

Flash of Inspiration

by Mark Webster



It is an old adage that good things often come in small packages, but in underwater photography we sometimes find it difficult to initially accept the principal that a small item of equipment is the equal of a larger one. A good example of this is the way compact housings and small AF cameras have transformed underwater photography over the last ten years or so. Many of us, myself included, resisted change initially firmly believing that our trusty F3's and F2's with large action finders, heavy motor drives and even heavier housings had to be superior, until we tried the minimalist approach and saw the light!

Now that I am a true believer in the 'small is beautiful' maxim I was delighted to be offered the chance to test the latest flash offering from Inon by Steve Warren at Ocean Optics. Steve is of course adept at detecting the weakness in any underwater photographer's resistance to new equipment and was quick to pounce at my mention of "problems with my

Inon Z-220 - The flash head is small and light and has a complex specification which is controlled by two function switches on the rear. The two flash tubes are configured in a 'T' shape to achieve an even coverage over the quoted 100°. A shutter initiated focus light and laser aiming light aid flash positioning and focussing in dim conditions.

The Z-220 is suitable for general and wide angle photography. The flash head weighs only 85gms in water and so is suitable for a variety of light weight arm systems. Nikon F90X, Subal housing, 18-35mm zoom at 18mm, Inon Z-220 and YS30, Elitechrome EBX, f8 @ 1/60th.



old YS120", knowing full well what the probable outcome will be. So, not long after this conversation I found myself on the way to Bonaire with a pair of Inon Z-220's or "T" flashes as

christened by Andrew Bell at Ocean Optics. This epithet is derived from the configuration of the two flash tubes behind the dome of the gun which are arranged this way to achieve an



Snappers at Salt Pier - using a 18-35mm zoom lens with a strong diopter allows you to get very close to subjects if they will permit it. At ranges of 12-30cm I found that the quality of the light was quite warm, although this will be largely dictated by your choice of film stock. Nikon F90X, Subal housing, 18-35mm zoom at about 28mm, two Inon Z-220's, Elitechrome EBX, f11 @ 1/60th.

even 100° coverage, a feature I was keen to evaluate.

The first thing which strikes you is the size and weight of the flash heads. They are barely bigger than a YS30 and weigh very little more, so two of them occupied very little space in my carry on baggage and therefore required almost no defensive transfer of items to pockets in the trusty photographer's vest at the check in. Round one to the 'T' flash, but could these diminutive objects be the equal of my larger guns as indicated by the guide number - f8-11 @ 1m U/W?

Once I started to investigate these little beasts I realised that they are exceptionally well specified. The flash is designed for use with both digital and film cameras and provides connection for both a



Hilma Hooker - wreck photography really demands super wide angle lenses and my favourite is the 16mm fish eye. Using a pair of Z-220's produced good results and I found that when the composition was suitable the TTL exposures were very accurate. Nikon F90X, Subal housing, 16mm fish eye, two Inon Z-220's, Elitechrome EBX, f8 @ 1/30th.

standard (Sea & Sea) synchronisation cord and a fibre optic cord which connects to the slave sensor on the base of the unit. It is also equipped with a focussing light and a laser aiming light, both of which are activated by touching the shutter - they extinguish after several seconds or after an exposure is made. The flash offers TTL function for both Nikon and Canon cameras and the manual power output has no less than eleven settings expressed in half stop increments - this feature is aimed mostly at the digital user. The slave function also operates in a TTL mode, which means that the output will quench in tandem with the key flash. Two densities of diffuser are provided (-0.5 and -3 stops), which will widen the beam spread to 110°, and a directional cap is also available for the slave



Man made structures make fascinating backdrops and are often a magnet to marine life. Some of the largest schools of fish to be found in Bonaire make Salt Pier their home - the multiple powers offered by these strobes are ideal for an exposure like this. Nikon F90X, Subal housing, 16mm fish eye, two Inon Z-220's (-1 stop), Elitechrome EBX, f8 @ 1/30th.

sensor. All this is powered by just four AA sized batteries. Quite an impressive list, but the proof of the pudding as they say....

I tried the guns with a choice of three lenses - 60mm macro, 18-35mm zoom and 16mm fish eye - with the flash guns either both cable synchronised to my Subal housing or with one on TTL slave. I was pretty soon satisfied that they worked extremely well with fish portraits and macro subjects with the 60mm. The results indicated that the slave fires reliably and quenches in the TTL mode with the key light, although I also experimented with the individual power settings in slave as well. When I shot subjects approximately 1m away at f11 the strobes would fire at full power, but the majority of the results were well exposed



Scrawled file fish - I made a number of exposures at an estimated 1m to test the quoted guide number of f8-11. Shots taken at f11 would require a full power discharge but the majority were accurately exposed. Nikon F90X, Subal housing, 18-35mm zoom at 35mm, two Inon Z-220's, Elitechrome EBX, f11 @ 1/60th.

which would indicate that the guide number is not too far off the mark. A pool test might prove this conclusively, but for me the more realistic appraisal has to be in the field where you can assess which subjects will absorb light and require a wider aperture and those which don't. The focus lights work well and are more than adequate for focussing with AF in dark holes or at night, although they are a significant draw on the batteries but they can be selected on or off on the main function switch. The laser aiming spot was surprisingly useful and could be easily seen even on bright sand - this comes on each time you touch the shutter button but has a flip cover if you choose not to use it. The cover should be closed once you have positioned the strobe as the laser will



Three banded butterfly fish - the Z-220 coped effortlessly with standard general and close up photography producing accurate TTL exposures over a range of apertures. Nikon F90X, Subal housing, 60mm macro, two Inon Z-220's, Fujichrome Velvia, f8 @ 1/60th.

sometimes show in the final picture when using wide apertures or slow shutter speeds.

However, the acid test for me was how well they would perform with wide angle lenses. Other photographers looked on sceptically when I entered the water with the fish eye lens and these two small strobes, and I must admit I had my own doubts as well! My usual rig for lighting wide angle would be either a YS120 or Isotecnic 33TTL paired with a YS50 or YS30 for fill lighting and it felt strange to find my system feeling so light and manoeuvrable in the water. The results were a pleasant surprise and the coverage was easily the equal of my usual rig. I tend to work pretty close to my main subject and strive for a balanced light exposure in most cases, so the power output was more than adequate. I took some shots at close range looking towards the sun using apertures of f16 and f11 and the guns once again produced more than enough power. The TTL worked well in wide angle when the composition was ideal (i.e. with the main subject dominating the centre of the frame) whilst for others I utilised the multiple

power settings to balance the light using those old manual exposure techniques! Using the 18-35mm zoom was equally successful (these are such a flexible lens and my 20mm hardly gets a look in these days) and TTL worked very reliably at the longer end of the range. Both flash guns were mounted on light weight 'bendy' arms.

So is there a down side to these flash guns? I have to admit that my initial scepticism for these small units was quickly dispelled and I was delighted with the experience. However, I did find that alkaline batteries soon lost their edge and the recycle time exceeded the quoted 3 seconds if the guns fired at full power. If you use the focus light for each shot as well then you will not get more than a couple of rolls from a set of alkalines. Changing to NiMH rechargeable batteries made a huge difference and recycling was easily within the 1.5 seconds quoted (lithium batteries are apparently not suitable). I also found that although the slave sensor is designed to be omni-directional you still have to make sure that it can 'see' the key light to avoid failure. Using the slave

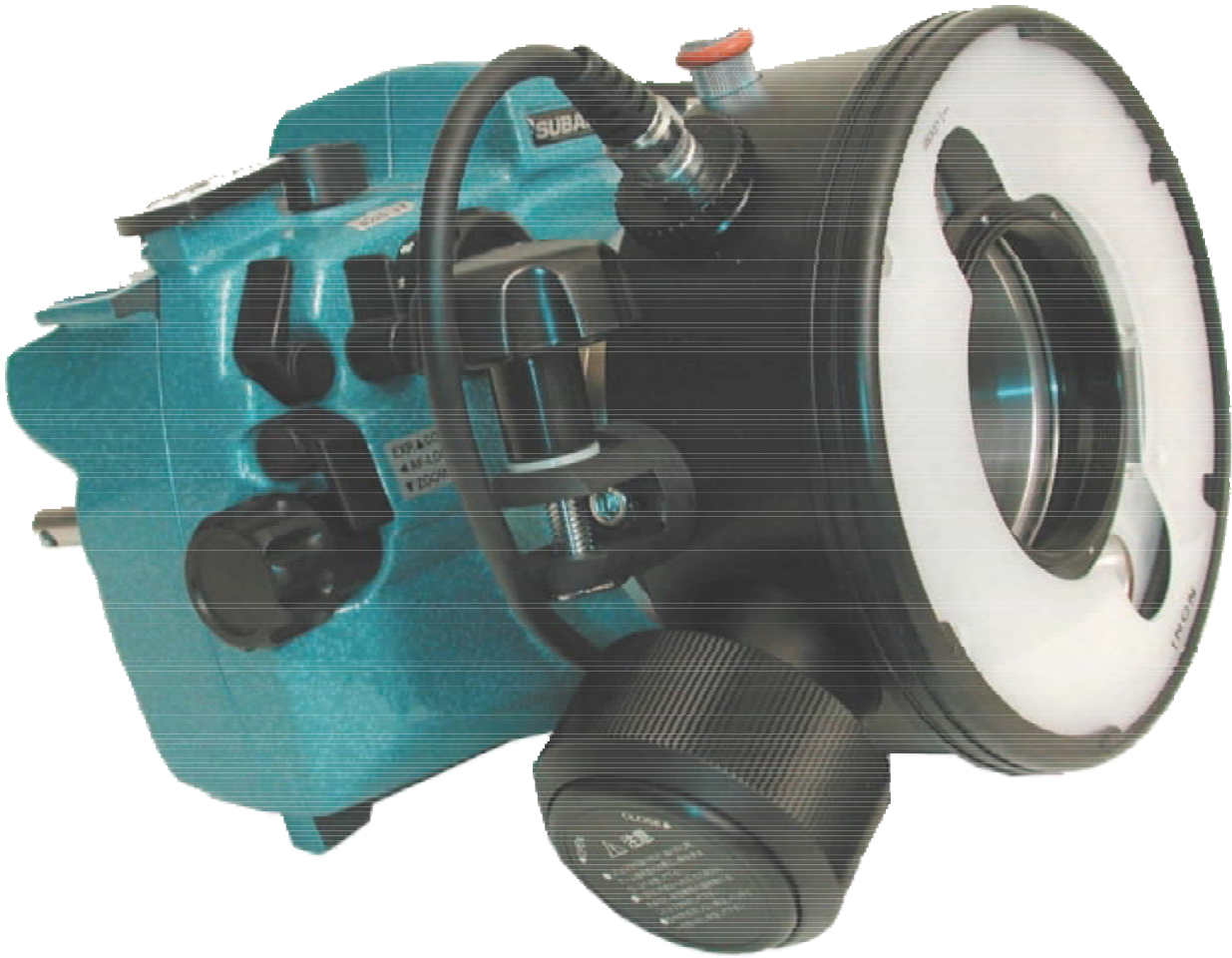
directional cap would probably improve this, but was not available to me for the test. The quoted colour temperature of these guns is 5500°K which is great for macro, but in fact I found the light to be quite warm when shooting close up with the wide angle lenses and comparing the results to my other flash guns. I found this to be really only noticeable when I was shooting within 12-30cm in wide angle, but this of course can be a benefit to some subjects and will also depend on your choice of film (mine was Velvia for close ups and Elitechrome EBX for wide angle).

So if you are entering the market or looking for a change then the Z-220 is certainly worth a long look. For me the additional attraction is that they are compatible with digital cameras as well which, although I am still promoting my usual Luddite approach to this new technology, is going to catch up with me eventually!

Mark Webster

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Ring of Bright Water



Inon's Quad Flash is one of the most innovative tools ever made available to underwater photographers. The four reflectors provide shadowless lighting with an ethereal quality all of its own. The compact size is less intrusive than conventional strobes and makes animals much more approachable.

The Quad is packed with useful features such as an automatically activated modeling light to assist autofocus and Nikon compatible TTL. To get creative there are three manual powers and a built in shade lets you block off two of the reflectors.

Available with ports to suit both Subal and Sea and Sea SLR housings. Quad from £995.00. Ports from £299.00. For a full review by award winning photographer, author and underwater photography coach Mark Webster see UwP Issue 2 at <http://www.uwpmag.co.uk>

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