Attachment 12
To Operations/Human Performance Group Factual Report

DCA11IA040

Emergency Generator/Battery Powered Equipment

A319/A320

//// U N I T E D

27 NOV 09

14.30.21
Irregular Procedures
Procedures E

EMERGENCY GENERATOR/BATTERY POWERED EQUIPMENT

Action:

System Component	Emergency Generator Operating	Battery only[1]	
		In Flight	**Ground**
(AIR COND/ PRESS) PRESS AUTO SYS 1	Normal	Normal	Normal
MAN PRESS CTL	Inop	Inop	Inop[2]
RAM AIR	Normal	Normal	Normal
PACK VALVE 1	Normal	Closure Inop	Closure Inop
PACK VALVE 2	Closure Inop	Closure Inop	Closure Inop[2]
AVIONIC VENT	Normal	Normal	Partial
AFT CRG ISOL VALVE **(A320)**	Normal	Inop	Inop
AFT CRG HEAT **(A320)**	Normal	Inop	Inop
(APU) ECB - STARTER	Normal[3]	Inop	Inop[2]
FUEL LP VALVE	Normal	Normal	Normal
FUEL PUMP	Normal	Normal	Normal
(COM) VHF 1	Normal	Normal	Normal
HF 1 **(A320)**	Normal	Inop	Inop
RMP 1	Normal	Normal	Normal
ACP (CAPT, F/O)	Normal	Normal	Normal
CIDS	Normal	Normal	Normal
INTERPHONE	Normal	Normal	Normal
CVR	Normal	Inop	Inop
LOUDSPEAKER 1 (left)	Normal	Normal	Normal
(EIS) PFD 1	Normal	Normal	Normal[4]
ND 1	Normal	Inop	Inop
ECAM Upper Display	Normal	Normal	Normal[4]
DMC 1 or 3	Normal	Normal	Normal[4]

14.30.22
Irregular Procedures
Procedures E

A319/A320

27 NOV 09

/// U N I T E D

System Component	Emergency Generator Operating	Battery only[1]	
		In Flight	**Ground**
SDAC 1, FWC 1	Normal	Normal	Normal[4]
ECAM Control Panel	Normal	Normal	Normal
(EMER EQPT) CREW OXYGEN	Normal	Normal[5]	Normal[5]
PAX OXY (Mask Release)	Normal	Inop	Inop
SLIDES ARM/ WARN	Normal	Normal	Normal
(ENG) FADEC	A + B[6]	A + B[6]	A + B[6]
IGNITION	A only	A only	A only
REVERSER	Not Available	Not Available	#1 only (on some airplanes)
HP FUEL VALVE (closure)	Normal	Normal	Normal
(FLT INS) CLOCKS	Normal	Normal	Normal
(FIRE) ENG 1 LOOP	A only	A only	A only
ENG 2 LOOP	B only	B only	B only
APU LOOP	Inop	Inop	Inop[2]
CARGO SMOKE DET	Channel 1	Inop	Inop
ENG FIRE EXT	Bottle #1 only	Bottle #1 only	Bottle #1 only
APU FIRE EXT	Squib A only	Squib A only	Squib A only
CARGO FIRE EXT	Inop	Inop	Inop[2]
APU AUTO EXT	Inop	Inop	Inop[2]
(FLT CTL) ELAC	#1 only	#1 + #2	#1 + #2[7]
SEC	#1 only	#1 only	#1 only[7]
FCDC	#1 only	Inop	Inop
SFCC	#1 only	#1 only	#1 only
FLAPS POS IND	Normal	Normal	Normal[4]
(FMGS) FMGC (Nav Function)	#1 only	Inop	Inop

///// U N I T E D

A319/A320

4 MAR 11

14.30.23
Irregular Procedures
Procedures E

System Component	Emergency Generator Operating	Battery only[1]	
		In Flight	**Ground**
MCDU	#1 only	Inop	Inop
FAC	#1 only	Inop	Inop
FCU	Channel 1 only	Channel 1 only	Channel 1 only
(FUEL) LP VALVE	Normal	Normal	Normal
FQI Channel 1	Normal	Inop	Inop
X FEED VALVE	Normal	Inop	Inop
TRANSFER VALVE	Normal	Inop	Inop
(HYD) FIRE VALVES	Normal	Normal	Normal
(ICE-RAIN) WING A. ICE	Normal	Inop	Inop
ENG ANTI ICE VALVE	Open	Open	Open
CAPT PITOT	Normal	Normal	Normal[4]
CAPT AOA	Normal	Inop	Inop
(LANDING GEAR) LGCIU SYS 1	Normal	Normal	Normal
BRK PRESS IND	Normal	Normal	Normal
PARK BRK	Normal	Normal	Normal
(LIGHTS) EMER COCKPIT	Normal	Normal	Normal
EMER CABIN	Normal	Normal	Normal
(NAVIGATION) IR	#1 only[8]	#1 only[8]	#1 only[8]
ADR	#1 only	#1 only	#1 only
FLIGHT DIRECTORS	Inop	Inop	Inop
ADF	#1 only	Inop	Inop
VOR-ILS	#1 only	#1 only	#1 only[4]
DME	#1 only	Inop	Inop
VOR/DDRMI	Normal	Normal	Normal[4]
ATC	#1 only	Inop	Inop
STANDBY HORIZON	Normal	Normal	Normal

14.30.24
Irregular Procedures
Procedures E

A319/A320

4 MAR 11

/// U N I T E D

System Component	Emergency Generator Operating	Battery only[1]	
		In Flight	**Ground**
STANDBY COMPASS LT	Normal	Normal	Normal
STANDBY ALTI (VIB)	Normal	Inop	Inop
(PNEUMATICS) ENG 1 BLEED	Normal	BMC #1 Inop	BMC #1 Inop
ENG 2 BLEED	BMC #2 Inop	BMC #2 Inop	BMC #2 Inop
APU BLEED	Inop	Inop	Inop[2]
X BLEED (Man Control)	Normal	Inop	Inop
(MISC) MECH HORN	Normal	Normal	Normal

[1] Emergency generator does not operate on the ground, during RAT extension, or after landing gear extension on A320s with yellow-capped circuit breakers.

[2] Restored when speed below 100 knots.

[3] For APU start only.

[4] Lost when speed below 50 knots.

[5] Crew oxygen valve inoperative.

[6] Channels A and B are self-powered above 10% N_2. If N_2 below 10%, only channel A is powered.

[7] Lost 30 seconds after last engine shut down.

[8] IR2 and IR3 are lost 5 minutes after failure of main generators but if IR3 replaces IR1 (ATT-HDG selector at CAPT3), IR3 remains supplied.

— — — — — — *CHECKLIST COMPLETE* — — — — — —