

Contents

Wake Turbulence	1
Contaminated Runway Operations	1
Takeoff and Landing Wind Limits	2
Other wind limits	4
Other Autoland limitations	4
First Officer limits	5
Airport limitations	5
Dimensions	5
Weight Limits	6
Loading	6
General speeds	7
Engine	8
Hydraulics	8
Fuel	9
Ice protection	9
Flaps/slats	10
Gear	10
Pressurisation	10
Air conditioning / Ventilation	10
Electrical	11
APU	11
Oxygen	11
Navigation	12
Autopilot	12
Autoland Warning Light	12
Miscellaneous	13
Single Engine operations	14
Double engine failure	14
Emergency calls to cabin	15
Procedures	16
Takeoff with tailwind or crosswind > 20kt	16
General	16
Holding	16
PRNAV (RNP 1) SID/STAR	17
Visual Approach	18
Circling	18
Non-Precision Approach - Selected vertical and lateral	18
RNAV or Non-Precision overlay approach	19

ILS approach 20
LVO takeoff 21
LVO landing 21

Wake Turbulence

Final Approach

[EOMA 8.3.10]

Type	Separation
A380	7nm
Heavy	5nm
Upper Medium (e.g. 757,707)	4nm (UK only)

Note: Boeing 757 and Boeing 737-800/900 are classified as heavy for the purposes of final approach in some countries.

Departure

[EOMA 8.3.10]

Type	Separation
A380	3 mins
Heavy	2 mins

Note: Add **1 minute** if departure is not from the same position

Contaminated Runway Operations

Takeoff is not recommended with:

- Wet ice
- Water on top of compacted snow
- Dry Snow or Wet Snow over Ice

Damp runway [EOMB 4.5.1/4.12.1] Use Wet performance

Contamination < 25% of runway area [EOMB 4.6.2] Use Wet performance

Contamination <3mm [EOMB 4.6.2] Use Wet performance

Takeoff condition assessment matrix EFB “More” pages

Landing condition assessment matrix QRH PER-C.3

Minimum cleared width [WIH 8.2.6] . 30m (check snowbanks: EOMB 4.6.10)

≤45m does not need to be treated as a narrow runway for V_1 etc. [WIH 8.3]

“Slippery when wet”

Takeoff EOMB 4.5.7

Landing EOMB 4.14.5

Takeoff and Landing Wind Limits

Takeoff or Manual Landing, Runway Width $\geq 45\text{m}$

Max Headwind No limit
 Max Tailwind 10kt

Runway Condition	Max Crosswind (including gust)
<ul style="list-style-type: none"> • Dry • Damp • Wet ($\leq 3\text{mm}$ water) • Slush ($\leq 3\text{mm}$) • Snow ($\leq 3\text{mm}$, dry or wet) • Frost • $\leq 25\%$ contamination 	A320NEO Takeoff ... 35kt Otherwise 38kt
<ul style="list-style-type: none"> • Compacted Snow ($\text{OAT} \leq -15^\circ\text{C}$) 	29kt
<ul style="list-style-type: none"> • Dry Snow ($> 3\text{mm}$, $\leq 100\text{mm}$) • Wet Snow ($> 3\text{mm}$, $\leq 30\text{mm}$) • Compacted Snow ($\text{OAT} > -15^\circ\text{C}$) • Dry Snow over Compacted Snow • Wet Snow over Compacted Snow • Slippery when wet 	25kt
<ul style="list-style-type: none"> • Water ($> 3\text{mm}$, $\leq 12.7\text{mm}$) • Slush ($> 3\text{mm}$, $\leq 12.7\text{mm}$) 	20kt
<ul style="list-style-type: none"> • Ice (cold and dry) 	15kt

Autoland without automatic rollout

[LIM.22]

Headwind	
A319 OEI	15kt
A319 AEO	20kt
Otherwise	30kt
Tailwind	
A319 CONF3	5kt
Otherwise	10kt
Crosswind	
A319 OEI	10kt
Otherwise	20kt
Crosswind must not be greater than that for manual landing.	

Autoland with automatic rollout

[LIM.22]

Headwind	
A319 OEI	15kt
A319 AEO	20kt
Otherwise	30kt
Tailwind	
A319 CONF3	5kt
Otherwise	10kt
Crosswind	
A319 OEI	10kt
A320 CEO with sharklets	15kt
A320 NEO with inop thrust reverser	15kt
(idle reverse used on remaining reverser)	
Otherwise	20kt

Takeoff or Manual Landing, Runway Width <45m, ≥30m

Max Headwind No limit
 Max Tailwind 10kt

Runway Condition	Max Crosswind (including gust)
• Dry	A320NEO Takeoff ... 35kt Otherwise 38kt
• Wet (≤3mm water)	33kt
• Contaminated (not icy)	10kt

Other wind limits

LEAP-1A starting max crosswind [LIM.70] 45kt
 Passenger door operation [LIM.12] 65kt
 Cargo door operation [LIM.12] 40kt (50kt w/caveats)
 Cargo door closed before [LIM.12] 65kt

Other Autoland limitations

[LIM.22.20]

Alert height 100ft
 Approved configurations
 A320CEO OEI CONF FULL only
 Otherwise CONF 3, CONF Full
 Rwy conditions for automatic rollout Dry, Wet
 Glideslope 2.5° to 3.15°
 Max airport elevation... A320NEO:5750ft, A320CEO:2500ft, A319:9200ft
 Min pressure altitude A320NEO:-2000ft; Otherwise:-1000ft
 Auto rollout with one reverser inop Idle reverse only
 (no limitation for A320CEO without sharklets)
 A319 Max weight (emergency only) 69000kg
 A320NEO Min weight 44000kg

First Officer limits

3* FO [EOMB 2.1] No planned tailwind
 Max crosswind [EOMB 2.1] 20kt
 Takeoff minimum [EOMB 2.1] 400m RVR
 ILS/VOR/ADF/SRA minima [EOMB 2.1] As published
 Circling minima [EOMB 2.1] 5000m
 Min runway width, no specific training [EOMB 2.1] 45m
 3* FO [EOMB 2.1] no flap 3 landing
 No contamination, windshear or autoland [EOMB 2.1]

Airport limitations

Max slope [LIM.12] ±2%
 Max runway altitude [LIM.12] 9200ft
 Nominal runway width [LIM.12] 45m
 Min runway width (narrow runway procedures) [PRO.SPO.60] 30m
 Min planning fire fighting category [EOMA 8.1.2.1]
 Departure/Destination 6 (5 or 4 with caveats)
 Alternates UK: 5; Non-UK: 4
 Runway lighting
 Red and white 900m
 Red 300m

Dimensions

[DSC.20.20]

	A319	A320 (no sharklets)	A320 (sharklets)
Wingspan	34.1m		35.8m
Length	33.84m	37.57m	
Min pavement for 180° turn	20.64m	22.9m	22.8m
Widest sweep	Wing tip		

Weight Limits

[LIM.11, PER.LOD.CGO]

Weight	A319	A320CEO	A320NEO
Max Takeoff	68000kg	77000kg	79000kg
Max Taxi	68400kg	77400kg	79400kg
Max Landing	61000kg	66000kg	66300kg
Max Zero Fuel	57000kg	62500kg	62800kg
Minimum	35400kg	37230kg	40600kg

A319	
Max Compartment 1	2268kg
Max Section 41	1326kg
Max Section 42	1695kg
Max Compartment 5	1497kg

A320	
Max Compartment 1	3402kg
Max Compartment 3	2426kg
Max Compartment 4	2110kg
Max Compartment 5	1497kg

Loading

A319 Protocol:[GHM 2.4.1]

Up to 150 bags to Section 41/42;
then up to 50 in Compartment 5;
overspill to Compartment 1.

A320 Protocol:[GHM 2.4.1]

Fill Compartment 1 (≈85 bags);
remainder to Compartment 4 and if necessary, Compartment 3.
No planned usage of Compartment 5.

LMCs [EOMB.7.4]

Negative LMC, $\Delta CG < 2\%$ No action required

Positive LMC $< 250\text{kg}$, $\Delta CG < 2\%$ Subtract 1 from FLEX
(FLEX must still be $>TREF$ (A319:ISA+30; A320:ISA+29))

Other cases Recalculate performance

New paperwork required for -20/+10 passengers

A320 Forward CG [EOMB 4.9.4] $CG < 27\%MAC$

General speeds

V_{MO} [LIM.13]	350kt
M_{MO} [LIM.13]	0.82M
Max Tire speed [LIM.13]	195kt
Max speed for wipers [LIM.13]	230kt
Max speed cockpit window open [LIM.13]	200kt
V_{MCA} (rounded up)[LIM.13]	
A319	0ft:108kt; 2000ft:106kt
A320CEO	0ft:110kt; 2000ft:108kt
A320NEO	0ft:114kt; 2000ft:114kt
V_{MCG} CONF 1+F (rounded up)[LIM.13]	
A319	0ft:105kt; 2000ft:103kt
A320CEO	0ft:111kt; 2000ft:109kt
A320NEO	0ft:116kt; 2000ft:116kt
CFM56 Turbulence speeds [PRO.SUP.91.10]	
<FL200	250kt
≥FL200	275kt
≥FL320	M0.76
LEAP-1A Turbulence speeds [PRO.SUP.91.10]	
<FL200	260kt
≥FL200	280kt
≥FL310	M0.76

Engine

[LIM.70]

TOGA time 5 mins (10 mins single engine)

EGT

TOGA CFM56:950°C; LEAP-1A:1060°C

MCT CFM56:915°C; LEAP-1A:1025°C

CFM56 Start 725°C

LEAP-1A Air Starting 875°C

LEAP-1A Ground Starting 750°C

Oil

CFM56 min quantity[EOMB 2.3.4.3] 9.5qt+0.5qt/hr

LEAP-1A min quantity[NEO QRG] 10.6qt+0.45qt/hr

Max cont temp 140°C

Max trans temp 155°C

Min start temp CFM56:-40°C; LEAP-1A:-29°C

Min takeoff temp CFM56:-10°C; LEAP-1A:19°C

LEAP-1A Min Oil Pressure 17.4psi

LEAP-1A Max Oil Pressure (oil temp < 50°C) 130.5psi

LEAP-1A Max Oil Pressure (oil temp > 50°C) 145psi

Max N1 CFM56:104%; LEAP-1A:101%

Max N2 CFM56:105%; LEAP-1A:116.5%

CFM56 Starter

No running engagement when N2>20%

4 cycles of max 2 mins

Pause between start attempts 20 sec

Cooling period after 4 attempts 15min

LEAP-1A Starter

No running engagement when N2>59%

1 auto-start cycle consists of three start attempts

Pause between cycles 60 sec

Cooling period after 3 cycles 15min

Max reverse >70kt

Hydraulics

Normal pressure [LIM.29] 3000±200psi

Fuel

Approximate Capacity (varies by airframe) [DSC.28.10.20]	
Outer tanks	2 x 700kg
Inner tanks	2 x 5500kg
Center tank	6500kg
Total	18900kg
Allowable temperature (Jet A1) [LIM.28]	$\geq -43^{\circ}\text{C}$, $\leq 54^{\circ}\text{C}$
Max imbalance [LIM.28]	
Fuel in fuller inner tank < 2250kg (outer tanks balanced)	No
Limitation	
Max inner tank imbalance (outer tanks balanced)	1500kg (more w/ caveats)
Max outer tank imbalance (sides balanced)	1 full, 1 empty
Max takeoff imbalance with sharklets ... inners: 500kg, outers: 370kg (more w/ caveats)	
Min qty for takeoff [LIM.28]	1500kg

Ice protection

Icing conditions [PRO.SUP.30]	OAT(grd) TAT(ft) $\leq 10^{\circ}\text{C}$ (& visible moisture or ground contamination)
Eng anti-ice not reqd [PRO.SUP.30]climb/cruise, SAT $< -40^{\circ}\text{C}$, no CBs in vicinity	
Accreted ice [PRO.SUP.30]	
Min speed, Conf Full	$V_{LS} + 5\text{kt}$
Min Speed, < Conf Full	$V_{LS} + 10\text{kt}$
Check landing performance	QRH PER-C
Accreted ice, wing anti-ice inop [PRO.SUP.30]	
Min speed	$V_{LS} + 10\text{kt}/\text{G DOT}$
Check landing performance	QRH PER-C
Avoid extended flight in icing conditions with slats extended [PRO.SUP.30]	
CFM56 Fan ice shedding: [EOMB 2.4.91]	
Icing conditions > 30 mins	70%N1 for 30 secs every 30 mins
Freezing rain/dizzle/fog, heavy snow ... 70%N1 momentary every 10 mins	
Before takeoff	70%N1 for 30 secs
LEAP-1A Fan ice shedding: [NEO OLL]	
Icing conditions > 60 mins	70% for at least 5 seconds
Ground fog icing conditions > 120 mins ...	Engineering inspection reqd

Flaps/slats

Conf 1 [LIM.13]	230kt
Conf 1+F [LIM.13]	215kt
Conf 2 [LIM.13]	200kt
Conf 3 [LIM.13]	185kt
Conf Full [LIM.13]	177kt
Max flaps/slats altitude [LIM.27]	20000ft

Gear

Extend [LIM.13]	250kt
Retract [LIM.13]	220kt
Extended [LIM.13]	280kt/M.67
Max gear altitude [LIM.13]	25000ft
Max taxi speed, single tyre deflated [LIM.32]	7kt
Max taxi speed, both tyres deflated [LIM.32]	3kt
Max steering angle, both tyres deflated [LIM.32]	30°
Max brake temp for takeoff [LIM.32]	300°

Pressurisation

Max pos diff [LIM.21.20]	9.0psi
Max neg diff [LIM.21.20]	-1psi
Safety valve [LIM.21.20]	8.6psi
Max norm cabin alt [LIM.21.20]	8000ft
Cab alt warning [LIM.21.20]	9550ft±350ft
Ram air max diff [LIM.21.10]	1psi

Air conditioning / Ventilation

Max LP ground unit airflow [LIM.21.10]	1.2kg/s
(do not simultaneously use packs)	
Do not use HP ground unit when APU is supplying bleed air. [LIM.21.10]	
Max OAT for norm avionics ventilation [LIM.21.30]	49°C
(higher with time limits)	
Max OAT with EXTRACT OVRD and Packs Off [PRO.SUP.30]	39°C
(higher with time limits)	

Electrical

Max generator continuous load [LIM.24]	100%(90 KVA)
Max TR continuous load [LIM.24]	200A
Min Battery Voltage [EOMB 2.3.4.1]	25.5V
Battery check [EOMB 2.3.6.2]	charge current<60A within 10s

APU

Ops with “Low Oil Level” ECAM [LIM.49.10]	10hrs
Starter duty [LIM.49.10]	3 cycles then 60 mins
Maximum N [LIM.49.10]	107%
Max EGT [LIM.49.10]	675°C
Max start EGT [LIM.49.10]	<35000ft: 1090°C, >35000ft 1120°C
Max Altitudes [LIM.49.20]	
Two packs	15000ft
One pack	22500ft
Eng start	20000ft
Battery start (emerg elec config)	25000ft
Restart and operation	39000ft
Air bleed for wing anti-icing	Not permitted
Approximate fuel burn [EOMB 5.1]	2kg/min

Oxygen

[LIM.35]

A319/A320CEO Min oxygen pressure (ref temp 40°)	
3 crew	1024psi
2 crew	781psi
A320NEO Min oxygen pressure (ref temp 40°)	
3 crew	CAPT:780psi, FO:550psi
2 crew	CAPT:550psi, FO:550psi
Minimum Endurance, emergency descent (reg normal)	
Descent, 3 crew	A319/A320CEO:13 mins; A320NEO:15mins
Cruise at FL100, 2 crew	A319/A320CEO:107mins;
A320NEO:105mins	
Minimum Endurance, fire (reg 100%)	
8000ft	15mins

Navigation

Max IRS latitudes [LIM.34]	73°N,60°S
Altimeter tolerances [PRO.SUP.34]	
ADR vs Airfield elevation	±25ft
ADR vs ADR	±20ft
ISIS vs ADR	±100ft
Altimeter temperature corrections	QRH SI.10

Autopilot

Engagement after TO [LIM.22.10]	>100ft,>5 secs
Minimum engagement height [LIM.22.10/20]	
Straight in NPA	DH
Circling	MDA-100ft
ILS, CAT2 or CAT3 not displayed on FMA	160ft agl
Cat II approach, manual landing	80ft
PAR	250ft
Go-around	100ft
RNAV visual approach	500ft
Other phases	500ft

Autoland Warning Light

[DSC.22.30.80.30]

- RA<200ft and
- one or more autopilots engaged and
- LAND or FLARE annunciated and
- one or more of:
 - Both autopilots disconnect (N.B. RA NCD case)
 - RA>15ft and localiser signal lost or deviation $>\frac{1}{4}$ dot
 - RA>100ft and glideslope signal lost or deviation >1 dot
 - Difference between rad alt > 15ft
 - Long flare detected (newer aircraft only)

Miscellaneous

German corner	KRH R270/12D
Alternate ranges [EOMB 5.1.1]	
Takeoff	320nm
Enroute	A319:380nm; A320:400nm
Approx Power settings	
Two engine approach, V_{app}	50% N1
Single engine approach, V_{app}	70% N1
Two engine cruise	(50 + Altitude/1000)% N1
Flex corrections [EOMB 2.3.10]	
Anti-ice on	subtract 5°C
QNH reduction	subtract 1°C/2hPa
Flex must remain >TREF (A319:ISA+30; A320:ISA+29) and >OAT	
easyJet Landing Distance Factor	1.15

Single Engine operations

- Avoid reducing below V_{LS} (including GPWS/Windshear) [FCOM PRO.ABN.70]
- Autoland capability [LIM.22.20] Cat III single (A320: Conf Full only)
- Available NPA Autopilot modes [LIM.22.10]
 - A320 All
 - A319 LOC/VS, LOC/FPA, HDG/VS, TRK/FPA
(All modes permitted FD only)
- Do not extend full flaps until established on final descent. [PRO.ABN.10]
- Use Conf 3 if a level off is required. [PRO.ABN.10]
- Check QRH ABN-80 if circling required
- Sharklet automatic rollout [LIM.22.20] Idle reverse only

Double engine failure

[QRH ABN.70]

- Target 4nm, 2400AAL, S Speed, Flap 1, Gear up
- Range
 - 300kt 2nm per 1000ft
 - Green dot $2\frac{1}{2}$ nm per 1000ft
 - CONF 3, Gear Down 1.2nm per 1000ft (\approx 850ft/nm)
- Loss of height in holding pattern (downwind leg timing)
 - 0 secs 4000ft
 - 15 secs 5000ft
 - 30 secs 6000ft
 - 45 secs 7000ft
 - 60 secs 8000ft
- Landing Configuration
 - Forced Landing . . . Flap 3 (slats only), Gear Down (gravity extension)
 - Ditching Flap 3 (slats only), Gear Up, Ditching button pushed
- V_{app} Greater of $V_{ref}+25$ kt, 150kt

Emergency calls to cabin

Ground ops alert [EOMB 2.3.90.10]:

“Attention! Crew at Stations”

Notification of a potential emergency in-flight [EOMB 2.3.90.10]:

“Attention! Crew at Stations”

Alert cancellation [EOMB 2.3.90.10]:

“Cabin crew, normal operations”

Evacuation [EOMB 2.3.90.10]:

“Evacuate. Unfasten your seatbelts and get out”

NITS on flight deck [EOMB 2.3.90.10]:

“Senior cabin crew member to the flight deck”

NITS via interphone [EOMB 2.3.90.10]:

“Senior cabin crew member to the interphone” or 3 double chimes

Unplanned emergency landing [EOMB 2.3.90.10]:

“Attention, Crew! Brace, Brace!”

Rapid decompression [EOMB 3.80.2]:

Auto announcement from CIDS/PRAM. No Flight Crew PA required.

Planned emergency landing [EOMB 2.3.90.10]:

2000ft “Cabin crew, take up landing positions”

500ft “Brace, Brace”

Severe turbulence [EOMB 2.3.90.10]:

“Cabin crew and passengers be seated immediately”

Procedures

Takeoff with tailwind or crosswind > 20kt

A319/A320CEO [\[EOMB 2.3.12\]](#)

- Set 50% N1
- When engines stable, rapidly set 70% N1
- Select takeoff thrust by 40kt
- Stick full forward until 80kt, neutral by 100kt

A320NEO [\[NEO QRG\]](#)

- Set 50% N1
- Release brakes
- Set 70% N1
- When GS>15kt set FLX or TOGA

General

UK Procedure default speed limit [\[UKAIP GEN.1.7\]](#) 185kt

Procedure turn [\[LIDO RAR.5.4.1.2\]](#) 75 seconds from start of 45° turn

Holding

[\[LIDO RAR.5.7\]](#)

Joining

Turn anti-holdwise < 110° to Outbound track Parallel entry

Turn holdwise < 70° to Outbound track Teardrop entry

Otherwise Direct entry

Standard Right turns, parallel to airway

≤ 14000 1 minute

> 14000 1 ½ minutes

Max holding speeds (Normal(Turbulent))

≤ 14000 230kt(280kt)

> 14000, ≤ 20000 240kt(280kt/0.8M)

> 20000, ≤ 34000 265kt(280kt/0.8M)

> 34000 0.83M

PRNAV (RNP 1) SID/STAR

[PRO.SPO.51, EOMA 8.3.3.9, EOMB 2.4.51.2]

- **Minimum required equipment:**
1 FMGC; 1 MCDU; 1 GPS or 2 DMEs; 2 IRS; 1 FD; PFD and ND on PF side; 1 EFIS display on PM side. Additional procedure specific restrictions may be published. Check RNP 1.
- If GNSS is used as primary navigation source, check RAIM availability. If GNSS is not required and GPS PRIMARY is not available, carry out a navigational reasonableness check prior to IAWP.
- Database procedure should not be changed except for the addition of missing altitude or speed constraints. ATC “direct to” instructions may be accepted when above MSA. Max allowable XTK Error on RF¹ leg is 0.5nm.[EJ ppt]
- If GPS PRIMARY LOST or NAV ACCUR DOWNGRAD on one ND/MCDU continue with the unaffected one.
- Use raw data to identify and continue with FMGC that provides the correct position in case of:
 - GPS PRIMARY lost on both NDs/MCDUs
 - CHECK IRS 1(2)(3)/FM POSITION (on MCDU)
 - CHECK A/C POSITION
- Request reclearance if:
 - FM/GPS POS DISAGREE ECAM²
 - FMS1/FMS2 POS DIFF message²
 - NAV ACCUR DOWNGRAD on both sides
 - Additional restriction (e.g. Dual FMC, GPS) no longer met

¹Radius to Fix

²EOM-B overrides FCOM for these messages

Visual Approach

[EOMB 2.3.18.3.6]

- Minimas: [EOMA 8.1.3.6]
 - Visibility 5km
 - Cloud ceiling 2500ft aal
- Maintain 1500ft aal and 500ft above terrain until established on final descent.
[EOMA 8.3.2.5.1]
- Downwind at Flap 1, S speed
- Base Turn 3 secs/100ft past abeam threshold; be Flap 2, F speed
- Shortly after turning base, gear down, continuous descent to landing.

Circling

[EOMB 2.3.18.3.4]

- If OEI, check weight (QRH ABN.80)
- Protected circling radius [LIDO RAR.5.5] 4.2nm from all RWY THR
- Landing runway in secondary flight plan
- Initial approach: Conf 3, gear down, F speed
- Push V/S at least 100ft above circling minima
- Turn 45°
- 30 secs from wings level turn downwind (gives runway offset ≈1.7nm)
- Activate secondary when downwind
- Descent point 3 secs per 100ft past abeam threshold
- Full flap when turning finals

Non-Precision Approach - Selected vertical and lateral

[EOMB 2.3.18.3.3]

- Fly a stabilised approach
- If NAV ACCURACY is LOW at least one ND in ROSE LS/VOR [EOMB 2.3.18.2.1]
- 0.3nm before descent point, set and pull FPA
- 1°FPA modifies descent profile by 100ft for each nm

RNAV or Non-Precision overlay approach

- **Minimum required equipment:**
1 FMS (with GPS PRIMARY for RNAV(GNSS)); 1 MCDU; 1 FD; 1 PFD; ND on PF side; 2 FCU channels. Underlying navigation source must be available. Check RNP: 0.3nm. [EOMA 8.4.5.2, EOMB 2.3.18.3.2, PRO.SPO.51]
- RNP AR APCH (entitled RNAV(RNP)) not authorised. [EOMA 8.4.5.2]
- Check RAIM availability for $ETA \pm 15$ mins. [EOMA 8.4.5.2]
- Conventional approach must be available at destination or alternate. [EOMA 8.4.5.2]
- A minimum procedure temperature may be promulgated on the approach chart; default is -10°C . [EOMB 2.3.18.1.2, EOMA 8.4.4.2, EOMA 8.1.1.3.1]
 - Above this temp, an APV may be flown with uncorrected VNAV DA.
 - Below this temp, use corrected LNAV DA and fly corrected glidepath.
- Modifications to FMC database procedure prohibited with the exception of temperature corrections to minimum altitudes. [EOMA 8.4.5.2]
- Fly a stabilised approach if using FPA. Set and pull FPA 0.3nm before descent point. [EOMB 2.3.18.3.3]
- Chart vs. database [EOMB 2.3.18.3.2]:
 - Max vertical path difference (APV only) 0.1°
 - Max lateral track difference 3°
- **RNAV approach:** Go around for: [EOMB 2.3.18.3.2]
 - $> \frac{3}{4}$ index fly up or down (APV only)
 - XTK error $> 0.3\text{nm}$
 - NAV ACCUR DOWNGRAD reported by both FMGCs
 - FM/GPS POS DISAGREE ECAM
 - GPS PRIMARY LOST reported by both FMGCs.If GPS PRIMARY LOST or NAV ACCUR DOWNGRAD is reported by a single FMGC continue with the unaffected FMGC.
- **Overlay approach:** FINAL APP may continue to be used unless raw data indicates flight path deviation.[EOMB 2.3.18.3.2]

ILS approach

Standard coverage [LIDO GEN.NAV.3.2]:

Localiser $\pm 10^\circ$	25nm (FAA 18nm)
Localiser $\pm 35^\circ$	17nm (FAA 10nm)
Glideslope $\pm 8^\circ$	10nm

Approach Ban [EOMA 8.4.3] 1000ft aal or DA if greater

Absolute minimas (DH/TDZ RVR) [EOMA 8.1.3.9.3]:

Cat I	200ft/550m
LTS Cat I	200ft/400m
Cat II	100ft/300m
Cat IIIA	50ft/200m
Cat IIIB	0ft/75m

- Multiple RVRs not required for Cat I / LTS Cat I.
- Only relevant mid-point or stop end RVRs need to be accounted for.
- Required stop end RVR is always 75m.
- Required mid point RVR is also 75m if rollout is used, else it is 125m.

LIDO “Company” minimas [EOMA 8.1.5.3]

Cat IIIB	No DH
Cat IIIA	50ft RA

Required visual references: [EOMA 8.4.6/10/11]

Cat I	Elements of ALS, PAPIS or THR/TDZ markings/lights
Cat I LTS, Cat II	3 consecutive lights plus a lateral element
Cat IIIA	3 consecutive lights
Cat IIIB with DH	1 centre-line light
Cat IIIB No DH	None

FALS/IALS/BALS/NALS LIDO GEN 1.7.7.10.6.2

LVO takeoff

[EOMA 8.1.3.3]

- Absolute minima 125/125/125
- Reported RVR of initial part of Takeoff run can be replaced by pilot assessment.
- Only relevant RVRs must be considered.
- All passenger PEDS must be turned off. [EOMA 8.3.23.2]

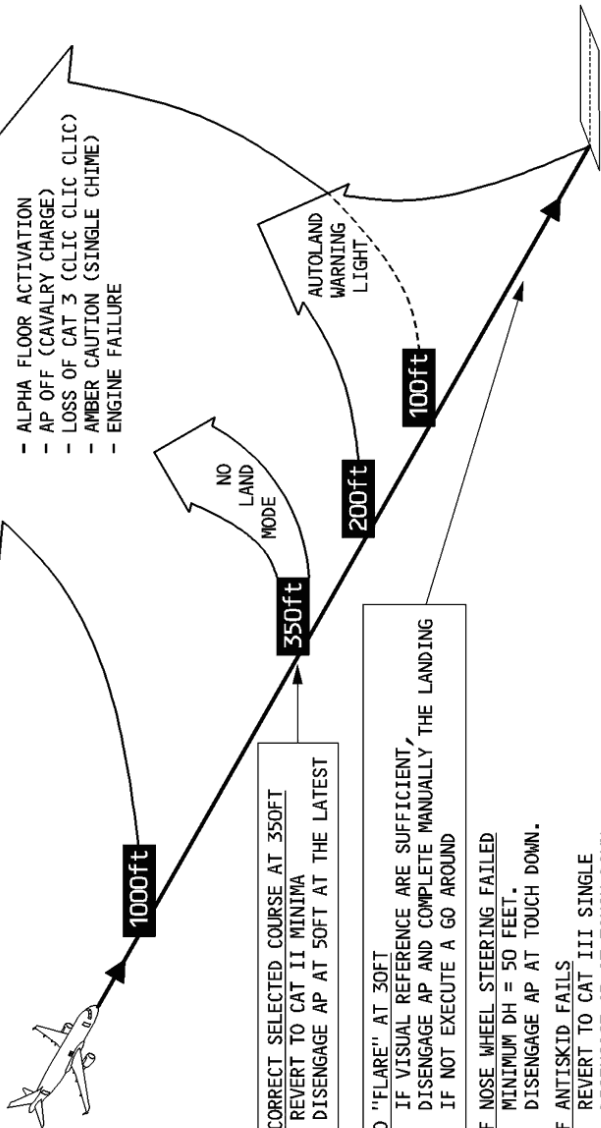
LVO landing

[EOMB 2.3.18.3.1.1]

- All passenger PEDS must be turned off [EOMA 8.3.23.2]
- Check NOTAMS for airport facility downgrades (see EOMA-8.1.3.5)
- Check LVPs in force
- Check crew qualification
- Check aircraft capability (ECAM status page, ADDs, QRH Operational Data)
- Check minimas and approach ban (see page 20 and LIDO approach chart)
- Check autoland wind limits (see page 3)
- Check runway condition limits (see page 4)
- Review failure strategies (see page 22)
- Extra calls: [EOMB 2.3.18.3.1.2]
 - 350ft, FMA:LAND PF:“Land”, PNF:“Checked”
 - 100ft (only with no DH) PNF: “100”, PF: “Continue”
 - 40ft, FMA:FLARE PNF:“Flare”
 - 10ft Auto callout: “Retard”
 - FMA:ROLLOUT PNF:“Rollout”
- Data Lock: Below 700ft RA, changes to V_{app} . Wind, course, and ILS Freq inhibited.
- No action on FCU will disengage LAND mode
- At 30ft check FLARE and THR IDLE annunciated; if not, go around.
- Select reverse at touchdown
- Disconnect autopilot at taxi speed

FAILURES AND ASSOCIATED ACTIONS BELOW 1000FT FOR CAT III APPROACH WITHOUT DH

GO AROUND IF INSUFFICIENT VISUAL REFERENCES



- ALPHA FLOOR ACTIVATION
- AP OFF (CAVALRY CHARGE)
- LOSS OF CAT 3 (CLIC CLIC CLIC)
- AMBER CAUTION (SINGLE CHIME)
- ENGINE FAILURE

INCORRECT SELECTED COURSE AT 350FT

- REVERT TO CAT II MINIMA
- DISENGAGE AP AT 50FT AT THE LATEST

NO "FLARE" AT 30FT

- IF VISUAL REFERENCE ARE SUFFICIENT, DISENGAGE AP AND COMPLETE MANUALLY THE LANDING
- IF NOT EXECUTE A GO AROUND

IF NOSE WHEEL STEERING FAILED

- MINIMUM DH = 50 FEET.
- DISENGAGE AP AT TOUCH DOWN.

IF ANTISKID FAILS

- REVERT TO CAT III SINGLE
- DISENGAGE AP AT TOUCH DOWN.

IF AUTOLAND WARNING LIGHT COMES UP:

- A GO AROUND MUST BE PERFORMED UNLESS THE VISUAL REFERENCES ARE SUFFICIENT FOR A MANUAL LANDING.