Auszüge/Beispielseiten aus dem Trainingsmaterial der A320-Familie

- ATA 22 Autoflight
- ATA 79 Oil
- ATA 71 Power Plant
- ATA 34 Navigation
- Cockpit Panel Descriptions
- Airbus Abbreviation List

Das Trainingsmaterial ist so aufbereitet, dass es auf unterschiedlichen Endgeräten dargestellt und verteilt werden kann.

Extracts/sample pages - training material of the A320-family

- ATA 22 Autoflight
- ATA 79 Oil
- ATA 71 Power Plant
- ATA 34 Navigation
- Cockpit Panel Descriptions
- Airbus Abbreviation List

The training material is optimized and available for different mobile end devices.
Figure 2 Auto Flight System Design Philosophy
Figure 1 AP/FD Layout & FLT CTRL Components

1 - ELEVATOR AILERON COMPUTER 1
2 - SPOILER AND ELEVATOR COMPUTER 1
3 - FLIGHT MANAGEMENT AND GUIDANCE COMPUTER 1
4 - FLIGHT AUGMENTATION COMPUTER 1
5 - FLIGHT AUGMENTATION COMPUTER 2
6 - FLIGHT MANAGEMENT AND GUIDANCE COMPUTER 2
7 - SPOILER AND ELEVATOR COMPUTER 2
8 - ELEVATOR AILERON COMPUTER 2
9 - SPOILER AND ELEVATOR COMPUTER 3
10 - BRAKE STEERING CONTROL UNIT
Figure 1  Oil System General
Figure 1 Engine Controls Overview
Figure 8  Terrain Clearance Floor Mode
ATA 22 AUTO FLIGHT

FLIGHT CONTROL UNIT (FCU) 13VU

SPEED/MACH CONTROL AREA

1 SPEED/MACH WINDOW
- Shows selected SPD or MACH in "selected guidance".
- Shows after PWR UP: SPD 100 “−−−−” in "managed guidance".
- Display range: between 100 and 399 KT for speed, between 0.10 and 0.99 for MACH number.

2 SPD/MACH SELECTOR KNOB
- Knob pushed: Engaged SPD/MACH for "managed guidance".
- Knob pulled: Engaged SPD/MACH for "selected guidance".

3 SPD/MACH P/B
Depressing this PB changes SPD target to MACH corresponding MACH target and vice versa (automatic on FL 305).

4 MANAGED SPD/MACH DOT

LATERAL CONTROL AREA

5 HDG/TRK WINDOW
- Shows selected HDG or TRK in "selected guidance".
- Shows after PWR UP: "−−−−", "−−−−" in "managed guidance".
- Display range: between 0 –359 deg.

6 HDG TRK SELECTOR KNOB
- Knob pushed: Arms/engages NAV for "managed guidance".
- Knob pulled: Engages HDG or TRK in "selected guidance".

7 LOC MODE ENGAGEMENT P/B
Arms, engages or disengages the LOC mode.

8 MANAGED LATERAL DOT
ATA 33  LIGHTS

INT LIGHTS, EMER LIGHTS ON 25 VU

1  OVHD INTEG LT KNOB
This knob turns the integral lighting for the overhead panel on and off and adjusts its brightness.

2  STBY COMPASS SWITCH
This switch turns the integral lighting for the standby compass on and off.

3  DOME SWITCH
This switch controls both dome lights.
- **BRT**
  - Both dome lights on bright
- **DIM**
  - Both dome lights on dim
- **OFF**
  - Both dome lights off

4  ANN LT SWITCH
This switch sets the brightness of all the cockpit annunciator lights at either “bright” or “dim”, and also tests them.
- **TEST**
  - Illuminates all flight deck annunciator lights. Puts 8’s up in all LCDs (Liquid Crystal Displays).
- **DIM**
  - Reduces voltage to all annunciator lights.
- **BRT**
  - Allows annunciators to function normally.

5  EMER EXIT LT SWITCH
The selector has three detent positions.
- **ON**
  - Overhead emergency lights, EXIT signs and proximity marking system come on.
- **OFF**
  - Above lights are off.
- **ARM**
  - The proximity emergency escape path marking system comes on when the normal aircraft electrical power or DC SHED ESS BUS is lost.
  - The overhead emergency lights come on if:
    - Normal aircraft electrical power system fails or
    - DC SHED ESS BUS fails or
    - AC BUS 1 fails.
  - Exit signs come on if:
    - Normal aircraft electrical power system fails or
    - DC SHED ESS BUS fails or

**NOTE:** The LIGHT EMER pushbutton on the purser’s panel can turn on the emergency lighting independently of the positions of this selector switch.

6  EMER EXIT LT “OFF“ LT
This light comes on amber when the EMER EXIT LT selector is selected OFF.
1 **ENG MASTER SWITCH 1 (2)**

- **ON**
  - LP fuel valve opens (if the ENG FIRE pushbutton is in).
  - During an automatic start, the HP fuel valve opens if:
    - The ENG MODE selector is at IGN/START.
    - The engine accelerates to the appropriate threshold, which is function of T2 and the altitude.
  - During a manual start, the HP FUEL valve opens if:
    - The ENG-MODE selector is at IGN/START.
    - The MAN START pushbutton switch is ON.

- **OFF**
  Close signals go directly to the HP fuel valve and the LP fuel valve. These signals cause both channels of the FADEC to be reset.

**NOTE:** Releasing the ENG FIRE pushbutton allows flight crew to shut down the engine by closing the LP fuel valve. There is a time delay of about 60 seconds at ground idle as the engine burns the fuel left between the LP valve and the nozzles.

2 **ENG MODE SELECTOR**

- **CRANK**
  - The start valve opens, if the MAN START pushbutton switch is ON. Ignition is not active.

- **NORM**
  - This turns on continuous ignition (A and B) when the engine is running and:
    - The engine anti-ice pushbutton switch is ON, or
    - a flame-out is detected, or
    - the approach idle is selected.
  - The master lever has been cycled from ON to OFF, then back to the ON position, or
  - a surge is detected, or
  - in case of severe rain or hail.

- **IGN START**
  - If the MASTER switch is ON and N2 idle, this position selects continuous ignition (A and B).
  - During an automatic start:
    - On the ground, when N2 passes 16 %, ignition switches to A or B. However, if there is an ignition delay during the start sequence, ignition is continuous (A and B).
    - In flight, continuous ignition (A and B) begins when the start sequence begins.
  - During a manual start, ignition commences when the MASTER switch is turned ON.

**NOTE:** On the ground, the ignition is switched off automatically at the end of the start sequence.
(N2 between 47 % and 53 %).
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR</td>
<td>Avionics Communication Router</td>
</tr>
<tr>
<td>ACRIF</td>
<td>ACR Instrumentation Function</td>
</tr>
<tr>
<td>ACRT</td>
<td>Additional Cross Reference Table</td>
</tr>
<tr>
<td>ACS</td>
<td>Access</td>
</tr>
<tr>
<td>ACS</td>
<td>Air Conditioning System</td>
</tr>
<tr>
<td>ACS</td>
<td>Alternating Current Supply</td>
</tr>
<tr>
<td>ACSC</td>
<td>Air Conditioning System Controller</td>
</tr>
<tr>
<td>ACT</td>
<td>Active</td>
</tr>
<tr>
<td>ACT</td>
<td>Activity</td>
</tr>
<tr>
<td>ACT</td>
<td>Additional Center Tank</td>
</tr>
<tr>
<td>ACTD</td>
<td>Actuated</td>
</tr>
<tr>
<td>ACTG</td>
<td>Actuating</td>
</tr>
<tr>
<td>ACTIV</td>
<td>Active</td>
</tr>
<tr>
<td>ACTN</td>
<td>Action</td>
</tr>
<tr>
<td>ACTR</td>
<td>Actuator</td>
</tr>
<tr>
<td>ACTVN</td>
<td>Activation</td>
</tr>
<tr>
<td>ACTVT</td>
<td>Activate</td>
</tr>
<tr>
<td>ACU</td>
<td>Air Cooling Unit</td>
</tr>
<tr>
<td>ACU</td>
<td>Antenna Control Unit</td>
</tr>
<tr>
<td>ACU</td>
<td>Antenna Coupler Unit</td>
</tr>
<tr>
<td>ACUTE</td>
<td>AIRBUS Cockpit Universal Thrust Emulator</td>
</tr>
<tr>
<td>ACVR</td>
<td>Alternating Current Voltage Ratio</td>
</tr>
<tr>
<td>AD</td>
<td>Aerodrome</td>
</tr>
<tr>
<td>AD</td>
<td>Airplane Datum</td>
</tr>
<tr>
<td>AD</td>
<td>Airworthiness Directive</td>
</tr>
<tr>
<td>A-D</td>
<td>Airbus Deutschland</td>
</tr>
<tr>
<td>ADAM</td>
<td>Airbus Spares Distribution and Materials System</td>
</tr>
<tr>
<td>ADAU</td>
<td>Auxiliary Data Acquisition Unit</td>
</tr>
<tr>
<td>ADB</td>
<td>Aeronautical Data Base</td>
</tr>
<tr>
<td>ADB</td>
<td>Airport Data Base</td>
</tr>
<tr>
<td>ADB</td>
<td>Area Distribution Box</td>
</tr>
<tr>
<td>ADC</td>
<td>Additional Control Device</td>
</tr>
<tr>
<td>ADC</td>
<td>Air Data Computer</td>
</tr>
<tr>
<td>ADC</td>
<td>Airbus Delivery Centre</td>
</tr>
<tr>
<td>ADCL</td>
<td>Airworthiness Directives Compliance List</td>
</tr>
<tr>
<td>ADCN</td>
<td>Avionics Data Communication Network</td>
</tr>
</tbody>
</table>
P

P Purple
P Roll Rate
P Pressure
P(±OFF) Polarity (plus, minus, off)
P. ALT Profile Altitude
P.CLB Profile Climb
P.DES Profile Descent
P.EPR Profile EPR
P.MACH Profile Mach
P.N1 Profile N1
P.SPD Profile Speed
P/B Pushbutton
P/BSW Pushbutton Switch
P/C Printed Circuit
P/L Payload
P/N Part Number
P/P ROM Preprocessor ROM
Pa Pascal
PA Passenger Address
PA Public Address
PA AMP Passenger Address Amplifier
PAD Partner Agreement Document
PADS Pneumatic Air Distribution System
PAL Programmable Array Logic
PAMB Ambient Pressure
PAR Precision Approach Radar
PARAM Parameter
PARK Parking
PAS Pitch Attitude Sensor
PATCC Production Aircraft Test Completion Certificate
PATM Production Aircraft Test Manual
PATS Passenger Air-to-Ground Telephone System
PAX PAX Announcement Entertainment and Service Multiplex System