

# FLIGHT FOLDER

## Report

List of documents :

Ordre d'essai  
Journal de bord de l'ingénieur  
Feuille de tops  
Fiches de suivi instruments

## Ordre d'essai

Plan de vol	G. Seurat
CdB	D. Duchanoy
Copilote	G. Seurat
Occupant jump seat	T.Andre
Expé principal SAFIRE	H.Bellec
Expé SAFIRE	G.Vergez
PI	M.Lothon L.Villiger
Expés instruments	C.Coudoux, C.Legac
Expés instruments	A.Schwarzenboeck, J.Totems

Heure de décollage  
*Take-off time*

11 :34

Durée du vol  
*flight duration*

4.1

Objectif du vol/Flight aim

EUREC4A

Profil du vol / Flight Pattern

Flight with first leg FL180 ten minutes, then two rectangles at cloud base level then three L pattern at level 1000 ft, 2000 ft, 3000ft, leg 3500 ft then last track at FL100.



vol ATR F-HMTO n° 9 du 2 février 2020

Top sheet  
Report Writer : G. Vergez

Departure parameters

Leaving apron : 11:14:32 Take-off : 11:34:41 Landing : 15:37:34	QNH : 1015 hPa wind : 110° 11kt ; T : 26°C ; Td : 21°C clouds : sct 1600, haze , visi > 10 km
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Top	Data	Time	Seconds	Alt (alt_qnh in ft)	Comments
1	69	11:07:14	40034.040	ground	TERPS reading 1010.1 hPa
2	507	11:14:32	40472.040	gnd	Safire QNH calibration (>qnh xxx) = 1015 hPa
3	1716	11:34:41	41681.040	id.	Leaving apron
4	1990	11:39:15	41955.040	ground ↗	Take-off (rotation) RWY09
5	2007	11:39:32	41972.040	400ft ↗	Landing gear up
6	2024	11:39:49	41989.040	800ft ↗	Radome holes vent (cloud base seen by lidar 747 m)
7	2383	11:45:48	42348.040	6540 ft	Light turbulence
8	2625	11:49:50	42590.040	8000 ft	Leg for 5' (observed end dust at 2500 ft)
9	3269	12:00:34	43234.040	8000 ↘	Entry point EUR1. Beginning descent
10	3575	12:05:40	43540.040	↘ 2270 ft	Aligned first leg rectangle 1 ½ South/North. Bad visibility, a lot of dust, no cloud.
11	4112	12:14:37	44077.040	2270 ft ↗ 2470ft	Light climbing to cloud base, light turbulences
12	4167	12:15:32	44132.040	2470 ft	End of ½ leg S/N . Turn right.
13	4221	12:16:26	44186.040	2457 ft	Stabilised to leg Est East. In inhomogeneous clouds.
14	4333	12:18:18	44298.040	2457ft=>2600 ft	Difference of altitude due to updating QNH (1019 hPa). Same level above sea
15	4353	12:18:38	44318.040	2600 ft	End of West/East Leg. Turning right
16	4410	12:19:35	44375.040	id	Stabilised North/South leg .
17	5259	12:33:44	45224.040	↘ ↘ 2500 ft	Descent 100 ft
18	5452	12:36:57	45417.040	↘ ↘ 2400 ft	Descent 100 ft
19	5623	12:39:48	45588.040	2400 ft	End of North/South Leg. Turning West
20	5659	12:40:24	45624.040	id	Stabilised East/West leg .
21	5775	12:42:20	45740.040	id	End of East/West Leg. Turning North
22	5812	12:42:57	45777.040	id	Stabilised South/North leg .
23	6163	12:48:48	46128.040	id.	Scattered little Cu observed

Top	Data	Time	Seconds	Alt (alt_qnh in ft)	Comments
24	6434	12:53:19	46399.040	2400ft	End of first rectangle 1. Starting rectangle 2, ½ leg South/North
25	6748	12:58:33	46713.040	2400ft ↗	Climbing according to the level of first rectangle
26	6791	12:59:16	46756.040	↗ 2600 ft	Stabilized 2600 ft QNH 1019.
27	7022	13:03:07	46987.040	id.	End of the South/North Leg, turning East.
28	7063	13:03:48	47028.040	id.	Stabilized rectangle 2, West East leg
29	7183	13:05:48	47148.040	id.	End of the West East Leg. Turn south.
30	7221	13:06:26	47186.040	id.	Stabilized rectangle 2, North/South leg
31	7754	13:15:19	47719.040	2600 ft ↘	Beginning descent
32	7815	13:16:20	47780.040	↘ 2400 ft	Stabilized 2400 ft
33	8113	13:21:18	48078.040	id.	Presence of little clouds right hand.
34	8466	13:27:11	48431.040	id.	End of the North/South rectangle 2 Leg, Turn west
35	8508	13:27:53	48473.040	id.	Stabilized rectangle 2, Est/West, little clouds right hand, light turbulences.
36	8618	13:29:43	48583.040	id.	End of the R2 E/W, turning north. Right north
37	8665	13:30:30	48630.040	id.	Stabilized R 2, S/N
38	8871	13:33:56	48836.040	id.	Light turbulences,
39	8943	13:35:08	48908.040	id	Crossing clouds
40	9274	13:40:39	49239.040	2400 ft ↘	End of the R2. Descent 400 ft, turning left
41	9493	13:44:18	49458.040	↘	Aligned on EUR1, descending 1000 ft
42	9568	13:45:33	49533.040	↘ 1000 ft	Stabilized 1000 ft on first L leg W/E . Light turbulences
43	10190	13:55:55	50155.040	1000 ft	Rain
44	10249	13:56:54	50214.040	id.	End of the L1 leg W/E
45	10294	13:57:39	50259.040	id.	Stabilized L1 N/S leg.
46	10674	14:03:59	50639.040	id	Light turbulences below raining clouds. LWC300 switch on.
47	10856	14:07:01	50821.040	1000 ft ↗ 2000 ft	End of L1 N/S leg. Stop rain. Climbing.
48	10989	14:09:14	50954.040	2000ft	no
49	11050	14:10:15	51015.040	id.	Strong turn right, roll 60°
50	11162	14:12:07	51127.080	id.	Aligned L2 South/North leg. Strong problem. acquisition stopped
51				-	nop



vol ATR F-HMTO n° 9 du 2 février 2020

Top	Data	Time	Seconds	Alt (alt_qnh in ft)	Comments
51	13	00:02:41	161.040	1800 ft	Restart system ok, Beginning L2 leg E/W
52	219	00:06:07	367.040		Top clock : 14:27:41
53	553	00:11:41	701.040	1890 ft	End of L2 E/W leg.
54	707	00:14:15	855.040	1890 => 2000ft	Difference of altitude due to updating QNH (1019 hPa). Same level above sea (qnh 1019 )
55	860	00:16:48	1008.040	2000 ft	L3 West/East Leg
56	1180	14:43:42	53022.040	id	Reach acquisition clock 14:43:42
57	1307	14:45:49	53149.040	2000 ft	Wrong climbing
58	1501	14:49:03	53343.040	2000 ft ↗	End of 1st L3, Start of 2nd L3 N/S, climb to 2500 ft
59	1598	14:50:40	53440.040	↗ 2500 ft	Stabilized at 2500ft during the 2nd L3 sometimes in clouds.
60	1778	14:53:40	53620.040	2500 ft ↗	Beginning climbing
61	1912	14:55:54	53754.040	↗ 3500 ft	Stabilised, moderate turbulences.
62	2122	14:59:24	53964.040	3500 ft	End of L3 N/S leg, turn westward.
63	2187	15:00:29	54029.040	id.	Stabilized towards EUR7.
64	2299	15:02:21	54141.040	id.	Crossing clouds
65	2762	15:10:04	54604.040	id.	EUR 5 End of leg E/W . Coming back BGI.
66	2840	15:11:22	54682.040	3500 ft ↗ FL100	Beginning climbing FL100
67	3107	15:15:49	54949.040	FL090 ↗	Entering dry air for 15 seconds.
68	3217	15:17:39	55059.040	FL100	Stabilized at level for 2 minutes.
69	3722	15:26:04	55564.040	FL100 ↗	End of ten minutes leg for Picarro. Bescent to BGI
70	4250	15:34:52	56092.040	↘	Landing gear down
71	4412	15:37:34	56254.040	↘ ground	Landing
72	4531	15:39:33	56373.040	ground.	Parking

Comments :

Acquisition problems from 14:12 to 14:15.

1 <sup>st</sup> rectangle
2 <sup>nd</sup> rectangle

1 <sup>st</sup> "L" pattern
2 <sup>nd</sup> "L" pattern

3 <sup>rd</sup> "L" pattern
Leg EUR7 -EUR 5