

**SUBJECT** : Advanced Weather Interactive Processing System (AWIPS) Local Data Acquisition and Dissemination (LDAD) Interface Cables

**PURPOSE** : Provide information and guidance for the acquisition and installation of the LDAD interface cabling to the AWIPS.

**BACKGROUND**: The LDAD equipment rack will be delivered and installed at AWIPS sites in one of two ways:

1. If the site has an AWIPS, PRC which is the prime contractor for AWIPS, will retrofit the site with an LDAD rack.
2. If AWIPS has not been installed, PRC will deliver and install the LDAD rack concurrently with the AWIPS.

The AWIPS Program Office has coordinated the LDAD rack placement and installation issues with retrofit sites and has provided them with a copy of the "Site Survey Information for the LDAD Rack Placement." For non-retrofit sites, all LDAD installation information will be contained in each site's "AWIPS Site Survey Report."

Delivered and installed LDAD systems will initially support interfaces to the local area network (LAN) and the following on-site PC-based systems/equipment:

1. IFLOWS
2. ALERT
3. Mesonets

## **INTERFACE CABLE REQUIREMENTS**

Interface cabling must be installed prior to retrofit or initial LDAD rack installation. The number of interface cables required at each AWIPS site will depend on the site's configuration.

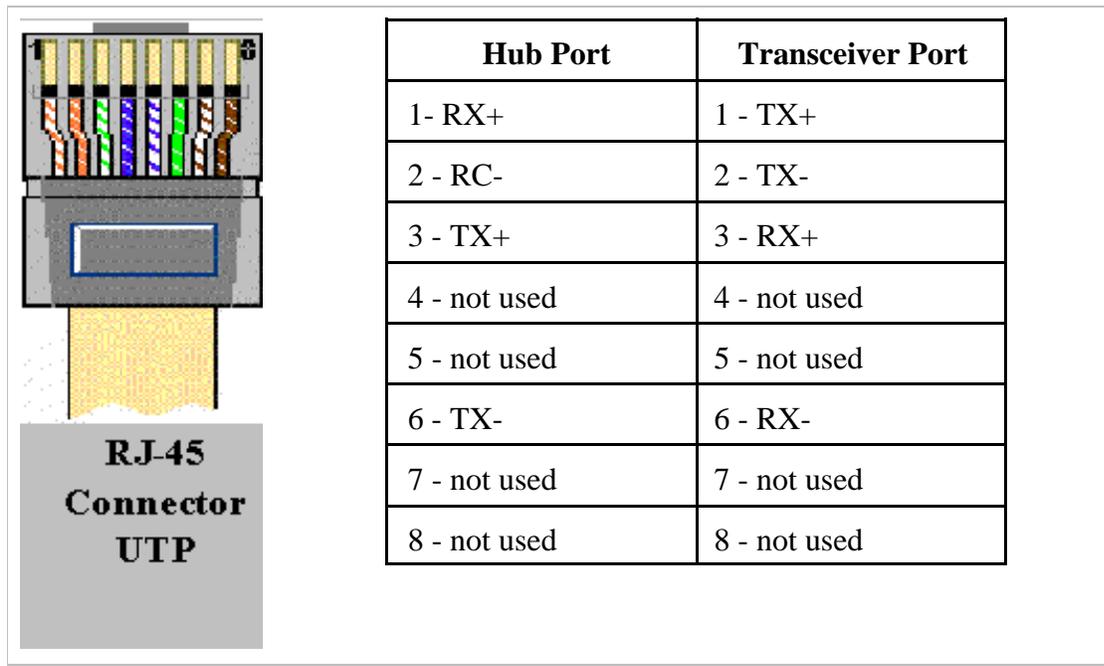
1. One LDAD-to-LAN interface cable is required in the following instances:
  - a. PCs to be interfaced to the LDAD are currently connected to the site's LAN.
  - b. Site requirements for LDAD to be interfaced with the LAN
2. One LDAD-to-PC interface cable is required in the following instances:
  - a. PCs interfaced to the LDAD are not and will not be connected to the LAN.
  - b. Sites that do not have a LAN.

All interface cables connected to the LDAD will be Ethernet 10BaseT. They should have the following physical characteristics:

1. RJ-45 connectors at both ends.
2. Plenum rated.
3. 4-pair solid #22-24.
4. Unshielded twisted pair (UTP) CAT 5.

**NOTE: Flat satin telephone cables should not be used.** To prevent electromagnetic, radio frequency interference, or AC line noise, install the UTP cabling away from flourescent lights, electrical wiring, and other sources of induced noise.

The 10BaseT cable is wired according to the AT&T 258A cabling specification, where only pins 1-3 and 6 are used. (Note drawing and table below). The 10BaseT cable length is site dependent but should not exceed 228 feet (100 meters) .



## SITE RESPONSIBILITIES

Regional headquarters have been funded to allow the sites to procure/fabricate the LDAD interface cable. Cable (s) must be installed prior to the LDAD rack installation.

The sites, with the coordination of regional headquarters, are responsible for obtaining and installing any other needed hardware (e.g., PC Ethernet card, 10BaseT transceiver, patch cords, etc.) to complete the site equipment to LDAD interface.

The sites are responsible for routing the 10BaseT cable from the existing equipment to the location of the LDAD rack. The LDAD cable end should be appropriately labeled (e.g., IFLOWS, ALERT, LAN, etc.).

PRC will be responsible for installing all LDAD connections.

## TECHNICAL ASSISTANCE

Technical questions should be referred to Franz Zichy, W/OPS12, at 301-713-1833, ext 128. Questions regarding AWIPS and LDAD installation schedules should be addressed to Scott Dye, W/APO2, 301-713-3409, ext 109.

Signed by John McNulty, Chief, Engineering Division