

Hurricane Preparation Plan LIGO Livingston Observatory

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27 September 2002

The provisions of this Plan will **ONLY** go into effect at the direction of the Observatory Head or the Observatory Manager.

GENERAL

- Close all office doors and lower the blinds. In the event of a broken window this will help localize flying debris and/or damage. If windows are not shatterproof they should be taped to cut down on small debris.
- Check the grounds around the corner station and remove any lightweight items/debris which may be blow by heavy winds and place them inside.
- Remove all potted plants from the entrance way and placed them into the multi-purpose room.
- Remove all umbrellas, trash cans etc from patio area and place inside the shipping and receiving room.
- Move the large trailer into the shipping bay.

CDS

- Turn off all power supplies
- Turn off all processors
- Turn off all rack power

GENERAL COMPUTING COMPUTERS

- Turn off all PCs
- Shut down guest PC's (those not assigned to anyone in particular)
- Turn off all printers, then shut down the print server.
- Shut down all SUN user workstations following proper procedures.
- Then shut down all non-essential servers following proper procedures. Lastly, all essential servers (mail and web) and network equipment should be shut down.
- Make sure all power switches and breakers are in the off position on all computer and network equipment. This includes disk systems, scanners, tape drives, monitors, printers, plotters and any other related equipment
- All UPS units should be turned off.
- Any equipment not in rack that may be exposed to the elements should be moved to a more secure location or covered up to protect it as much as possible.

- A copy of the backup tapes should be stored in a remote location.
- Hardcopies of configurations should also be stored at a remote location. Configurations should include a sealed envelope with all necessary passwords.
- When restoring power to equipment make sure UPS units are on and running for at least 1 hour before turning on any equipment.
- Be sure to check for water damage under the floor as well as on the floor.
- Be sure computer rooms are climatized before turning on the computers.
- Turn on the networking equipment first.
- Power the computers up and let them run for a short time before booting.
- Start servers first then workstations.

LDAS COMPUTERS

The LDAS procedure is as follows:

Shannon Roddy and/or Igor Yakushin should be requested to execute the controlled shutdown in proper order. It includes the following actions:

- All servers are to be shut down;
- All disk systems are to be shut down. The only interface with non-LDAS computers that needs to be coordinated is the shut down of T3 RAID units and their Fibre Channel switch. Their shut down will prevent CDS frame builder(s) from accessing disk storage;
- All PCs in the beowulf cluster are to be shut down;
- The tape robot(s) are to be shut down;
- All ancillary LDAS workstations (in computer users room and control room) need to be shut down;
- All network switches (Ethernet and Fibre Channel) need to be shut down;
- The UPSs are to be powered off;
- Any equipment not in rack that may be exposed to the elements should be moved to a more secure location or covered up to protect it as much as possible.
- A copy of the backup tapes should be stored in a remote location.
- Hardcopies of configurations should also be stored at a remote location.
- Configurations should include a sealed envelope with all necessary passwords.
- The sequence of events and who executed them needs to be logged in the LDAS ilog:
 - <http://www.ldas.ligo-la.caltech.edu/ilog/pub/ilog.cgi?group=ldas>

NOTE: A valid user account and password is required to access these pages.
- When restoring power to equipment make sure UPS units are on and running for at least 1 hour before turning on any equipment.

- Be sure to check for water damage under the floor as well as on the floor.
- Be sure computer rooms are climatized before turning on the computers.
- Turn on the networking equipment first.
- Power the computers up and let them run for a short time before booting.
- Start servers first then workstations.

LASER

- Power down (turn off) laser in the PSL enclosure
- Place LVEA in “Laser Safe” condition
- Place End station (VEA) in “Laser Safe” condition

VACUUM EQUIPMENT

- Close all valves (with the exception of the annulus ion pump valves). This includes the 44” and 48” main valves, ion pump valves and any mechanical pumps that are running.
- Close the 48 inch gate valves at the mid-station.
- Close up and seal any vacuum chamber that is open.
- Shut down the purge air if operating.
- Shut down any re-circulating H₂O systems that are operating .