Checklist MS FSX incl. Wilco Airbus Series
A320 Series / A330 / A340

IVAO:
Member-#: _____
Website-PW: _____
Network-PW: _____

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
  - x = line no. of desired runway
  - You can change this in-flight if required.
- Choose STAR and Transition ➔ xL ➔ xR
  - x = line no. of desired STAR / TRANS
  - You can change this in-flight if required.
  - You don't have to choose a STAR / TRANS (choose NONE / 1R).
- INSERT ➔ 6R
- Clear any discontinuities at arrival route ➔ CLR Button ➔ xL
  - 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)
  - (Auto-Flex-Temp ➔ 2x 4R)
- Enter V1 ➔ 1L
- Enter VR ➔ 2L
- Enter V2 ➔ 3L
  - (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---

• I IVAP-flightplan	Read from FMC & note/enter in IVAP FP
• Speed at flightplan	Enter TAS (calculate: KIAS + FL/2) or MACH
• Departure Time	Enter (UTC to CET ➔ CET -2 (winter -1))
• EFIS-Mode (MainPanel/MP)	ARC
• EFIS-Range (MP)	40nm (or as required)
• GND-Control	Set frequency (active ATC or Unicom 122.8)
• IFR-clrc	Request (when ATC active)
• IFR-clrc-data	Note (Squawk, First-Altitude, QNH ➔ Readback)
• Squawk	Set
• FP-correction	Correct (if required / requested)
• FMC-correction	Correct (if required / requested)
• Altimeter	Set to actual atmospheric pressure (B)
• Autopilot	Check (dash-ball-dash-ball-ball-dash)
o CLB & NAV modes	Armed (CLB / NAV written on FMA)
▪ If not...	Reset FD (FD Off ➔ FD On)
o First Altitude	Set
o Speed	Managed
o Heading	Managed
o Altitude	Managed (Target Alt. must be higher than Accel. Alt.)
▪ Note:	Managed = Left Mouse Button, Selected = Right MB

Engine s/u & Pushback:

• Gangway	disable (strg + 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 puPmps of tanks containing fuel)
• 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 (Pedestal)
- Main Display — Check for warnings
- Pushback — Finish

Taxi:

- Taxi-Clrc — Request
- Taxiways — Note (if needed)
- Ground-Guidance — Request (if needed)

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:
- Thrust Levers — Forward to 60-70% N1
  - Flex–t/o — Thrust Levers up to FLX detent (2 sounds)
  - Power–t/o — Thrust Levers up to TO/GA detent (3 sounds)
- Parking Break — Release
- Yoke — Press forward till 80kts
- FMA Display-Check:
  - 1st column — MAN FLEX flex-number (or TO/GA)
  - 2nd column — CLB (blue) and SRS (green)
  - 3rd column — NAV (blue) and RWY (green)
  - 4th column — A/THR (blue)
- V1 — Abort of start not possible anymore
- VR — Lift nose up
- V2 — Lift-off

Takeoff:

- Trim settings — DO NOT adjust (Auto-Trim active)
- Gear — Up (at positive climb rate >500ft)
- Autopilot 1 / AP1 — On
- Flaps — Raise (on schedule / at S speed)
- Airborne — Publish airborne when on Unicom (no ATC)
- Start time — Note (if needed)
- 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 / next FL clrc ---
- AP altitude (& speed) — Change (Selected Mode if needed)
- TCAS biasing mode — All
- Hand-off APP to CTR — Change frequency
- Engine & Wing anti-ice — On (under 10°C TAT)
- Altimeter — Readjust (above 18000ft) (STD setting)

Cruise:

- FMA Display — Check 2nd column: ALT CRZ
- TCAS — All
- Radio /ATC contact — Maintain (on UniCom watch TCAS)
- Autopilot / FMC — Check permanently
  - FMC — Check FUEL PRED page for fuel consumption

Descent & Approach:

- Descent preparations — Begin 30nm before T/D (Top of Descent)
- Airport-/Meta-Information — Retrieve
- T/D reached:
  - Altitude — Select Altitude / press Alt. button (managed desc)
- Autobreaks — Set (Low or Medium; Max/RTO is only for RTO)
- TCAS — BLW (Pedestal)
- Deceleration (D) – Point:
  - Approach Phase — Check FMC: AppPhase active, otherwise activate (6L)
  - Target Speed — Check Autopilot sets Vapp speed
  - FMC AppPhase Page — Enter QNH ➔ 1L
- Speedbrakes — Up (when needed/too fast)
- ILS — On (push ILS button for ILS info on PFD)
- Altimeter — Readjust (under 18000ft)
- Hand-off CTR to APP — Change frequency
- FMC / Autopilot
  - ATC guidance — Slelect HDG and ALT (selected mode)
  - No ATC guidance — Follow flightplan (managed mode)
- Landing Lights — On
- Nose Light — TO
- Runway Turnoff Lights — On

Final approach & Landing (Autoland):

- Flaps — Lower (as indicated) (e.g. 5000ft 1; VFE NEXT 2; …)
- FMC / Autopilot
  - ATC guidance — Slelect HDG and ALT (selected mode)
  - No ATC guidance — Follow flightplan (managed mode)

---stabilize von glideslope---

- Autopilot LOC — On
- Around 2000ft. AGL:
  - Landing gear — Down
  - Flaps — Full / Check full
  - Spoiler — Armed

---when localizer is captured---

- ILS captured — Announce (on Unicom state final app)
- Hand-off APP to TWR — Change frequency
- Landing clrc — Request (or state intention on Unicom)
- FMA Display — Check LOC or LOC*
  - Autopilot — APPR On
  - Autopilot — 2nd 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 needed)
- Thrust reversers — Disengage (at 80kt) (Throttles idle)
- Brakes — Push (at 40-50kt) to disengage Autobreak
- Runway — Vacate („rwy vacated")

Final approach & Landing (w/o Autoland):

- Flaps — Lower (as indicated) (e.g. 5000ft 1; VFE NEXT 2; …)
- FMC / Autopilot
  - ATC guidance — Slelect HDG and ALT (selected mode)
  - No ATC guidance — Follow flightplan (managed mode)

---stabilize von glideslope---

- Autopilot LOC — On
- Around 2000ft. AGL:
  - Landing gear — Down
  - Flaps — Full / Check full
  - Spoiler — Armed

---when localizer is captured---

- ILS captured — Announce (on Unicom state final app)
- Hand-off APP to TWR — Change frequency
- Landing clrc — Request (or state intention on Unicom)
- FMA Display — Check LOC or LOC*
  - Autopilot — APPR On
- Controls — Move, take control over airplane, (AP off)
- Landing Memo — Check all green
- "Retard" sound — Thrust Idle position

---Touchdown---

- Throttles — Idle
- Thrust reversers — Engage (if needed)
- Thrust reversers — Disengage (at 80kt) (Throttles idle)
- Brakes — Push (at 40-50kt) to disengage Autobreak
- Runway — Vacate („rwy vacated")

Taxi:

- Transponder — Stdby
- Hand-off TWR to GND — Change frequency
- Taxiways — Note and follow (with active ATC)
- (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, thx for service, bye")
- All ENG Master switches — Off
- Fuel pumps — Off
- Seatbelts — Off
- Door s — Open (shift + e)
- Gangway — Enable (strg + 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 — Stdby
- Ground power — Off
- External lights — Off (all)
- Internal lights — Off (all)
- Radio Mgmt. Panel (Pedestal) — Off
- Engine GENerators — Off
- Battery — Off

Checklist for Wilco Airbus Series 1 & 2 with Microsoft Flight Simulator.

Created by:	Carsten Rau (June2008 / v5)
I used to create:	My (PMDG) 747 checklist, Wilco Airbus Series Manual & Checklists
Only use with:	Microsoft Flight Simulator / IVAO (Intl. Virtual Aviation Organization)
Visit:	http://www.ivao.aero
	http://www.carstenrau.de
	http://www.leveldsim.com - Level-D 767
	http://www.precisionmanuals.com - PMDG 747
	http://www.wilcopub.com - Wilco 737 PIC / Airbus Series 1 & 2

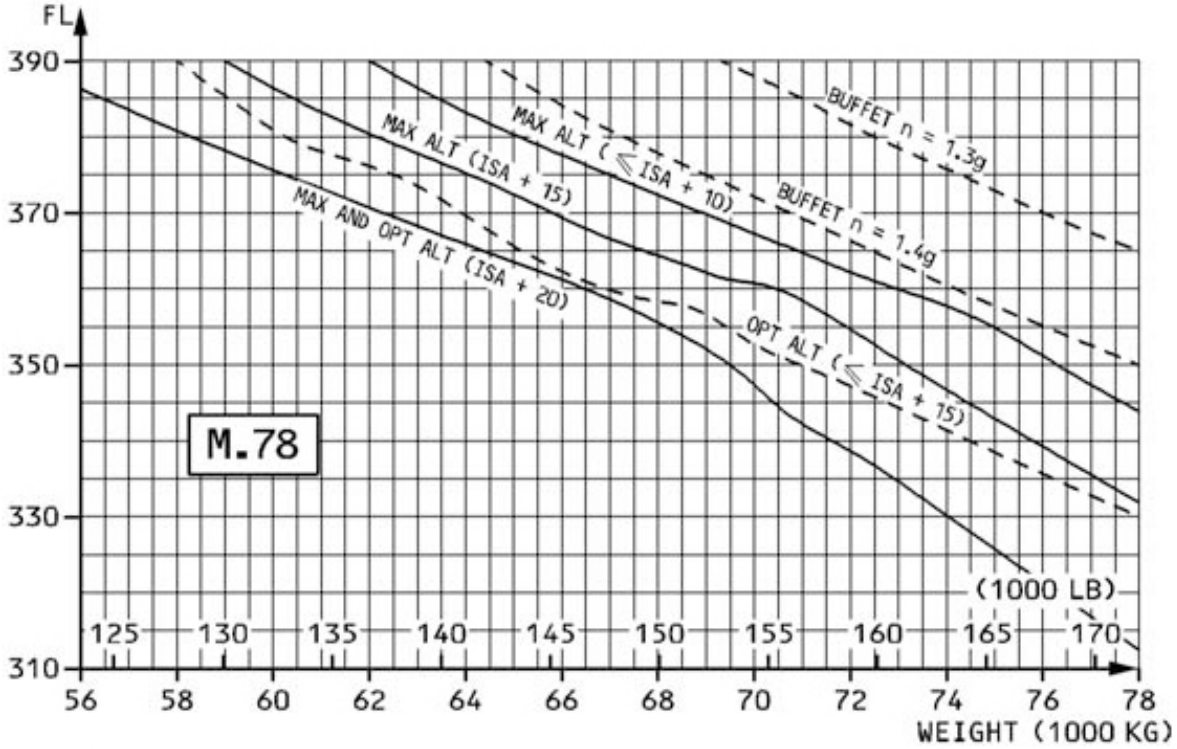
Attachments

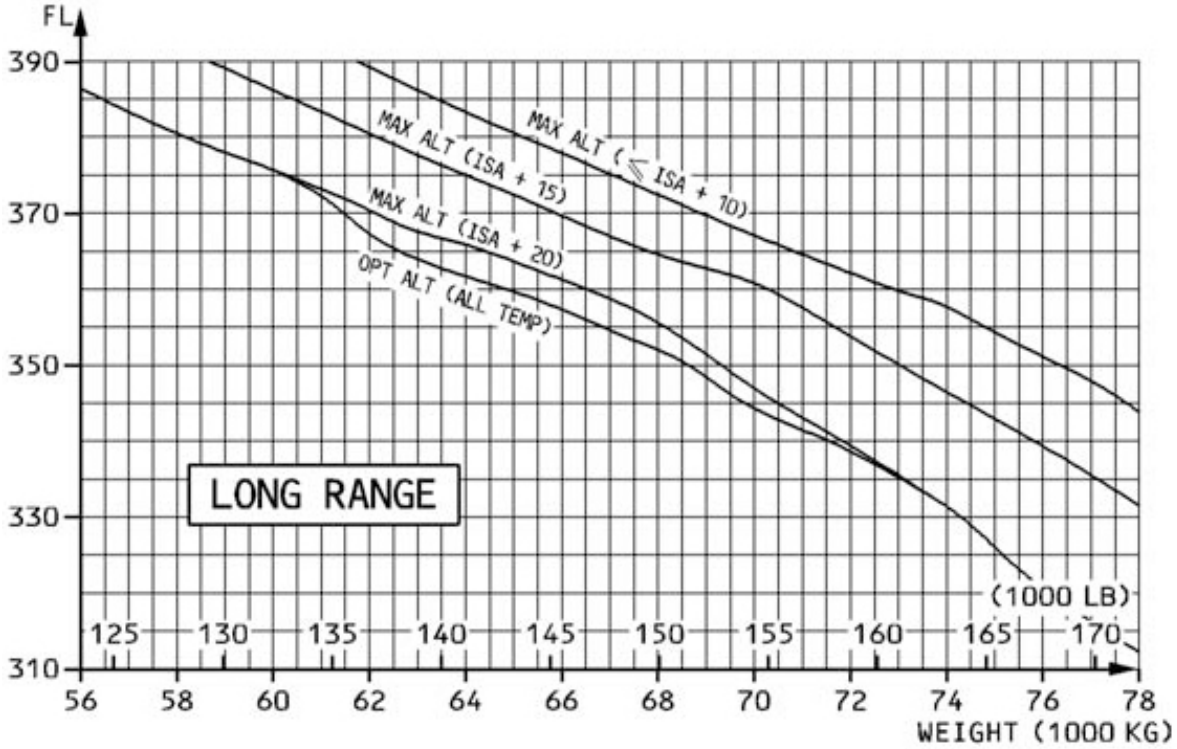
for
Checklist MS FSX incl. Wilco Airbus Series 1 & 2
by Carsten Rau

A320 Series Attachments:

The following attachments are based on A320 data, but can be used for A318, A319, A320, A321.

A320 Series Optimum & Maximum Flight Level Charts:





A320 Series Fuel Planing Charts:

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

Fuel planning notes A318:

	Basic Operating Weight (OEW)	*086.650*	*LBS*	
+	*Payload (passengers & cargo)*	*XXX.XXX*	*LBS*	
=	*Zero Fuel Weigh (ZFW)*	*XXX.XXX*	*LBS*	*(max 120.100 LBS)*
+	*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 LBS)*
+	*Flight Plan Fuel (fuel for route)*	*XXX.XXX*	*LBS*	
=	*Planned Takeoff Weight (PTOW)*	*XXX.XXX*	*LBS*	*(max 149.900 LBS)*

➔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 A319:

	Basic Operating Weight (OEW)	*089.500*	*LBS*	
+	*Payload (passengers & cargo)*	*XXX.XXX*	*LBS*	
=	*Zero Fuel Weigh (ZFW)*	*XXX.XXX*	*LBS*	*(max 129.000 LBS)*
+	*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 LBS)*
+	*Flight Plan Fuel (fuel for route)*	*XXX.XXX*	*LBS*	
=	*Planned Takeoff Weight (PTOW)*	*XXX.XXX*	*LBS*	*(max 166.500 LBS)*

Fuel planning notes A320:

	Basic Operating Weight (OEW)	*093.500*	*LBS*	
+	*Payload (passengers & cargo)*	*XXX.XXX*	*LBS*	
=	*Zero Fuel Weigh (ZFW)*	*XXX.XXX*	*LBS*	*(max 137.800 LBS)*
+	*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 LBS)*
+	*Flight Plan Fuel (fuel for route)*	*XXX.XXX*	*LBS*	
=	*Planned Takeoff Weight (PTOW)*	*XXX.XXX*	*LBS*	*(max 169.800 LBS)*

Fuel planning notes A321:

	Basic Operating Weight (OEW)	*106.300*	*LBS*	
+	*Payload (passengers & cargo)*	*XXX.XXX*	*LBS*	
=	*Zero Fuel Weigh (ZFW)*	*XXX.XXX*	*LBS*	*(max 162.700 LBS)*
+	*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 LBS)*
+	*Flight Plan Fuel (fuel for route)*	*XXX.XXX*	*LBS*	
=	*Planned Takeoff Weight (PTOW)*	*XXX.XXX*	*LBS*	*(max 206.100 LBS)*

Fuel planning notes ACJ (based on A319):

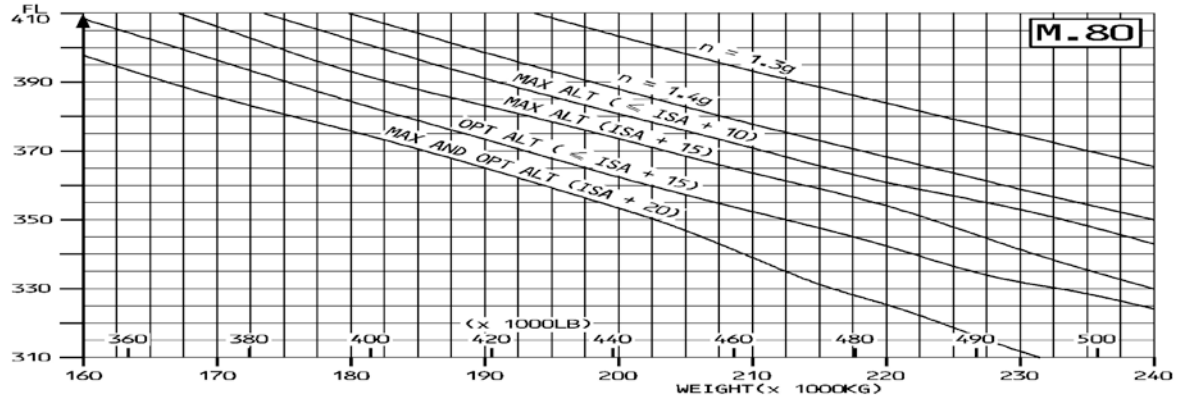
	Basic Operating Weight (OEW)	*095.900*	*LBS*	
+	*Payload (passengers & cargo)*	*XXX.XXX*	*LBS*	
=	*Zero Fuel Weigh (ZFW)*	*XXX.XXX*	*LBS*	*(max 128.970 LBS)*
+	*Minimum Landing Fuel*	*005.500*	*LBS*	
+	*Alternate Fuel (200nm distance)*	*003.500*	*LBS*	
+	*Contingency Fuel (holding, taxi, etc.)*	*005.500*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

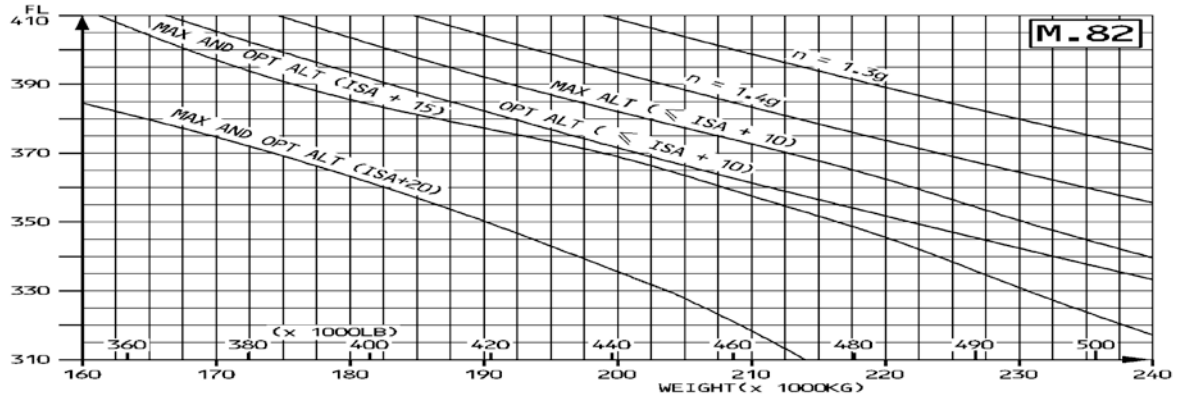
➔***Flight Plan Fuel + 14.500 LBS = Total Fuel***

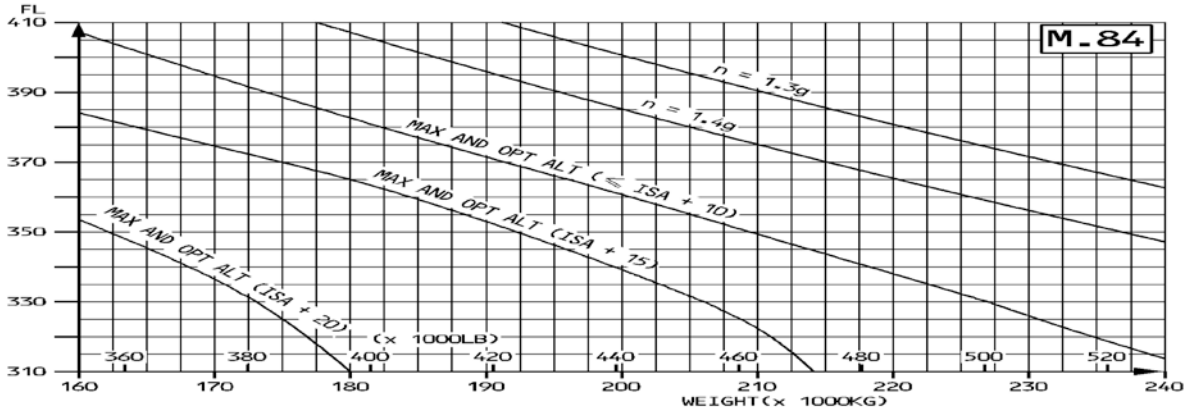
➔ *Total fuel = Enough fuel for route, 1h contingency (holding & taxi), problematic winds, alternate fuel for 200nm and a minimum landing fuel (1h). Modify alternate value as needed.*
➔ *Load all wing tanks with same amount of fuel; outer tanks full ➔ inner tanks ➔ center tanks.*

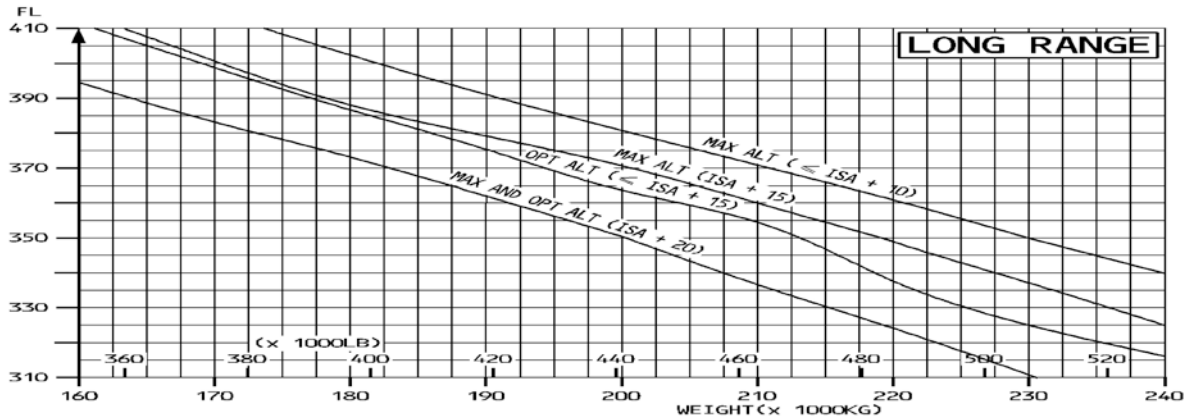
A330-200 Attachments:

A330-200 Optimum & Maximum Flight Level Charts:









A330-200 Fuel Planing Charts:

Flightplan Fuel at CI = 50	MZFW 374800 lbs	Fuel Consumed (lbs)	Break Release to Landing	Climb: 250 / 300 kt M 0.78	Cruise: M 0.80	Descend: M 0.82 300 / 250 kt
Distance (nm)	**Fuel (lbs) at FL 310**	**Fuel (lbs) at FL 330**	**Fuel (lbs) at FL 350**	**Fuel (lbs) at FL 370**	**Fuel (lbs) at FL 390**	**Fuel (lbs) at FL 410**
100	5000					
200	8200					
300	11500					
400	14800					
500	18100					
1000	34600					
1500	51800					
2000	67500					
2500	84000	95%	92%	88%	86%	85%
3000	100500	of	of	of	of	of
3500	116900	FL310	FL310	FL310	FL310	FL310
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:

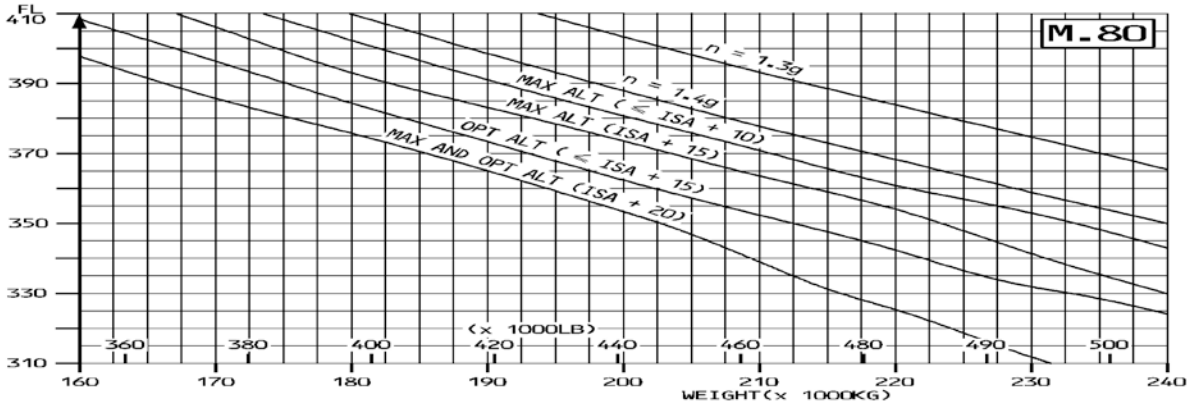
	Basic Operating Weight (OEW)	*263.700*	*LBS*	
+	*Payload (passengers & cargo)*	*XXX.XXX*	*LBS*	
=	*Zero Fuel Weigh (ZFW)*	*XXX.XXX*	*LBS*	*(max 374.800 LBS)*
+	*Minimum Landing Fuel*	*013.000*	*LBS*	
+	*Alternate Fuel (200nm distance)*	*007.000*	*LBS*	
+	*Contingency Fuel (holding, taxi, etc.)*	*013.000*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

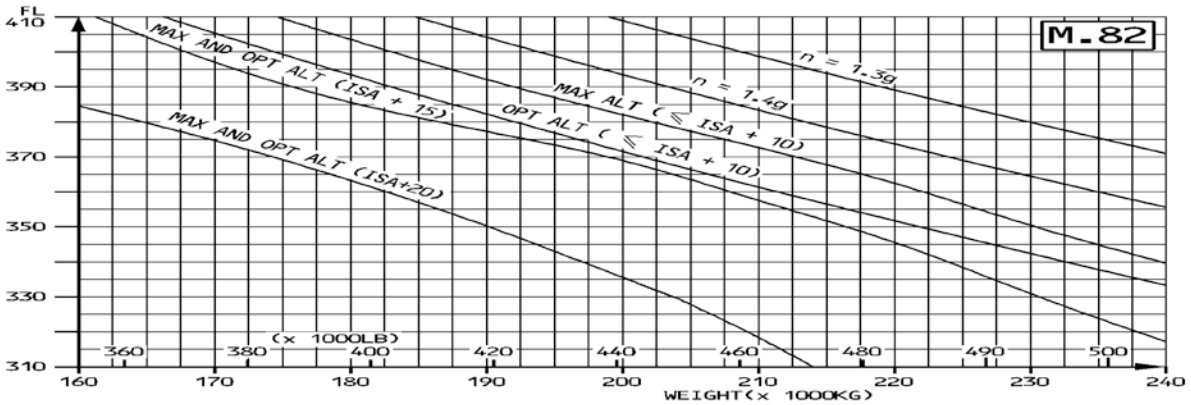
➔***Flight Plan Fuel + 31.000 LBS = Total Fuel***

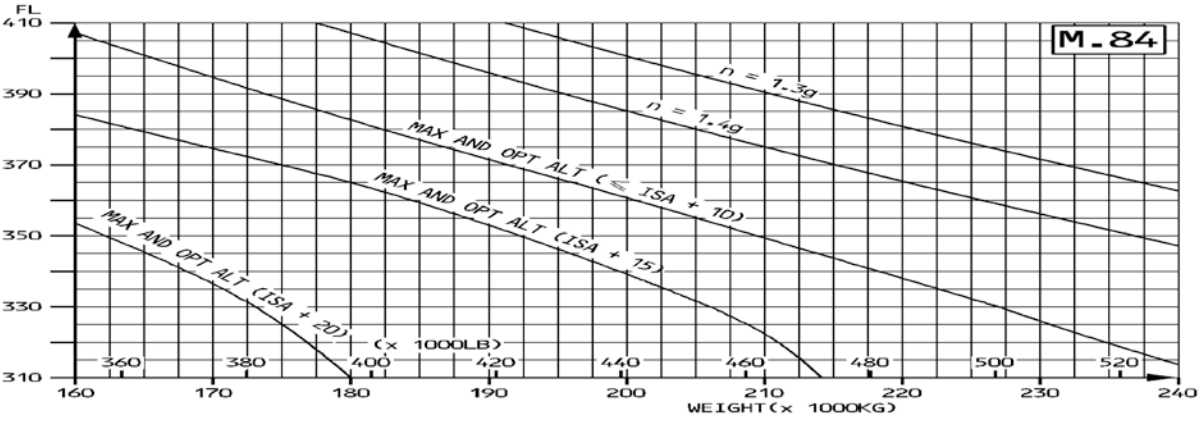
➔ *Total fuel = Enough fuel for route, 1h contingency (holding & taxi), problematic winds, alternate fuel for 200nm and a minimum landing fuel (1h). Modify alternate value as needed.*
➔ *Load all wing tanks with same amount of fuel; inner tanks full ➔ outer tanks ➔ center tanks.*

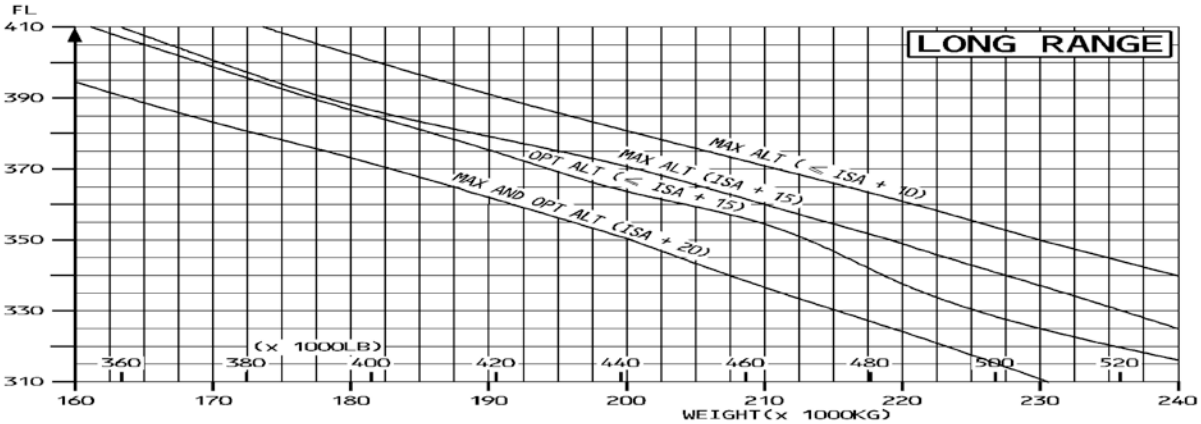
A330-300 Attachments:

A330-300 Optimum & Maximum Flight Level Charts:









A330-300 Fuel Planing Charts:

Flightplan Fuel at CI = 50	MZFW 385800 lbs	Fuel Consumed (lbs)	Break Release to Landing	Climb: 250 / 300 kt M 0.78	Cruise: M 0.80	Descend: M 0.82 300 / 250 kt
Distance (nm)	**Fuel (lbs) at FL 310**	**Fuel (lbs) at FL 330**	**Fuel (lbs) at FL 350**	**Fuel (lbs) at FL 370**	**Fuel (lbs) at FL 390**	**Fuel (lbs) at FL 410**
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:

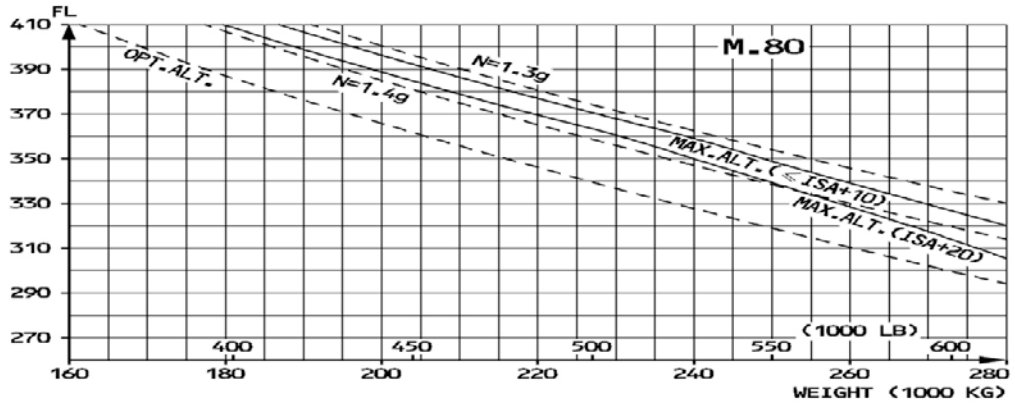
	Basic Operating Weight (OEW)	*274.500*	*LBS*	
+	*Payload (passengers & cargo)*	*XXX.XXX*	*LBS*	
=	*Zero Fuel Weigh (ZFW)*	*XXX.XXX*	*LBS*	*(max 385.800 LBS)*
+	*Minimum Landing Fuel*	*013.000*	*LBS*	
+	*Alternate Fuel (200nm distance)*	*005.000*	*LBS*	
+	*Contingency Fuel (holding, taxi, etc.)*	*013.000*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

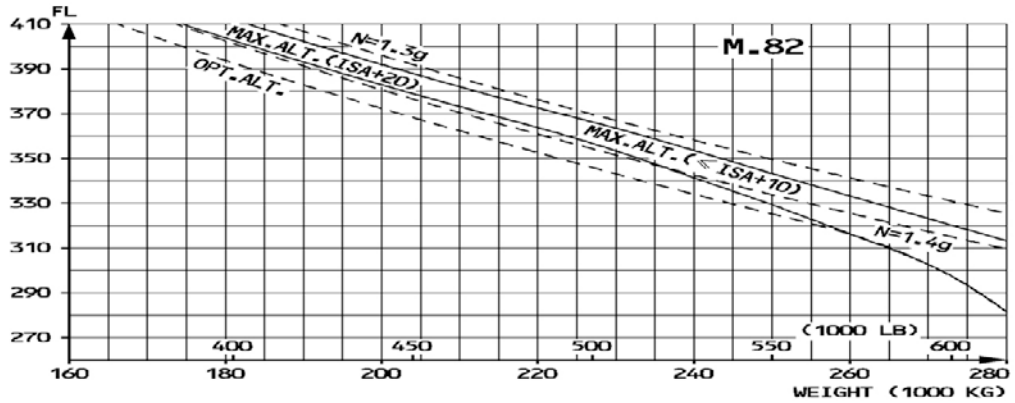
➔Flight Plan Fuel + 28.000 LBS = Total Fuel

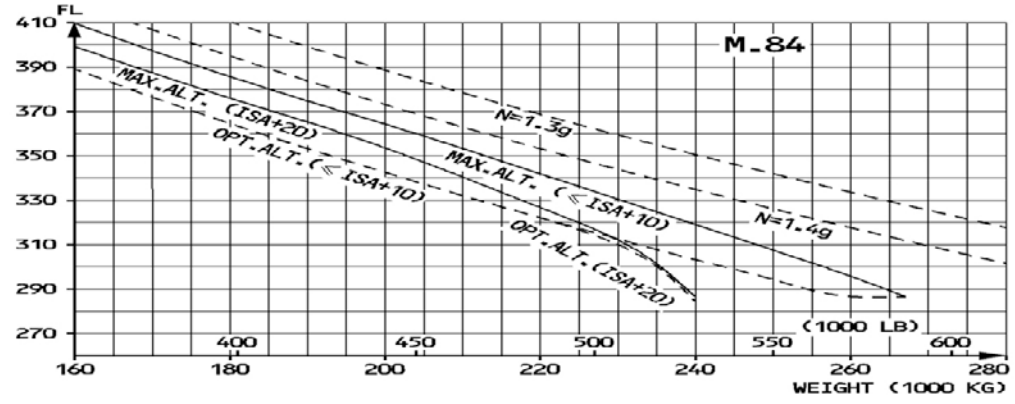
➔ Total fuel = Enough fuel for route, 1h contingency (holding & taxi), problematic winds, alternate fuel for 200nm and a minimum landing fuel (1h). Modify alternate value as needed.
➔ Load all wing tanks with same amount of fuel; inner tanks full ➔ outer tanks ➔ center tanks.

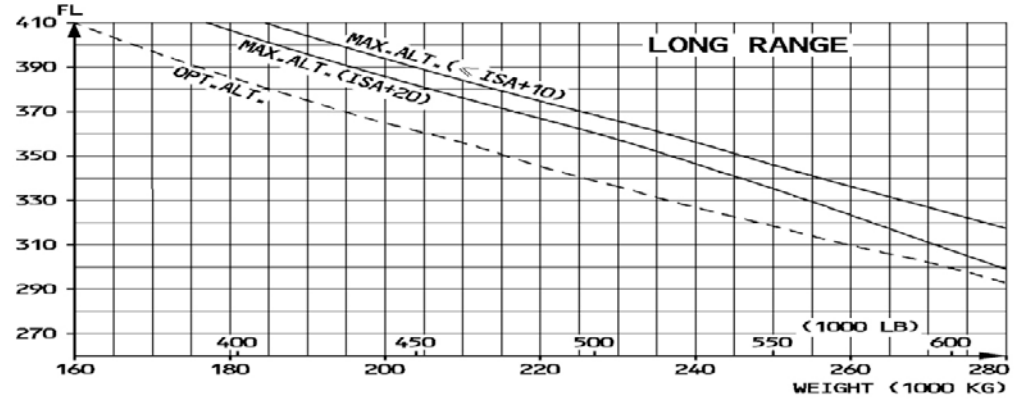
A340-300 Attachments:

A340-300 Optimum & Maximum Flight Level Charts:









A340-300 Fuel Planing Charts:

Flightplan Fuel Only	MZFW 399000 lbs	Fuel Consumed (lbs)	Break Release to Landing	Climb: 250 / 300 kt M 0.78	Cruise: M 0.80	Descend: M 0.82 300 / 250 kt
Distance (nm)	**Fuel (lbs) at FL 310**	**Fuel (lbs) at FL 330**	**Fuel (lbs) at FL 350**	**Fuel (lbs) at FL 370**	**Fuel (lbs) at FL 390**	**Fuel (lbs) at FL 410**
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):

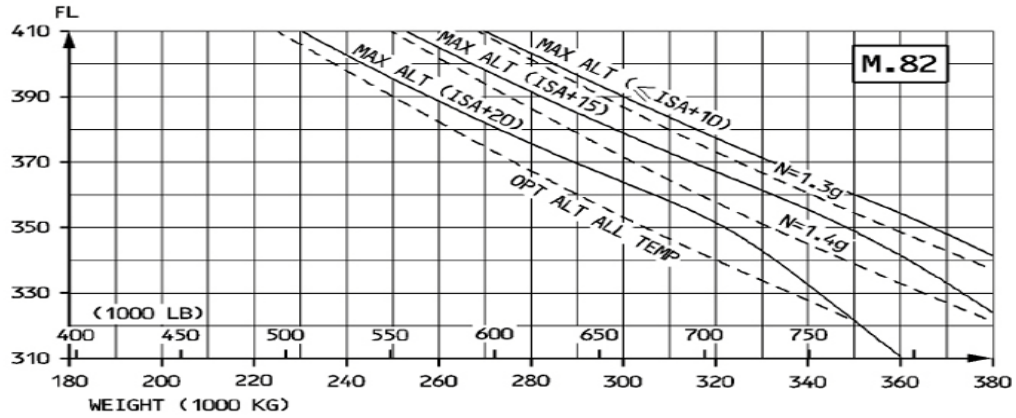
	Basic Operating Weight (OEW)	*287.000*	*LBS*	
+	*Payload (passengers & cargo)*	*XXX.XXX*	*LBS*	
=	*Zero Fuel Weigh (ZFW)*	*XXX.XXX*	*LBS*	*(max 399.000 LBS)*
+	*Minimum Landing Fuel*	*012.000*	*LBS*	
+	*Alternate Fuel (200nm distance)*	*006.000*	*LBS*	
+	*Contingency Fuel (holding, taxi, etc.)*	*012.000*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

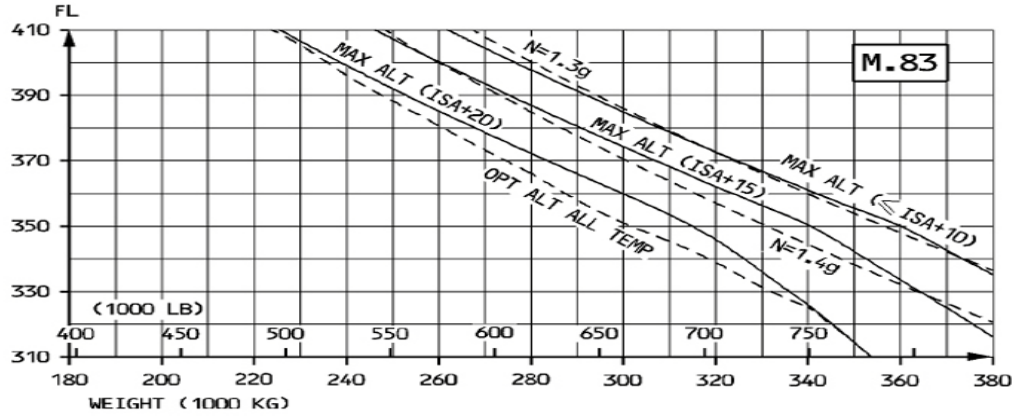
➔***Flight Plan Fuel + 30.000 LBS = Total Fuel***

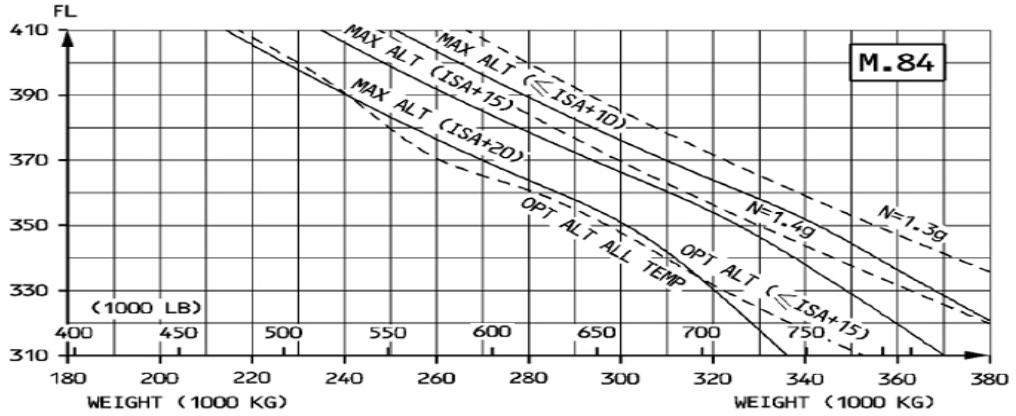
➔ *Total fuel = Enough fuel for route, 1h contingency (holding & taxi), problematic winds, alternate fuel for 200nm and a minimum landing fuel (1h). Modify alternate value as needed.*
➔ *Load all wing tanks with same amount of fuel; inner tanks full ➔ outer tanks ➔ center tanks.*

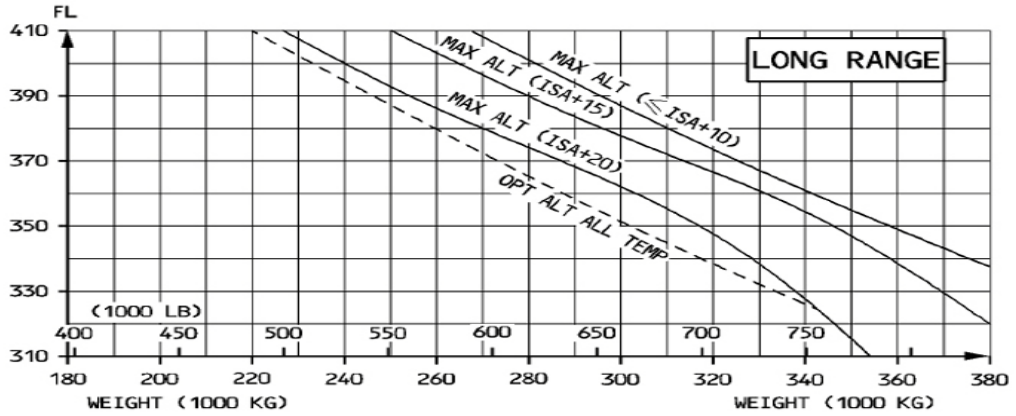
A340-600 Attachments:

A340-600 Optimum & Maximum Flight Level Charts:









A340-600 Fuel Planing Charts:

Flightplan Fuel Only	MZFW 553400 lbs	Fuel Consumed (lbs)	Break Release to Landing	Climb: 250 / 300 kt M 0.78	Cruise: M 0.80	Descend: M 0.82 300 / 250 kt
Distance (nm)	**Fuel (lbs) at FL 310**	**Fuel (lbs) at FL 330**	**Fuel (lbs) at FL 350**	**Fuel (lbs) at FL 370**	**Fuel (lbs) at FL 390**	**Fuel (lbs) at FL 410**
100	4000					
200	7600					
300	11500					
400	15300					
500	19200					
1000	38600					
1500	58000					
2000	77400					
2500	96800	95%	92%	89%	88%	87%
3000	116200	Of	Of	of	of	of
3500	135600	FL310	FL310	FL310	FL310	FL310
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:

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

➔***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.*

Attachments for all Airplanes:

Reduced & Conventional Vertical Separation Minima - CVSM & RVSM

CVSM		RVSM		RVSM (North-South)		RVSM (meter)		CVSM (meter)	
180° - 359°	000° - 179°	180° - 359°	000° - 179°	270° - 89°	90° - 269°	180° - 359°	000° - 179°	180° - 359°	000° - 179°
FL 040	FL 050	FL 040	FL 050	FL 040	FL 050	1,200 m (3,900 ft)	1,500 m (4,900 ft)	1,200 m (3,900 ft)	1,500 m (4,900 ft)
FL 060	FL 070	FL 060	FL 070	FL 060	FL 070	1,800 m (5,900 ft)	2,100 m (6,900 ft)	1,800 m (5,900 ft)	2,100 m (6,900 ft)
FL 080	FL 090	FL 080	FL 090	FL 080	FL 090	2,400 m (7,900 ft)	2,700 m (8,900 ft)	2,400 m (7,900 ft)	2,700 m (8,900 ft)
FL 100	FL 110	FL 100	FL 110	FL 100	FL 110	3,000 m (9,800 ft)	3,300 m (10,800 ft)	3,000 m (9,800 ft)	3,300 m (10,800 ft)
FL 120	FL 130	FL 120	FL 130	FL 120	FL 130	3,600 m (11,800 ft)	3,900 m (12,800 ft)	3,600 m (11,800 ft)	3,900 m (12,800 ft)
FL 140	FL 150	FL 140	FL 150	FL 140	FL 150	4,200 m (13,800 ft)	4,500 m (14,800 ft)	4,200 m (13,800 ft)	4,500 m (14,800 ft)
FL 160	FL 170	FL 160	FL 170	FL 160	FL 170	4,800 m (15,700 ft)	5,100 m (16,700 ft)	4,800 m (15,700 ft)	5,100 m (16,700 ft)
FL 180	FL 190	FL 180	FL 190	FL 180	FL 190	5,400 m (17,700 ft)	5,700 m (18,700 ft)	5,400 m (17,700 ft)	5,700 m (18,700 ft)
FL 200	FL 210	FL 200	FL 210	FL 200	FL 210	6,000 m (19,700 ft)	6,300 m (20,700 ft)	6,000 m (19,700 ft)	6,300 m (20,700 ft)
FL 220	FL 230	FL 220	FL 230	FL 220	FL 230	6,600 m (21,700 ft)	6,900 m (22,600 ft)	6,600 m (21,700 ft)	6,900 m (22,600 ft)
FL 240	FL 250	FL 240	FL 250	FL 240	FL 250	7,200 m (23,600 ft)	7,500 m (24,600 ft)	7,200 m (23,600 ft)	7,500 m (24,600 ft)
FL 260	FL 270	FL 260	FL 270	FL 260	FL 270	7,800 m (25,600 ft)	8,100 m (26,600 ft)	7,800 m (25,600 ft)	8,100 m (26,600 ft)
FL 280	FL 290	FL 280	FL 290	FL 280	FL 290	8,400 m (27,600 ft)	8,900 m (29,100 ft)	8,600 m (28,200 ft)	9,100 m (29,900 ft)
CVSM	CVSM	RVSM	RVSM	RVSM	RVSM	RVSM	RVSM	CVSM	CVSM
FL 310		FL 300	FL 310	FL 300	FL 310	9,200 m (30,100 ft)	9,500 m (31,100 ft)	9,600 m (31,500 ft)	
	FL 330	FL 320	FL 330	FL 320	FL 330	9,800 m (32,100 ft)	10,100 m (33,100 ft)		10,100 m (33,100 ft)
FL 350		FL 340	FL 350	FL 340	FL 350	10,400 m (34,100 ft)	10,700 m (35,100 ft)	10,600 m (34,800 ft)	
	FL 370	FL 360	FL 370	FL 360	FL 370	11,000 m (36,100 ft)	11,300 m (37,100 ft)		11,100 m (36,400 ft)
FL 390		FL 380	FL 390	FL 380	FL 390	11,600 m (38,100 ft)	11,900 m (39,100 ft)	11,600 m (38,100 ft)	
	FL 410	FL 400	FL 410	FL 400	FL 410	12,200 m (40,100 ft)	12,500 m (41,100 ft)		12,100 m (39,700 ft)
CVSM	CVSM	CVSM	CVSM	CVSM	CVSM	CVSM	CVSM	CVSM	CVSM
FL 430	FL 450	FL 430	FL 450	FL 430	FL 450	13,100 m (43,000 ft)	13,700 m (44,900 ft)	13,100 m (43,000 ft)	14,100 m (46,300 ft)
FL 470	FL 490	FL 470	FL 490	FL 470	FL 490	14,300 m (46,900 ft)	14,900 m (48,900 ft)	15,100 m (49,500 ft)	16,100 m (52,800 ft)
1 Step = 4000 ft						1 Step = 1200 m		1 Step = 2000 m	

RVSM: All countries (inlcuding the Atlantic Ocean) with the following exeptions:

RVSM (North-South): France, Italy, Portugal, Spain & New Zealand.

RVSM (meter): China, excluding Hong Kong, Macau and Taiwan.

CVSM (meter): Russia, Mongolia, North Korea, Kyrgyzstan, Kazakhstan, and 6,000 m or below in Turkmenistan (where feet is used for FL210 and above).