

## EHB 6-511 NEXRAD TRANSMITTER EQUIPMENT HANDBOOK AND TECHNICAL ORDERS MATRIX

**Background:** The RDA and Transmitter Service Life Extension Program (SLEP) consists of four different modifications:

- (1) Modification Note 182: Replacement of the Transmitter Circuit Card Assembly (CCA) and the Transmitter Backplane;
- (2) Modification Note 183: Installation of the RDA Signal Processor and RDA Software Build 17.0;
- (3) Modification Note 184: Installation of the New SCR Modulator Switch; and
- (4) Modification Note 194: Refurbishment of the Transmitter Cabinet.

The SLEP modifications are currently underway and will take up to 3 years to complete at all NEXRAD sites. During this period, and until SLEP is complete, there will be up to 6 variations to the fielded RDA & Transmitter system configuration:

- (1) Pre-SLEP systems prior to completion of any of the SLEP modifications with Build 16 Software; or
- (2) Systems with Modification Note 182 completed; or
- (3) Systems with Modification Note 183 completed; or
- (4) Systems with Modification Notes 182 & 183 completed; or
- (5) Systems with Modification Notes 182, 183 & 184 completed; or
- (6) System with all SLEP RDA/Transmitter Modification Notes completed (Modification Notes 182, 183, 184 & 194).

There are currently 3 active revisions of the EHB 6-511 Operations and Maintenance Instructions Transmitter System in use. Given the site's SLEP Modification Note installation status, one or more of the Revisions will be required for system maintenance support. The 3 active EHB 6-511 Revisions and their principal changes include:

- (1) **EHB 6-511 Rev 5:** This is the Pre-SLEP version of the manual.
- (2) **EHB 6-511 Rev 6:** This revision includes updates for Modification Notes 182 & 183:
  - a. Replacement of Transmitter Circuit Card Assembly (CCA) and Transmitter Backplane (with adapters for existing cables);
  - b. Installation of the RDA Signal Processor, Signal Processor Interface Panel (SPIP) & Build 17 software; and
  - c. Addition of FlowCharts and Fault Notes to Chapter 10.
- (3) **EHB 6-511 Rev 7:** This revision includes updates for Modification Notes 184 & 194:
  - a. Replacing the Modulator Pulse Assembly 3A12 with the 3A15 version;
  - b. Transmitter Chassis refurbishment including ;
    - i. Removal and replacement of ribbon cables;
    - ii. Removal of transmitter backplane cable adapters; and
    - iii. Removal of Fuse Box 3N3 and replacement with Circuit Breaker Assembly 3A16.
    - iv. Updated Fault Isolation Flowcharts depicting new Modulator 3A15 and Circuit Breaker Panel 3A16.

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The 4 SLEP Modifications are on separate deployment schedules; therefore, actual site hardware configuration will change during the SLEP project. As a result of deployment schedules, multiple Technical Manual Revisions are required.

See the matrix below to describe what version of technical manual is required to support your site until all of the SLEP programs are complete.

| <b>EHB 6-511 Applicability Matrix</b>  |  |   |                |
|--|--|---|----------------|
| <b>If a site has the following configuration</b>   | <b>Use the revision or revisions below</b> |   |                |
|  | <b>Rev 5</b>                               | <b>Rev 6*</b>                           | <b>Rev 7**</b> |
| Pre-SLEP systems prior to completion of any of the SLEP modifications with Software Build 16   | X  |   |                |
| Systems with Modification Note 182 (Transmitter Backplane and CCA) completed   |  | X                                       |                |
| Systems with Modification Note 183 (RDA Signal Processor, SPIP & Build 17) completed   |  | X                                       |                |
| Systems with Modification Notes 182 & 183 completed  |  | X                                       |                |
| Systems with Modification Notes 182, 183 & 184 (Modulator 3A15) completed<br><i>Note 1: The Fuse Box Assembly 3N3 is included in Revision 6. Refer to Figure F011-11</i><br><i>Note 2: The Backplane Adapters are included in Revision 6. Refer to Figures F011-7 &amp; F011-8</i> |  | X<br><i>See Notes 1 &amp; 2 at left</i> | X              |
| System with all SLEP RDA/Transmitter Modification Notes 182, 183, 184 & 194 (Chassis Refurbishment) completed.   |  |   | X              |
| <b>Technical Manual Revision Notes:</b>  |  |   |                |
| * Revision 6 must be used to reference the legacy cables, backplane adapters and Fuse Box 3N3 until after Modification Note 194 Transmitter Chassis refurbishment is complete.   |  |   |                |
| ** Revision 7 contains information about the new Modulator 3A15 but does not contain information about the Fuse Box 3N3 and Backplane adapters. Keep Rev 6 until after Modification Note 194 Transmitter Chassis refurbishment is complete.  |  |   |                |