

800 MHz Trunked Regional Public Safety Radio System Standards, Protocols, Procedures

Document Section: Maintenance Sub-Section: 4.12.0 Procedure Title: Use of Over-The-Air Diagnostic Analyzer Date Established: Replaces Document Dated: Date Revised:	CMNRAC Review – Signature CMESB Approval: January 29, 2014
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1. Purpose or Objective

To define standards and procedures for use of the regionally owned system diagnostic analyzer.

2. Technical Background:

- **Capabilities**

The Central region has jointly purchased a "Diagnostx" over-the-air analyzer from Locus, which can be used to actively evaluate the current status of subscriber radio equipment, during live active daily use. The analyzer captures data regarding the radios and equipment that affiliate with the radio site the system is installed and connected at. This data can be used to determine which radios and equipment in the fleet are in need of tuning, and adjustment for optimum performance on the ARMER system.

- **Constraints**

The analyzer can be installed wherever a receive antenna can be mounted for short range analyzing, or it can be installed at a specific ARMER site that has an open BNC port specified by a MNDOT Technician, for long range analyzing. Only radios that affiliate with the chosen site will be subject to data capture and evaluation after 12 PTT's.

3. Operational Context:

Since the analyzer is a shared regional resource, a protocol for scheduling its use is necessary. A standard for managing the data that is captured by the system must be in place, A procedures and log/check list are required for moving and installing the analyzer in each jurisdiction.

4. Recommended Protocol/ Standard:

See attached Appendix A for a schedule showing the time frame each agency has available to use the analyzer. It is the responsibility of each agency to coordinate with MnDOT and any supporting radio service shops to see that the analyzer is properly installed at selected sites.

5. Recommended Procedure:

Each local government entity utilizing the analyzer is responsible for all data captured by the analyzer while in use under the entity's control and at the conclusion of the analyzers use, all data will be purged. Furthermore the analyzer will be unavailable one month a year for scheduled maintenance. Maintenance will be performed by the agency that has agreed to manage and oversee the analyzer for the Central Minnesota Region. The Responsible agency will be required to make schedule adjustments informing the remaining agencies of the delay and estimated return of the analyzer for service.

6. Management

The Central Minnesota Owners and Operators committee will be responsible for overseeing and enforcing this standard.

- **Documents**

The responsible agency will ensure that the proper documentation is with the analyzer at all times, including directions, log sheet, and the rotation list with the proper contact information for each agency. Furthermore it is imperative that the Log/Check list be present with the analyzer gathering all information requested on the Log/Check Out list. During each maintenance cycle the log will be removed with the exception of the last agency the analyzer was located for reference. Log/Check Lists will be held for one year in a secure location by the responsible agency. *(Please see the log/check list)*

- **Reporting**

The responsible agency will give the O&O a detailed report of the status of the analyzer in verbal as well as written form for any repairs requiring the device to be physically sent into Locus at any point. A detailed annual report will be provided by the first meeting of the next calendar year by the agency responsible for the analyzer including but not limited to maintenance requirements, recommendations for the analyzer, as well as overall use by the Central Minnesota Region.