



ICAO

# INTERNATIONAL CIVIL AVIATION ORGANIZATION

A UN SPECIALIZED AGENCY

RECONNECTING **THE** WORLD

# Aviation Statistics Workshop

## ICAO Statistics Programme Session 9



Form D – Fleet and Personnel

# Form D – Fleet and Personnel



## **What to report?**

The Member States should report aircraft fleet and personnel statistics for each of their air carriers that operates commercial scheduled and/or non-scheduled air services. All aircraft and all personnel of each commercial air carrier should be reported.

## **Who reports?**

Airlines that perform domestic and/or international scheduled and/or non-scheduled traffic

## **When to report?**

This report should cover the calendar year January to December. However, if this is not practical, reports may cover the air carrier’s fiscal year.



# Form D – Fleet and Personnel

## Structure of Form D

### Part I - FLEET

Aircraft in Fleet by Type		Number of Aircraft of each Type				Size of Aircraft			Utilization of aircraft during the year									
Manufacturer and Model	Use/Version code <sup>4</sup>	At the beginning of the year	Changes during the year		At the end of the year	Number of Installed Passenger Seats	Average payload capacity (tonnes)	Average MCTOM (tonnes)	Number of aircraft departures			Aircraft hours Flown			Aircraft kilometres flown			Total aircraft days available
			Acquired	Disposed of					Revenue flights		All flights (total)	Revenue flights		All flights (total)	Revenue Flights		All flights (total)	
		Scheduled			Non-Scheduled	Scheduled	Non-Scheduled	Scheduled	Non-Scheduled									
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s

### Part II - PERSONNEL

Category of personnel <sup>2</sup>	Number of personnel		Total annual expenditures for each category Currency:
	Mid-year	Year-end	
a	b	c	d
Pilots and co-pilots			
Other flight crew			
Cabin crew			
Maintenance and overhaul personnel			
a) Licensed aircraft maintenance engineers			
b) Other maintenance and overhaul personnel			
Ticketing and sales personnel			
All other personnel			
TOTAL			

Part I, covers data on the number and types of aircraft operated, their capacity and their utilization

Part II, shows the numbers of airline personnel by job category, and the annual expenditures for these personnel.

# Form D – Fleet and Personnel

## Part I -- Fleet

Aircraft in Fleet by Type		Inventory				Infrastructure of aircraft types			Traffic performed									
		Number of Aircraft of each Type				Size of Aircraft			Utilization of aircraft during the year									
Manufacturer and Model	Use/Version code <sup>a</sup>	At the beginning of the year	Changes during the year		At the end of the year	Number of Installed Passenger Seats	Average payload capacity (tonnes)	Average MCTOM (tonnes)	Number of aircraft departures			Aircraft hours Flown			Aircraft kilometres flown			Total aircraft days available
			Acquired	Disposed of					Revenue flights		All flights (total)	Revenue flights		All flights (total)	Revenue Flights		All flights (total)	
		Scheduled			Non-Scheduled	Scheduled	Non-Scheduled	Scheduled	Non-Scheduled									
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s

### What you should report?

- One form per air carrier
- Identify the aircraft type with the aircraft name, model and series as it was given by the manufacturer
- The statistics are reported separately for each type of aircraft (manufacturer and model) in the fleet whether these are owned, leased or chartered by the carrier.
- Traffic reported should be reported consolidated (domestic+international)
- Traffic should be reported with the breakdown by service (scheduled and non-scheduled)



# Form D – Fleet and Personnel

## Example of good reporting

INTERNATIONAL CIVIL AVIATION ORGANIZATION  
AIR TRANSPORT REPORTING FORM  
FLEET AND PERSONNEL - COMMERCIAL AIR CARRIERS

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Tel: +354 425 0383  
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E-mail: [freyr@icelandair.is](mailto:freyr@icelandair.is)

State: Iceland  
Air carrier: Icelandair  
Year ended: 2023

### Part I - FLEET

Aircraft in Fleet by Type		Number of Aircraft of each Type				Size of Aircraft			Utilization of aircraft during the year									
Manufacturer and Model	Use/Version code <sup>1</sup>	At the beginning of the year	Changes during the year		At the end of the year	Number of Installed Passenger Seats	Average payload capacity (tonnes)	Average MCTOM (tonnes)	Number of aircraft departures			Aircraft hours Flown			Aircraft kilometres flown		Total aircraft days available	
			Acquired	Disposed of					Revenue flights Scheduled	Non-Scheduled	All flights (total)	Revenue flights Scheduled	Non-Scheduled	All flights (total)	Revenue Flights Scheduled	Non-Scheduled		All flights (total)
BOEING 757-200	P	13	1	0	14	183	23	5,394	445	5,839	23,376	1,736	25,112	18,357,186	961,136	19,318,322	4,016	
BOEING 757-300	P	2	0	0	2	225	26	1,703	8	1,711	6,630	29	6,659	5,142,913	15,696	5,158,609	730	
BOEING 767-300	P	3	0	0	3	262	38	2,256	14	2,270	9,399	72	9,471	7,371,629	40,796	7,412,425	1,095	
BOEING 767-300F	F	1	1	0	2	0	50	1,123	61	1,184	4,725	190	4,915	3,651,318	133,542	3,784,860	730	
BOEING 737-8	P	11	3	0	14	160	18	12,906	72	12,978	49,719	233	49,952	38,671,563	63,145	38,734,708	6,147	
BOEING 737-9	P	4	0	0	4	178	18	4,871	12	4,883	20,103	59	20,162	15,744,416	31,321	15,775,737	1,460	
DE HAVILLAND DHC-8-400	P	3	0	0	3	76	8	4,045	109	4,154	2,922	75	2,997	1,334,553	20,184	1,354,737	943	
DE HAVILLAND DHC-8-200	P	3	0	0	3	37	4	2,529	209	2,738	3,109	169	3,278	1,306,260	58,503	1,364,763	1,095	

### Part II - PERSONNEL

Category of personnel <sup>2</sup>	Number of personnel		Total annual expenditures for each category Currency:
	Mid-year	Year-end	
a	b	c	d
Pilots and co-pilots	550	556	119,078,100
Other flight crew			
Cabin crew	1065	708	65,545,704
Maintenance and overhaul personnel			
a) Licensed aircraft maintenance engineers	389	398	49,249,487
b) Other maintenance and overhaul personnel	69	71	6,091,762
Ticketing and sales personnel	197	196	15,181,947
All other personnel	1897	1407	113,380,579
TOTAL	3966	3336	368,527,580

**1** Use/Version Codes

Report one of the following codes in column b for each aircraft entry in column a.

Version codes for aircraft used by operator for commercial air transport:

P - Passenger version of aircraft.

F - Freighter version of aircraft, no provision for passengers.

M - Combination ("Combi") version of aircraft i.e. aircraft capable of carrying both

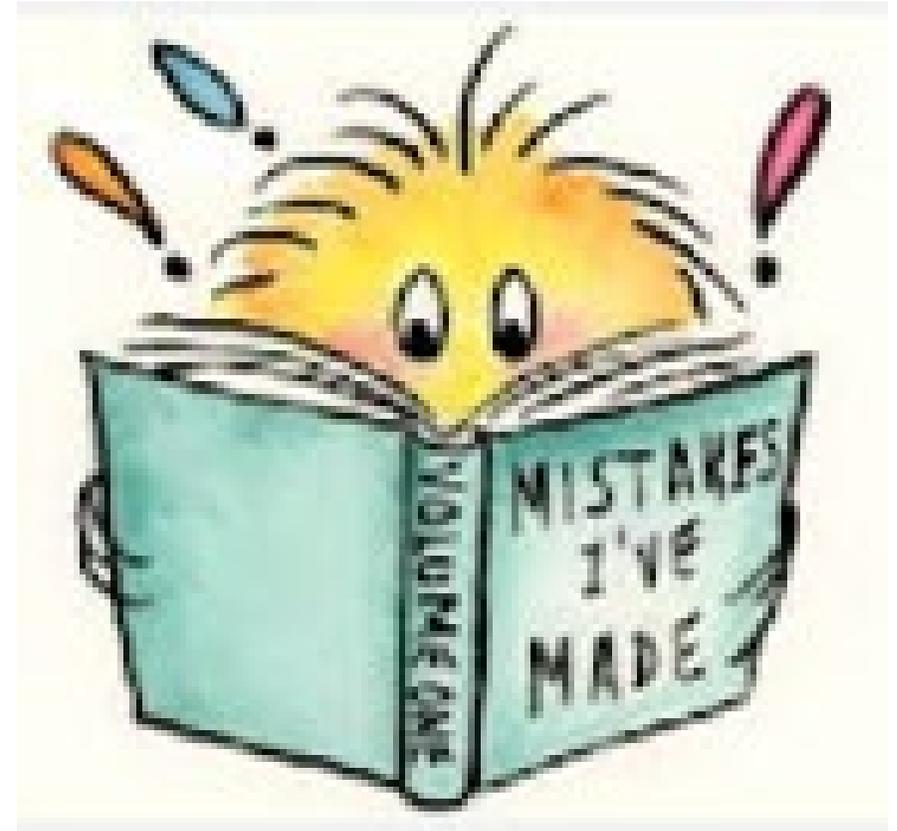
Code for aircraft not used by operator for commercial air transport:

O - Aircraft used for other purposes, such as training, aerial work, etc.

**2** Small carriers (see the reporting instructions) may include maintenance, overhaul, ticketing and sales personnel in "all other personnel".

# Main mistakes in the reporting of Form D – Part I

- **Missing the filling of any of the columns.**
- **The traffic reported do not match with Form A (number of departures, aircraft hours flown and aircraft kilometres flown).**
- **Average stage length and block speed should not fall within the operational parameters for the aircraft type being reported.**
- **The average number of aircraft days available per aircraft type in a year cannot exceed 365 days.**
- **Traffic reported is consolidated by two or more similar aircraft types.**



# Form D – Fleet and Personnel

## Example of bad reporting

FORMULAIRE D

ORGANISATION DE L'AVIATION CIVILE INTERNATIONALE  
FORMULAIRE DU TRANSPORT AÉRIEN

MATÉRIEL VOLANT ET PERSONNEL – TRANSPORTEURS AÉRIENS COMMERCIAUX

Personne à contacter : Mme CHEKOUR Faiza  
 Organisation : Direction Prospective et Développement  
 Tél : 00 213 21 20 80 24  
 Fax : 00 213 21 20 80 24  
 C. élect. : dpcg2000@airalgerie.dz  
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État : Algérie  
 Transporteur : Air Algérie  
 Année terminée le : 31/12/2021

1<sup>re</sup> Partie – MATÉRIEL VOLANT

Types d'aéronefs composant le parc aérien		Nombre d'aéronefs de chaque type				Capacité et masse des aéronefs			Utilisation des aéronefs pendant l'année									
Constructeur et modèle	Code d'utilisation/Version <sup>1</sup>	Au début de l'année	Changements pendant l'année		À la fin de l'année	Nombre de sièges-passagers	Capacité moyenne en charge payante (tonnes)	MCTOM moyenne (tonnes)	Nombre de départs			Nombre d'heures de vol			Kilomètres parcourus			Nombre total de jours de disponibilité
			Acquis	Retirés					Vols payants		Tous les vols (total)	Vols payants		Tous les vols (total)	Vols payants		Tous les vols (total)	
									Réguliers	Non réguliers		Réguliers	Non réguliers		Réguliers	Non réguliers		
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s
A330-200	P	5			5	269/302		230.0										
A330-200	P	3			3	251		238.0	1,591	435	2,038	3,985	1,838	5,835	1,224,957	2,540,486	3,765,443	2314
BOEING 737-800	P	24			24	148		79.0	7,593	150	7,777	11,082	412	11,525	6,075,073	268,250	6,343,323	7384
BOEING 737-600	P	5			5	102		65.1	4,500	182	4,685	5,374	625	5,999	2,654,305	390,326	3,044,631	1675
ATR72-500	P	11			12	66		22.8										
ATR72-600	P	3			3	66		23.0	11,750	45	11,858	18,804	174	19,031	6,469,696	26,584	6,496,280	4513
BOEING 737-800 cargo*	F	1			1	—		79.0	584	248	835	1,367	582	1,949	849,948	353,993	1,203,941	333
BOEING 737-700C *	M	2			2	112		77.6	510	322	833	1,008	986	1,994	576,584	644,923	1,221,507	710
LOCKHEED L382G *	F	1			1	—		70.3	110	28	138	292	78	370	122,694	32,214	154,908	294
ATR 72-500 *	F	1			1	66		23.0	194	4	198	422	9	430	139,420	3,072	142,492	
ATR 72 *	P					66		23.0	-	-	5	-	-	7	-	-	1,903	
BOEING 737-600 *	P					102		65.1	-	-	13	-	-	14	-	-	5,993	

# Form D – Fleet and Personnel

## Part II -- Personnel



# Form D – Fleet and Personnel

## Part II -- Personnel

### Part II - PERSONNEL

The number of personnel covers all personnel, temporary or permanent, on the payroll of the air carrier at the middle and end of the year being reported. **Part-time** staff are **included** in the total, prorated to the amount of time worked when compared with the time worked by full-time personnel (i.e. two part-time staff working half-time are equivalent to one full-time staff).

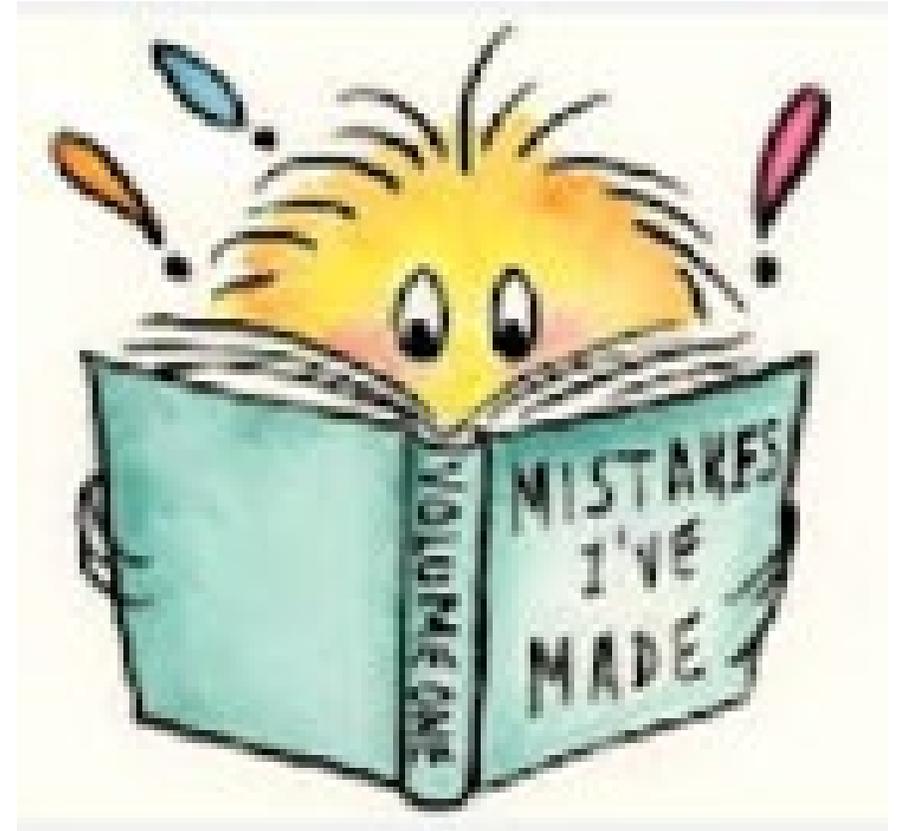
Total annual expenditures cover the salaries and allowances of all employees in each of the six categories.

- ❖ They include the gross salary (before deduction of income tax, pension, social welfare and voluntary payments), overtime pay, flying pay, and subsistence allowances, such as cost-of-living, station and overseas allowances .
- ❖ They exclude expenses for travelling, moving, training, uniforms, etc.

Category of personnel <sup>2</sup>	Number of personn		Total annual expenditures for each category Currency:
	Mid-year	Year-end	
a	b	c	d
Pilots and co -pilots	550	556	119,078,100
Other flight crew			
Cabin crew	1065	708	65,545,704
Maintenance and overhaul personnel			
a) Licensed aircraft maintenance engineers	389	398	49,249,487
b) Other maintenance and overhaul personnel	69	71	6,091,762
Ticketing and sales personnel	197	196	15,181,947
All other personnel	1697	1407	113,380,579
TOTAL	3966	3336	368,527,580

# Main mistakes in the reporting of Form D – Part II

- **Validity may be checked by dividing the figure in column *d* by the corresponding figure in column *b* to see if the average annual personnel expenditure per person falls within the expected range for each category of personnel.**



# Form D – Fleet and Personnel

Validation of Part I -- Utilization of aircraft during the year

Traffic performed by aircraft type	Formulas
Average number of departures (day)	Number of departures/ number of aircraft of each type at the end of the year * 365
Average stage length (km)	Kilometers performed/ departures
Average speed (km/hr)	Kilometers performed / aircraft hours flown
Average flight time (hours)	Aircraft hours Flown / departures
Average estimated block hours (day)	Aircraft hours Flown / number of aircraft of each type at the end of the year * 365
Average aircraft utilization (days)	Aircraft hours Flown / total aircraft days available



# Form D – Fleet and Personnel

Example of validation of Part I

## Part I - FLEET

Aircraft in Fleet by Type		Utilization of aircraft during the year									
Manufacturer and Model	At the end of the year	Number of aircraft departures			Aircraft hours Flown			Aircraft kilometres flown			Total aircraft days available
		Revenue flights		All flights (total)	Revenue flights		All flights (total)	Revenue Flights		All flights (total)	
		Scheduled	Non-Scheduled		Scheduled	Non-Scheduled		Scheduled	Non-Scheduled		
a	f	j	k	l	m	n	o	p	q	r	s
BOEING 777-300ER	10	1,208	850	2,058	14,241	5,938	20,179	11,746,951	4,628,824	16,375,775	3,650
AIRBUS A350-900	4	887	77	964	9,884	495	10,378	8,209,559	379,375	8,588,934	1,460
AIRBUS A330-343	10	2,681	981	3,662	16,481	4,525	21,005	12,165,682	3,123,906	15,289,588	3,650
AIRBUS A321-200	26	7,830	247	8,077	19,900	566	20,466	11,976,020	312,584	12,288,604	9,490

Aircraft type	Average number of departures	Total average stage length (km)	Total average speed (km/hr)	Total average flight time (hours)	Average estimated of block hours per day	Total average aircraft utilization (days)
BOEING 777-300ER	0.6	7,957	812	9.8	5.5	5.5
AIRBUS 350-900	0.7	8,910	828	10.8	7.1	7.1
AIRBUS A330-300	1.0	4,175	728	5.7	5.8	5.8
AIRBUS A321-200	0.9	1,521	600	2.5	2.2	2.2

# Form D – Fleet and Personnel

## Definition of aircraft utilization



Aircraft utilization means the **number of hours effectively flown** by the aircraft per operation day

# Form D – Utilization



Total aircraft days available is the sum of the number of days each aircraft is available for **use during the reporting period**.

The following days should be excluded from the days available:

- the days between the date of purchase of an aircraft and the date it is actually placed in service;
- the days subsequent to an aircraft's last revenue flight and prior to its disposal;
- the days that an aircraft is out of service due to major accidents or conversion;
- the days that an aircraft is in the possession of others;
- the days that an aircraft is not available because of government action such as grounding by government regulatory agencies.

All other days must be considered as days available, including the days required for maintenance or overhaul.

Clearly, the average number of aircraft days available per aircraft type in a year cannot exceed 365 (366) days. Also, the result of dividing the annual hours flown by aircraft type by the corresponding aircraft days available cannot exceed 24 hours.



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Thank You