

Radar Operations Center (ROC) Recommended

WSR-88D Transition Power Source (TPS) Operations Procedures

As of 4 August 2014

OPERATIONS:

When the TPS is on line, it is not necessary to start the engine generator in advance of severe weather or when the possibility that commercial utility power may fail. The TPS will carry the critical radar power load while the generator starts automatically. Tests at the ROC have demonstrated that the Static UPS (SUPS) TPS can carry the critical load of an operating RDA for several minutes.

In advance of severe weather or when the possibility that commercial utility power may fail, we recommend your office check to determine whether the TPS is on-line or off-line and ensure the generator does not exhibit any alarms (i.e., GENERATOR EXERCISE FAILURE). This can be accomplished by entering the following series of commands from the MSCF or RPG.

- From the MSCF RPG HCI, click on the RDA Performance Data button. Click on the Tower/Utilities tab and view the Power section of the window.
- Note the current state of the TPS and Generator status lines.

If TPS and Generator are OK, no further action is necessary. Standby Generator and TPS are ready if a power loss occurs. There will be no interruption of radar operation.

If TPS is off, place the generator in operation. Please note that if the TPS is "off" and the generator comes "on", the site will need to manually shut the generator off (at the MSCF) after normal commercial power is restored.

See EHB 6-521, Paragraph 2.3.11 for above information.

MAINTENANCE:

Retransfer

The generator's Automatic Transfer Switch (ATS) has the capability to automatically select "Auto" or "Manual" retransfer mode by sensing the status of the TPS. This function only affects the retransfer back to utility power and the way we shut down the generator. To enable automatic selection (the ROC recommendation), sites should leave the ATS in the "Auto" mode. During a loss of commercial power the generator will automatically come on-line.

When the TPS is on-line and the retransfer mode is "Auto," the system will automatically monitor commercial power when it becomes available. If commercial power continues to be

stable for 10 minutes, the system will automatically switch back to commercial power and shut down the generator with no interruption of radar operation.

If the TPS goes off-line, the ATS will automatically select the "Manual" retransfer mode and a retransfer back to commercial power will have to be accomplished manually at the MSCF. Additionally, a transfer to and from generator power will result in an interruption of radar operation.

Placing the ATS in the "Manual" position overrides the ability of the ATS to sense the TPS status. Therefore, the generator will require a MSCF command to be shut off.

Exerciser

The WSR-88D software will continue to exercise the generator every week. The generator weekly run is scheduled at most sites for Tuesday mornings at 0900.

The ATS will start the generator and the generator will run for approximately 20 minutes without load. This will occur weekly with no interruption of radar operation.

A 28 day PMI was added to NWS EHB 6-503 to perform a test of the complete power subsystem. This PMI consists of a complete power transfer and insures that the TPS, ATS and generator are performing satisfactorily.