

Remote Control Model Hot Air Balloon Operations Manual Rules & Regulations



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Section 1

Remote Controlled (R/C) Model Balloon Operations Manual

I. RESPONSIBILITIES AND PROCEDURES

A. Balloon Registration and Airworthiness Determination

B. Must meet standards within the FAA Code of Federal Regulations Title 14, part 101 (CFR 14 101.1)

A. CFR 14 101.1 Applicability

- 1) This part prescribes rules governing the operation in the United States, of the any balloon that is moored to the surface of the earth or an object thereon and that has a diameter of more than 6 feet or a capacity of more than 115 cubic feet
- 2) The Aerostat (Remote Controlled Hot Air Balloon) must meet minimum airworthiness requirements and are not to be greater in size than to have a lifting capacity of 9,000 cubic ft.
- 3) Prior to registration, pilots must assure event staff that all required standards are met. Event Organizer reserves the right to inspect complete system at any time deemed necessary. FAA personnel may also perform spot or ramp inspections.

C. Required Equipment

1) Fire extinguishers

- a) Each Balloon system must have a minimum of 1 (one) Class B fire extinguisher within 5 (five) feet of the launch point. One crew member must be assigned the fire extinguisher.
- b) Each Safety Officer will carry with them a minimum of a 1lb Fire extinguisher while on the field during event.

2) Tether line

- a) Each balloon must have a tether line, attached to the basket, whether flying or standing only with no flight, (static).
- b) Tether line must have bright orange flags attached every 25 feet .
- c) Tether line must have 550lb minimum strength, e.g. para cord 550

3) Tank securement device.

Each basket must have system to secure fuel tanks in basket. Most common is a strap.

D. Damage to balloon

If a balloon is damaged during the Balloon Fiesta, it may be flown after damaged components are replaced or repaired in compliance with safe flying practices.

- 1) The pilot of a balloon that is damaged while in flight, to the extent of affecting its airworthiness, must land at the first practicable opportunity. The damage must be reported to the Chief Safety Officer or his staff the same day of the incident.
- 2) Once the repair is completed, the repair shall be presented to a Safety Official for review.

E. Event Documentation

Event shall maintain a roster containing the name, address, and proof of liability insurance coverage for their activities for each registered pilot and the manufacturer, model and date of each aircraft participating in the Event.

F. Pilots' Responsibilities

- 1) Each participating Pilot must hold an active membership to the AMA and must be supported with original documents upon request.
- 2) All pilots are required to sign a statement indicating that they have read and understand the provisions of Section II, Rules and Regulations of the Operations and Safety Manual prior to any flight.
- 3) No one other than the registered primary or secondary pilot, is allowed to operate any balloon registered.

G. Remote Control Crew Member Responsibility

- 1) Regardless of size, each balloon must have no less than 2 (two) crew members in addition to the pilot for all operations on the field.
- 2) One crew member must be assigned to inflation fan and must remain in control of fan at all times while the fan is in operation.
- 3) One crew member must be assigned to control Fire extinguisher at all times while on the field.
- 4) For B) and C) above, both responsibilities may be assigned to one crew member, and is at the discretion of the Pilot-In-Command (PIC).
- 5) One crew member must control tether line attached to basket at all times during flight. This crew member also takes on the role as visual spotter for duration of flight.
- 6) F. Crew members are under the direct supervision of the Pilot-In-Command (PIC), and must follow all instructions given by the PIC. Parking and admission pass to the park are to be received from the PIC.

H. Pilot/Crew Briefing Responsibilities

- 1) Pilots must review and confirm complete understanding of the operations manual and attend applicable pilot briefings held on the launch field prior to acting as Pilot-In-Command (PIC).
- 2) R/C Crewmembers during the event must have been briefed by the pilot of the balloon. The total number of Crewmembers is limited to four (4) **R/C Crewmembers**, including the pilot unless the Pilot receives prior written authorization from event promotions staff. Penalty for infringement of this rule is revocation of flying privileges/propane.
- 3) Before each flight all pilots are required to attend the flight briefing, and relay all important information on to crew members.

II. GROUND OPERATIONS

A. Pre-Flight Inspections and check

- 1) All pilots must perform a preflight check to include at least these provisions:
 - a) Hook up tanks
 - b) Turn on valves at tank
 - c) Sniff check for any leaks
 - d) Turn on pilot valve
 - e) Light pilot flame
 - f) Turn on radio system
 - g) Test burn
 - h) Turn off main burner tanks
 - i) Bleed main burner line
 - j) Turn off pilot burner
 - k) Shut off radio system
- 2) Must perform a walk around inspection of balloon envelope including a check of the balloon material for obvious tears or other visible damage.
- 3) Must check cables and attachment points

B. Spectator (Guest) Areas

Event guests will have unrestricted access to the launch field during inflation and launch procedures except as limited below.

Each Pilot-In-Command (PIC) shall be responsible for crowd control in the immediate vicinity of his/her balloon during the inflation and launch. The PIC and crew are responsible for the protection of their property. The PIC shall also take measures to protect guests from any dangers associated with balloon operations. Safety Directors and other EVENT Officials will aid in crowd control if an emergency should occur.

III. FLIGHT OPERATIONS

A. Area of Operations.

Balloon Fiesta Park: The primary location for the unmanned R/C balloon events during the Balloon Fiesta is Balloon Fiesta Park.

B. RC Ascensions

- 1) Fiesta de los Globitos will consist of ascensions taking into consideration the conditions at hand and forecasted weather to develop during the anticipated flight times.
- 2) **R/C Model Mass Ascensions:** Events where officially registered model balloons launch from Balloon Fiesta Park-North may be in conjunction with Full Size Ascensions after Ride Balloons depart.

C. Altitudes

This rule provides that registered balloons will be permitted to fly at altitudes as follows:

1. Under no circumstances will R/C balloons be allowed to fly at an altitude no more than 50 ft. above ground level during any event.
2. During full size Balloon mass ascension, (7am to 8:30am) no R/C balloon may fly at an altitude above 25 ft above ground.

D. Weather Requirements

- A) Flight operations will be conducted during the period from thirty minutes prior to published Sunrise to Sunset, with Visual Flight Rules (VFR) and weather conditions.
- B) The decision for flight is the sole responsibility of the pilot in Command.
- C) Parameters for wind
 1. Winds below 4 knots – flight open
 2. Winds 4 knots to 7 knots – flight at pilots' discretion
 3. Winds above 7 knots – flights prohibited

E. Launch operations

- A) R/C balloons shall operate under Visual Flight Rules with the following weather conditions:
 1. Surface winds at Balloon Fiesta Park not in excess of 7 knots
 2. No other known conditions contrary to the safety of flight operations at the time of launch.
 3. The Balloonmeister, after consultation with the Director of Operations and appropriate Officials, shall cancel mass ascensions and events already underway if weather conditions are outside the limits outlined above.

F. Communications Requirements

- A) In accordance with-Balloon Fiesta rules daily Pilot briefings are mandatory and will be conducted at designated spot beginning each morning at 0630 hours.
- B) A Public Address (PA) system installed at Balloon Fiesta Park-North, KKOB Radio 770, a text messaging service, and EVENT Officials will be used to inform pilots of the status of their flight and updated weather information. Each pilot and crew will also be supplied with appropriate emergency phone numbers.

Section 2

Rules & Regulations

I) PARTICIPATION REQUIREMENTS

A. Pilots

- 1) **Entry:** Pilots must be officially registered with the event, participating in “Fiesta de Los Globitos” which is scheduled to take place on Sunday, October 3, Wednesday, October 6 and Friday, October 8.
- 2) **PIC Responsibilities:** The Pilot-In-Command (PIC) is responsible for compliance with all of event rules. The PIC will brief all designated Crewmembers prior to their flight and ensure that they understand their duties. No flight or event is mandatory and all flights are made at the discretion of the PIC.
- 3) **Acknowledgement:** Pilots must know, understand and abide by all of event rules and regulations, including any rules that are added or modified during the event and announced during any official pilot briefing. All pilots agree to have AMA membership and AMA liability insurance as required by AIBF in effect throughout the event.
- 4) **Release of Liability:** The Pilot, by entering the event, agrees that the Organizer and sponsors of this event, competition officials, officers, trustees, agents and/or members of these entities are providing the Participant with the facilities and means for participation in this event and in no way do they supersede the responsibility of the pilot in command or otherwise.
- 5) The Participant releases the Organizer and sponsors of this event, competition officials, officers, trustees, agents and/or members of these entities from liability for their actions or inactions in relation to the event which may arise out of or result from or in any manner be connected with the balloon flight or activity in which the Participant participates as a pilot in command.
- 6) **Liability to Third Parties:** By entering the event, a Participant assumes all liability for injury, loss or damage to third parties or their property caused by himself or his crew.
- 7) **Safety:** All meteorological reports, forecasts, and other safety or navigational information are provided in good faith for the guidance of Participants. AIBF assumes no responsibility for the completeness or accuracy of such information. It is the pilot’s decision whether to rely on that information or acquire additional information.
- 8) **Safety Directors:** Officials will be appointed to monitor the inflation and launching of balloons at event location. However, nothing shall diminish the responsibility of each pilot under this section.

- 9) **Recall:** Flight cancellation and other critical safety information will be communicated through on field Safety Officials or texts through the Event Texting system.
- 10) **Responsibility:** Each Pilot has full and complete authority over the balloon and is responsible for all decisions to be made associated with the balloon on the ground and in the air. Each Pilot must ensure that his crew, his equipment, and his own level of skill and experience are suitable for the conditions in his own judgment. The Pilot is responsible for all the actions of his crew during the event.
- 11) **Conduct:** Pilots and their crews are required to behave in a sportsmanlike manner and to comply with the directions of the Event Officials. Profanity or unsportsmanlike conduct directed at any Official or event Navigator (volunteer) will be grounds for expulsion of the pilot from this event and/or future events. Crewmembers are required to adhere to safe driving practices and abide to all local & state regulations as well as specific instructions from event Officials. Penalty for non-compliance will be loss of flying privileges/propane.

B. Balloons

- 1) Must be registered with Balloon Fiesta for Fiesta de Los Globitos.
- 2) Pilots must fly the balloon in which they registered and be on the field for any flight which they are scheduled
- 3) **Airworthiness:** The Organizer and/or Officials are authorized to visually inspect and/or reject any aerostat which in their opinion is not of a reasonable standard of airworthiness.
- 4) **Damage to Balloon:** The pilot of a balloon that is damaged while in flight, to the extent of affecting its airworthiness who continues to participate in a flight, may receive a penalty of up to revocation of flying privileges/propane. Failure to report an accident or incident to the Safety Director on the same day of the accident/incident may result in a penalty up to revocation of flying privileges/propane.
- 5) **Serious Infringements, Unsporting Behavior-**
 - a) Serious infringements include dangerous or hazardous actions or repetitions of lesser infringements will be penalized according to the rules.
 - b) **Cheating or unsporting behavior**, including deliberate attempts to deceive or mislead officials, willful interference with other Participants, falsification of documents, use of forbidden equipment or prohibited drugs or repeated serious infringements of rules shall result in disqualification from the event, or possible expulsion from event.
- 6) **Altitude Violations:** Violations of maximum flight altitudes will result in a penalty up to revocation of flying privileges/propane.
 - a) Under no circumstances will R/C balloons be allowed to fly at an altitude above 50 ft above ground level.

- b) During full size Balloon mass ascension, (7am to 8:30am) no R/C balloon may fly at an altitude above 25 ft above ground level.

II. FLIGHT OPERATIONS

A. Flight Briefings: Attendance at the applicable daily pilot briefings for the events in which you are participating are mandatory and will be conducted beginning each morning at 06:45 hours at designated area.

B. Pilot in Command (PIC):

The PIC will brief all Flight Crewmembers as to their duties.

C. The total number of RC Balloon Crewmembers is four (4) unless approved in advance by organizer.

D. The PIC shall not allow any items to be dropped from the balloon. Penalty is up to loss of flying privileges/propane.

E. Inflation Fans

- 1) All inflator fans must have appropriate safety cages. Pilots must ensure safe operation of the fan and prevent non-crewmembers' access to it.
- 2) Under no reason should inflation fan fuel be filled or refilled on field.
- 3) At all times 1 (one) crewmember should monitor the inflator fan operation during inflations at all events.

F. Launch

- 1) Your launch site at Balloon Fiesta Park has been assigned and is indicated on your pilot badge. When launching from the Park, you must launch from your site, unless you receive specific permission from the Balloonmeister to do otherwise. However, your Safety Official may grant authorization for you to move to an adjacent launch site to inflate and/or launch.
- 2) A pilot losing control of his balloon shall deflate immediately or take other appropriate action.
- 3) There is more than one balloon assigned to each launch site. Please be cooperative.
- 4) Only the vehicle transporting the balloon designated with adhesive number affixed to windshield of the chase vehicle, supplied with the basket banner is allowed on the Launch Field during inflations. Penalty for infringement may be up to loss of flying privileges/propane.

G. During Flight Tank Change

- 1) No propane cylinders shall be replaced while balloon is inflated, without appropriate precautions taken.

- 2) Pilot must land and remain at ground level during complete process.
 - a) Turn off main burner tanks
 - b) Operate burner to bleed down the line
 - c) Turn off pilot light tank
 - d) Replace main burner tanks
 - e) Turn on main burner tanks
 - f) Perform Sniff test, smell for propane leaks
 - g) Turn on pilot light tank
 - h) Turn on pilot light valve
 - i) Light pilot
 - j) Test main burners
 - k) Commence flight if appropriate

H. **Tether line** Tether lines are to be marked with BRIGHT ORANGE FLAGS every 25-ft. This to ensure height/altitude restrictions. Penalty may be up to loss of flying privileges/propane.

I. **Balloon Collision**

- 1) When two balloons are converging in flight, both Participants are responsible to avoid collision. The overtaking balloon shall give way and take appropriate action.
- 2) Pilots causing a collision will be penalized. A repeated offense will be penalized by disqualification from the event and/or up to expulsion from the event.
- 3) Envelope to envelope contact in approximate level flight will generally not be penalized.

J. **Behavior** Participants are required to fly with proper consideration for persons on the ground and to follow good etiquette and the code of conduct. Inconsiderate behavior by crewmembers may be penalized up to expulsion from the event.

III. FIELD OPERATIONS

A. **Crowd Control**

Each Pilot-In-Command (PIC) shall be responsible for crowd control in the immediate vicinity of his/her balloon during the inflation and launch. The PIC and crew are responsible for the protection of their property. The PIC shall also take measures to protect guests from any dangers associated with balloon operations. Safety Directors and other event Officials will aid in crowd control if an emergency should occur.

B. **No Drive Zone:**

No driving or parking is allowed on Main Street (Concession Concourse). Repeated violation of this will result in loss of flying privileges/propane.

C. **Propane Venting:**

NEVER vent raw propane on Balloon Fiesta Park! Penalty for infringement may be up to one day's flying privileges/propane.

D. **Fueling on the field:**

- 1) Penalty for Violation will be automatic withdrawal from the event.

- 2) No re-fueling of Propane cylinders/tanks on the field.

E. Propane cylinder filling

- 1) After each scheduled event is completed, pilot must drop off empty tanks with designated Propane Official.
- 2) Empty tanks must have event registration number written legibly with permanent marker
- 3) Full tanks will be returned in morning prior to pilot briefing at designated spot.

F. Unauthorized and/or Unattended Vehicles

Unauthorized vehicles on the Balloon Fiesta Launch Field create unnecessary congestion and will be towed at owner's expense. During balloon launches from Balloon Fiesta Park, unattended vehicles, whether or not authorized to be on the launch sites, may be towed at owner's expense if the vehicle is deemed by Balloon Fiesta officials to pose a hazard to balloons, guests or field operations. This includes balloon trailers and recreational vehicles. Violation of this rule may result in the loss of flying privileges/propane.

G. Flight Restrictions

- 1) No flights are allowed within event's airspace (TFR) unless you and your balloon are registered in Fiesta de Los Globitos.
- 2) **VIOLATION OF THIS RULE MAY RESULT IN YOUR INTERROGATION BY VARIOUS AGENCIES OF HOMELAND SECURITY.**

H. Propane/Fueling Operations

1. The Director of Operations or Chief Safety Official are the only person(s) who may approve an exception to these propane rules.
2. Each propane cylinder must have registration number written on cylinder with permanent marker.
3. Pilots will come to event with cylinders full, and will leave, after event commencement, with full cylinders.
4. Empty Propane cylinders will be dropped off with event staff (designated person to be stated at pilot briefing) after each day's flight.
5. The Full cylinders must be picked up from same staff member prior to pilots briefing on day of flight.
6. After final event flight, pilots will turn in empty cylinders, and pick them back up at designated time after staff has filled cylinders for the final time.
7. **Raw propane may never be vented on Balloon Fiesta Park.**