

# IMAGES

Making Your **STILL, VIDEO** and **DIGITAL** Underwater Images Better

## DIGITAL

## TTL vs. Manual Flash

*Tips on exposure control put your subjects in the best light*

STORY & PHOTOS BY JACK & SUE DRAFAHL

**W**hen digital cameras first made the plunge, most used manual flash exposure because they were the point-and-shoot variety that had a pre-flash system. Some didn't even have an external flash connector, and those that did would

ter speed and f-stop you used, so saving them has an educational advantage, as you can analyze what went wrong.

If you do have a TTL flash system for your digital underwater camera, you can use it for those situations where the subject mat-

ject and background, your TTL will have trouble. You will have to compensate, or you might consider switching to manual.

So although TTL works well in most situations, manual isn't always a bad thing. Either way, with digital you can see your results immediately, and can correct, over-ride and make adjustments as you dive.

Send your digital camera questions to [digital-duo@jackandsuedrafahl.com](mailto:digital-duo@jackandsuedrafahl.com). For further information you can purchase our book, *Digi-*



**EXPOSED! 1.** Fish is close to the background and can be correctly exposed with both TTL and manual exposure. **2.** Exposure on the fish is overexposed with TTL because of the separation between the fish and the background. **3.** Correct exposure with manual flash exposure. Shutter speed was set high to keep the background dark.

only fire in the manual exposure mode.

TTL (through the lens) technology has since gone digital, but manual flash still often yields better images than TTL flash exposure. Best of all, it is simple to use.

Simply set your camera to full manual exposure and take your first shot. Check the LCD viewer to analyze flash exposure on the main subject and the available light exposure in the background. If the subject is over- or underexposed, compensate by using the f-stop control or by adjusting the strobe if your strobe has variable power.

If the background exposure is incorrect, you can adjust it by using the shutter-speed control. Take a second shot to see if all your adjustments are correct. If not, tweak it a bit and then start shooting.

Since most memory cards can store more images than you can shoot on one dive, don't worry about the bad shots on the card; you can delete them later. Each picture file stores information about the shut-

ter is on one plane. Macro subjects and general underwater scenes would work well, but when you have some distance between sub-

*tal Imaging for the Underwater Photographer directly from our Web site: [www.jackandsuedrafahl.com](http://www.jackandsuedrafahl.com).*

## STILLS

## The Nikonos 15 mm

*Why photographers love this venerable wide-angle lens*

BY BILL HARRIGAN

**O**wn a Nikonos camera? Here's one sure way to improve your photos: Buy a Nikonos 15 mm lens. Many pros consider this the best lens ever for underwater photography. With a 94 degree angle of acceptance, it provides a wide view of the ocean with outstanding sharpness.

Two versions of the lens have been made, commonly called the "old style" and the "new style." The old-style 15 mm lens was introduced in 1972 as an accessory for

the Nikonos II. It featured a built-in dome port and lens hood, along with a handy depth-of-field scale. A separate viewfinder provided a large, bright image that was easy to see through a dive mask.

The new-style 15 mm replaced the old style in 1982. The principal change was to bring the rear element of the lens forward, so it didn't block the exposure diodes of the Nikonos IV-A and V. The old-style 15 mm can be used with the IV-A and the V, but the