## Appendix C

## **US Airways Engine Dual Failure Checklist**

## ENG DUAL FAILURE

1. ➔ If no fuel rema	•
승규가 드는 것이 가 있는 것이 같아. 것이 있는 것이 있는 것이 같아. 것이 같아. 것이 같아.	RSIDLE C PWR (if EMER GEN not on-line) MAN ON
Physics State (1997) 2016 Annow (1997) and (1997)	OFF then ON
the PFD, and Once hydraul position. Rudo d. Optimum sj	C 1 enables the recovery of characteristic speeds displayed on enables rudder trim recovery, even if no indication is available. lic power is lost, the right aileron is lost, and is in the up float der trim may be used to compensate for this up floating aileron.] peedGreen Dot
	rategy Determine
R consistent and and and	ost appropriate place for forced landing/ditching.] , HF1, ATC1)Notify
(1) If una (a	ble to contact ATC on assigned frequency: a) ATC Code
(	[Use one of the following frequencies: VHF 121.5 MHz, HF
	2182 KHz or 8364 KHz]
g. Oxygen Mas h. Go to step 2	sks (above 10,000') VerifyON 2.
If fuel remainin	-
	SelectorIGN
	RSOptimum relight speed 300 kts(CFM)/280 kts(IAE)
	A319 or A320:
or	[For airspeed indication failure (volcanic ash) the pitch attitude for optimum relight speed is 4.5°(CFM)/ 2.5°(IAE) nose down. Add 1° nose up for each 22,000 lbs. above 110,000 lbs.
	CFM: At 300 kts, the aircraft can fly approximately 2.0 nautical miles per 1000 feet (no wind)
	IAE: At 280 kts, the aircraft can fly approximately 2.2 nautical miles per 1000 feet (no wind)]
L <b>⇒</b> If	A321:
	[For airspeed indication failure (volcanic ash) the pitch attitude for optimum relight speed is 4.5° nose down.Add 1° nose up for each 22,000 lbs. above 132,000 lbs.
	At 300 kts, the aircraft can fly approximately 2.0 nautical miles per 1000 feet (no wind)]
d. Landing Stra	ategy Determine
[Determine	most appropriate place for forced landing/ditching.]
f. ATC (VHF1 (1) If una	C PWR (if EMER GEN not on-line) MAN ON , HF1, ATC1) Notify ble to contact ATC on assigned frequency:
	a) ATC Code
<u>(</u>	[Use one of the following frequencies: VHF 121.5 MHz, HF 2182 KHz or 8364 KHz]
	Cont'd

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g. FAC 1OFF then ON
[Resetting FAC 1 enables recovery of characteristic speeds displayed on the PFD and permits recovery of rudder trim even if no indication is available.]
If no relight after 30 seconds:
h. ENG MASTER 1 and 2 Confirm OFF
Wait 30 seconds:
i. ENG MASTER 1 and 2ON
Note: Unassisted start attempts can be repeated until successful or until APU Bleed is available.
If unsuccessful:
j. CREW OXYGEN MASKS (Above 10,000')VerifyON
When below FL250:
k. APUSTART
I. WING ANTI ICEOFF
When below FL200: m. APU BLEEDON
Note: If APU Bleed is available. APU Bleed assisted starts may be
accomplished at Green Dot Speed.
n. ENG MASTER 1 and 2 Confirm OFF
Wait 30 seconds:
o. ENG MASTER 1 and 2 (one at a time)ON
<ul> <li>If engine restart is successful:         <ul> <li>a. Proceed to nearest suitable airport for landing.</li> <li>b. Engine Dual Failure Checklist complete and</li> <li>Clear non-applicable ECAM actions and review SYS Status page(s).</li> </ul> </li> <li>Establish and communicate a plan.</li> </ul>
►If engine restart is considered impossible:
a. Airspeed Optimum speed Green Dot
[Green dot is displayed on Captain's PFD. It represents best L/D. At Green dot speed the aircraft can fly up to approximately 2.5 nautical miles per 1000 feet with no wind. Average rate of descent is 1600 feet per minute.]
<ul> <li>b. Early in approach: <ul> <li>(1) Cabin Secure</li> <li>(2) CABIN SIGNS</li> <li>(3) GALY &amp; CAB (GALLEY)</li> <li>(4) COMMERCIAL pb (if installed)</li> <li>(5) Use rudder with care.</li> <li>[Avoid large or rapid rudder deflection, as only blue hydraulic power is available from the RAT.]</li> <li>(6) For landing</li> <li>(6) For landing</li> <li>(7) Use rudder and operating time is noticeably increased, as only blue hydraulic power is available from the RAT.]</li> </ul> </li> </ul>



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	Below 15000':
	c. RAM AIR ON
	d. BARO Set
	Below 10000':
	e. CREW OXYGEN MASKS OFF
	f. OXYGEN CREW SUPPLY OFF
	g. V <sub>APP</sub> Determine
	Note: A319/320 V <sub>REF</sub> + 25/150 kts minimum
	A321 V <sub>REF</sub> + 30/160 kts minimum
	If Forced Landing is anticipated:
	Prior to 3000' AGL:
	a. FLAPS Configure for Landing
	Note: Final Descent slope when configured (CONF 3 and Gear Down) will be approximately 800-900 feet per minute with no wind.
	When in CONF 3 and at V <sub>APP</sub> :
	b. GRAVITY GEAR EXTEN PULL & TURN
	Note: Disregard "USE MAN PITCH TRIM" on the PFD. The stabilizer is frozen due to insufficient hydraulic power.
	When L/G downlocked:
	c. L/G Lever DOWN
6	d. GND SPOILERARM
	e. Max Brake Press 1000 psi
	[Brakes on Accumulator only]
	At 500'AGL:
	f. Brace Signal Command
	At touchdown:
	g. ENG MASTER 1 and 2 OFF
	h. APU MASTER SW OFF
	i. ENG DUAL FAILURE Checklist complete, and
	<ul> <li>If required, go to "Evacuation" Checklist, on page i.</li> </ul>
→If Ditching is anticipated:	
	Prior to 3000' AGL:
	a. FLAPS Configure for Landing
	b. L/G LeverCheck Up
	At 2000' AGL:
	c. Ditching pbON
	Note: In case of strong crosswind, ditch facing into the wind. In the absence of strong crosswind, ditch parallel to the swell. Touchdown with approximately 11 degrees of pitch and minimum vertical speed.
	At 500'AGL:
	d. Brace Signal Command
	At touchdown:
	e. ENG MASTER 1 and 2 OFF
	f. APU MASTER SW OFF
	g. ENG DUAL FAILURE Checklist complete, and
	<ul> <li>If required, go to "Evacuation" Checklist, on page i.</li> </ul>

If required, go to "Evacuation" Checklist, on page i.

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