

Einführung Labor Flugzeugsysteme



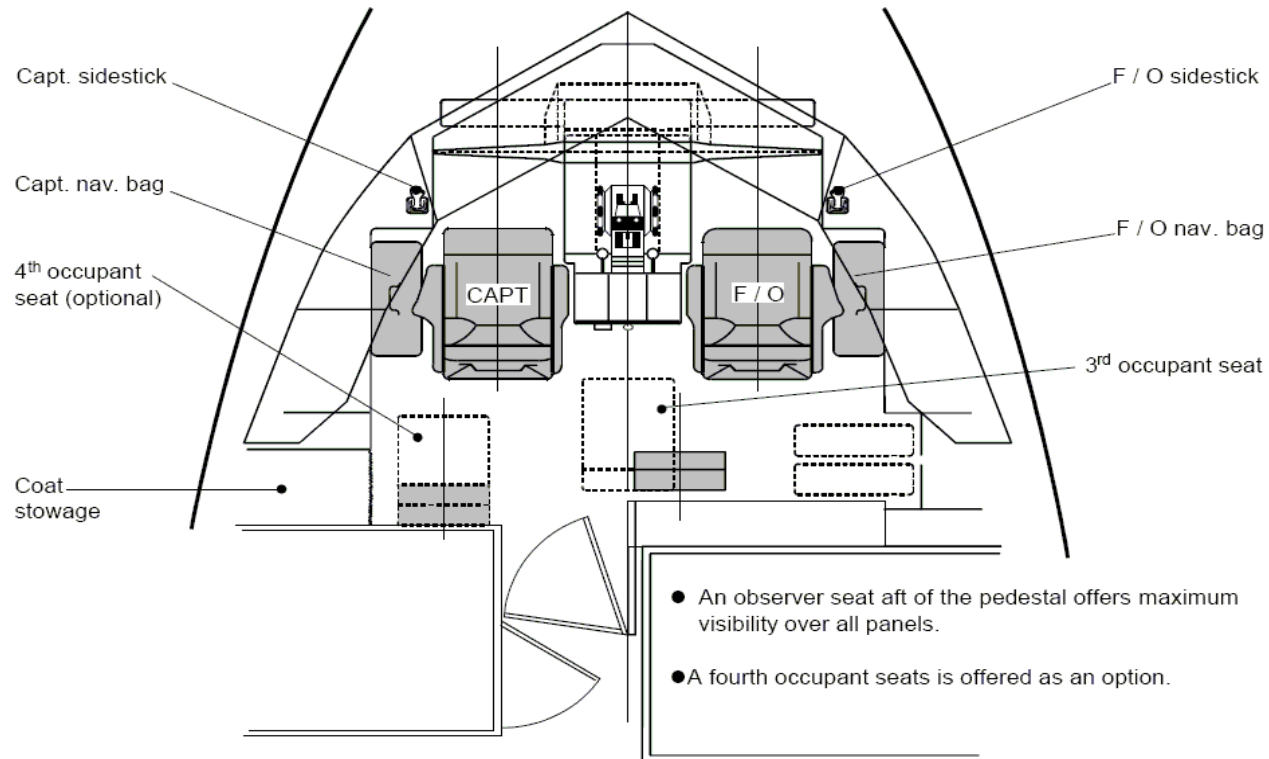
Gliederung

1. Einführung in das Cockpit der Airbus Single Aisle
2. Systemspezifische Bedienelemente



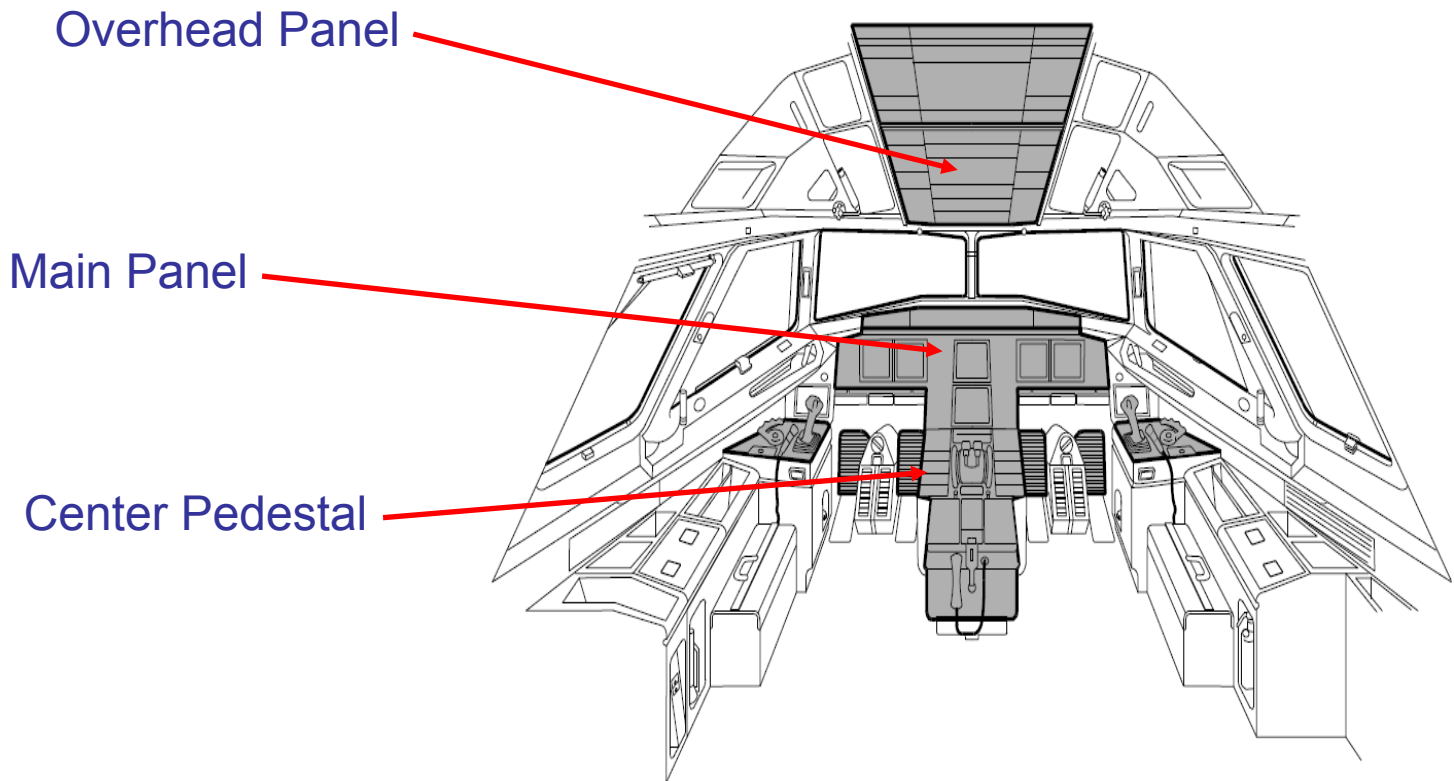
1. Cockpit der Airbus Single Aisle

🌀 A319/A320/A321 flight deck – plan view

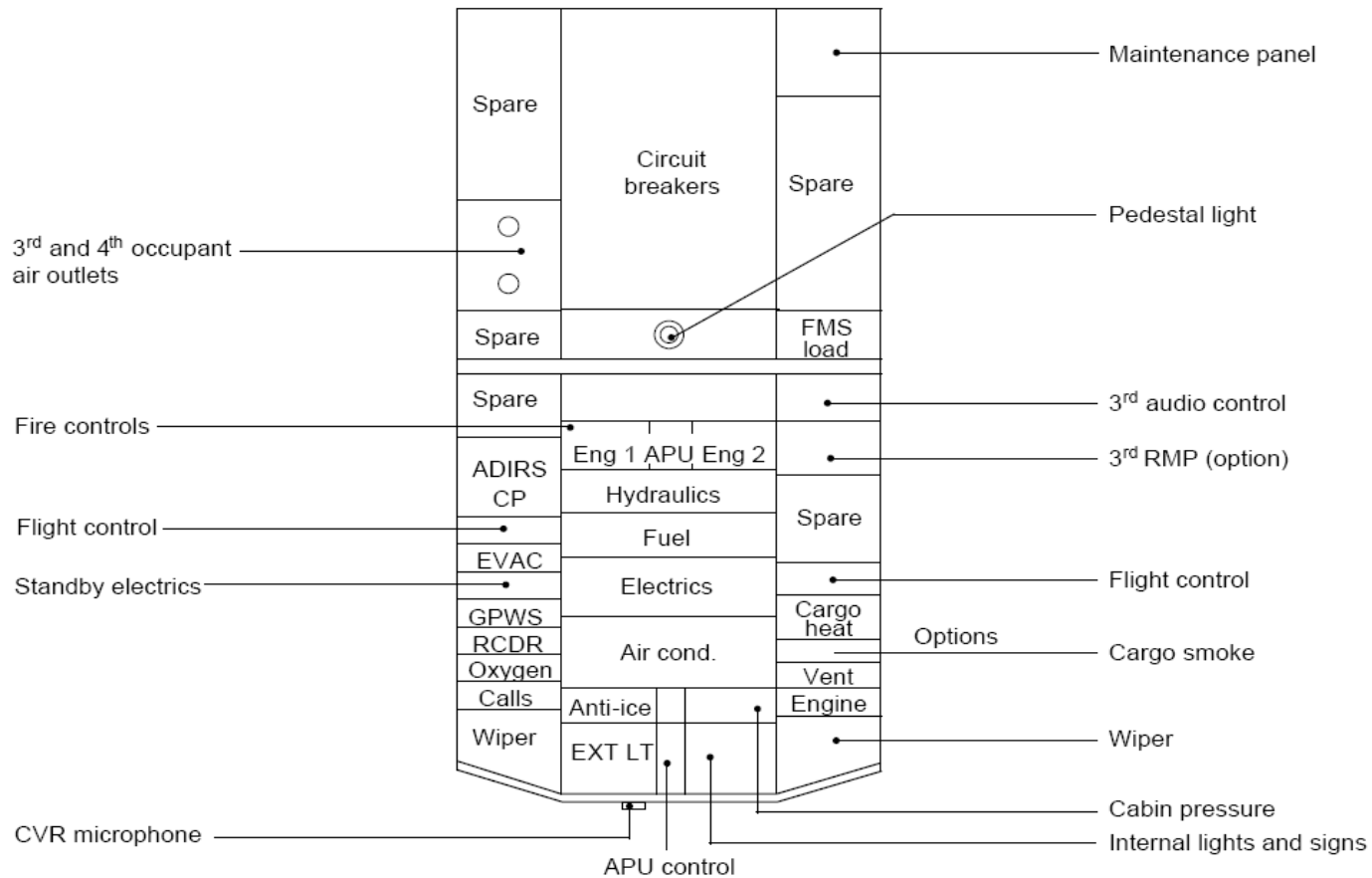


1.1 Aufbau des Cockpits

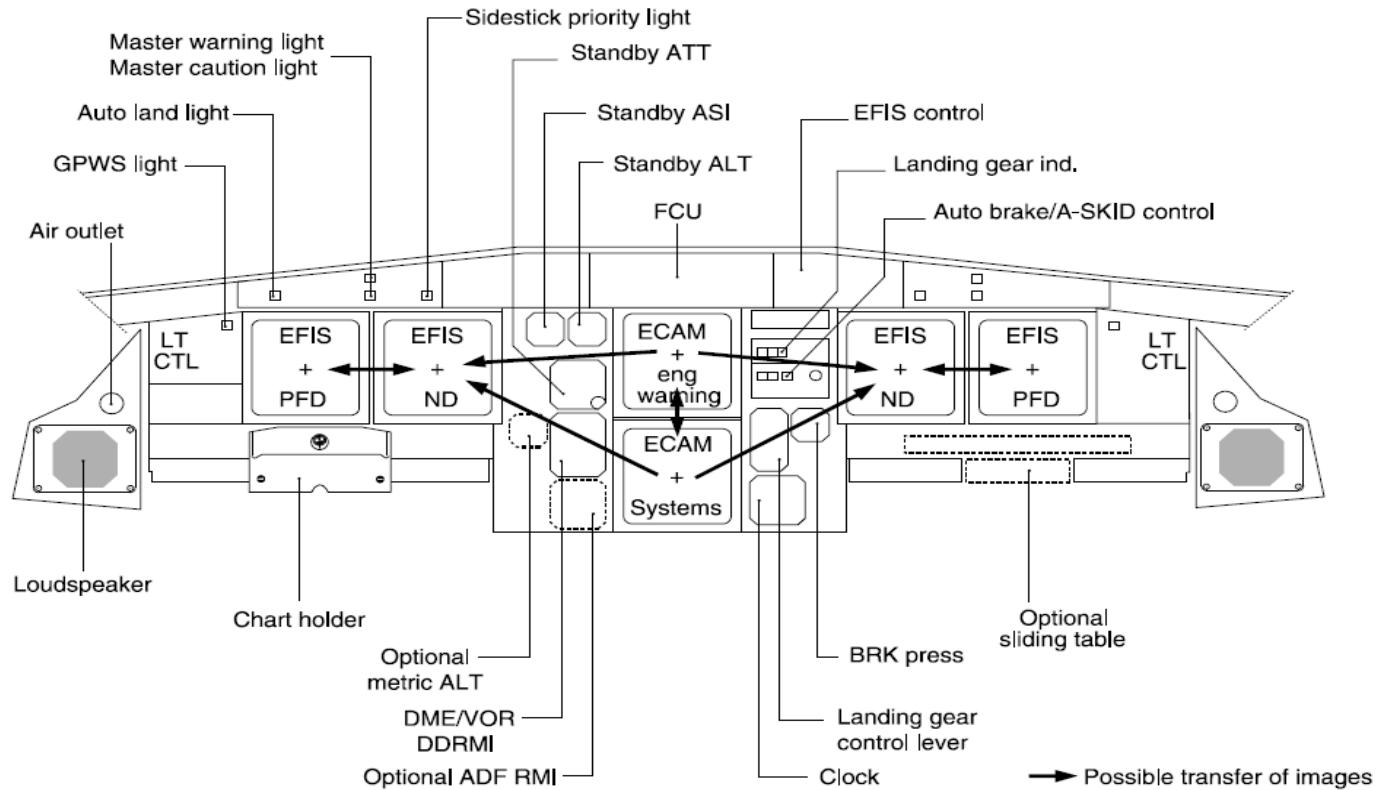
Das Cockpit unterteilt sich in:



1.1.1 Overhead Panel

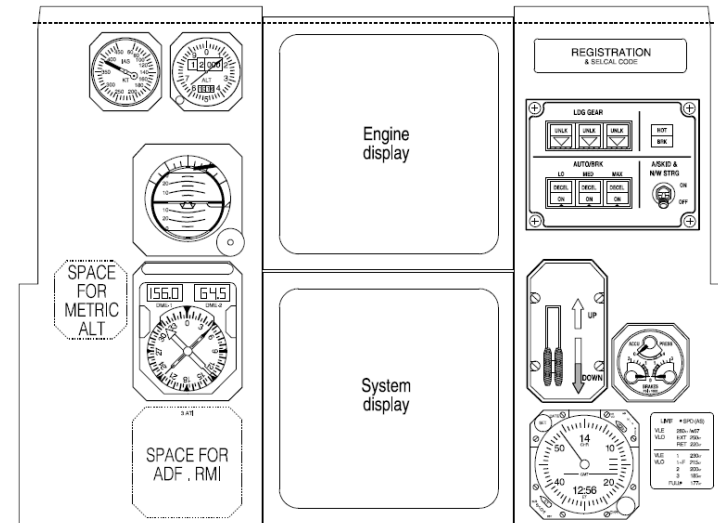


1.1.2 Main Panel

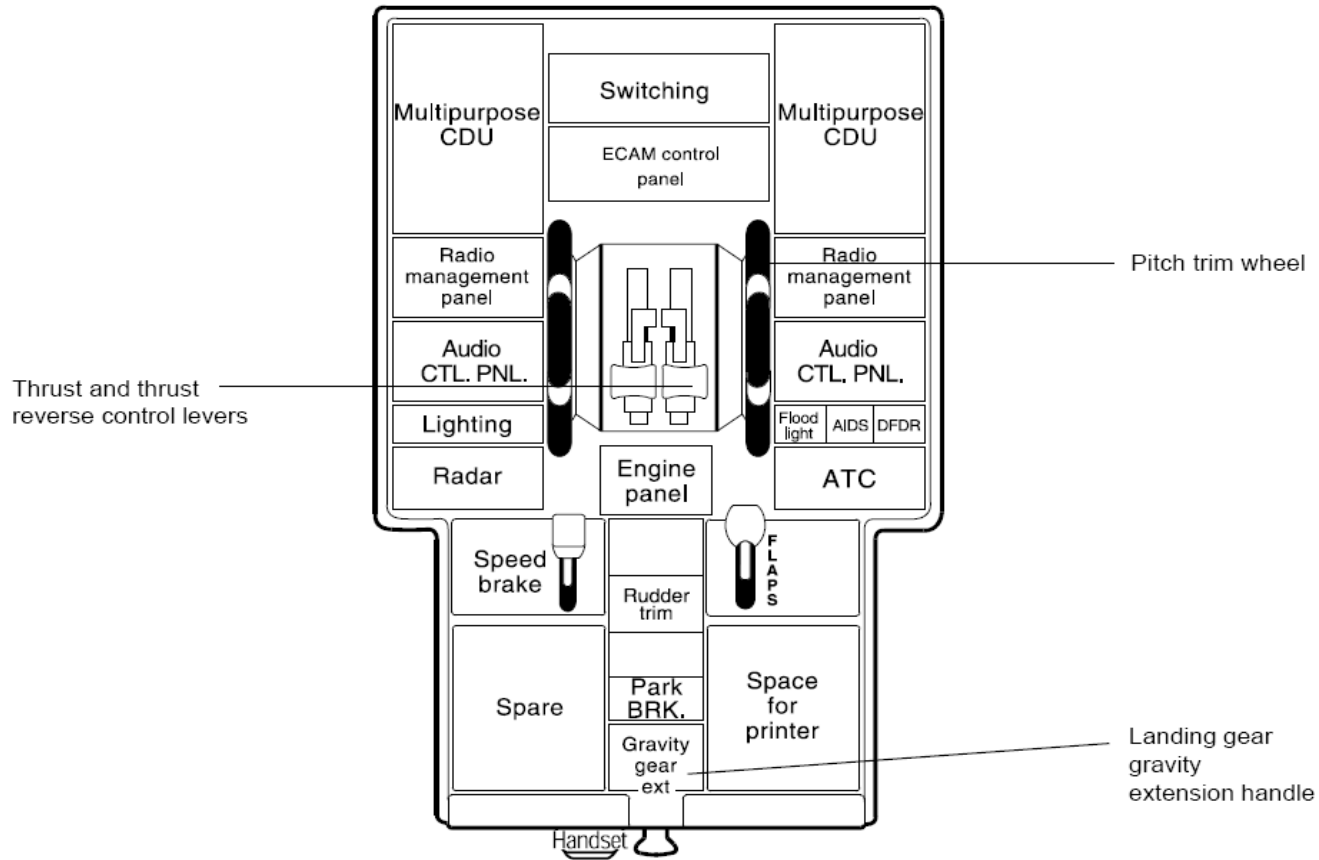


1.1.2.1 Detail Main Panel

- ECAM Displays im Main Panel
- Anzeige des System Display (SD) wird durch das ECAM Control Panel (Electronic Centralized Aircraft Monitoring) im Center Pedestal gesteuert.
- Das E/WD (Engine and Warning Display) hat Vorrang gegenüber dem SD.



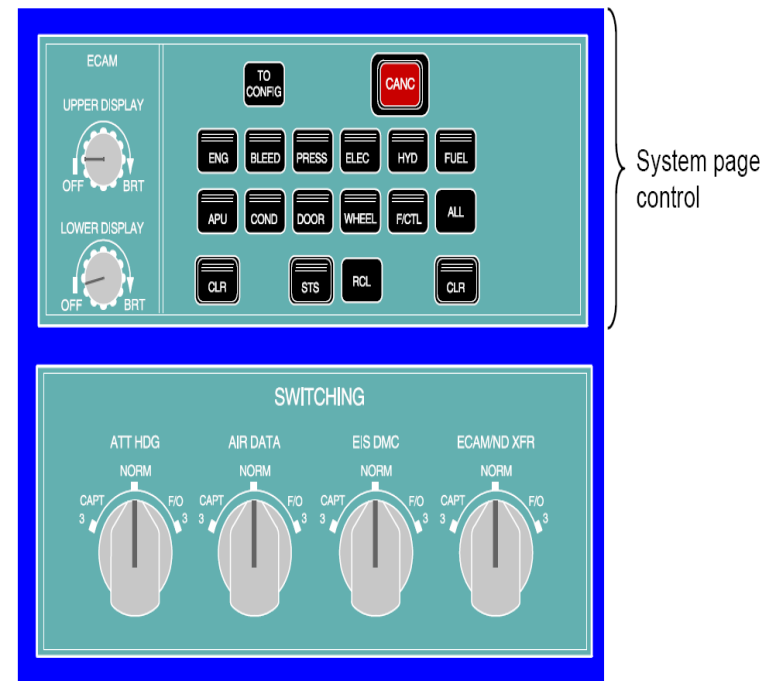
1.1.3 Center Pedestal



1.1.3.1 ECAM Control Panel

- Umschalten der Anzeige des SD durch Druck auf entsprechenden Menüknopf möglich.
- Umsetzen der SD Anzeige auf das NAV Display ist mit den Drehschaltern möglich

 A319/A320/A321 EIS – ECAM control / switching panels

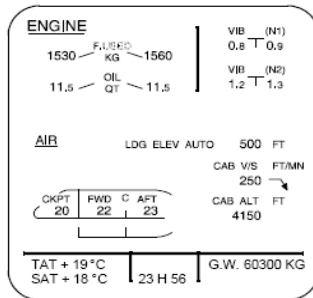


2. Systemspezifische Bedienelemente



2.1 Bleed Air / Air Conditioning

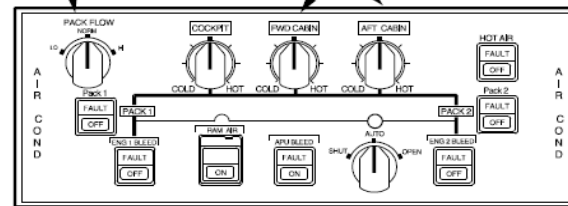
⊗ A319/A320/A321 ECS – temperature and flow control



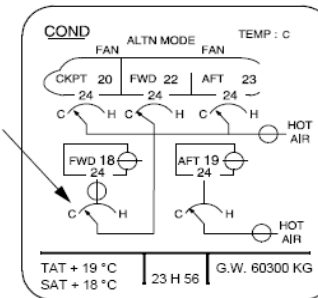
System display :
Cruise page

Variable flow selector
Space optional
FWD + AFT cargo heat

Automatic temperature control selectors
Flight deck

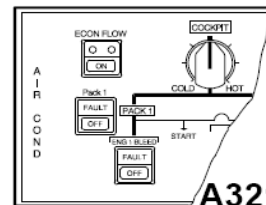
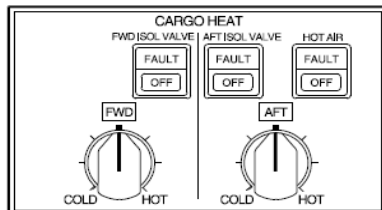


A319/A320

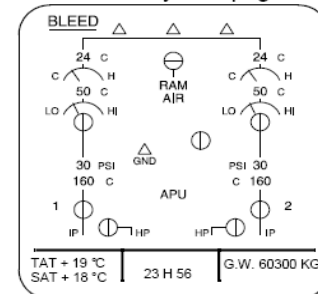


System display :
CON system page

Cargo heat - optional

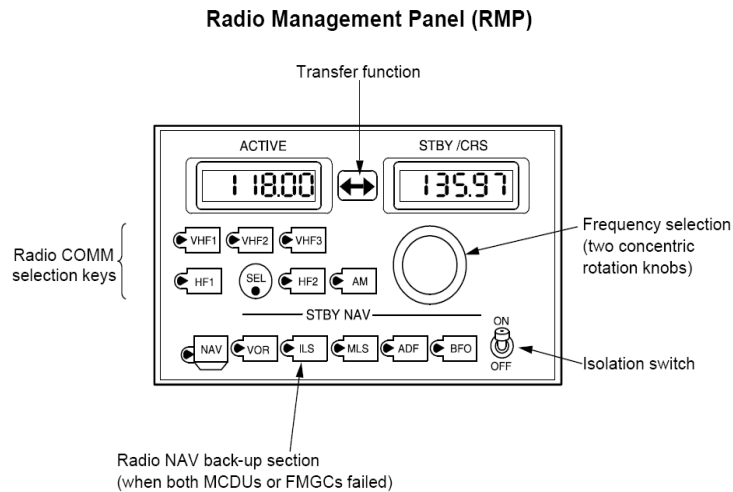


System display :
BLEED system page

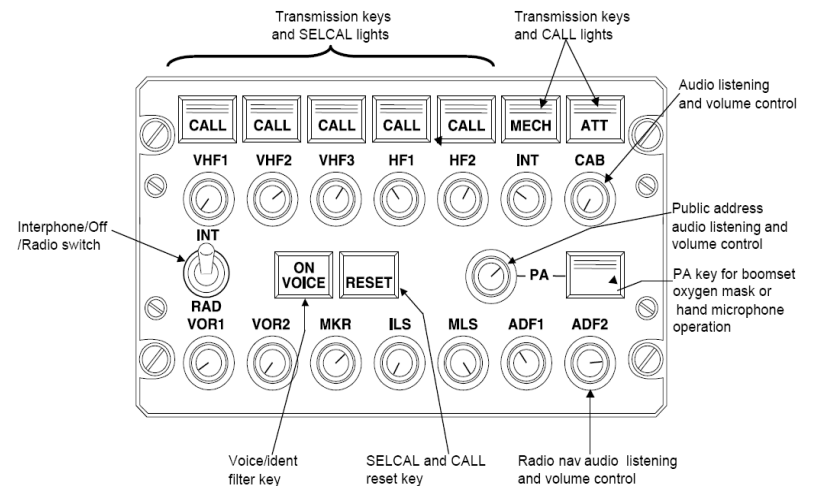


2.2 Communication

A319/A320/A321 radio management concept



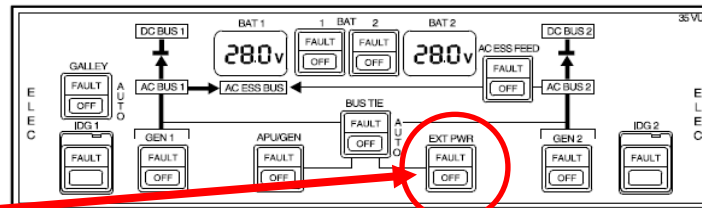
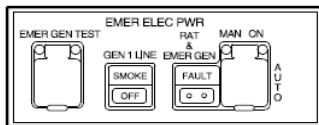
A319/A320/A321 COMM – audio control panel



2.3 Electrical Panel

☉ A319/A320/A321 electrical – control and display

Control panel

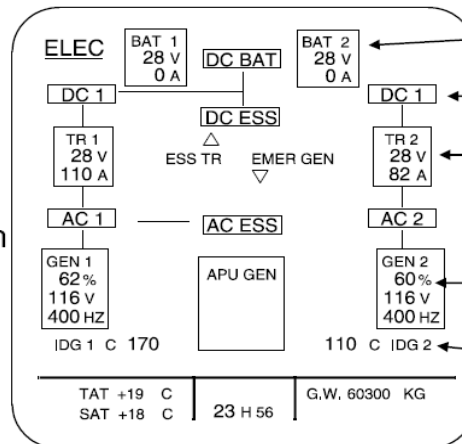


Fehler in der Airbus Unterlage:
On Indication

System display :

ELEC system page

Normal configuration



- ← Batteries indication
- ← Buses indication
- ← Transformer / Rectifier
- ← Generator indication
- ← Integrate Drive Generator indications



2.3.1 Electrical Circuit Breakers

🌀 A319/A320/A321 cockpit circuit - breakers

- Circuit breakers (C / Bs) are constantly monitored and the tripping of a C / B will be clearly indicated :

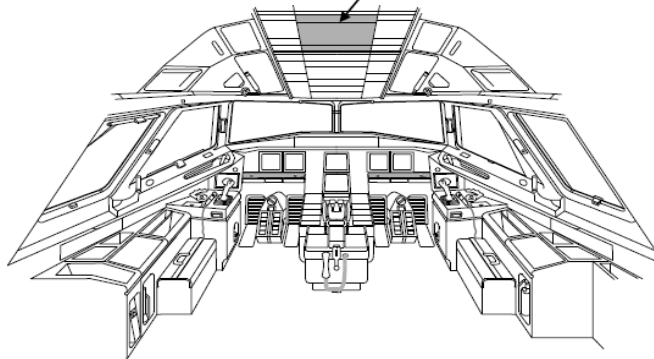
- either through
- activation of a system warning
 - a failure test
 - an abnormal instrument configuration

or, for C / Bs monitored by the ECAM system :

- six zones have been defined
- each time a C / B trips, the corresponding zone is identified

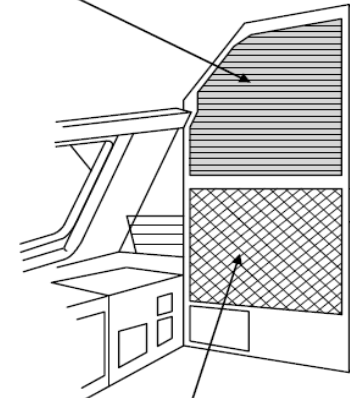
Overhead panel

Emergency circuit breaker



Rear right panel

Secondary circuit breakers
(aircraft systems)

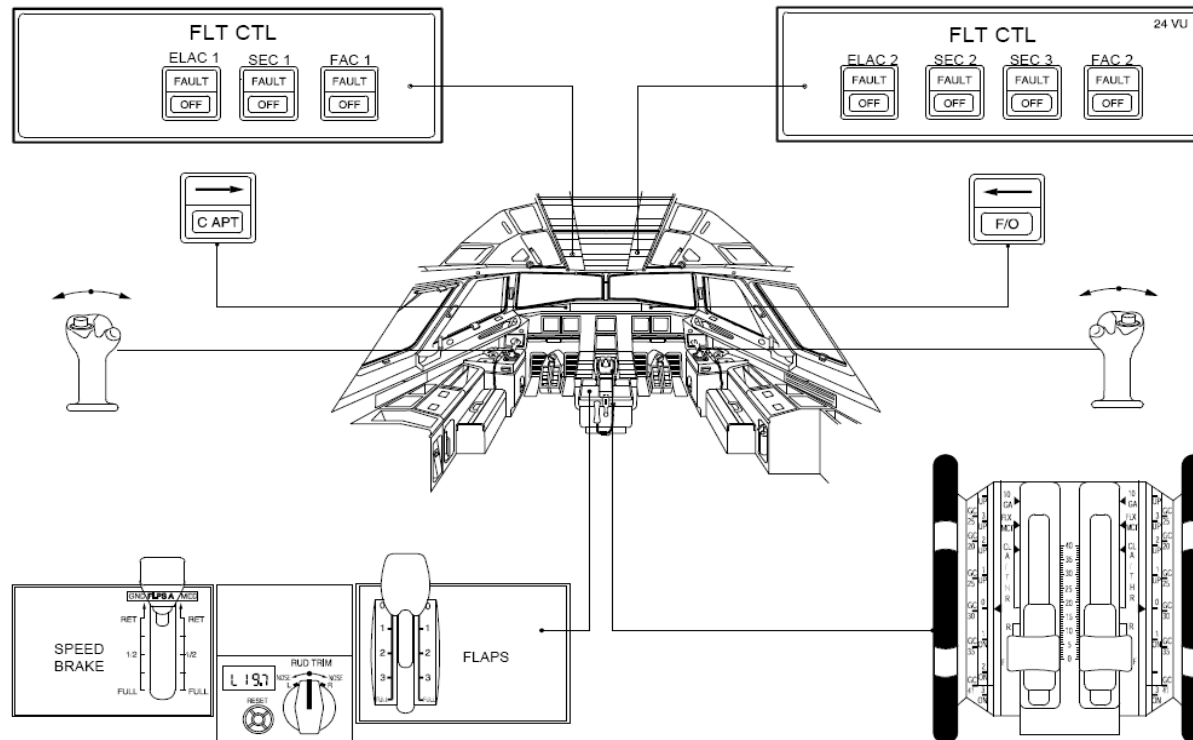


Primary circuit breakers
(electrical generation)



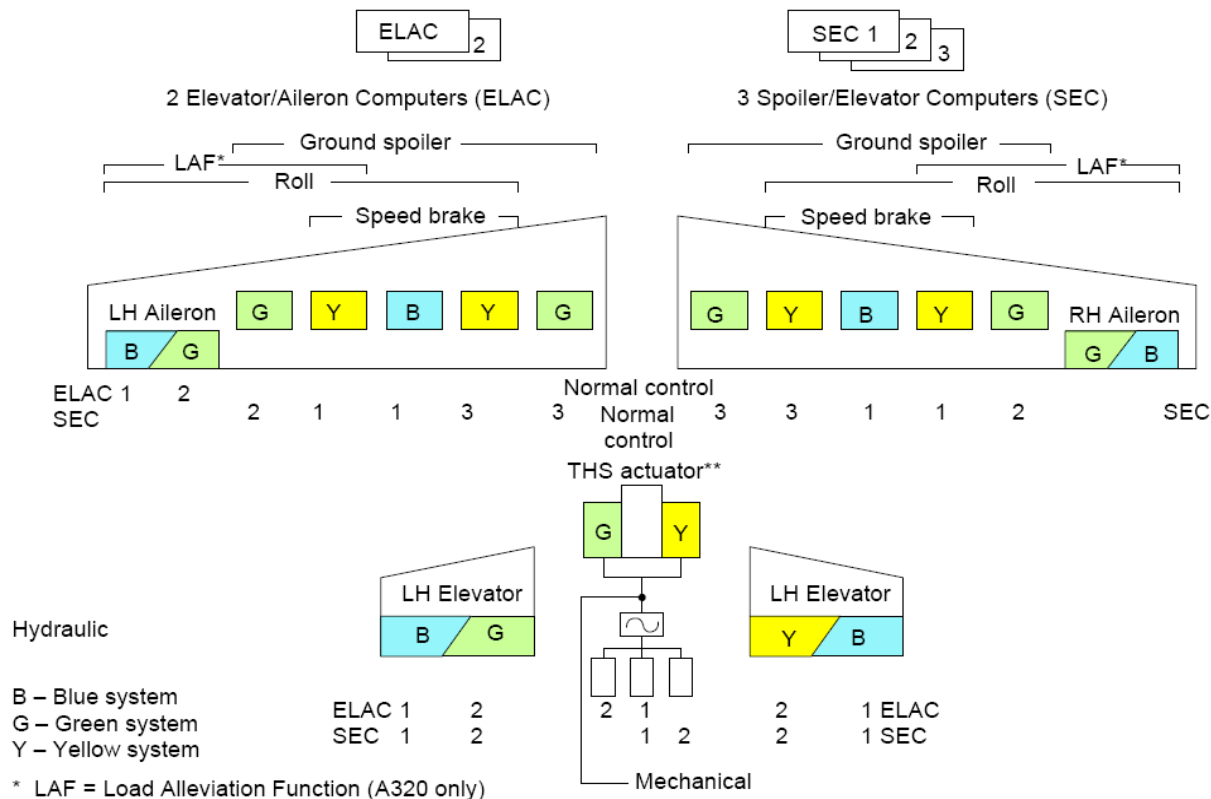
2.4 Flight Controls

⊗ A319/A320/A321 EFCS controls



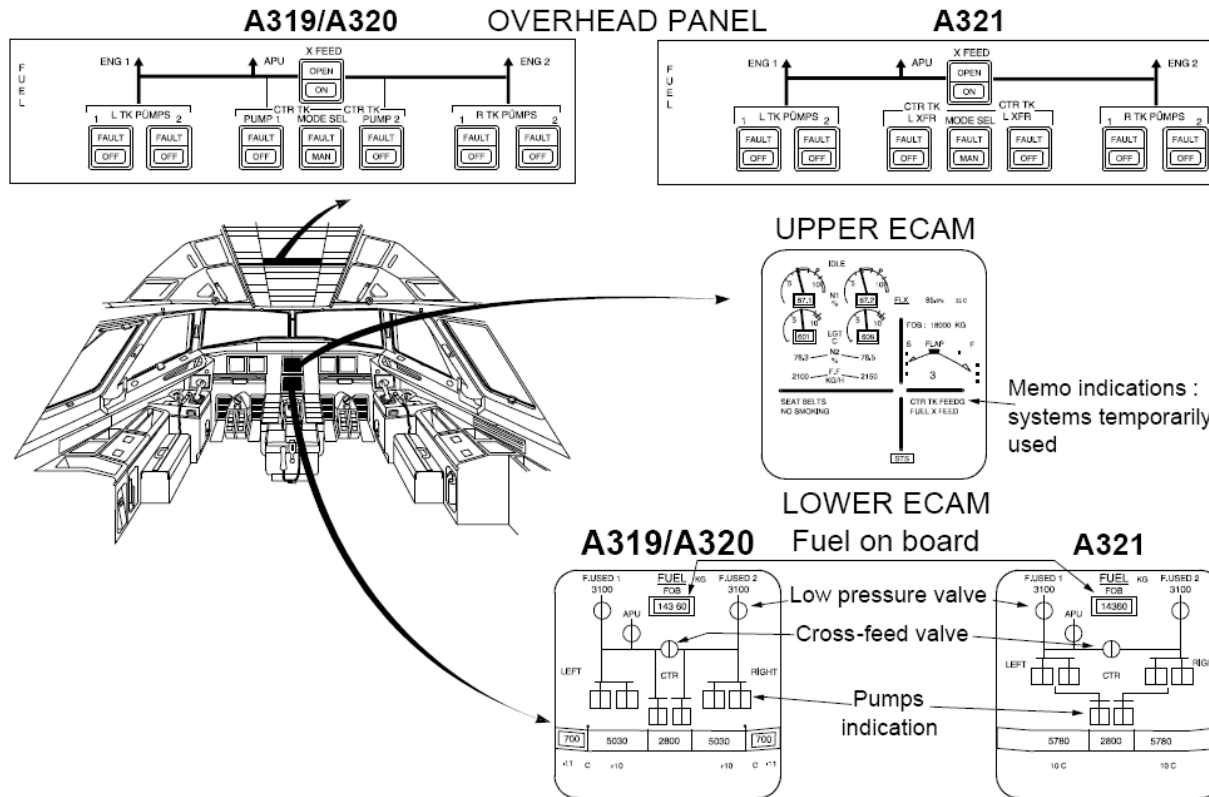
2.4.1 Flight Controls Schematics

⊗ A319/A320/A321 EFCS architecture



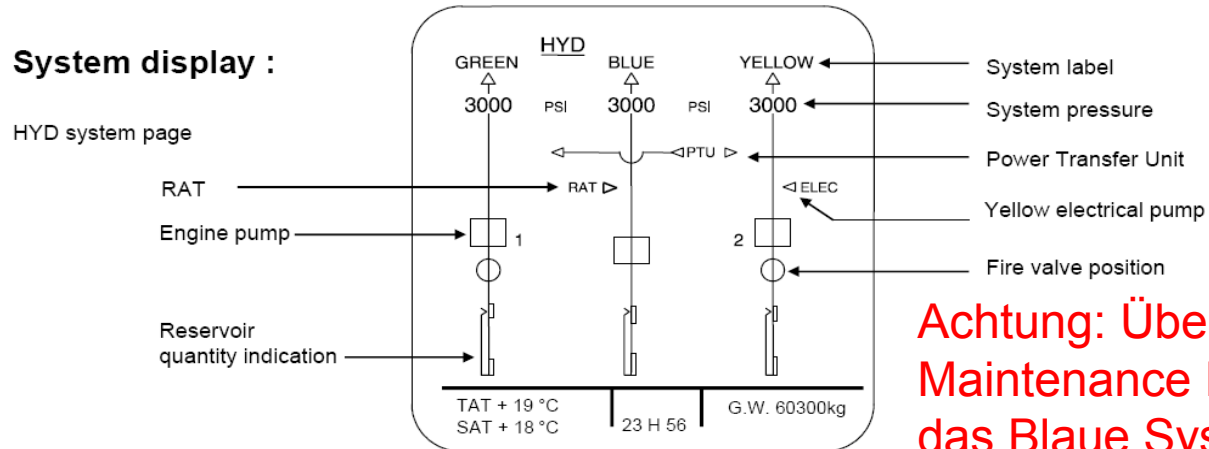
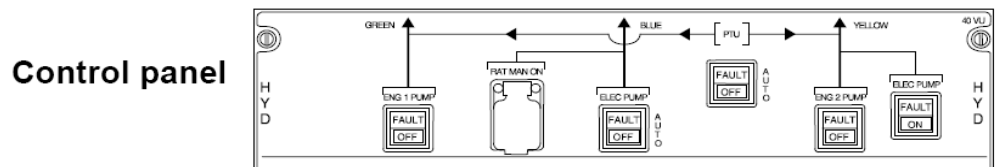
2.5 Fuel

🌀 A319/A320/A321 fuel system – control and indications



2.6 Hydraulics

⊗ A319/A320/A321 hydraulic - control and display



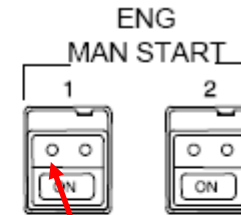
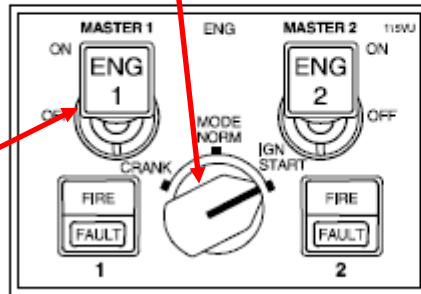
Achtung: Über das Maintenance Panel kann das Blaue System mit Energie versorgt werden!



2.7 Engines

Engine Mode Selector

Engine Master Switch



Engine Manual Start Pushbutton

