



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Washington, D.C. 20594

October 1, 2014

### **Attachment 11 – ECAM Malfunction Notifications**

# **OPERATIONAL FACTORS**

**DCA14MA081**

Source: USAirways A320 TM, 10.1.4 Electronic Centralized Aircraft Monitoring (ECAM).

**Warnings:** Associated with the red MASTER WARN light, red system limitations, and require immediate action.

**Cautions:** Associated with the amber MASTER CAUT light, amber system limitations and require crew awareness, but not immediate action.

**Alerts:** Associated with degraded systems advisories which are still within operating limitations.

In addition to the MASTER WARNING and MASTER CAUTION aural warnings, other aural warnings are: “WINDSHEAR”, “PRIORITY (L/R)”, “RETARD”, “SPEED, SPEED, SPEED”, and TCAS and EGPWS warnings.

Although the altitude alert system provides an aural warning, the MASTER WARN light does not illuminate. The aural warning may still be cancelled by pressing either the MASTER WARN light or the EMER CANC pb.

**Priority Rules.** There are three priority levels for warnings and cautions: A level 3 warning has priority over a level 2 caution which has priority over a level 1 caution. The FWC observes these priorities.

**Types of Failures.**

**Independent:** a failure affecting an isolated system/item without degrading the performance of other systems/items in the aircraft.

**Primary:** a failure of a system/item that costs the aircraft the use of other systems/items.

**Secondary:** the loss of a system/item resulting from a primary failure.

	LEVEL	SIGNIFICATION	AURAL	VISUAL
FAILURE MODE	Level3	<b>Red warning:</b> Requires immediate action: — Aircraft in dangerous configuration or limit flight conditions (e.g., stall, o/speed) — System failure altering flight safety (e.g., Eng fire, excess cab alt)	Continuous Repetitive Chime (CRC) or specific sound or synthetic voice	— MASTER WARN light red flashing or specific red light — Warning message (red) on EWD — Automatic call of the relevant system page on the S/D
	Level2	<b>Amber caution:</b> Requires timely action, but not immediate action: — System failure having no direct consequence on flight safety (e.g., Blue hyd lo pr)	Single Chime (SC)	— MASTER CAUT light amber steady — Caution message (amber) on EWD — Automatic call of the relevant system page on the S/D
	Level 1	<b>Amber caution:</b> requires crew monitoring: — Failures leading to a loss of redundancy or system degradation (e.g., FCDC fault)	NONE	— Caution message (amber) on EWD generally without procedure
INFORMATION	ADVISORY	System parameters monitoring	NONE	— Automatic call of the relevant system page on the S/D. The affected parameter pulses green
	MEMO	<b>Information:</b> Recalls normal or automatic selection of functions which are temporarily used	NONE	— Green, Amber or Magenta message on EWD