



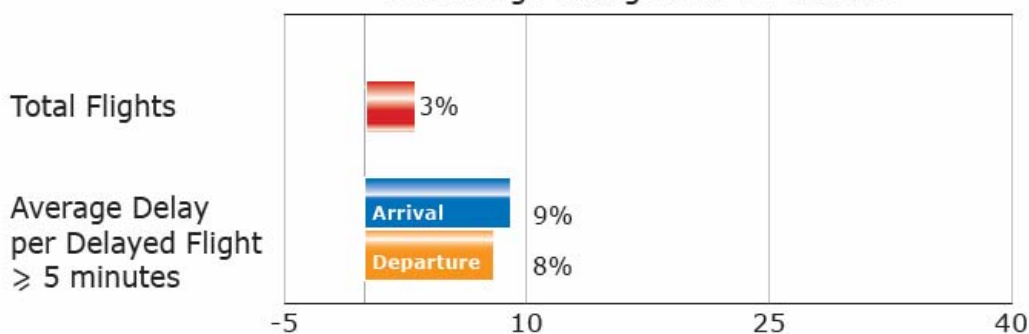
CODA Digest

Delays to Air Transport in Europe

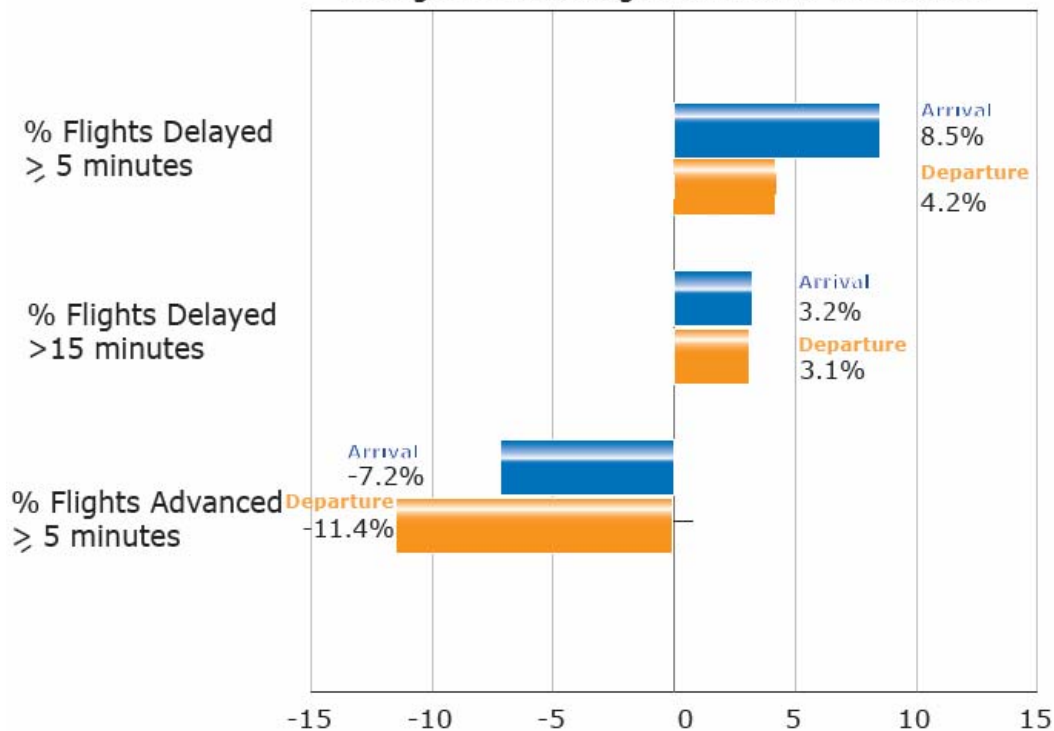
June 2010

Comparison of Delay Indicators (All Causes) between June 2010 and June 2009

Percentage change over 12 months



Change in Percentage Points over 12 months



- Total Departures in the ESRA Region (Source: EUROCONTROL STATFOR)
- All Sources of Arrival Delay (Source: EUROCONTROL CODA)
- All Sources of Departure Delay (Source: EUROCONTROL CODA)

This page has been deliberately left blank.

FOREWORD

This report gives an overview of the delay situation in the European Civil Aviation Conference Area. It is based on (1) the EUROCONTROL CODA database which contains delay data provided directly by airlines and (2) on EUROCONTROL CFMU data which provide details on most of IFR flights in the European Civil Aviation Conference (ECAC) area. This report has been prepared by the Central Office for Delay Analysis (CODA), a service of EUROCONTROL.

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 1.

In this report the definition of the CFMU Air Traffic Flow and Capacity Management (ATFCM) departure delay is based on the difference between the planned off-block time and the calculated off-block time, taking into account slot time and estimated taxi time. Airline data from the CODA database contain real recorded delays provided to CODA by airlines.

© 2010 European Organisation for the Safety of Air Navigation (EUROCONTROL)

This document is published by EUROCONTROL for information purposes. It may be copied in whole or in part provided that EUROCONTROL is mentioned as the source and to the extent justified by the non-commercial use (not for sale). The information in this document may not be modified without prior written permission from EUROCONTROL.

The use of this document is at the user's sole risk and responsibility. EUROCONTROL expressly disclaims any and all warranties with respect to any content within the document, express or implied.

Central Office for Delay Analysis
EUROCONTROL
96 Rue de la Fusée
B - 1130 Brussels



The Central Office for Delay Analysis (CODA) is ISO 9001:2008 certified.

Tel. : + 32-2 729 47 44
Fax : + 32-2 729 90 04
E-Mail : coda@eurocontrol.int
Web Site : <http://www.eurocontrol.int/coda/>

Date of publication of this issue: 06/08/2010

Table of Contents

1.	Traffic Situation for June 2010	6
2.	ATFCM Delay Summary	7
3.	All-Causes Delay Summary	10
4.	Summary of significant events	15
A.	Year-on-Year Trends in ATFCM Delay Indicators	16
B.	Year-on-Year Trends in All-Causes Delay Indicators	18
I.	All-causes departure delay by hour	22
J.	All-causes delay – Share of Reactionary and Primary Departure Delay	23
K.	Average Delay per Delayed Flight & Percentage of Flights Delayed at Departure Airports	24
L.	Glossary of Terms and Abbreviations	25
M.	Standard IATA Delay Codes	26
N.	Correlation between IATA Delay Codes and the CFMU Reasons for Regulation	28
O.	CODA Coverage of IFR Departures in June 2010	29

Headlines

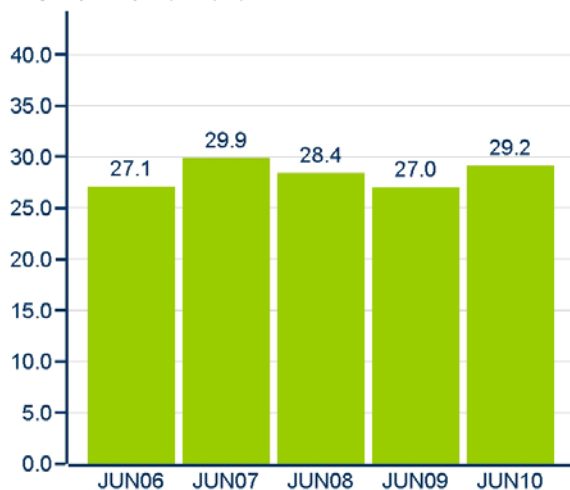
In June 2010, the average delay per delayed flight for departure traffic from all causes of delay was 29.2 minutes, an increase of 8% on the same month last year. In addition, the percentage of flights delayed (by 5 minutes or more) went up by 4.2 percentage points to 44.7% when compared to June 2009.

In particular, two major industrial actions in France (June 15th and 24th) and adverse weather conditions (fog and thunderstorms) on several days affected traffic across Europe.

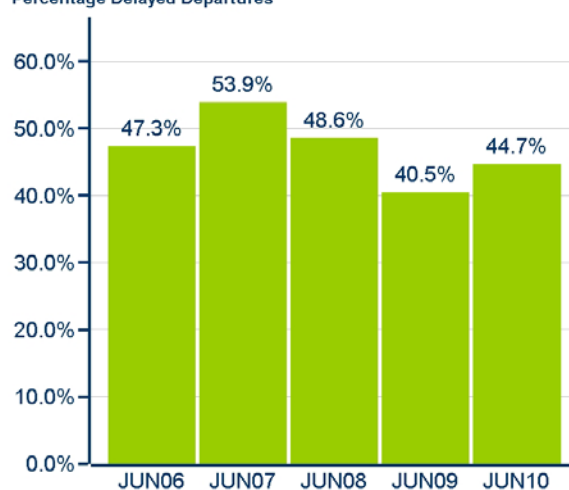
ATFCM delays saw a significant increase, both in terms of average ATFCM delay per departure and share of ATFCM delays in the primary delays all causes:

- 3.55 minutes average ATFCM delay per departure in June 2010, a 70% increase compared to June 2009.
- 41.7% of primary delays all causes were assigned to ATFCM restrictions, the highest figure recorded in recent years. (Second highest in May 2010 at 36%). (see Annex F).

Average Delay Per Delayed Departure (Mins)

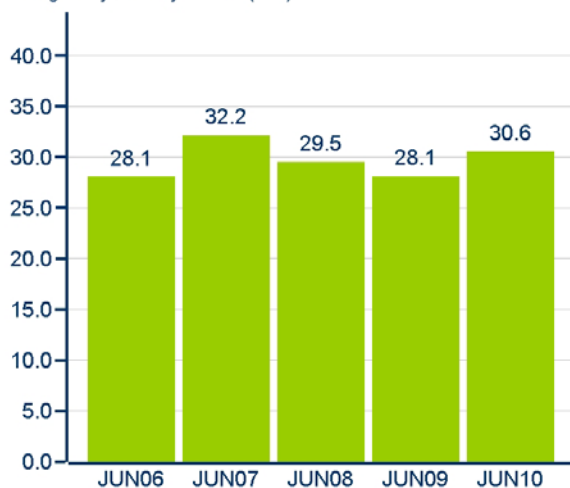


Percentage Delayed Departures

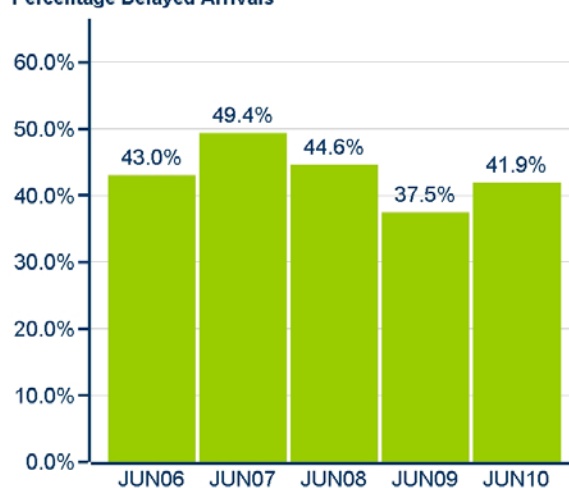


For arrival traffic, the pattern was similar in seeing year on year increase.

Average Delay Per Delayed Arrival (Mins)



Percentage Delayed Arrivals



1. Traffic Situation for June 2010

There were 3% more flights in the EUROCONTROL Statistical Reference Area (ESRA¹) in June 2010. When focusing on the top 20 airports by daily departures, Antalya had the largest increase in flights, or +21% when compared with June 2009.

Details for airport pairs are in Annex C. More details of traffic growth are available from STATFOR².

Figure 1. Traffic at Main Airports of Europe

Rank	Departure Airport	Departures/Day JUN10	Change since JUN09 (%)
1	PARIS CH DE GAULLE	733.2	-3%
2	FRANKFURT MAIN	685.6	3%
3	LONDON/HEATHROW	642.7	-3%
4	MADRID BARAJAS	629.7	2%
5	SCHIPHOL AMSTERDAM	590.1	0%
6	MUENCHEN 2	583.0	2%
7	ROME FIUMICINO	482.9	3%
8	BARCELONA	412.5	0%
9	WIEN SCHWECHAT	397.0	3%
10	ISTANBUL-ATATURK	385.6	-2%
11	COPENHAGEN KASTRUP	376.1	6%
12	ZURICH	375.8	5%
13	LONDON/GATWICK	372.5	-2%
14	DUESSELDORF	334.5	4%
15	PARIS ORLY	334.3	2%
16	BRUSSELS NATIONAL	333.5	-2%
17	OSLO/GARDERMOEN	328.8	3%
18	PALMA DE MALLORCA	321.3	0%
19	ANTALYA	316.2	21%
20	MILANO MALPENSA	289.7	2%

1 For a definition of ESRA see www.eurocontrol.int/statfor/faq

2 Further information on the number of IFR movements can be found at www.eurocontrol.int/statfor

2. ATFCM Delay Summary³

The average ATFCM delay per movement increased by 70% to 3.6 minutes in June 2010, from 2.1 minutes in June 2009. The percentage of flights delayed by more than 15 minutes increased to 8.7% from 5.3%. (see Annex A)

Looking at the reasons for ATFCM delay (en-route together with airport, Figure 2) ATC Capacity contributed 40% of the delay, followed by Weather.

ATC Industrial Action related delay increased when compared to June 2009 following two periods of French industrial action during the month. The increase of “Significant Event” delays is principally due to VAFORIT training (Rhein UAC) and NUSAZ (new Zürich sectorisation) implementation.⁴

Figure 2. Causes of ATFCM delay in June 2010 and 2009

Percentage of Flights delayed from 5 minutes

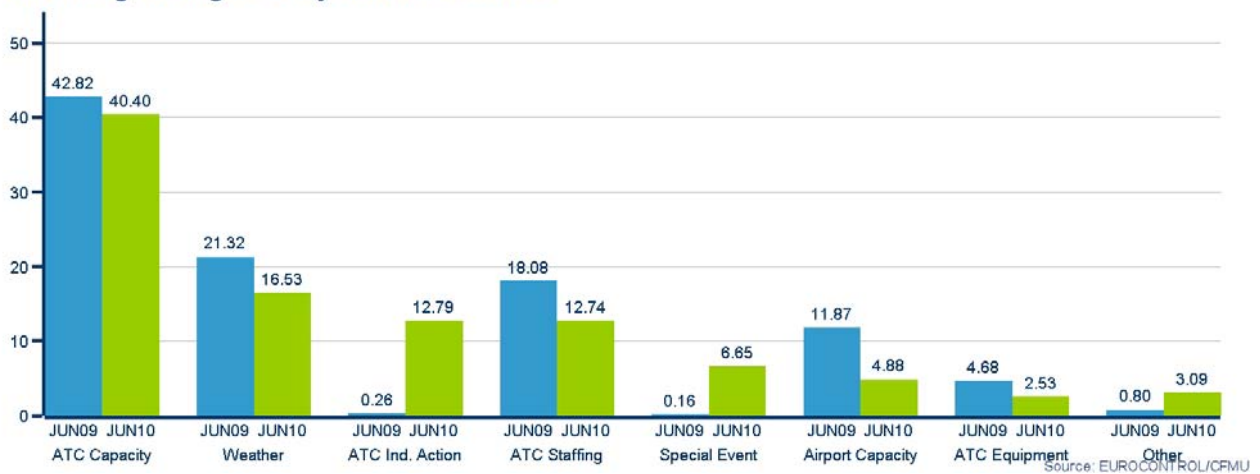
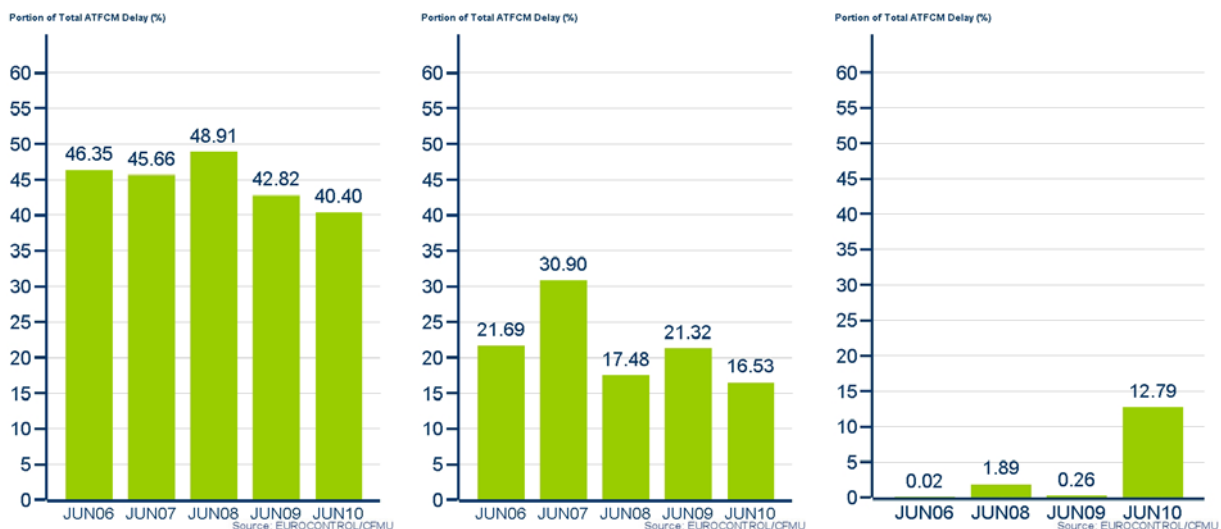


Figure 3. Variation of main causes of ATFCM delay by year (Left to Right: ATC Capacity, Weather, ATC Industrial Action)



³ A flight is considered delayed as from 5 minutes.

⁴ For more information see the CFMU Monthly Network Operations Report www.eurocontrol.int/cfmu

Focusing on the airport component of ATFCM delay, regulations put in place to protect airports accounted for 18% of the total delay, en-route regulations the remaining 82% of the total delay. This high increase in en-route delay was linked to the French industrial action and an increase in en-route delays in Spain.

Causes of airport related delay stayed at similar levels to June 2009, however there was a decrease in Airport Capacity related delay of 8.2 percentage points, balancing increases in ATC Industrial Action, ATC Staffing and ATC Capacity.

Figure 4. Proportion of Airport and En Route ATFCM delay for June

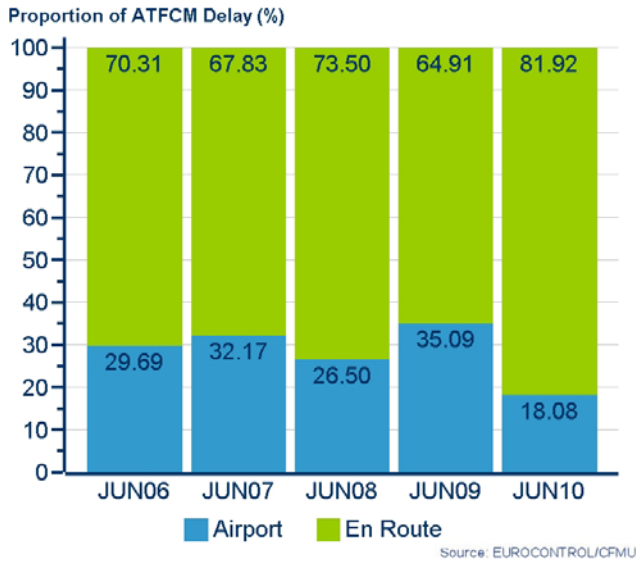
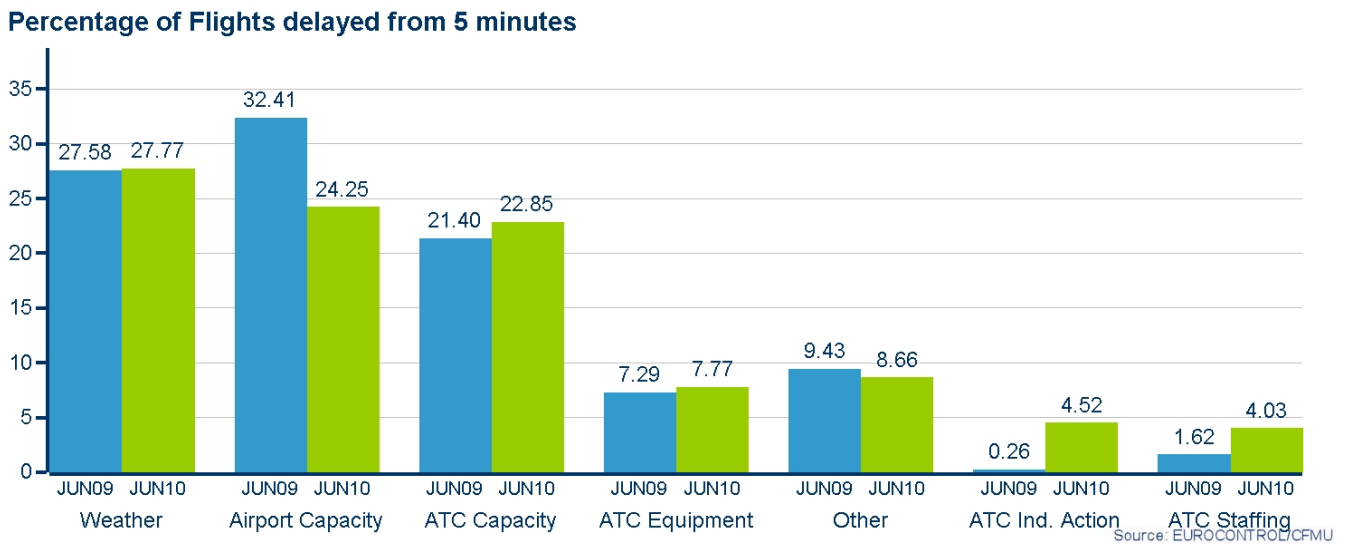


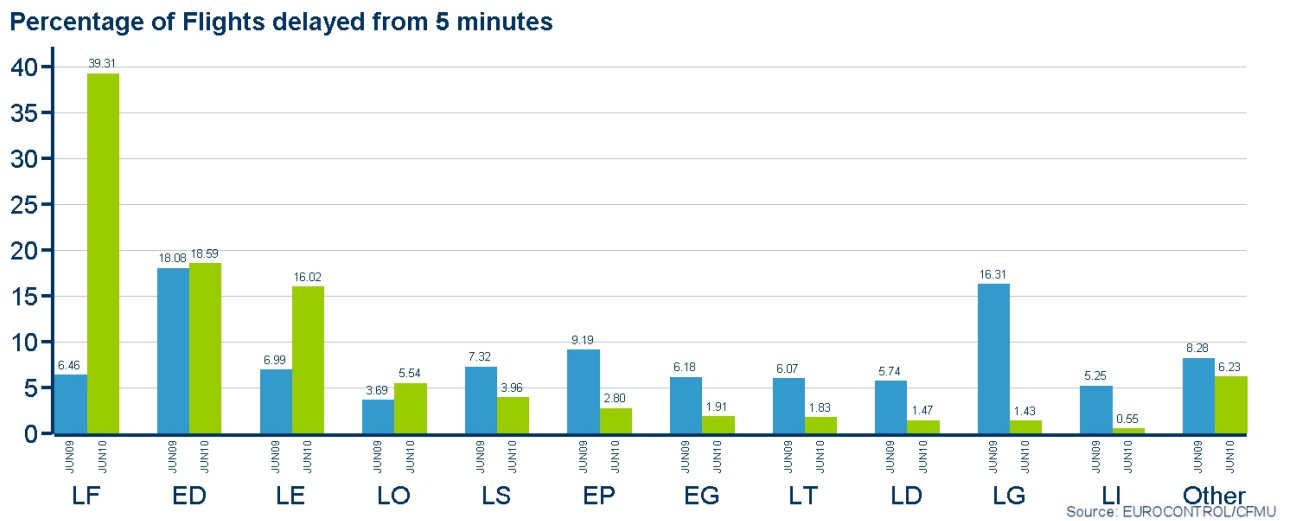
Figure 5. The main causes of ATFCM delay at Airports



Looking at the locations of the most penalising regulations, traffic (including overflights) in France (LF) had the largest share and increase in percentage points (32.8 points up when compared to June 2009). This was due to a combination of industrial action (June 15th and 24th) affecting 5 French ACCs.

Spain (LE) saw an increase in percentage points (9 points) compared to June 2009, due to weather, ATC capacity and ATC staffing.

Figure 6. The main locations of ATFCM delay, based on most-penalising location (threshold 3%).



3. All-Causes Delay Summary⁵

The average delay per departure (ADM) from all causes climbed 19% to 13 minutes in June 2010 when compared to June 2009.

The average delay per arrival also increased, by 9% month on month to 12.8 minutes when compared to June 2009.

Figure 7. Average delay per movement (all causes) for Departures

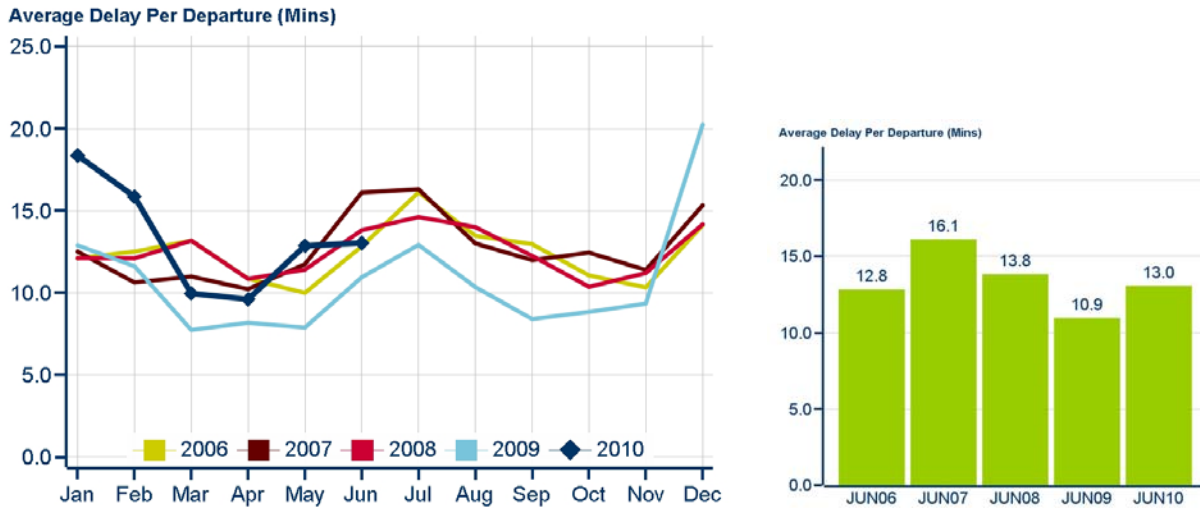
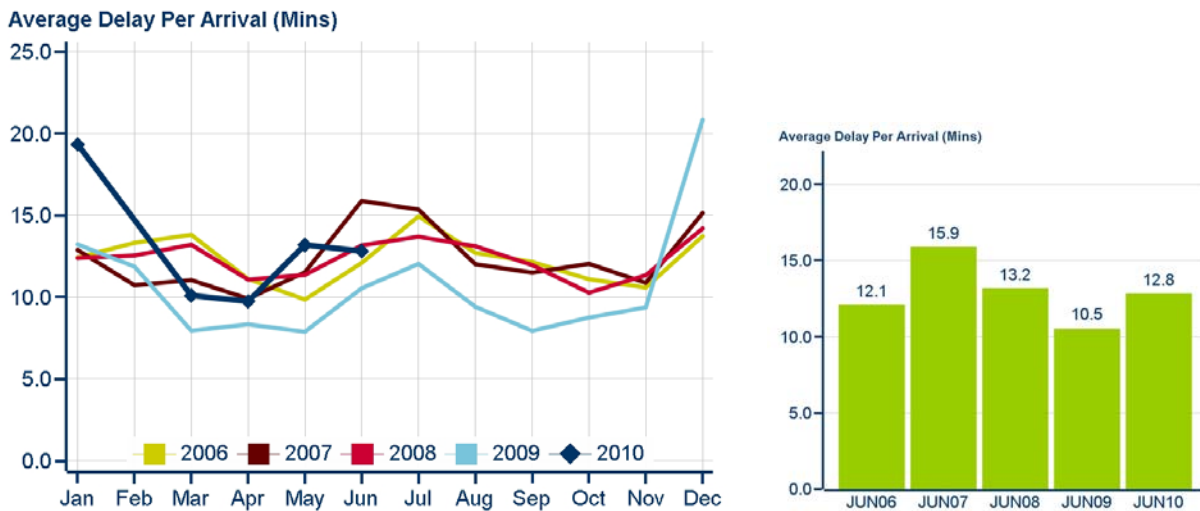


Figure 8. Average delay per movement (all causes) for Arrivals

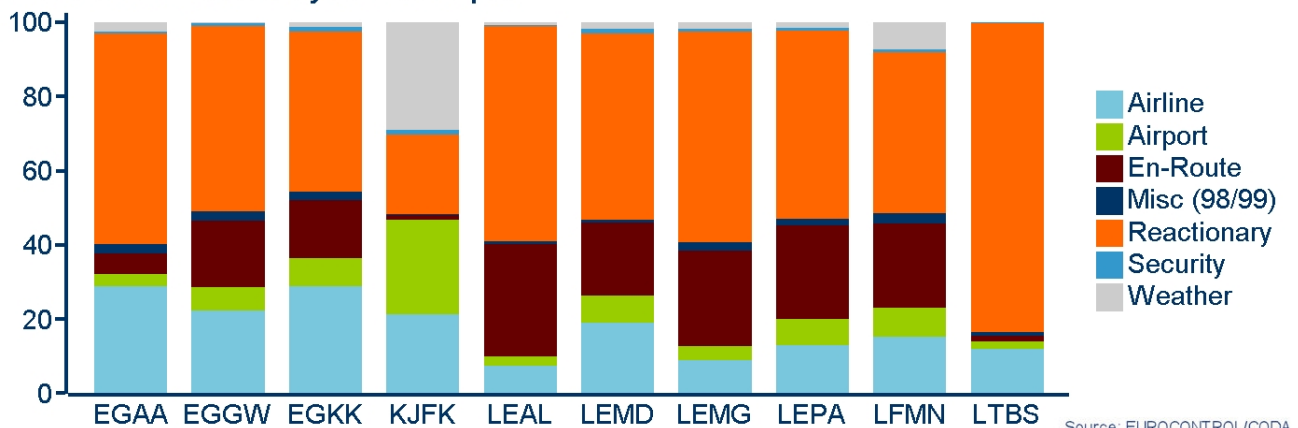


⁵ The analysis was based on airline data provided to CODA, which for June 2010 contains details on 56% of IFR GAT flights in Europe. Unless otherwise mentioned, a flight is considered delayed/advanced as from 5 minutes.

Figure 9. All-Causes Delay. Top 20 Affected Departure Airports June 2010

Rank	Airport	ICAO Code	Average Delay Per Departure	Average Delay Per Movement Percentage Change	Average Delay Per Delayed Departure	Percentage Delayed Departures
1	NEW YORK	KJFK	29.9	73%	48.0	62.4%
2	NICE	LFMN	22.9	78%	36.5	62.7%
3	MALAGA	LEMG	22.7	50%	38.5	58.8%
4	MADRID BARAJAS	LEMD	22.5	92%	36.1	62.4%
5	BELFAST/ALDERGROVE	EGAA	22.4	115%	45.0	49.7%
6	PALMA DE MALLORCA	LEPA	21.9	100%	36.8	59.4%
7	LONDON/LUTON	EGGW	20.5	44%	34.5	59.5%
8	LONDON/GATWICK	EGKK	20.3	51%	36.5	55.5%
9	ALICANTE	LEAL	20.3	102%	37.9	53.5%
10	MUGLA-DALAMAN	LTBS	19.1	3%	44.4	42.9%
11	FARO	LPFR	18.9	40%	33.4	56.6%
12	PISA SAN GIUSTO	LIRP	18.9	-4%	36.0	52.6%
13	IBIZA	LEIB	18.6	62%	38.8	48.0%
14	PORTO	LPPR	18.6	117%	35.1	53.0%
15	LISBOA	LPPT	18.3	52%	31.7	57.8%
16	BARCELONA	LEBL	18.1	84%	33.0	54.6%
17	ROMA CIAMPINO	LIRA	17.7	-13%	29.4	60.2%
18	GERONA	LEGE	17.6	87%	37.3	47.2%
19	TENERIFE SUR	GCTS	17.4	48%	41.6	41.7%
20	LAS PALMAS	GCLP	17.3	13%	35.0	49.5%

Figure 10. Main delay causes at the top 10 affected departure airports
Share of All-Cause Delay at Each Airport

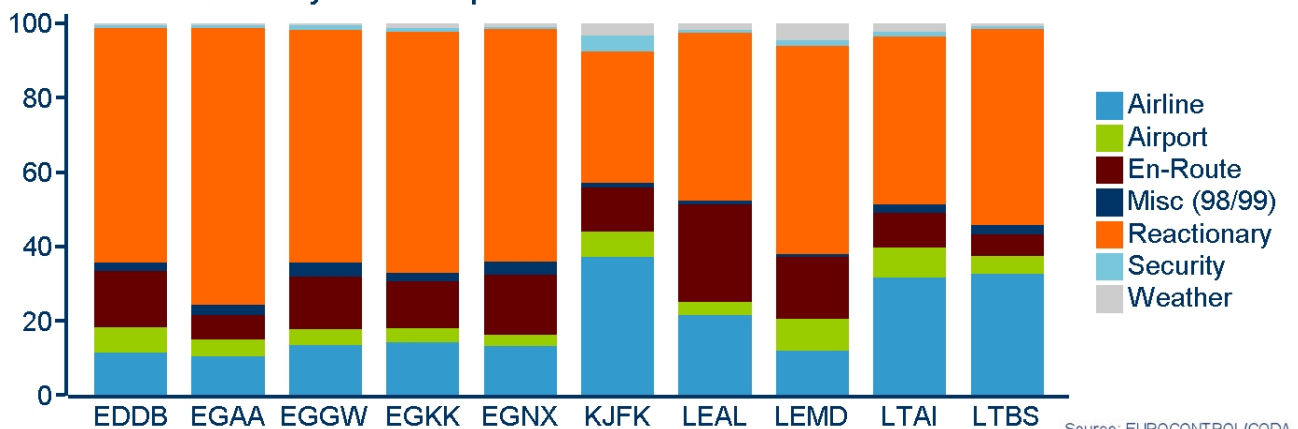


*For non-ECAC airports, the statistics concern only flights to ECAC airports

Figure 11. All-Causes Delay. Top 20 Affected Arrival Airports June 2010

Rank	Airport	ICAO Code	Average Delay Per Arrival	Average Delay Per Movement Percentage Change	Average Delay Per Delayed Arrival	Percentage Delayed Arrivals
1	MADRID BARAJAS	LEMD	26.4	110%	37.3	70.7%
2	BELFAST/ALDERGROVE	EGAA	25.6	124%	50.9	50.2%
3	LONDON/GATWICK	EGKK	22.4	64%	46.5	48.2%
4	EAST MIDLANDS	EGNX	20.9	156%	48.3	43.2%
5	LONDON/LUTON	EGGW	20.6	57%	42.1	49.0%
6	MUGLA-DALAMAN	LTBS	20.6	-1%	37.0	55.8%
7	NEW YORK	KJFK	20.5	14%	41.1	49.8%
8	SCHOENEFELD-BERLIN	EDDB	19.5	27%	38.6	50.4%
9	ALICANTE	LEAL	18.8	90%	34.2	55.0%
10	ANTALYA	LTAI	18.8	-4%	30.9	61.0%
11	LARNACA	LCLK	18.8	-7%	31.1	60.4%
12	NICE	LFMN	18.7	71%	31.9	58.6%
13	MAHON/MENORCA	LEMH	18.3	144%	37.5	48.9%
14	IBIZA	LEIB	18.1	62%	35.0	51.6%
15	BRISTOL/LULSGATE	EGGD	17.7	55%	34.7	50.9%
16	LIVERPOOL	EGGP	17.6	161%	38.8	45.3%
17	FARO	LPFR	17.5	40%	36.4	48.1%
18	MANCHESTER	EGCC	17.5	32%	44.1	39.6%
19	DIAGORAS	LGRP	17.0	-20%	40.5	42.1%
20	TOULOUSE BLAGNAC	LFBO	16.8	77%	30.5	55.0%

Figure 12. Main delay causes at the top 10 affected arrival airports
Share of All-Cause Delay at Each Airport



*For non-ECAC airports, the statistics concern only flights to ECAC airports

Madrid Barajas is the most affected arrival airport for all causes of delay and appears in 13 out of the 20 most affected airport pairs. These flows are likely to have been affected by events both in France and Spain described on page 9.

Figure 13. All-causes delay situation for most-affected 20 airport pairs June 2010

Rank	Departure Airport	Arrival Airport	Average Delay Per Departure	Change since Previous Period	Average Delay Per Delayed Departure	Percentage Delayed Departures
1	MADRID BARAJAS	LONDON/GATWICK	49.1	123%	64.1	76.7%
2	LONDON/GATWICK	MADRID BARAJAS	43.4	253%	48.8	89.0%
3	MALAGA	LONDON/GATWICK	36.2	103%	46.8	77.2%
4	MADRID BARAJAS	MILANO MALPENSA	34.6	161%	52.9	65.3%
5	ALICANTE	LONDON/GATWICK	30.7	133%	51.5	59.6%
6	ROME FIUMICINO	MADRID BARAJAS	30.3	82%	39.9	75.9%
7	IBIZA	MADRID BARAJAS	29.6	114%	41.5	71.4%
8	LONDON/HEATHROW	MADRID BARAJAS	29.5	81%	41.6	70.9%
9	MILANO MALPENSA	MADRID BARAJAS	29.0	158%	39.6	73.3%
10	MADRID BARAJAS	LONDON/HEATHROW	27.8	97%	38.2	73.0%
11	LONDON/GATWICK	ALICANTE	27.8	124%	40.7	68.3%
12	MADRID BARAJAS	IBIZA	26.6	72%	38.4	69.3%
13	SCHIPHOL AMSTERDAM	MADRID BARAJAS	25.7	231%	34.4	74.8%
14	PALMA DE MALLORCA	MADRID BARAJAS	25.6	166%	35.4	72.4%
15	NEW YORK	LONDON/HEATHROW	25.5	77%	45.5	56.1%
16	TENERIFE NORTE	MADRID BARAJAS	25.5	134%	40.8	62.6%
17	LONDON/GATWICK	MALAGA	25.1	94%	37.4	67.1%
18	MADRID BARAJAS	PARIS CH DE GAULLE	25.0	130%	36.0	69.3%
19	ALICANTE	MADRID BARAJAS	24.4	213%	38.5	63.4%
20	NEW YORK	PARIS CH DE GAULLE	24.3	35%	35.3	68.7%

An analysis of the delay causes and categories (grouped by IATA code) shows no change (in percentage points) in Reactionary delay. However, ATFM En Route Demand/Capacity increased (up 6.7 points). There was a decrease in Technical and Aircraft Equipment (down 3.8 points). The link from these categories to IATA codes is summarised in Figure 15.

Figure 14. Primary and reactionary all-cause delay, by IATA code (%)

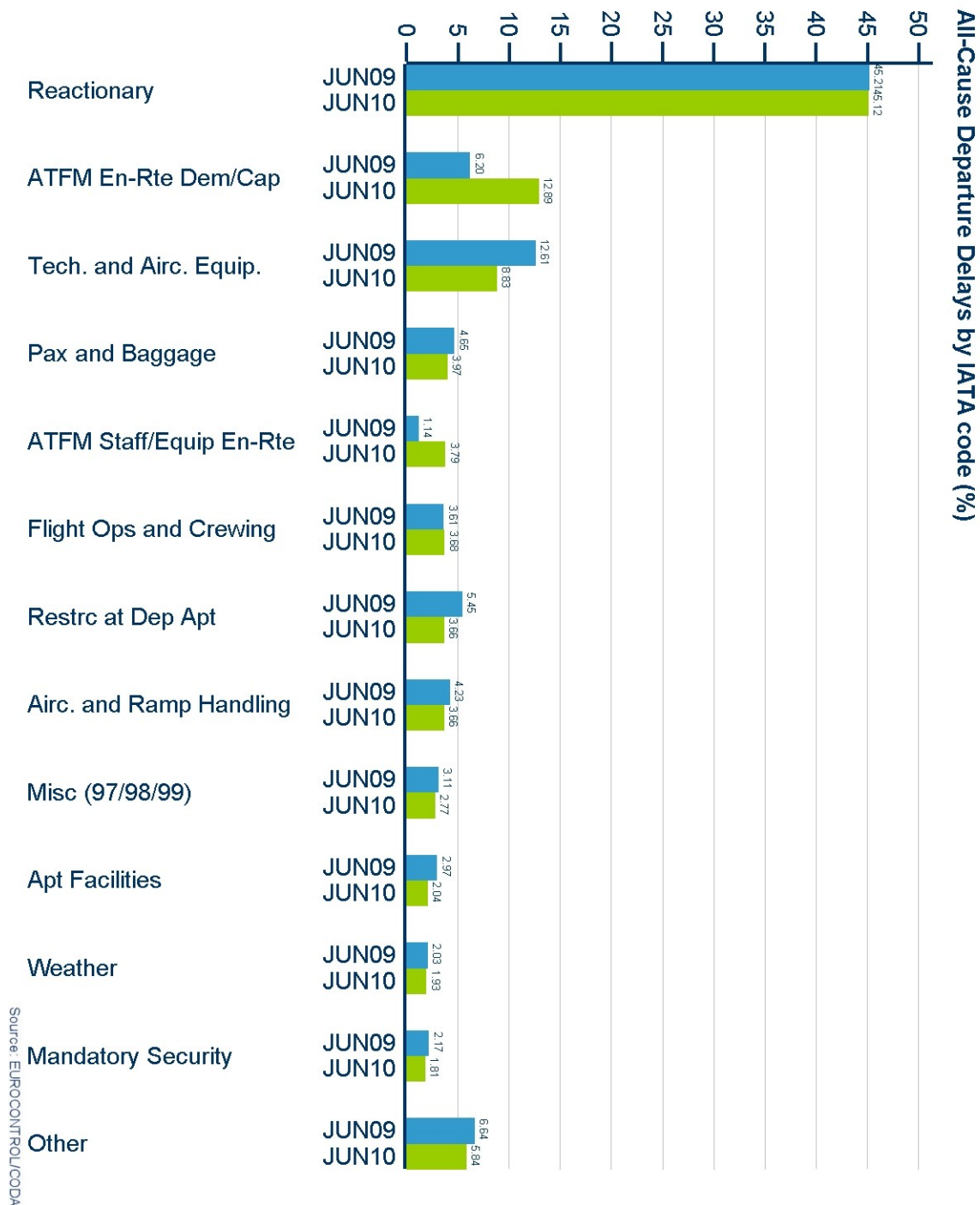


Figure 15. Link between CODA Causes and IATA Codes

	CODA Cause	Description	IATA Code
P r i m a r y	Airline	Passenger and Baggage	11-19
		Cargo and Mail	21-29
		Aircraft and Ramp Handling	31-39
		Technical and Aircraft Equipment	41-49
		Aircraft Damage and Operations Computer Failure	51-59
		Other Airline-Related Causes	Others
D e l a y	Airport	ATFM due to Restriction at Destination Airport	83
		Immigration, Customs & Health	86
		Airport Facilities	87
		Restriction at Destination Airport	88
		ATFM due to Restriction at Airport of Departure	89
C a u s e	En Route	ATFM due to ATC En Route Demand/Capacity	81
		ATFM due to Staff/Equipment En Route	82
	Miscellaneous	Miscellaneous	98-99
	Security	Mandatory Security	85
s	Weather	Weather (other than ATFM)	71-79
		ATFM due to Weather at Destination	84
	Reactionary	Late arrival of aircraft or crew from previous journey	91-96

4. Summary of significant events June 2010

- Industrial actions in France on 15th and 24th June affecting 5 French ACC's.
- Weather delays due to fog, strong winds and thunderstorms.
- Berlin air show from 12-17th June.
- VAFORIT training (Rhein UAC) and NUSAZ (new Zürich sectorisation) implementation.

A. Year-on-Year Trends in ATFCM Delay Indicators

This annex summarises the year-on-year trends in the main indicators of delay resulting from ATFCM regulations. A flight is considered delayed from 5 minutes.

The doubling of ATCM delays exceeding 60 minutes (Figure 20) is caused by the industrial actions in France (June 15th and 24th)

Figure 16. Total departures in ECAC region

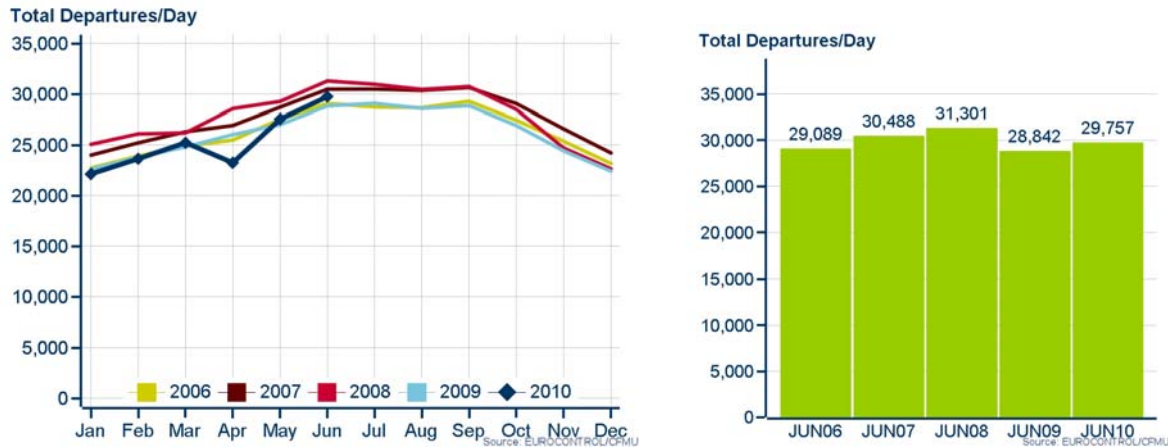


Figure 17. Average ATFCM delay per delayed flight (ADD)

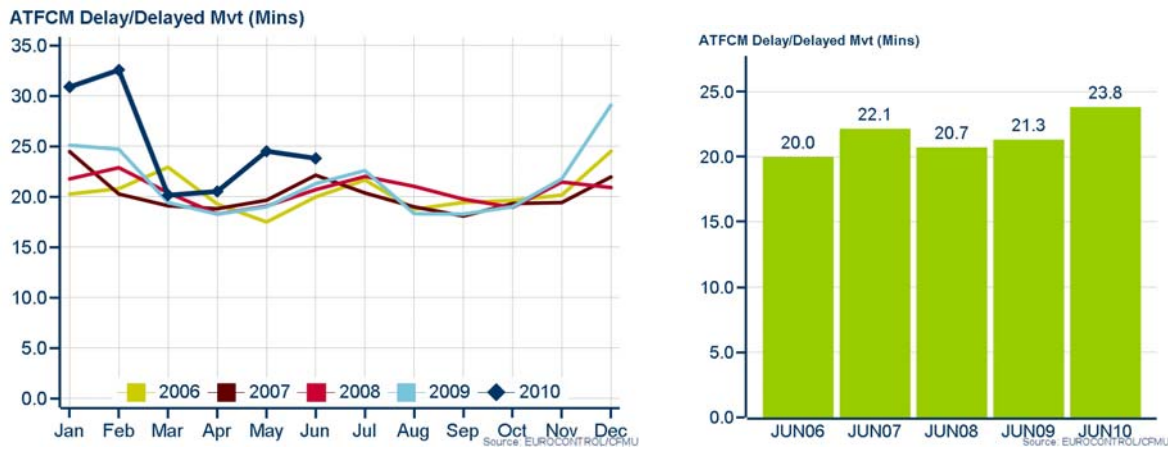


Figure 18. Percentage of flights delayed due to ATFCM regulations (PDF)

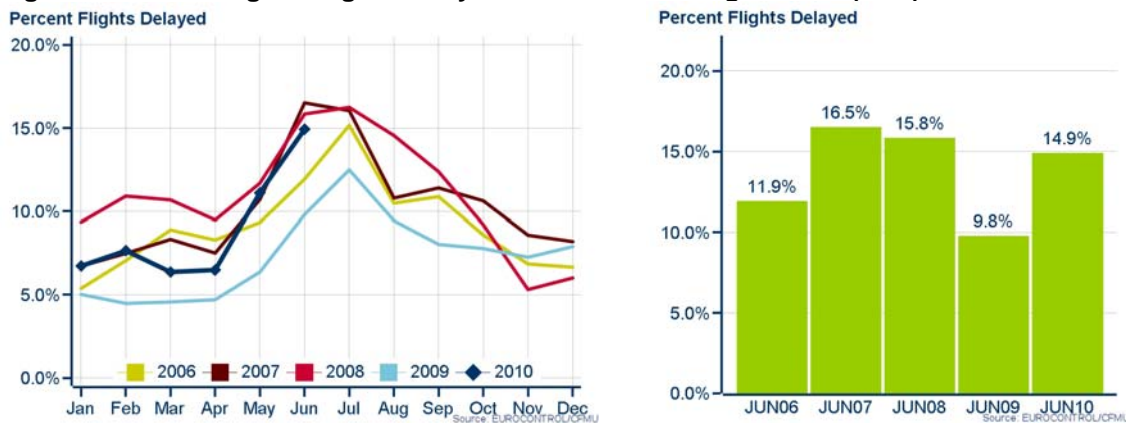


Figure 19. Average ATFCM delay per movement (ADM)

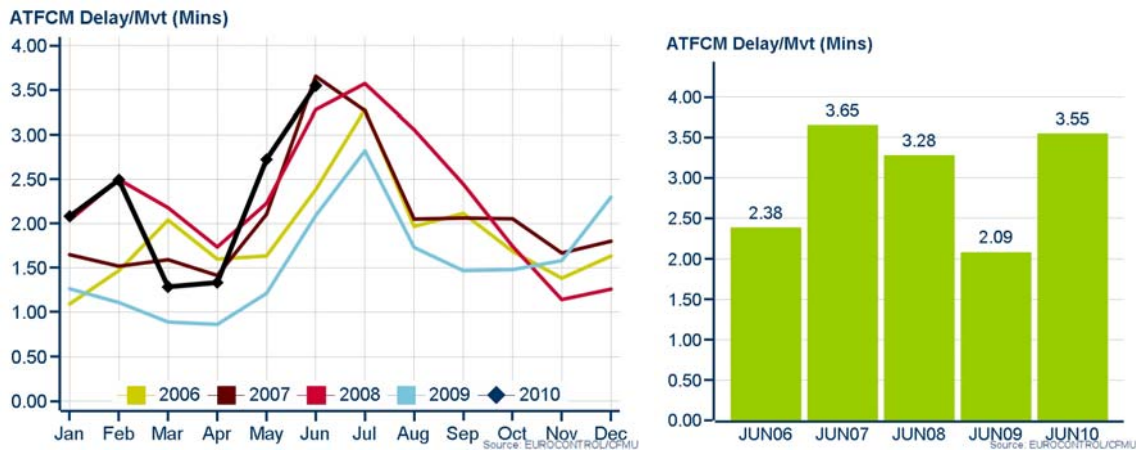
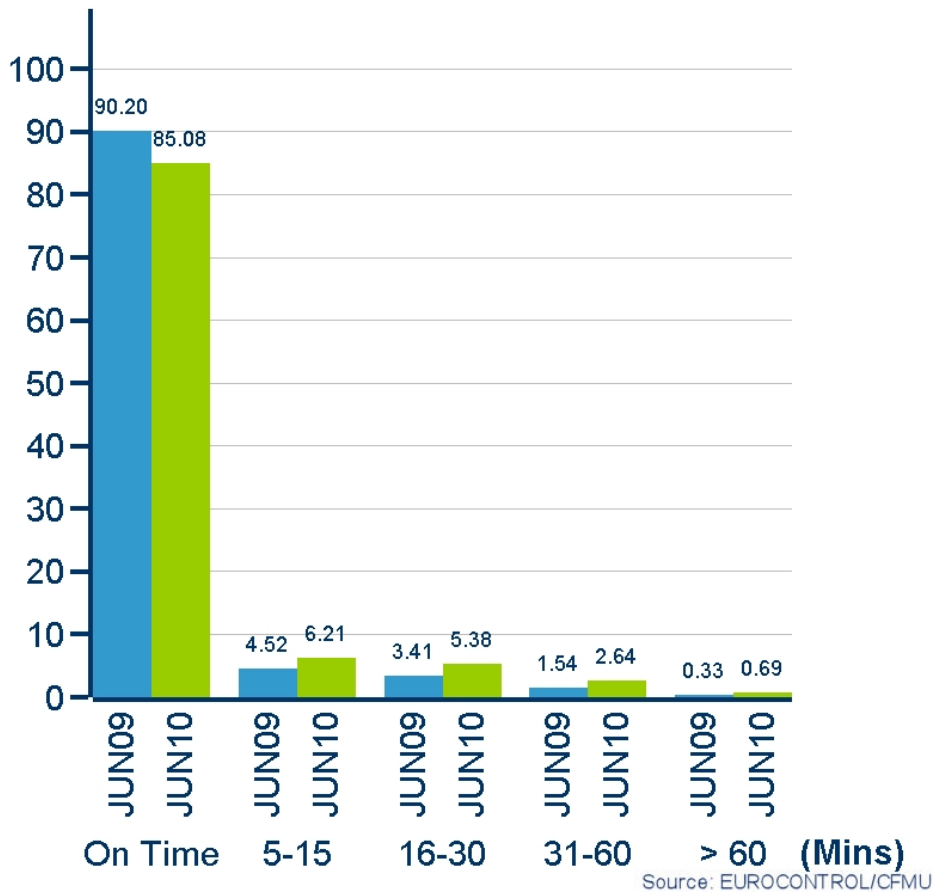


Figure 20. Distribution of flights by length of ATFCM Delay

Percentage of Flights



B. Year-on-Year Trends in All-Causes Delay Indicators

This annex summarises the year-on-year trends in the main indicators of delay from all causes. A flight is considered delayed from 5 minutes. This is based on CODA data covering 56% of all ECAC flights in June 2010.

Figure 21. Average all-causes delay/delayed flight (departures left, arrivals right)

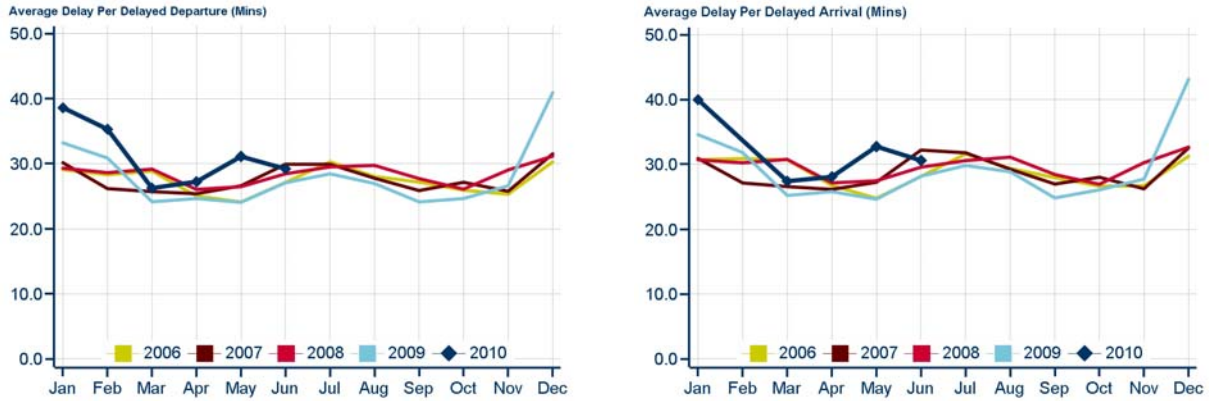


Figure 22. Percentage of flights delayed for all-causes delay (departures left, arrivals right)

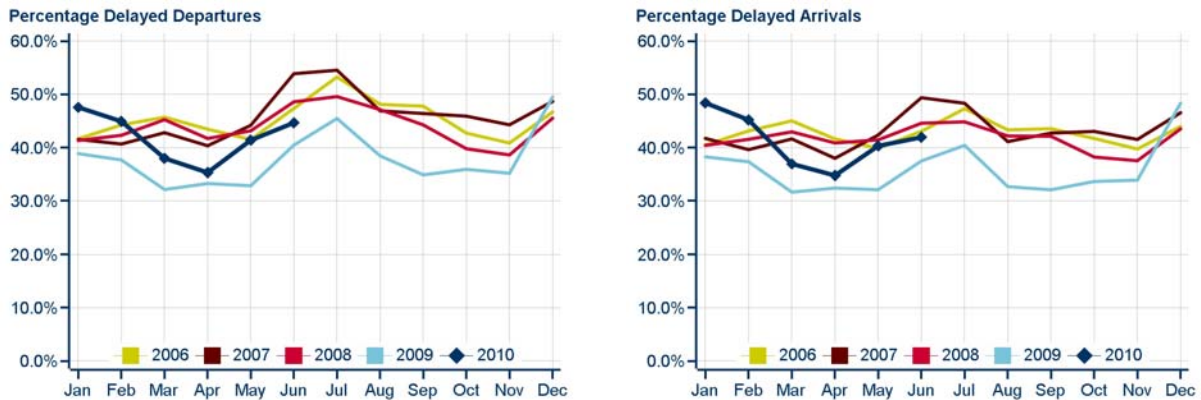
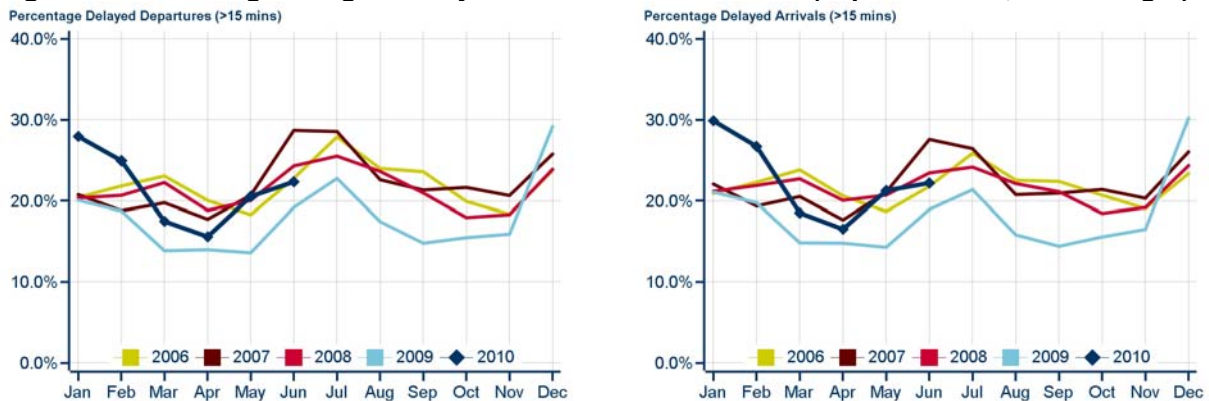


Figure 23. Percentage of flights delayed > 15mins for all causes (departures left, arrivals right)



An alternative view of the data shown in Figure 22 and Figure 23 is given in Figure 24 (for departures) and Figure 25 (for arrivals)

Figure 24. All-causes departure punctuality
Percentage of Flights

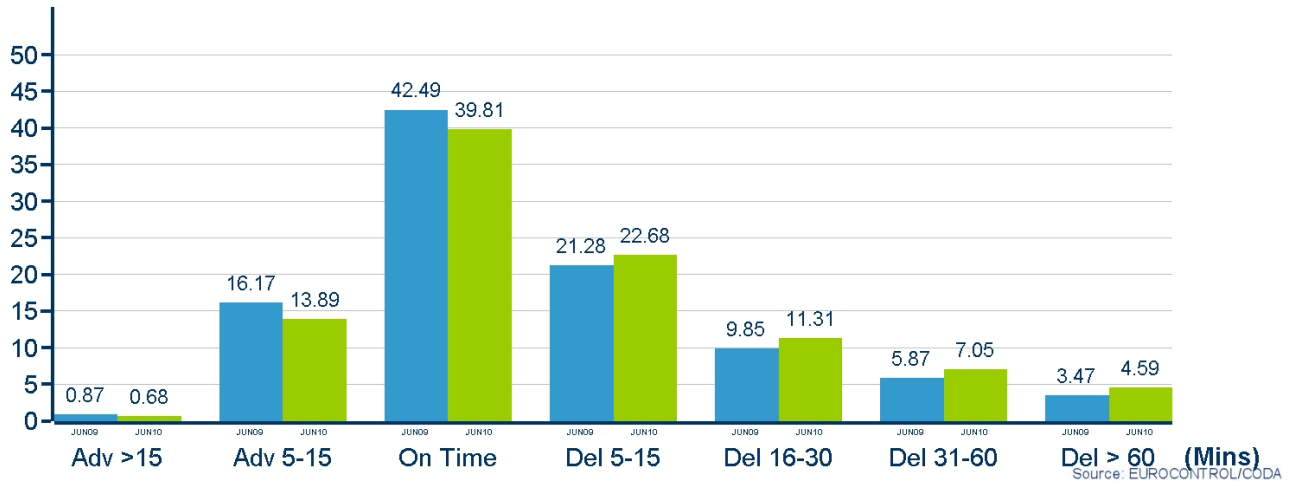
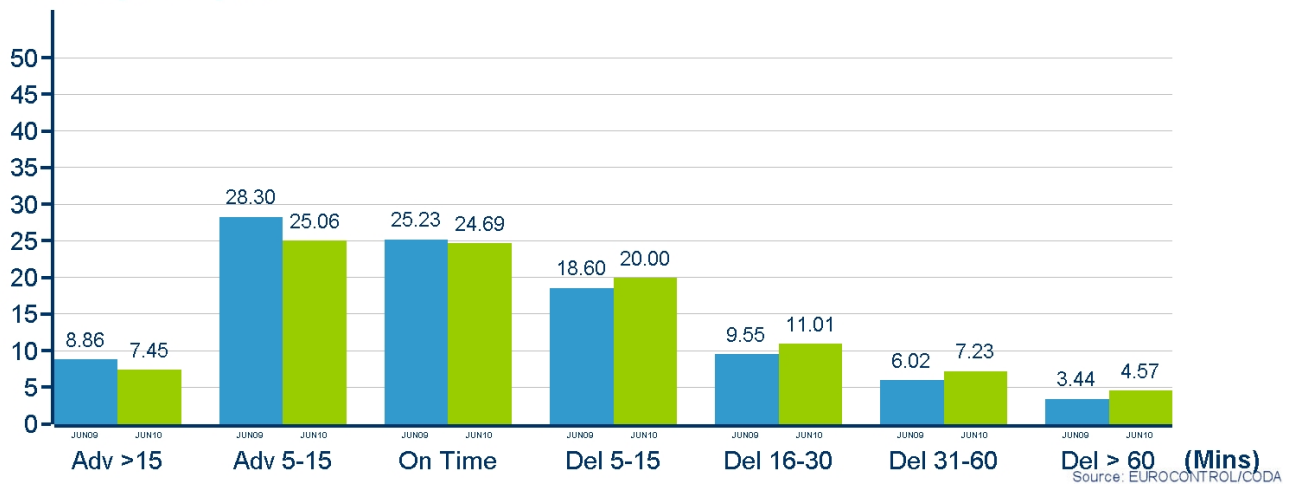


Figure 25. All-causes arrival punctuality
Percentage of Flights



C. Busiest Airport pairs

Figure 26 lists the total of flights in both directions for the busiest airport pairs in Europe.

Figure 26. Busiest airport pairs for flights in June 2010

Rank	Between airport	and airport	Flights/Day JUN10	Change since JUN09 (%)
1	MADRID BARAJAS	BARCELONA	79.0	-13%
2	TOULOUSE BLAGNAC	PARIS ORLY	55.8	-4%
3	PALMA DE MALLORCA	BARCELONA	48.3	-1%
4	BERGEN/FLESLAND	OSLO/GARDERMOEN	48.2	-1%
5	ISTANBUL-ATATURK	IZMIR-ADNAN-MENDERES	47.0	-10%
6	LAS PALMAS	TENERIFE NORTE	47.0	2%
7	ROME FIUMICINO	MILANO LINATE	46.9	-19%
8	NICE	PARIS ORLY	46.5	-3%
9	MADRID BARAJAS	PALMA DE MALLORCA	44.7	-4%
10	TRONDHEIM/VAERNES	OSLO/GARDERMOEN	44.0	-3%
11	GUERNSEY	JERSEY	43.9	-20%
12	DUESSELDORF	MUENCHEN 2	43.2	7%
13	STAVANGER/SOLA	OSLO/GARDERMOEN	41.5	-3%
14	MUENCHEN 2	TEGEL-BERLIN	41.4	8%
15	COPENHAGEN KASTRUP	AALBORG	41.1	17%
16	MAKEDONIA	ATHINAI E. VENIZELOS	40.9	-18%
17	KOELN-BONN	MUENCHEN 2	40.4	1%
18	HAMBURG	MUENCHEN 2	40.2	9%
19	MADRID BARAJAS	VALENCIA	39.9	-5%
20	LA PALMA	TENERIFE NORTE	39.8	7%

D. Location of ATFCM Delay

This annex gives further details on the location of delays caused by ATFCM regulations. It describes the split between airport and en route regulations in minutes (Figure 27) and ATFCM delay as a function of requested (‘cruise’) flight level Figure 28 and Figure 29.

Figure 27. ATFCM Average Delay/Movement split into airport and en route.

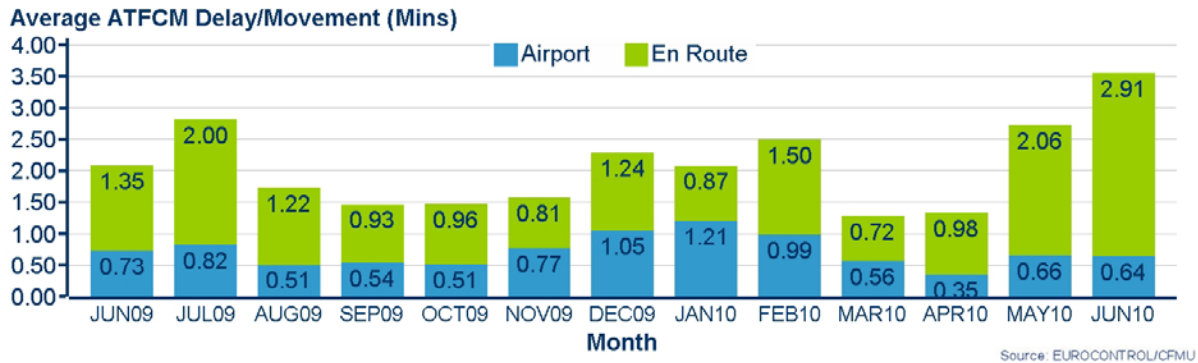


Figure 28. Average ATFCM Delay, by requested flight level June 2010

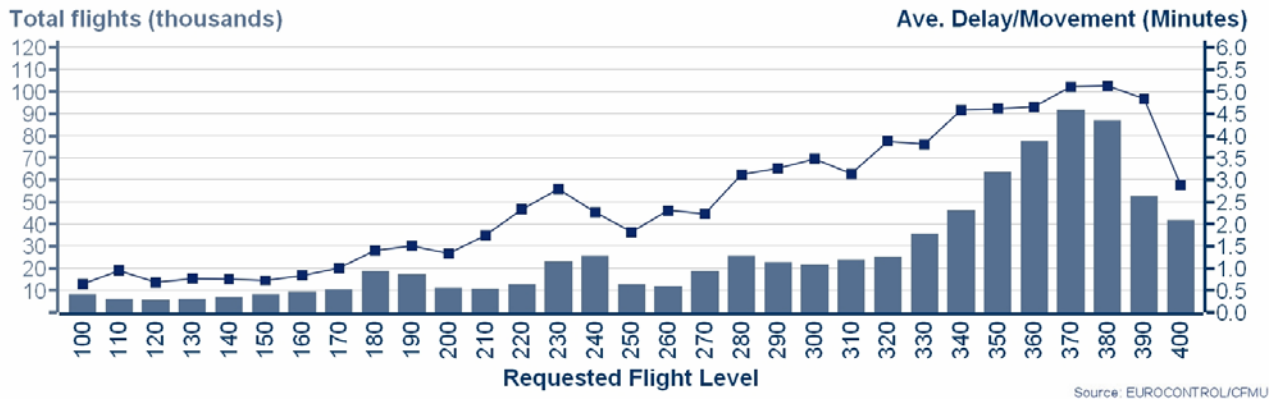
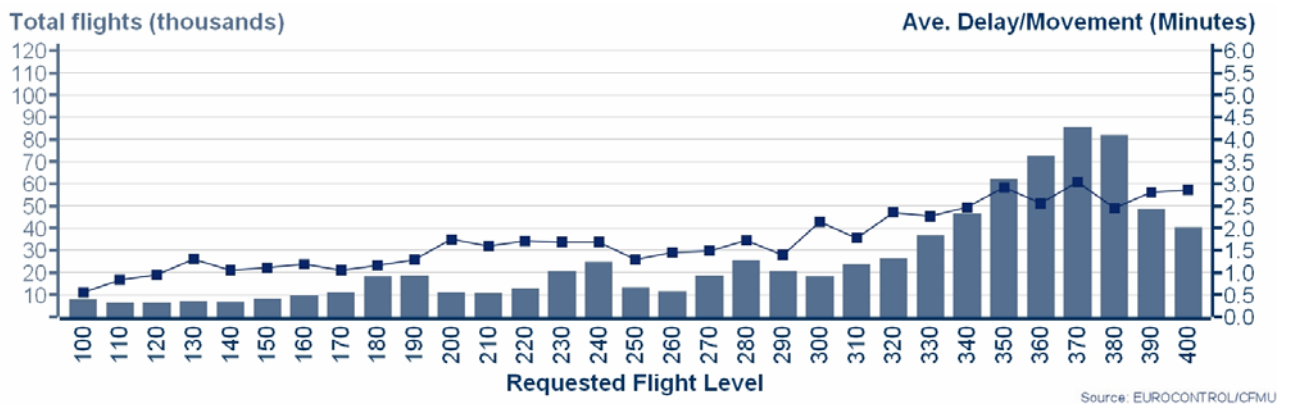


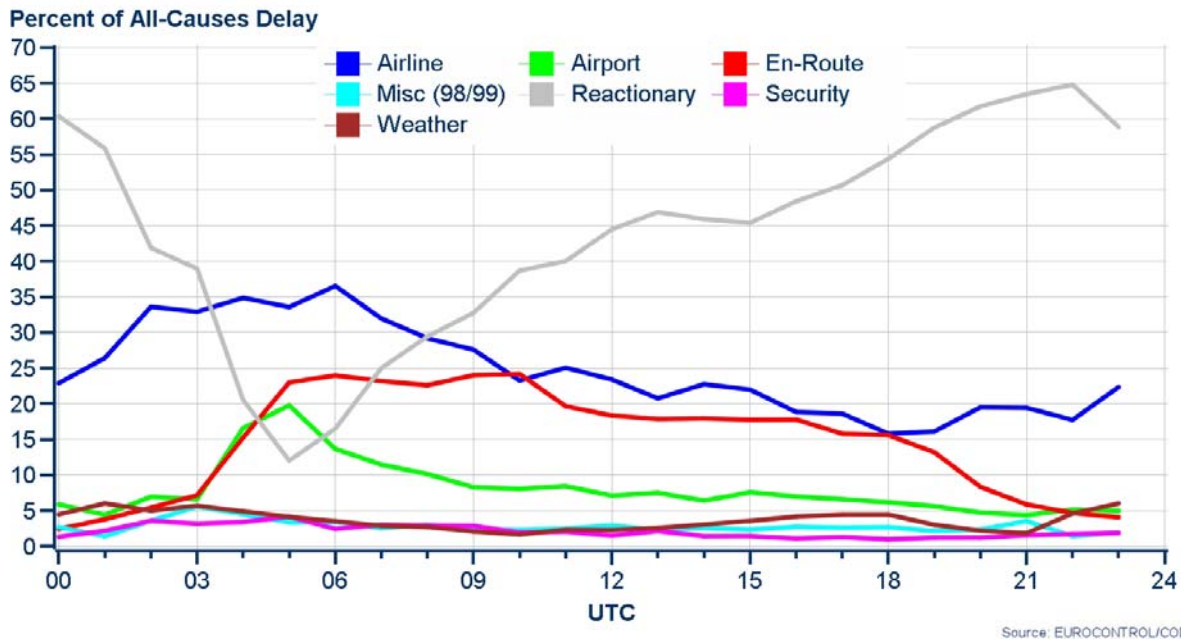
Figure 29. Average ATFCM Delay, by requested flight level June 2009



E. All-causes departure delay by hour

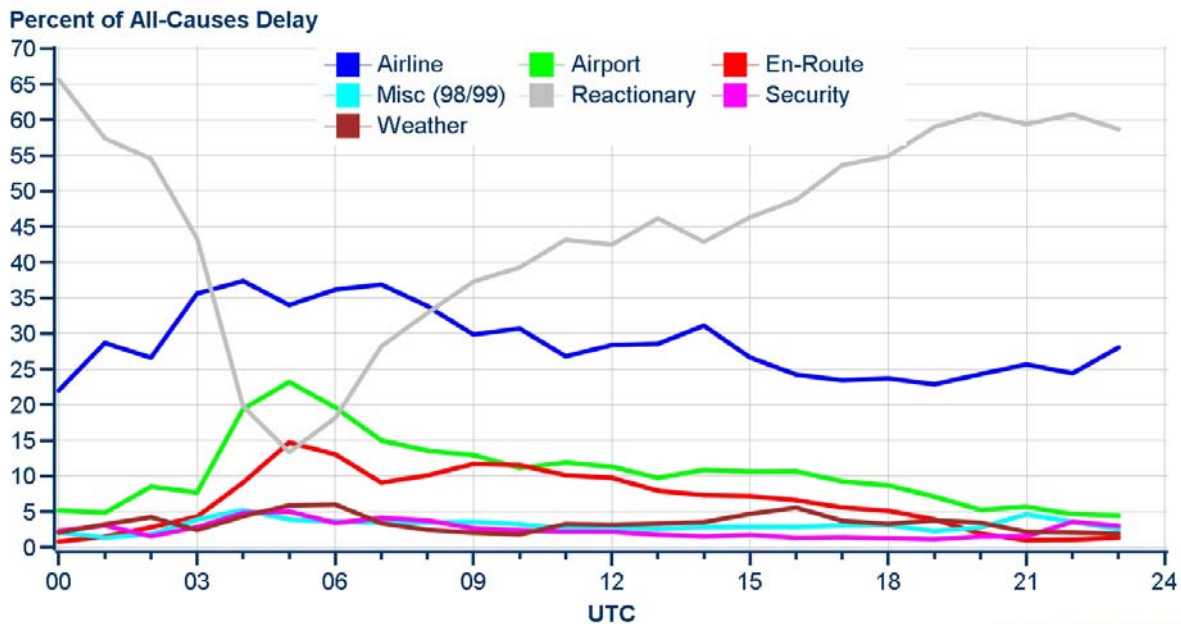
This annex summarises the all-cause delay by hour of the day and major causes.

Figure 30. All-causes departure delay by hour of the day. June 2010



Source: EUROCONTROL/CODA

Figure 31. All-causes departure delay by hour of the day. June 2009



Source: EUROCONTROL/CODA

F. All-causes delay – Share of Reactionary and Primary Departure Delay

This annex shows the breakdown of all-causes delay into primary and reactionary. For primary delay, the main causes are also given. The share of ATFCM delays (41.7%) in June 2010 is the highest figure recorded in recent years. For the link to IATA codes, see Figure 15.

Figure 32. Primary delay causes, June 2010

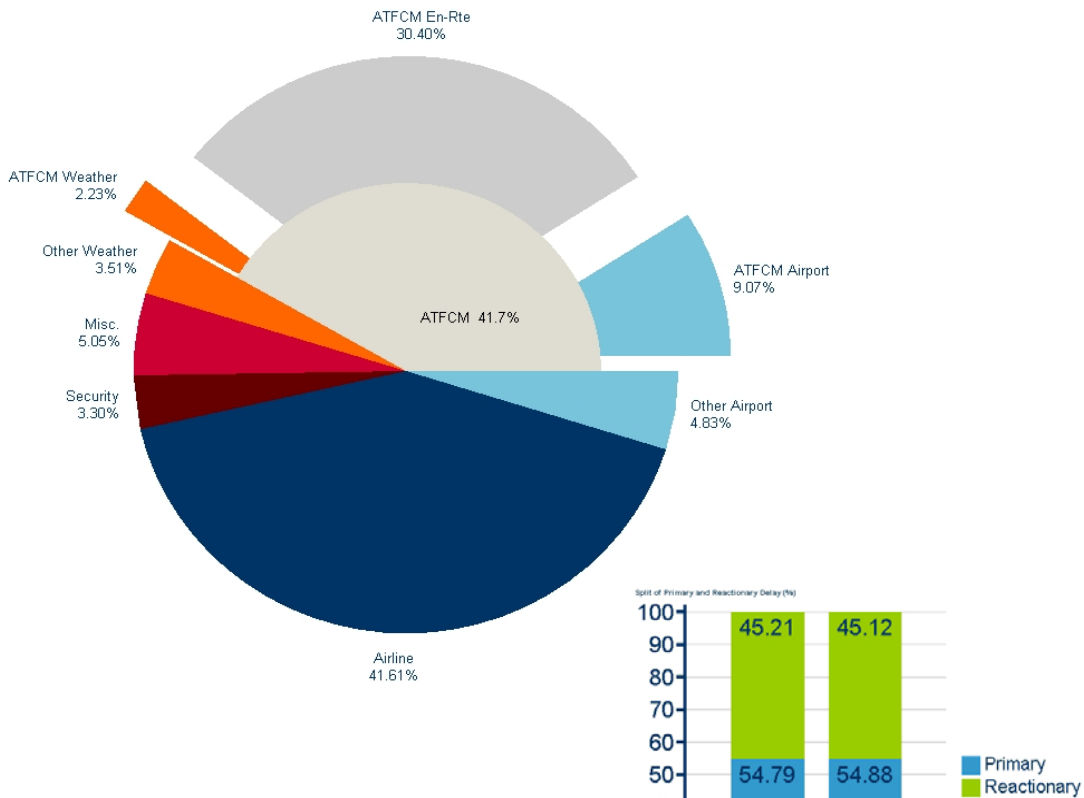
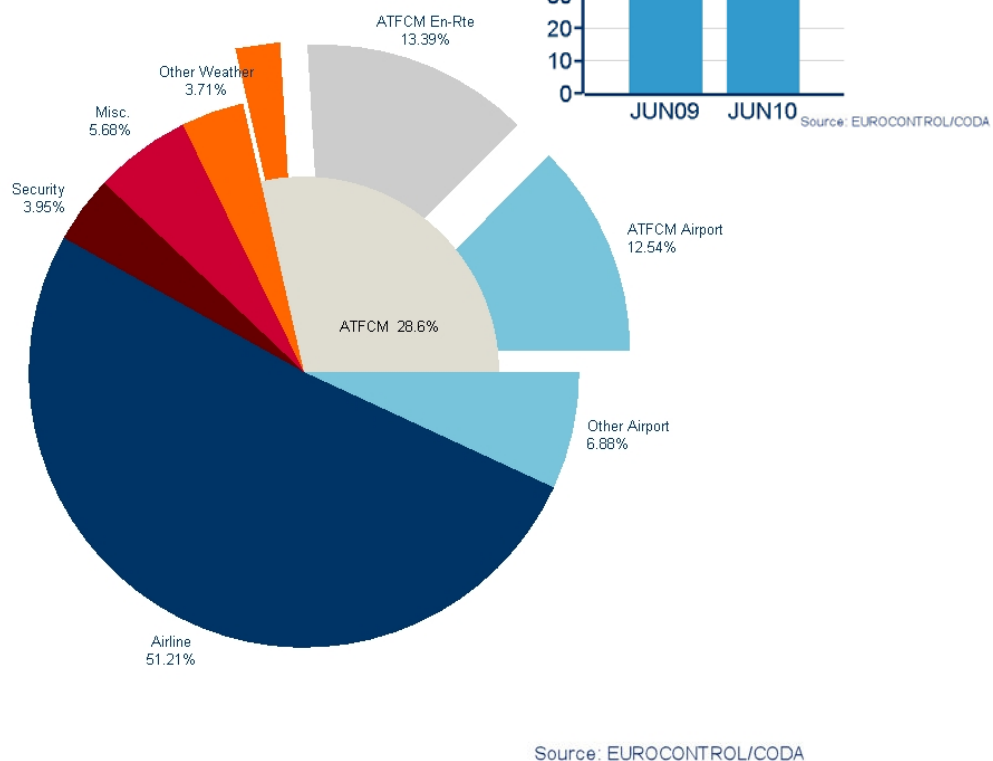


Figure 33. Primary delay cause, June 2009



G. Average Delay per Delayed Flight & Percentage of Flights Delayed at Departure Airports

For airports with more than 1000 departures, this annex summarises the average delay per delayed flight (ADD) on departure and percentage of flights delayed (PDF) on departure in the month.

Figure 34. ADD v PDF June 2010 (2010 top 20 airports for average delay/flight are labelled)

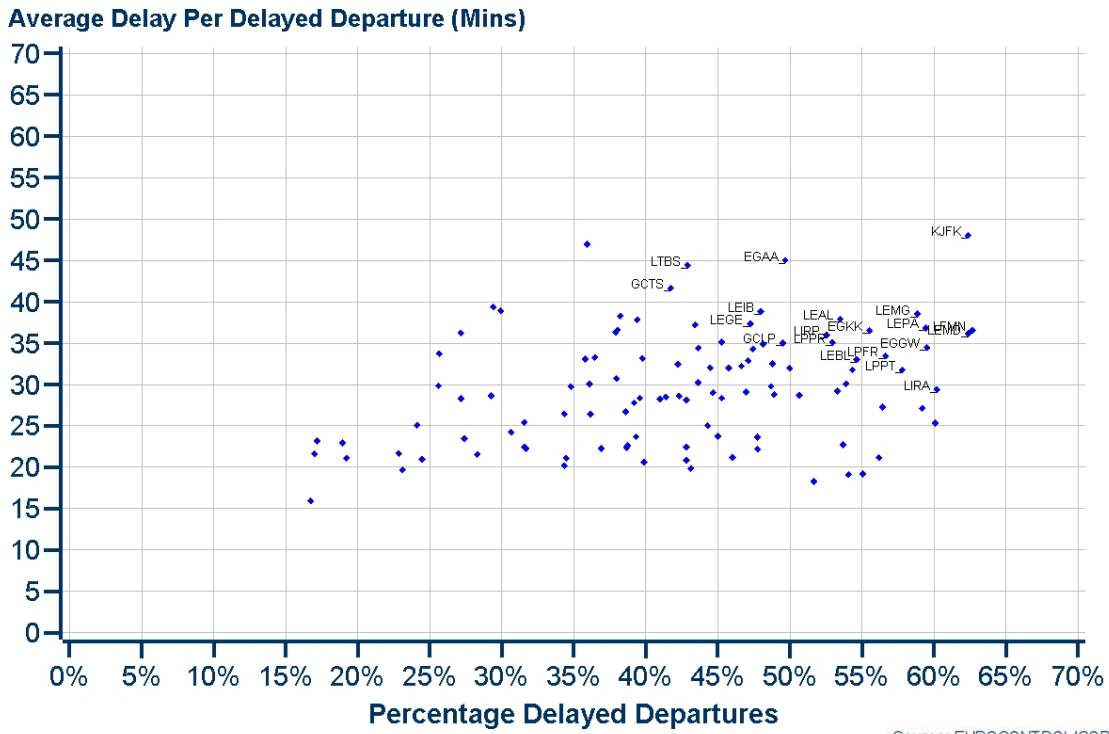
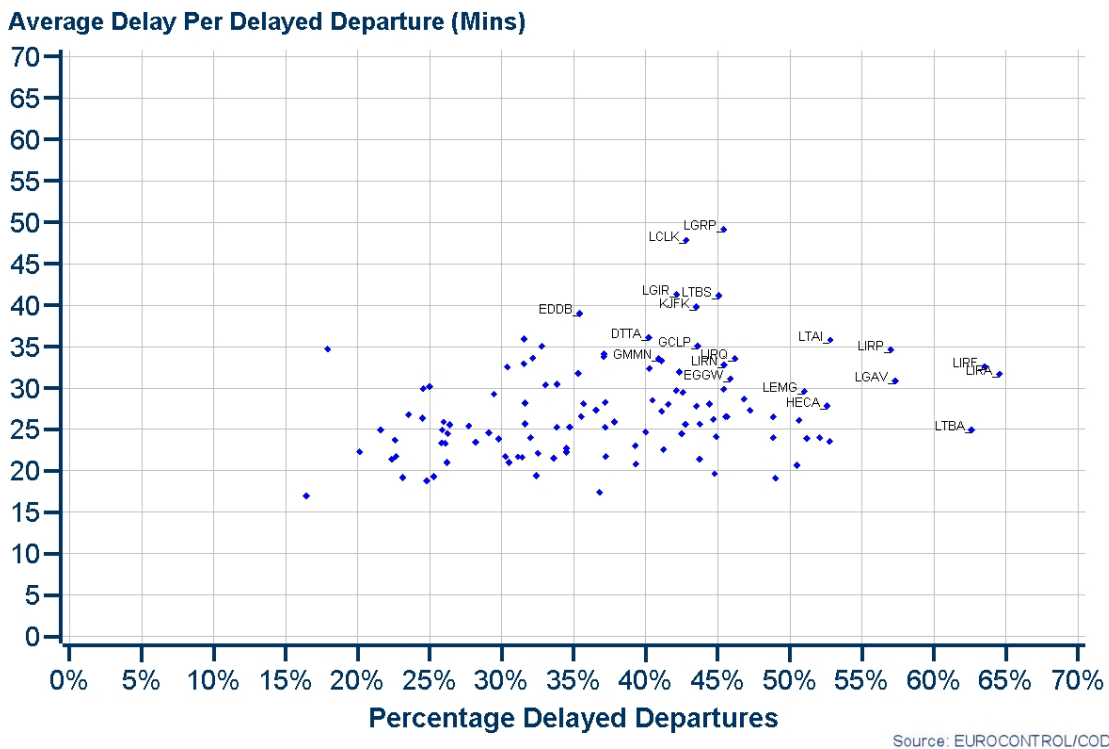


Figure 35. ADD v PDF June 2009 (2010 top 20 airports for average delay/flight are labelled)



H. Glossary of Terms and Abbreviations

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

ACC	Area Control Centre
AEA	Association of European Airlines
ATFM	Air Traffic Flow Management (used by IATA in the Standard IATA Delay Codes)
ATFCM	Air Traffic Flow and Capacity Management (used by CFMU as a more comprehensive reference to the function)
ATS	Air Traffic Services
CFMU	Central Flow Management Unit
CODA	Central Office for Delay Analysis
ECAC	European Civil Aviation Conference
FDPS	Flight Data Processing System
FMP	Flow Management Position
IACA	International Air Carrier Association
IATA	International Air Transport Association
ILS	Instrument Landing System

I. Standard IATA Delay Codes

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
58 (EO)	OTHER AUTOMATED SYSTEM

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 weather⁶, 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: IATA – Airport Handling Manual (Chapter AHM 011)

⁶ Restriction due to weather in case of ATFM regulation only, else refer to code 71 (WO)

J. Correlation between IATA Delay Codes and the CFMU Reasons for Regulation

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		
	C	E		81	ATFM due to ATC ENROUTE DEMAND/CAPACITY		
	C	A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT		
ATC Ind action	I	D	Controller's strike	89	RESTRICTIONS AT AIRPORT OF DEPARTURE		
	I	E		82	ATFM due to ATC STAFF/EQUIPMENT ENROUTE		
	I	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		
	S	D	Illness, traffic delays on the highway	89	RESTRICTIONS AT AIRPORT OF DEPARTURE		
S	E	82		ATFM due to ATC STAFF/EQUIPMENT ENROUTE			
S	A	83		ATFM due to RESTRICTION AT DESTINATION AIRPORT			
ATC equipment	T	D	Radar failure, RTF failure	89	RESTRICTIONS AT AIRPORT OF DEPARTURE		
	T	E		82	ATFM due to ATC STAFF/EQUIPMENT ENROUTE		
	T	A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT		
Accident / Incident	A	D	RWY23 closed due to accident	89	RESTRICTIONS AT AIRPORT OF DEPARTURE		
	A	A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT		
Aerodrome capacity	G	D	Lack of parking; taxiway closure; areas closed for maintenance; demand exceeds the declared airport capacity	87	AIRPORT FACILITIES		
	G	A		87	AIRPORT FACILITIES		
De-icing	D	D	De-icing	89	RESTRICTIONS AT AIRPORT OF DEPARTURE		
	E	D	Runway or taxiway lighting failure	87	AIRPORT FACILITIES		
Equipment non-ATC	E	A	Firemen's strike	87	AIRPORT FACILITIES		
	N	D		98	INDUSTRIAL ACTION OUTSIDE OWN AIRLINE		
Ind Action non-ATC	N	A	Brilliant invader; ODAX	98	INDUSTRIAL ACTION OUTSIDE OWN AIRLINE		
	M	D		89	RESTRICTIONS AT AIRPORT OF DEPARTURE		
Military activity	M	E	European football cup; Heads of Government meetings	82	ATFM due to ATC STAFF/EQUIPMENT ENROUTE		
	M	A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT		
Special Event	P	D	Thunderstorm; low visibility; X winds	89	RESTRICTIONS AT AIRPORT OF DEPARTURE		
	P	A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT		
Weather	W	D	Noise	89	RESTRICTIONS AT AIRPORT OF DEPARTURE		
	W	E		73	WEATHER ENROUTE OR ALTERNATE		
	W	A		84	ATFM due to WEATHER AT DESTINATION		
Environmental issues	V	D	Security alert	89	RESTRICTIONS AT AIRPORT OF DEPARTURE		
	V	A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT		
Other	O	D		89	RESTRICTIONS AT AIRPORT OF DEPARTURE		
	O	E		81	ATFM due to ATC ENROUTE DEMAND/CAPACITY		
	O	A		83	ATFM due to RESTRICTION AT DESTINATION AIRPORT		

K. CODA Coverage of IFR Departures in June 2010 by percentage

