

DO NOT USE FOR FLIGHT

Airbus A318/A319/A320/A321

+

Airbus A330/A340

Checklist / Flow-Procedure

including basic Flight-Planning-Charts

for Wilco Airbus Series
with Microsoft Flight Simulator / Prepar3D

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Version 7.0

Print Notice: Page size DIN A5. Print 2 pages per A4 or Letter page. This page is the front cover.

Attention:

- 1) You need a saved Flight with the aircraft parked at parking position and parking break set!
If you don't have such a flight you won't be able to load the aircraft in Dark & Cold mode. So create such a flight, set the parking break and save it. For every new flight, set D&C in the configurator, load the flight and then change the location the desired airport.
- 2) Auto-Functions in FMC are only available in Beginner and Intermediate mode (configurator).
- 3) Intermediate mode is recommended as IRS alignment otherwise takes 10 minutes.
- 4) Thrust levers (e.g. CH Throttle Quadrant) have to be calibrated in special way for the Wilco Airbus Series, because FLEX and TO/GA detents can't be reached otherwise. When calibrating set the max forward position about 1cm behind the normal max forward position. With the configuration you can push the Airbus Series thrust levers over the 100% manual thrust position to reach FLEX and TO/GA detents. Alternate method: Use keyboard for t/o thrust setting and use throttles only for taxi and manual approach.

Parking Position / Preparation:

- | | |
|---------------------------------|--|
| • Dark & Cold (at Configurator) | Set |
| • Load & Fuel (at Configurator) | Set |
| • FSX | Start & load Airbus-Flight (with Parking Break set!) |
| • Parking Break | Set |
| • All ENG Master switches | Off |
| • Load & Fuel (at FSX) | Check (or reset) |
| • IVAP-Connection | Activate |
| • Flightplan at FSX | Create |
| • Dep-Metar | Check & note |
| • Arr-Metar | Check & note |
| • Door(s) | Open |
| • Gangway | Enable (if available) (Ctrl + J) |
| ⇒ Overhead-Panel: | |
| • Battery | On |
| • Engine GENerators | On |
| • NAV-Light | On |

- Radio Mgmt. Panel (Pedestal) On
- External Power On (if available)
- Window Heat On
- ⇒ **Overhead Panel End**
- Autopilot-FD (Flight Director) Off → On (Reset)
- **FMC:**
 - DATA INDEX → DATA Button
 - Import FS FPLN → 6R
 - INSERT → 6R
 - MCDU Menu → MCDU MENU Button
 - FMGC → 1L
 - Enter Flight No. → 3L
 - Enter Flight-Level → 6L
 - Enter Alternate Airport → 2R
 - Enter Cost-Index → 5L (50 average, 100 high speed cruise)
 - Align IRS → 3R
 - IRS Alignment has started---
 - INIT Page B → NEXT PAGE Button
 - Enter Zero Fuel Weight (ZFW) → 1R
 - (Auto-ZFW → 2x 1R)
 - Enter Block Fuel (BLOCK) → 2R
 - (Auto-Block Fuel → 2x 2R)
 - F-Plan Page → F-PLAN
- ⇒ **---Make sure to be at the top of the F-PLAN page (↑-Button)---**
 - LAT REV Page (of Departure Airport) → 1L
 - DEPARTURE Page → 1L
 - Choose runway (up/down with ↑↓-Buttons) → xL
 - x = line no. of desired runway
 - Choose SID and Transition → xL → xR
 - x = line no. of desired SID / TRANS
 - You don't have to choose a SID / TRANS (choose NONE).
 - INSERT → 6R
 - Clear any discontinuities at departure route → CLR Button → xL
 - x = line no. of discontinuity
 - Scroll page down to Arrival Airport → 2x AIRPORT Button
 - LAT REV Page (of Arrival Airport) → xL (standard 6L)
 - x = line no. of Arrival Airport



- ARRIVAL Page → 1R
- Choose runway → xL
 - o x = line no. of desired runway
 - o You can change this in-flight if required.
- Choose STAR and Transition → xL → xR
 - o x = line no. of desired STAR / TRANS
 - o You can change this in-flight if required.
 - o You don't have to choose a STAR / TRANS (choose NONE / 1R).
- INSERT → 6R
- Clear any discontinuities at arrival route → CLR Button → xL
 - o x = line no. of discontinuity
- ⇒ --- next steps are not necessary---
- Scroll page up to Dep. AP → 2x AIRPORT Button
- VERT REV Page (of Dep. AP) → 1R
- Enter estimated time of departure (UTC time) → 2R
- RETURN → 6L
- ⇒ --- next steps are necessary again---
- PERF TO Page → PERF Button
- Enter Flap configuration for T/O (1, 2 or 3) → 3R
- Enter FLEX T/O TEMP → 4R (average value: 50)
 - o (Auto-Flex-Temp → 2x 4R)
- Enter V1 → 1L
- Enter VR → 2L
- Enter V2 → 3L
 - o (Auto-V1, -VR, -V2 → 2x L1 → 2x L2 → 2x L3)
- Enter Thrust-Reduction Alt. in ft. (>1500) (or leave suggested value) → 5L
- Enter Transition Alt. → 4L
- Next PHASE → 6R
- Enter Climb Speed (KIAS) → 4L
- Next PHASE → 6R
- Enter Cruise-Speed (KIAS or .Mach) → 4L
- Next PHASE → 6R
- ⇒ ---FMC finished---

- IVAP-flightplan
- Speed at flightplan

Read from FMC & enter
Enter TAS or MACH

--- TAS = KIAS + FL/2 ---

- | | |
|----------------------------|---------------------------|
| • Departure Time | Enter (UTC) |
| • EFIS-Mode (MainPanel/MP) | ARC |
| • EFIS-Range (MP) | 40nm (or as required) |
| • GND-Control | Set frequency |
| • IFR-clrc | Request (when ATC active) |
| • IFR-clrc-data | Note & Readback |

--- Note: Squawk, First-Altitude, QNH → Readback ---

- | | |
|------------------|-----------------------------------|
| • Squawk | Set |
| • FP-correction | Correct (if required / requested) |
| • FMC-correction | Correct (if required / requested) |
| • Altimeter | Set to atmospheric pressure (B) |
| • Autopilot | Set |

--- Correct settings: dash-ball-dash-ball-ball-dash ---

- | | |
|--------------------------------------|---------------------------|
| ○ CLB & NAV modes | Armed |
| --- FMS should display CLB / NAV --- | |
| ▪ If not... | Reset FD (FD Off → FD On) |
| ○ First Altitude | Set |
| ○ Speed | Managed |
| ○ Heading | Managed |
| ○ Altitude | Managed |

--- Note: Target Alt. must be higher than Accel. Alt. ---

--- Note: Managed = Left Mouse Button, Selected = Right MB ---

Engine s/u & Pushback:

- | | |
|----------------------------------|--------------------|
| • Gangway | disable (CTRL + j) |
| • Doors | closed |
| • Engine s/u & Pushback p/b clrc | request |
| • APU Master | On |
| • APU Start | On |

--- wait till APU Start switch shows available (AVAIL) ---

- | | |
|------------------|-----|
| • APU Bleed | On |
| • External Power | Off |
| • Fuel Pumps | On |

--- All Pumps of tanks containing fuel only ---

- | | |
|-----------------|----|
| • Beacon Lights | On |
|-----------------|----|

- Wing Lights On
- Nose Light Taxi
- Runway Turnoff Lights On
- No Smoking On (or Auto)
- Seat Belts Auto
- Flaps Select (as filled in FMC)
- Spoiler Armed
- Autobrake MAX (A340-600: RTO)

- Parking Break Off
- Pushback Start
- ENG-Mode (Pedestal) IGN/Start
- FADEC should turn active (from amber displays)---

- A340 Engine Start:
 - ENG 1 & 4 Master On
 - wait till started ---
 - ENG 2 & 3 Master On
 - wait till started ---

- A320 / A330 Engine Start:
 - ENG 2 Master On
 - wait till started ---
 - ENG 1 Master On
 - wait till started ---

- ENG-Mode NORM
- wait till take-off memo shows up ---
- Engine GENERators Check On
- APU Bleed Off
- APU Master Off

- Engine & Wing anti-ice On (under 10°C TAT)
- T/O Config Check & push t/o-config button
- Main Display Check for warnings
- Pushback Finish

Taxi:

- | | |
|-------------------|-----------------------|
| • Taxi-Clrc | Request |
| • Taxiways | Note (if required) |
| • Ground-Guidance | Request (if required) |

h/p:

- | | |
|-----------------------|------------------------------|
| • Hand-off GND to TWR | Change frequency |
| • l/u & t/o clrc | Request (rdy for dep h/p xx) |
| • Landing Lights | On |
| • Nose Light | TO |
| • Strobe Light | On |
| • T/O Memo | Check all green |
| • IVAP-Transponder | On |
| • TCAS | On (TA or TA/RA) |
| • TCAS Mode | Above (or All) |
| • Postion & hold | Taxi & stop on rwy |

Ready to Takeoff:

- | | |
|--|--|
| • Parkingbreak | Set |
| • Thrust Levers | Forward to 60-70% N1 |
| ○ Flex–t/o | Thrust Levers up to FLX detent |
| --- there should be 2 audible sounds --- | |
| ○ Power–t/o | Thrust Levers up to TO/GA |
| --- there should be 3 audible sounds --- | |
| • Parking Break | Release |
| • Yoke | Press forward till 80kts |
| • FMA Display-Check: | |
| ○ 1 st column | MAN FLEX flex-number
(or TO/GA if TO/GA selected) |
| ○ 2 nd column | CLB (blue) and SRS (green) |
| ○ 3 rd column | NAV (blue) and RWY (green) |
| ○ 4 th column | A/THR (blue) |
| • V1 | V1, no abort of take-off |
| • VR | Rotate |

- V2 V2, Lift-off

Takeoff:

- Trim settings DO NOT adjust
--- Note: Auto-Trim active ---
- Gear Up (at positive climb rate)
- Autopilot 1 / AP1 On
- Flaps Raise (on schedule / at S speed)
- Airborne Publish when on Unicom
- Start time Note (if required/for IVAO)
- FMA Display: Check 1st column: LVR CLB
 - Thrust Levers Back to CL detent
--- 1 sound back from FLX ---
- Hand-off TWR to APP(DEP) Change frequency

Climb:

- Landing Lights Off
- Runway Turnoff Lights Off
- Nose Light Off
- Autobreak Off
- Auto-Thrust (A/TH) Reset if required
--- → A/TH Off → A/TH On ---
- FMA Display, Check 2nd column CLB mode active
--- to final FL / when cleared to next flight level ---
- AP altitude (& speed) Change
--- Choose "Selected AP Mode" if required by ATC ---
- TCAS biasing mode All
- Hand-off APP to CTR Change frequency
- Engine & Wing anti-ice On (under 10°C TAT)
- Altimeter Readjust (above 18000ft) ("B")

Cruise:

- | | |
|----------------------|---|
| • FMA Display | Check 2 nd column: ALT CRZ |
| • TCAS | All |
| • Radio /ATC contact | Maintain |
| • Autopilot / FMC | Check permanently |
| • FMC | Check FUEL PRED iction page for fuel consumption |

Descent & Approach:

- Beginn descent preparations before top of descent (T/D) ---
- | | |
|-----------------------------|----------|
| • Descent preparations | Begin |
| • Airport-/Meta-Information | Retrieve |
- When T/D reached or descend clearance received ---
- | | |
|------------|-----------------|
| • Altitude | Select Altitude |
|------------|-----------------|
- Press Alt. button for managed descend ---
- | | |
|--------------|---------------------|
| • Autobreaks | Set (Low or Medium) |
| • TCAS | BLW (Pedestal) |
- When Deceleration (D) – Point reached ---
- | | |
|------------------|-----------|
| • Approach Phase | Check FMC |
|------------------|-----------|
- FMC should display AppPhase active, otherwise activate (6L) ---
- | | |
|---------------------|--------------------------------|
| • Target Speed | Check Autopilot set Vapp speed |
| • FMC AppPhase Page | Enter QNH → 1L |
| • Speedbrakes | Up (if required/too fast) |
| • ILS | On |
- Push ILS button for ILS info on PFD ---
- | | |
|-----------------------|--------------------------|
| • Altimeter | Readjust (under 18000ft) |
| • Hand-off CTR to APP | Change frequency |
- Descend under ATC guidance: ---
- | | |
|-----------------------------|--------------------|
| • Autopilot (selected mode) | Select HDG and ALT |
|-----------------------------|--------------------|
- Descend without ATC guidance: ---
- | | |
|----------------------------|-------------------|
| • Autopilot (managed mode) | Follow flightplan |
| • Landing Lights | On |
| • Nose Light | TO |
| • Runway Turnoff Lights | On |

Approach & Landing (Autoland):

- | | |
|---|--------------------------------|
| • Flaps | Lower (as indicated) |
| --- Flaps, e.g. 5000ft 1; VFE NEXT 2; ... --- | |
| --- Under ATC guidance: --- | |
| • Autopilot selected mode | Select HDG and ALT |
| --- Without ATC: --- | |
| • Autopilot managed mode | Follow flightplan |
| ---stabilize on glideslope--- | |
| • Autopilot LOC | On |
| • Around 2000ft. AGL: | |
| ○ Landing gear | Down |
| ○ Flaps | Full / Check full |
| ○ Spoiler | Armed |
| ---when localizer is captured--- | |
| • ILS captured | Announce |
| • Hand-off APP to TWR | Change frequency |
| • Landing clrc | Request / Await |
| • FMA Display | Check LOC or LOC* |
| ○ Autopilot | APPR On |
| ○ Autopilot | 2 nd AP On |
| • Landing Memo | Check all green |
| • Autopilot | Check |
| ○ LAND mode | On |
| ○ FLARE mode | On |
| • “Retard” sound | Thrust Idle position |
| ---Touchdown--- | |
| • Throttles | Idle |
| • Thrust reversers | Engage (if required) |
| • Thrust reversers | Disengage at 80kt, thrust idle |
| • Brakes | Push (at 40-50kt) |
| --- Note: auto-break now disabled --- | |
| • Runway | Vacate („rwy vacated“) |

Approach & Landing (w/o Autoland):

- | | |
|---|--------------------------------|
| • Flaps | Lower (as indicated) |
| --- Flaps, e.g. 5000ft 1; VFE NEXT 2; ... --- | |
| --- Under ATC guidance: --- | |
| • Autopilot selected mode | Select HDG and ALT |
| --- Without ATC: --- | |
| • Autopilot managed mode | Follow flightplan |
| ---stabilize on glideslope--- | |
| • Autopilot LOC | On |
| • Around 2000ft. AGL: | |
| ○ Landing gear | Down |
| ○ Flaps | Full / Check full |
| ○ Spoiler | Armed |
| ---when localizer is captured--- | |
| • ILS captured | Announce |
| • Hand-off APP to TWR | Change frequency |
| • Landing clrc | Request / Await |
| • FMA Display | Check LOC or LOC* |
| ○ Autopilot | APPR On |
| • AP | Off |
| • Controls | Check Movement, take control |
| • Landing Memo | Check all green |
| • "Retard" sound | Thrust Idle position |
| ---Touchdown--- | |
| • Throttles | Idle |
| • Thrust reversers | Engage (if required) |
| • Thrust reversers | Disengage at 80kt, thrust idle |
| • Brakes | Push (at 40-50kt) |
| --- Note: auto-break now disabled --- | |
| • Runway | Vacate („rwy vacated") |



Taxi:

- | | |
|-----------------------|------------------------|
| • Transponder | Stdbby |
| • Hand-off TWR to GND | Change frequency |
| • Taxiways | Note and follow |
| • (Ground-Guidance | Request if required) |
| • Flaps | Set 0 |
| • Speedbrake | Disengage (if engaged) |
| • Autobrakes | Off |
| • Landing lights | Off |
| • Strobe | Off |
| • Landing time | Note (if needed) |
| • APU Master | On |
| • APU Start | On |

Parking Position:

- | | |
|--|-------------------------|
| • Parking brake | Set |
| • ATC contact | End (state "on blocks") |
| • All ENG Master switches | Off |
| • Fuel pumps | Off |
| • Seatbelts | Off |
| • Door s | Open (shift + e) |
| • Gangway | Enable (CTRL + j) |
| • Beacon lights | Off |
| • Wing Lights | Off |
| --- wait 1 minute --- | |
| • External Power | On |
| • APU Master | Off |
| • Engine Anti Ice | Off |
| • Wing Anti Ice | Off |
| • Window Heat | Off |
| • Flight Director | Reset (Off → On) |
| ---if Dark & Cold is desired continue--- | |
| • TCAS | Stdbby |
| • Ground power | Off |

- | | |
|--------------------------------|-----------|
| • External lights | Off (all) |
| • Internal lights | Off (all) |
| • Radio Mgmt. Panel (Pedestal) | Off |
| • Engine GENerators | Off |
| • Battery | Off |



AIRBUS

Checklist + Flow-Procedure
Airbus A320/A330/A340 Series

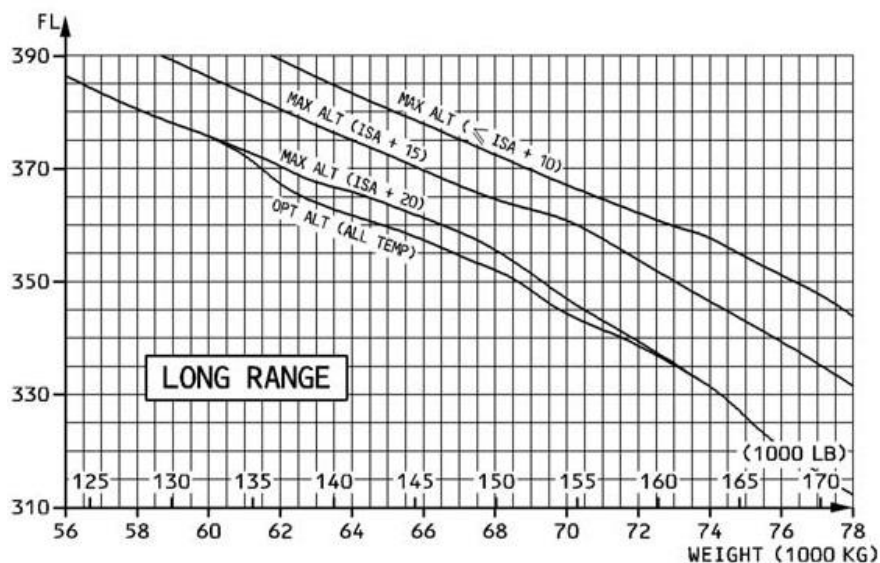
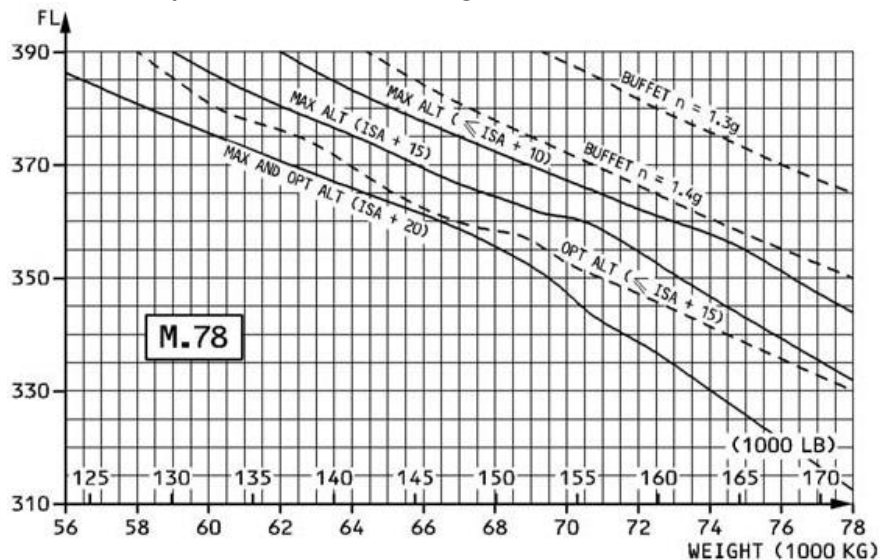


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A320 Series Attachments:

A320 Series Optimum & Maximum Flight Level Charts:





A320 Series Fuel Planing Charts:

<u>Flightplan</u> Fuel at CI = 50	MZFW 137800 <u>lbs</u>	Fuel Consumed (<u>lbs</u>)	Break Release to Landing	Climb: 250 / 300 <u>kt</u> M 0.78	Cruise: M 0.78	Descend: M 0.78 300 / 250 <u>kt</u>
Data for A320	A318 97%	A319 99%	A321 110%			
<u>Distance</u> (<u>nm</u>)	<u>Fuel (lbs) at</u> <u>FL 290</u>	<u>Fuel (lbs) at</u> <u>FL 310</u>	<u>Fuel (lbs) at</u> <u>FL 330</u>	<u>Fuel (lbs) at</u> <u>FL 350</u>	<u>Fuel (lbs) at</u> <u>FL 370</u>	<u>Fuel (lbs) at</u> <u>FL 390</u>
100	3600	97% of FL290	94% of FL290	93% of FL290	93% of FL290	93% of FL290
200	5100					
300	6600					
400	8100					
500	9700					
600	11200					
700	12800					
800	14300					
900	15900					
1000	17600					
1100	19200					
1200	20800					
1300	22400					
1400	24100					
1500	25800					
1600	27500					
1700	29200					
1800	30900					
1900	32700					
2000	34500					
2100	36300					
2200	38000					
2300	39800					
2400	42000					

NOTE FOR ALL A320 MODELS:
→ Flight Plan Fuel + 14.500 LBS = Total Fuel

→ Total fuel = Enough fuel for route, 1h contingency (holding & taxi), problematic winds, alternate fuel for 200nm and a minimum landing fuel (1h). Modify alternate value as needed.

→ Load all wing tanks with same amount of fuel; outer tanks full → inner tanks → center tanks.

Fuel planning notes A318:

	Basic Operating Weight (OEW)	086.650 LBS	
+	Payload (passengers & cargo)	XXX.XXX LBS	
=	Zero Fuel Weight (ZFW)	XXX.XXX LBS	(max 120.100)
+	Minimum Landing Fuel	005.500 LBS	
+	Alternate Fuel (200nm distance)	003.500 LBS	
+	Contingency Fuel (holding, taxi, etc.)	005.500 LBS	
=	Planned Landing Weight (PLW)	XXX.XXX LBS	(max 126.700)
+	Flight Plan Fuel (fuel for route)	XXX.XXX LBS	
=	Planned Takeoff Weight (PTOW)	XXX.XXX LBS	(max 149.900)

Fuel planning notes A319:

	Basic Operating Weight (OEW)	089.500 LBS	
+	Payload (passengers & cargo)	XXX.XXX LBS	
=	Zero Fuel Weight (ZFW)	XXX.XXX LBS	(max 129.000)
+	Minimum Landing Fuel	005.500 LBS	
+	Alternate Fuel (200nm distance)	003.500 LBS	
+	Contingency Fuel (holding, taxi, etc.)	005.500 LBS	
=	Planned Landing Weight (PLW)	XXX.XXX LBS	(max 137.800)
+	Flight Plan Fuel (fuel for route)	XXX.XXX LBS	
=	Planned Takeoff Weight (PTOW)	XXX.XXX LBS	(max 166.500)

Fuel planning notes A320:

	Basic Operating Weight (OEW)	093.500 LBS	
+	Payload (passengers & cargo)	XXX.XXX LBS	
=	Zero Fuel Weight (ZFW)	XXX.XXX LBS	(max 137.800)
+	Minimum Landing Fuel	005.500 LBS	
+	Alternate Fuel (200nm distance)	003.500 LBS	
+	Contingency Fuel (holding, taxi, etc.)	005.500 LBS	
=	Planned Landing Weight (PLW)	XXX.XXX LBS	(max 145.500)
+	Flight Plan Fuel (fuel for route)	XXX.XXX LBS	
=	Planned Takeoff Weight (PTOW)	XXX.XXX LBS	(max 169.800)

Fuel planning notes A321:

	Basic Operating Weight (OEW)	106.300 LBS	
+	Payload (passengers & cargo)	XXX.XXX LBS	
=	Zero Fuel Weight (ZFW)	XXX.XXX LBS	(max 162.700)
+	Minimum Landing Fuel	005.500 LBS	
+	Alternate Fuel (200nm distance)	003.500 LBS	
+	Contingency Fuel (holding, taxi, etc.)	005.500 LBS	
=	Planned Landing Weight (PLW)	XXX.XXX LBS	(max 171.500)
+	Flight Plan Fuel (fuel for route)	XXX.XXX LBS	
=	Planned Takeoff Weight (PTOW)	XXX.XXX LBS	(max 206.100)

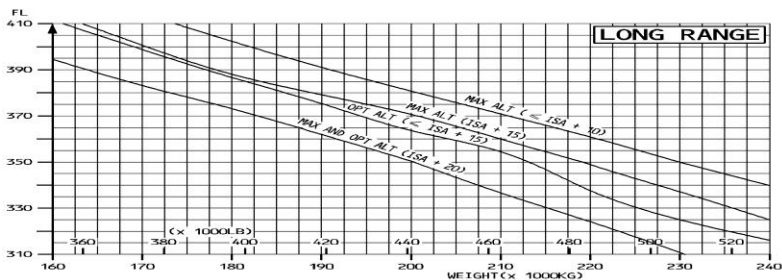
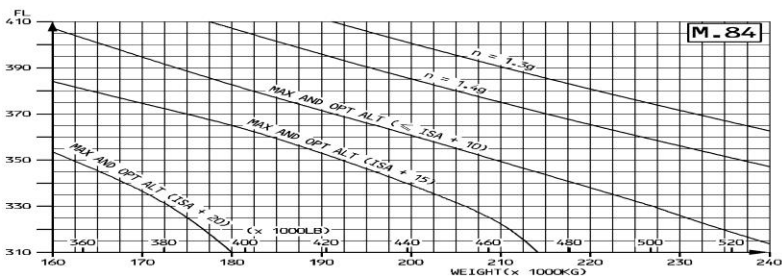
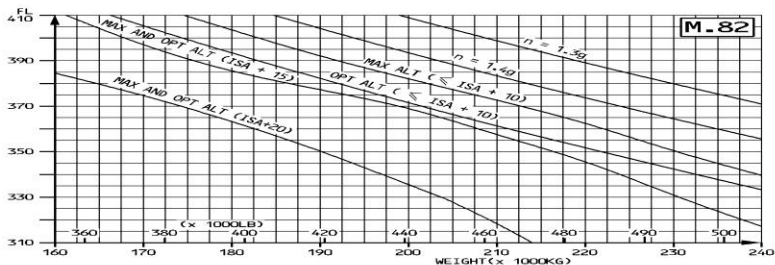
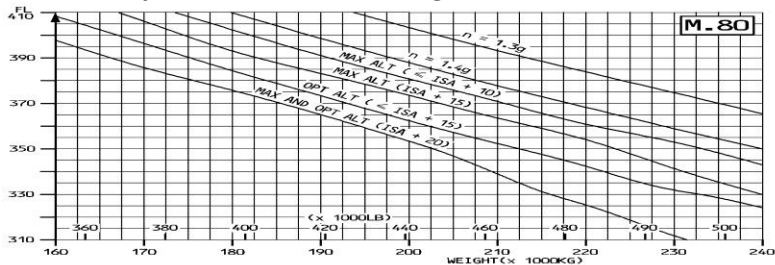
Fuel planning notes ACJ (based on A319):

	Basic Operating Weight (OEW)	095.900 LBS	
+	Payload (passengers & cargo)	XXX.XXX LBS	
=	Zero Fuel Weight (ZFW)	XXX.XXX LBS	(max 128.970)
+	Minimum Landing Fuel	005.500 LBS	
+	Alternate Fuel (200nm distance)	003.500 LBS	
+	Contingency Fuel (holding, taxi, etc.)	005.500 LBS	
=	Planned Landing Weight (PLW)	XXX.XXX LBS	(max 137.790)
+	Flight Plan Fuel (fuel for route)	XXX.XXX LBS	
=	Planned Takeoff Weight (PTOW)	XXX.XXX LBS	(max 168.650)



A330-200 Attachments:

A330-200 Optimum & Maximum Flight Level Charts:



**A330-200 Fuel Planing Charts:**

<u>Flightplan</u> Fuel at CI = 50	MZFW 374800 <u>lbs</u>	Fuel Consumed (<u>lbs</u>)	Break Release to Landing	Climb: 250 / 300 <u>kt</u> M 0.78	Cruise: M 0.80	Descend: M 0.82 300 / 250 <u>kt</u>
<u>Distance</u> (<u>nm</u>)	<u>Fuel (lbs) at</u> <u>FL 310</u>	<u>Fuel (lbs) at</u> <u>FL 330</u>	<u>Fuel (lbs) at</u> <u>FL 350</u>	<u>Fuel (lbs) at</u> <u>FL 370</u>	<u>Fuel (lbs) at</u> <u>FL 390</u>	<u>Fuel (lbs) at</u> <u>FL 410</u>
100	5000	95% of FL310	92% of FL310	88% of FL310	86% of FL310	85% of FL310
200	8200					
300	11500					
400	14800					
500	18100					
1000	34600					
1500	51800					
2000	67500					
2500	84000					
3000	100500					
3500	116900					
4000	133400					
4500	149800					
5000	166300					
5500	182800					
6000	199300					
6500	215700					
7000	232200					
7500	248700					
8000	-	-	243900	233376	228072	225420
8500	-	-	-	247900	242262	239445

**Fuel planning notes A330-200:**

	<i>Basic Operating Weight (OEW)</i>	<i>263.700 LBS</i>	
+	<i>Payload (passengers & cargo)</i>	<i>XXX.XXX LBS</i>	
=	<i>Zero Fuel Weight (ZFW)</i>	<i>XXX.XXX LBS</i>	<i>(max 374.800)</i>
+	<i>Minimum Landing Fuel</i>	<i>013.000 LBS</i>	
+	<i>Alternate Fuel (200nm distance)</i>	<i>007.000 LBS</i>	
+	<i>Contingency Fuel (holding, taxi, etc.)</i>	<i>013.000 LBS</i>	
=	<i>Planned Landing Weight (PLW)</i>	<i>XXX.XXX LBS</i>	<i>(max 401.200)</i>
+	<i>Flight Plan Fuel (fuel for route)</i>	<i>XXX.XXX LBS</i>	
=	<i>Planned Takeoff Weight (PTOW)</i>	<i>XXX.XXX LBS</i>	<i>(max 513.700)</i>

➔ *Flight Plan Fuel + 31.000 LBS = Total Fuel*

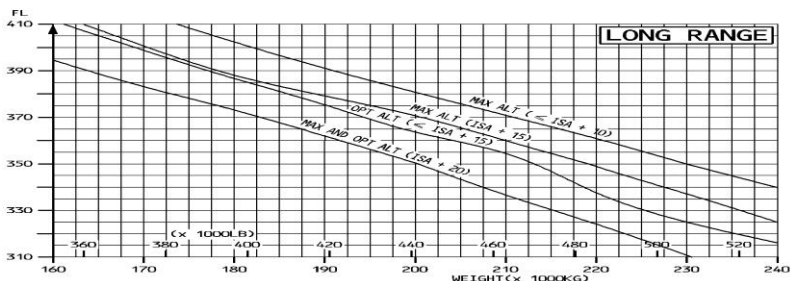
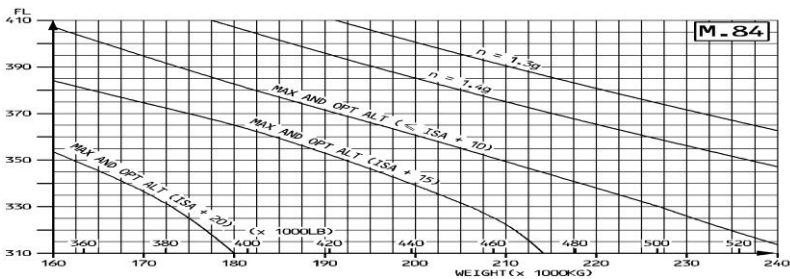
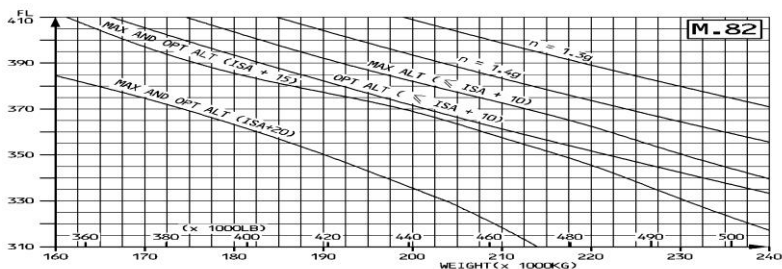
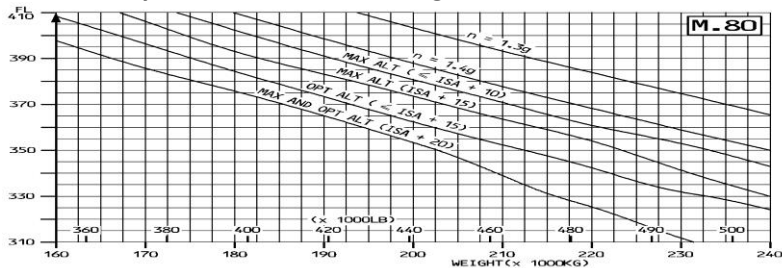
➔ *Total fuel = Enough fuel for route, 1h contingency (holding & taxi), problematic winds, alternate fuel for 200nm and a minimum landing fuel (1h). Modify alternate value as needed.*

➔ *Load all wing tanks with same amount of fuel; inner tanks full ➔ outer tanks ➔ center tanks.*



A330-300 Attachments:

A330-300 Optimum & Maximum Flight Level Charts:





A330-300 Fuel Planing Charts:

<u>Flightplan</u> Fuel at CI = 50	MZFW 385800 <u>lbs</u>	Fuel Consumed (<u>lbs</u>)	Break Release to Landing	Climb: 250 / 300 <u>kt</u> M 0.78	Cruise: M 0.80	Descend: M 0.82 300 / 250 <u>kt</u>
<u>Distance</u> (<u>nm</u>)	<u>Fuel (lbs) at</u> <u>FL 310</u>	<u>Fuel (lbs) at</u> <u>FL 330</u>	<u>Fuel (lbs) at</u> <u>FL 350</u>	<u>Fuel (lbs) at</u> <u>FL 370</u>	<u>Fuel (lbs) at</u> <u>FL 390</u>	<u>Fuel (lbs) at</u> <u>FL 410</u>
100	4800	95% of FL310	90% Of FL310	88% Of FL310	87% Of FL310	85% of FL310
200	7500					
300	10200					
400	12900					
500	15600					
1000	29000					
1500	42500					
2000	56000					
2500	69500					
3000	82900					
3500	96400					
4000	109800					
4500	123300					
5000	136800					
5500	150200					
6000	163700					
6500	177100					
7000	-	-	171540	167728	165822	162010
7500	-	-	-	-	-	173485

Fuel planning notes A330-300:

	<i>Basic Operating Weight (OEW)</i>	<i>274.500 LBS</i>	
+	<i>Payload (passengers & cargo)</i>	<i>XXX.XXX LBS</i>	
=	<i>Zero Fuel Weight (ZFW)</i>	<i>XXX.XXX LBS</i>	<i>(max 385.800)</i>
+	<i>Minimum Landing Fuel</i>	<i>013.000 LBS</i>	
+	<i>Alternate Fuel (200nm distance)</i>	<i>005.000 LBS</i>	
+	<i>Contingency Fuel (holding, taxi, etc.)</i>	<i>013.000 LBS</i>	
=	<i>Planned Landing Weight (PLW)</i>	<i>XXX.XXX LBS</i>	<i>(max 412.300)</i>
+	<i>Flight Plan Fuel (fuel for route)</i>	<i>XXX.XXX LBS</i>	
=	<i>Planned Takeoff Weight (PTOW)</i>	<i>XXX.XXX LBS</i>	<i>(max 513.700)</i>

➔ Flight Plan Fuel + 28.000 LBS = Total Fuel

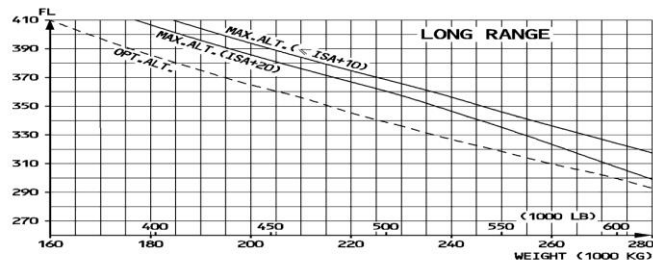
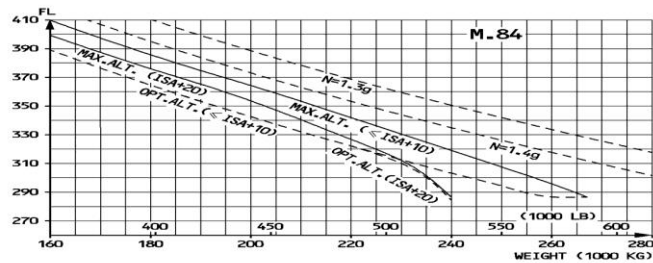
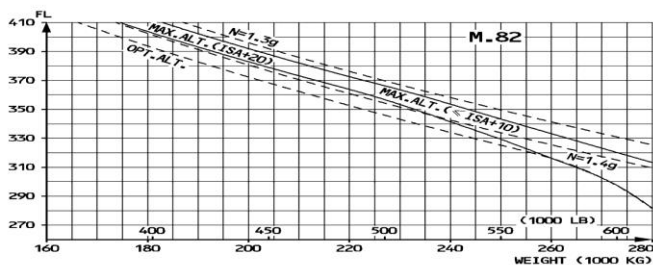
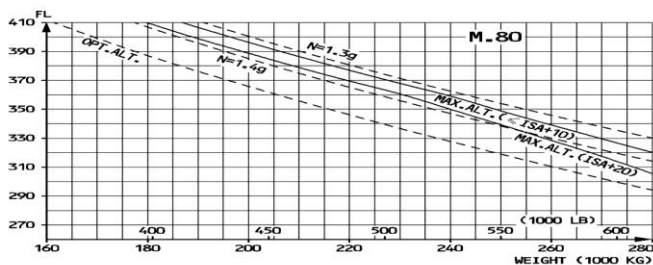
➔ Total fuel = Enough fuel for route, 1h contingency (holding & taxi), problematic winds, alternate fuel for 200nm and a minimum landing fuel (1h). Modify alternate value as needed.

➔ Load all wing tanks with same amount of fuel; inner tanks full ➔ outer tanks ➔ center tanks.



A340-300 Attachments:

A340-300 Optimum & Maximum Flight Level Charts:





A340-300 Fuel Planing Charts:

Flightplan Fuel Only	MZFW 399000 <u>lbs</u>	Fuel Consumed (<u>lbs</u>)	Break Release to Landing	Climb: 250 / 300 <u>kt</u> M 0.78	Cruise: M 0.80	Descend: M 0.82 300 / 250 <u>kt</u>
<u>Distance</u> (<u>nm</u>)	<u>Fuel (lbs) at</u> <u>FL 310</u>	<u>Fuel (lbs) at</u> <u>FL 330</u>	<u>Fuel (lbs) at</u> <u>FL 350</u>	<u>Fuel (lbs) at</u> <u>FL 370</u>	<u>Fuel (lbs) at</u> <u>FL 390</u>	<u>Fuel (lbs) at</u> <u>FL 410</u>
100	5800	95% of FL310	91% of FL310	88% of FL310	87% of FL310	86% of FL310
200	8900					
300	12000					
400	15100					
500	18200					
1000	33800					
1500	49300					
2000	64800					
2500	80300					
3000	95800					
3500	111300					
4000	126800					
4500	142300					
5000	157800					
5500	173300					
6000	188900					
6500	204400					
7000	219900					
7500	235400					
8000	250700					
8500	-	-	242400	234400	231700	229100
9000	-	-	-	248000	245200	242400



Fuel planning notes A340-300 (1kg = 2,205 lbs):

	<i>Basic Operating Weight (OEW)</i>	<i>287.000 LBS</i>	
+	<i>Payload (passengers & cargo)</i>	<i>XXX.XXX LBS</i>	
=	<i>Zero Fuel Weight (ZFW)</i>	<i>XXX.XXX LBS</i>	<i>(max 399.000)</i>
+	<i>Minimum Landing Fuel</i>	<i>012.000 LBS</i>	
+	<i>Alternate Fuel (200nm distance)</i>	<i>006.000 LBS</i>	
+	<i>Contingency Fuel (holding, taxi, etc.)</i>	<i>012.000 LBS</i>	
=	<i>Planned Landing Weight (PLW)</i>	<i>XXX.XXX LBS</i>	<i>(max 423.300)</i>
+	<i>Flight Plan Fuel (fuel for route)</i>	<i>XXX.XXX LBS</i>	
=	<i>Planned Takeoff Weight (PTOW)</i>	<i>XXX.XXX LBS</i>	<i>(max 609.600)</i>

➔ Flight Plan Fuel + 30.000 LBS = Total Fuel

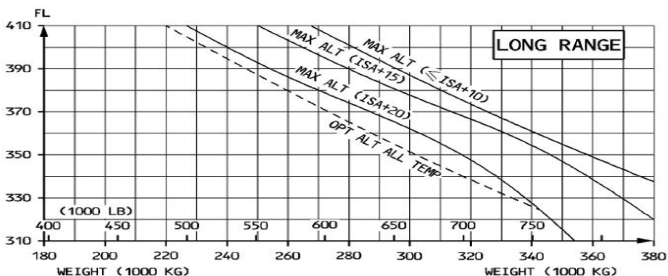
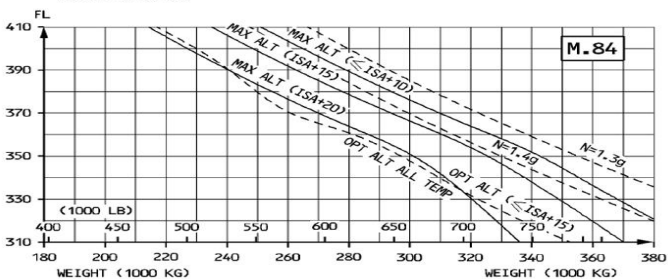
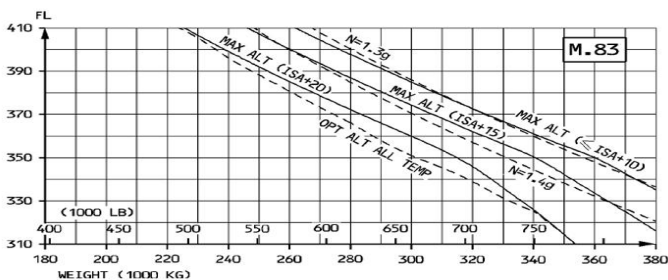
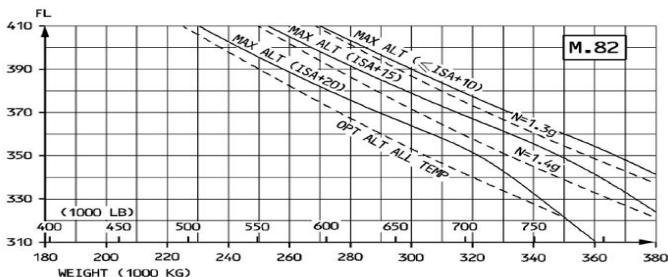
➔ Total fuel = Enough fuel for route, 1h contingency (holding & taxi), problematic winds, alternate fuel for 200nm and a minimum landing fuel (1h). Modify alternate value as needed.

➔ Load all wing tanks with same amount of fuel; inner tanks full ➔ outer tanks ➔ center tanks.



A340-600 Attachments:

A340-600 Optimum & Maximum Flight Level Charts:





A340-600 Fuel Planing Charts:

<u>Flightplan</u> Fuel Only	MZFW 553400 <u>lbs</u>	Fuel Consumed (<u>lbs</u>)	Break Release to Landing	Climb: 250 / 300 <u>kt</u> M 0.78	Cruise: M 0.80	Descend: M 0.82 300 / 250 <u>kt</u>
<u>Distance</u> (<u>nm</u>)	<u>Fuel (lbs) at</u> <u>FL 310</u>	<u>Fuel (lbs) at</u> <u>FL 330</u>	<u>Fuel (lbs) at</u> <u>FL 350</u>	<u>Fuel (lbs) at</u> <u>FL 370</u>	<u>Fuel (lbs) at</u> <u>FL 390</u>	<u>Fuel (lbs) at</u> <u>FL 410</u>
100	4000	95% Of FL310	92% Of FL310	89% of FL310	88% of FL310	87% of FL310
200	7600					
300	11500					
400	15300					
500	19200					
1000	38600					
1500	58000					
2000	77400					
2500	96800					
3000	116200					
3500	135600					
4000	155000					
4500	174500					
5000	193800					
5500	213200					
6000	232600					
6500	252000					
7000	271500					
7500	290900					
8000	310200					
8300	322000					
8500	-	313100	303200	293300	290000	286700
9000	-	-	321000	310600	307100	303600
9500	-	-	-	-	-	320500

Fuel planning notes A340-600:

	<i>Basic Operating Weight (OEW)</i>	<i>400.900 LBS</i>	
+	<i>Payload (passengers & cargo)</i>	<i>XXX.XXX LBS</i>	
=	<i>Zero Fuel Weight (ZFW)</i>	<i>XXX.XXX LBS</i>	<i>(max 553.400)</i>
+	<i>Minimum Landing Fuel</i>	<i>017.500 LBS</i>	
+	<i>Alternate Fuel (200nm distance)</i>	<i>008.000 LBS</i>	
+	<i>Contingency Fuel (holding, taxi, etc.)</i>	<i>017.500 LBS</i>	
=	<i>Planned Landing Weight (PLW)</i>	<i>XXX.XXX LBS</i>	<i>(max 584.200)</i>
+	<i>Flight Plan Fuel (fuel for route)</i>	<i>XXX.XXX LBS</i>	
=	<i>Planned Takeoff Weight (PTOW)</i>	<i>XXX.XXX LBS</i>	<i>(max 837.800)</i>

➔ *Flight Plan Fuel + 43.000 LBS = Total Fuel*

➔ *Total fuel = Enough fuel for route, 1h contingency (holding & taxi), problematic winds, alternate fuel for 200nm and a minimum landing fuel (1h). Modify alternate value as needed.*

➔ *Load all wing tanks with same amount of fuel; inner tanks full ➔ outer tanks ➔ center tanks.*