NOSE MOUNT RIGGING AND SHOOTING TIPS

"GET THE MOST FROM YOUR NOSE MOUNT"

We at Tyler want to thank you for choosing the Tyler Nose Mount for your filming project. In an effort to help you have a successful shooting day, we have enclosed these helpful set-up hints.

IN GENERAL

The Tyler Nose Mount is a non-gyro, non-suspension Camera System.
If the Camera Mount and Camera Package are not secured properly ***or*** you use a zoom and push in too far, it is possible to see jitter in your picture.
The Nose Mount was designed for use with prime lenses, a rule of thumb is up to 30mm air to ground and up to 50mm air to air**.** Staying wide helps to hide unwanted helicopter movement.

RIGGING REMINDERS

- Rig early, leave yourself time for a check ride, and the time to fix any problems you might encounter.
- The Nose Mount relies on a solid mounting structure; your camera package must be made secure, with no loose or flapping cables.
- Do not remove the silver top cover of the Nose Mount to allow helicopter antennas to fit down inside the Nose Mount. The radio transmission may cause the Nose Mount not to function.
- Do not place the removed antenna inside the helicopter, the antenna RF may cause problems with the lap controller.
- Re-rig the antenna to the skid gear as far from the Nose Mount as possible.
- High skid gear is preferred over low skid gear, especially in rough terrain landing areas where ground clearance might be a problem.
- Some helicopters are rigged with a "wire strike kit", if your helicopter has that feature the bottom strike rod has to be removed in order to install the Nose Mount. Your installer may find that the wire strike kit has altered the stock hole pattern on the helicopter and you may not be able to install all of the Nose Mount attach frame screws, usually 4 will not fit.

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- **Do not use the 4-pin video tap power source on the Nose Mount arm to power video cameras**. It is for **film video tap power only**. You may use the Arri III film cable, it will interface to your video camera. Tape off the 90-degree lemo connector that is not needed.
- When you are routing Cables inside the helicopter make sure that the helicopter foot pedal control area is clear (**Have the pilot check the completed mount installation**). Make sure the cables to the operators control console are secure, so your operator has a clean exit from the helicopter.

CAMERA RIGGING

Film Camera Packages

- Keep your camera package as small as possible, no matt boxes, use clamp on or screw on rings for filters, you don't want the end of the lens having a large profile through the air, it can induce vibration into the lens.
- Do not use a crystal base controller, the Tyler Nose Mount is equipped with a crystal speed control, if you try to rig both, the camera controls on the console will not function properly.
- You may use your Remote Control Unit controller if you need to control features on your camera that the mount will not control. Disconnect the Tyler cables except for tilt. Cable length for your RCU should be aprox. 10 feet.
- Use a video door without an eyepiece if possible, no reason to drag a big door through the wind.
- If you must use a zoom try to find one that is short range and light. If you use a larger zoom it may cause interference in tilting.
- If using a longer zoom, be sure not to push in so far as to see helicopter vibration, look carefully at the monitor with the camera off.
- On final cabling make sure your wire loom is secure and still long enough to allow the Nose Mount a full range of movement.
- Film magazines will shake in flight and may induce vibration into your shot, make sure the magazine lock down bar is secure to the top of your film magazine.

Video Camera Packages

- Same rule of thumb as in film applies on your video package, keep it small and simple as possible.
- Video cameras will usually be rigged with a zoom lens. It is very important to use the Tyler VIDEO LENS SUPPORT KIT. This support will hold the end of your lens and top of your camera **helping** to dampen any movement of the lens itself in relation to the body of the camera. This lens support system is particularly needed on HD video cameras.
- Operators of video cameras rigged with a zoom lens must be very aware of the lens zoom capabilities when pushing in on the shot. It is very easy to push so far, that the helicopter movement is picked up. This movement will look like jitter in your monitor.
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- For video cameras that will be recording in the camera instead of an internal recording deck, **Tyler Camera strongly suggests that you take a quick check flight around the airport and record some footage and return back to the airport.** Rewind and view your footage in a large playback monitor or at least by looking through the cameras eyepiece. The Tyler Nose Mount monitor is there for framing and should not be relied on for final decisions on video quality.
- Operators that need more control over their camera may rig the video camera paint box and control camera function from it. You will be using only the mount tilt feature and video monitor if configured that way.
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SPECIAL NOTE:

- ***HD cameras need to have a down converter with them. The Tyler Nose Mount uses a NTSC signal, if your HD camera does not have a down converter you will need to bring a HD monitor for the shoot.***

- Video cameras can suffer from many aliments, heat, humidity, or cold etc. Be aware when planning your shot. Example, if you are flying at the beach in the late afternoon with fog rolling in, moisture may shut your camera down.

When viewing your footage

- If you did not see jitter as you flew but is visible when viewing on the ground, your jitter is either internal in the camera or the recording head itself.
- If you are seeing jitter as you fly, then the problem is usually the lens/camera interface.

Curing your Video problem

- For recording head problems, you can rig an external recording deck into the back seat of the helicopter, (NOT THE FLOOR). You need to keep the external deck on a soft surface to isolate it from the helicopters vibration. This will usually cure the problem.
- Lens jitter can be usually solved by a lens change, make sure you re-attach the Tyler lens support.
- If you are getting pixel dropouts, especially with the newer HI-DEF cameras, you will probably have to change your camera.

AFTER ANY CHANGES TO CURE A CAMERA PROBLEM, RE-DO YOUR CHECK RIDE AND MAKE SURE YOU ARE GOOD TO GO.

SHOOTING HINTS

- Communication with your pilot is essential, he will be your “dolly grip” during your shooting.
- Talk over the shot with the pilot before taking off.
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- The pilot's control of the rudder pedal during the shot has to be coordinated with you the operator. If the pilot makes an unexpected move on the pedals he may move the nose of the ship at a critical point taking you off your subject.
- Watch the sun location Vs the helicopters position to eliminate the possibility of filming the helicopter ground shadow.
- Watch your altitude vs. sun position, if you are to low you may film the helicopter blade reflection off the ground, it may look like "flicker" in your shot.

- When using a wide-angle lens be careful not to tilt up to where the rotor blades are in the shot.
- Remember the wider the lens the closer to the ground the helicopter must fly to show detail, relative motion or speed.

AFTER LANDING

- After landing immediately check iris setting, focus setting, film footage and lens front surface. Note: During flight if not actually viewing through the camera, tilt the camera down and towards the rear to help keep dust or bugs off the lens face.
- Check that the camera/lens and mount assembly are still rigid, tight and secure.
- As soon as possible replay you're video image recording to verify you have what you want.