ECAM PHILOSOPHY

DETECTION

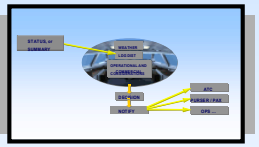
ECAM ACTIONS

ECAM PROCEDURE

SYSTEM DISPLAY (if required)

STATUS

SITUATION ASSESSMENT / DECISION



PF

PNF

1. DETECTION

First pilot who notices:

MASTER CAUTION/MASTER WARNING…….RESET

ANNOUNCE……..…..”TITLE OF FAILURE”

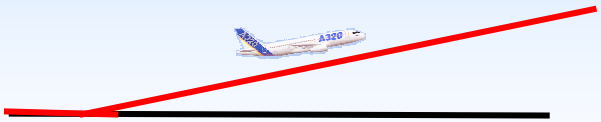
FLIES THE AIRCRAFT

NAVIGATES

CONSIDER AUTOMATION USE : A/THR, AP

- **If failure at takeoff:**

NO ACTION until **400ft AGL** ***, with safe flight path established.***



PF

PNF

2. ECAM ACTIONS

ORDER……”ECAM ACTIONS”

ECAM ……..……..CONFIRM (using SD and overhead panel)

ECAM ACTIONS COMPLETE…….CHECK

CONFIRM…… CLEAR “name of SYS”?

ECAM ACTIONS…….PERFORM

REQUEST……CLEAR “name of SYS”?

ECAM……..CLEAR

This is to be repeated for each failure displayed on the ECAM.

LAND ASAP

Example :

*Task sharing:
As soon as he announced “ECAM ACTIONS”, the PF is in charge of communications, until all the ECAM actions have been completed.

Both pilots should confirm irreversible/guarded actions

PF

PNF

3. SYSTEM DISPLAYS

If a SYSTEM page is displayed on the lower ECAM screen:

CONFIRM…… CLEAR “name of SYS”?

SYSTEM PAGE DISPLAYED…….ANALYSE

REQUEST……...CLEAR “name of SYS”?

SYSTEM DISPLAY……..CLEAR

This is to be repeated until all the displayed system pages have been reviewed, and the STATUS page is displayed.

PF	PNF
	4. STATUS
	REQUEST……..STATUS?
CONFIRM……READ STATUS	STATUS ……..……..READ
	LIMITATIONS……..…..…CHECK PROC……..……..…CONSIDER LANDING DIST&SPEED INCREMENT..CHECK INOP SYS……..…..CHECK
CONFIRM……CLEAR STATUS	REQUEST……CLEAR STATUS ? STATUS……CLEAR ANNOUNCE……ECAM ACTIONS COMPLETED

RETURN TO NORMAL TASK SHARING

Landing distance and approach speed computation:

- **For complex procedures** (dual hydraulic failure or electrical emergency configuration): Use SUMMARY

- **For other cases:**

Review FCOM procedure:

Applying ECAM procedure ensures flight safety.
However, referring to FCOM 3.02, *if time permits*, may provide useful additional information.

PF

PNF

5. SITUATION ASSESSMENT/DECISION

STATUS, or SUMMARY

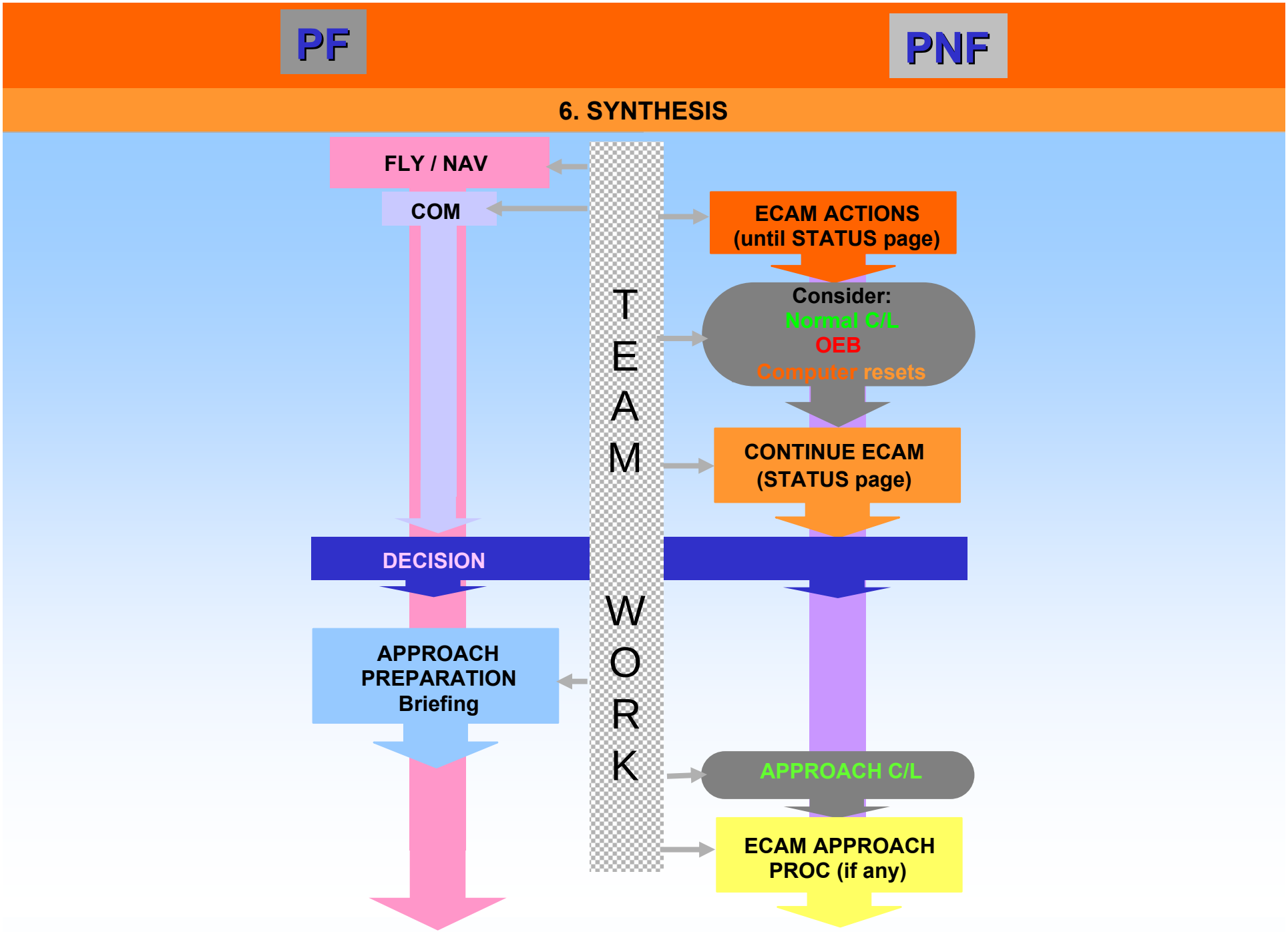
DECISION

NOTIFY

ATC

PURSER / PAX

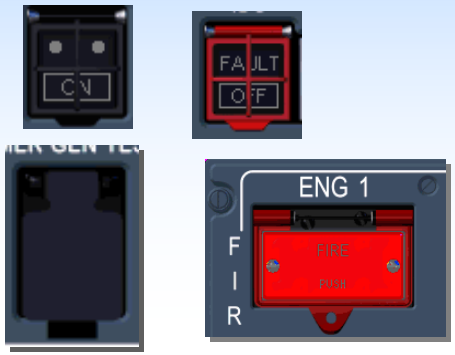
OPS …


PF
PNF
6. SYNTHESIS
FLY / NAV
COM
ECAM ACTIONS
(until STATUS page)
Consider:
Normal C/L
OEB
Computer resets
CONTINUE ECAM
(STATUS page)
DECISION
APPROACH
PREPARATION
Briefing
APPROACH C/L
ECAM APPROACH
PROC (if any)
TEAMWORK

IRREVERSIBLE / GUARDED ACTIONS CONFIRMATION

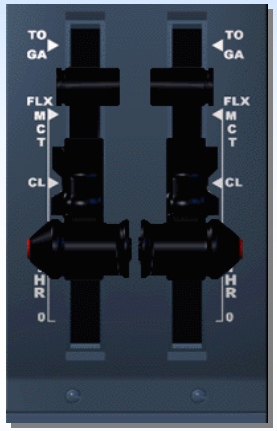
Confirmation from both pilots is required, when the action concerns:

Any guarded switch



Master switch or ADIRS control

Thrust lever is a PF action given that it may influence flight path



How to proceed for confirmation ?

PF	PNF
	Hand on related control:
	REQUEST……..……..CONFIRM ?
ACTION……..…..CHECK	
ANSWER……..……..CONFIRM	ACTION……..PERFORM

How to proceed for confirmation ?

PF	PNF
Hand on related control:	
REQUEST……..……..CONFIRM ?	
	ACTION……..…..CHECK
ACTION……..PERFORM	ANSWER……..……..CONFIRM

PF	PNF

2. ECAM ACTIONS

ORDER……”ECAM ACTIONS”	ECAM ……..……..CONFIRM (using SD and overhead panel)
ECAM ACTIONS COMPLETE…….CHECK	ECAM ACTIONS……PERFORM
CONFIRM CLEAR	REQUEST……CLEAR “name of SYS”?
	ECAM CLEAR

Depending on the failure, **LAND ASAP** , or **LAND ASAP** , may be displayed, in the right column of the ECAM procedure.

RED **LAND ASAP** : Land at the next suitable airport.

AMBER **LAND ASAP** : Assess the seriousness of the situation and consider the selection of a suitable airport.

LANDING DISTANCE COMPUTATION

QRH 2.00

APPR SPD-LDG DIST CORRECTIONS FOR FAILURES

Determine the landing distance coefficient.

LDG CONF – APPR SPD – LDG DIST CORRECTIONS FOR FAILURES		FLAPS LEVER POSITION FOR LDG	APPR SPD : INCREMENT TO VREF (△ VREF)	LDG DIST CONF FULL MULTIPLY BY
SYS	FAILURE A	NORM (1)	–	1.1
	FAILURE B	3	10	1.2

QRH 4.00

LANDING DISTANCE WITHOUT AUTOBRAKE – CONF FULL

Determine the landing distance in CONF FULL without failure

LANDING DISTANCE WITHOUT AUTOBRAKE

The actual landing distance is the distance to come to a complete stop from a point 50 ft above the landing surface. No margin is included in this distance.

CONFIGURATION FULL

ACTUAL LANDING DISTANCE (METERS)									
WEIGHT (1000 KG)	36	40	44	48	52	56	60	64	68
DRY	610	630	660	700	740	800	850	920	990
WET	840	870	920	990	1060	1110	1180	1230	1300

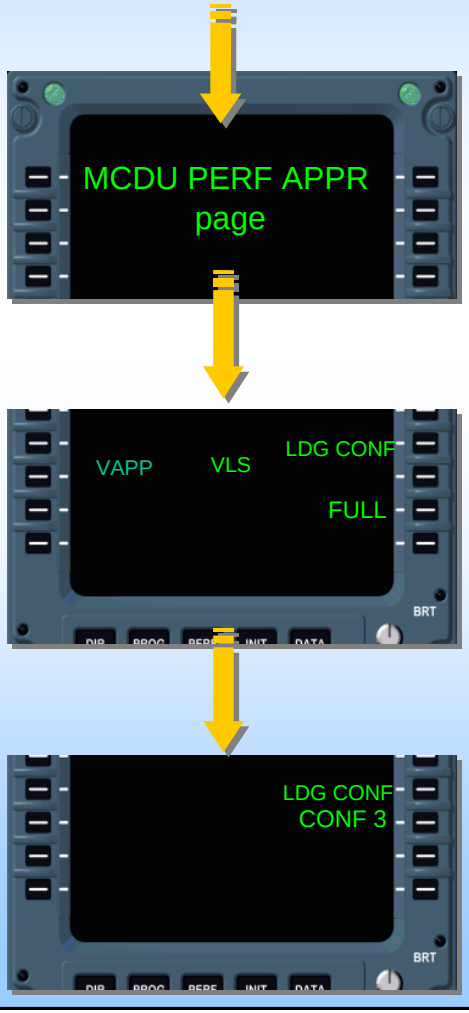
Apply the coefficient determined above to this distance.

(1) If NORM is indicated for landing configuration, and if CONF 3 is used, apply an additional 1.1 coefficient to the landing distance.

APPROACH SPEED COMPUTATION

VAPP = VREF + ΔVREF + WIND CORRECTION (if applicable)

If the ECAM shows :
"APPR SPEED…….VREF+ΔVREF":



- Select CONF FULL
- Read VREF = VLS CONF FULL
- Add ΔVREF to VREF
- Add wind correction, if applicable
- Enter VAPP manually

If LDG in CONF 3 :

- Select CONF 3

ΔVREF is given:

- On the ECAM, and
- On the QRH

WIND CORRECTION	
ΔVREF ≥ 20KT	ΔVREF < 20KT
NO WIND CORRECTION	1/3 HEADWIND (Δ VREF + WIND CORR LIMITED TO 20KT)

Wind correction only applies when ΔVREF is lower than 20 kts.

***Note:** This computation must be done according to the appropriate weight at destination, so, with F-PLN properly updated.*

PF

PNF

4. STATUS

REQUEST……..STATUS?

CONFIRM……READ STATUS

STATUS ……..……..READ

The PNF should not start reading the STATUS before confirmation from the PF.

For any priority reason Status analysis can be postponed by PF
e.g. C/L, ATC communication…

In some cases, some other checks or actions may have to be performed, before reading the STATUS:

- In case of failure at takeoff, the NORMAL TAKEOFF C/L has to be performed
- OEB (if applicable) is to be applied at that time (Refer to QRH 6.00),
- Computer resets may be considered (Refer to QRH 2.00)