

# How to Shoot Fireworks

- capture the nighttime celebration

Text and Photography By Robert Berdan

Capturing fireworks with your camera may seem difficult, but it's easy if you use a tripod. There are plenty of opportunities and places to photograph fireworks. Look for special events around your area such as Canada Day celebrations, festivals, fairs and exhibitions. A quick search of the internet will give you all the information you need. You can photograph fireworks with film or a digital camera. The methods are the same for both, though they're easier to capture with digital cameras.

Here are some tips to help you capture fireworks this summer.



### 1| Use a tripod

Tripods come in a variety of shapes and sizes. I prefer to use a tripod that's tall in case I have to photograph from within a crowd. You need to use a tripod because exposures will vary between one and 30 seconds. A cable release or electronic shutter control is also useful to reduce vibrations, but it's not essential.

### 2| Camera

A good camera for fireworks photography has interchangeable lenses and can be set to manual exposure control. You can use a compact camera if it has manual shutter control or a fireworks mode that holds the shutter open for four to eight seconds. Single lens reflex (SLR) cameras are the best choice and digital SLR cameras are better than film cameras because you get instant feedback.

### 3| Camera settings

Start by placing your camera in B or bulb mode. In this mode the shutter stays open as long as you hold it down. You

can manually count the exposure and on some cameras you can set the shutter speed to two, four, eight, 15 or 30 seconds.

Start by setting your camera ISO speed to 100 or 200. Low ISO speeds will provide finer grain on your pictures. If your cam-



era has a double exposure mode you can try exposing several firework explosions onto a single frame.

### 4| Lens choice and F-stop setting

I like to use a wide angle zoom (F2.8 20-35mm) and a telephoto zoom lens (F2.8 70-200mm) for firework photography. The choice of lens depends on how far away you are from the fireworks and how tightly you want to frame your pictures. Lenses with wider maximum apertures (F1.4 or F2.8) are better for viewing in low light. I recommend starting with a wide angle zoom lens (e.g. 17-85mm) and once you can predict where the fireworks will explode you can try a more powerful zoom lens. The F-stop you use depends on how bright or dark the ambient light is around the fireworks and how intense the light explosions are. A good starting point is F5.6 at four seconds or F8 at eight seconds. Longer exposures will result in longer light trails.

### 5| Anticipation

Most fireworks displays last for 10 to 20 minutes, so there is plenty of time to experiment and bracket your exposures. Try to anticipate and open the shutter just before the fireworks explode and close the shutter a few seconds after. Sometimes you can hear the scream of the rockets as they shoot up into the sky and you can use this to anticipate the explosions.

### 6| Vantage point

Fireworks tend to attract large crowds so arrive early and if possible scope out good locations beforehand. If you can include water in the foreground, the reflections will add to the beauty of your photographs. Also consider adding points of interest such as buildings, boats or other objects into your photos.

### 7| Turn your flash off

Generally you should turn off the flash on your camera. The exception is if you want to light up the foreground or people in your pictures.

### 8| Wind

If possible, position yourself so you are upwind from the fireworks to avoid smoke, which can block your view.

### 9| Bring a small flashlight

A small pocket flashlight is essential if you want to see your camera controls or change a lens in the dark — don't leave home without one in your camera bag.

### 10| Focus

Start with your camera focused at infinity and set your camera to F8 — this should provide sufficient depth of field to capture most fireworks. If you are very close to the display you may have to adjust the focus. If your camera or lens has an auto-focus feature, turn it off for best results.

#### Photo pages 38-39: Calgary Stampede.

Photographed with 20-35mm zoom lens, f8@8 sec., composite of two exposures. Nikon F5, Velvia ISO 50, tripod.

#### Photo top of page 40: Olympic Plaza

Downtown Calgary. f5.6@2 sec. exposure, Kodachrome ISO 64 film, Olympus OM-4 camera, 24mm lens, tripod set up in the crowd during the celebrations downtown.

#### Photo bottom of page 40: Canada Day

Canada Olympic Park in Calgary. Photographed with 80-200mm zoom lens at 135mm, f10@10 sec., ISO 200, Nikon D1 digital camera, tripod, composite of three exposures.

#### Photo this page: Calgary Stampede

Photographed with 20-35mm zoom lens, f8@4 sec., Nikon F5, Velvia ISO 50, tripod.





**Photo top of page 42:** Calgary, composite of several images. City taken on Velvia ISO 50 film, with 24mm wide-angle lens, tripod. Fireworks from Calgary Stampede sandwiched over the image using lighten blend mode in Photoshop.

**Photo bottom of page 42:** Composite of three separate fireworks images. Blended in Photoshop.

**Photo left: Calgary Stampede.** Photographed with 20-35mm zoom lens,  $f8@2$  sec., Nikon F5, Velvia ISO 50, tripod.

**Photo bottom: Canada Day celebration.** Canada Olympic Park in Calgary. Photographed with 80-200mm zoom lens at 125mm,  $f10@0.8$  sec., ISO 200, Nikon D1 digital camera, tripod.



## 11 | Vertical or horizontal framing

Try both to add variety to your pictures. Horizontal framing works well if you want to include foreground elements in your pictures. If you want to capture rocket trails associated with some fireworks then try some vertical frames to give the pictures a "flower and stem" type of appearance.

## 12 | Post processing of your images

You can modify and improve your photographs after you take them by using an image editing program (e.g. Adobe Photoshop Elements or Photoshop CS3). If you are using a digital camera and if you have the option to shoot with RAW file format,

this will give you more editing options and better quality images than shooting with JPEG files. RAW files permit you to fine-tune the exposure when you open the files, enlarge the files, adjust colour saturation and reduce background noise. Some cameras also offer in-camera noise reduction — you may want to turn this feature on when shooting. After opening the digital files, you can choose to crop your images or create multiple exposures with your fireworks by selecting one explosion, then copying and pasting it onto another image. This works well if the sky on both photographs is pitch black. After pasting the image, in the layers palette of Photoshop, change the blend mode to "lighten" on the top image, which will

blend into the background of the image below. Whether you prefer to capture fireworks on film or with a digital camera is up to you, but if you haven't tried photographing fireworks, this might be the summer to do it. 🎆

Robert Berdan is a professional nature photographer living in Calgary, AB. You can view his work or learn more about his workshops at [www.moodsOfnature.com](http://www.moodsOfnature.com).