



SHAPE SAFETY BULLETIN #36

(Safety & Health In Arts Production & Entertainment)

GUIDELINES FOR MINIATURE REMOTE-CONTROLLED CAMERA HELICOPTERS

A remote-controlled camera helicopter combines the use of aeronautics, electronics and wireless transmission technologies through the use of a remote controlled unit. As with a normal helicopter, the flying accuracy may be adversely affected by changing natural conditions such as wind, air density, temperature, gross weight, humidity, and time of day. Man-made conditions such as a weight load, wind (fans), explosives disturbing airflow around the tail rotor, and center of gravity can also affect the helicopter's ability to fly.

The use of a non-piloted aircraft other than models for recreational purposes requires an authorization by Transport Canada General Aviation. A model for recreational purposes is defined as weighing less than 35 kg (77.2 lbs), mechanically launched for recreational purposes, and not designed to carry persons or living creatures. (Aeronautics Act, section 101)

1. The Production Company shall notify Transport Canada that a remote-controlled helicopter is being used in the production and any special provisions or precautions required shall be followed. NOTE: Transport Canada can often grant authorizations on the same or the next day. However, it is generally recommended that Transport Canada be given 60 days notice, if possible.
2. The Pilot/Remote Control Operator in Command shall notify Transport Canada if the helicopter intends to fly near or within restricted and/or controlled air space.
3. The Pilot/Remote Control Operator in Command shall check the location to determine if there are any potential radio frequencies or electrical transmission that could interfere with or affect the safe operation of the helicopter.
4. The cast and crew shall be notified that any electrical or transmission equipment may also interfere with the safe operation of the helicopter. Crewmembers with electrical or transmission equipment should contact the Pilot/Remote Control Operator in Command to see if it may affect the operation of the helicopter's control devices.
5. If the remote controlled helicopter is to be used indoors, extreme caution shall be taken. Indoor conditions (*e.g.*, increased heat resulting in reduced air density) could adversely affect flying characteristics. Additionally, interior sets, walls, ceiling beams, lighting equipment, HVAC equipment etc., will be a hazard.
6. The Pilot/Remote Control Operator in Command is at all times the final authority over the helicopter and shall be in command over all flight operations and/or related activities.
7. The Pilot/Remote Control Operator in Command shall have the final authority to abort any flight operation in the interest of safety. Abort signals shall be specified ahead of

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time.

8. At the start of each day's filming the Pilot/Remote Control Operator in Command and the designated production representative will conduct a briefing and/or SAFETY MEETING for the production staff, and those persons necessary for filming, including emergency, safety and security personnel.

NOTE: Subsequent briefings and/or SAFETY MEETINGS may be required as necessary for other intended sequences, changes and/or additional scenes.

Both meetings shall include the following:

- a. Possible risk to personnel involved.
 - b. Safeguards to personnel and equipment.
 - c. Communications and Emergency procedures, including landing zones.
 - d. Location of boundaries and intended flight paths.
 - e. The use of explosives or squibs and interaction of stunt personnel. The meeting shall include a discussion regarding electronic devices and/or other equipment the crew may have that could interfere with the control of the remote controlled helicopter.
 - f. Discuss all obstacles and/or equipment types and locations that may present a hazard.
9. In regard to communications, the Pilot/Remote Control Operator in Command will coordinate with the designated production representative and implement a plan for communications between the participants.
 10. A preplanned stunt and/or special effect sequence will not be changed in any way without the authorization of the Pilot/Remote Control Operator. Once the helicopter is airborne, no changes will be made.
 11. If there is a question as to safety of any aerial filming sequence involving low camera shots near cast or crew members an additional briefing and/or Safety Meeting shall be held between the Pilot/Remote Control Operator in Command and concerned persons.
 12. The Pilot/Remote Control Operator in Command shall be notified by the appropriate department head, if any equipment is added and/or altered that may present a potential hazard for the aircraft.
 13. Unless directed by the Pilot/Remote Control Operator in Command, no person shall approach the helicopter without permission, whether running or not.
 14. During operation, never walk near the main or tail sections of the rotor blades. All equipment (*e.g.*, cameras, lights, sound booms etc.) shall be placed a safe distance away from the operating helicopter, whether running or not.
 15. The landing area should be cleared of debris. Never, under any circumstance, throw anything such as grip tape, clothing, paper, etc. around the helicopter, whether

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running or not. Loose clothing, trash, or anything that may hinder the operation of the helicopter, shall be checked.

16. Protect your eyes, as well as your equipment, especially when the helicopter is landing or taking off.
17. Appropriate Personal Protective Equipment (PPE) shall be utilized.
18. The Production Company must notify all cast and crew members this equipment is being used. Additionally, the front of the call sheet should contain a statement to the effect that:

"A remote-controlled helicopter is being used to carry a camera and will be flown in close proximity to crew and equipment. Anyone objecting will notify the production manager or 1st AD prior to any filming."

A COPY OF THIS BULLETIN MUST BE ATTACHED TO THE CALL SHEET ON DAYS THAT THE REMOTE CONTROLLED HELICOPTER IS BEING UTILIZED

