



FLIGHT CREW TRAINING MANUAL

VOLUME 2 - TRAINING SYLLABI

AIRBUS INDUSTRIE
TRAINING & FLIGHT OPERATIONS SUPPORT DIVISION



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CHAPTER 00

- GENERAL INFORMATION -

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01 - FOREWORD

The Flight Crew Training Manual (FCTM) is the support documentation for Flight Crew trainees and instructors and has three objectives :

- It gives Airbus Industrie's philosophy referring to the FCOM and when necessary supplements the FCOM normal, abnormal/emergency procedures to perform training exercises, ensuring homogeneous instruction and operational use
- It contains teaching advises and key points essential for the correct performance of procedures and exercises.
- It deals with the details of the various phases of instruction (briefings, syllabi, ...)

02 - COMMENTS - QUESTIONS - SUGGESTIONS

The FCTM is sent to each Customer Airline's Flight Operation Department and is updated via a "Revision Service" .

All manual holders and users are encouraged to forward their questions and suggestions regarding the Flight Crew Training Manual.

Any questions with respect to use of this manual or information contained herein shall be directed to :

AIRBUS INDUSTRIE TRAINING CENTRE

Customer Services Directorate

5 rue Gabriel Clerc

31707 BLAGNAC CEDEX - FRANCE

ATTN. : Training Policy Department

FAX : 33.(0)5.62.11.07.40

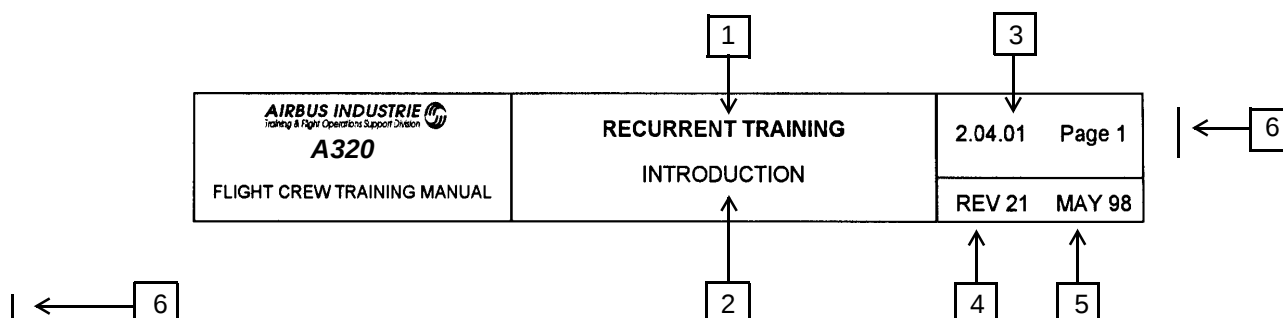
03 - CONTENTS

The FCTM is divided into two volumes :

- Volume 1 : Training Support
- Volume 2 : Training Syllabi

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04 - PAGINATION



- 1** Chapter title
- 2** Section title
- 3** FCTM volume number - Chapter number - Section number - Page number

NOTE :

Chapter number and course type number is the same

*Examples : - Chapter **04** is dedicated to the E FC**4** (Recurrent Training)*

*- Chapter **18** is dedicated to the E F**18** (CAT II Low Visibility Operations)*

- 4** Revision number
- 5** Revision date
- 6** A revision bar in front of a line indicates that the line has been revised
A revision bar in front of the page number indicates that the whole page has been revised.

05 - NORMAL REVISIONS

They are issued periodically to cover changes and / or to add new data.

Two documents added to each revision facilitate its incorporation :

- The "Filing Instructions" sheet : it lists the pages to be removed or inserted
- The "List of Effective Pages (LEP)" sheet : it list all the FCTM valid pages

Normal revisions are recorded in the "List of Normal Revisions" section

06 - TEMPORARY REVISIONS

They are printed on yellow paper and are issued when justifying urgent action between normal revisions.

They are recorded in the "List of Temporary Revisions" section.

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07 - CUSTOMIZATION

When some items of the Airbus Industrie training philosophy are not adopted by a Customer Airline, they are replaced by those of the Airline. The corresponding header pages bear the name of the Airline and are printed in blue.

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N°	ISSUE DATE	ENTRY INTO SERVICE DATE
01	NOV 89	-
02	JAN 90	-
03	MAR 90	-
04	MAY 90	-
05	JUN 90	-
06	AUG 90	-
07	NOV 90	-
08	FEB 91	-
09	NOV 92	-
10	DEC 92	-
11	JAN 93	-
12	APR 93	-
13	JUL 93	-
14	OCT 93	-
15	NOV 93	-
16	MAR 94	-
17	AUG 94	-
18	FEB 95	-
19	JUL 95	-
20	JUL 96	-
21	MAY 98	-
22	OCT 98 (Volume 2 ONLY)	-
23	JUL 99	-
24	JUN 2001	03 OCT 2001 (EDW n° 011114)

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01	JAN 91	REV 08	03.03 Page 5C 05.01 Page 2 07.02 Page 3	-
02	FEB 93	REV 12	Chapter 08 - LOFT	-
03	FEB 93	REV 12	Chapter 08 - LOFT	-
04	MAR 94	REV 17	17.05 Page 7	-
05	AUG 94	REV 17	10.03 page 3	-
06	NOV 95	REV 21	Chapter 02 Chapter 06 Chapter 07	-
07	APR 96	REV 20	Chapter 04 Chapter 21	-
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09	AUG 97	REV 21	Chapter 08	-
10	JAN 98	REV 21	Chapter 12 Chapter 13	-
11	NOV 99	TR 13	VOL 2 - Chapter 02	-
12	JAN 2000	REV 24	VOL 2 - Chapter 02	-
13	AUG 2000	REV 24	VOL 2 - Chapter 02	04 OCT 2000
14	FEB 2002	TR 15	VOL 2 - Chapter 02	13 FEB 2002 (CYP n° 021007 AMM n° 021065)
15	FEB 2002	-	VOL 2 - Chapter 02	13 FEB 2002 (CYP n° 021007 AMM n° 021065)



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09	AUG 97	REV 21	Chapter 08	-
10	JAN 98	REV 21	Chapter 12 Chapter 13	-
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12	JAN 2000	REV 24	VOL 2 - Chapter 02	-
13	AUG 2000	REV 24	VOL 2 - Chapter 02	04 OCT 2000

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TO BE ISSUED LATER ON

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CHAPTER 02

- TYPE RATING COURSE(S) -



Cross Crew Qualification course

- E FQF/G -



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2.02.02 - TRAINING FOOTPRINT

2.02.03 - GROUND COURSE SYLLABI

2.02.04 - NORMAL COURSE SYLLABI

2.02.05 - ABNORMAL/EMERGENCY COURSE SYLLABI

2.02.06 - Left intentionally blank

2.02.07 - SKILL TEST SYLLABI (*Refer to the Regular Course "Standard Crew" session*)

2.02.08 - BASE TRAINING SYLLABUS (*Refer to Regular Course*)

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01 - GENERAL

A. PHILOSOPHY OF THE COURSE

The Flight Crew Transition Course is based on the following three principles :

- Systematic approach to instruction
- Learning by doing
- Training to proficiency

a. Systematic approach to instruction :

The task of training must be considered as a whole and an instruction system must be defined to achieve the training objectives. These objectives are determined by a task analysis. Methods and means necessary to implement the instruction system are chosen for their qualities and adaptability to the objectives.

Each phase in the training system is intended to fulfil part of the objectives.

b. Learning by doing :

It is very important that practical exercises are included in each training phase. Practical system training is provided as soon as possible to :

- ensure that the theoretical knowledge is retained
- train the crew members in their respective tasks in the cockpit environment.

c. Training to proficiency :

At the end of the training program, each crew must be capable of carrying out his tasks safely and efficiently, in accordance with the training objectives. Therefore, it is not possible to permit a trainee to move up from one phase to the next until he has acquired the skills necessary to complete the objectives.

d. Crew training - Crew Resource Management (CRM)

The ACRM (Airbus Crew Resource Management) is integrated into the technical training through 7 CRM topics studied during the ACRM workshop. Each topic could be part of the briefing or debriefing of a session depending on crew's performance and various opportunities.

- The debriefing of a topic can be done every time it could enhance the trainee's performance
- The briefing of a topic (if not already debriefed) is scheduled in accordance with the table provided in the Trainee's file

B. PREREQUISITES

Defined by clause 16 in aircraft purchase contract and entry level requirements as specified in the Airbus Training Policy.

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02 - TYPE RATING COURSE DESCRIPTION

A. TRANSITION COURSE :

- The basic Transition course (called Regular Course) is declined in several versions (called Adapted Courses) according to the needs of the Airlines and the background of the pilot in order to achieve the training objectives.
Adapted courses are designed from the Regular Transition course by adding extra training (briefing and simulator sessions).
- The Regular and Adapted courses are available with additional days of "Language" option for pilots with no English, no fluent English or insufficient knowledge in technical English.
These extra days are mainly spread over the Ground phase as the systems are studied with projected CBT.
An extra day is proposed before the Progress check in the Normal phase and another one at the end of the Abnormal/Emergency phase, both dedicated to a spare session if needed.

NOTE : *Spare sessions are performed on instructor's request.*

Computerised codes are used to identify the various aircraft and courses. Here under the meaning of the main codes :

a. Aircraft Codes

B = A310	F = A340	H = A321
D = A300-600	G = A330	J = A319
E = A320		

b. Course Codes

		CBT at home	Language option
Regular Course <i>Experienced jet qualified line pilots</i>	E F2RA2	E F2RA4	E F2RA7
Adapted Jet Familiarization Course <i>Pilots with no previous experience on jet aircraft</i>	E F2JA2	E F2JA4	E F2JA7
Adapted Crew Course <i>Pilots with no practice of crew co-ordination and flight deck management</i>	E F2KA2	E F2KA4	E F2KA7
Adapted Line Familiarization Course <i>Pilots with no practice of operation in a line environment.</i>	E F2LA2	E F2LA4	E F2LA7

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02 - TYPE RATING COURSE DESCRIPTION (END)

B. CROSS CREW QUALIFICATION COURSE (CCQ) :

Within the fly-by-wire family, the CCQ course is designed to transition from one type to another type of aircraft :

CCQ A330 to A320..... E FQG
Pilots already type rated on A330

CCQ A340 to A320..... E FQF
Pilots already type rated on A340

C. A319/A320/A321 SAME TYPE RATING :

The Same Type Rating is the term used by Airbus Industrie to assign a single type rating for different Airbus aircraft.

Same Type Rating permits the carry-over of total credit for crew qualifying from one variant of aircraft type to another, based on common cockpit and flight characteristics.

After completion of an A320 Transition or CCQ course, the A319/A320/A321 Same Type Rating needs only stand up lecture and / or CBT study to highlight the differences between the aircraft.

D. FIRST TYPE RATING ON MULTI-PILOT AIRPLANE COURSE

Refer to "First Type Rating On Multi-pilot Airplane Course" FCTM chapter

03 - COURSE ORGANISATION

A. DESCRIPTION

The instruction concept utilised by Airbus Industrie uses a program divided into phases, each of which generally corresponds to part of the objectives.

In an effort to produce a single syllabus set satisfying all the regulatory authorities requirements (JAA, FAA, CAA, etc.) the sessions take place in various airports.

a. Ground course phase

- Welcome : general introduction presenting Airbus Training Centre and the course,
- Cockpit familiarization session in a Full Flight Simulator.

The ground school phase consists of integrated training using :

- a Computer Based Training (CBT) workstation
- FMGS trainer (F3D)

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03 - COURSE ORGANISATION (CONT'D)

A. DESCRIPTION (END)

b. Normal operation phase

Having studied each system of the aircraft separately during the Ground course, the trainee is invited to study integration of these systems and subsequent procedures, as well as aircraft handling in Normal situations. Normal situations here must be understood as flying the aircraft without any internal failure.

The objective is to apply normal procedures with respect of task sharing and crew coordination.

The sessions are scheduled in FBS to study the procedures and in FFS to apply the procedures and practice aircraft handling in normal operations.

A progress check at the end of the Normal phase allows the instructor to evaluate if Trainee's knowledge and skills fulfil the requirements to start the Abnormal phase.

c. Abnormal/emergency operation phase :

Knowing now how to handle the aircraft in normal situations, the trainees are invited to study the aircraft in abnormal/emergency operations, experiencing several failure cases. The objective is to apply the abnormal/emergency procedures with respect of task sharing and crew coordination.

Sessions are scheduled in FBS to study the procedures and in FFS to practice aircraft handling.

d. Skill Test phase

According to the JAR - FCL recommendations, the Skill Test syllabi have been designed in a commercial air transport environment.

They consist of :

- 1st part : a real time sector with some specific events.
- 2nd part : additional part to deal with the remaining items to be performed by the trainee in order to fully satisfy the JAR - FCL requirements.

e. Base training phase

Base training if applicable.

[Refer to Base Training Briefing - FCTM Vol 1 "Normal Operation Briefings" chapter.]

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03 - COURSE ORGANISATION (END)

B. INSTRUCTOR BRIEFING

The instructor will make a briefing whose duration is stated in the table below within a reasonable time frame before each FBS and FFS session :

Briefing / debriefing duration per session :				
PHASES	BRIEFING			DEBRIEFING
	FBS	FFS	ACRM (if any)	
- Ground	-	-	-	At students and/or instructor request
- Normal / Abnormal	1:30	1:30	At instructor's discretion ¹	At instructor's discretion ²
- Skill test	-	1:00		

1. As a part of the normal session briefing duration
2. According to Trainees' performance

The instructors are advised to use all available tools that can support the learning process significantly i. e. FMGS trainer, ACRM briefings and others. They must brief the Trainees before the first session of the Normal phase to prepare the session using the FCOM and FCTM (Take-off data and flight plan if necessary)

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01 - TRAINING DEVICE TIME SHARING PER PHASE

N.B. : except when notified, the allocated time is mentioned in hour/crew

Total working days (without Base Training)		11 working days
GROUND PHASE		5 working days
CBT : - Aircraft system study + review - System Test		
FMGS TRAINER : 1session		2:00
NORMAL PHASE		2 working days
FBS : 1 session.....		3:00
FFS : 1 session.....		3:00
ABNORMAL / EMERGENCY PHASE		3 working days
FBS : 1 session.....		3:00
FFS : 2 sessions		6:00 (2 x 3:00)
SKILL TEST PHASE		1 working day
FFS : 1 sessions		4:00
<i>In the aircraft :</i>		
BASE TRAINING PHASE (if applicable i.e. Frnach DGAC rule)		1 working day
1 flight		Minimum 0:45 / trainee

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02 - TRAINING DAILY FOOTPRINT

DAY 1 Welcome 2:30 CBT : - Indicating/Recording (EIS - ECAM) 2:00 - Fire protection 0:30 - Navigation 1:00	DAY 2 CBT : - Landing gear 1:15 - Hydraulic 1:15 - Autoflight 2:00 FMGS 2:00	DAY 3 CBT : - Power plant 2:00 - Electric 1:15 - Flight controls 1:30 - Pneumatic 0:45 - Communication 0:30 - CFDS (optional) 0:30
DAY 4 CBT : - Fuel 2:00 - Air cond / pressu / ventilation 2:15 - Cabin presentation 0:50 - Cabin trainer 1:00	DAY 5 CBT : - Ice and rain protection 0:30 - Review 2:00 - System test 2:00	DAY 6 <i>N1 FBS</i>
DAY 7 <i>N2 FFS</i>	DAY 8 <i>F1 FBS</i>	DAY 9 <i>F2 FFS</i>
DAY 10 <i>F3 FFS</i>	DAY 11 <i>Skill test FFS</i>	

 = Abnormal / emergency sessions

FMGS SYLLABUS

This guide enables the user to:
review A330/A340 to A320 FMGS interfaces (MCDU, FCU and FMS displays) and major differences by SOP application during cockpit preparation (FMS), simulated flight and approach preparation.
CYUL (Montreal Dorval) and **KIAD** (Washington Dulles) enroute, departure, arrival and approach charts are required for this session.

SYLLABUS SUMMARY

- FREEPLAY TRAINER CHECKS
- FMGS INITIALISATION / TRAINER PREPARATION
- TAKE-OFF
- CLIMB / CRUISE
- APPROACH PREPARATION
- DESCENT AND APPROACH

A - START THE FREEPLAY TRAINER

REFER TO USER GUIDE FOR MORE INSTRUCTIONS, IF APPLICABLE.

B - REVIEW TRAINER MAIN FACILITIES

	STORE MEMO button: Memorises actual freeplay situation and settings.
	RECALL MEMO button: Returns to memorised status (by mouse click). The feature can be used at any time in order to review all sequences and exercises.
	FREEZE (UNFREEZE) button: Freezes or unfreezes the flight simulation. Unfreeze is necessary before any further modification or entry (Button White - FREEZE / Button Grey - UNFREEZE).
	SPEED UP button: Multiplies the speed by 5 until 5 NM inbound to next WPT then returns to normal speed automatically.

C - FREEPLAY TRAINER CHECKS

	SPEED BRAKES Check retracted!		FLAPS Check retracted!				
	THRUST LEVERS Check idle!	<table border="1"> <tr> <td data-bbox="813 1648 981 1722">  </td> <td data-bbox="981 1648 1211 1722"> ENGINE MASTERS </td> </tr> <tr> <td data-bbox="813 1722 981 1829"> Check off! </td> <td data-bbox="981 1722 1211 1829"></td> </tr> </table>			ENGINE MASTERS	Check off!	
	ENGINE MASTERS						
Check off!							

FMGS SYLLABUS (CONT'D)

D - FMGS INITIALISATION



1 - A/C STATUS check

2 - INIT A page. Insertions (data entries).

3 - FPLN pages. Insertions and revisions. Study of DATA pages. Flight plan check and review. SEC FPLN preparation, study and review.

4 - RAD NAV page. Tuning and checking nav aids.

5 - INIT B next page. Insertions and revisions.

6 - PERF page. Insertions and revisions. All phases.

Items 1 to 6 are the main preparation sequence.

Entry Instructions

- All data entries in [...] must be entered in the data field as required (given format) in order to avoid a FORMAT ERROR message.
- It is recommended to read comments (if any) prior to doing inputs.
- The initialisation of the FMS will automatically tell the freeplay trainer software to set the environmental factors and where to position the aeroplane.

WHENEVER YOU NEED TO SEE SOMETHING DURING A DYNAMIC FLIGHT PHASE, STOP THE SIMULATION WITH THE FREEZE BUTTON AND PUSH FREEZE AGAIN IN ORDER TO RELEASE AND TO CONTINUE THE SIMULATION.

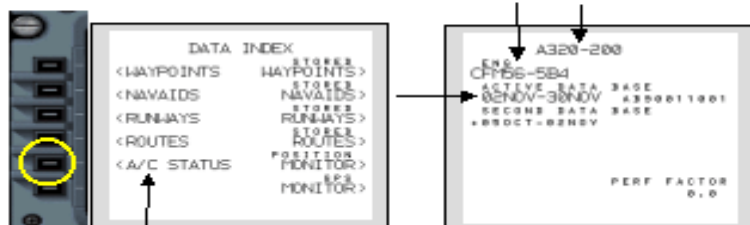
1 - A/C STATUS page check (data base validity)



Normally at power up, the a/c status page is displayed automatically, if not:

A/C STATUS SELECT then
DATABASE validity CHECK, if not valid
Valid DATABASE SELECT

A/C VERSION CHECK
ENG VERSION CHECK



FMGS SYLLABUS (CONT'D)

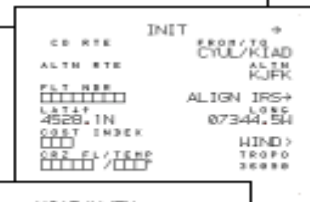
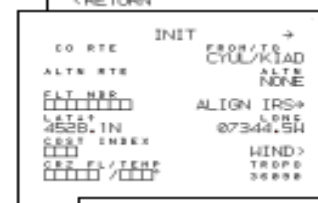
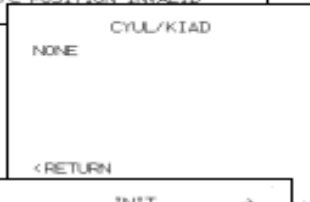
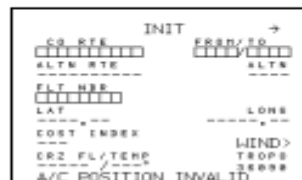
2 - INIT A page entries



1 INIT A preparation

Type and enter into FROM/TO field **CYUL/KIAD**

- Notice there is no company route available for this city pair.
- Select RETURN in order to create a FPLN on your own.
- ALTN field is defaulted empty and NONE is displayed.
- The LAT/LONG are the **ARP*** co-ordinates of **CYUL**.
- ALIGN IRS prompt is available from this page.



2 ALTN COROUTE entry

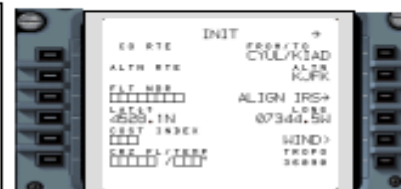
Find the field **ALTN** on INIT A page:

- Observe defaulted no ALTN airport given in this case.
- Type and enter **KJFK** - NEW YORK in order to set an ALTN airport.
- Notice there is no COMPANY ROUTE from **KIAD/KJFK** available.
- The ALTN FPLN must be created by the user in this case completely.

3 GATE PARKING POSITION entry

Gate Parking Position Entry:

- Modify the **ARP** LAT into the gate position LAT. Observe the image and notice the up-down arrows next to LAT.
- Now use the keypad for modification. Push LSK4L and the upper arrow to get the gate 3 LAT **4527.5N** or type the LAT into scratch pad and enter via LSK4L direct.
- Do the same procedure for LONG and enter **07344.9W** with **LSK4R**.
- Push **LSK3R** and **ALIGN IRS**.
- Verify on **IRDU**, the position for **IR1-3-2**.



*ARP - Airport Reference Point

Data not utaded between 2 FCTM revisions

FMGS SYLLABUS (CONT'D)

4

OTHER INIT A page entries

FLT NBR (entry) **AIB320**
- Type and enter **AIB320** or your company id with a given flight number.

COST INDEX (entry) **30**
- Type and enter **30** or check for correct **CI** and keep it.

CRZ FL / TEMP (entry) **350 / -55**
- Type and enter 350 and /-55. If applicable change the temperature entry in accordance to your documentation (FPLN). Today it is not different from ISA.

TROPO (entry) **36000**
- Type and enter the tropopause altitude **36000** ft.

NOTE: Use the correct format for all entries. Notice the maximum number of digits per entry (3 for C.I., 8 for FLT NBR etc.). **Avoid FORMAT ERROR.**



3 - F-PLN A PREPARATION Departure Sequence

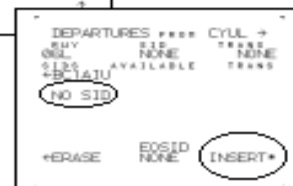
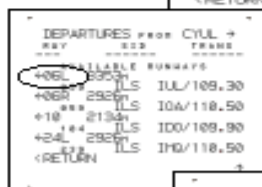
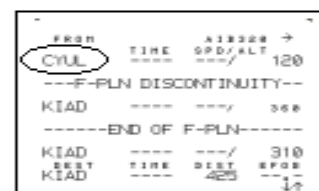
F-PLN

DEPRESS

- 1. LAT REV** at **CYUL**
- 2. LSK1L** push **DEPARTURE**
- 3. DEP RWY** **06L** select
- For **SID** **NO SID** enter
(Slew up to next page to find NO SID)

On EFIS C.P. select PLAN mode and appropriate range. Notice a temporary FPLN exists (amber lines). Check first line on DEPARTURES FROM CYUL on whether your choice is correct or not. Notice, a temporary Flight Plan (amber) has been created now

- 5. LSK6R** for activation **INSERT** push.



FMGS SYLLABUS (CONT'D)

3 - F-PLN A PREPARATION Cruise Sequence

1. **Type** and enter in DISC. **UL**
- Notice the F-PLN DISCONTINUITY is always shifted ahead.
2. Enter a WPT **L/L 4520.0N/07345.0W**
- Notice for the LAT/LONG format a name is automatically created (LL01) for the entered WPT.
3. Enter a WPT **NAPEE**

PRGR TIME SPD/ALT
CYL00L 1500 20000 100
LL01 1500 20000 100
NAPEE 1500 20000 100
KIAD 1500 20000 100

- Entering *AWYs/Inters.* (enter in sequence in **VIA/GOTO** fields):
1. LAT REV at NAPEE **J569/PLB** etc.
 2. LAT REV at PLB **J29/SYR**
 3. LAT REV at SYR **J59/PSB**
 4. LAT REV at PSB **J61/EMI**

UL TIME SPD/ALT
LL01 1500 20000 100
NAPEE 1500 20000 100
PLB 1500 20000 100
SYR 1500 20000 100
PSB 1500 20000 100
EMI 1500 20000 100

4 - F-PLN A PREPARATION Approach and Alternate Sequence

Notice the F-PLN DISCONTINUITY after EMI

1. LAT REV at **KIAD**
2. **ARRIVAL** **SELECT**
3. Procedure and **RWY** **ILS 19R**
4. For **STAR** select **NO STAR**

- On EFIS C/P, select PLAN mode and appropriate range.
- Notice no predictions are calculated yet.

- Normally radar assistance is given for Arrival.
- Check the procedure is the desired one and **INSERT**
- Check the F-PLN by WPTs, TRKs and Distances.
- Clear all DISCONTINUITIES.
- Check the F-PLN DIST is in accordance with CFP.

ARRIVAL TO KIAD
ILS19R NONE STAR NONE
VIA NONE TRANS NONE
STAR AVAILABLE TRANS
NO STAR

EMI TIME SPD/ALT
BOYDS 1500 20000 100
KIAD 1500 20000 100
ILS19R 1500 20000 100
NO STAR 1500 20000 100

ALTN F-PLN Preparation for KJFK:

1. Dep. RWY in KIAD **19R**
2. For **SID** select **NO SID**
- Set the following WPTs subsequently in DISCONTINUITIES:
ASPER
BAL
MXE
SBJ
FATHO
3. Arrival RWY **KJFK** **ILS 04L**

- LAT REV at KIAD19R, ALTN select and check total alternate distance to KJFK
- Check ALTN F-PLN with enroute chart, if applicable.

SBJ TIME SPD/ALT
FATHO 1500 20000 100
INTCT 1500 20000 100
KRSTL 1500 20000 100
KJFK 1500 20000 100
KIAD19R 1500 20000 100

ALTERNATES FOR KIAD
ALTN KJFK
EXTRA TRK DIST
197

Data not utaded between 2 FCTM revisions

FMGS SYLLABUS (CONT'D)

5 - SECONDARY F-PLN Preparation (departure from a different RWY)



DEPRESS

On SEC INDEX **COPYACTIVE**
 - Notice the active FPLN is now copied to the SEC FPLN (white colour).
LAT REV from SEC FPLN **CYU06L (LSK1L)**
 Select **DEPARTURE**
 Select new DEP RWY on SEC FPLN **06R**
 - Notice the NO SID is kept for this RWY, clear the F-PLN DISC.

Depress twice to re-call SEC FPLN **RETURN**
- Notice DEP R/W/Y on SEC FPLN is **06R** now.

```

SEC INDEX
<COPY ACTIVE      INIT>
<SEC F-PLN

```

```

FROM      TIME      SEC      →
CYL000L  TIME      SPD/ALT  100
EVS000    BRG000°  0NR
1500      TRG000°  0-----
UL        -----
UL01      -----
NAPEE     -----
TIME      SPD/ALT  100
K1019R    503      0-----

```

6 RAD NAV Page Entries



DEPRESS

- Identify on ND by using EFIS control panel selections (NAV mode, range and WOR - ADF selections).
- Check **VORs** (WOR2 **YJN** - i.e. RAD **267°** for abm N4PEE), **ILS06L** and NDBs set and check **UL (1)** and **UL (2)** for check.

```

RADIO NAV
VORT/FREQ      FREQ/FREQ
YUL/110.38     115.00/YULN
CRS             CRS
[ ]             [ ]
ILS /FREQ
YUL/109.38
CRS
009
ADF1/FREQ      FREQ/ADF1
UL 240.8       [ ] 337 [ ]
+ADF1 BFO

```

7 - INIT B page entries (Gross Weight and CG initialisation)



DEPRESS

ZFW CG / ZFW type and enter 28.0/56.0 [%/t]

BLOCK fuel type and enter **10.0** [t]

- Notice, check and/or modify the fuel, time and weight calculations based upon entries.

INIT		→
TASK	SPACE/	SPS
6.2	28.0/	56.0
TRIP/TIME		BLOCK
3.1/0119		10.0
ETE	952/5	
0.0/5.0		
ALT/TIME		TOW
1.3/0040		67.8
FINAL/TIME		LS
1.2/0030		62.7
EXTRA/TIME		
4.0/0130		

8 - PERFORMANCE Page Data Entries



DEPRESS

V1 - VR - V2 type and enter..... 152 - 152 - 152 [kt]
TRANS ALT check18000 [ft]
THR RED/ACC std noise 1600/3100
T/O SHIFT set in [m] NO

FLAPS/THS type and enter	2/1.0 UP
FLEX temp type and enter	60 [°C]
ENG OUT ACC check	1600
Characteristic speeds	CHECK
NEXT PHASE	SELECT
CLB phase	CHECK
SPEED pre-set	230

- Check all PERF phases by **NEXT PHASE** selection.

```

      TAKE OFF
V1    FLP      RUY
152   F=150    06L
VF    SLT RETN TO SHIFT
152   S=157    INT [ ] *
VS    0=157    FLD 2/THS
152   0=157    2/UP1.8
TRANS ALT    FLEX TO TEMP
10000                                50°
THR RED/ACC  ENG OUT ACC          1000
1000/3100                                PHASE>

```

ACT MODE CLB
SPD 230 TIME 0120 BEST EPOR 6.6
C1
30
CCOM
*230
230
PRCV NEXT
<PHASE PHASE>

FMGS SYLLABUS (CONT'D)

Wind Entries:

- Select INIT page A. Press LSK5R. Notice the HISTORY wind is presented.
- Modify the wind for the flight. Enter the upper wind as presented in the image.
- Notice, after the first entry the name of the page is modified and HISTORY disappears.
- INSERT and check F-PLN page B for the wind propagation sequence calculation and prepare DES FORECAST page.

```
FROM AIR320 →
CYL0BL EF08 HIND
9.0 120°/000
CRZ055 9.7 120°/007
TRK264 9.0
UL 9.6 100°/022
CRZ0 9.4 120°/027
LL01 9.0
TEST TIME DIST EF08
KIAD19R 0127 503 6.3
```

```
LL01 EF08 HIND
9.4 077°/015
NAPEE 9.1 152°/030
J507 TRK193 9.0
PLB 9.6 192°/044
CRZ0 9.3 210°/050
J507 9.0
LAGGS 9.2
TEST TIME DIST EF08
KIAD19R 0127 503 6.3
```

```
WIND
120°/025 FL50
150°/030 FL100
180°/040 FL200
210°/050 CRZ FL
FL350
INSERT*
```

```
DES FORECAST
HIND / ALT ] CAB RATE
[ 3°/ [ 3°/ [ ] IFT/HND
[ 3°/ [ 3°/ [ ] -350
[ 3°/ [ 3°/ [ ]
<RETURN
```

OTHER CHECKS AND ENTRIES

PROGRESS page checks:

- Call PROG page and check the CRZ FL entered in INIT A versus OPT and REC MAX FLs.

OPT FL is a function of the C.I.

REC MAX is a function of the buffet margin calculation (0.3 g).

FUEL PRED page checks and entries:

- Call FUEL PRED and check fuel calculation for Destination and Alternate. Set average wind for CRZ and ALTN, if applicable.
- Notice, any wind entry at a certain WPT will cancel the average wind entry.

```
CRZ FL350 TO AIR320
OPT FL370 REC MAX FL383
BRG / DIST TO [ ]
UPDATE AT
* [ ]
VORT/FREQ HIGH FREQ/VORT
YUL/116.30 116.50/YUL
```

```
FUEL PRED
KIAD TIME EF08
0127 6.3
KJFK 0207 4.9
CRZ WIND 210°/050
ALTN WIND 000°/000
```

DATA checks:

- Call DATA, notice there is only one page available.

STORED WAYPOINTS **SELECT**

- Notice, just 1 WPT is stored (LL01).

Call DATA **AC STATUS** **SELECT**

- Confirm on AC STATUS, 1 WPT, created by crew, was entered.

Call DATA **POSITION MONITOR** **SELECT**

- Notice, a couple of positions and the IRS drift are available for check.
- The prompt SEL NAVAIDS is available for NAVAID and GPS de-selection.

Call DATA **GPS MONITOR** **SELECT**

- The parameters of the 2 GPS sensors (hybrid function in this case - no GPS PRIMARY) are available.

```
A320-200
CRZ FL350
NOTICE DATA BASE
8040V-3840V 40001001
SECOND DATA BASE
4000V-8200V
STORED
8040V-3840V
8110V-8040V
DELETE ALL
PERF FACTOR
0.0
POSITION MONITOR
FMS 000 4528.1N/07344.5W
SIRLCP
FMS 000 4528.1N/07344.5W
SIRLCP
CPDR 4528.1N/07344.5W
RIS 000 4528.1N/07344.5W
CRST 1800 1800
NAV 0.0 NAV 0.0 NAV 0.0
<FREEZE NAVAIDS>
GPS MONITOR
SEL POSITION
4528.1N/07344.5W C0
1800.0 "120
1800.0 "120
SEL POSITION
4528.1N/07344.5W C0
1800.0 "120
1800.0 "120
```

Data not utaded between 2 FCTM revisions

FMGS SYLLABUS (CONT'D)

ATC Cleared Destination KIAD via flight planned route. Proceed UL NAFEE after take-off and route as filed. Climb 12000 ft initially. Level change enroute. Expect FL 350.

(TRAINER) COCKPIT PREPARATION FOR TAKE-OFF



ND mode **ROSE NAV**
RANGE **10**
CSTR p/b **ON**
FD check **ON**
ILS p/b **AS RQRD**
YOR ADF sel. **AS RQRD**

FCU target altitude set **12000**
 - Set and crosscheck initial cleared altitude on PFDs.
 Check on **FCU**:
 - **ALT** window displays **12000**.
 - **SPD** and **V/S** windows are dashed.
 - **HDG** window is dashed.

CONFIGURING THE A/C FOR TAKE-OFF

ENGINE MASTERS **ON**
 - Click to the **ON** position.
FLAPS select position **2**
 - Click position **2**.
 - MCDU PF on **PERF** - **PNF** on **FPLN**

READY FOR TAKE-OFF

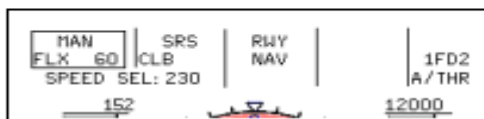
STORE MEMO ICON click. All preparations are memorised.
 With click on **RECALL MEMO**, take-off can be repeated.



TAKE-OFF

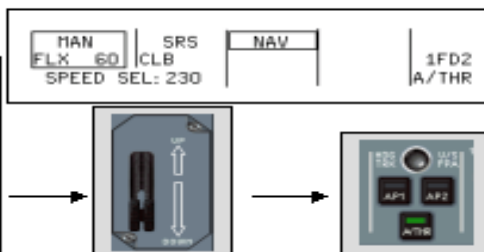
TAKE-OFF POWER select **FLEX**
FREEZE button **CLICK**
 - READ FMA | **MAN FLEX** | **SRS** | **RWY** |
 - Observe **ATHR** in cyan - armed.
 - Notice **SPEED SEL: 230** in cyan for pre-selected CLB speed
UNFREEZE button **CLICK**

Observe the take-off



AFTER LIFT-OFF

- **POSITIVE CLIMB** -
 - **GEAR UP** -
LANDING GEAR **RETRACT**
 - **ENGAGE AP1** - (> 100 ft RA)
AUTO PILOT 1 **ENGAGE**
 - Notice the first mode change on take-off. NAV mode becomes active when a FPLN exists.
 - **NAV GREEN** -



FMGS SYLLABUS (CONT'D)

Crossing **THR RED ALT**:

- LVR CLB - flashing white on FMA.

THR LEVERS **CLB**

- Notice mode changes on FMA.
- THR CLB -
- ATHR WHITE - (ATHR is active now).

Crossing **ACC ALT**:

- CLB - replaces SRS. Managed CLB mode has engaged.

SPEED > F **FLAPS 1**

SPEED > S **FLAPS 0**

Crossing **TRANS ALT**:

BARO REF pull **STD**

- Set and crosscheck **STD** altimeter setting and passing altitude (PFD, EFIS and STBY instruments).
- Notice target SPD **230** kt cyan on PFD.



NOTE:

Target speed 230 kt is displayed on top of the speed scale as long as out of view. It becomes a cyan triangle next to the target speed when in view.

INITIAL CLIMB OUT

ATC Resume normal speed. Recleared FL 200. Proceed to Napee.

To resume normal speed:

SPEED selector **PUSH**

- Notice new speed target is **250** kt now. Target is a magenta triangle on speed scale for defaulted managed SPD below FL100 or 10000 ft.

FCU new target ALT set **20000**

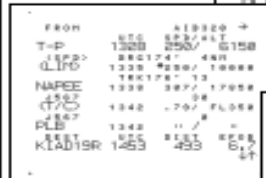
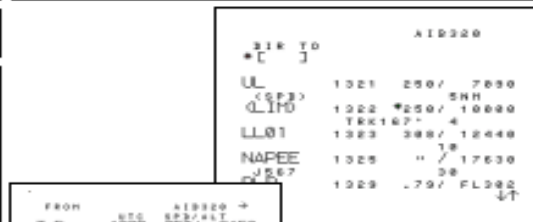
- Check 20000 cyan on top of ALT scale. It cannot be FL since not on STD.



DIRECT TO FEATURE Use of

ATC advised a **DIRECT** to Napee from present position:

- Notice, only the basic DIRECT TO feature is available.
- Activate the DIRECT to Napee with LSKSL or typing Napee in the scratch pad and pushing LSK1L.
- Notice, UL and LL01 are removed and the active mode remains NAV.
- Active WPT is (SPD) (LIM).

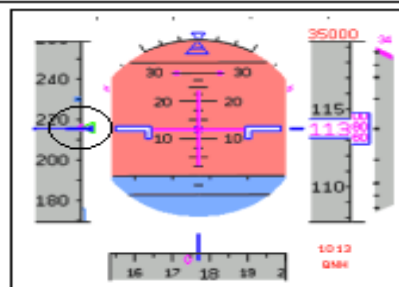


FMGS SYLLABUS (CONT'D)

EXPEDITE CLIMB FEATURE Use of

- ATC advised climbing to FL 350 and **EXPEDITE** passing FL 250:
- On FCU set new altitude target to 35000 and activate expedite climb (**push EXPED**).
 - Active mode is **EXP CLB** now.
 - Managed Speed Target (magenta) is **G-DOT** speed.
 - ALT target is **35000** as still not on STD.
 - Thrust remains THR CLB, which gives max. CLB thrust as before.
 - V/S is achieved as ROC in accordance with max. CLB thrust and appropriate pitch.
 - When passing FL 250 and now on STD, **push/pull** ALT selector and return to normal **ECON CLB** speed.

THR CLB EXP CLB NAV AP1
AL 1FD2
A/THR



RAD 140 DEPRESS

Restore the auto tuning function of the FMGS:

- Clear the manually tuned NAVAIDS, if not needed anymore for navigation purposes (raw data check) in order to recover auto tuning.
- Remember, manually tuned navaids have priority and cannot be received after a certain distance. Auto tuning and radio position updating will be lost. ILS is KIAD 19R.

RADIO NAV
VORT/FREQ FREQ/VORT
PLB/110.00 110.00/PLB
CRS []
ILS/FREQ
ILS/111.00
CRS
100
AP1/FREQ 130 FREQ/AP1
[]/[] 130 FREQ/AP1

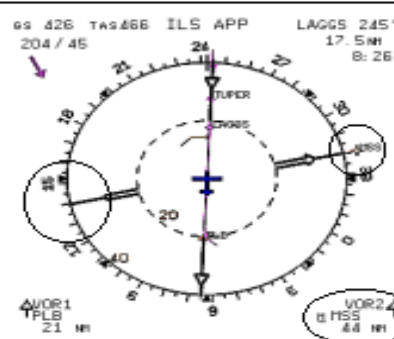
OTHER DIFFERENCES

PROGRESS page check:

- Notice, the REPORT feature (as for LONG RANGE a/c) is not available on this FMGS standard.
- Position report parameters should be received and read out from appropriate FMS pages and EFIS (F-PLN A and B, FUEL PRED, ND and PFD).

POSITION information:

- ATC advised to check passing RAD 140° from MSS VOR.
- Notice, LAT REV at PPOS does not provide FIX INFO feature.
 - Set MSS into i.e. VOR 2 field and check when passing RAD 140°.



STEP CLIMB/STEP DESCENT Use of

- A step CLB to FL 370 is required (check PROG first for MAX REC FL):
One STEP CLB or one STEP DES at any CRZ WPT may be entered.
Call F-PLN **VERT REV** at **TUPER**
STEP PRED prompt LSK4R **PUSH**
In **STEP TO FL370** **ENTER**
INSERT LSK6R **SELECT**
Check F-PLN for predictions. Steps at Geographical WPTs are available only. When reaching the STEP WPT, pull or push the ALT selector for CLB or DES activation. STEP is deleted, if not activated on passing.

STEP AT TUPER
MSS TO
FL370
MSS
ALT STEP FL
140/1300
(RETURN) INSERT

PROG
PLB 0515 0515/FL370
LSS 1000 1000/FL370
TUP 1000 1000/FL370
CRZ 1000 1000/FL370
CTD 1000 1000/FL370
VSD 1000 1000/FL370
KINDOR 1000 1000/FL370

FMGS SYLLABUS (CONT'D)

**ALT HOLD function vs
PUSH TO LEVEL OFF**

- EXPED p/b available in place of ALT HOLD p/b.
- PUSH TO LEVEL OFF is available through V/S or FPA selector. When pushed gives whether V/S +0 or FPA +0.0.



CRUISE PHASE

- Upon reaching **CRZ** altitude **FL350** notice FMA mode changes to - MACH | ALT* - and when ALT capture is completed to - ALT CRZ -.

MACH | ALT CRZ | NAV | AP1
1FD2
A/THR

ATC

Company order to return to CYUL.

Proceed PLB YUL. Descent to 15000 ft on QNH 1013. Expect LOC BAC CRS RWY 28.

DIRECT TO

DIR DEPRESS

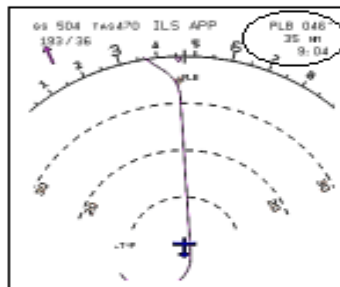
- Observe MCDU FPLN. DIR TO field is displayed.

FPLN **SLEW**

- When PLB visible on MCDU FPLN page:

PLB **SELECT**

- Or **type** PLB and enter.
- Notice changes on FPLN and on ND. **T-P** is PPOS on FPLN and all WPTs have been removed. Predictions are made for PLB now.
- No mode changes on FMA.



FROM: 0556 175/11350
PLB: 0556 175/11350
YUL: 0556 175/11350
---F-PLN DISCONTINUITY---
TURF: 0556 175/11350
K15130 1555 1555 1555
NEW CRZ ALT-15000

LAT REV at **PLB**
Type and enter into NEXT WPT field **YUL**

- Temporary F-PLN is created

LSK6R push **INSERT**
- Observe the F-PLN DISCONTINUITY.

DESCENT WIND ENTRY

PERF **PUSH**

- Notice CRZ phase is still active.

DES FORECAST **SELECT**

- Access only available, if DES phase not yet active.

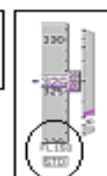
120/20/50 **ENTER**

DES FORECAST
120/20/5000
C 3"/E 1"/C 3
C 3"/E 1"/C 3
C 3"/E 1"/C 3
<RETURN

DESCENT INITIATION

On FCU select **15000**
ALT sel. **PUSH**
THR IDLE | DES **CHECK**
FL150 on PFD **CHECK**

THR IDLE | DES ALT | NAV | AP1
1FD2
A/THR



Data not utaded between 2 FCTM revisions

FMGS SYLLABUS (CONT'D)

9 - APPROACH Preparation for CYUL LOC BAC CRS RWY 28

1 CHECKING OR ENTERING AN ARRIVAL

MCU on FPLN page:

LAT REV at PLB
NEW DEST set CYUL
LAT REV at CYUL
ARRIVAL SELECT
- Select BAC28 with ABC28 arrival.
RETURN SELECT

LAT REV from CYUL28
45° 07' 30" / 073° 12' 30" ARRIVAL
NEXT OPT 1
<ALTN
<RETURN

ARRIVAL TO CYUL +
ABC28 - VCA ABC28
TIME AVAILABLE TIME TRANS
+ANT28
+CED28
<RETURN

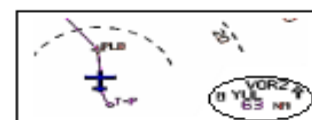
2 NAV ACCURACY CHECK

NAV ACCURACY CHECK does not apply with GPS PRIMARY. If not, the FMGS calculated position has to be validated with raw data.

PROG page CALL
TYPE and enter VOR2 YUL
- Notice PLB WOR is currently auto tuned.
TYPE and enter to BRG/DIST YUL
VOR2 on ECP SELECT
NAV ACC VALIDATE
- Check and compare FMGS position with VOR raw data position on ND. ACC HIGH is confirmed, if DIST difference is 1 NM or less. Rely on FMGS.



BRG / DIST
360° / 63.4 TO YUL



3 LANDING PERFORMANCE

PERF page CALL
NEXT PHASE SELECT
QNH type and enter 1013
TEMP type and enter 15
WIND type and enter 270/15
TRANS ALT check 18000
MDA type and enter 620
VREF (VLS) and VAPP CHECK
NEXT PHASE SELECT
GO AROUND parameters MODIFY
- Modify THR RED/ACC and EO ACC ALT, if applicable.

REST APPR FINAL
1013 FLY PATH BAC28
1500 ALT 1500
1500 S=1500
BAC28
270°/15 0=1500
TRANS ALT L30 CONF
10000
VAPP 150 FULL
1000 NEXT
<PHASE

GO AROUND
FLY PATH
F=1500
ALT 1500
S=1500
0=1500
THR RED/ACC ENG OUT ACC
1000/3100 1000
<PHASE

4 NAVAIDS FOR ARRIVAL

RADIO NAV page CALL
- Tune and identify appropriate NAVAIDS for arrival. Select in a useful manner that VOR1 and ADF2 may be used at the same time, if applicable.
- Don't do it too early whereas you may still need enroute NAVAIDS
- Check ILS for the correct CRS (284°) in this case.

RADIO NAV
VOR1/FREQ 101.30 VOR2/FREQ 118.20
VOR1 CRS 3 VOR2 CRS 3
VOR1/FREQ 101.30 VOR2/FREQ 118.20
VOR1 CRS 3 VOR2 CRS 3
VOR1/FREQ 101.30 VOR2/FREQ 118.20
VOR1 CRS 3 VOR2 CRS 3
ADF1 BFO ADF2 BFO+

FMGS SYLLABUS (CONT'D)

ATC Proceed to PLB NAPEE for standard LOC BAC CRS approach RWY28 and descent to 3000 ft on QNH 1013.

10 - DESCENT AND APPROACH to CYUL

BARO REF check **1013**
FCU ALT set and push **3000**

Check FMA for - THR IDLE or THR DES | DES -,
Check PFD for - 3000 BLUE - and - ALT - BLUE (FMA).

- In order to replace the (DECEL) point upstream for a stabilized Non Precision Approach, enter at EBGUR the VAPP 128 kt in this case.
- The automatic engagement of the approach phase should be monitored.

APPR C/L **COMPLETE**

THR DES	DES	NAV	AP1
	ALT		1FD2
		MDH 620	A/THR



FROM	UTC	ATIS	→
ABCOT	1343	232/	7400
NAPEE	1344	232/	0500
(DECEL)	1347	232/	0500
EBGUR	1348	232/	0500
APPR	1349	232/	0500
GAUL1	1350	232/	0500
CYUL28	1351	232/	0500

NAV ACCURACY CHECK

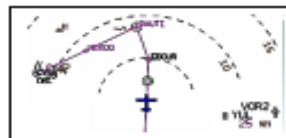
At convenient distance to the airport (upon arriving TMA or within) another navigation **accuracy** check should be done. Not required with GPS PRIMARY, if applicable.

PROG page **CALL**
CHECK or **ENTER** **YUL** (for tuning)
- VOR1 or VOR2

CHECK or **ENTER** to BRG/DIST **YUL**
ON ECP select **VOR1** or **VOR2**
ON ND select **ARC** or **NAV** mode

- Check and compare FMGS position with VOR raw data position on ND. ACC HIGH is confirmed, if DIST difference is 1 NM or less. Rely on FMGS HIGH NAVIGATION ACCURACY and on MAP.

BRG / DIST	TO YUL
232° / 24.6	



ATC Cleared for LOC BAC CRS approach RWY 28.

LOC BAC CRS APPROACH AND LANDING

PERF page **CALL**
ACTIVATE APPR PHASE **SELECT AND CONFIRM**
- Or wait until passing DECEL point and activate or monitor auto activation (for conditions refer to FCOM VOL4).
- Notice PERF APPR phase becomes active. Target speed is VAPP.
APPR modes on FCU **DO NOT ARM**
TRK FPAFD mode **SELECT**
ILS p/b turn to **ON**
FMA **CHECK**

SPEED	ALT	TRACK	AP1
			1FD2
		MDH 620	A/THR

Should read in this case SPEED | ALT | TRACK
At **G-DOT** speed select **FLAPS1**

DESP	APPR	FINAL
0500	FLP. REEF	BAC28
1013	F=150	
TRF	SLT. REEF	HB
15	S=165	620
EAC WIND	0=195	
270°/015		
TRANS ALT	LDG CONF	
10000	CONF2*	
VAPP	123	FULL
120		REST
		PHASE>

FMGS SYLLABUS (END)

FINAL APPROACH

LOC function **DO NOT ARM**
Localizer interception **MONITOR**
 - Intercept the LOC BAC CRS with TRACK and ILS ROSE mode selected
AT 5 SPEED select **FLAPS 2**
LANDING GEAR select **DOWN**
GO AROUND ALT on FCU check **3000**
IN SEQUENCE select **FLAPS3**
 **FLAPS FULL**
 - Check speed prior to select configurations.
 - Monitor short final and landing phase.
FPA - 3.0 **SET and PULL**
NIKOO at 2100 ft manage **PASSING**
R 327 YJN 3 NM to MAP **PASS at 1300 ft**
MINIMUM **MONITOR**
AT 70 ft above MINIMUM **PUSH TO LEVEL OFF**
FMA **CHECK**

SPEED | FPA-3.0° | TRACK | AP1
MDH 620 1FD2
A/THR



GO AROUND

NO VISUAL REFERENCE at MINIMUM - DECIDE

GO AROUND - FLAPS

Select **TOGA**
 Select **Flaps one Step**
 Read FMA : **MAN TOGA | SRS | GA TRK**
 At positive Climb **GEAR UP**

FREEZE **CLICK**

REPEAT any sequence needed, if not **QUIT**

MAN TOGA | SRS | GA TRK | AP1
ALT | 1FD2
A/THR

SESSION COMPLETED

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NOTE : *Instructors' FCTM includes the "Session Guides"*

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CCQ N1 FBS TAKE-OFF DATA

INIT PAGE			ATIS
CO RTE	FROM TO	TRIP DIST	RWY 06 L / 06 R
			WIND 120°/210 kt
ALTN/CO RTE		CRZ WIND	VISI CAVOK
			CEILING
FLT NBR		ALTN	TEMP 15°C
			DEW POINT . 11°C
LAT	LONG	ALTN DIST	QNH 1020 hPa/30.12 inHg
			QFE 1015 hPa/29.97 inHg
COST INDEX		FLT to ALTN	RWY COND.. DRY
			Observations. : AIR COND ON
CRZ FL/TEMP	TROPO		
INIT NEXT PAGE	PERF PAGE	T/O FLAPS	NOTE :
ZFCG/ZFW	IAE CFM		F/PLN :
	V1		CYUL 06 L - SID DORVAL
28% - 48 t	VR	T/O C.G.	UL - NAPEE - J567 - PLB
28% - 105 600 lb	V2		J29 - SYR - J59 - PSB
	FLEX		J61 - EMI
BLOCK	DRT		KIAD ILS 19 R
			ALTN : KIAD - SID CAPITAL
16 t			OTT
35 300 lb			V308 - SIE
			STAR CAMRN
			KJFK ILS 04 L

[illegible]

CCQ N2 FFS TAKE-OFF DATA
INIT PAGE

CO RTE

ALTN/CO RTE

FLT NBR

LAT

COST INDEX

CRZ FL/TEMP

FROM TO

LONG

TROPO

TRIP DIST

CRZ WIND

ALTN

ALTN DIST

FLT to ALTN

ATIS

RWY 15 R / 33 L

WIND 180°/10 kt | 300°/10 kt

VISI CAVOK

CEILING

TEMP 14°C

DEW POINT . 12°C

QNH 1020 hPa/30.08 inHg

QFE 1002 hPa/29.55 inHg

RWY COND.. DRY

Observations. : _____

NOTE :

Wind change during session

F/PLN :

 Departure and arrival for current rwy
in use

INIT NEXT PAGE

ZFCG/ZFW

BLOCK

PERF PAGE

IAE

CFM

V1

VR

V2

FLEX

DRT

T/O FLAPS

T/O C.G.

~~TOGA~~

FLEX

~~DRT~~

MALFUNC REF	- CCQ N2 FFS - Normal Operations	-	+
	PF : CM1		
	■ 1 - TRANSIT COCKPIT PREPARATION		
	INIT T/O		
	2 - BEFORE TAKE-OFF CHECK-LIST		
	3 - TAKE-OFF (FLEX) AP FD ATHR		
	4 - CLIMB FL 250		
	5 - STAR MAX RATE OF DESCENT		
	■ 6 - ILS APP AP FD ATHR		
	7 - MANUAL LANDING (USE OF REVERSERS)		
	8 - TAXI 180° ON RUNWAY		
	9 - TAKE-OFF (CROSS WIND) ATHR FPV FPD		
	■ 10 - RADAR VECTORS VOR DME APP (MANAGED - DECELERATED)		
	11 - CIRCLING ATHR FPV FPD		
	12 - LANDING		
	■ 13 - TAKE-OFF (25 KT CROSSWIND)		
	14 - VISUAL PATTERN FPV		
	■ 15 - FINAL APPROACH		
	■ 16 - GO AROUND		
	17 - VISUAL PATTERN		
	18 - LANDING		
	PF : CM2		
	19 - TAKE-OFF (FLEX) AP FD ATHR		
	20 - CLIMB FL 250		
	21 - STAR MAX RATE OF DESCENT		
	■ 22 - ILS APP AP FD ATHR		
	23 - MANUAL LANDING (USE OF REVERSERS)		
	24 - TAXI 180° ON RUNWAY		
	25 - TAKE-OFF (CROSSWIND) AP FD ATHR		
	■ 26 - RADAR VECTORS VOR DME APPR		
	27 - CIRCLING ATHR FPV FPD		
	28 - LANDING		
	■ 29 - TAKE-OFF (25 KT CROSSWIND) AP FD ATHR		
	30 - VISUAL PATTERN FPV		
	■ 31 - FINAL APPROACH		
	■ 32 - GO AROUND		
	33 - VISUAL PATTERN		
	34 - LANDING		
	MICROBURST		
	INIT T/O		
	35 - MICROBURST ENCOUNTERED DURING TAKE-OFF AFTER V1		
	INIT APP 1		
	36 - MICROBURST ENCOUNTERED ON APP - GO AROUND		
	PF : CM1		
	INIT T/O		
	37 - MICROBURST ENCOUNTERED DURING TAKE-OFF AFTER V1		
	INIT APP 1		
	38 - MICROBURST ENCOUNTERED ON APP - GO AROUND		
	INIT T/O		
	39 - AFTER LANDING CHECK-LIST		
	40 - PARKING CHECK-LIST		

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NOTE : *Instructors' FCTM includes the "Session Guides"*

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CCQ F1 FBS TAKE-OFF DATA

INIT PAGE			ATIS
CO RTE	FROM TO	TRIP DIST	RWY 15 R
	LFBO/LFBO	878 NM	WIND 180°/10 kt
ALTN/CO RTE		CRZ WIND	VISI 800 m
			CEILING 250 ft
FLT NBR		ALTN	TEMP 4°C
[Airline ID] 251		LFBD	DEW POINT . 2°C
LAT	LONG	ALTN DIST	QNH 1020 hPa/30.08 inHg
4338.1N	00122.1E	123 NM	QFE 1002 hPa/29.55 inHg
COST INDEX		FLT to ALTN	RWY COND.. WET
30		140	Observations. : AIR COND ON
CRZ FL/TEMP	TROPO		ANTI ICE ON
FL 310 / -47°C	36 090		Visible moisture
			Braking action good

INIT NEXT PAGE	PERF PAGE	T/O FLAPS	NOTE :
ZFCG/ZFW	IAE CFM	2	F/PLN :
39.3% - 50 t	V1		LFBO 15 R
39.3% - 110 000 lb	VR	T/O C.G.	SID LACOU
	V2	35%	SAU - NTS
BLOCK		TOGA	DIN - CAN
14 t	FLEX	FLEX	PTV - NEV
30 800 lb			CMF - MEN
	DRT	DRT	LFBO 15 R

CCQ F2 FFS TAKE-OFF DATA

INIT PAGE				ATIS	
CO RTE	FROM TO	TRIP DIST	RWY 33 L		
			WIND 360°/10 kt		
ALTN/CO RTE		CRZ WIND	VISI 800 m / Snow		
			CEILING 500 ft		
FLT NBR		ALTN	TEMP 2°C		
			DEW POINT . 0°C		
LAT	LONG	ALTN DIST	QNH 1010 hPa/29.81 inHg		
			QFE 992 hPa/29.26 inHg		
COST INDEX		FLT to ALTN	RWY COND.. Slush 6 mm		
			Observations. : AIR COND ON		
CRZ FL/TEMP	TROPO		ANTI ICE ON		
			Braking action medium		
INIT NEXT PAGE		PERF PAGE		NOTE :	
ZFCG/ZFW	IAE	CFM	F/PLN :		
	V1		LFBO 33 L		
28.4% - 48 t	VR		SID FISTO		
28.4% - 105 600 lb	V2		UT210 - LMG		
BLOCK	FLEX		UT258 - MORIK		
	DRT		UT158 - AMB		
10 t			STAR AMB		
22 000 lb			LFPO ILS 26		

AIRBUS INDUSTRIE Training & Flight Operations Support Division A320 FLIGHT CREW TRAINING MANUAL	CCQ A330/A340 TO A320 COURSE ABNORMAL/EMERGENCY COURSE SYLLABI	2.02.05 Page 6 <i>E FQF/G</i> REV 21 MAY 98
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MALFUNC REF	- CCQ F2 FFS - <i>1 Engine Out - Emergency Descent</i>		-	+
	PF : CM1			
	1 - TRANSIT COCKPIT PREPARATION			
	2 - BEFORE START			
	3 - ENGINES START (EXTERNAL ELECTRIC + PNEUMATIC then CROSSBLEED)			
	4 - AFTER START CHECK-LIST			
	5 - TAXI			
	6 - BEFORE TAKE-OFF CHECK-LIST			
	7 - TAKE-OFF - ENGINE FLAME OUT AFTER V1 AP FD ATHR			
	8 - RETURN TO DEPARTURE			
	9 - ILS APP 1 ENG OUT AP FD ATHR			
	10 - GO AROUND			
	11 - RADAR VECTORS TO DOWNWIND LEG			
	12 - ILS APP 1 ENG OUT			
	13 - GO AROUND AT MINIMUM - Restore			
	INIT FL 350			
	14 - PRESSURIZATION FAILURE			
	■ 15 - EMERGENCY DESCENT HIGH SPEED / EXPEDITE P/B			
	■ 16 - RETURN TO DEPARTURE - ALL GEN. FAULT - EMER. ELEC. CONFIG			
	17 - ILS APP			
	18 - LANDING - Restore			
	PF : CM2			
	INIT T/O			
	19 - TAKE-OFF ENGINE FLAME OUT AFTER V1 AP FD ATHR			
	20 - RETURN TO DEPARTURE			
	21 - ILS APP 1 ENG OUT AP FD ATHR			
	22 - GO AROUND - Restore			
	23 - ATC CLEARANCE FL 350 FD			
	24 - ALL ENGINE FLAME OUT FL 100			
	■ 25 - RELIGHT IN FLIGHT - ENG 1 ONLY - UNSUCCESSFUL FOR 2			
	26 - START APU - RELIGHT ON APU BLEED FOR 2			
	INIT FL 350			
	27 - STRUCTURAL DAMAGE			
	28 - EMERGENCY DESCENT AP FD ATHR			
	29 - RETURN TO DEPARTURE			
	30 - ILS APP			
	31 - LANDING - Restore			
	INIT T/O			
	32 - AFTER LANDING CHECK-LIST			
	33 - PARKING CHECK-LIST			
	NOTE 1 : In case of 2 Captain crew,, each Captain must perform the exercises 16,, 17 and 18 as PF			
	NOTE 2 : In case of 2 First Officer crew,, each F/O must perform the exercises 24,, 25 and 26 as PNF			

CCQ F3 FFS TAKE-OFF DATA

INIT PAGE			ATIS
CO RTE	FROM TO	TRIP DIST	RWY 33 L
	LFBO/LFPO	345 NM	WIND 300°/ kt
ALTN/CO RTE		CRZ WIND	VISI 8 km
		280°/40 kt	CEILING 1000 ft
FLT NBR		ALTN	TEMP 14°C
[Airline ID] 253		EDDF	DEW POINT . 10°C
LAT	LONG	ALTN DIST	QNH 1020 hPa/30.08 inHg
4338.1N	00122.1E	279 NM	QFE 1002 hPa/29.55 inHg
COST INDEX		FLT to ALTN	RWY COND.. DRY
30		250	Observations. : AIR COND ON
CRZ FL/TEMP	TROPO		
FL 310 / -47°C	36 090		
INIT NEXT PAGE	PERF PAGE	T/O FLAPS	NOTE :
ZFCG/ZFW	IAE CFM	1 + F	Weather minima for 1st part of each half session :
28.4% - 48 t	V1		Visibility : 10 km
28.4% - 105 600 lb	VR	T/O C.G.	Ceiling : 2500 ft
	V2	26.6%	FPLN :
BLOCK		TOGA	LFBO 33 L
10 t	FLEX	FLEX	SID FISTO - UT210 - LMG
22 000 lb		DRT	UT258 - MORIK
	DRT		UT158 - AMB
			STAR AMB
			LFPO ILS 26

MALFUNC REF	- CCQ F3 FFS - F/CTL : Reconfiguration Laws - Hydraulic										-	+
	PF : CM1											
	1 - TRANSIT COCKPIT PREPARATION											
	2 - BEFORE START											
	3 - ENGINES START											
	4 - AFTER START CHECK LIST											
	5 - TAXI											
	6 - BEFORE TAKE-OFF											
	7 - TAKE-OFF											
	8 - CLIMB 1FL 100											
	■ 9 - FAILURE TO BE IN ALT LAW (YAW DAMP SYS FAULT)											
	10 - APPROACH TO STALL IN LANDING CONFIG (DIRECT LAW)											
	11 - RECOVERY FROM STALL											
	12 - RADAR VECTORS TO ILS APPR											
	13 - LANDING - Restore											
	14 - TAKE-OFF											
	■ 15 - HYD GREEN LOW LVL + YELLOW LOW LVL											
	16 - DUAL HYD LOW PRESS											
	17 - VISUAL APPROACH (ILS ASSISTED)											
	18 - LANDING											
	INIT T/O											
	19 - TAKE-OFF ENGINE 2 FAILURE AFTER V1 (CAT 1 MINIMA)											
	20 - RADAR VECTORS - WEATHER IMPROVES											
	21 - VOR DME APPROACH											
	22 - LANDING											
	PF : CM2											
	INIT T/O											
	23 - TAKE-OFF CLIMB FL 100											
	■ 24 - FAILURE TO BE IN ALT LAW (FACs OFF)											
	25 - APPROACH TO STALL IN LANDING CONFIG (DIRECT LAW)											
	26 - RECOVERY FROM STALL											
	27 - RADAR VECTORS TO ILS APPR											
	28 - LANDING - Restore											
	29 - TAKE-OFF											
	■ 30 - HYD GREEN LOW LVL + BLUE LOW LVL											
	31 - DUAL HYD LOW PRESS											
	32 - VISUAL APPROACH (ILS ASSISTED)											
	33 - LANDING											
	INIT T/O											
	34 - TAKE-OFF ENGINE 1 FAILURE AFTER V1 (CAT 1 MINIMA)											
	35 - RADAR VECTORS - WEATHER IMPROVES											
	36 - VOR DME APPROACH - LANDING											
	INIT T/O											
	37 - TAKE-OFF - ENGINE FIRE AT V1 -15 KT											
	38 - REJECTED TAKE-OFF AND EVACUATION											

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