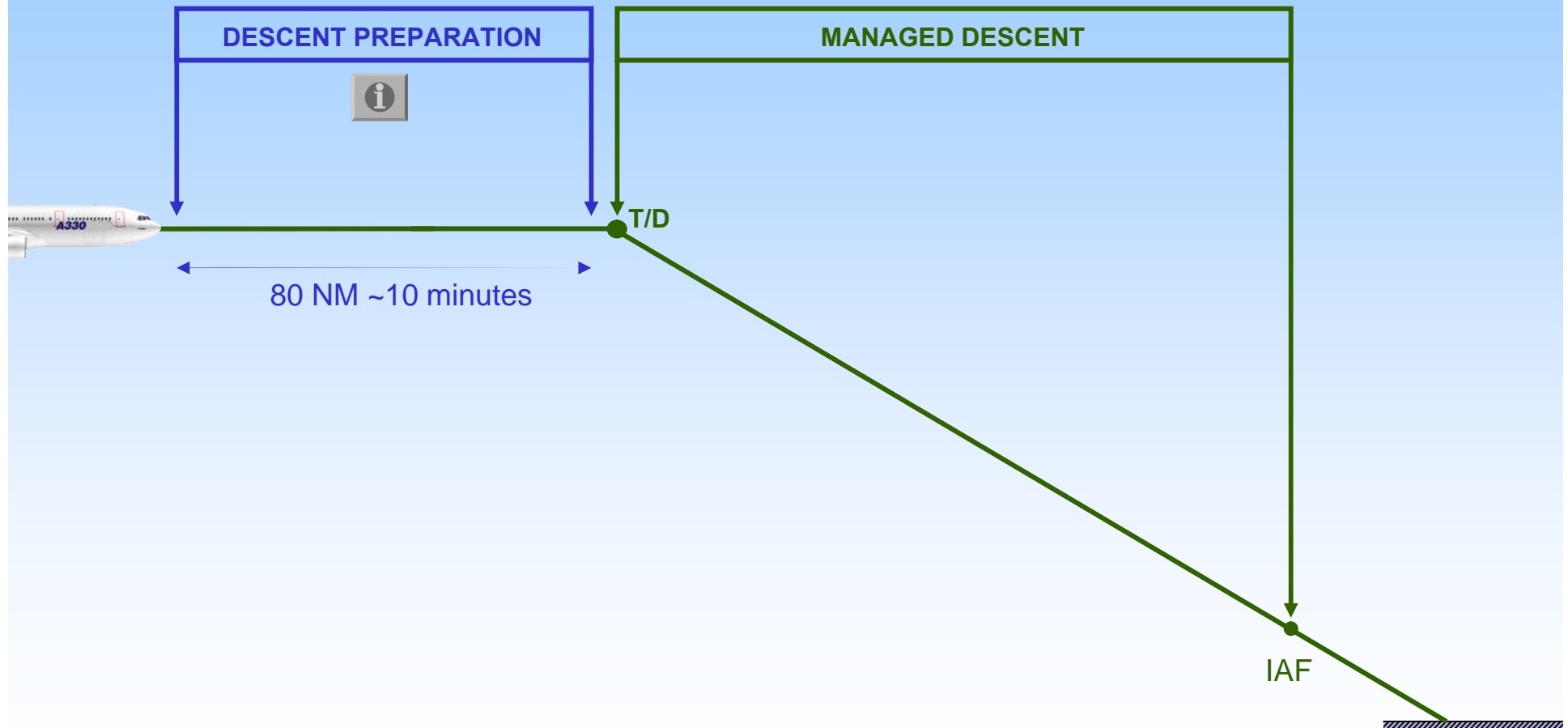


DESCENT PHASE



PF

PNF

1. DESCENT PREPARATION

LDG ELEV AUTO on CRUISE page.....CHECK

FMGSPREPARE 

APPR BRIEFINGPERFORM 

AUTO BRAKE.....AS RQRD 

LANDING DATAOBTAIN

FMGSCHECK

DESCENT CLEARANCEOBTAIN

ANTI ICEAS RQRD

PREPARATION



- The A/C will be guided on a pre-computed descent path based on pilot's entries (Wind, ALT CSTR, SPD...)

PF

PNF

2. DESCENT INITIATION

Early DES 

Late DES 

New ATC clearance : FL 80

FCU ALTSET and MANAGE

FMA



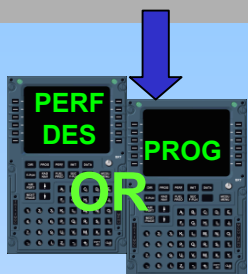
PF



PNF


3. DESCENT MONITORING


MCDUPROG/PERF DESCENT
 DESCENTMONITOR
 SPEEDBRAKESAS RQRD
 RADAR TILTADJUST
 TERR ON NDAS RQRD

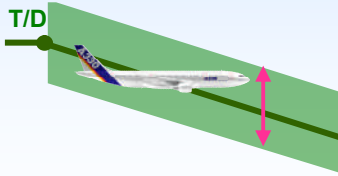
MCDUF-PLN




Monitoring : PFD : V-DEV  

ND : 

SPD Range : 

Vertical Range : ± 50 ft 

WIND : 

AUTO CG CTRL



PF

PNF

4. FL 100

Passing 10 000 feet

EFIS OPTIONAS RQRD

LS pb..... AS RQRD

If GPS PRIMARY not available:

NAV ACCY.....CHECK

1. LAND LIGHTS.....ON

2. SEAT BELTSON/AUTO

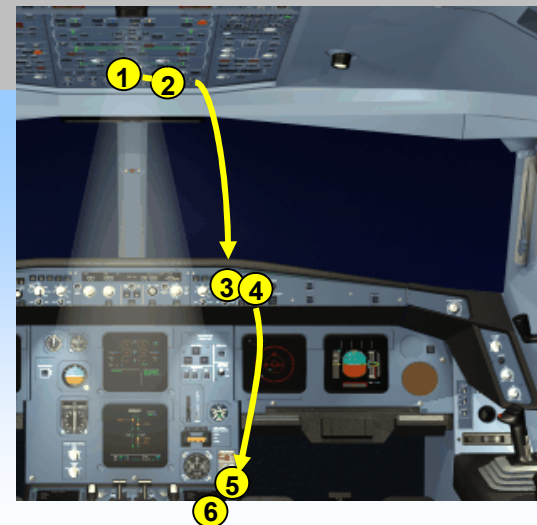
3. EFIS OPTIONAS RQRD

4. LS pb..... AS RQRD

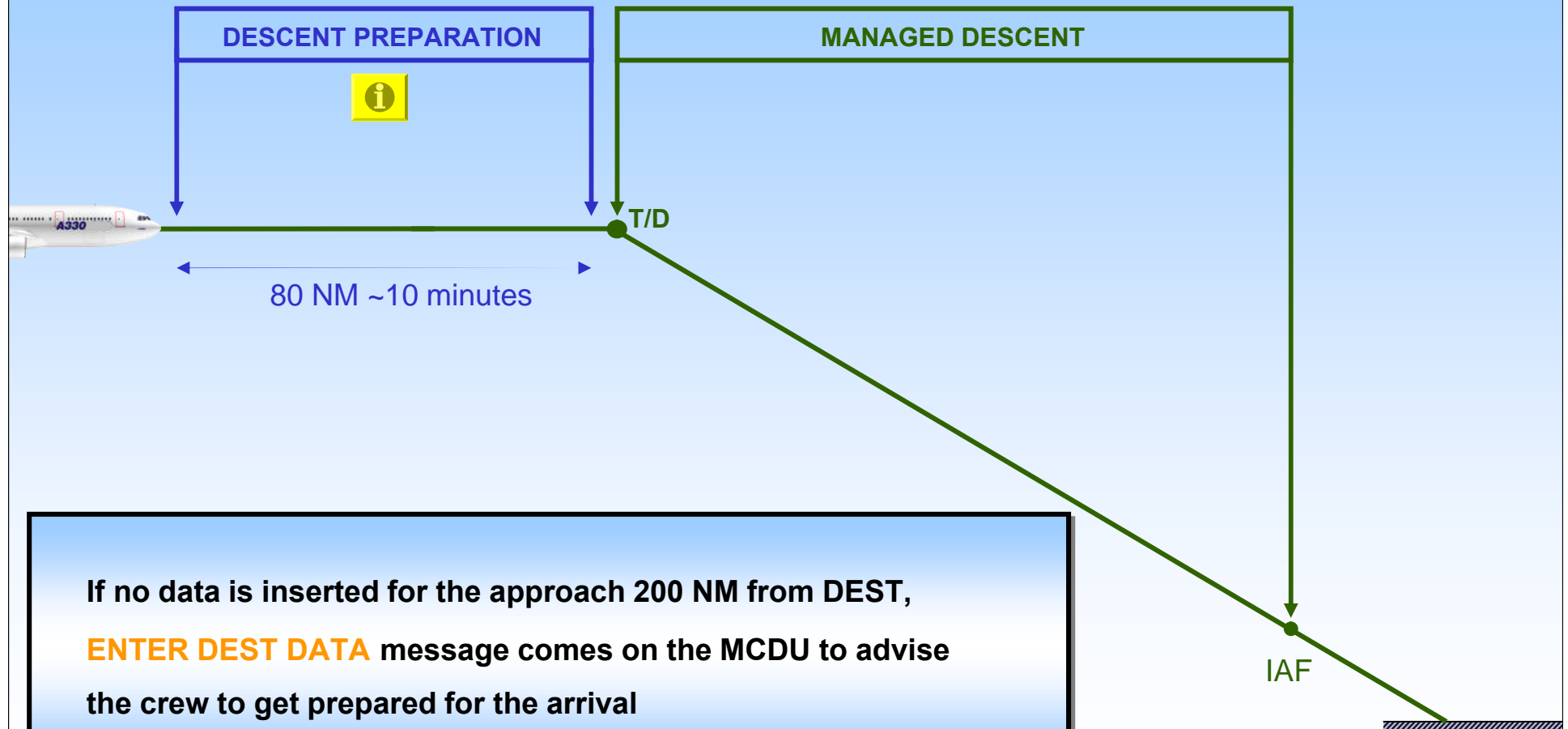
5. RADIO NAV..... SELECT/IDENT 

If GPS PRIMARY not available:

6. NAV ACCY.....CHECK



DESCENT PHASE



If no data is inserted for the approach 200 NM from DEST,
ENTER DEST DATA message comes on the MCDU to advise
the crew to get prepared for the arrival

FMGS PREPARATION



PROG

PERF

If a VOR/DME close to the airfield has been selected:

enter its ident in the BRG/DIST field for NAV ACCY monitoring during descent

PERF APPR page
QNH / TEMP / WIND at dest
MDA / DA
LDG CONF/ TRANS ALT / VAPP

PERF DES page
MANAGED descent speed

PERF GO AROUND page
THR RED ALT / ACC ALT / EO ACC ALT

* For this exercise, enter the winds :

270/50/290
270/50/250
270/50/200
270/30/150
270/10/100

F-PLN

RAD NAV

FUEL PRED

SEC F-PLN

LATERAL REVISION
STAR, TRANSITION
APPROACH RWY
GO AROUND
PROCEDURE
ALTN FPLN

VERTICAL REVISION
WINDS *
SPEED CSTR
ALT CSTR

Set navaids, as required, and,
check idents on the NDs (VOR-ADF) and PFDs (ILS)

Check Extra Fuel, to evaluate holding possibilities at Destination

Copy active, and revise the SEC F-PLN according circumstances:
Alternative approach
Circling
Etc...

APPROACH BRIEFING



1

Weather, NOTAMS,
A/C STATUS

2

FUEL PRED:
Check diversion,
EXTRA fuel, TIME

EXTRA / TIME

3



Descent

- T/D (time, dist)
- Alt and speed constraints
- MSA
- STAR

Approach

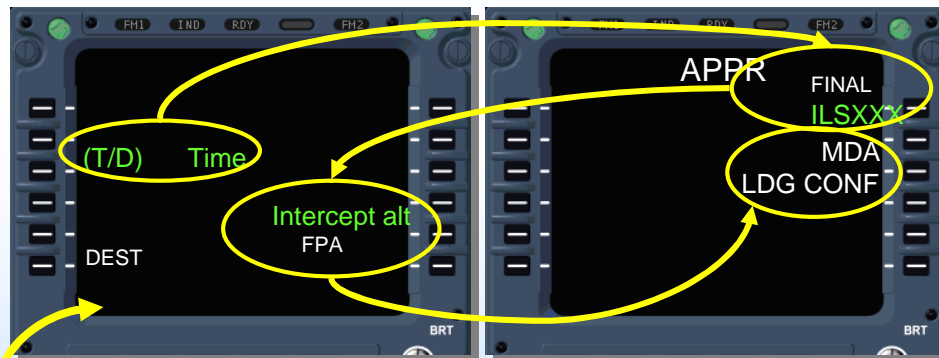
- Approach type
- Minima
- Intercept altitude, FAF
- MDA/DH

Go around

- Missed approach procedure

Landing

- runway lights
- Runway condition, length, width
- Brake to vacate
- Expected taxi instructions



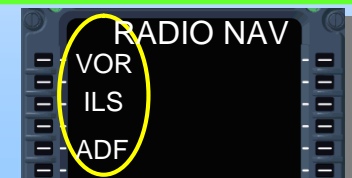
F-PLN page

PERF APPR page

Missed approach proc

4

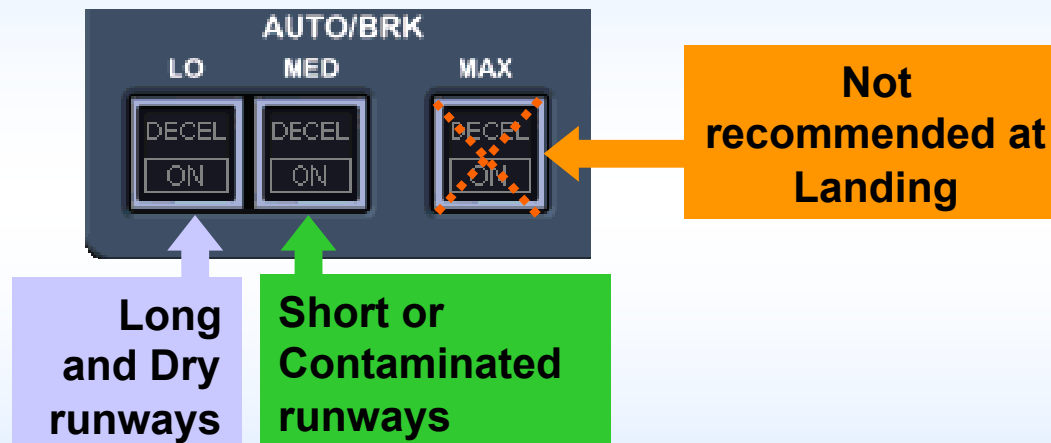
RADIO NAV:
VOR, ILS, ADF





Use of auto brake is recommended...

Press firmly the appropriate pushbutton, according to runway length and condition, and check that the related **ON** light comes on.

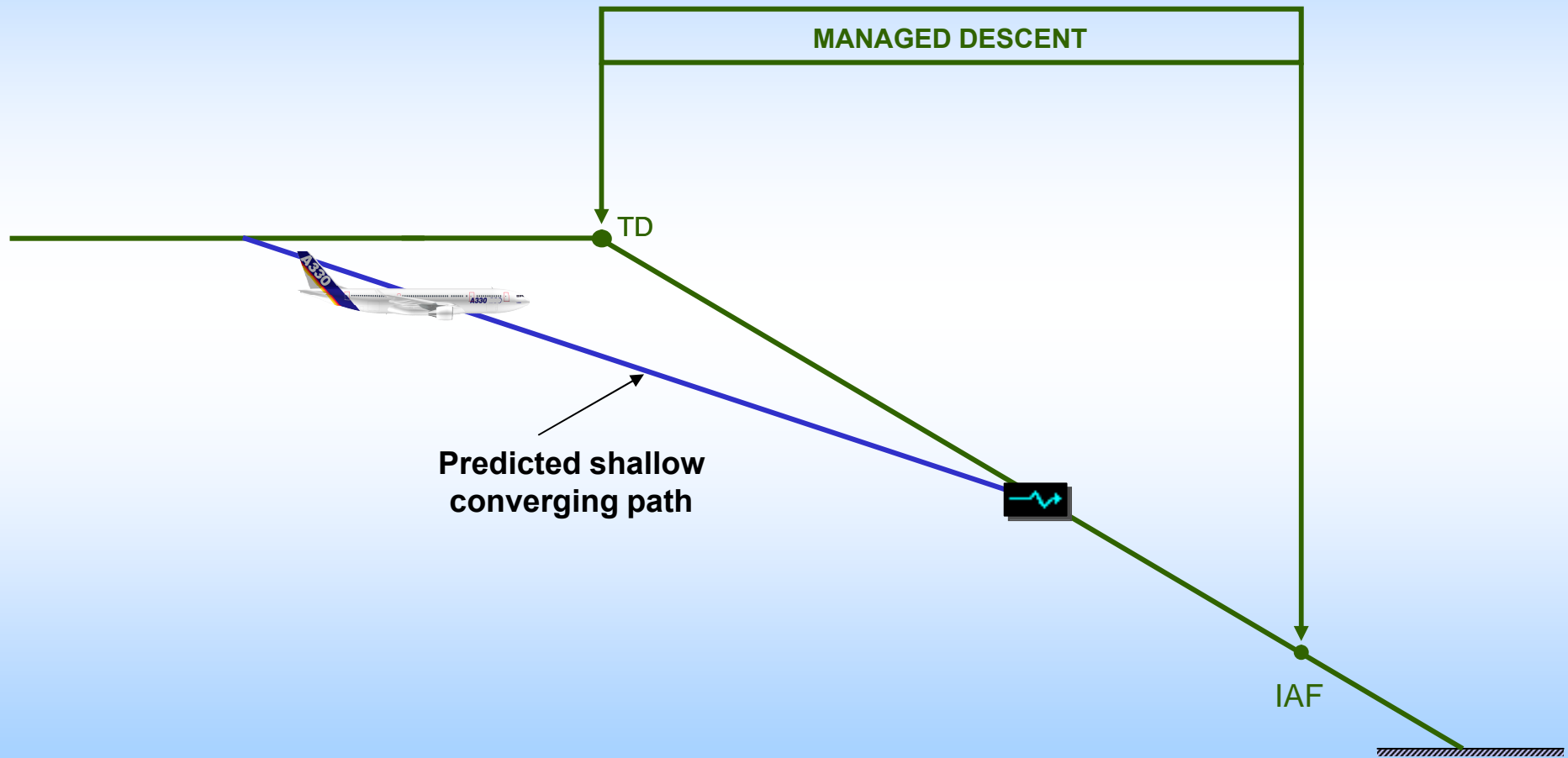


On very long runways, use of the autobrake may not be necessary...

EARLY DESCENT



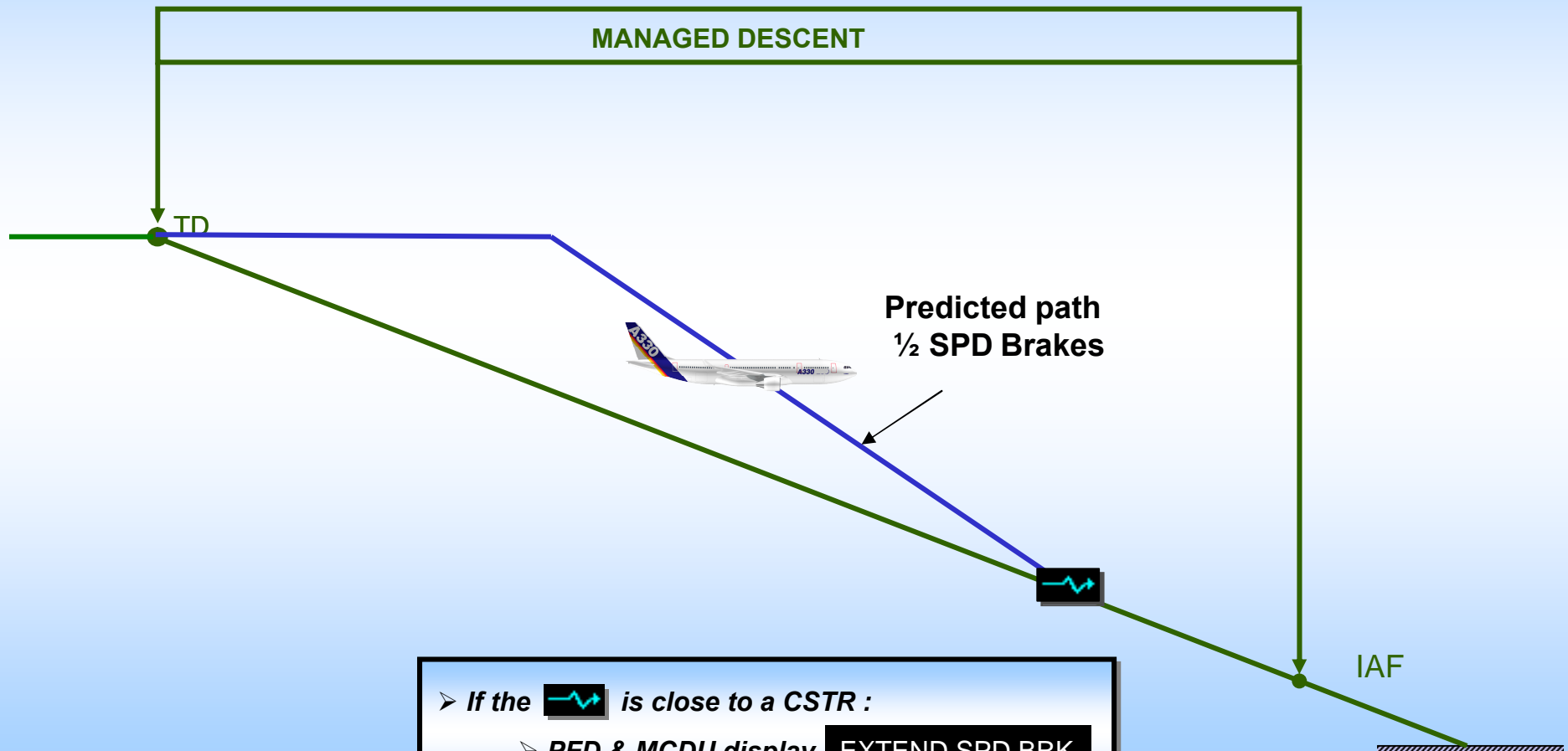
- The SPD decreases toward the lower limit of managed SPD range



LATE DESCENT



- The SPD increases toward the upper limit of managed SPD range

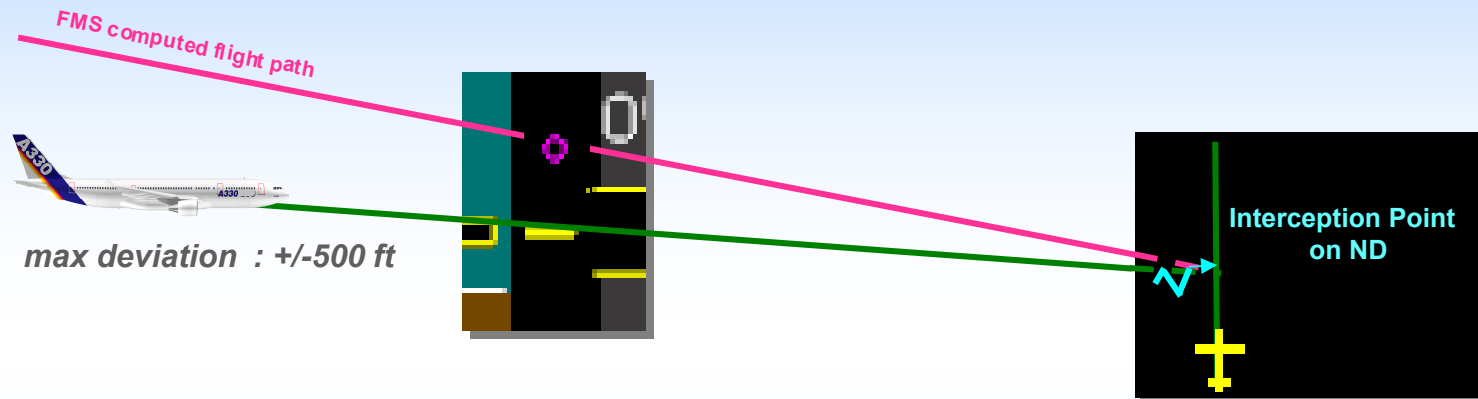


- If the  is close to a CSTR :
 - PFD & MCDU display **EXTEND SPD BRK**



The V-DEV Digital value is given on PROG Page

The « **YOYO** » is displayed on PFD from the T/D → G/S capture

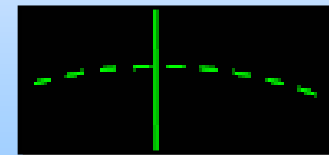


If GPS PRIMARY is not available, V/DEV information is reliable only when the NAV ACCY ckeck is positive

In HDG or TRK mode :

The **ENERGY CIRCLE** represents the required distance to land from the aircraft ALT → ARPT ELEV

➤ Takes into account deceleration down to V_{app}



PF

PNF

4. FL 100

Passing 10 000 feet

EFIS OPTIONAS RQRD

LS pb..... AS RQRD

1. LAND LIGHTS.....ON

2. SEAT BELTSON/AUTO

3. EFIS OPTIONAS RQRD

4. LS pb..... AS RQRD

5. RADIO NAV..... SELECT/IDENT 

RAD NAV



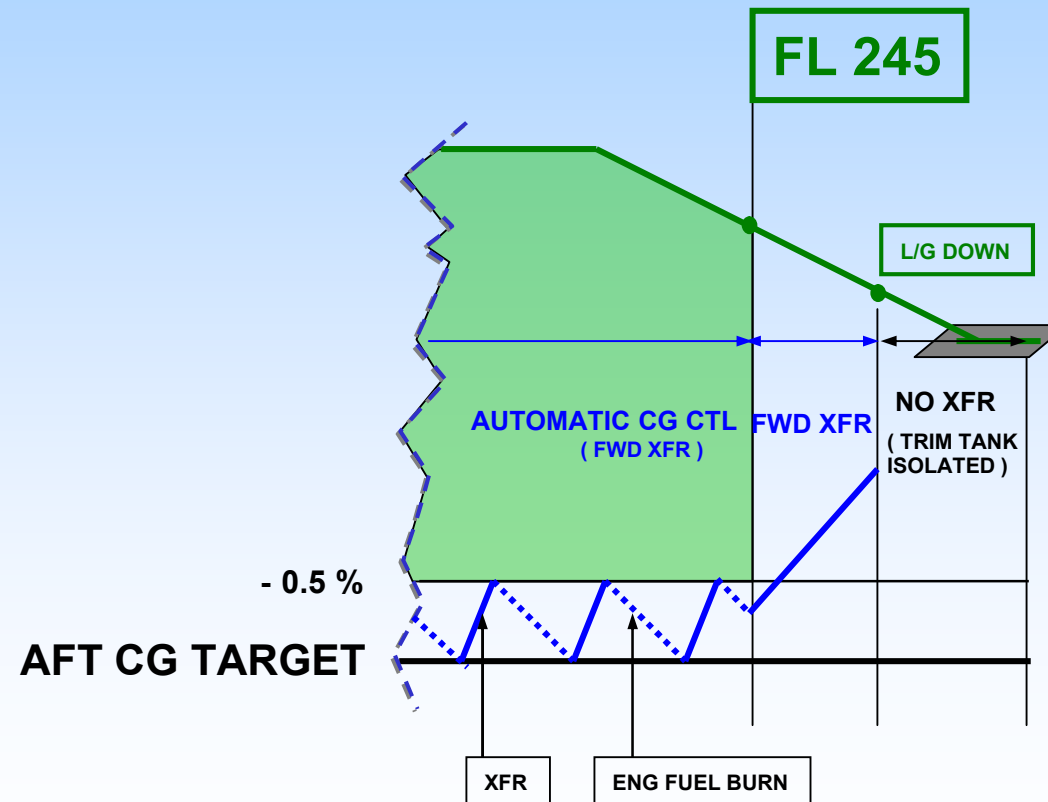
➤ Ensure that appropriate radio nav aids are tuned and identified

AUTOMATIC CG CONTROL

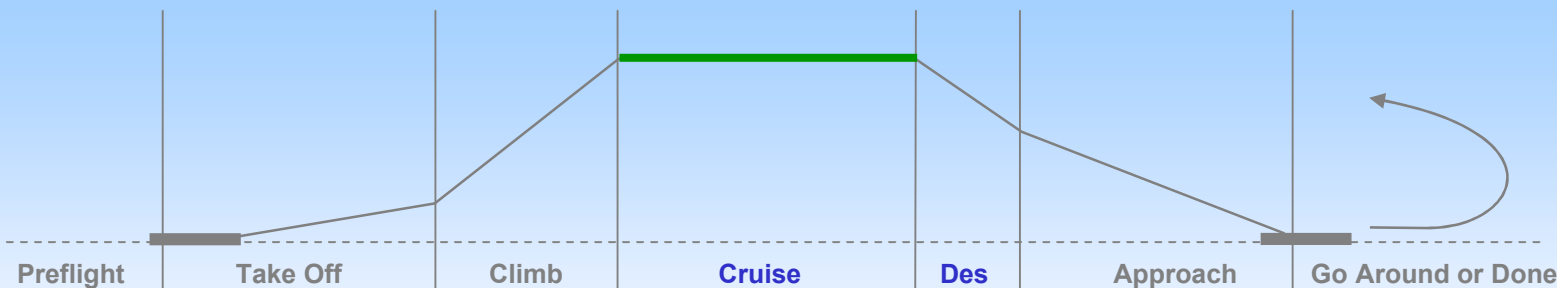


Automatic CG control :

- Begins during *CLIMB* at *FL 255*
- Ends during *DESCENT* at *FL 245*
 - Or When *FMGS Time to DEST* is less than 35 min
(75 min in case of Trim tank FWD XFR pump failure)



FLIGHT PHASE SWITCHING CONDITIONS

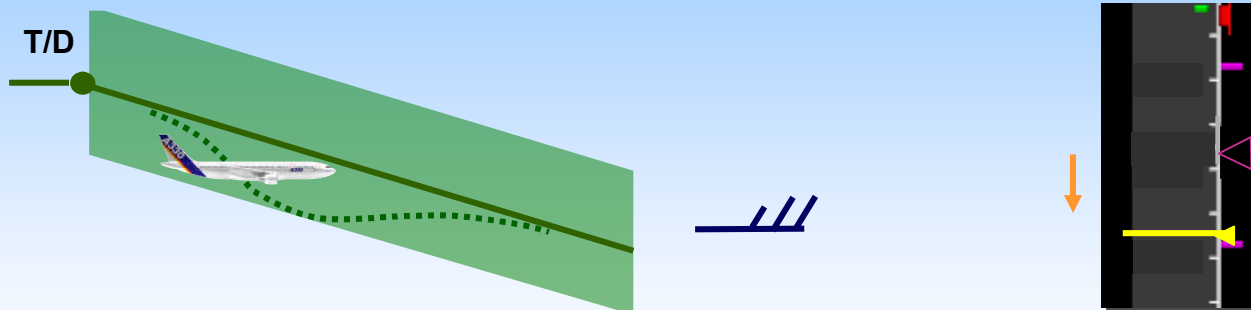


FLIGHT PHASES	OPTIMUM SPEED PROFILE	SWITCHING CONDITIONS TO NEXT PHASE
PREFLIGHT	/	SRS take off mode engaged and N1 > 85% (EPR >= 1.25) or Ground Speed > 90 kt
TAKE OFF	V2 (V2 + 10)	At acceleration altitude or by engagement of another vertical mode
CLIMB	ECON CLB SPD / MACH	Reaching cruise FL
CRUISE	ECON CRZ MACH	At descent initiation (if distance to DEST < 200 NM and no step descent)
DESCENT	ECON DES MACH / SPD	- Over flying (DECEL) pseudo waypoint with NAV (or LOC*/LOC) mode engaged and altitude < 7200 ft AGL - Manual activation of the approach phase.
APPROACH	Vapp (GS Min)	1. To Go Around : when thrust levers at TO.GA detent or 2. To Done: 30 seconds after landing or 3. To Climb: when inserting a new CRZ FL
GO AROUND	Vapp or current SPD whichever is greater. Green Dot at ACC ALT	1. To Approach : Manual activation of the approach phase or 2. To Climb: Above acceleration altitude by - Selecting ALTN or - inserting NEW DEST and CRZ FL
DONE	/	To preflight when INIT or PERF key depressed

WIND

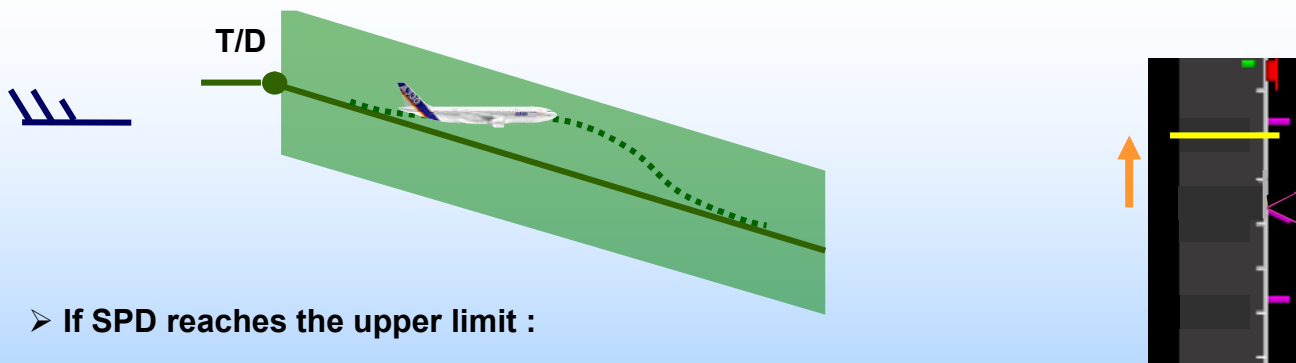


MORE HEADWIND :



➤ *SPEED Range : ± 20 kts, limited to V_{max}*

MORE TAILWIND :



➤ If SPD reaches the upper limit :

- The A/C will maintain the SPD
- It will deviate from FLT path

➤ If  becomes close to a CSTR, PFD & MCDU display :

EXTEND SPD BRK