Business Continuity Manual

Business Continuity Plan: E6

Trunked Mobile Radio

		Signature	Revision	Effective Date
Updated By	Senior Manager, Airfield & Electronic Systems, TSS	Leslie Lee		
Reviewed By	Assistant General Manager BCP, SSBC	Emily Chu	32	Jun 2023
Approved By	General Manager SSBC	David Jea		

Blank Page

BCP – E6. Trunked Mobile Radio Table of Contents

Blank Page

A. System Description

1.0   Introduction

     1.1   The Trunked Mobile Radio (TMR) System consists of 4 base stations located at CR23, CR24, ATC of Terminal 1 and CR227 of T1 Midfield Concourse. Each base station has a main controller and a standby controller.

     1.2   In case either main or standby controller failure, the rest of controller can be automatically changeover to maintain the services with no service impact to TMR users.

     1.3   In case both main and standby controllers of site 1 base station at CR23 failure, system will raise alarm to maintenance team. CR23 base station will be switched to redundancy base station (site 4) manually to maintain the services.

               In case both main and standby controllers of site 2 base station at CR24 failure, system will raise alarm to maintenance team. Site 2 antenna network will be connected to site 1 optical amplifier signal at CR24 manually to maintain the services.

               In case both main and standby controllers of site 3 base station at ATC failure, system will raise alarm to maintenance team. Manual switch off the site 3 base station at ATC to force those TMR handsets connect to site 1 optical amplifier signal automatically to maintain the services.

               In case both main and standby controllers of site 5 base station at CR227 failure, system will raise alarm to maintenance team. Manual switch off the site 5 base station at T1M CR227 to force those TMR handsets connect to site 1 optical amplifier signal automatically to maintain the services.

B.   Contingency Procedures for Trunked Mobile Radio

1.0   Criteria for activating contingency plan

    1.1   In case of one or more than one base-station collapse.

    1.2   No inter-site TMR call can be made.

2.0   Services and manpower involved

    2.1   Qualified RF electronic engineers and technicians from AA maintenance team

    2.2   AA's Superintendent, FRT (Electronics)

    2.3   Motorola TETRA Specialist

3.0   Contingency Procedures

    3.1   When irregularities are detected according to the forehead criteria

        i.   Any person affected by TMR service interruption should immediately report the fault to FRT and list out the affected area.

        ii.   If FRT detects the respective situation, they should report to maintenance team, System Owner and IAC.

    3.2   Follow up procedure for recovery estimation

        i.   FRT shall identify and record the location of TMR failure and possible affected area.

        ii.   FRT should notify relevant maintenance contractor and diagnose the reason of TMR system failure. In addition, FRT and maintenance contractor of TMR system shall estimate the recovery time.

    3.3   When TMR system can be resumed within acceptable time

        i.   FRT shall report to maintenance team, System Owner and IAC that the TMR system will be resumed within acceptable time.

        ii.   FRT shall report to maintenance team, System Owner and IAC again after resumption of TMR system.

    3.4   When TMR system cannot be resumed within acceptable time

        i.   FRT shall report to maintenance team, System Owner and IAC of the situation.

        ii.   Maintenance contractor and FRT shall seek alternative methods to provide the TMR communication service as far as possible.

Urgent repair on TMR system shall also be organized concurrently.

iii. IAC shall notify TMR users to use the TMR direct mode, Public Switched Telephone Network and Mobile Phone Network as an alternative means of communication.

iv. FRT shall closely communicate with maintenance team, System Owner and IAC, and update the latest situation until TMR service resumes.

4.0 Interface with other operational organizations during contingency

4.1 System Owner

4.2 IAC

4.3 Maintenance team

5.0 Data preservation procedures

TMR system data is archived in TMR servers. FRT and Maintenance Contractor shall retrieve the relevant logs and record the fault handling actions to maintenance team for the sake of detailed investigation and follow up.

C. Cyber Security

System cyber security threat level based on the following risk rating:

Threat Level	System
Low	System uses no IT-based systems.
Medium	System uses some closed data-collection and/or alarm systems based on sensors or IoT devices.
High	System uses integrated SCADA systems, cloud-based data collections systems, or IP-based monitoring and control systems.

- Trunked Mobile Radio – Threat Level: Medium

Rationale for threat level

The system devices such as base stations, amplifiers were non-computer base equipment.

Mitigation actions taken

IT015 policy are general implemented on computer base devices.

In case of suspected cyber-attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

End of BCP – E6