

# ***SLATS or FLAPS JAMMED***



# A320 Sequence

 - Why flaps or slats can be jammed

 - How to detect the failure

 - First action to take

 - “ECAM actions” + Status

 - Procedure

# Why flaps or slats can be jammed

- Wing Tip Brake activation

- Dual Hydraulic failure

- SFCC failure

- Handle inop

- ....etc.



# A320 Different Failures

- Failure examples:

Slats locked  
Flaps fault



# First action to take

**Pull & Select appropriate speed!**



# A320 “ECAM actions”

FROM LMC3K AI101 →  
LFB015P TIME SPD/ALT 490  
H145° BRG145° 1NM  
1000  
C145° TRK145° 4  
D145H→ ---/--- 4000  
C357° ---/--- 4000  
TOU ---/--- 10  
LMC3K  
OSKAM  
DEST TIME DIST EFOD  
EGLL --- 632 ↓↑



# A320 “ECAM actions” + Status

FROM AI101 →  
LMG3K TIME SPD/ALT 490  
LFB015P  
H145° BRG145° 1NM  
1000  
C145° TRK145°  
D145H →  
C357°  
TOU  
LMG3K  
OSKAM  
DEST TIME DIST EF00  
EGLL 632



GPWS

QRH

S FLAP F

F-LOCKED

APPR PROC

-FOR LDG ..... USE FLAP3

-GPWS FLAP MODE ..... OFF

APPR SPD: VREF + 25KT

LDG DIST PROC ..... APPLY

ENG1 APPR IDLE ONLY

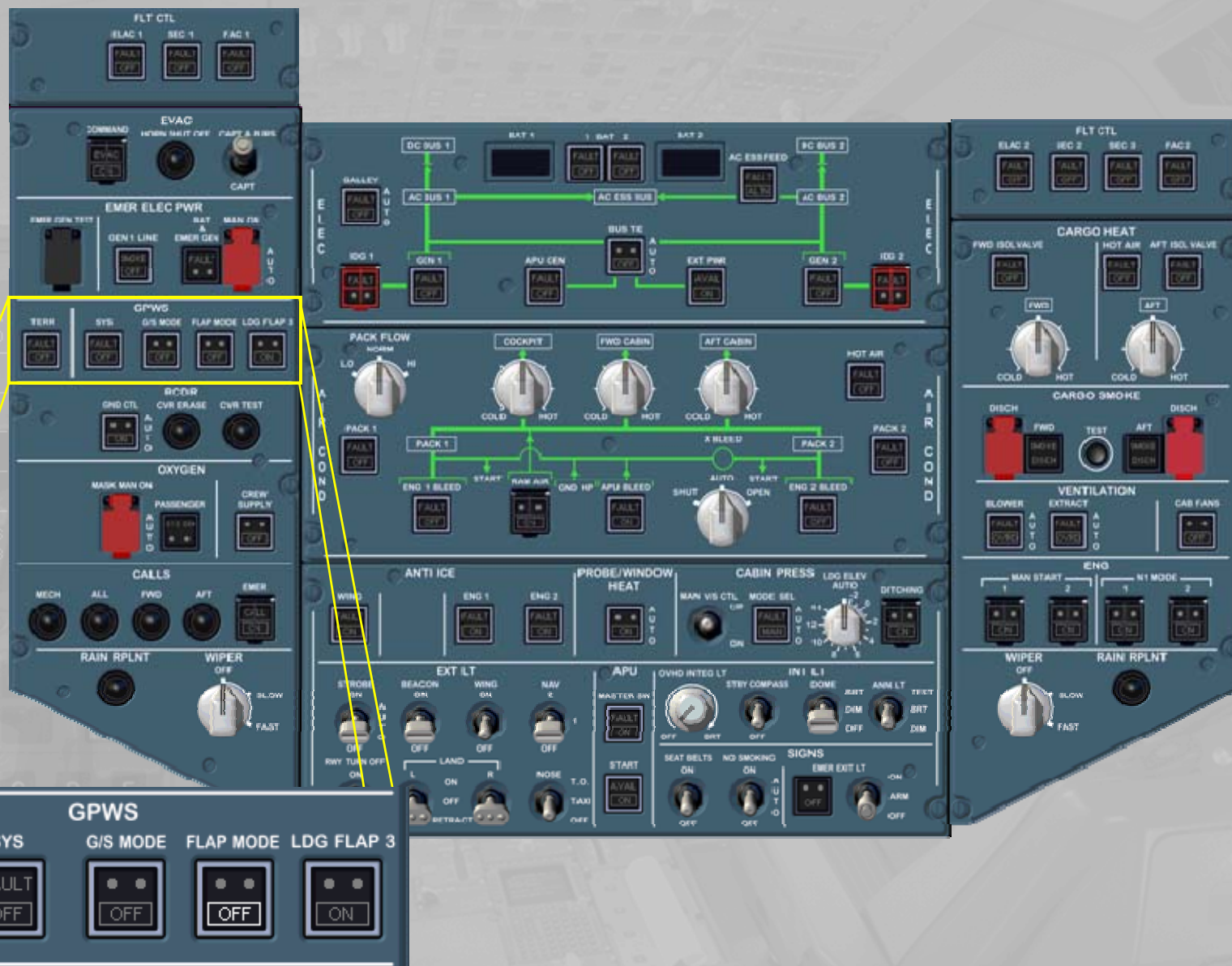
ENG2 APPR IDLE ONLY

LDG DIST PROC ..... APPLY

INOP SYS

FLAPS

# GPWS





# Procedure

 In Flight

 Approach preparation

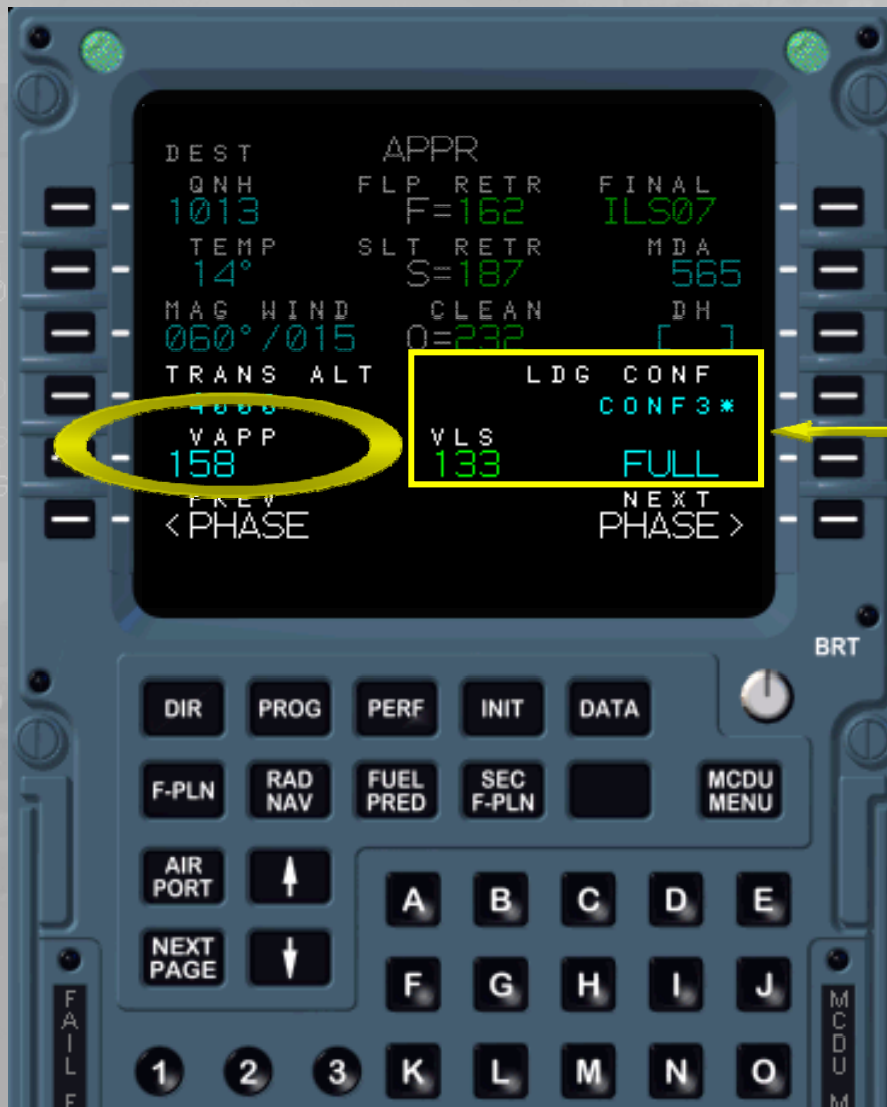
 Approach

 Go Around

 Landing



# In flight



- \* First read the VLS CONF FULL value on the PERF APP page to determine VAPP (or use QRH 2.41).
- \* Then, select CONF 3 on the PERF APP page.

# Approach Preparation

## LANDING WITH SLATS OR FLAPS JAMMED

– LANDING CONF ..... DETERMINE (page 2.25)

### ■ Repeat the following until landing configuration is reached :

– SPEED SEL ..... VFE NEXT – 5 KT

*Decelerate towards VFE NEXT – 5 kt but not below VLS. In case of turbulence, to avoid VFE exceedance, the pilot may decide to decelerate to a lower speed, but not below VLS.*

**NOTE :** . The autopilot may be used down to 500 feet AGL. As it is not tuned for the abnormal configurations, its behaviour can be less than optimum and must be monitored.

. Approach with A/THR and selected speed is recommended.

. OVERSPEED warning and VLS displayed on PFD are computed according to the actual flaps/slats position.

. VFE and VFE NEXT are displayed on PFD according to the FLAPS lever position. If not displayed use the placard speeds.

. If VLS is greater than VFE NEXT (overweight landing case), the flaps lever can be set in the required next position while the speed is reduced to follow VLS reduction as surfaces extend. The VFE warning threshold should not be triggered. In this case, disconnect the A/THR. A/THR can be reengaged when the landing configuration is established.

As speed reduces through VFE NEXT :

– FLAPS LEVER ..... ONE STEP DOWN

### ● When landing configuration is established :

– DECELERATE TO CALCULATED APPROACH SPEED IN FINAL APPROACH

## STATUS

APPR PROC

-FOR LDG. .... USE FLAP3

-GPWS FLAP MODE. .... OFF

INOP SYS

FLAPS

APPR SPD: VREF + 25KT

LDG DIST PROC ..... APPLY

ENG1 APPR IDLE ONLY

ENG2 APPR IDLE ONLY

TAT -33 °C

SAT -53 °C

13 H 28

GW 000000 000



## Example

# Approach

It is recommended to fly a stabilized approach

No use of autopilot below 500 ft



# Go Around

## ■ IF FLAPS FAULT

### ● FOR CIRCUIT :

- MAINTAIN SLATS/FLAPS CONFIGURATION
- Recommended speed : MAX SPEED – 10 KT

### ● FOR DIVERSION :

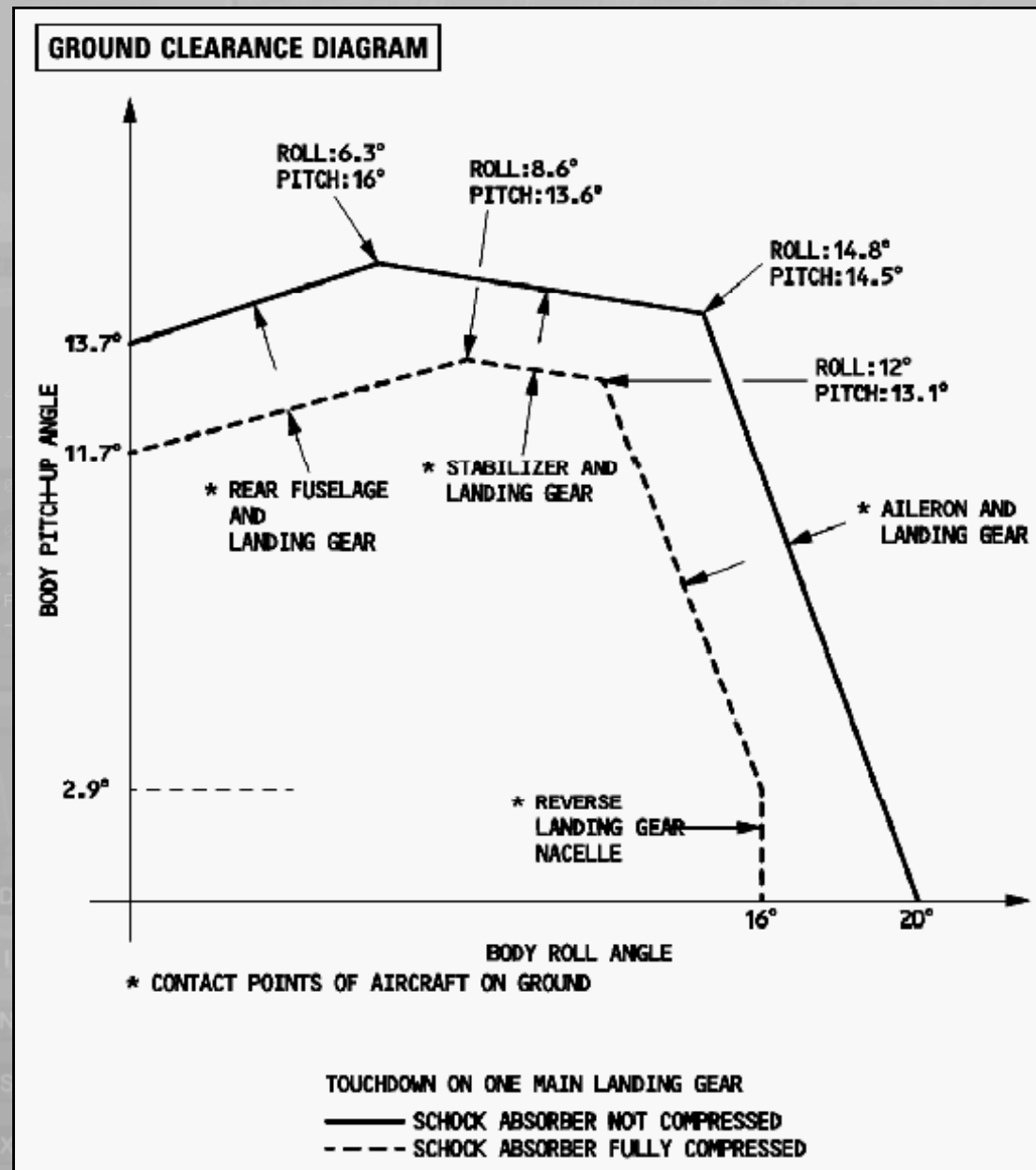
- If FLAPS jammed at 0 :
  - SELECT CLEAN CONFIGURATION
  - Normal operating speeds

When no more SRS, select appropriate speed

MAX SPEED					
Flaps (1) Slats (1)	F = 0	0 < F ≤ 1	1 < F ≤ 2	2 < F ≤ 3	F > 3
S = 0	NO LIMITATION	215 kt	200 kt	185 kt	Not allowed (177 kt)
0 < S ≤ 1	230 kt				
1 < S ≤ 3	200 kt				
S > 3	177 kt				
APPR SPD and LDG DIST					
Flaps (1) Slats (1)	F = 0	0 < F < 1	1 ≤ F < 2	2 ≤ F < 3	F ≥ 3
S = 0	VREF + 60 (Appr) VREF + 50 (Touch Down) DIST × 1.7	VREF + 45 DIST × 1.6	VREF + 30 DIST × 1.4	VREF + 25 DIST × 1.35	(FLAPS > 3 not allowed) VREF + 25 DIST × 1.35
0 < S < 1					
1 ≤ S ≤ 3	VREF + 25 DIST × 1.35		VREF + 15 DIST × 1.2	VREF + 10 DIST × 1.15	VREF + 10 (2) DIST × 1.15
S > 3					VREF + 5 DIST × 1.1
(1) Slats/Flaps position displayed on upper ECAM display					
(2) VREF + 5 if slats are in CONF 3					

If diversion, consider fuel consumption.

# Landing

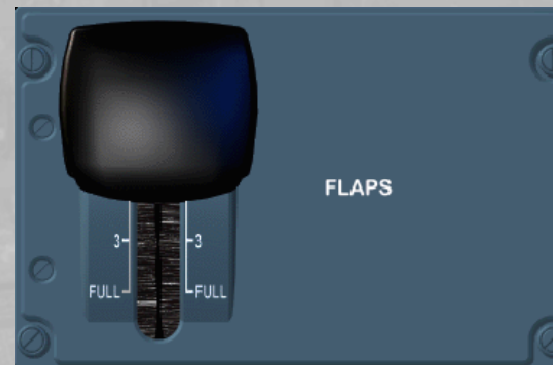
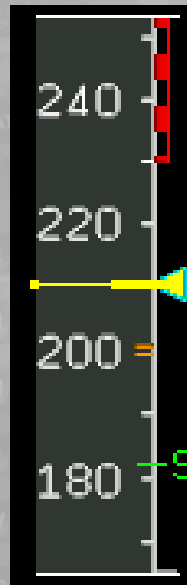


# A320 Example

## Slats locked at 0:

- ◆ Landing Configuration : 3
- ◆ Landing Speed :  $V_{REF} + 25$
- ◆ Landing Distance : Multiplied by 1.3

The aircraft is normally in the following configuration:

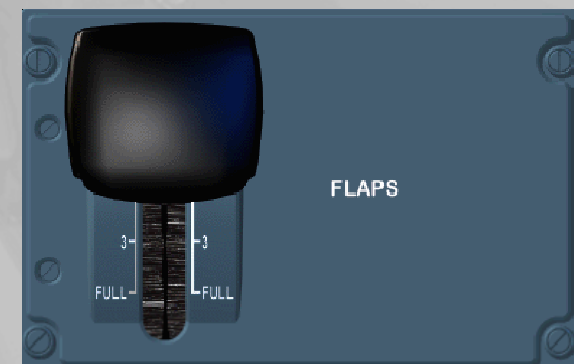
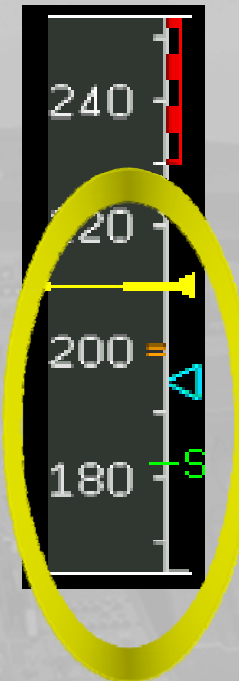


Flaps Lever Position 1

# A320 Example

## Procedure:

- VFE NEXT - 5 Kts is selected



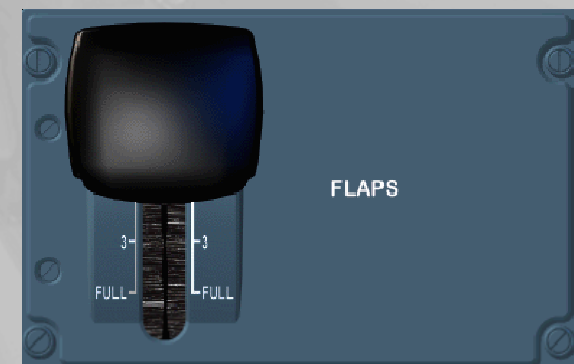
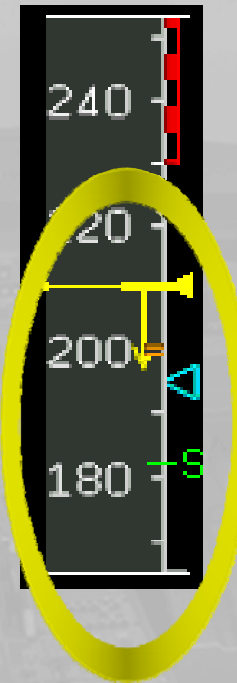


# A320 Example

## Procedure:

- VFE NEXT - 5 Kts is selected

- Speed decreases



# A320 Example

## Procedure:

- VFE NEXT - 5 Kts is selected

- Speed decreases

- When below VFE NEXT:

⇒ Select Flaps 2



# A320 Example

## Procedure:

- VFE NEXT - 5 Kts is selected

- Speed decreases

