by Sıtkı Atasoy
Spotter & Author of
Aviation Turkey

SHOOTING TIPS AND TECHNIQUES IN AVIATION PHOTOGRAPHY

In our previous article, we dipped into the equipment used in Aviation Photography and shared information on their specific capacities. In this article, we will review and take a focused look into the techniques that we use in aviation photography.

As we mentioned in our previous article, it is useful to touch upon one point again before moving onto the equipment selection. It is rational to make choices in the selection of equipment as per our budget. So, we think it is helpful to select or upgrade equipment by firstly appraising the enthusiasm within us, recognizing our talents as well as our future-plans for this hobby. It should be kept in mind that the photo is taken by the person. As our number of shots increases and we evaluate our results, we will be able to see our needs more easily and make more sensible choices.

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Shooting Fixed Air Vehicles:

For static aircraft shooting, we usually prefer a wide-angle lens as we want to photograph the entire aircraft. Using a wide-angle lens also offers us the opportunity for close-up shots as well. The use of a wide-angle lens can make the air vehicle more imposing, but you can also lose details. The direction of light as it appears relative to the camera position is of fundamental importance in all areas of photography. To capture a stunning photo, we need to be sure to place the sun at our back, behind us. Unlike in other areas of photography, when adjusting the angle of the sun, the light reflections coming off a wide metal surface like the cockpit and the body of the aircraft can cause light flare. Keeping this angle aspect in mind, another point to mention here is that it would be useful to try to hide objects such as buildings, equipment, a pole and etc. behind the body of the aircraft. A different angle can be selected in order to hide certain objects that we do not want to have in our composition. Generally, it is necessary to use aperture priority mode during daytime and shutter priority mode during nighttime. We use the aperture priority mode to get a depth of field and to achieve more sharpness. We can change the aperture according to the focal point in our composition. In addition, if we want to focus detail on part of the aircraft, like the engine, wing, tail, landing gear, cockpit, etc., a telephoto lens is preferred instead of a wide-angle lens. If we want to take a detailed photo of the entire aircraft, it will be appropriate to choose a telephoto lens if our distance is suitable.

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Shooting Moving Air Vehicles from the Ground

In order to shoot moving aircraft during landing and take-off, we need to use telephoto lenses since we are far from the object for safety reasons. If the objects in the background of the aircraft that we are shooting need to be detailed according to our composition, it is recommended to select aperture priority shooting. Our lenses must have a vibration reduction feature and must be turned on. However, it is necessary to shoot with the PAN technique, which is also used in other areas of photography, in cases where the background creates image pollution and we want to place a greater emphasis on the object of the photo, not the background. In PAN shooting, it is necessary to use a shutter priority mode. An important area of attention at this point is that our focus must be set at long distance and thus we can avoid vibration. Even the slightest camera shake prevents us from capturing clear images at a long distance. Holding our breath while shooting is also among the measures we can take. By determining the speed of the object in PAN shots, keeping the aircraft in the focus of our lens while shooting, and by moving our camera stably in the direction of the vector movement of the aircraft are the key factors that help us create clear images. This synchronization can only be possible with a high number of shots and experience. At this point, hand-eye coordination is incredibly important. Where necessary, using a tripod allows us to eliminate this disadvantage. In addition, using the "continuous focus" feature, which can be found in different names on most cameras, ensures the clarity of the image. Again, in these kinds of shots, the evening golden hour is very important, and due to the exhaust gas of the aircraft, our distance to the object of focus, the heat of the runway, the heat haze caused by the water vapor in the air, the resulting images may suffer from blurring, especially during the summer months.

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Shooting Propeller Airplanes from the Ground

Static shots of propeller airplanes can also be taken in accordance with the methods applicable for static aircraft. The main issue here is being able to capture images of a propeller airplane while it is running, in motion and flying. In these shots, shutter priority mode should be used, because dynamism is achieved by reflecting the rotation of the propellers and rotary wings in your shots. For this, you need to shoot in slower shutter speeds and as with the PAN technique, you need to shoot by moving your camera stably in the direction of the vector movement of the aircraft, by holding your breath. Where necessary, using a tripod allows you to eliminate the disadvantage of camera shaking. In daytime shooting of propeller aircraft with slower shutter speeds, various filters are recommended, especially in times other than golden hours, since the sun is higher, and the sunlight is sharp.

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Air-to-Air Shooting of Air Vehicles

Choosing the right lens (such as 24-70mm, 24-105mm, or 70-200mm) based on the minimum safe distance between the two aircraft in line with flight rules and using a single lens during shooting will provide you with mobility and convenience. Your aircraft preferences will determine your limits during shooting. Aperture priority mode helps us capture better images while shooting a jet powered aircraft if the background is the ground, or if we want a regional icon in the background to be sharp and clear. For propeller aircraft , using shutter priority mode helps to capture stunning images. As you move with the aircraft that you are shooting, your chances of capturing clear shots, in shutter priority mode without a tripod, will be much higher than by shooting from the ground.

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Nighttime Shooting of Air Vehicles from the Ground

In night shots, the performance of your tripods and equipment comes to the fore and will support you. Use of a sturdy tripod enables you to achieve clear night shots.

For nighttime shooting of a fixed aircraft in the parked position, slow shutter speed and long exposure should be used due to the lack of light, the diaphragm (aperture) should be kept at the minimum setting (the smallest opening) when taking pictures for sharpness and clarity, ISO setting should be at the lowest values, manual focus is recommended instead of autofocus, if possible, and the photograph should be captured by activating the shot timer.

The night shooting of moving aircraft should be done with a fast shutter speed, at maximum aperture setting, high ISO values, "Continuous autofocus" feature, and by turning off the vibration reduction feature of your lens. Using the same settings, we must shoot by moving our camera stably in the direction of the movement of the aircraft while maintaining focus on the aircraft.

As the number of your night shots increase, better results can be achieved by selecting the most suitable values and determining adjustments for parameters such as shutter speed, aperture and ISO.

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Ground-to-Air Shooting of Air Vehicles

In ground-to-air shooting of an aircraft, there is usually sky in the background. Due to our distance from the object, telephoto lenses should be used. Prime lenses can also be used since they have higher focusing speeds. In these shots, it is necessary to use shutter priority mode, considering the light. When we shoot in shutter priority mode, we can have the opportunity to shoot the aircraft as if it is stationary and as if we have stopped time. Depending on the light level and the speed of the aircraft, we need to adjust our shutter speed to a high or medium level. After a few shots, we can attain the appropriate adjustment.

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Timing

Under this topic, I will try to explain the "light" parameter, while applying the tips and techniques I have described above. Since we do not shoot in the studio, our most important light source is the sun. For this reason, we can only adjust the direction, the angle and the amount of light according to the position of the sun, i.e. timing. This timing allows us to capture clearer, sharper, more vivid images. Shooting especially at sunrise and sunset, which we call the golden hour, can produce better results. If we want to achieve an opposite angle capture, it will be more convenient at this point to make use of the golden hour. If we want to achieve cold colors as per our composition, the appropriate timing can be just before sunrise and just after sunset, which we call the blue hour. Some aviation photographers may prefer various filters to soften right-angle midday light.

In this article, I touched upon shooting tips and techniques. However, the techniques and parameters given above indicate my personal experience, preferences and recommendations. We can see that every aviation photographer captures amazing images with the harmonization of their creativity, know-how and experience. With a careful review of our photos we can see the results of the techniques used, and we see our own performance and make the necessary changes. As our number of shots and experience increase, we can achieve optimum adaptation by manually selecting our parameters according to time and conditions.

In our next issue, I will explain the necessary preparations required before, during and after "Spotting Day", including the safety precautions and what should be considered when applying shooting techniques during this type of activity/event

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