



CASE STUDY

BLAST Research Project, Antarctica University of Pennsylvania

Lost! Precious Secrets on Origins of Stars and Galaxies

Six Years of Research Almost Lost to Antarctica's Harsh Tundra

Data Loss Situation

Scientists from the University of Pennsylvania seeking answers to some of the most important questions regarding the formation and evolution of stars, galaxies and star clusters, set forth with several other institutions on a six-year project called BLAST (Balloon-borne Large-Aperture Sub-millimeter Telescope). During the second flight for BLAST launched from a remote station in Antarctica, an unmanned balloon carrying the most powerful space telescope of its kind floated into the stratosphere at altitudes of 120,000 feet and ultimately crashed on the edge of an icy ravine on January 1, 2007. The 200GB IDE hard drive onboard BLAST that recorded all the new data was salvaged by a rescue team, but once back in the lab it did not boot up. A small amount of data was streamed back to the researchers during the flight, but the bulk of the information (about 160GB of binary files) was lost. The scientists turned to DriveSavers to recover the data and help them unlock their new discoveries.

Data Recovery Solution

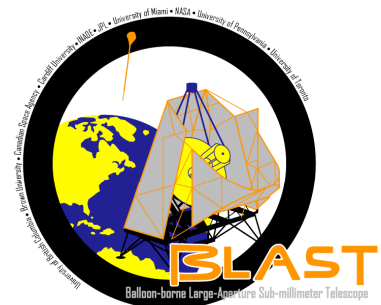
The badly damaged drive was delivered to our Class 100 cleanroom, a dust-free environment containing highly filtered air that is 10,000 times cleaner than normal office air. DriveSavers cleanroom engineers opened the drive's casing, assessed the physical damage and repaired the mechanics of the drive to gain access to and make a clean image of the data. Using 20 years of experience combined with proprietary software and the most advanced data recovery techniques, the logical engineering team rebuilt the entire data set to perfection.

We Can Save It!

DriveSavers Data Recovery, Inc. is the most progressive, successful data recovery company in the world. Since 1985, we have successfully recovered data from hundreds of thousands of hard drives and other storage media that have crashed, mechanically failed, been physically damaged, infected by viruses or worse. Our engineers work closely with major drive manufacturers to keep pace with changing data storage technology and have developed data recovery tools and techniques so advanced we consistently rescue data others deem lost forever.



“Six years of work would have gone down the tubes,” said University of Pennsylvania scientist Mark Devlin. “Not only would the experiment have been destroyed, we would’ve lost invaluable data about early galaxies in their formation stages between 7-10 billion years ago or so. Thanks to DriveSavers, we can analyze the data and share our discoveries with the rest of the world.”



When the BLAST parachute became tangled during landing it dragged the space telescope and hard drive 120 miles over the icy tundra destroying the equipment and its data.

Protect Your Valuable Data

All organizations need to adopt strategies to ensure business-critical information is protected from corruption and loss. They also need a recovery plan to get up and running as quickly as possible in the event of system failure.

Best Practices to Avoid Data Loss

- Never upgrade any system without a verified backup.
- Use up-to-date hardware and software utilities for data security, such as firewalls and virus protection.
- Scan all incoming data, including packaged software, for viruses.
- Use ventilation, fans, and/or air conditioning to keep servers at the proper operating temperature.
- Connect systems to an uninterruptible power supply (UPS) to protect against power surges.
- Power down and take extreme caution when moving computers.
- Avoid static electrical charges when touching or handling the media, especially in arid environments.
- Train users to report any unusual noises and power down immediately if a drive makes scraping, tapping, clicking, or humming sounds.

When Disaster Strikes

- If possible, backup the data immediately.
- If the drive makes scraping, tapping, clicking, or humming sounds do not use utility software.
- Do not power up a device that has obvious physical damage, or is making unusual sounds.
- Shut down the computer to avoid further damage to the drive and its data.
- Do not attempt recovery yourself on severely traumatized drives (i.e., turning the computer off and on, using over-the-counter diagnostic tools), as this may cause further damage or permanent data loss.
- Configure another computer/server to temporarily replace the problem unit, restore available backups onto the new unit, and reconfigure it as necessary to begin productive work.
- Contact DriveSavers for recovery advice. Because of the broad range of complex operating systems – such as Windows, Mac OS, OS/2 and UNIX – using utility software can potentially cause data loss.

Backup Strategies

- Invest in redundant backup systems.
- Establish a structured backup procedure, using software compatible with the operating system and applications, to make copies of all critical data files.
- Periodically test the backups to verify that data – especially databases and other critical files – are being backed up properly.
- Keep at least one verified copy of critical data off-site.

“DriveSavers’ quick response is extremely appreciated. It is great to know we can count on your company.”

–George Everhart, President
Fujitsu PC Corporation



Never Assume Data is Unrecoverable

DriveSavers has successfully recovered data from thousands of drives with extreme physical and logical damage. If you’ve lost critical data, DriveSavers recovery service is your best and safest option.

Call a DriveSavers Data Recovery Advisor

- 800.440.1904
- 415.382.2000
- www.drivesavers.com
- GSA Schedule #GS-35F-0121S

