



Australia day is coming up, and photographers will feel an urge to have a go at photographing the fireworks. If this description fits you, then my experience from last year may be useful, especially if you haven't done it before.

Photographing fireworks is easy. What is challenging is making a well composed image that stands out. There are lots of videos about the technical settings for photographing fireworks on the web, so treat my tips as just another bit of unsolicited advice with some added local knowledge.

The main message is to have a plan before you leave about how you want to compose the image, then choose the necessary equipment, arrive early and have everything in place for when the action starts. I have only done this once, so I can't compare it to anything else. Talk to others who are regulars and gain as much info as you can. My plan was to present the fireworks as a backdrop to the city and river, so I wanted a view across the water to the city with details in the foreground through to the background, top to bottom. I also wanted to include people in the foreground, but failed to manage that. Finally, I wanted to avoid the traffic jams at the beginning and end.

Because it was almost impossible to expose for everything I wanted in one exposure, I decided to take individual shots of the scene at different times and exposure settings, and combine them later in photoshop. This required a solid tripod and absolutely no camera or tripod movement from start to finish. For this you need solid ground, a weighted immovable tripod and secure head, a wide angle lens and a remote shutter release with the camera mirror up.

My aims:

To capture a series of images that could later be blended in photoshop to include:

- foreground interest - foreshore, reflections in the water;
- a city night skyline with well exposed building lights and a sky that is not completely black,
- multiple, well exposed short bursts of fireworks in focus over the city with reflections on the river

My Gear:

- A very sturdy weighed down tripod and full frame 36MP SLR camera that was not touched once shooting commenced.
- A 14-24 zoom lens, set at 24mm. Wide angle lenses are ideal for capturing the highest bursts and the reflections on the water, without having to alter the angle of view. I had the city placed in the middle of the frame
- An electronic remote control shutter release and mirror up mode to prevent camera shake
- A torch, spare camera batteries, spare CF card, comfortable chair, warm jacket, drinks
- Bicycle with light and helmet for getting from the car to the shooting spot and back in time to beat the traffic



My settings

It is best to use all manual settings, shoot in RAW and set noise reduction to OFF.

- Focus - manual focus on the city but try to get foreground objects in focus as well, checked using zoomed live view if you can. Check focus on the LCD before the fireworks start and don't adjust again. Do not simply set to the infinity mark on the lens as this is not accurate. The closest object in focus at f8 for a 24 mm lens focussed to infinity is about 1.4m.
- White balance set on sunlight or cloud, adjust later in photoshop as desired.
- ISO - set to the slowest iso, 64 in my case.
- Aperture - f8. The sweet spot for most lenses is f8-11.
- Shutter speed during fireworks - between 0.5 and 2 sec. I varied this depending on the type of firework. Intense white bursts required shorter times, coloured large bursts use up to 2 sec. Short exposure times were to capture individual bursts of fireworks. If you use bulb mode or longer times you can get blown out highlights where bursts overlap. Digital sensors are not ideal

for intense bursts of light as they are easily blown out. For shots before and after fireworks I used aperture priority auto mode and 5 stop bracketed for the city and surrounds. This gave me the city and river shots I used as backgrounds, free of smoke and with foreground, sky and buildings suitably exposed.

Timing and location

Time: Get there early. I arrived at about 6 at Burswood carpark and rode my bike to a spot on the water's edge just in front of a boat shed in South Perth, not far from Mends Street jetty. This position was close to 90 degrees to the fireworks and almost directly opposite Perth, so everything lined up. There were speed boats operating nearby, but they finished before the fireworks started. Be prepared to fight off other photographers and children.



Shooting:

Compose your image while there is plenty of light. Think about the crowds who will arrive later, and what activities will take place around you. I chose a water's edge position, and took multiple shots of the city (using aperture priority) as the light faded and before the fireworks started. This provided a series of background images at various levels of dusk lighting for backgrounding the fireworks. Once fireworks started I made repeated manual exposures (with a programmable shutter release) of between 0.5 and 2 seconds at f8, iso 100. This gave me over 300 images, with one or two firework bursts in each. At these manual settings, the city was largely underexposed and the sky mainly black.

At the end of the fireworks and after the smoke cleared I photographed the city again with aperture priority and using bracketing and exposing for the highlights. These provided further well exposed background images for use in blending. I was able to ride to the carpark and drive home before others made it out of the carpark.



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Post production

I processed images using Capture One software to obtain the best burst exposures and exported as tif files. I blended a series of 2 or 3 images into one with clearly defined bursts using File>scripts>statistics; stack mode maximum, auto align turned off. I then manually combined this blended image with an appropriate city view that clearly showed the buildings, skyline and reflections. This is the subject worthy of a workshop, so I won't go into details. Check You-tube.



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Alternatives

Take some shots zooming on the fireworks. This is best done using a second camera and body otherwise you cannot easily return to the wide angle shots.

Note that in my experience, fireworks shots need to be extra special to attract the attention of judges. If I did it again I would think more about the foreground and less about the skyworks. I invite others with more experience to comment

Have fun and don't let the traffic spoil your night.

Cheers

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