

### A300-600R

#### Dimensions:

Length	177' 5"
Wing Span	147' 1"
Height	54' 6"

#### Weights (lbs)

Empty	196,025
Fuel	130,000
Payload	90,625
MTOW	376,000 Maximum Take-off Weight
MLW	308,700 Maximum Landing Weight

#### Engines: A300-600R

- 2 \* 273kN General Electric GE CF6-80C2A5 Turbofans (61,425 lb.) thrust
- 2 \* 257kN Pratt & Whitney PW 4158 Turbofans (57,825 lb.) thrust

#### Operating Performance

- Mno 0.82 Mach Normal Operating Speed
- Mmo 0.84 Mach Max. Operating Speed
- Mne 0.88 Mach Never Exceed Speed
- Vno 335 knots Normal Operating Speed IAS
- Vmo 365 knots Max. Operating Speed IAS
- Vne 430 knots Never Exceed Speed IAS
- Vat 136-140 knots Landing @ Runway Threshold Speed @ MLW full flap/Gear down

**\* DO NOT Exceed 250kts @ or Below 10,000ft Altitude.\***

#### Take-off speed @ MTOW:

- V1 140kts @ flap2/3 (V1 is the go or no-go decision speed)
- VR 145kts (VR is the rotation speed ie lift-off speed)
- V2 150 - 160kts (V2 is the safe climb-out speed)

#### ILS & Approach speed @ MLW:

- 180 kts Flap2 (Kyb 2) to full flap/gear down @ Vat 136 - 140 kts
- Vat = 1.30 Vso (Vso is stall speed @ full flap/gear down)

#### Cruise Speeds:

- Max Cruise Speed 480kts Cruise Altitude 30,000 - 35,000ft depending on weight.
- Typical Cruise Speed is 0.78 - 0.82 Mach @ FL300 - FL350 (30,000-35,000ft)
- Long Range Cruise is 456kts @ 35,000ft

When flying long routes (over 4hrs) with MTOW, climb to FL300 & hold Alt with cruise speed 0.78 - 0.80 Mach , then fly that level for 30-45 min. then climb to FL310 - 320 @500 fpm and so on until you reach FL350 @ 0.80 - 0.82 Mach.

Try not exceed 91% N1 during cruise in order to have available thrust for emergencies & be more efficient with fuel burn. The reason I mentioned the above procedure with X-Plane is to avoid too much nose pitch up attitude which put the aircraft wing @ higher angle of attack causing speed bleed leading to a clean stall if you are not careful.

The time taken between cruise climb is important because the aircraft will burn fuel (losing weight), your speed will gradually increase @ the same N1 setting , your aircraft pitch up will decrease helping you for the next cruise climb. Rate of climb at these alts should be between 300-500 fpm in order not to lose speed rapidly. The more you climb to FL350 the more the air density is less the better the engine fuel consumption (more range)& the less is thrust.

I usually output data for N1 on the screen & switch the EICAS (Engine Indicating and Crew Alerting System) to fuel management to observe aircraft status on fuel burn & range.

You should carry fuel enough for the flight + 40mins for diversions & emergencies i.e. if your trip is 4hrs long, you load fuel for the required 4hrs flight plus fuel for an extra 40 min. You should know your aircraft's average fuel consumption for the type of engines fitted with in order to determine the fuel weight required for the flight. Remember that weight is drag, drag is more fuel burn which costs money (for virtual pilots flying for virtual airlines), so do not carry fuel more than you need. You have a destination to go to & MLW limit. You do not want to arrive to your destination with total weight above MLW!.

### **FAR Field Lengths**

Take-off 7,480 ft to 10,460 ft

Landing 5,100 ft to 5,600 ft

### **Take-off Check List**

- Allowable Take-off Weight (MTOW or lower) Checked
- Flaps Set
- Trim Set
- Autopilot Controls Off

### **Final Landing Check List**

- Gear Down/Green
- Flaps/Slats Set/ 3 or 4
- Speed Brakes Armed
- ILS freq Tuned

### **During Descent Check**

- Check Allowable Landing Weight (MLW or lower)
- Review your ILS approach & Runway heading

### **ROC Rate Of Climb**

#### **Below 10,000ft**

- max. 4,000 fpm @ 250kts (fpm is Feet per minute)

**\* DO NOT Exceed 250kts @ or Below 10,000ft Altitude.\***

#### **Above 10,000ft to Cruise Flight Level FL**

- 2000 - 2500fpm from 10,000 - 20,000ft @ 260 - 350kts
- 2000 - 1500fpm from 20,000 - 26,000ft
- 1500 - 300fpm from 26,000 - 35,000 ft depending on weight.

### **ROD Rate Of Descent**

- From Cruise FL to 10,000ft hold 0.78 Mach until 290 kts, reduce thrust for 2500 fpm
- Below 10,000ft rate of descent varies with ATC requirements, but is between 800 - 3000fpm
- In normal conditions 250kts idle descent , then slow & configure speed so as to not add power until on Glide Slope.
- Glide Slope descend is between 1500 - 500fpm depending on your situation
- At Runway Threshold descend between 400 - 200fpm for a smooth touchdown landing ( A Greaser Landing).

### **ETOPS Extended Twin engine OPERations :**

If an engine failure occur during cruise forcing an engine shutdown, fly a descend profile on the remaining engine to FL160 (16,000ft) & hold speed between 300 - 420kts. Do not forget to trim to compensate for your lost engine. The A300-600R can fly the remaining trip on one engine & land @ MLW or lower.

The Airbus A300-600R is fitted with engines certified ETOPS for 180 minutes.

This is very essential if you fly long routes over water i.e. LAX-Honolulu.

If both engines go out on you then apply EROPS rule ' Engines Refuse to Operate ,Please Swim':)

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MLW = Maximum Landing Weight

MTO = Maximum Take-off Weight

V2 = Safe Climb-out speed (The speed after Vr, Rotation speed or Lift-off speed)

Vat = Landing speed at runway threshold Flap/Gear down (X-Plane @ 50'...25'...10')

Vapr= Approach Speed , just add 5-10kts to Vat with flap/gear down @ MLW or less

Vno = Normal Operating Speed

Vmo = Maximum Operating Speed

Vne = Never Exceed Speed

FL350 = Flight Level 35,000'

**Thanks to Mohammed Gazzawi, Designer/Test Pilot MGXP**