

# 7. Flight Handling & Airbus Philosophy

- [7.1 Objective and Philosophy](#)
- [7.2 Managed vs Selected Mode](#)
- [7.3 Flight Director \(FD\)](#)
- [7.4 Flight Mode Annunciator \(FMA\)](#)
- [7.5 Thrust Management](#)
- [7.6 Energy Management](#)
- [7.7 Automation Discipline](#)
- [7.8 Manual Flying](#)
- [7.9 Situational Awareness](#)

# 7.1 Objective and Philosophy

## Objective

To understand how to properly control and manage the Airbus A320 using automation, while maintaining full situational awareness.

---

## Core Philosophy

The Airbus is designed around one key concept:

☐ **“Manage the flight path, monitor the automation.”**

Pilots do NOT “fly the aircraft” in the traditional sense:

- They manage modes
- They supervise systems
- They intervene when necessary

# 7.2 Managed vs Selected Mode

This is the most important concept in Airbus operations.

---

## Managed Mode

- Aircraft follows FMGS flight plan
- Speed, altitude and path are automated

### Used when:

- Normal operations
  - Following SID / STAR
  - Cruise and climb
- 

## Selected Mode

- Pilot manually selects values (speed, heading, vertical speed)

### Used when:

- ATC instructions
  - Tactical corrections
  - Specific energy management
- 

## Core Rule

**“Managed by default - Selected when required.”**

# 7.3 Flight Director (FD)

The Flight Director provides guidance via crossbars on the PFD.

---

## Key Rule

☐ The aircraft must **follow the FD crossbars**

---

## Autopilot Engagement Rule

The autopilot may only be engaged if:

- Aircraft is stable
  - **FD crossbars are aligned**
  - Aircraft is already following FD commands
- 

## Core Principle

**“First fly the FD - then engage the autopilot.”**

# 7.4 Flight Mode Annunciator (FMA)

Located at the top of the PFD.

---

## Importance

The FMA shows:

- Active modes
  - Armed modes
  - Autothrust status
- 

## Key Rule

**Always confirm mode changes on the FMA**

---

## Standard Call

- “FMA checked”
-

# 7.5 Thrust Management

The A320 uses fixed thrust detents:

- IDLE
  - CL (Climb)
  - FLX/MCT
  - TOGA
- 

## Key Concept

- Thrust levers are set to detents
  - Autothrust manages thrust within limits
- 

## Core Rule

**“Set thrust - let the system manage it.”**

# 7.6 Energy Management

Energy = Speed + Altitude

---

## Good Energy State

- On profile
  - Correct speed
  - Minimal corrections required
- 

## Bad Energy State

- Too fast / too high
  - Too slow / too low
- 

## Correction Methods

- Adjust vertical speed
- Use speed brakes
- Select speed if required

# 7.7 Automation Discipline

Pilots must:

- Understand active modes
  - Anticipate aircraft behavior
  - Intervene early
- 

## Common Mistakes

- Blind trust in automation
  - Wrong mode selected
  - Late corrections
- 

## Core Rule

**“If you don’t understand the mode - you are not in control.”**

# 7.8 Manual Flying

Manual flying is required:

- During training
  - In abnormal situations
  - When automation is not appropriate
- 

## Key Principle

- Smooth inputs via sidestick
- Trust flight control laws

# 7.9 Situational Awareness

Pilots must always know:

- Where the aircraft is going
  - What the aircraft is doing
  - What will happen next
- 

## Core Rule

**“Stay ahead of the aircraft.”**

---

## Outcome

Correct application of Airbus philosophy results in:

- Smooth, efficient flights
- Proper automation usage
- High level of control and awareness