

# ioSafe Case Study: **THE CINEMATOGRAPHER**

How the ioSafe Rugged Portable Protects Data In Extreme Conditions

**F**or many years, film directors were held accountable for the logistics of creating a feature film, from managing not only the locations and the actor's performances but also technical aspects, such as the cameras and lighting. However, with advances in technology, there became a need for someone with both an artistic eye and the technical ability to take advantage of the necessary photographic, film and lighting equipment. From that was born the role of the cinematographer. A cinematographer is tasked with overseeing the cameras and lighting as it applies to a film set, to speed up and enhance the film making process, and to aid the director in artistic vision. A cinematographer must be an expert at capturing moving pictures while having the technical prowess to optimize the use of, and stay current with the image capture and storage technology.

## **The Challenges of Outdoor Cinematography**

There are many challenges to cinematography itself, but moving outside can bring even more difficulty. Shooting video or photo outside requires an even higher level of expertise with photographic equipment, due to greater contrast created from direct sunlight. Furthermore, being outside means equipment is being exposed to the elements. Traditional digital storage and photographic technology, although robust, will typically not stand up to damage due to shock, water or extreme heat. Certain filmmaking such as documentary will even further test the extreme limits of the cinematographer and the equipment due to the unpredictable environmental conditions.

## **A Technical Artist At Work**

Pascal Depuhl is a professional photographer and commercial cinematographer who, in 2012 set out to

create a documentary. He traveled to Afghanistan in the winter to produce what started out as a personal project, but eventually took on a life of it's own. Since then, the documentary has won numerous awards and footage filmed in Afghanistan has aired on National Geographic, the BBC and PBS.

The short film tells the story of Pactec, a non-profit, humanitarian organization. Pactec provides air transportation and satellite communication in Afghanistan. The film tells the story of a little boy that will die, unless he can get airlifted to get the proper treatment.



While filming in the middle of nowhere, Pascal needed his images and footage to live safely on an indestructible set of hard drives, since there are no do-overs on these projects and space is always at a premium when traveling into remote places. The only external hard drives Pascal travels with are ioSafe Rugged Portable drives.



When asked about the peace-of-mind that ioSafe provides in the extreme conditions, Pascal stated “Whether we’re filming on the Ucayali River after a 16-hour ride on a banana boat (it’s nice to know that the drives are waterproof in up to 30 feet of water), flying in a small airplane up the Wakhan Corridor in Afghanistan (resting easily, being sure that the included data recovery system will enable us to salvage this once-in-a-lifetime footage should something happen to the drive), or just traveling with any airline in the U.S., we are reassured that ioSafe drives are protected from drops of up to 10 feet and offer crush protection of 5,000 pounds.”

“ioSafe Rugged Portable drives are bus-powered, eliminating the need to carry separate power supplies to further lighten our load. We routinely bring our equipment into environmental extremes, and knowing that ioSafe drives will work as well at -25° and 10,000 feet up as in the 100 percent humidity and 90° heat of a South American jungle makes them our go-to portable mobile storage solution for road trips, especially if there are no roads.”

The ioSafe Rugged Portable addresses each of these extreme environmental problems. They are tough enough to be used in arctic or desert environments, they are shock and crush resistant, have anti-theft features and are backed by the ioSafe unique Data Recovery Service and No-Hassle Warranty. This means that if an ioSafe Rugged Portable stops working for any reason at all during the warranty period, ioSafe will repair or replace the drive and recover the data from your old drive. ioSafe does more to protect your data than any other company.

*Read more about how ioSafe Rugged Portable drives can protect your data in extreme circumstances: <http://iosafe.com/products-rugged-portable-SSD-overview>*

*Check out Pascal’s short, award-winning documentary that was shot in Afghanistan and that lived on ioSafe Rugged Portable hard drives at <http://blog.depubl.com/on-wings-of-hope/>*



# ioSafe Case Study: **THE PHOTOGRAPHER**

## Solo G3 Protects Precious Photos from Fire

Photographer Tom Loeser specializes in automotive photography, and he has shot some of the most rare and valuable cars available. In fact he has done work for Carroll Shelby Automobiles and he has photographed cars from BMW, Porsche, Ferrari, Aston Martin, Jaguar, and Mazda, as well as Chevrolet's Corvettes, Dodge's Vipers, and Ford's Mustangs. He has spent 12 years shooting auto racing for events such as the Long Beach Grand Prix, Denver Grand Prix, St. Petersburg Grand Prix, and the 12 Hours of Sebring.

Tom's photography business is not only his livelihood but also his passion. He has taken photographs for several recent books including Art of the Corvette, Art of the Mustang, and Wide Open Muscle, which highlights muscle car convertibles.

During the creative process for these books, each car can take five-to-seven hours to photograph and another five-to-seven hours to process and assemble in Photoshop. The layered files for each image can reach 650-700MB and typically are flattened to around 100MB. With 10-to-15 hours work per car and each book counting 30 or 32 automobiles, these projects represent 300 to 450 hours of shooting and processing. Tom does all his image work on MAC workstations with all of the files written to an ioSafe Solo G3 4TB external device. He also backs up all of the data to a second ioSafe Solo G3 for redundancy.

Tom's home - and office at home - suffered a fire in 2014, which destroyed the inside of the structure. With most of the damage came from heat and smoke, he lost a great deal of computer hardware, including several desktop systems and six hard drives. Fortunately Tom had installed his ioSafe Solo G3s prior to the fire, and he had been diligently backing up all his images and data.

After contacting ioSafe technical support, which offered him free data recovery by sending in the drives, Tom opted to retain his Solo G3 units and he was successful in cleaning them by using canned air to blow out the dust and debris. When he powered them on, the ioSafe units were fully functional and Tom recovered all his photo data.



"I tell everyone I know to buy one of these," he said, "and in fact there's no question that I would ever buy any other brand of backup drive."

ioSafe Solo G3 external hard drives are USB 3.0 attached, and come in various storage capacities. Combining an array of proprietary technology, the ioSafe Solo G3 with included data recovery service delivers unparalleled protection for your most precious data in a solution that is pure simplicity. Tom loves and relies on the two ioSafe Solo G3s that he owns.

*Read more about the Solo G3 at <https://iosafe.com/products-soloG3-overview>*

*Read more about Tom's photography business at <http://thomasloeserphotography.com/>*



# ioSafe Case Study: **THE SMALL BUSINESS OWNER**

Humble Daisy

**H**umble Daisy was founded in 2002 with the goal of developing simple and elegant software solutions. Humble Daisy manufactures ProfCast for Macintosh, which makes lecture, and presentation recording easy. They also create a software package called SonicPics allowing users to narrate their photos and images directly from their iOS device.

## **Previous Storage and Backup Strategy**

As a small business owner the loss of digital assets would be far more damaging than the loss of physical assets. All of the physical hardware can be replaced but our data invaluable. We previously used a combination of the Apple time capsule with a dual drive RAID system for both manual backups and automatic Time Machine backups. We then stored the RAID system in a fireproof, waterproof safe.

## **Why Did I Choose ioSafe?**

When my fireproof waterproof safe that I was using for paper documents as well as to securely store my backup drives for disaster recovery failed to open reliably, I started searching for replacement. However, what I found was that most of these safes had the same design flaws as the safe that was failing. I then rethought my backup plan and began to look for disaster recovery backup hardware.

I had used a USB drive in the past to conduct archives of my time capsule and the backups that it held, but there was no easy way to automate these archives. This required me to remember to do this manually, and considering my track record, became the weakest link in my backup.

We also looked at public cloud solutions, but did not

consider them to be a good fit due to our network performance and security concerns. We work with very large files (in the gigabytes) and backing up incremental changes would have a considerable impact on our network bandwidth. Secondly, we didn't trust any of the cloud backup providers. This was not due to a bad experience, per se, but like many small businesses, we felt more comfortable keeping data protected in-house.

Then I came across the ioSafe 214 NAS powered by Synology Disk Station Manager. The ioSafe 214 is a fireproof and waterproof, network connected, multi-drive NAS/RAID storage device for terabytes business



and personal data. The 214 allows for fast access on our local network and remote access from nearly any device connected to the Internet - all secured and protected by our business. I decided that this was an excellent solution for data safeguarding needs as it would secure our data on-site while also providing cloud-like benefits anywhere access to data, mobile support, and the private cloud file sharing capabilities.



## How have we incorporated ioSafe products to improve our backup and workflow?

I configured the 214 software to set up the ioSafe NAS system RAID mirror with two separate network shares. My primary concern was data integrity with redundancy and decided to use one network share for storing and sharing personal files. The second network share is used for Time Machine backups for our business data. Additionally the 214 is plugged into a battery backup system to provide additional protection and graceful shutdown during power outages.

The system has been great for us. The 214 resides in out-of-the-way location on premises and provides encrypted, automatic backup for computers, and storage space for larger and frequently use files such as software installers movies music and critical business files.

The ioSafe 214 NAS protects our data in multiple ways. First it protects us from data loss from drive failure with the RAID protection, and we can simply replace

the drive in the event of a failure with a new one to restore redundancy. Second the unit keeps redundant copies of all client computer data so that we can restore very quickly in the event of a client system failure. And third the proprietary ioSafe fireproof, waterproof technology protects the backup data in the event of a devastating disaster to our building. ioSafe gives us the peace of mind that our data will be intact using multiple layers of protection, even in a worst-case scenario.

*Read more about the ioSafe 214 NAS at <https://iosafe.com/products-2baynas-overview>*

Preserving and Protecting | **Customers Stories**

## **HALLOWEEN FLOOD**

**I**t started as a rain soaked mass of tree trash that got washed down Manoa stream by the rainstorm soaking the Hawaiian Island of Oahu. Like many municipalities, the City and County of Honolulu was behind on getting heavy equipment in to remove the slowly forming plug of debris under a bridge next to the Manoa Innovation Center just above the University of Hawaii at Manoa campus.

The story that unfolded as the sun rose was that of devastation to a Research 1 class University campus that in some cases destroyed irreplaceable life science, geological, information systems, and federal documents. As the plug became a dam, the Manoa stream rose to flood stage as a monsoon like rainstorm pounded the islands. Oahu residents are used to heavy rains and the storm drains of the island are designed for it, however, nothing prepared them for 9.96” of rain between 11pm HST and 11am HST that fateful day.

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**Equipment can be replaced, but the research needs better protection...offices have gone to storing electronic copies of student records on ioSafe Solo external hard drives**

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Returning to its natural streambed, the Manoa stream roared through the University of Hawaii at Manoa campus: Biomedical Research Facility, Graduate Library and federal document repository, Hawaii Institute of Geophysics, Chemistry, Physics, and many other research facilities. Documents from the federal document repository were found nearly a mile away piled up against the Stan Sherif sports center. Classes were being held that early morning in the graduate library with students describing it as a wall of water roaring towards them and blocking their path to the exits. Ironically it was the smallest girl in the class that thought to throw a chair through the window for the class to escape.





The next day as the waters receded, nearly 8 inches of mud and debris filled the basement of Hamilton Library. The staff had to resort to using broom sticks to poke through the mud in hopes of finding the Sun Sparc Servers that had been washed out of the server room and strewn about the basement, with one being washed up over an 8 foot tall berm to end up in the walkways outside. Backup tapes had been ground to small pieces as file cabinets were crushed under debris and torn apart by the wall of water.

The biomedical research facility lost incalculable collections of samples and in the case of Terrence Lyttle's ground floor research lab, he lost his entire collection of *Drosophila* (similar to fruit flies) that he had been studying since he was a graduate student. The long-term study was unparalleled and was completely lost to the flood.

The lesson learned was that even in tightly sealed cabinets, safes and server rooms; nature's fury is unimaginably powerful. The lesson learned is that equipment can be replaced, but the research needs better protection. Since then many research units and college offices have gone to storing electronic copies of student records on IoSafe Solo external hard drives, and many of the research groups are now utilizing the IoSafe NAS units so that they could continue their normal research patterns but have the ability to run away and not worry about their data being lost. Some of the research groups have gone further and have leveraged the cloud backup to Amazon Glacier so that irreplaceable data could be backed up both in the IoSafe NAS but also in the cloud.

Considering that some research could easily represent millions in grand funding, having a fire and water safe storage system seems like a very small price to pay.

*Brian Chee is the founder and director of the Advanced Network Computing Laboratory at the University of Hawaii School of Ocean and Earth Science and Technology (SOEST) and is a Senior Contributing Editor for InfoWorld Magazine.*



Preserving and Protecting | **Customers Stories**

## MEDICAL CLINIC FIRE

**A**n ioSafe Solo external hard drive protected important patient data during a fire that destroyed Snoqualmie Valley Medical Clinic. The blaze, which was likely started by an electrical problem, happened on October 1st. Although 31 firefighters attended, the \$500,000 building could not be saved.

Since 2009, the Clinic has stored important patient data on a fireproof and waterproof ioSafe Solo external hard drive. “Although the data was stored on the ioSafe, I prayed that it would live up to all of its claims. This was exactly the reason we had bought this product: the worst case scenario” said Practice Manager Sheri Moklebust. “Given the fires’ intensity, it seemed inconceivable for any electronic device to have survived, but we asked the fire department to retrieve the unit anyway. When they recovered the unit, it was still extremely hot with steam coming off it.” Sheri added “After we were able to re-enter and inspect the building, I found that the desk that the ioSafe was on was gone and only a few feet from there the extreme heat had melted a porcelain toilet. The ioSafe did its job exactly like it was supposed to.”

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“I thought the unit was toast,” said Robb Mercer of Your Computer Friend, a consulting company that provides IT services to the Clinic. “The casing was badly charred and external connectors had melted. However, when I extracted the drive from the ioSafe casing and connected it to a computer, I discovered that the data was still there.”



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Learn more about ioSafe Protecting & Preserving Data | email [sales@ioSafe.com](mailto:sales@ioSafe.com) or call 530-820-3090



Snoqualmie Fire Department Chief Bob Rowe was also surprised that the data was still intact. “The guys did not believe anything would be recoverable on the external hard drive. Given the extensive damage to the building and the area the drive was in, it was obvious that it would have been exposed to extremely high temperatures. To make matters worse, it was covered with debris from the ceiling and has been exposed to the water and foam used during suppression operations. I’m thankful all of the patient information and records were able to be recovered.”

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“I’m now an unofficial ioSafe cheerleader,” said Sheri. “You have a great product that I talk about with anyone who asks.”

#### ABOUT SNOQUALMIE VALLEY MEDICAL CLINIC

*Snoqualmie Valley Clinic is a family practice clinic providing medical care to generations of families. They have returned to their original location with a new building and a new ioSafe.*

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Learn more about ioSafe Protecting & Preserving Data | email [sales@ioSafe.com](mailto:sales@ioSafe.com) or call 530-820-3090