

Sequence of Events (SOE) Standard Operating Procedures (SOP)

Airbus A320
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Die beschriebenen Verfahren wurden für die Simulation am PC entwickelt.

Sie eignen sich nicht für den realen Betrieb mit zwei Piloten.

Es handelt sich um keine von der Luftfahrtbehörde zugelassenen Verfahren.

Prüfen Sie ggf. die Dokumentation ihrer Airline / Ausbildungsbetrieb / Flugschule.

Die Weitergabe ist nicht gestattet.

Checklists to be performed

Actions for Turnaround (next Flight Preparation)

Planungs - Phase

- Simulator / Wettertool starten / AIRAC Update
- Flugplanerstellung (z.B. Simbrief)
- Briefingpaket durcharbeiten, 1. Seite ausdrucken
 - Wetter
 - Beladung
 - NOTAMS
 - Runway Check
 - Approach Check
 - Flugzeit
- Treibstoff bestimmen

Preflight - Phase

- Cockpit Initial Check
 - ENG MASTER 1 & 2 OFF
 - ENG MODE SEL NORM
 - Thrust Levers IDLE
 - Landing Gear Selector DOWN
 - Parkbrake SET
 - BAT VOLT > 25.5 V

- Aircraft wake-up
 - BAT 1 ON
 - BAT 2 nach 5 Sek. ON
 - EXT POWER nach 5 Sek. ON

- EFB Initialize
 - Import Sim Brief Fenix Interface / Charts / Briefing Tool
 - PAX / FUEL / CARGO eingeben und Boarding starten
 - ACARS aktuelles Wetter holen / [ACARS AOC-Funktion]

- Preflight Overhead
 - Crew Oxy supply ON
 - ADIRs NAV
 - STROBES AUTO
 - NAV Lights on 1/2
 - SIGNS ON
 - EMG EXIT Lights ARM
 - FUEL PUMPS all ON
 - CHECK "NO WHITES"

- MCDU Setup [DIFRIPS]
 - DATA AIRAC cycle gültig?
 - INIT ENTER
 - FROM / TO, ALTN, FLT NBR, COST INDEX
 - CRZ FL/TEMP, TRIP WIND
 - ZFW (geplant)
 - BLOCK
 - FPL SELECT DEPARTURE
Routen-Eingabe
SELECT ARRIVAL
 - RADNAV wie benötigt für Abflug / Immediate Return

- INIT nach Boading ZFW/ZFWCG
- PERF aus T/O-PERF TOOL:
T/O SPEEDS, FLAP / THS, FLEX, TO SHIFT, RED ALTs
- SEC F-PLN für Immediate Return vorbereiten

Cockpit Setup

- APU START
- QNH SET (3x)
- FDs ON
- SEL ALT according to SID
- XPDR 1/2, AUTO, TA/RA
- WX RDR PWS ON

Anlass Phase 1

Startup

- ggf. Startup- und Enroute Clearance einholen
- SQUAWK SET
- SID MCDU CONFRIM
- GPU disconnect
- Pushback request & prepare

Before Start Flow

- BEACON ON
- APU BLEED ON

Before Start Checklist

Pushback

- Parkbrake release

Anlass Phase 2

Engine Start #2

- ENG MODE SEL IGN/START
- ENG MASTER 2 ON

Engine Start #1

- ENG MASTER 1 ON

After Start Flow

- Parkbrake SET when pushback completed
- SPOILERS ARM
- ENG MODE SEL NORM
- FLAPS CONF 1 / 2 / 3
- Flight Controls CHECK
- TRIM THS SET / RUD TRIM ZERO
- AUTOBRAKE MAX
- APU OFF / as required
- Engine Anti Ice as required

After Start Checklist

Taxi out Phase

- Taxi Out**
 - Lights wie benötigt [Nose, Turnoff]
 - Brakes checked
 - TO CONFIG TEST
 - PACKS wenn nötig, OFF when reaching Holding Point

- Taxi Checklist, when reaching Holding Point**

Lineup und Takeoff Phase

- Lineup**
 - Strobes ON
 - Cabin Info

- Cleared Takeoff**
 - Landing Lights ON

- Takeoff**
 - Brakes halten, wenn Static Takeoff
 - Thrust Levers LEVER 50% N1
 - Timing START
 - Brakes release
 - 50% N1 stabilized LVR FLEX/MCT bzw. LVR TOGA
 - Sidestick ½ forward
 - 80 kts Sidestick langsam Neutral nehmen (100 kts Neutral)
 - 100 kts CALL „100“ [High Speed RTO Regime]
 - V1 CALL “GO”
 - VR 2,5°-3° / Sekunde Rotation in den Flight Director
 - Positive Climb [ALT, VS, RA, VIS] -> Gear UP
 - Autopilot wie gewünscht

Climb und Cruise Phase

- Initial Climb**
 - Thrust Reduction ALT LVR CLIMB
Falls der Start ohne PACKS erfolgte, in 1500 ft AGL:
 - PACK1 ON
 - PACK2 nach 10 Sekunden ON
 - Acceleration ALT F-Speeds -> Retract 1 notch / S-Speed -> FLAPS 0
 - Ground Spoilers DISARM
 - 5000 ft RELEASE CABIN, falls das Wetter nicht dagegen spricht

- FL100**
 - Lights OFF, bis auf STROBES, BEACON und NAV
 - RADNAV CLEAR
 - SEC F-PLN Delete, Copy active, ggf. 2. RWY vorbereiten
 - SIGNS OFF, falls das Wetter nicht dagegen spricht

- TOP OF CLIMB**
 - FUEL STATE & TIME CHECK alle 30-60 Minuten

- WX DEST / ALT CHECK
- TOP OF DESCENT CROSS-CHECK

10 Minuten vor TOP OF DESCENT

- WX DEST (ALTN) CHECK
- RWY / APP / STAR CHECK & Karte/MCDU abgleichen
- ARRIVAL PERF. CHECK
- DEST DATA ENTER

Descent und Approach Phase

TOP OF DESCENT

- REQUEST DESCENT 3 NM vor TOD
- DESCENT INITIATE
- SIGNS ON

DESCENT CHECKLIST

FL100 / 10.000 ft

- LIGHTS LANDING LIGHTS ON

Cleared to first ALTITUDE

- QNH SET (3x)
- LS SELECT

Speed control

- 15 NM to go Green Dot
- 12 NM to go FLAPS 1, S-Speed
- One dot below FLAPS 2, Speed as required
- 2000 ft ARTE Gear down, FLAPS 3, arm SPOILERS

If FLAPS FULL Landing:

- 1600 ft ARTE FLAPS FULL

Landing Checklist (latest 1000 ft completed)

Stabilization Gate 1000 ft

- Localizer max. 1 dot deviation
- Glideslope/-path max. 1 dot deviation
- V_{APP} max. -0 / +15 kts
- N1 Spool up (no IDLE)
- FLAPS Landing Flap Setting (3 or FULL)
- Landing Checklist completed

Landing Phase

MDA/DA/DH

- RWY in sight LAND
- RWY not in sight GO AROUND

Go around procedure

- Thrust Levers TOGA

- FLAPS retract 1 step (FULL – 3 / 3 – 2)
- PITCH into Flight Directors
- Positive Climb Gear up
- NAV/HDG assure FMA / push (managed) / pull (selected), as required
- Thrust red. ALT Thrust Levers CL [Climb detent]
- F-Speed, pos. trend FLAPS 1
- S-Speed, pos. trend FLAPS 0
- Spoilers disarm

Landing

- Center Line / Path maintain (Flight Directors)
- 30 ft begin Flare, retard Thrust Levers as required
- Touchdown
 - Thrust Levers REVERSE, as required
 - assure SPOILERS deployed
- Autobrake monitor DECEL
- 70 kts Thrust Levers IDLE REVERSE
- reaching taxi speed REVERSERS – stow
- AUTOBRAKE disengage (manual braking) as required, latest 20 kts

After Landing & Shutdown Phase

After Landing

- vacate Runway when clear, Stop if required
- SPOILERS DISARM
- FLAPS 0
- Lights Strobe AUTO, Landing / Turnoff Lights OFF, Taxi Light ON
- APU START
- BRAKE FANS ON / OFF, as required

Shutdown

- PARK BRAKE SET
- APU / GPU AVAIL / ON
- ENG MASTER 1 & 2 OFF
- BEACON OFF
- SIGNS OFF
- RDR / PWS OFF

Shutdown Checklist

continue with Aircraft Power Down / Leaving or with green marked items for next FLT

Aircraft Power Down / Leaving

(not performed for Turnaround)

Power Down

- BRAKE FANS OFF
- FUEL PUMPS OFF
- ADIRS OFF
- OXYGEN OFF
- APU BLEED & APU OFF
- EMER & EXT LIGHTS OFF
- EXTERNAL PWR OFF
- BAT 1 & 2 OFF

Securing Checklist

NORMAL CHECKLIST

BEFORE START CHECKLIST	
FUEL QTY	___ kg
ALTIMETERS	QNH ___ / ___ ft
TAKEOFF DATA & FLEX	CHECKED
WINDOWS / DOORS	CLOSED
BEACON	ON

AFTER START CHECKLIST	
ANTI ICE	as required
ENGINE MODE SEL	NORMAL
FLAPS	CONF ___
TRIMS	UP/DN ___ / ZERO
APU	as required

TAXI CHECKLIST	
ECAM MEMO	T/O, NO BLUE
PACKS	ON/ if req. OFF

DESCENT CHECKLIST	
APPROACH DATA	INSERTED
SIGNS	ON

LANDING CHECKLIST	
MISSED APP ALT	SET
ECAM MEMO	LDG,NO BLUE

SHUTDOWN CHECKLIST	
PARK BRAKE	SET
ANTI ICE	OFF
ENGINES	OFF
SEAT BELTS	OFF
BEACON	OFF
RADAR	OFF

SECURING CHECKLIST	
FUEL PUMPS	OFF
ADIRS	OFF
OXYGEN	OFF
APU BLEED	OFF
EMER EXIT & EXTN Lights	OFF
APU	OFF
EXTERNAL PWR	OFF
BAT 1 & 2	OFF

