



G-Technology®

LAFORET AIR:

How Storage Plays a Large Role in Capturing Our Small World

© Vincent LAFORET-AIR

When you hear Pulitzer Prize-winning photographer and G-Technology Ambassador Vincent Laforet describe his AIR project—a stunning collection of high-altitude images of the world’s most notable cities taken at night — the word “organic” is never far off.

Organic also describes how the AIR project sprang into being when Men’s Health magazine contacted Vincent to do an editorial assignment about psychology. “I suggested we take an interesting twist and shoot from high altitudes because the streets of New York look like brain synapses or computer chips,” he recalls. “This is not the approach they had in mind initially, but after some serious discussion, they agreed.”

Unfortunately, only one of Laforet’s night images ran with the piece. Disappointed but not discouraged, he cast about for other ways to share his vision of nocturnal New York and experimented with a new photo-story site and app called Storehouse. Vincent has enjoyed several viral successes in the past, but nothing prepared him for the explosion that enveloped “[AIR: Gotham 7.5K](#)” at the end of 2014. Major publications and TV shows flocked to it by the hundreds practically overnight. Gallery views spanned into the tens of millions.

There was never a marketing plan, never any thought of expanding beyond New York, much less to cities around the world. But G-Technology, recognizing the extraordinary beauty and power of its G-TEAM Ambassador’s collection, became the first to sponsor Laforet’s ambitious project. And organically, Laforet AIR grew.



The Making of Laforet AIR

Vincent's first images of New York seemed almost surreal. Initial reactions from people were that the pictures made the world feel smaller. They could "feel the energy," and the images "looked purely natural." Such a unique vision comes with risk, though. These were the first photos ever taken of this kind from a helicopter, cruising dangerously close to elevations where pilots know they run the risk of passing out from hypoxia.

The planning and discipline required to make AIR a reality are almost as impressive as the images themselves, and in studying Vincent's process, we can learn volumes about the methods and workflow that all creative professionals should follow to achieve epic results. Enter G-Technology.

Fascinated by Vincent Laforet's aerial imagery, G-Technology agreed to sponsor his dream to fly around the world, photograph as many cities as possible, and publish those pictures in a book simply titled *AIR*. However, creating what Vincent hopes to become a photographic masterpiece requires much more than a helicopter and harnesses, or cameras and lenses. It requires judicious planning and no-fail gear. His first line of must-have gear includes storage, specifically the following G-Technology hard drives:

- G-DRIVE® ev ATC with Thunderbolt™ (1 TB)
- G-DRIVE® ev SSD (512 GB)
- G-RAID® with Thunderbolt 2 (16TB)
- G-DOCK ev® with Thunderbolt
- G-SPEED® Studio XL with Thunderbolt (64TB)





Simply put: G-Technology storage meets Laforet's massive demands, especially with respect to speed and reliability. Speed is critical when transferring the 10,000 or so images gathered over each city. That's in addition to another 100GB of data gathered from three GoPro® cameras, and yet another 75GB captured by Laforet's assistant. All of this must be copied as fast as possible, both to protect the data as well as allow Laforet and his crew to move on to their next tasks.

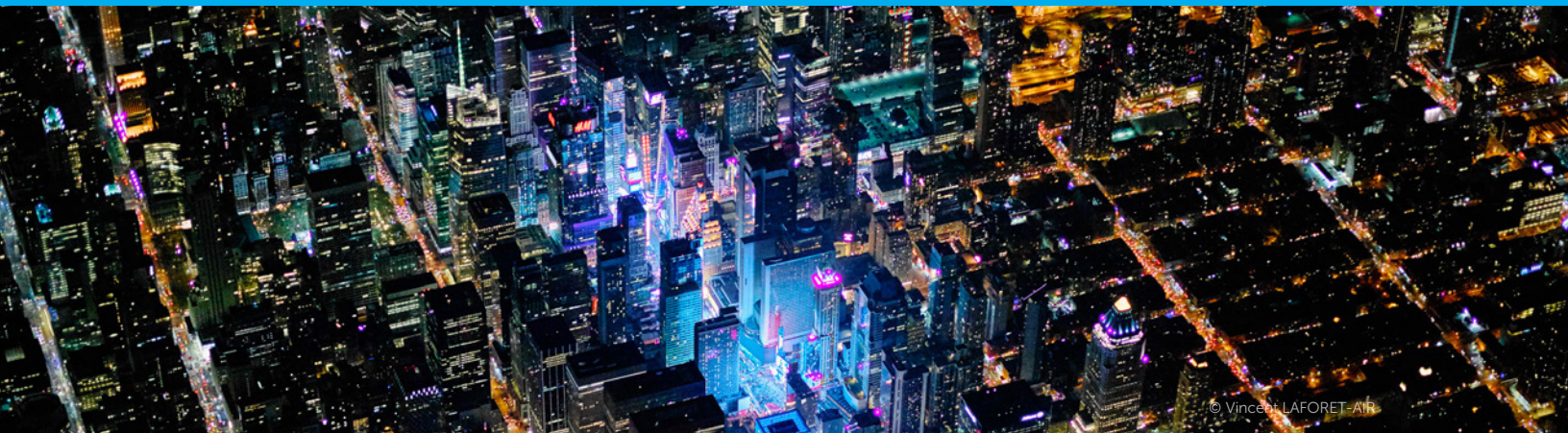
Speed is also paramount during editing. The press doesn't want to wait weeks or even days for something — they want the story now. Laforet edits video within 24 hours of the events, while the memory and emotion of the expedition is still fresh in his mind. The throughput of G-DRIVE ev SSDs at this stage make such lightning fast turn-around possible.

And reliability is key when working against the clock. If a drive goes down or file-reading errors occur while editing, it can mean the difference between making a deadline or making apologies. "Whatever we create counts for nothing if we can't transfer and work with the data quickly and safely," says Vincent.

Capturing the Prize

Several days (or months, in some cases) after Vincent and his team gain the necessary permissions to fly a helicopter above a city during a designated time period, the day of the shoot finally arrives. About 20 minutes before sunset, the helicopter takes off. Once in the sky, Vincent will shoot for over an hour. Hanging from the helicopter's side, constantly aware of the long, long drop to the glittering ground far below, Vincent takes about 5000 images, many of which run up to 50 megapixels in size. If the team shoots the city again at sunrise, he'll capture another 5000 images. In total, Vincent collects between a half-terabyte to a full terabyte of data per city, including GoPro footage.

Vincent shoots with cameras at ISOs that, until recently, were incapable of yielding satisfactory images. "We're pushing every technical boundary. A few years ago, you couldn't get a sharp enough image, one that wasn't extremely grainy, and that's what is so exciting. That's where the pioneering comes in. I just happen to be the first to get up here and do it."



"Copy That."

Immediately after landing, and sometimes while still in the helicopter, the team creates **primary copies** of the camera media and video to a pair of 1TB G-Technology G-DRIVE ev ATC drives, transferring in 15 to 30 minutes what used to take hours. One of these primary copies stays with Vincent and the other goes with his chief project assistant in case any accident should befall either of them. Once Vincent returns to the office (or hotel), he removes the G-DRIVE ev ATC with Thunderbolt from its protective ATC shell and plugs it into his G-DOCK ev with Thunderbolt.

While shooting abroad, Vincent will simultaneously use his G-DOCK ev with Thunderbolt writing to a series of 512GB G-DRIVE ev SSDs to create **secondary copies**. At the same time, he'll back up onto his G-RAID with Thunderbolt 2 to make a **tertiary copy**. The SSD units get shipped immediately to Vincent's offices in the U.S. The Thunderbolt interface of the G-DOCK ev makes quick work of this otherwise lengthy but important precautionary step. Since Thunderbolt 2 provides ample bandwidth for any work Vincent might want to do on the road, he keeps the enclosure configured in RAID 1 mode so that both drives mirror each other and provide an extra level of data protection.

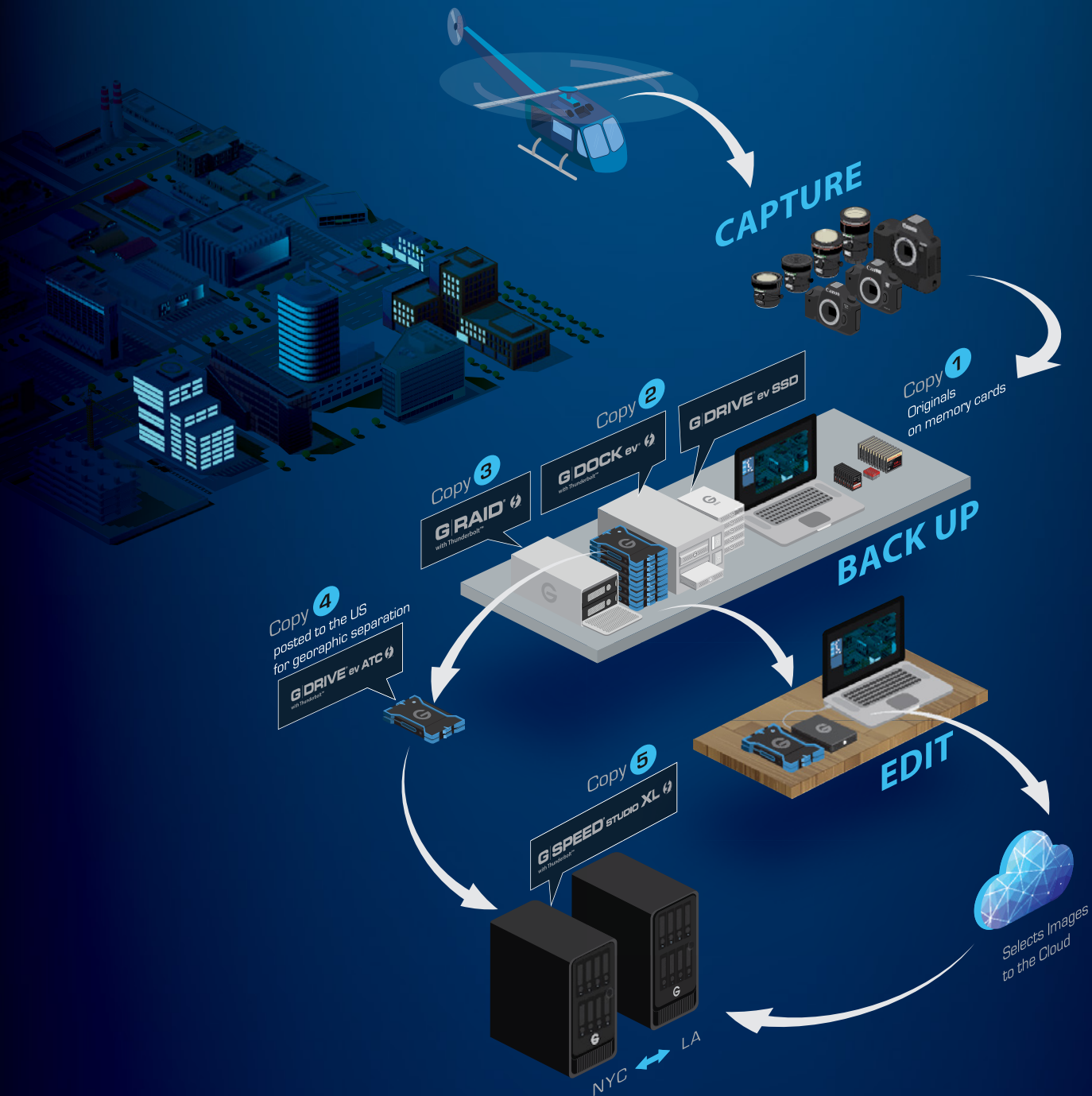
When Vincent finally returns to his offices in Los Angeles and New York, he will copy all project files onto the RAID 5-configured 64TB G-SPEED Studio XL with Thunderbolt drives he maintains in each location. These final copies serve as his long-term archive sets. The G-SPEED Studio XL's Thunderbolt 2 interface also provides the bandwidth he needs for editing his video into multi-stream 4K projects.

Despite the help of gyroscopic compensation, the helicopter's vibrations can still wreak havoc with images, so Vincent must load and inspect each photo individually to see which will move on in his workflow. Working from one of his G-SPEED Studio XLs, the crowd of 10,000 photos will typically winnow down to about 1500. Those that make the cut get uploaded to Dropbox as cloud copies. "The selections make their way back home to my Studio XL 64TB drives in both Los Angeles and New York in mere hours — that's amazing!" says Vincent.

If Vincent's storage workflow seems a bit excessive or even paranoid, understand his viewpoint. He knows and has spoken with perhaps thousands of photographers, and what he repeatedly hears is that people only think about workflow when things fail — when it's too late. Vincent never deletes, and he never takes chances. He has reached the top of the photography world, both literally and figuratively, in part because of his discipline and having a religiously followed storage plan, primarily with G-Technology.

"With any project, we want to make absolutely sure that the data makes it back home," he says. "In the worst case, the memory cards still have the data. But for drives, I only use G-Technology because they're reliable, fast, and bulletproof. Not once have I ever had to call their customer support."

LAFORET AIR WORKFLOW



Capture

up to
10,000 images
on each flight



Transfer

750-500 GB of images and
footage in approx

55 mins

From memory cards to
G-DRIVE ev SSD and G-RAID
Simultaneously



Edit

10:1

1 hour shoot =
10 hours edit



Store

5x copies

- 1TB per city of images and footage
- Originals on memory cards
- G-DRIVE ev ATC with Thunderbolt
- G-DRIVE ev SSD
- G-RAID with Thunderbolt
- G-SPEED Studio XL
- Cloud Storage



“...I only use G-Technology because they’re reliable, fast, and bulletproof.”

Faster Storage. Better Editing.

Anyone who has worked with volumes of very high-res files knows that there is always a bottleneck in batch editing workflow. Sometimes, that bottleneck is storage, which simply doesn’t have the throughput needed to handle gigabytes of file operations in a timely manner. With the G-SPEED Studio XL, Vincent has found that the bottleneck gets pushed back upstream to his Mac Pro’s CPU and memory.

Vincent uses [DxO OpticsPro](#) post-production software to manage the unavoidable image noise caused by shooting at such high ISOs. Next, he turns to Adobe® Lightroom™ for editing. His initial pass of batch work in Lightroom still requires five or six hours to process overnight, but that’s a far cry better than it would have taken in him years ago with slower storage.

“With editing, it’s basically a 10:1 factor on shooting time,” he says. “For every hour of shooting, I spend about 10 hours editing the photos. A tremendous amount of work goes into image selection. Given the size and quantity of files, this makes the speed of the G-Technology drives a major factor. Were the drives half as fast, we’d be at 20:1, which would just kill us.”

After Laforet makes that editing pass, a retoucher does all of the finishing work to make the photos ready for online viewing, the AIR book, and other media.



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The Light Within

"The aim of AIR is to show people that the world isn't such a big place, to share the realization that we're all in this together," says Vincent. "While in the sky, I try to find what makes a city tick, what makes it unique. Las Vegas is obvious — it's a neon-lit city in the middle of a black desert. Then there are cities like Paris with its circular constructs and [Les Halles](#). London has an incredible history and its reflected in its chaotic grid and incredible mix of classic and modern architecture. Barcelona has one of the most amazing grids and building structures I've ever seen. I try to pick up on topography, geometry, and history, and somehow include those in the photographs. It would be a disaster if the images became repetitive."

Laforet AIR is a work of deep beauty and meaning for millions of people, and perhaps most of all for Vincent Laforet himself. "I have been waiting to do this for almost 27 years," he muses, "and technology finally caught up."

This project reveals a world that, transformed by the dark, is much smaller and more unified than it normally seems. From 10,000 feet, we are collectively the specks of light that form magnificent, chaotic beacons against the blackness. We are dizzying in our complexity, yet growing as one shared body — organic.

laforetvisuals.com



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