

Shooting Air Shows by Joe Holler

Air shows enjoy a long season in the United States, from March to November. They are one of the most popular forms of entertainment in the country. The carnival atmosphere and junk food alone are worth the price of admission but I go specifically to take pictures. Here are a few things that I consider when shooting an Air Show:

Equipment

300mm lens will get you as close as necessary. I prefer a zoom lens over a fixed focal length lens in order to control the composition better, even though a fixed focal length lens generally produces a sharper image. I use a 70-300mm lens on a Nikon D300s body. Longer lenses are not necessary because you will have ample opportunities to be close enough to the planes, whether on the ground or in the air. On the rare occasion that I might want to get close, I bring a 1.4 X teleconverter. That is a cheaper alternative to a longer lens and easier to carry, but you will lose a stop or two in the process. A polarizing filter can make the sky pop but, once again, it will cost you a few stops. If it is a sunny day, you can probably get away with it. On a cloudy day a fast lens with an aperture of f2.8 would be beneficial but expensive.

On a bright sunny day, shadows and highlights are an issue. If your camera can shoot raw rather than jpeg, it would be a good idea because you will have more ability to handle shadows and highlight once you get the image into your computer.

A tripod with some kind of swivel head would be a good idea if it weren't for the crowds, so that probably won't work. I find monopods difficult to pan with, especially when trying to shoot a subject that is moving vertically. Hand held is the way to go.

Make sure that the sensor of your camera is clean. Shooting skies will show every speck of dust on the sensor.

Consider arriving early to enjoy all the attractions and get some shots of the planes on the ground.



Exposure

Program mode will expose for the sky and underexpose the planes. Spot metering can solve this problem but causes another; when there are more than one plane in the shot, you might get one sharp and the others out of focus. Even so, I find this to be an adequate solution. I use shutter speed priority and allow the camera to choose the aperture. On a bright day this works well. If you are shooting a single plane, you generally don't have to worry about your depth of field, so allowing the camera to choose the aperture works well. If you are shooting more than one plane and they are at different distances from you, then you might need more depth of field to properly expose for all the planes. You could go to manual mode and set both the shutter speed and aperture. I choose a different route. I set the shutter speed and adjust the ISO to get to better aperture. Sometimes this causes some noise in the sky which I take out during post processing. Maybe this is not the ideal solution. A purist would object, but it works for me.



Shutter Speed

The first time I went to an air show it was a bright sunny day. I thought this was great because I could shoot very fast and stop action and not have to worry so much about my panning ability. This worked well for jets but for prop planes it stopped action so well that the propeller appeared to not be turning. That was an unnatural effect, as seen in the previous picture. A general rule of thumb is that the minimum shutter speed should be the inverse of the focal length of your lens. If you are using a 300mm lens then you should use a shutter speed of $1/300^{\text{th}}$ of a second, or faster. This is a good idea for jets. Remember that increasing the shutter speed causes the camera to compensate by opening the aperture more which narrows the depth of field. I adjust the ISO to compensate. When shooting prop planes I choose a shutter speed at approximately $1/125^{\text{th}}$ of a second. This gives the prop some blur and looks more real.



Composition

There is a lot to consider when composing a shot. As in most cases, where the sun is should be the first thing to think about. It is best to have the sun behind you, unless you are trying to get a silhouette. It is not always possible to keep the sun behind you, especially when trying to shoot a plane going down a long runway, but be aware of where it is.

I try to fill the frame with the plane, which is why I like a zoom lens over a fixed focal length lens. As with any moving object, there should be room in front of the plane so that it does not look like it is flying out of the picture.

While taking shots during take off and landing, be aware of the background. If there are distracting elements, such as wires and buildings, then maybe a different spot would be better.



I like being at the end of the runway during take off and the beginning during landings, because they often bank the plane at those times and I can get a neat shot of the top of the plane and maybe the pilot. The same ideas apply to planes as to birds. It is much better if you can see the front of the plane. Butt shots of birds maybe easier to get but they are far less interesting. It is hard to get a shot of a plane flying straight toward you because they are not supposed to do that for safety sake. Try to get the front of the plane unless there is some reason to break that rule like getting the plane flying into the sunset.



There is a lot to think about when shooting an air show but it is a real blast. Give it a try.