

**ARM Darwin Research Station  
RESET Visit 17D Report**

Visit Duration: 21 October – 23 October 2002

Darwin, Australia

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## **Introduction**

The main goals of the TWP Operations RESET17-D Visit (routine) to ARCS-3 at Darwin were the following: 1) Upgrade network switches 2) Tested network router configurations 3) Label network cables

This Report is organized according to the planned tasks or work units performed during the RESET Visit. Within these work units the activities accomplished are arranged chronologically. Most of the information was out together by the RESET-17D members based on the actual visit, daily reports.

### **A. TWP Operations Management and RESET Visits**

Once an ARCS Site is established, TWP Operations maintains the site and performs data reporting. TWP Operations also coordinated equipment retrofits at the established sites; accomplished by local NWS site personnel, routine RESET visits, and non-routine RESET visits.

#### **Routine RESET Visits**

Routine visits are scheduled on approximately six-month intervals and are focused mainly on routine maintenance, instrument calibration, instrument replacement, and training. A formal audit-in is performed upon arrival and audit-out before departure.

#### **Non-Routine RESET Visits**

Non-routine visits are intended for technical non-routine tasks such as emergency repairs, retrofits, and/or the addition of new instruments.

The work on the RESET visit is performed by the RESET team, but often in close coordination with the local on-site Observers. The team holds a daily, morning tasking meeting at the site using the proposed RESET visit, tasking schedule. After each day's work, the team meets to summarize work activities and an assigned team member writes a "Daily Report" and e-mails the report to TWP personnel in the U.S. Because of time-zone differences, necessary calls to instrument mentors in the U.S. are done in the morning.

#### **Reset Members**

- Richard Eagan (ANL)

## B. Tasks Performed

### 1. Network

#### 21Oct

- Unpackaged and checked equipment that had been shipped to site. All ok.
- Began configuration of the new switches.
- Notified DMF and SGP Ops that the network at Darwin will be down several hours during re-configuration on 10/22/02 (Darwin time).

#### 22Oct:

- Tested switch and router configurations;
- Replaced LinkSys switch in data system rack with new C2950;
- Replaced network switch in I-Van with new C2950;
- Setup VLANs for:
  - Data System and Instrument VLAN
  - BOM address space VLAN
  - IOP1 VLAN
  - IOP2 VLAN
  - Service VLAN (for future use)
  - Infrastructure VLAN
- It is planned to separate the data system and instruments into separate VLANs. However, this requires changing net masks on all systems and it is currently not possible to do that for the macro buffer computer. No one seems to know the root password. Rex is trying to obtain an Intel Solaris installation CD to facilitate password change.
- Removed a few small 'dumb' switches and integrated all VLANs into the C2950's.
- The C2950's are configured as nodes on the infrastructure VLAN. I'll send Matt an updated host table upon completion.
- Will provide current network diagrams and configuration documentation as time permits.
- Tested network connectivity with all systems on-site.

#### 23Oct

- Downloaded the APC configuration software from the APC web site. Found an APC serial cable. Configured the ups to be on the data system network. Downloaded the linux rpm for PowerChute to collector-twpc3 into ~dsmgr. Did not install. Awaiting results of testing.
- Put a copy of the APC configuration software on my laptop to take to the Islands.
- Moved switch port assignments around for better organization.
- Checked functionality of router, switches and network devices (data system, instruments,etc).
- Discussed travel and Manus issues with Rex.
- Started labeling network cables.

### 2. Other

#### 21Oct

- Discussed activities to be performed with Rex.
- Discovered that we do not have the root password for the macro. This will prevent planned changes to the instrument network because we do not have access to the macro

IP configuration. However, it will be possible install the new equipment and create the other networks described in the upgrade plan.

- Planned the net architecture given the macro restriction.
- Discussed with Rex:
  - Integration of a new BOM NSDL system at Darwin
  - Integration of the automatic met sensors at Manus and Nauru so they will have access to network time protocol.

### **23Oct**

- Discussed travel and Manus issues with Rex.