

1. MAINTENANCE CONCEPT

1-1 General

Maintenance for the FCS would be performed at a Field and Base levels. The maintenance is divided in:

- Periodic (preventive) Maintenance
- Corrective Maintenance

Preventive maintenance consists of:

- Visual inspections.
- Activations of different Built In Test (BIT) Programs.
- Periodic tests and maintenance, at base level using STE

The maintenance concept is based on systematic care, servicing and inspection of the FCS in order to prevent malfunctions, to reduce downtime and to ensure FCS serviceability.

The periodic maintenance is performed in accordance with a pre-defined schedule, while corrective maintenance is performed whenever failure in performance is detected by BIT, either during scheduled maintenance or during system operation.

1-2 Field Level Maintenance

Field Level Maintenance is the responsibility of, and is performed by vehicle's staff. It consists of all work capabilities being carried out by vehicle's staff and is restricted by allocated resources and operational environment. This would be limited to replacement of LRU's, using support facilities (e.g. BIT, test equipment, spare parts etc.) available on board.

A Built-In-Test (BIT) feature is incorporated into the system. The BIT operates as part of the normal start-up procedure of the system and in addition, monitors its operation continuously. BIT, together with the technical manuals, performs fault isolation to the faulty LRU at the Field level.

The field level maintenance concept requires rapid accessibility to all line replaceable units (LRUs). With the LRUs designed for fast removal and replacement and on-board capability for equipment checkout and fault isolation.

1-3 Base Level Maintenance

Base Level Maintenance is the responsibility of the Base Maintenance Activity and is normally conducted in the workshop base site using special purpose tools/test equipment and Contractor support as necessary. The Base Level Maintenance consists of work requiring greater skills and range of resources than are available at the field level. The extent and complexity of work undertaken at base level varies according to the skills, facilities and capacity available.

This level includes:

- Scheduled periodic maintenance tasks and corrective maintenance procedures.
- Special tasks defined to be performed exclusively at this level, including replacement of mechanical and electro-mechanical parts.
- Maintenance tasks that are performed at the base or at the manufacturer's premises, including repair of faulty LRUs. The repairs are based on replacement of SRU's (Shop Replaceable Unit).

1-4 Preventive Maintenance

The periodic FCS maintenance consists of system inspection, at predetermined intervals. The inspections are listed in an ascending order where longer intervals generally indicate a higher complexity of the activities.

The authority with overall responsibility for the system maintenance, should keep a log book for each of the subsystems. The log book should indicate the dates of executing the periodic maintenance tasks and either a detailed report or a summary of the work conducted. The authority is responsible for coordinating the maintenance activities and ensuring their regularity.

1-5 Corrective Maintenance

The FCS corrective maintenance consists of activities initiated by the technician or operator, as a result of a failure, for restoring the FCS units to their current condition.

First, the source of the failure (detected during normal operation or during periodic maintenance) should be identified through the process of fault isolation.

Then, the suspected faulty unit is replaced.

The faulty item is repaired at the base workshop facilities or at the manufacturer's premises.

After repair procedure, FCS BIT is performed to verify the system serviceability, in addition to maintenance mode testing according to the replaced part, when possible.