



photo &  
video

Text by Larry Cohen  
Photos by Larry Cohen  
and Olga Torrey

**Flooding a camera and other underwater photo gear is a nightmare for all underwater image-makers. Unfortunately, if you work underwater long enough, at some point, you will experience the horror of a flood. Over the years, I have flooded a Nikonos V, a film camera, a housing, several strobes and some dive lights. I have also had minor floods on a few digital camera housings.**

Our costly camera gear is kept dry by a cheap gasket called an O-ring. Underwater imaging gear manufacturers use O-rings composed of different materials and suggest that a specific kind of O-ring lube be used to keep the O-ring flexible, keeping it from drying out. Basic underwater photography training states that we need to check all O-rings

for damage and dirt before entering the water. The O-rings need to be lightly greased with the correct lube. The lube can attract dirt, so you need to make

sure the O-rings are clean after adding the lube. It is crucial to make sure the groove in which the O-ring sits is pristine.

#### **User error**

In most cases, floods are caused by user error. Therefore, it is essential to take your time preparing your gear. Besides the

O-rings, make sure the camera is sitting in the housing correctly. For example, a camera out of alignment in the housing can cause a leak. Strobes and video



# Dealing with Floods







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lights need to be checked; it is easy to forget to lock the battery door. Finally, never let anyone else prepare your gear or open and close your housing. Just like analyzing your breathing gas, this is your responsibility.

### In the field

You have to consider the environment you are diving in. For example, if you are shore diving, sand could be a real problem. So, it is vital to pay special attention to ensure there is no sand on the O-ring or the channel the O-ring sits in. Also, O-rings and other gear can fail when you are in the field. So, it is essential to have tools, including small brushes, extra O-ring lube, and spare O-rings for all your gear. A captain I used to crew for used to say an O-ring cost US\$15 in the camera store and US\$150 on the boat!

### Flood alarm

Many camera-housing manu-

facturers install a flood alarm. If a housing floods, the water connects two wires, and an audio alarm goes off. Most of the time, when you hear the warning, your gear is already damaged. I often thought that instead of a buzzer, the alarm should be a recording saying, "Your equipment is screwed!"

### Vacuum pump

Nowadays, many housings have a vacuum test and alarm system. You use a pump to create a vacuum in the housing. If air enters the housing, so will water, and an alarm will warn you of the problem. Testing a housing for leaks before entering the water gives you a warm and fuzzy feeling. Also, it is fantastic to know for sure that the housing is sealed while still on the surface.

### Murphy's Law

Murphy's Law states: If anything can go wrong, it will. So, even

Author Larry Cohen entering a shipwreck with a sealed housing (left); Vacuum and flood alarm inside the housing (right); Underwater photographer and dive buddy, Olga Torrey, with sealed housing, photographing a cuttlefish in Malaysia (far right)

when you do everything right, floods can happen. Many professional cameras and lenses these days are weather-sealed, so these cameras have a better chance of surviving a flood. For this reason, if you are not using strobes, make sure you keep a cover on the hot shoe and sync ports. In addition, if the flood occurs in fresh water, there is less chance of corrosion. If the housing floods in salt water, rinse the inside of the housing in fresh water, dry it out with a paper towel and hairdryer. The bulkheads, LED trigger, alarms, and any exposed electronics will more than likely have to be replaced.

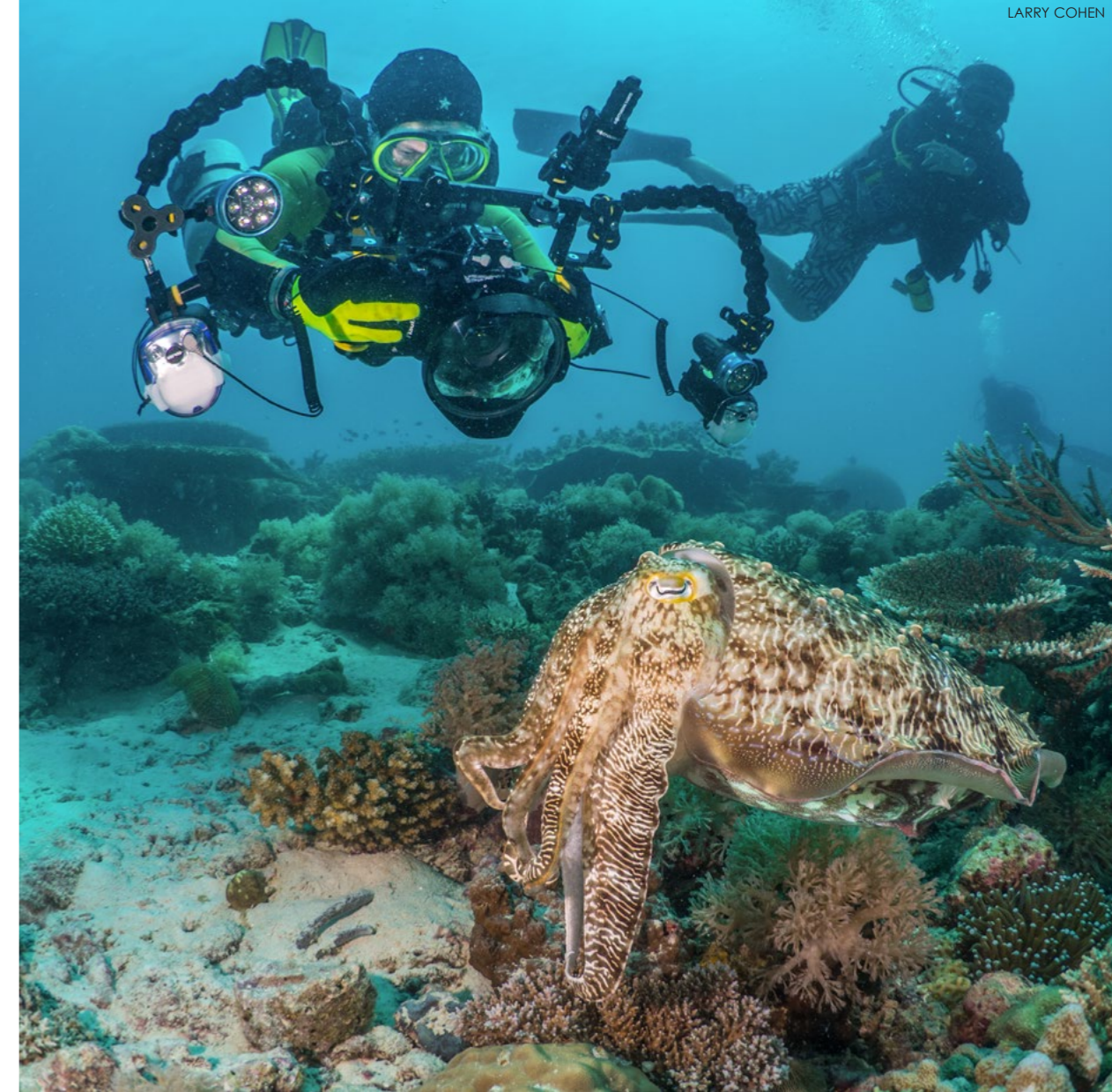
If the camera is weather-sealed and the flood happened in salt water, put a cover on the hot shoe and rinse the camera in fresh water. Remove the battery



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and memory cards. Thoroughly dry the camera inside and out with a paper towel and hairdryer, and hope for the best.

Most strobes separate the battery compartment from the sealed electronics in the head. Usually, you can discard the batteries, and rinse and dry the battery compartment.



However, there is a good chance you will have to replace the battery door.

### Insurance

If everything fails and you have to replace your equipment, it is essential to have insurance on all your camera gear. Divers Alert Network (DAN) offers dive gear equipment insurance that covers photo-gear floods. For more information, go to: [dan.org/membership-insurance/equipment-insurance](http://dan.org/membership-insurance/equipment-insurance). ■

Larry Cohen and Olga Torrey are well-traveled and published underwater photographers based in New York City, USA. They offer underwater photography courses and presentations to dive shops, clubs and events. For more information, visit: [liquidimagesuw.com](http://liquidimagesuw.com) and [fitimage.nyc](http://fitimage.nyc).



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Vacuum valve



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Positioning a vacuum pump in the vacuum valve





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## Sea&Sea updated YS-D3 strobe

The updated YS-D3 Mark II underwater strobe by Sea&Sea has all the same specifications as the original (Mark I) model but adds compatibility and improved TTL accuracy with Sea&Sea and third-party strobe triggers. TTL shooting with the YS-D3 Mark II can now be enjoyed using the YS-D2 position on the Sea&Sea optical converter.

Redesigned control dials for output and mode controls are additional features of this updated model.

[seaandsea.jp](http://seaandsea.jp)



## Nauticam housing for Fujifilm GFX 100S

The new NA-GFX100S housing for the FujiFilm GFX 100S medium format mirrorless camera places all the important controls at the underwater photographer's fingertips, including AF-ON and Q controls via a double lever near the right handle, as well as Playback and DISP via a double lever near the left. The housing supports Nauticam's well-known N120 port system, thus supporting Fujifilm's GF-mount lenses. Nauticam's water contact optics, such as the WACP-2, are supported as well. The housing can optionally accommodate Fujifilm's EF-X20 TTL flash, which then allows one to optically trigger underwater strobes via the housing's built-in fiber-optic bulkheads. A classic Nikonos bulkhead supports the connection and trigger of wired strobes, but only in manual mode (no TTL). An additional M24 bulkhead provides extra output via HDMI 2.0—to recorder such as the Atomos Ninja V, for example, or to an external monitor (via HDMI 1.4) such as the Atomos Shinobi. The housing measures 355mm in width, 190mm in height, and 142mm in depth. It weighs 3.23kg topside and 0.05kg (including camera and battery) underwater. It is depth-rated to 100m. [nauticam.com](http://nauticam.com)



## Razer Blade 17 Laptop

Razer, a manufacturer well-known in the video-gaming scene, has announced its newest line of laptops, with specs that make them very suitable for postproduction/editing of large files of underwater videos and photos. The Blade 17 is powered by INTEL's fastest CPU to date—the i9-11900H, an 8-core chip with 16 threads, and a frequency of 4.9 GHz (in turbo mode). The Blade 17 can be configured with up to three USB 3.2 Gen 2 Type-A ports, two Thunderbolt 4 ports, and an HDMI 2.1 port. The Advanced Models of the Blade series include per-key Chroma RGB backlighting. The laptop can display 100% of the Adobe RGB color space, but the QHD and 4K OLED also displays 100% of DCI-P3 color. Also supported are Full HD (360Hz), QHD 2K (240Hz) and 4K UHD (120Hz) display options, with the Full HD model displaying the sRGB color space, the QHD displaying 100% of DCI-P3 color, and the 4K UHD panel displaying 100% of the Adobe RGB color space. The screen size is 17.3 inches. The Blade 17 is available in various customizable configurations, including 16-64 GB RAM, GeForce RTX 3060-3080 graphic card with 6-16 GB memory, and 1020-6096 GB SSD drives. [razer.com](http://razer.com)

## Isotta housing for Olympus OM-D E-M5 Mark III

Italian manufacturer Isotta has launched its new housing for the popular Olympus OM-D E-M5 Mark III mirrorless camera. Made of anodized aluminum sporting Isotta's unique red color, the housing features double O-ring seals on all buttons and removable parts, a patented single-handed open/close system, a large rear window with an optical viewfinder, and a built-in moisture sensor with LED indicator. All common lenses for underwater photography/videography can be attached via various interchangeable ports and extensions rings, which can be mounted to the 102mm bayonet-style porthole of the housing. Strobes can be triggered via fiber-optic cables connected to the ports on the housing. Optional features that can be purchased are N5 or S6 bulkheads, so wired strobes can be used. An M16 port allows one to connect accessories such as a vacuum valve or external monitor. The housing is depth-rated to 100m. [isotecnic.it](http://isotecnic.it)



## LG 31.5i Ergo IPS UHD 4K monitor

With photographers and graphic designers in mind, the 31.5-inch "Ergo" monitor by LG features a full UHD 4K resolution of 3840 x 2160px, 95% coverage of ADOBE RGB 1998, reduced color shift at

any possible viewing angle, and an "Ergo stand," which offers expanded ergonomic adjustments to extend, retract, swivel and pivot the unit as well as adjust its height and tilt. Furthermore, the monitor provides USB Type-C input and output, HDMI, audio out and USB 3. [lg.com](http://lg.com)

