

F/CTL : ELEV REDUND LOST



PF

PNF

1. HYD G RSVR LO LVL

DETECTION

FLIES THE AIRCRAFT

NAVIGATES

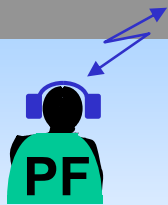
CONSIDER AUTOMATION USE

ECAM ACTIONS

ECAM PROCEDURE

SYSTEM DISPLAY

STATUS



COMMUNICATES

PF

PNF

2. F/CTL PRIM 2 FAULT

DETECTION

FLIES THE AIRCRAFT

NAVIGATES

CONSIDER AUTOMATION USE

ECAM ACTIONS

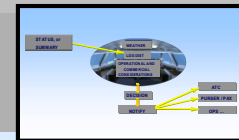
ECAM PROCEDURE ELEV REDUND LOST : 

SYSTEMS DISPLAYS analysis Ailerons preset : 

STATUS

RETURN TO NORMAL TASK SHARING

DECISION



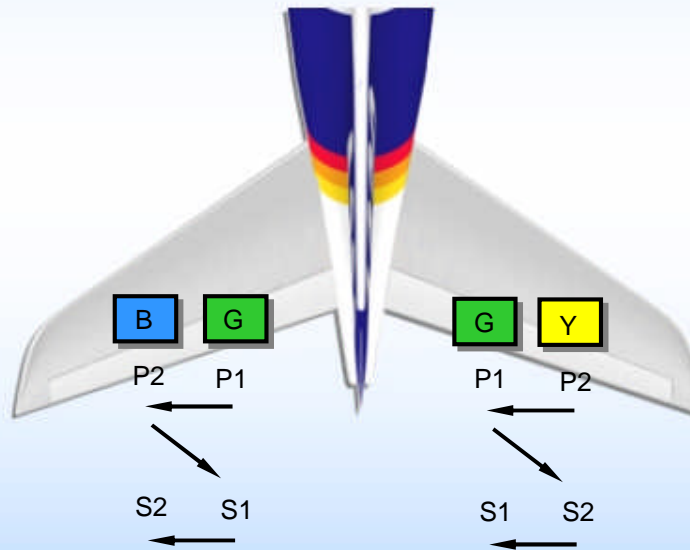
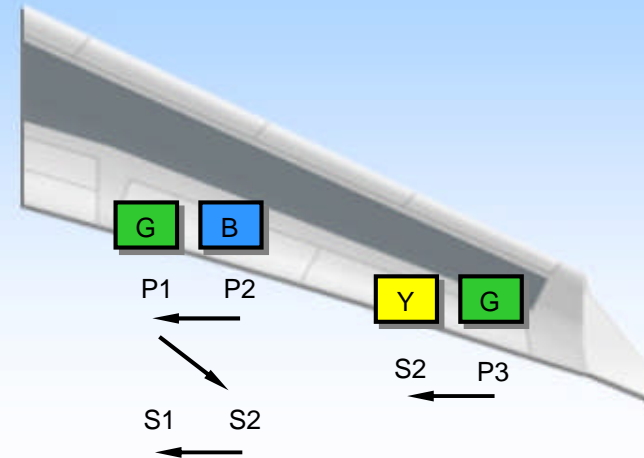
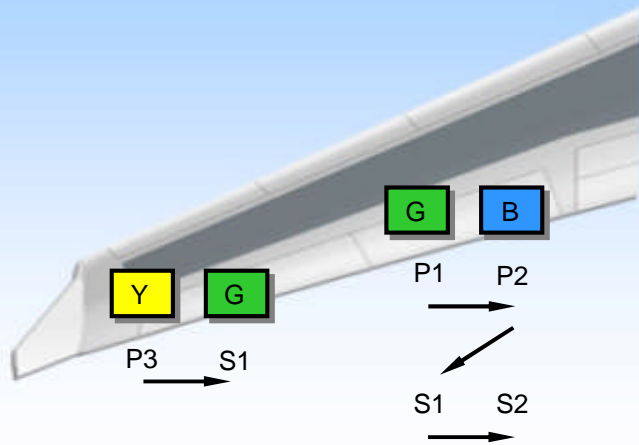
F/CTL ELEV REDUND LOST

- When 2 failures occur affecting :
 - Flight CTRL computers (PRIM, SEC) &/or HYD supply &/or Servocontrol
- & when a 3rd failure ⇒ loss of some ailerons and one or both elevator(s)



COMMUNICATES

NORMAL CONDITIONS



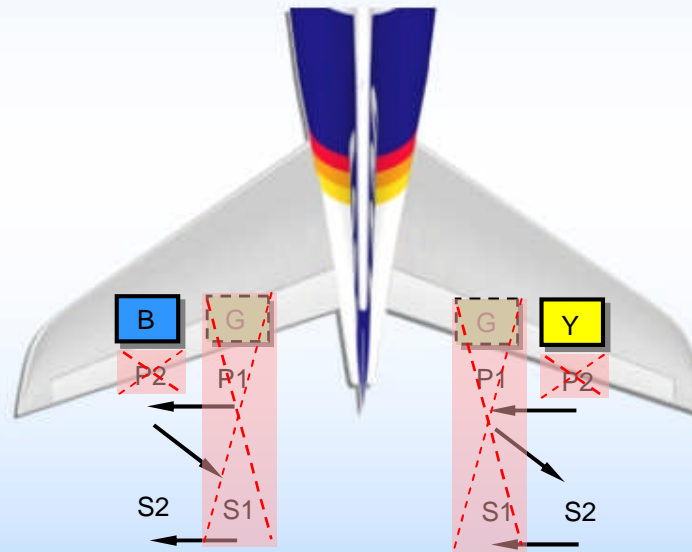
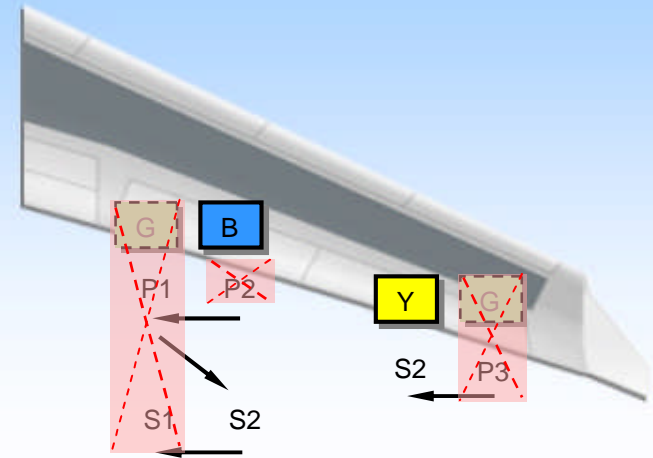
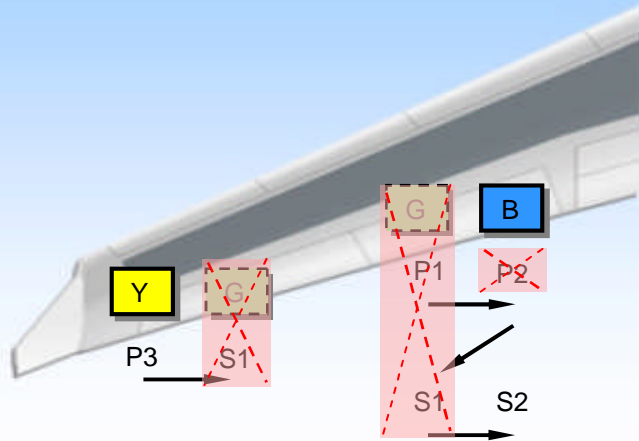
If GREEN HYD + PRIM 2 FAILURES ⇒



GREEN HYD + PRIM 2 LOST



**ALL AILERONS
& BOTH ELEV
STILL AVAIL**



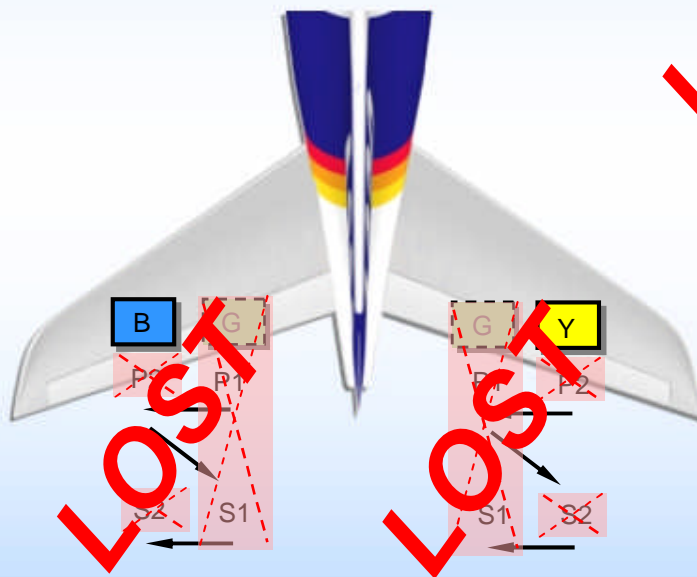
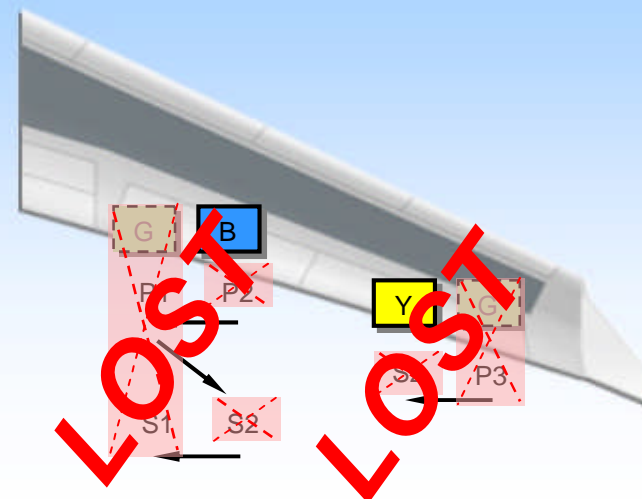
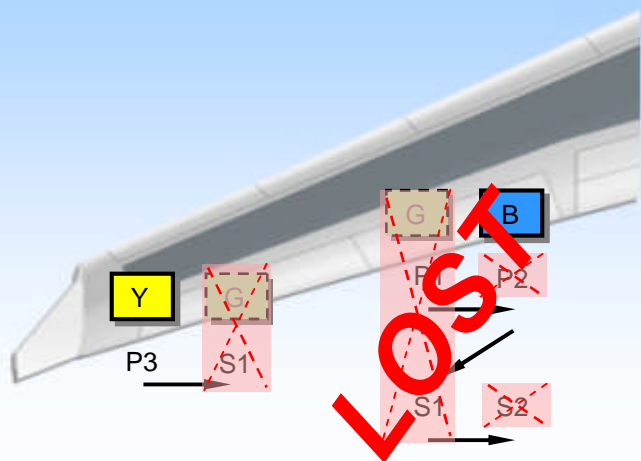
If GREEN HYD + PRIM 2 + SEC 2 FAILURES



GREEN HYD + PRIM 2 + SEC 2 LOST

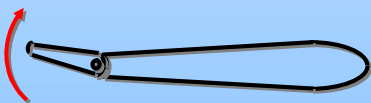


**3 AILERONS
& BOTH ELEV
LOST**



IN THIS SITUATION :

- **AILERONS** go to zero hinge moment ~14°



- **No ELEV AVAIL** to counteract the resulting Pitch-Up moment



TO PREVENT IT :

When the first 2 failures occur

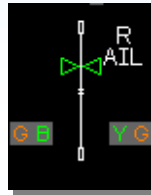
- The ailerons are **PRESET UPWARD** close to zero hinge moment ~ 12°

AILERON PRESET



ELEV REDUNDANCY LOST is not always associated to aileron preset

- If a 3rd failure ⇒ loss of **both** ELEV :
- The ailerons are preset upwards ~12°
With high fuel consumption & AP disconnect°



- The altitude is limited to **FL 350**
- The speed is limited to **M.80**

- If a 3rd failure ⇒ loss of **only one** ELEV :
- The ailerons are not preset upwards



- The altitude is limited to **FL 300**
- The speed is limited to **M.75**