OVERDRIVE INTERACTIVE

AIRBUS A320 · MCDU · ND · WEATHER RADAR

A320 MCDU Trainer

Feature Sources & A320 Conformance



Version 2.1 · Android · Windows PC

Where every feature came from and how it compares with the real Airbus A320.

For academic, familiarization and training purposes only. Not for operational use.

SECTION 01

About this Report

This report lists every function of the A320 MCDU Trainer, the source it was checked against, and how closely it follows the real Airbus A320 MCDU, Navigation Display and weather radar.

Status labels

Label	Meaning
MATCHES	Behaves like the real A320, confirmed by at least one source.
SIMPLIFIED	Exists on the A320, but the trainer shows a simplified version (simple performance model, fewer fields, unlit annunciators).
TRAINER	Exists only for training: fictional data, storm cells, the simulated flight.
SIMULATOR	Part of the app only (license, disclaimer, views, PC keyboard).
NOT INCLUDED	A real A320 function that the trainer does not reproduce (Section 05).

Important limits

SECONDARY SOURCES

Official Airbus manuals (FCOM, FCTM) are restricted to operators and were not used. Behaviour was checked against public simulator documentation and manufacturer pages. Simulator documentation describes simulator models; real aircraft can differ by FMS standard and airline option.

*** NOT CONFIRMED ONLINE**

Items marked with * rely on general aviation knowledge that could not be confirmed in an online source during the check (for example the exact ND range steps, the radar scan sector and the Philippine transition level). Verify them against official documents before teaching them as fact.

Source numbers in square brackets, for example [3], refer to the list in Section 07.

SECTION 02

Where the Features Came From

Stage	Source	What it gave
1. Project plan	Plan supplied by the owner [1]	The idea: MCDU + ND/WXR, view switcher, disclaimer. The plan's code did not compile, used invented values and a dangerous deploy step; it was replaced (Section 04).
2. Real A320 behaviour	Simulator and training documentation [2]–[8], [16]	MCDU display and colour rules, keys, CLR, F-PLN layout, insertion and clearing rules, TMPY, DIR TO, ND modes and options, weather radar panel and modes.
3. Manufacturer and operator data	Collins Aerospace [9], Edelweiss [11]	Turbulence within 40 NM, radar range 320 NM, A320 maximum altitude and fuel capacity.
4. Training data	Public airport facts [14], Natural Earth [10]	Airport positions (rounded) and coastlines. All waypoints, navaids, frequencies and routes were made up for the trainer.
5. Trainer faults (v1.2)	Training and simulator documentation [17]–[21]	FM1 / FM2 / IND / FAIL annunciators, single-FMGC and reset messages, GPS and navigation accuracy messages, VOR and ILS failure flags.
6. Cockpit controls (v1.3)	Airbus Safety First [22], AviationHunt [23]	Weather radar panel layout and control types (GAIN and TILT knobs, MODE selector, toggle switches), GAIN and TILT scale marks; rotary ND mode and range selectors.
7. CFDS and CIDS BITE (v1.4)	AviationHunt [24], CIDS documents [25] [26], cockpit video frames [27], CFDS guidelines [28]	CFDS menu and reports, AVIONICS STATUS, SYSTEM REPORT / TEST and COM pages, CIDS menu, LRU IDENT, GROUND SCANNING, SYSTEM CONFIG, OP TESTS and SYSTEM TESTS messages.
8. Power, APU, engines, ADIRS (v2.0)	FlyByWire docs [29]–[31], SmartCockpit [32], Aviation library [33], Rowsfire [34]	ELEC, APU and ADIRS panel lights and sequences, alignment times, IRS INIT page, FMGC power-up.
9. Flight plan functions (v2.0)	FlyByWire MCDU guide [35], public airport facts [14]	DEPARTURE / ARRIVAL pages, airways, SEC F-PLN, wind pages. All procedures and airways are fictional.
10. Normal procedures (v2.1)	A320 normal procedures notes [36], FlyByWire docs [37] [38]	IRS position check and fast alignment, descent preparation, the approach phase (DECEL, ACTIVATE APPR PHASE), PERF APPR / GO AROUND, go-around, ENABLE ALTN, TOO STEEP PATH. Only facts are used; no text or images are copied.

RULE USED THROUGHOUT

When the plan and the real A320 disagreed, the trainer follows the real A320. When no public source was available, the function was simplified or marked NOT SIMULATED rather than invented.

SECTION 03

Summary

48	71	6	6	10
MATCHES	SIMPLIFIED	TRAINER	SIMULATOR	NOT INCLUDED

Conclusion. The MCDU display rules, colour code, keys, CLR logic, F-PLN layout, the insert / clear / discontinuity rules, the temporary flight plan, DIR TO, the ND modes and option buttons, and the weather radar panel, modes, colours and 40 NM turbulence limit follow the sources. Performance, fuel and speed predictions use a simple model, and all navigation data except airport positions is fictional.

The trainer is a classroom familiarization tool. It is not a certified training device (Section 06).

SECTION 04

Conformance by Area

Corrections to the original plan

Plan	Trainer
Free list with fixed "-" keys	14 × 24 display with six LSKs per side aligned to the lines
Random colours, invented values (TOD at 12 NM, "5027A", 455 kt)	Airbus colour code; values computed from distances and a performance model
Full circles on the ND, static "weather" blobs	ROSE / ARC / PLAN modes with ranges; radar model with tilt, gain and turbulence
Web app and a force-push into the FAP repository	Android and Windows apps; no web publication

MCDU display and keys

Feature	In the trainer	Real A320 / source	Status	Source
Display	14 lines × 24 characters: title, 6 label/data pairs, scratchpad	14 lines of 24 characters; title line; 6 rows each side; scratchpad	MATCHES	[2]
Fonts	Large = entries and modifiable data; small = labels, computed and default values	Same rule	MATCHES	[2]
Colour code	White, blue, green, amber boxes, magenta, yellow TMPY	White titles/prompts, blue modifiable, green active, amber mandatory, magenta constraints, yellow TMPY	MATCHES	[2] [3]
Line select keys	1L–6L, 1R–6R beside the data lines	LSKs beside each data field	MATCHES	[2]
Page keys	DIR, PROG, PERF, INIT, DATA, F-PLN, RAD NAV, FUEL PRED, SEC F-PLN, ATC COMM, MCDU MENU, AIRPORT	Same page set	MATCHES	[2]
Slew keys	Up/down scroll, left/right change page	Up/down scroll; left/right multi-page elements	MATCHES	[2]
CLR	Deletes last character; hold clears all; CLR + LSK deletes a field	Same behaviour	MATCHES	[2] [7]

OVFY key	Puts the overfly symbol in the scratchpad	Overfly key for fly-over waypoints	MATCHES	[2]
AIRPORT key	Destination, alternate, origin (before take-off)	Cycles destination, alternate, origin	MATCHES	[2]
BRT / DIM	Display brightness	Brightness; BRT/DIM also power the unit up/down	SIMPLIFIED	[2]
Annunciators	FM1, IND, RDY, FM2, FAIL, FM, MCDU MENU drawn unlit	Light for failures and messages	SIMPLIFIED	[2]
Scratchpad messages	Airbus wording; one message at a time	Type 1 messages plus a queue of up to 5 type 2 messages	SIMPLIFIED	[2]
Key layout	Redrawn by Overdrive Interactive	Physical MCDU (positions approximated)	SIMPLIFIED	[2]

INIT, F-PLN and revisions

Feature	In the trainer	Real A320 / source	Status	Source
INIT A	CO RTE, FROM/TO, ALTN, FLT NBR, LAT/LONG, COST INDEX, CRZ FL/TEMP, TROPO	Same fields; INIT REQUEST, IRS INIT, WIND/TEMP also active	SIMPLIFIED	[2] [7]
Company route	ROUTE SELECTION after FROM/TO, or CO RTE entry	Stored company routes from the database	SIMPLIFIED	[7]
CRZ FL limit	Above FL398 = ENTRY OUT OF RANGE	Maximum altitude about FL390–FL398 depending on variant	SIMPLIFIED	[11]
INIT B	TAXI, ZFW/ZFWCG, BLOCK, TRIP, RTE RSV, ALTN, FINAL, MIN DEST FOB, TOW, LW, EXTRA	Same fields; real values from the FMS performance database	SIMPLIFIED	[7]
Block fuel limit	19.0 t maximum	About 23,700–24,000 L usable (about 18.6–19 t)	MATCHES	[11]
F-PLN page	FROM line, TO white, TIME/UTC, SPD/ALT, leg track and distance, (T/C) (T/D), DEST line	Same layout and colours	MATCHES	[3]
Direct insertion	Name + left LSK: inserted before the line, discontinuity after, no TMPY	Direct F-PLN edits create no TMPY; LSK left of the place to insert	MATCHES	[3] [5]

Clearing	CLR + LSK: waypoint becomes a discontinuity; discontinuity cleared joins the route	Deleting a waypoint inserts a discontinuity; clearing a discontinuity joins the route	MATCHES	[4] [7] [8]
TO waypoint	Cannot be cleared in flight (use DIR)	TO waypoint only cleared with DIR	MATCHES	[3]
Constraints	Right LSK; magenta; amber when missed	Magenta; amber if predicted missed	MATCHES	[3]
LAT REV	NEXT WPT, NEW DEST: yellow TMPY, *ERASE / INSERT*	Lateral revisions create a TMPY; NEXT WPT adds a discontinuity	MATCHES	[3] [7]
VERT REV	SPD CSTR, ALT CSTR, CLB SPD LIM 250/10000	Same page	MATCHES	[3]
DIR TO	Waypoint, TMPY, INSERT; T-P becomes the FROM point	DIR TO procedure with TMPY INSERT	MATCHES	[7]
PERF TAKE OFF	V1/VR/V2 with disagree check, FLAPS/THS, FLEX, TRANS ALT, THR RED/ACC; F/S/O by formula	Same fields; speeds from the performance database	SIMPLIFIED	[7]
PERF CLB/CRZ/DES/APPR	Display; APPR accepts QNH, TEMP, WIND, MDA/DH, VAPP	Full phase pages	SIMPLIFIED	[7]
PROG	CRZ (changeable in flight), OPT, REC MAX, BRG/DIST TO, GPS PRIMARY	Same page; values from the FMS	SIMPLIFIED	[7]
RAD NAV	VOR, ILS, ADF by ident or frequency; band checks	VOR 108.00–117.95, LOC 108.10–111.95 (odd tenths), ADF 190–1750 kHz	MATCHES	[13]*
FUEL PRED, DATA	Fuel at destination / alternate; position monitor, A/C status	Full pages	SIMPLIFIED	[7]

Navigation Display

Feature	In the trainer	Real A320 / source	Status	Source
ND modes	ROSE ILS, ROSE VOR, ROSE NAV, ARC, PLAN	ROSE-ILS, -VOR, NAV, ARC, PLAN	MATCHES	[16]
ND ranges	10, 20, 40, 80, 160, 320 NM	Range selector (80 NM default after a failure)	MATCHES	[16]*
Option pushbuttons	CSTR, WPT, VOR.D, NDB, ARPT; one at a time; magenta	CSTR, VOR D, WPT, NDB, ARPT; only one active	MATCHES	[16]

Mode and range selectors	Rotary ND mode selector (ROSE ILS / VOR / NAV, ARC, PLAN) and rotary range selector; mark positions approximated	Rotary mode and range selectors on the EFIS control panel	SIMPLIFIED	[16]
Symbols	Yellow aircraft and lubber line, green track diamond, green plan, white TO, yellow dashed TMPY	Standard A320 ND symbology	MATCHES	[3] [16]*
VOR / LOC deviation	Course pointer and deviation bar (VOR 5°/dot, LOC 0.8°/dot)	Deviation scales	SIMPLIFIED	—*
Magnetic variation	Taken as 0°	About 1° W in the Philippines	SIMPLIFIED	—

Weather radar

Feature	In the trainer	Real A320 / source	Status	Source
Panel layout	GAIN knob, MULTISCAN and GCS switches and TILT knob on top; SYS switch, MODE selector and PWS switch below	Same layout on the A320 MultiScan control panel	MATCHES	[22]
Control types	Rotary GAIN and TILT knobs, rotary MODE selector, toggle switches for SYS (1/OFF/2), MULTISCAN, GCS and PWS; turned by touch drag, mouse drag or wheel	Rotary knobs, rotary selector and toggle switches	SIMPLIFIED	[22] [23]
GAIN scale	MIN, -12, -9, -6, -3, CAL, +4, +8, +12, MAX; detent at CAL; MAN GAIN (amber) on the ND away from CAL	Same scale marks; CAL is the normal position (MAN GAIN wording not confirmed online)	MATCHES	[22] [23]*
TILT scale	0 (horizon) at the left, UP 5 / 15 above, DN 5 / 15 below; 15° each way; 0.25° steps	Same scale marks; zero = IRS horizon reference; clockwise = up	MATCHES	[6] [22]
GCS switch labels	OFF / ON, as in the Airbus panel drawing	Airbus drawing: OFF / ON; other references: AUTO / OFF, spring-loaded to AUTO (panel standards differ)	SIMPLIFIED	[22] [23] [6]
Modes	WX, WX+T, TURB, MAP	WX, WX+T, TURB, MAP (and WX+T+HZD)	MATCHES	[6]
Colours	Green / amber / red; turbulence magenta	Green, amber, red for rising intensity; turbulence magenta	MATCHES	[6]

Turbulence range	Shown within 40 NM	Turbulence detection up to 40 NM ahead	MATCHES	[9]
Maximum range	Up to 320 NM	Threats out to 320 NM	MATCHES	[9]
GCS / tilt	GCS ON removes clutter in MULTISCAN AUTO only; the TILT knob moves the antenna in MAN (it also turns in AUTO, without effect)	Same rule	MATCHES	[6] [23]
Beam model	3.5° beam, tilt and earth curvature; overshoot and ground clutter	Real radar physics	SIMPLIFIED	—
Scan sector	60° each side of the nose	Antenna scan sector (value not confirmed online)	SIMPLIFIED	—*
MAP coastlines	Natural Earth 1:10m land, public domain	Ground returns	SIMPLIFIED	[10]
Storm cells	Eight fictional training cells near the route	—	TRAINER	—

Navigation data and performance

Feature	In the trainer	Real A320 / source	Status	Source
Airports	10 Philippine airports: real ICAO codes, rounded positions and elevations	Public airport facts	SIMPLIFIED	[14]
Waypoints, VOR, NDB, ILS, frequencies, company routes	All fictional, made for the trainer	Real data comes from licensed databases	TRAINER	—
Transition altitude / level	11000 ft / FL130	Manila and Mactan: TA 11000 ft, TL FL130 (unofficial source)	SIMPLIFIED	[12]*
Performance model	Climb 2.6 NM/1000 ft, descent 3 NM/1000 ft, 250 kt below FL100, 300 kt / M.78, simple fuel flows, no wind in predictions	Aircraft performance database	SIMPLIFIED	—
Simulated flight	FLY ×1/×4/×16, RESET, wind 060°/15 kt	—	TRAINER	—

Trainer faults (v1.2)

Feature	In the trainer	Real A320 / source	Status	Source
FM1 / FM2 fault	FM1 or FM2 annunciator amber; single FMGC operation	FM1 / FM2 amber: the FMGC on that side has failed; system goes to single mode	MATCHES	[2] [17]
Onside FMGC failed	OPP FMGC IN PROCESS (white) on this MCDU	OPP FMGC IN PROCESS: offside FMGC drives the MCDU, FM mode SINGLE	MATCHES	[18]
ND prompt	SET OFFSIDE RNG/MODE (amber) while FM1 is failed	Amber SET (or SELECT) OFFSIDE RNG/MODE on the ND	SIMPLIFIED	[17]*
FMGC reset	PLEASE WAIT about 25 s after the fault is removed	Automatic reset, then about 25 s resynchronisation with PLEASE WAIT	MATCHES	[17] [18]
Dual FMGC failure	Not simulated (one FM fault at a time)	Both FMGCs lost	SIMPLIFIED	—
Independent mode	IND annunciator amber; INDEPENDENT OPERATION (amber)	IND amber; INDEPENDENT OPERATION	MATCHES	[2] [18]
MCDU failure	FAIL annunciator amber; display blank; keys inoperative	FAIL (amber) = MCDU failure	MATCHES	[2]*
GPS loss	GPS PRIMARY LOST (amber) on the MCDU and the ND; cleared together with CLR	GPS PRIMARY LOST, also shown on the ND	MATCHES	[18]
GPS restored	GPS PRIMARY (white)	GPS PRIMARY when the FMS transitions to GPS PRIMARY	MATCHES	[18]
Navigation accuracy	Without GPS estimated 0.60 NM; LOW when above the required accuracy (0.30 NM on the approach): NAV ACCUR DOWNGRAD / UPGRAD	NAV ACCUR DOWNGRAD (amber) and UPGRAD (white), also on the ND	SIMPLIFIED	[18]*
Weather radar system fault	No returns from the failed system; amber WXR 1 / 2 FAULT on the ND; select the other SYS	Radar fault indication (wording not confirmed)	SIMPLIFIED	—*
VOR receiver fault	VOR1 shown red on the ND, no deviation	Red VOR1: receiver inoperative or station out of range	MATCHES	[19]
ILS receiver fault	Red LOC and G/S flags on the ND, no deviation	LOC and G/S flags in red when the receiver fails	MATCHES	[20] [21]

CFDS and CIDS BITE (v1.4)

Feature	In the trainer	Real A320 / source	Status	Source
CFDS menu	MCDU MENU > CFDS: LAST LEG REPORT, LAST LEG ECAM REPORT, PREVIOUS LEGS REPORT, AVIONICS STATUS, SYSTEM REPORT / TEST; *SEND POST FLT REP PRINT* (blue)	Same page	MATCHES	[24] [27]
CFDS in flight	CURRENT LEG REPORT / CURRENT LEG ECAM REPORT; SYSTEM REPORT / TEST gives NOT ALLOWED	Only the current leg report in flight; interactive mode on the ground only	SIMPLIFIED	[24] [25]*
LAST / CURRENT LEG REPORT, PREVIOUS LEGS REPORT	Trainer faults of the leg with UTC, ATA chapter (22 auto flight, 34 navigation) and unit; RESET closes the leg; NO FAULT DETECTED when empty	Failures of the current / last leg and of the previous 63 legs, with a 6-digit ATA reference	SIMPLIFIED	[24] [28]*
LAST LEG ECAM REPORT	Always empty (the trainer has no ECAM)	ECAM warnings sent by the FWC	SIMPLIFIED	[28]
AVIONICS STATUS	Systems failed right now by a trainer fault, in amber, with the ATA chapter	Real-time list of the systems affected by at least one failure	SIMPLIFIED	[28]*
CFDS page 2, SEND / PRINT	NOT SIMULATED	Further CFDS functions; printer and datalink	SIMPLIFIED	[24]
SYSTEM REPORT / TEST page 1	AIRCOND, AFS, COM, ELEC, FIRE PROT, F/CTL, FUEL, ICE&RAIN, INST, L/G, NAV, RETURN	Same page	MATCHES	[24] [27]
SYSTEM REPORT / TEST page 2	PNEU, APU, ENG (slew key); line positions approximated	PNEU, APU, ENG (INERTING on some aircraft)	SIMPLIFIED	[24]*
SYSTEM REPORT / TEST > COM	AMU, RMP 1-3, CIDS 1, CIDS 2, HF 1-2, VHF 1-3; page 2 SDU	Same list (SDU on page 2 not confirmed)	MATCHES	[24] [27]
Other systems' BITE	NOT SIMULATED (only CIDS 1 / CIDS 2 open)	Each system has its own BITE pages	SIMPLIFIED	[24]

CIDS menu	LAST LEG REPORT, PREVIOUS LEGS REPORT, LRU IDENTIFICATION, GROUND SCANNING, TROUBLESHOOTING DATA / CLASS 3 FAULTS, SYSTEM TESTS, EPSU BAT CAP TEST, OP TESTS, GROUND REPORT, SYSTEM CONFIG on two pages	Same items; exact page split not confirmed	SIMPLIFIED	[24] [25]*
CIDS fault reports	LAST LEG, PREVIOUS LEGS, CLASS 3, GROUND REPORT: NO FAULT DETECTED in the centre (no cabin faults in the trainer)	NO FAULT DETECTED when there are no failures	MATCHES	[25]
CIDS SYSTEM TESTS page	DIR 1 ACTIVE; DIR STATUS, INTERFACE + POWER-UP TEST, ILLUMINATION TEST, EPSU SYS TEST, DRAIN MAST SYS TEST	Same items	MATCHES	[25] [26]
INTERFACE + POWER-UP TEST	CIDS 1: TEST IN PROGRESS (6MIN), then TEST OK; CIDS 2: DIR TEST ONLY, TEST IN PROGRESS 30s, then TEST OK	Active director: TEST IN PROGRESS (6MIN) / TEST OK; passive director: TEST IN PROGRESS 30s, DIR TEST ONLY	MATCHES	[26]
ILLUMINATION TEST	TEST IN PROGRESS for 30 s, then TEST OK	Item exists; the real MCDU pages and duration were not found online	SIMPLIFIED	[26]*
LRU IDENTIFICATION	DIR1, DIR2, OBRM, CAM, FAP with P/N and S/N (fictional trainer numbers)	Same units with their part and serial numbers	SIMPLIFIED	[24] [26]
GROUND SCANNING	IN PROGRESS 180s, then NO FAULT DETECTED	Same messages	MATCHES	[26]
SYSTEM CONFIG	Date, UTC, A/C, active DIR, CAM P/N, active layout, last CAM modification; LSP VOLUM REPORT (PA VOL IN CABIN AREA)	Same fields (example values)	SIMPLIFIED	[26]
OP TESTS	LOUDSPEAKER ACTIVATION / LAMPS ACTIVATION: LOUDSPEAKER ACTIVATED, READING LT + ACP + PAX CALL + SIGN LAMPS ACTIVATED, then SYSTEM RESET AFTER TEST	Same messages; full menu list not found (LAMPS item name not confirmed)	SIMPLIFIED	[26]*

EPSU SYS / BAT CAP, DRAIN MAST SYS TEST	TEST IN PROGRESS, then TEST OK after 20 s	Tests exist; messages and durations not found online	SIMPLIFIED	[26]*
DIR STATUS, TROUBLE SHOOTING DATA	DIR 1 ACTIVE / DIR 2 PASSIVE; troubleshooting data empty	Real pages not found online in full	SIMPLIFIED	[26]*
Cabin effects of the tests	Not shown (the trainer has no cabin)	Cabin lights, signs and loudspeakers operate	SIMPLIFIED	—

Power, APU, engines, ADIRS (v2.0)

Feature	In the trainer	Real A320 / source	Status	Source
ELEC	BAT 1 / BAT 2 pushbuttons (OFF white), battery voltage; EXT PWR: AVAIL green, ON	Same lights; voltage normally 25-31 V	MATCHES	[29]
APU	MASTER SW (ON blue), START (ON blue, then AVAIL green); air intake flap opens first; APU BLEED	Same sequence; AVAIL at N > 99.5 %; 60 s cooling after bleed use	SIMPLIFIED	[30]*
ADIRS	Mode selectors OFF / NAV / ATT; ON BATT self-test for a few seconds; ALIGN lights; alignment 7 min (TRAINER speed applies)	Full alignment 7-10 min; ON BATT at the start of the alignment	SIMPLIFIED	[31] [32]
Alignment without position	Countdown waits at 1 min and the ALIGN lights flash until the position is confirmed	Flashing ALIGN: no present position entered; countdown stops 1 min before the end	SIMPLIFIED	[32]*
IRS INIT page	LAT/LONG, REFERENCE, GPS POSITION, IRS1-3 ALIGNING / ALIGNED ON REF with TTN; ALIGN ON REF*, then CONFIRM ALIGN*	Position from the airport reference; ALIGN ON REF, then confirm at 6R	SIMPLIFIED	[33] [34]*
Power-up	No AC: MCDU and ND dark. MCDU self-test, MCDU MENU with FMGC (REQ), FMGC opens A/C STATUS	FMGC selected on MCDU MENU after power-up	SIMPLIFIED	[34]*
ND before alignment	Red HDG and MAP NOT AVAIL until IR 1 is in NAV	Heading and map flags while the IRS are not aligned	SIMPLIFIED	—*
Engine start	ENG MODE CRANK / NORM / IGN START, ENG MASTER 1 / 2; start needs APU bleed air; about 45 s to idle (N2 60 %)	Automatic start with the APU bleed (pedestal controls)	SIMPLIFIED	—*
COLD & DARK	TRAINER button: everything off, FMGC empty	—	TRAINER	—

Flight plan functions (v2.0)

Feature	In the trainer	Real A320 / source	Status	Source
DEPARTURE page	RWY / SID / TRANS; AVAILABLE RUNWAYS with length, course and ILS; SIDs of the runway; yellow TMPY, INSERT	LAT REV of the origin: runway, then SID, then INSERT	SIMPLIFIED	[35]*
ARRIVAL page	APPR / VIA / STAR / TRANS; approaches (ILS, RNV), then STARs of the runway; INSERT	LAT REV of the destination 1R: approach, STAR, VIA, INSERT	SIMPLIFIED	[35]*
Runways	Designators and lengths of the 10 airports	Public airport facts, rounded	SIMPLIFIED	[14]
SIDs, STARs, approaches, terminal fixes	Fictional, generated for the trainer (e.g. ALPA1A, TALA2B, ILS22, FF22, RW22)	Real procedures come from licensed charts	TRAINER	—
Missed approach	Shown in blue after the destination; flown after TOGA (v2.1)	Missed approach after the destination	SIMPLIFIED	[37]
AIRWAYS	VIA / TO on LAT REV 5R; fictional airways Z901-Z903	VIA / GO TO airway insertion	SIMPLIFIED	[35]
HOLD	INB CRS, TURN, TIME/DIST; racetrack flown until IMM EXIT	HOLD page from LAT REV; IMM EXIT / RESUME HOLD	SIMPLIFIED	—*
OFFSET, FIX INFO, LL XING	Offset L / R 1-50 NM flown; FIX INFO circle and radial on the ND; latitude crossing points	Same functions (formats simplified)	SIMPLIFIED	—*
Pilot waypoints	PLACE/BRG/DIST and LAT/LONG entries (PBD01, LL01) and STORED WAYPOINTS	Pilot-defined waypoints (naming not confirmed)	SIMPLIFIED	—*
SEC F-PLN	COPY ACTIVE, view, ACTIVATE SEC, DELETE SEC (no editing)	Full secondary flight plan	SIMPLIFIED	[35]
WIND pages, INIT REQUEST	CLIMB / CRUISE / DESCENT WIND entries used by the simulated flight; WIND REQUEST and INIT REQUEST load trainer data	Wind pages; uplinks through the datalink	SIMPLIFIED	[35]

STEP ALTS	Step climb at a waypoint (flown; predictions ignore it)	Step altitudes with predictions	SIMPLIFIED	—
Other pages	PERF TO SHIFT, PRESEL; PROG REPORT, POSITION UPDATE AT (no position change), PREDICTIVE GPS; DATA IRS and GPS MONITOR	Same pages, real values	SIMPLIFIED	—*

Normal procedures (v2.1)

Feature	In the trainer	Real A320 / source	Status	Source
(DECEL) and the approach phase	(DECEL) on the F-PLN 15 NM before the destination; in managed NAV the approach phase starts there, not when the TO point is a discontinuity	APPR phase activates automatically at DECEL in NAV; in HDG activate it manually about 15 NM from touchdown	SIMPLIFIED	[36] [37]*
ACTIVATE APPR PHASE	6L of the PERF page of the active phase (CLB, CRZ, DES, GO AROUND): ACTIVATE APPR PHASE, then CONFIRM APPR PHASE; another page key cancels	Replaces PREV PHASE while the phase is active; a second push confirms (colours not confirmed)	SIMPLIFIED	[37]*
Go-around (TOGA)	TRAINER TOGA key in the approach phase: GO AROUND phase; from a T-P the missed approach is active and the approach is strung again; climb to the missed approach altitude	TOGA engages the go-around phase; second approach: activate the APPR phase; or divert	SIMPLIFIED	[36] [37]
PERF GO AROUND	F / S / O; THR RED/ACC (destination + 1500 ft, locked in the go-around phase); ENG OUT ACC (display)	Same fields; THR RED/ACC locked during the go-around (forum report)	SIMPLIFIED	[37]*
PERF APPR	QNH, TEMP, MAG WIND, TRANS FL, VAPP / VLS; FINAL, O / S / F; BARO, RADIO, LDG CONF; NEXT PHASE to GO AROUND	QNH, TEMP, MAG WIND, TRANS ALT, VAPP; FINAL, O / S / F, VLS; BARO, RADIO, LDG CONF	SIMPLIFIED	[37]
DES CABIN RATE	PERF CRZ 4R, default -350FT/MN, entry 100-1000 ft/min (no effect on the T/D)	Default -350 ft/min; an entry moves the T/D	SIMPLIFIED	[37]
ENABLE ALTN	LAT REV 4L in flight: the alternate becomes the destination, direct from the present position; CLB phase, trainer FL200	Divert to the alternate after the go-around	SIMPLIFIED	[36]*
TOO STEEP PATH	Amber, once, when the descent needs more than twice the 3 NM per 1000 ft path (not on the last 5 NM)	Path too steep; do not use FINAL APP guidance after the final descent point	SIMPLIFIED	[36] [18]*

POSITION MONITOR, IRS	IRS1-3 mode (INVAL / ALIGN / NAV / ATT) and distance from the FMGC position; drift 0.5-0.8 NM/h in flight (trainer)	IRS deviation in NM from the onside FMGC position, with the IRS mode	SIMPLIFIED	[38]
Fast alignment	On the ground, an ADIRS OFF then NAV within 5 s: about 30 s, the IRS position is reset	Fast alignment when IRS-FMGC is 5 NM or more and a complete alignment is not required (duration not confirmed online)	SIMPLIFIED	[36]*
IRS DRIFT fault	TRAINER FAULTS: IRS1-3 5.6 / 5.2 / 6.0 NM; cleared by realigning all three	—	TRAINER	—

App (simulator only)

Feature	In the trainer	Real A320 / source	Status	Source
License codes	Online activation, one device at a time, transfer, demo	—	SIMULATOR	—
Disclaimer	Shown at every start	—	SIMULATOR	—
Views	MCDU, ND / WXR, DUAL; phone layout with the keyboard beside the display	—	SIMULATOR	—
PC keyboard	Computer keyboard types on the MCDU (Windows)	—	SIMULATOR	—
Windows version	Setup installer, maximized window	—	SIMULATOR	—
Settings	Device ID, activation date, app version, Deactivate & Transfer (the license code is not shown)	—	SIMULATOR	—

SECTION 05

Not Included

Function	Reason	Source
Real SIDs, STARs, approaches, airways	Need licensed procedure data (fictional ones are used)	—
ATC COMM / datalink, ATSU, AIDS	Out of scope (pages shown, NOT SIMULATED)	[2]
Second MCDU, dual FMGC failure	Out of scope (single FM faults are in TRAINER FAULTS)	[2]
SEC F-PLN editing	SEC is view only	—
AP / FD modes, flaps, gear, speeds	TOGA only starts the FMS go-around phase; no FMA, no configuration	[36]
Wind and step climbs in the predictions	Simple performance model	—
Other aircraft systems (hydraulics, bleed, fuel...)	Only power, APU, engine start and ADIRS	—
Hazard (HZD) radar mode	Not modelled	[6]
Predictive windshear alerts	PWS switch only	[6]
Autopilot / FMA / PFD	The trainer shows the MCDU and ND only	—

SECTION 06

Disclaimer & Legal

The A320 MCDU Trainer is developed by Overdrive Interactive for academic, familiarization and educational training purposes only. It is not certified by Airbus, FAA, EASA, CAAP or any civil aviation authority and must not be used for real aircraft operation, flight planning, navigation or flight preparation.

- "A320" and related trademarks belong to Airbus. Overdrive Interactive is independent and not affiliated with or endorsed by Airbus. No Airbus logos, artwork, manual text or images of real displays are used.
- No licensed navigation data (Navigraph, Jeppesen, Lido, simulator data files) is used. Waypoints, navaids, frequencies and routes are fictional.
- No FlyByWire code is used (it is GPL-3.0). Their public documentation was used only to confirm how the aircraft behaves.
- Font: JetBrains Mono (SIL Open Font License). Coastlines: Natural Earth (public domain).

SECTION 07

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