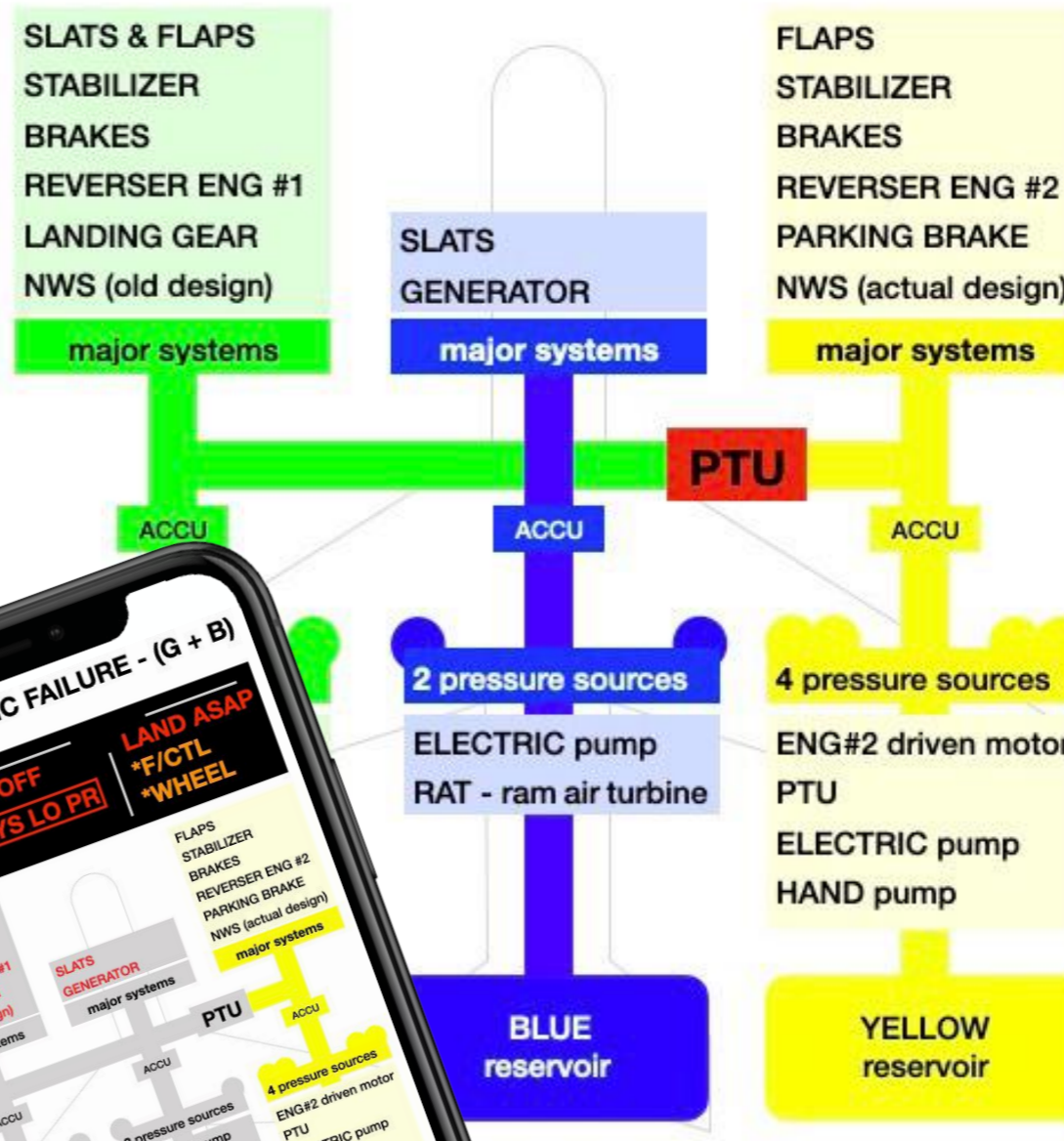




- The A320 hydraulic system is composed of three different and fully independent circuits: Green, Yellow & Blue.
- The users are shared between the systems in order to ensure the control of the aircraft, even when one system is inoperative.
- No transfer of hydraulic fluid between the 3 systems, but we have a transfer of power between the green and the yellow system (thanks to the PTU).
- On the blue hydraulic system, the normal source of pressure is the electrical pump, and the auxiliary source is the Ram Air Turbine (RAT).
- The Constant Speed Motor/ Generator (CSM/G) is used to provide aircraft electrical power in case of emergency.
- On the green & yellow systems, the normal source of pressure is the Engine Driven Pump (EDP) and the auxiliary source is the Power Transfer Unit (PTU).

## A320 series HYDRAULIC SYSTEM

- The PTU is used to transfer power between the Green and Yellow systems in case of a hydraulic failure.

system requires this and can function

**DUAL HYDRAULIC FAILURE - (B + Y)**

**AUTOFLT AP OFF**  
**HYD [B+Y SYS LO PR]**

**DUAL HYDRAULIC FAILURE - (G + Y)**

**AUTOFLT AP OFF**  
**HYD [G+Y SYS LO PR]**

**DUAL HYDRAULIC FAILURE - (G + B)**

**AUTOFLT AP OFF**  
**HYD [G+B SYS LO PR]**  
**LAND ASAP \*F/CTL \*WHEEL**

FLAPS  
STABILIZER  
BRAKES  
REVERSER ENG #2  
PARKING BRAKE  
NWS (actual design)  
major systems

PTU

4 pressure sources  
ENG#2 driven motor  
PTU  
ELECTRIC pump  
HAND pump

YELLOW reservoir

SLATS & FLAPS  
STABILIZER  
BRAKES  
REVERSER ENG #1  
LANDING GEAR  
NWS (old design)  
major systems

SLATS  
GENERATOR  
major systems

ACCU

2 pressure sources  
ELECTRIC pump  
RAT - ram air turbine

BLUE reservoir

SLATS & FLAPS  
STABILIZER  
BRAKES  
REVERSER ENG #1  
LANDING GEAR  
NWS (old design)  
major systems

SLATS  
GENERATOR  
major systems

ACCU

2 pressure sources  
ENG#1 driven motor  
PTU

GREEN reservoir

SLATS & FLAPS  
STABILIZER  
BRAKES  
REVERSER ENG #1  
LANDING GEAR  
NWS (old design)  
major systems

SLATS  
GENERATOR  
major systems

ACCU

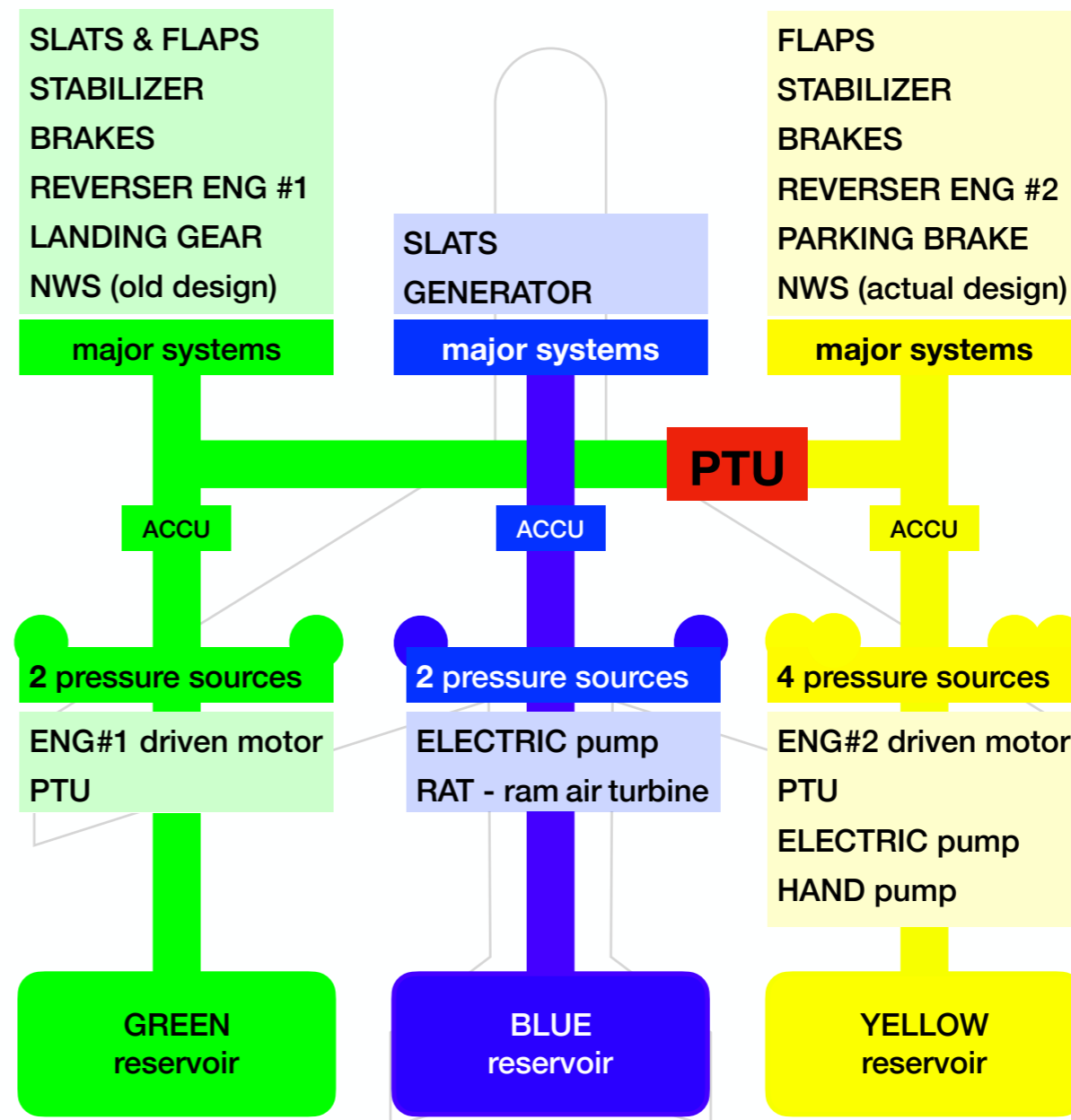
2 pressure sources  
ENG#1 driven motor  
PTU

GREEN reservoir

This is not an official publication and does not replace manufacturer information. For training only!



# A320 series HYDRAULIC SYSTEM





- The A320 hydraulic system is composed of three different and fully independent circuits: Green, Yellow & Blue.

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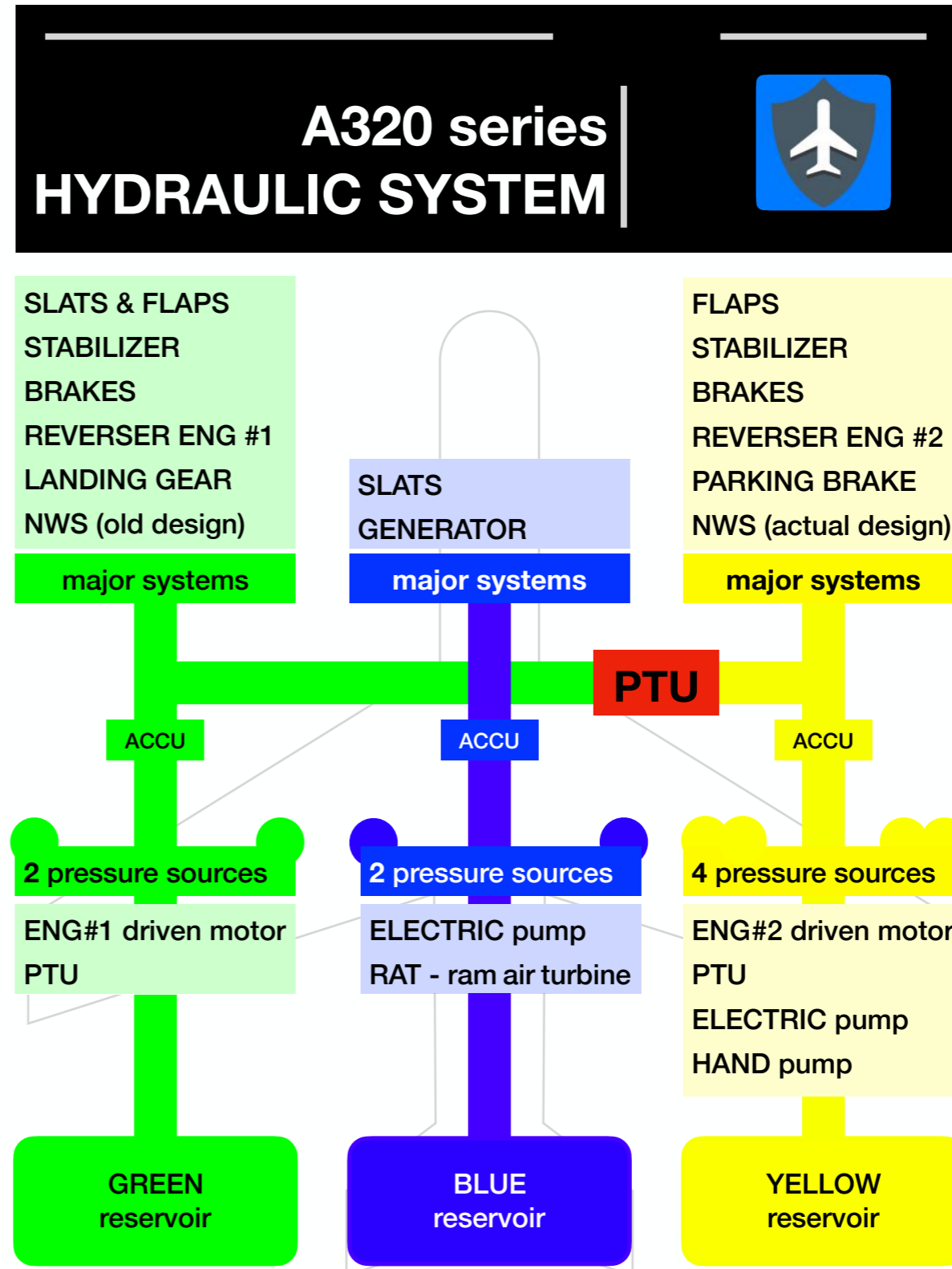
- The Constant Speed Motor/ Generator (CSM/G) is used to provide aircraft electrical power in case of emergency.

- On the green & yellow systems, the normal source of pressure is the Engine Driven Pump (EDP) and the auxiliary source is the Power Transfer Unit (PTU).

- The PTU is a hydraulic motor pump which transfers hydraulic power between the green and yellow systems without transfer of fluid.

- PTU operates automatically, whenever the pressure differential between the two systems reaches 500 PSI.

- In case of low fluid level in either the green or yellow system, an amber caution is triggered on the ECAM, which requests the pilot to switch off the PTU as well as the EDP. This to avoid having the PTU running at maximum speed and causing the overheating and loss of the properly functioning hydraulic system.





# DUAL HYDRAULIC FAILURE - (G + Y)

## DUAL HYDRAULIC failures

- Loss of AP
- Flight control law degradation
- Landing in abnormal configuration
- Extensive ECAM procedures
- Significant considerations for approach and landing.

## GENERAL GUIDELINES

**AUTOFLIGHT AP OFF** but **FD** and **A/THR** remain

**EMERGENCY SITUATION** with red **LAND ASAP** → declare **“MAYDAY“**

- landing must be carried out as soon as possible **ASAP**
- **ECAM actions** should be **completed** prior the approach

**ALTN LAW: PROT LOST** (HYD G+B & G+Y)

**DIRECT LAW** after LANDING GEAR down

**1<sup>st</sup> ECAM + STATUS** (read) → “ECAM actions completed”

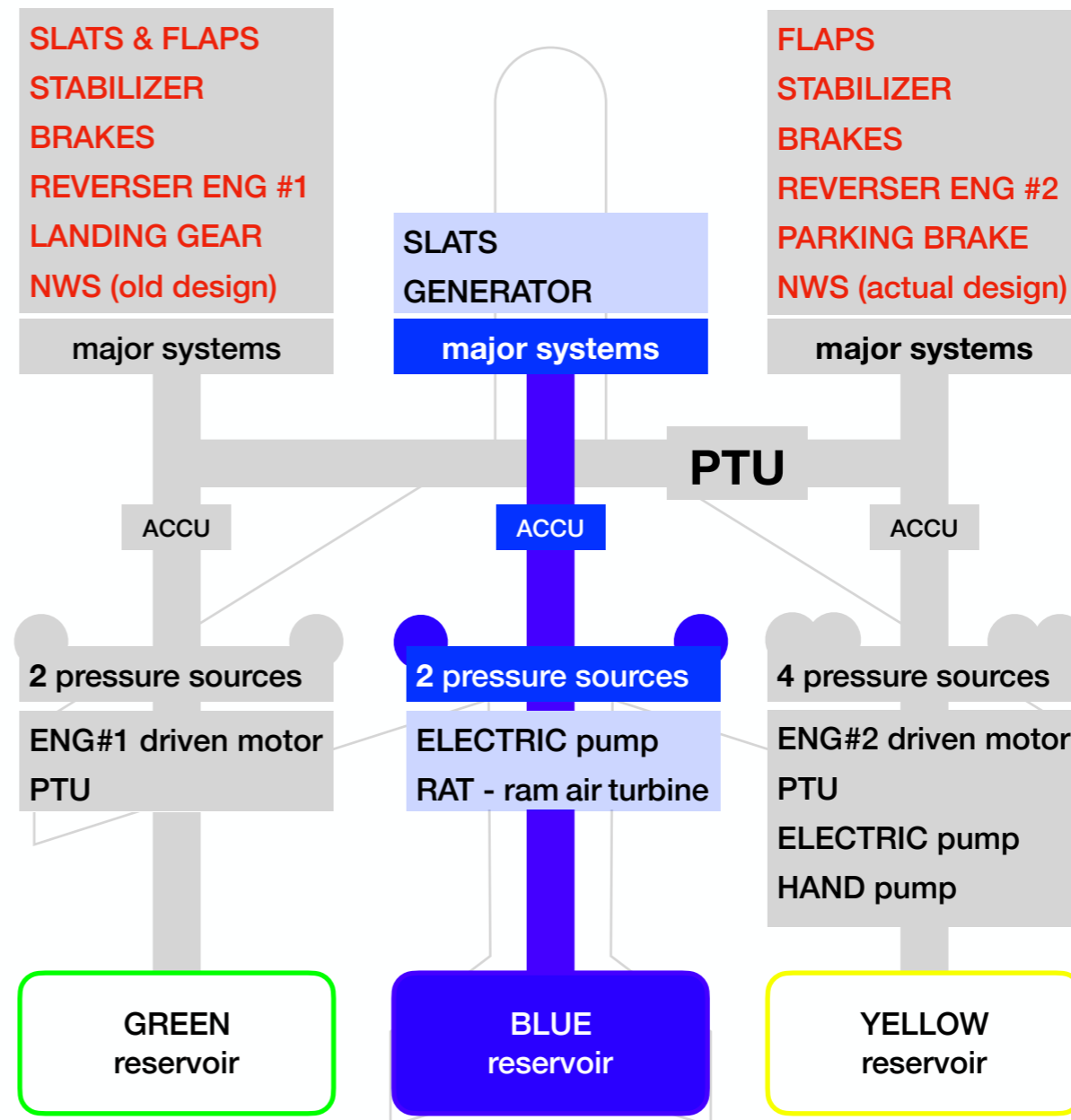
**2<sup>nd</sup> appropriate QRH SUMMARY**

## APPROACH BRIEFING

- use of the selected speeds on the FCU
- LANDING GEAR GRAVITY EXTENSION → use **QRH SUMMARY READ & DO – NOT BY MEMORY!**
- Configuration and flap lever position (speed of extension)
- Approach speed VAPP (calculation → QRH or flysmart)
- Tail strike awareness
- Braking and steering considerations (NWS loss)
- Go around call out, configuration and speed
- L/G retraction INOP

more for your mobile: [www.easymemoryitem.com](http://www.easymemoryitem.com)

**AUTOFLT AP OFF**  
**HYD G+Y SYS LO PR**  
**LAND ASAP**  
**\*F/CTL**  
**\*WHEEL**





# DUAL HYDRAULIC FAILURE - (G + B)

## DUAL HYDRAULIC failures

- Loss of AP
- Flight control law degradation
- Landing in abnormal configuration
- Extensive ECAM procedures
- Significant considerations for approach and landing.

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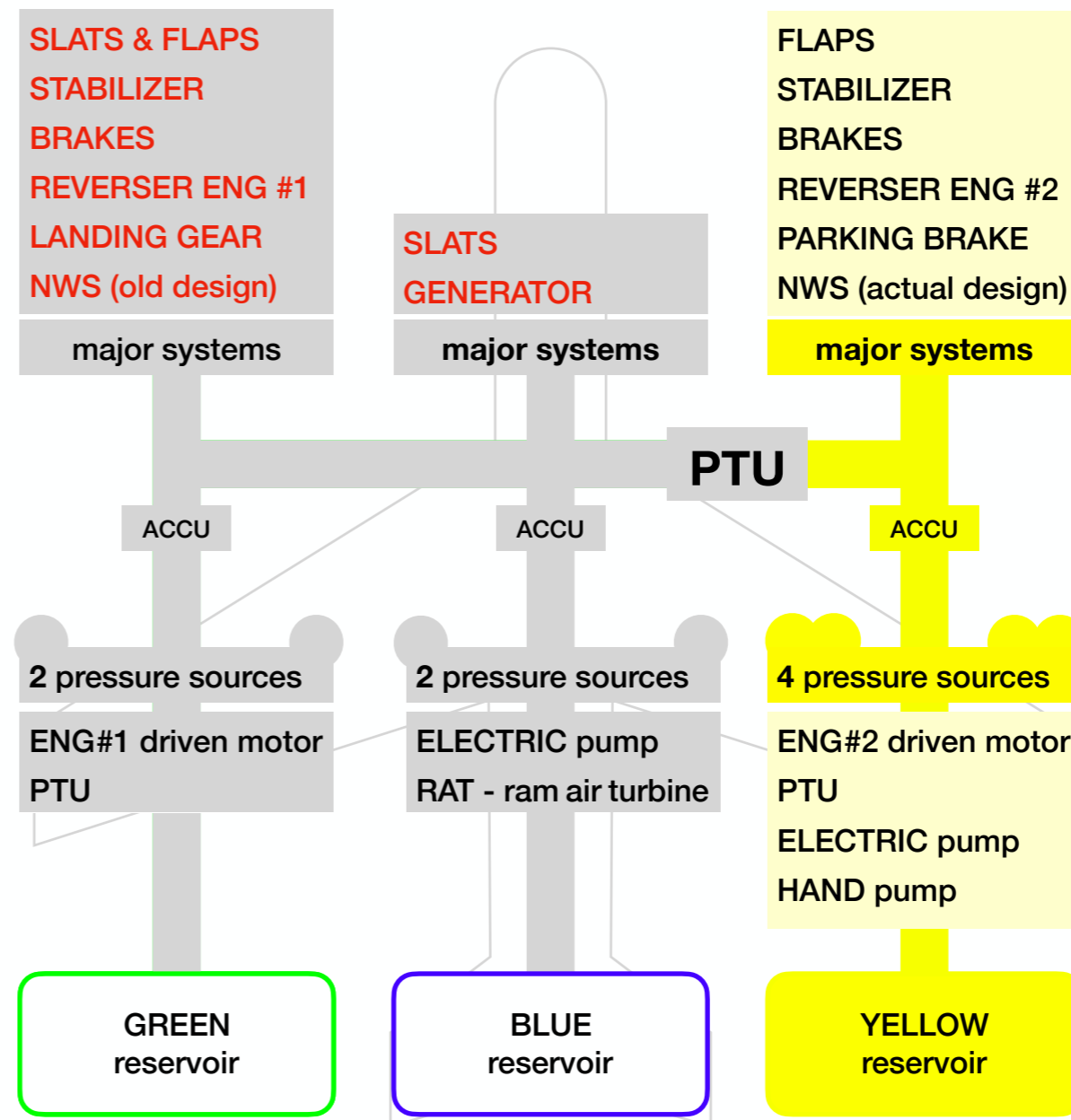
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**AUTOFLT AP OFF**  
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**LAND ASAP**  
**\*F/CTL**  
**\*WHEEL**





# DUAL HYDRAULIC FAILURE - (B + Y)

## DUAL HYDRAULIC failures

- Loss of AP
- Flight control law degradation
- Landing in abnormal configuration
- Extensive ECAM procedures
- Significant considerations for approach and landing.

## GENERAL GUIDELINES

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**AUTOFLT AP OFF**

**HYD B+Y SYS LO PR**

**LAND ASAP**  
**\*F/CTL**

