

	MAINTENANCE SYSTEM		1.45.10	P 1
	DESCRIPTION		SEQ 001	REV 07

GENERAL

The purpose of the Central Maintenance System (CMS) is to ease the maintenance task by directly indicating in the cockpit the fault messages and allowing some specific tests.

Two levels of maintenance are possible :

- | | | |
|------------------|---|-------------------|
| at the line stop | : | equipment removal |
| at the main base | : | trouble shooting |

COMPONENTS

The CMS includes :

- the BITEs (Built In Test Equipment) of all electronic systems
- two fully redundant Central Maintenance Computers (CMCs)
- three MCDUs (Multipurpose Control Display Units) used also for FMGS, ACMS (Aircraft Condition Monitoring System) and ACARS (if installed) which dialogue with the CMC for display of information or initiation of tests.
- one printer (A4 format)

Normally only CMC 1 is used while CMC 2 is in stand-by. CMC 2 will automatically takes over if CMC 1 fails.

A push-button on the overhead panel allows to force the transfer to CMC 2 by setting the CMC 1 in off position.

MODES OF OPERATION

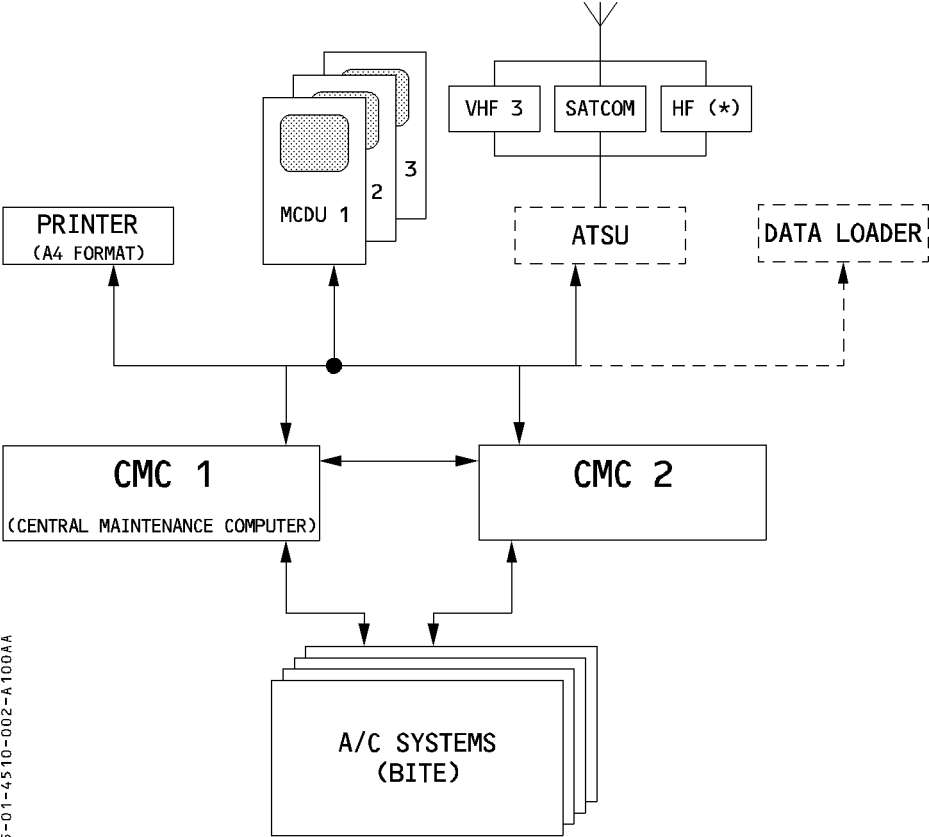
The CMS operates in two main modes :

- the NORMAL mode or REPORTING mode in flight
- the INTERACTIVE mode or MENU mode on ground

In NORMAL mode, the CMS records and displays the failure messages permanently transmitted by each system BITE.

In INTERACTIVE mode, the CMS allows the connection of any BITE system with the MCDU in order to display the maintenance data stored and formatted by the system BITE itself or to initiate a TEST.

ARCHITECTURE



FFCS-01-4510-002-A100AA

* NOT YET INSTALLED FOR ATSU COMMUNICATIONS

	MAINTENANCE SYSTEM DESCRIPTION		1.45.10	P 3
			SEQ 001	REV 16

FAILURE CLASSIFICATION

There are three classes of failure :

- Class 1 : Failures indicated to the flight crew by means of a flight deck effect (e.g. ECAM or instrument flags).
- Class 2 : Failures which can be left uncorrected until the next scheduled maintenance check (with a maximum delay of 500 FH).
- Class 3 : Failures not indicated to the flight crew, with no fixed time quoted for correction.

Failure Classes	Class 1	Class 2	Class 3
Operational consequences	YES	NO	NO
Indication to the flight crew	YES Automatically displayed in real time : - Warning or caution messages on Engine Warning Display - Flags on Primary Flight Display or Navigation Display, or System Display, - Local warning	YES STATUS flashing at the end of the flight : - Maintenance Status messages on SD	NO
Dispatch consequences	Refer to MEL may be: "GO" "GO IF" "NO GO"	No need to refer to MEL "GO" without conditions. Corrections can be deferred for 500 FH.	MEL not applicable. No fixed time quoted for corrections. However, correction is recommended to improve dispatch reliability.
Indication to the maintenance team	YES Automatically print out at the end of each flight : Failure messages on the CMC Post Flight Report		YES On request, when needed, Failure messages on CMC Class 3 Report.

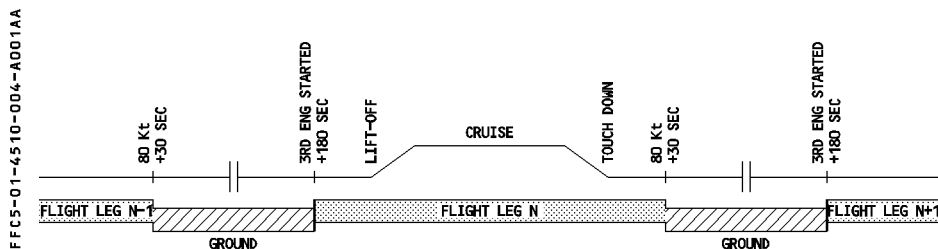
Note : Most Class 1 failures have an operational consequence on the current flight. Some Class 1 failures, such as MINOR FAULT, have no operational consequence on the current flight, but must be corrected in accordance with the MEL preamble, or the time specified in the associated dispatch condition of the MEL.

	MAINTENANCE SYSTEM DESCRIPTION		1.45.10	P 4
			SEQ 001	REV 07

CMS FUNCTIONS

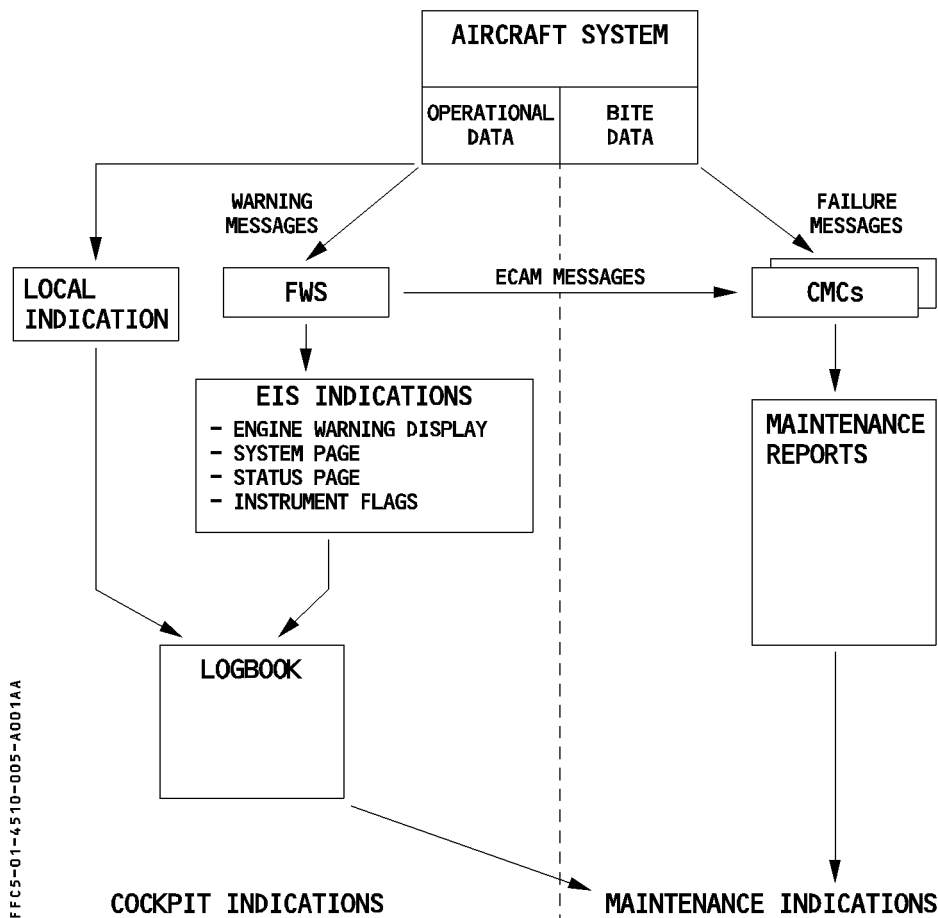
The main functions of the CMS are :

- acquisition and storing of messages transmitted by the connected system BITEs or by the Flight Warning Computer (Warning / Caution titles).
- elaboration of the maintenance phases.



- elaboration of the maintenance reports.
 - POST OR CURRENT FLIGHT REPORT
Presents all ECAM warning/caution and failure messages (class 1 and 2 failures) recorded during the last flight leg or current flight leg.
Available in flight and on ground.
 - PREVIOUS FLIGHT REPORT
Presents all ECAM and failure messages recorded during the 63 previous flight legs (post flight reports).
Available on ground only.
 - AVIONICS STATUS
Presents in real time the systems affected by a failure.
Available in flight and on ground.
 - CLASS 3 REPORT
Presents the class 3 failure messages detected during the last flight leg.
Available on ground only.
 - SYSTEM REPORT/TEST
Allows interactive dialogue between any system and the MCDU.
Available on ground only.

COCKPIT / CMS INTERFACE



FFCS-01-4510-005-A001AA