

How to Photograph Fireworks Displays

by [Darren Rowse](#)

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[Photo by hupaishi](#)

*Do you want to know **how to photograph fireworks**? With 4th July just days away I thought I'd refresh this article in which I give 10 **Fireworks Photography tips** to help you get started.*

Fireworks Displays are something that evoke a lot of emotion in people as they are not only beautiful and spectacular to watch but they also are often used to celebrate momentous occasions.

I've had many emails from readers asking how to photograph fireworks displays, quite a few of whom have expressed concern that they might just be too hard to really photograph. My response is always the same – 'give it a go – you might be surprised at what you end up with'.

My reason for this advice is that back when I bought my first ever SLR (a film one) one of the first things I photographed was fireworks and I was amazed by how easy it was and how spectacular the results were. I think it's even easier with a digital camera as you can get immediate feedback as to whether the shots you've taken are good or not and then make adjustments.

Of course it's not just a matter of going out finding a fireworks display – there are, as usual, things you can do to improve your results. With 4 July just around the corner I thought I'd share a few **fireworks digital photography tips**:

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1. Use a Tripod



[Photo by Piero Sierra](#)

Perhaps the most important tip is to secure your digital camera to something that will ensure it doesn't move during the taking of your shots. This is especially important in photographing fireworks simply because you'll be using longer shutter speeds which will not only capture the movement of the fireworks but any movement of the camera itself. The best way to keep your camera still is with a tripod (read our [series on tripods and how to use and buy them](#)). Alternatively – keep in mind that there are [other non Tripod options for beating camera shake](#).

2. Remote Release

One way to ensure your camera is completely still during fireworks shots is to invest in a remote release device. These will vary from camera to camera but most have some sort of accessory made for them. The other way of taking shots without touching your camera is to use the self timer. This can work but you really need to be able to anticipate shots well and its very very hit and miss (read more on [remote shutter releases](#)).

3. Framing Your Shot

One of the most difficult parts of photographing fireworks is working out where to aim your camera. The challenge you'll face in doing this is that you generally need to aim your camera before the fireworks that you'll be photographing goes off – anticipation is key. Here are a few points on getting your framing right.



Photo by Stuck in Customs

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- **Scope out the location early** – Planning is important with fireworks and getting to the location early in order to get a good, unobstructed position is important. Think about what is in the foreground and background of your shots and make sure you won't have people's heads bobbing up into your shots (also consider what impact you'll have on others around you also). Take note of where fireworks are being set up and what parts of the sky they are likely to be shot into – you might also want to try to ask some of those setting up the display for a little information on what they are planning. Also consider what focal lengths you might want to use and choose appropriate lenses at this time (rather than in the middle of the show).
- **Watch your Horizons** - One thing that you should always consider when lining up fireworks shots is whether your camera is even or straight in it's framing. This is especially important if you're going to shooting with a wide focal length and will get other background elements in your shots (ie a cityscape). Keeping horizons straight is something we covered previously on this site and is important in fireworks shots also. As you get your camera on your tripod make sure it's level right from the time you set up.
- **Vertical or Horizontal?** – There are two main ways of framing shots in all types of photography, vertically (portrait) or horizontally (landscape). Both can work in fireworks photography but I personally find a vertical perspective is better – particularly as there is a lot of vertical motion in fireworks. Horizontal shots can work if you're going for more of a landscape shot with a wider focal length of if you're wanting to capture multiple bursts of fireworks in the one shot – but I don't tend to go there that often.
- **Remember your framing** – I find that when I photograph fireworks that I spend less time looking in my viewfinder and more looking at the sky directly. As a result it's important to remember what framing you have and to watch that segment of the sky. Doing this will also help you to anticipate the right time for a shot as you'll see the light trails of unexploded rockets shooting into the sky.

4. Focal Length?



Photo by asmundur

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One of the hardest parts of photographing fireworks is having your camera trained on the right part of the sky at the right time. This is especially difficult if you're shooting with a longer focal length and are trying to take more tightly cropped shots. I generally shoot at a wider focal length than a tight one but during a show will try a few tighter shots (I usually use a zoom lens to give me this option) to see if I can get lucky with them. Of course zoomed in shots like the one to the left can be quite effective also. They enable you to really fill the frame with great color. Keep in mind however that cropping of your wider angle fireworks shots can always be done later to get a similar impact in your photography.

5. Aperture

A common question around photographing fireworks displays is what aperture to use. Many people think you need a fast lens to get them but in reality it's quite the opposite as the light that the fireworks emit is quite bright. I find that apertures in the mid to small range tend to work reasonably well and would usually shoot somewhere between f/8 to f/16.

6. Shutter Speed



Photo by *vlad*

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Probably more important to get right than aperture is shutter speed. Fireworks move and as a result the best photographs of them capture this movement meaning you need a nice long

exposure. The technique that I developed when I first photographed fireworks was to shoot in 'bulb' mode. This is a mode that allows you to keep the shutter open for as long as you hold down the shutter (preferably using a remote shutter release of some type). Using this technique you hit the shutter as the firework is about to explode and hold it down until it's finished exploding (generally a few seconds).

You can also experiment with set shutter speeds to see what impact it will have but I find that unless you're holding the shutter open for very long exposures that the bulb technique works pretty well.

Don't keep your shutter open too long. The temptation is to think that because it's dark that you can leave it open as long as you like. The problem with this is that fireworks are bright and it doesn't take too much to over expose them, especially if your shutter is open for multiple bursts in the one area of the sky. By all means experiment with multiple burst shots – but most people end up finding that the simpler one burst shots can be best.

7. ISO



Photo by Mr Magoo ICU

Shooting at a low ISO is preferable to ensure the cleanest shots possible. Stick to ISO 100 and you should be fine.

8. Switch off your Flash

Shooting with a flash will have no impact upon your shots except to trick your camera into thinking it needs a short exposure time. Keep in mind that your camera's flash will only have a reach of a few meters and in the case of fireworks even if they were this close a flash wouldn't really have anything to light except for some smoke which would distract from the real action (the flashing lights). Switch your flash off.

9. Shoot in Manual Mode

I find I get the best results when shooting in manual exposure and manual focus modes. Auto focusing in low light can be very difficult for many cameras and you'll end up missing a lot of shots. Once your focusing is set you'll find you don't really need to change it during the fireworks display – especially if you're using a small aperture which increases depth of field.

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Keep in mind that changing focal lengths will mean you need to need to adjust your focusing on most lenses.

10. Experiment and Track Results



Photo by y entonces

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Throughout the fireworks display periodically check your results. I generally will take a few shots at the start and do a quick check to see that they are OK before shooting any more. Don't check after every shot once you've got things set up OK (or you'll miss the action) but do monitor yours shots occasionally to ensure you're not taking a completely bad batch.

Also experiment with taking shots that include a wider perspective, silhouettes and people around you watching the display. Having your camera pointed at the sky can get you some wonderful shots but sometimes if you look for different perspectives you can get a few shots that are a little less cliché and just as spectacular. Most of the best shots that I've seen in the researching of this article have included some other element than the fireworks themselves – whether it be people, buildings, landmarks or wider cityscape perspectives.

More Tips from DPS Readers

- “Find Out the Direction of the Wind – You want to shoot up wind, so it goes Camera, Fireworks, Smoke. Otherwise they'll come out REALLY hazy.”
- “Also, I find that if you shoot from a little further back and with a little more lens, you can set the lens to manual focus, focus it at infinity and not have to worry about it after that.”
- “Remember to take advantage of a zero processing costs and take as many pictures as possible (more than you'd normally think necessary). That way, you'll up your chances of getting that “perfect” shot.”
- “Make sure you are ready to take pictures of the first fireworks. If there isn't much wind, you are going to end up with a lot of smoke in your shot. The first explosions are usually the sharpest one.”
- “Get some black foam core and set your camera to bulb. Start the exposure when the fireworks start with the piece of foam core in front of the lens. Every time a burst happens move the foam core out of the way. You will get multiple firework bursts in one exposure”
- “Another tip I would add to this is pre-focus if possible (need to be able to manually focus or lock down focus for good) before the show starts so other elements in the

frame are sharp They did mention that you only need to focus once but its a lot easier to take a few shots before the show starts and check them carefully rather than wait until the show has begun and you are fiddling with focus instead of watching fireworks!"

Tell us your fireworks display photography tips in comments below. Don't forget to tell us which city you're in and what the fireworks are like there!

We post tutorials like this every day – Get more via email with our free weekly newsletter.

PS: Got some fireworks photos to share with us? Head over to our forum where there are a few fireworks photography discussions taking place.

Read more from our Digital Photography Techniques Category



Darren Rowse is the editor and founder of Digital Photography School. He lives in Melbourne Australia and is also the editor of the ProBlogger Blog Tips and TwiTip Twitter Tips blogs.

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356 Responses to “How to Photograph Fireworks Displays” - Add Yours

1. ▲

Andrew Ferguson Says:
June 28th, 2007 at 9:09 am

I live in Vancouver and we've got the yearly international Festival of Lights (formerly Symphony of Fire) coming up.

I'm really looking forward to taking some photos this year 😊

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