18.98	1.34	14
17	Dusseldorf	Munich	718	242	105	14.62	2,092	19.92	2.91	6
18	Stockholm/Arlanda	Helsinki-Vantaa	718	195	65	9.05	841	12.94	1.17	15
19	Cologne/Bonn	Munich	716	215	114	15.92	2,006	17.60	2.80	8
20	Munich	Cologne/Bonn	699	30	17	2.43	322	18.94	0.46	25
21	London/Heathrow	Amsterdam	693	97	68	9.81	2,759	40.57	3.98	2
22	Amsterdam	London/Heathrow	693	94	54	7.79	977	18.09	1.41	13
23	Trondheim/Vaernes	Oslo/Gardermoen	692	199	85	12.28	1,303	15.33	1.88	11
24	Oslo/Gardermoen	Trondheim/Vaernes	691	127	35	5.07	409	11.69	0.59	22
25	Las Palmas	Fuerteventura	679	27	18	2.65	473	26.28	0.70	20

Source: CFMU ATFM Data

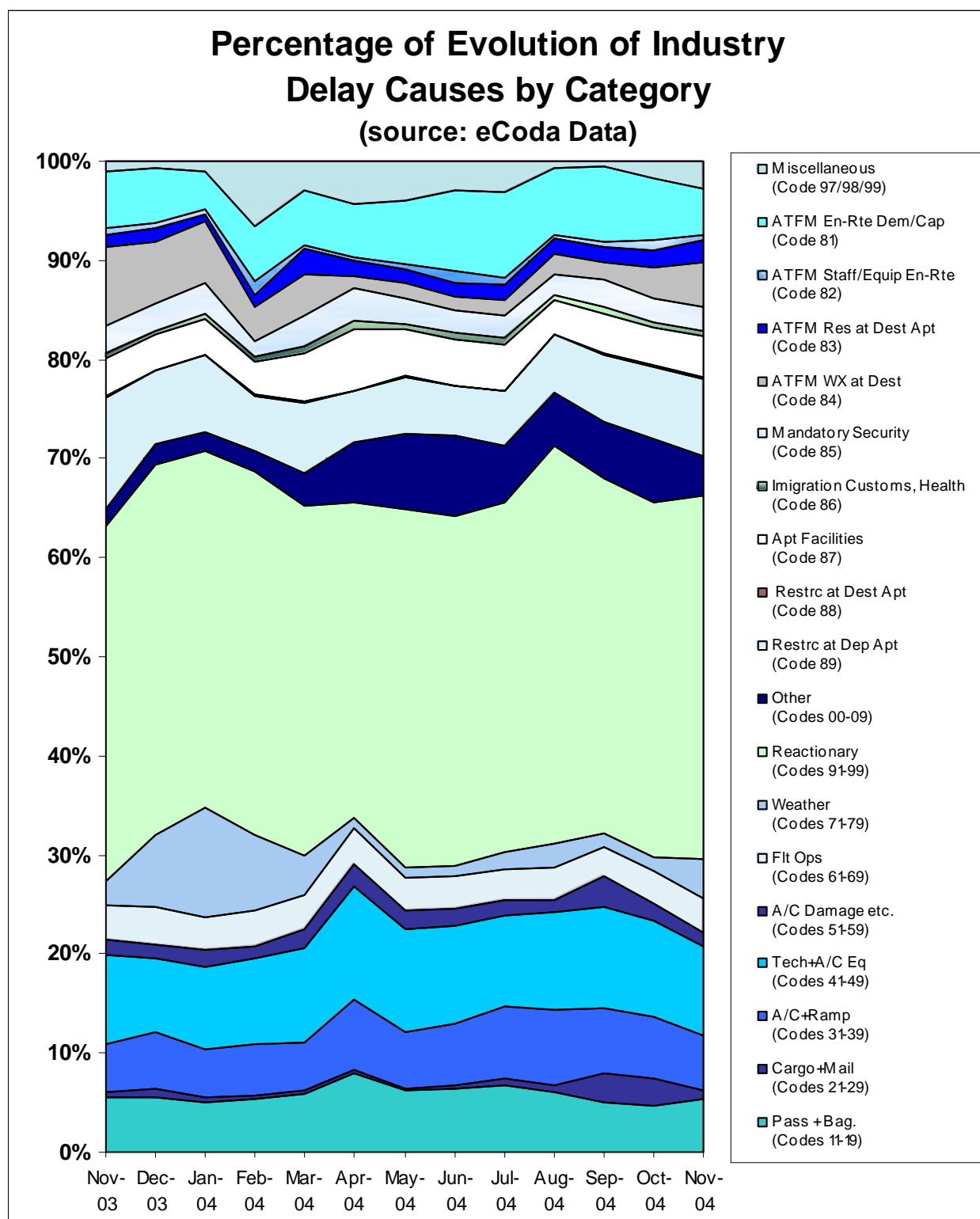
7. ATFM Delay Share by Country



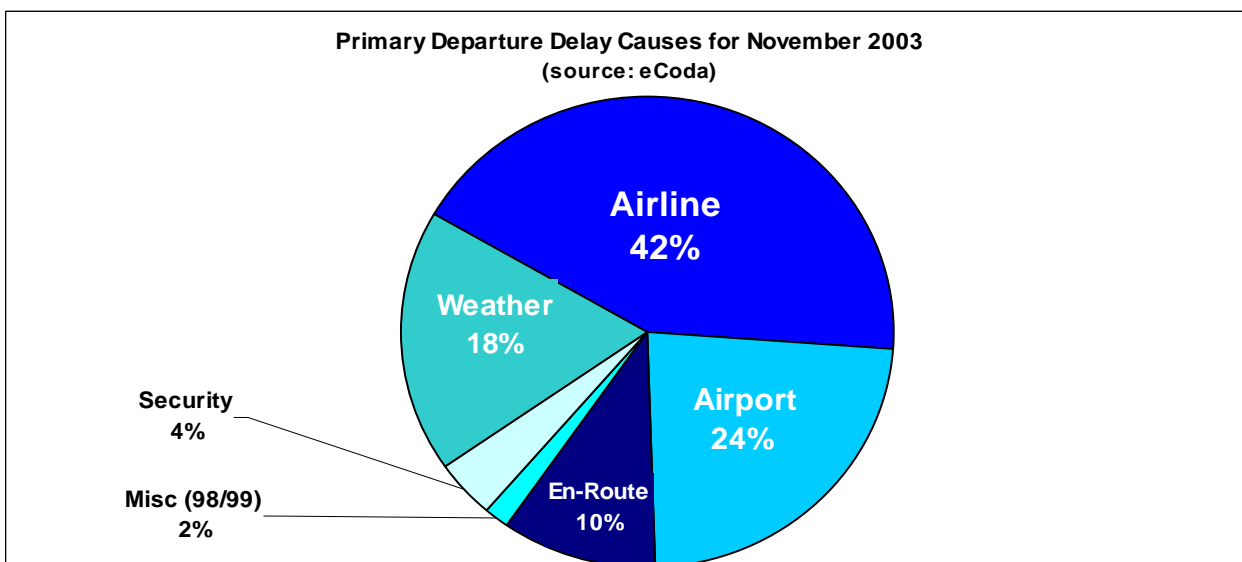
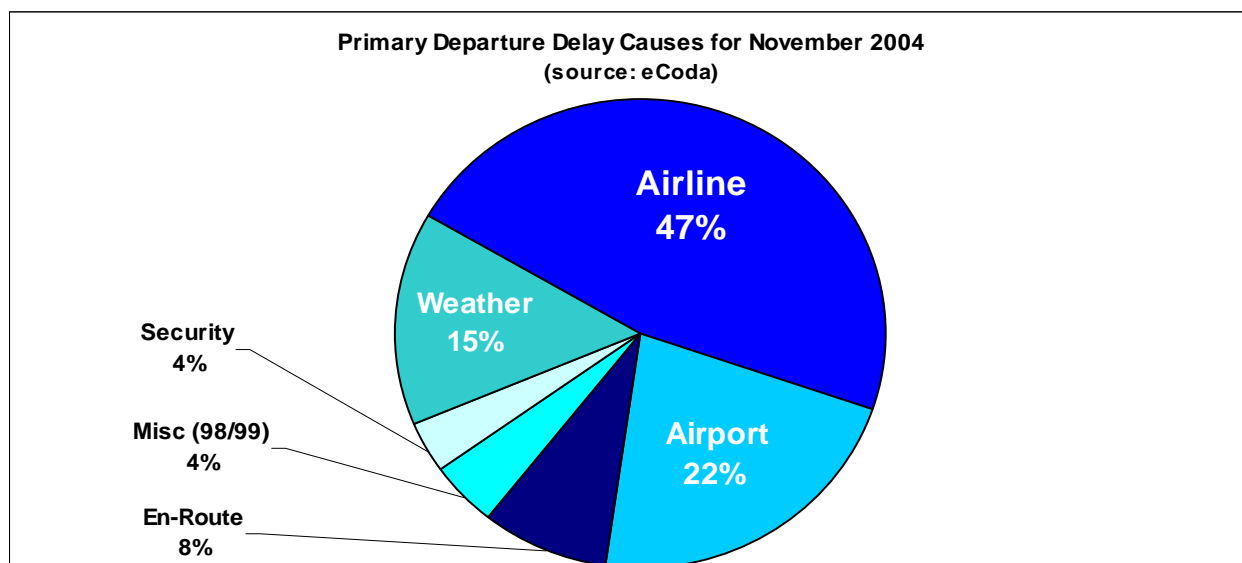
8. Reasons for ATFM Delay



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)

Definition of CODA Flow Regions

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 (<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 weather³, 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

³ 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