

**43rd Great Pershing Balloon Derby (GPBD)
&
The US Women's National Hot Air Balloon Championship**

**August 30th - September 2nd, 2019
Brookfield, Missouri**

**Manned Free Balloon
COMPETITION
AND
OPERATIONS MANUAL**

PURPOSE: This manual was prepared and is being submitted by Green Hills Ballooning, Inc. as part of the application for issuance of Certificate of Waiver or Authorization (FAA Form 7711-1), with attachment and special provisions for a manned free balloon competition, August 30th, 2019-September 2nd, 2019, at or near the balloon competition field located 3 miles Northwest of Brookfield, MO (hereinafter referred to as Balloon Field).



Jason Jones
Event Director



BALLOON FEDERATION OF AMERICA

"The Future of Ballooning"

I would like to welcome all of you to Brookfield, MO, the Great Pershing Balloon Derby, and the Women's US National Championship. Brookfield has a long history of hot air ballooning. The GPBD is flying its 43rd year and has invited all of you to participate in the longest standing BFA supported event in the country.

The Women's US National Championship will begin Friday August 30th and then will fly in conjunction with the GPBD throughout the rest of Labor Day Weekend 2019. Linn County Missouri will provide a beautiful backdrop to this competition.

The Balloon Federation of America and its Hot Air Competition Division would like to thank Green Hills Ballooning Inc. for all the time and energy that was put into bidding for and then implementing their plan to run the Women's US National Championship. We recognize and are thankful for all of the sponsors and volunteers who support this event as well.

We hope all of you enjoy your stay here in north central Missouri. Enjoy the flying and Midwest hospitality.

Safe Flying
Jason Jones
Event Director

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SECTION I – Organization and Responsibilities

Green Hills Ballooning, Inc. through its organization will be responsible for safeguarding all persons and property, flight and ground, during this event known as the 43rd Great Pershing Balloon Derby (GPBD). **Jason Jones, 12600 West 142nd Street Overland Park, KS 66221** will be the Race Director and is responsible for the overall flight operations and safety of this year's event. Any changes from this person will be coordinated in writing with the Kansas City Flight Standards District Office (FSDO).

In the event of any incident or accident considered to be a result of an event task deficiency or procedure, flight operations will be cancelled until the deficiencies have been corrected and accepted by the Race Director and on-site FAA inspector.

Following is a listing of Event Officials and their duties:

Race Director – Jason Jones (913) 338-2628

The Event Director is responsible for all flight operations at the balloon event. He ensures that all aspects of the flight activities and related activities are properly done. He consults the Balloon Federation of America (BFA) and its Hot Air Competition Division (HACD) rules in conjunction with the Weather Officer and Safety Officer to choose what task(s) to hold. He then briefs the pilots on all applicable information for each flight. After each flight, he oversees the field measurers in conjunction with the Scoring Officer for each task. He consults with the Scoring Officer in the assessment of penalties.

Safety Officer – Brad Craig (515) 975-3300

The primary duty of the Safety Officer is to monitor all flight operations and to make sure that they are conducted at the highest practical level of safety. Any other duties must be secondary to this responsibility. The Safety Officer should normally execute authority by advising the Event Director, or other responsible official, action which he feels should be taken to ensure the safety of flight operations. The Safety Officer has the authority and responsibility to cancel flights in cases where flight operations are considered to be unsafe.

Weather Officer – Aaron Foelske (815) 954-1767

The Weather Officer is responsible for obtaining weather information and reporting it to pilots at all flight briefings. The Weather Officer will report to the Event Director and Safety Officer.

Scoring Officer and Chief Measurer – Doug Clark (573)239-0593

The Scoring Officer/Chief Measurer is in charge of all target measuring teams and reports the final results and scores to the Event Director and competitors.

Land Owner Relations- Brian and Stephanie Brockman (660)375-2155

Land Owner Relations is in charge of helping pilots locate landowners to grant permission for launch and retrieval of hot air balloons.

Event Managers – Sherry & Richard Techau (660) 412-2943

Event Managers coordinate crowd control activities, public announcements, landowner relations and general event operations activities with the Race Director and Safety Officer.

Emergency Number

Brookfield Fire department	(660) 258-3332
Laclede Fire Department	(660) 963-2656
Linn County Ambulance District	(660) 258-2262
Linn County Sherriff	(660) 895-5312
Brookfield Police Department	(660) 258-3385

SECTION II – Certificate/Airworthiness Determinations

For the Women US Nationals pilots, registration will be held at the Elks Lodge on Thursday, August 29th, 2019 from 3:00 PM until 5:00 PM. A mandatory pilot’s briefing will be held for pilots, crew and officials at 7:00 PM on Thursday, August 29th, 2019.

For the GPBD pilots, registration will be held at the Elks Lodge on Friday, August 30th, 2019 from 4:00 PM until 9:00 PM. A mandatory pilot’s briefing will be held for all pilots, crew and officials at 6:00 AM on Saturday, August 31st, 2019.

At the time and place of registration, each pilot must have the following documents for inspection by organization officials:

- A. Pilot Certificate
- B. Pilot flight activity log book
- C. Aircraft maintenance log book
- D. Current and appropriate FAA Certificate of Airworthiness
- E. Current and appropriate FAA Certificate of Registration
- F. Current and appropriate FAA approved aircraft flight manual with operating limitations

(All of the above documents may be inspected by on-site monitor. Event organizers will also ask for electronic copies to be emailed in before the event.)

Personnel from Green Hills Ballooning, Inc. and/or FAA inspectors may inspect any aircraft at any time during the event to determine aircraft airworthiness and/or pilot qualification. Compliance with Federal Aviation Regulation requirements for currency and airworthiness is the responsibility of the pilot in command (PIC).

Green Hills Ballooning, Inc. will retain the original list of registered aircraft and registered pilots for one (1) year.

After the close of competition, a copy of the registered aircraft and pilots may be furnished to the Kansas City Flight Standards District Office (FSDO) upon request.

SECTION III – Pilot’s and Crew Minimum Qualification and Experience

Each pilot must hold an appropriate pilot certificate with lighter than air category and free balloon class rating with airborne heater privileges and have a minimum of 35 hours as pilot in command (PIC). Student pilots are prohibited from flying as PIC during this event. In addition, each pilot must show evidence of successful completion of a Flight Review as required by 14 CFR 61.56.

Only official crewmembers may be carried on board an aircraft operating under the Certificate of Waiver. All crewmembers must be designated by the PIC and have been given appropriate training in the conduct of their duties. These designated crewmembers must sign a statement that they have been trained in balloon operations and that they are designated crewmembers for the purpose of the specific flight. A copy of the crew responsibility statement is attached.

SECTION IV- Areas of Operation

Headquarters for operations will be stationed at the Elks Lodge in Brookfield and all flight operations will take place in the vicinity surrounding the Balloon Field within the confines of the Official Competition Map. Final landings may occur beyond these boundaries, but no Individual Launch Points (ILP) or Common Launch Points (CLP) will exceed the limits specified in the Certificate of Waiver. Attached are the Official Competition Map, Google Earth image of the balloon field and applicable portion of the Kansas City Aeronautical Chart showing the location of the Balloon Field.

SECTION V- Types of Operations

Flight events will consist of single and/or multiple tasks as determined by the Event Director after consultation with appropriate organization officials. All task descriptions are explained in Chapter 15 of the 43rd GPBD Regulations, Policies & Procedures, modeled after the Balloon Federation of America (BFA) Hot Air Competition Division’s (HACD) 2019 Rules, Regulations, Policies & Procedures. This 60+ page document is available upon request.

SECTION VI- Registration

All pilots are required at registration to sign a statement indicating that they have read, understand and will comply with the Certificate of Waiver, Attachment A, the Special Provisions and any listed attachments.

After the close of the event, a copy of the pilot's signed statements may be furnished to the Kansas City Flight Standards District Office (FSDO) upon request.

SECTION VII- Pilot Briefing Procedures

Before each flight operation (tasks), the Race Director and staff will perform a pilot briefing. These briefings will consist of all details affecting flight operations. At each briefing, no pilot may fly until released by the Race Director by answer to roll call or other means whereby the Race Director is satisfied that the pilot has received all pertinent briefing information.

SECTION VIII- Altitudes

Where applicable, Federal Aviation Regulations 91.119(b) and 91.119(c) will be waived for all properly registered pilots and aircraft.

FAR 91.119(b) is waived to allow flight by participating balloons over congested areas of a city, town or settlement or over an open-air assembly of persons at an altitude of 500 feet above the highest obstacle within a horizontal radius of 500 feet of the balloons flying within the confines of the Competition Map.

NOTE: Launching a balloon into or over a congested area or open-air assembly of persons shall require the pilot to be in a continuous rate of climb until an altitude of 500 feet is attained above the highest obstacle with a horizontal radius of 500 feet of the balloon.

FAR 91.119(b) is also waived to allow flight over, but no closer than 75 feet, to persons in the designated spectator areas which are under the direct control of Green Hills Ballooning. Regarding the 75-foot rule, the balloon must have attained a state of equilibrium at this 75-foot minimum altitude and not be descending while crossing over the designated spectator area. Once past the spectator area and over the Clear Zone surrounding the target, the balloon may descend to the ground unless signaled otherwise.

FAR 91.119(c) is waived to allow flight to ground level over open water or sparsely populated area, but no closer than 200 feet to any person, vessel, vehicle or structure (except persons designated as officials).

The maximum altitude for flight operations in this event will be 10,000 feet mean sea level (MSL).

Pilots and/or aircraft not registered for this event and who fly within the confines of the competition map will not be given the privilege of the waiver, and must comply with Federal Aviation Regulations 91.119(b) and 91.119(c).

SECTION IX- Weather Requirements

Flight operations will be conducted during the period from sunrise to sunset and with Visual Flight Rules (VFR) weather conditions as specified in the Federal Aviation Regulation 91.55.

Maximum wind velocity for launch during the event will be 10 knots. As the wind velocity frequently increases after launch, it is the Pilot in Command's responsibility to determine when a landing should be made. Determination of wind velocity and direction will be taken prior to each pilot briefing.

If the closest weather reporting station to the launch site shows that it is marginal visual flight rules (MVFR) weather or less (MVFR is defined as ceiling 1,000 to 3,000 feet and/or visibility 3 to 5 miles inclusive) an on-site weather observation may be taken if the weather observer is qualified and is acceptable to the Event Director and to the Kansas City Flight Standards District Office.

Local weather will be monitored using computer/cell phone internet connections as well as telephone contact with the Lockheed Martin Flight Services. Computer monitoring equipment will be located at the Headquarters at the Elks Lodge in Brookfield. Additionally, a hand held anemometer may be available at the field to measure wind velocity at the balloon field.

SECTION X- Communication Requirements

Prior to flight operations, pilots will be briefed and given all updated information appropriate to the task(s) being flown. Flight safety information or cancellation will be given by a public address system (PA) located at the field.

Pilots who carry citizen's band (CB) radios, aircraft radio, UHF, VHF or FM radios may receive information from the events control center on an appropriate frequency. Information may also be disseminated via a local radio station, as identified at the mandatory pilot briefing along with pilot and crew mobile phone numbers collected during registration.

A suitable PA system or visual system, which has the capability of communicating with pilots on board in flight, will be available to advise them that the task has been cancelled and/or that unsafe conditions exist.

SECTION XI – Air Traffic Notification

The Race Director or appropriate officials will request that a Notice to Airmen (NOTAM) is issued advising air traffic that approximately 45 hot air balloons will be flying in the vicinity of the Balloon Field (Brookfield).

The NOTAM must be filed with the Flight Services (877-487-6867) at least 48 hours, and no more than 72 hours, prior to the event and must include date, time, place, areas, altitudes and duration of the scheduled flights.

SECTION XII – Crowd Control

State and county police in addition to officials from the Event Staff and Green Hills Ballooning, Inc. will provide crowd control. Temporary marked barriers, rope barriers and/or chain link fencing will be used to isolate the spectators from the Clear Zone (target areas) and from the pilot briefing area.

If the wind direction or velocity should change significantly, the on-site FAA inspector and/or officials from the Event Staff will consider moving the crowd line if required. This will be accomplished by using the PA system to alert the spectators that for their safety the spectator line must be moved. When necessary, the crowd control line will be moved by personnel from the Event Staff and/or Green Hills Ballooning with the coordination of local law enforcement agencies.

Targets/goal areas away from the Balloon Field will occur in remote rural areas and will attract few, if any, spectators. Any on-hand Event Staff, Green Hills Ballooning Staff and crewmembers will control any crowd and prevent spectators from entering landing areas.

SECTION XIII – Spectator Areas

The designated spectator area will be maintained at a minimum of a 200-foot radius away from the designated target area. This 200-foot minimum Clear Zone shall remain sterile except for officially designated Event Staff and any on-site FAA inspector. The spectator area for this event will be located East of and adjacent to the Balloon Field. Spectator traffic will be controlled by local law enforcement officials and/or personnel from Green Hills Ballooning and directed to designated parking areas.

If, as pilots approach the target area, there appears to be an unsafe condition existing in the Spectator Area or Clear Zone, it is the PIC's responsibility to avoid or over fly that area.

Pilots dropping any marker into the designated spectator area will not achieve a result.

For additional safety for spectators, crewmembers, pilots and the general public, Green Hills Ballooning will provide on-site ambulance, paramedic and fire truck.

SECTION XIV – Clear Zones

Clear Zones for this event will be at and around the target/launch area located at the Balloon Field. Only Event Staff, Green Hills Ballooning Officials and FAA Inspectors will be authorized for entry into the designated Clear Zones during flight operations. Event Personnel will enforce this. Minimum altitude in the Clear Zones shall be ground level. The Race Director, with concurrence from the on-site FAA Inspector and/or Safety Officer, may permit spectators on the launch field during launches and/or tethered flights.

SECTION XV – Landowner Notification

The General Public will be advised of the balloon competition by newspaper, radio, television and/or local posted signs.

Landowners may request that their property be shown on the competition map as a Sensitive Areas (SA) or Prohibited Zones (PZ's). The competition map will be updated daily and will be on display at the briefing area. All marked SA's will not allow for any launches or landings while all marked PZ's will require 500 feet minimum altitude AGL with the exception of the noted ELK farms, which are 1,000 feet minimum altitude AGL.

Pilots must obtain permission for a launch or landing on private property to minimize disturbance to the landowner and possible livestock.

Permission must be obtained prior to entry on private property.

Positive landowner relations are vital to the continuance of the event. There must be an ongoing effort by this organization to maintain good landowner relations in this and other events.

SECTION XVI – Appropriate Letters of Agreement

After the close of competition, a copy of the registered aircraft and pilots may be furnished to the Kansas City FSDO upon request.

After the close of the event, a copy of the pilot’s signed Certificate of Waiver statements may be furnished to the Kansas City FSDO upon request.

SECTION XVII – Requested Waiver Times

<u>DATE</u>	<u>TIMES</u>
August 30, 2019	6:45 AM - 10:00 AM 6:00 PM – 7:45 PM
August 31, 2019	6:45 AM - 10:00 AM 6:00 PM – 7:45 PM
September 1, 2019	6:45 AM - 10:00 AM 6:00 PM – 7:45 PM
September 2, 2019	6:45 AM - 10:00 AM

NOTE: Free or tethered flight will not be permitted prior to official sunrise or after official sunset.

SECTION XVIII – Official Rules

The Official Rules are the 2019 GPDB Rules, Regulations, Policies & Procedures modeled after the Balloon Federation of America Rules, Regulations, Policies & Procedures, updated 2019. This 60+ page document will be made available to all competitors and is available upon request.

SECTION XIX – Official Schedule

The Official Event Schedule is attached hereto.

FORTY-THIRD GREAT PERSHING BALLOON DERBY AND WOMEN'S US NATIONAL HOT AIR BALLOON CHAMPIONSHIPS PILOT SCHEDULE OF EVENTS

AUGUST 29th THRU SEPTEMBER 2rd 2019

THURSDAY	3:00 - 5:00 pm	Nationals Pilot Registration @ Elks Lodge
	6:30 - 7:00 pm	CIA Logger Seminar
	7:00 pm	Nationals Mandatory Briefing @ Elks Lodge
FRIDAY	6:30 am	Nationals Pilot Briefing @ Elks Lodge
	7:15 am	Nationals Sanctioned Race
	5:30 pm	Nationals Pilots Briefing @ Elks Lodge
	6:00 pm	Nationals Sanctioned Race
	4:00 - 9:00 pm	GPBD Pilot Registration @ Elks Lodge
	6:00 - 9:00 pm	GPBD Friday night mixer @ Elks Lodge (Pilots/Sponsor Introductions @ Elks Lodge)
SATURDAY	6:00 am	GPBD & Nationals Pilots Mandatory Briefing @ Elks Lodge
	7:15 am	John Petrehn Memorial Cup Sanctioned Race
	12:00 noon	Parade - Downtown Brookfield
	5:00 pm	Nationals Pilots Briefing @ Elks Lodge
	6:00 pm	Nationals Sanctioned Race
	5:30 pm	GPBD Pilots Briefing @ Launch Site
	6:00 pm	GPBD Balloon Flight
7:30 - 8:30 pm	Launch Site Nite Lite (Balloon Glow)	
SUNDAY	6:30 am	GPBD & Nationals Pilots Briefing @ Elks Lodge
	7:15 am	Sanctioned Race
	5:00 pm	Nationals Pilots Briefing @ Elks Lodge
	6:00 pm	Nationals Sanctioned Race
	5:30 pm	GPBD Pilots Briefing @ Launch Site
	6:00 pm	GPBD Balloon Flight
	7:30 - 8:30 pm	Launch Site Nite Lite (Balloon Glow)
	8:00 - 10:30 pm	Meal available @ Elks Lodge for nominal price
MONDAY	6:30 am	GPBD & Nationals Pilots Briefing @ Elks Lodge
	7:15 am	Sanctioned Race
	10:00 am	Awards Banquet & Brunch @ Elks Lodge



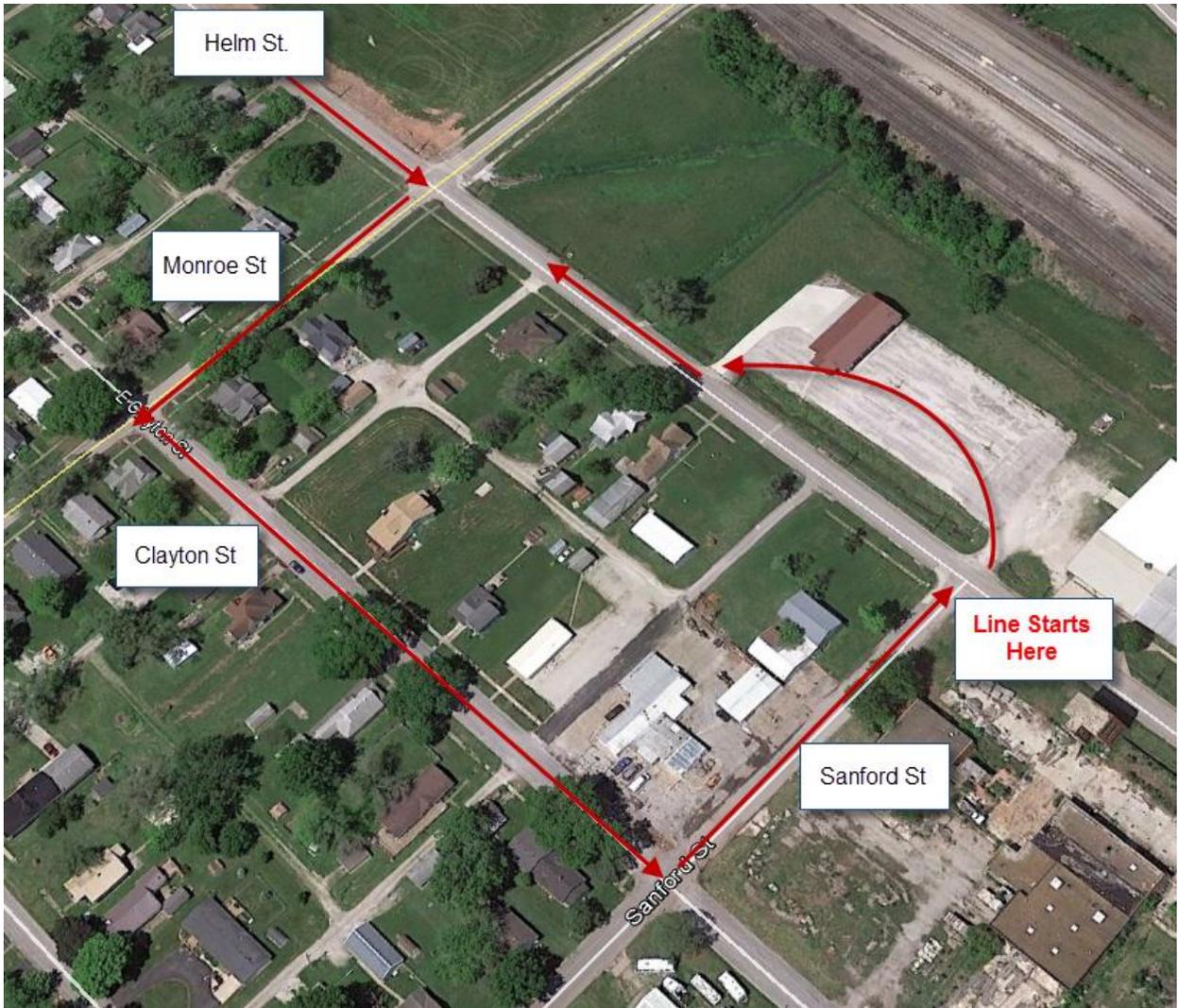
Balloon Field (blue shaded area)

Spectator & Parking Area (red shaded area)

Elevation: 815' MSL

Directions to the Balloon field: Take Missouri Highway 36 to Highway FF. Turn north on Highway FF. Drive approximately three miles and the balloon field will be on the west side of the highway.

**Pilot entrance is off the east/west rode. Turn west on Glade road and find the entrance is several hundred yards down the road on the left.



Propane

If you are going to be late please call Sherry Techau at (660) 412-2943.

Please follow these guidelines while refueling:

1. Have your refueling adaptors hooked up when entering the refueling station area. After you have refueled, please leave the area and take care of housekeeping issues.
2. No more than two people for each balloon in the refueling station. Please send only experienced refueling crew into the refueling station.
3. Pilots are responsible for properly filling tanks.
4. Disarm all and remove them from the gondola.
5. All cell phones must be left in chase vehicles.
6. No nylon jackets in the refueling station.

7. All vehicles must be turned off. Please leave the keys in the ignition or on the dash board.
8. No refueling of tanks inside an enclosed trailer or van.
9. No one may refuel while standing in the basket.
10. Absolutely no smoking.

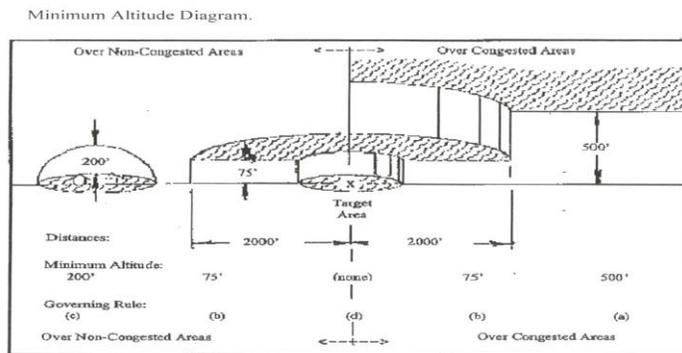
Recall Procedures

Remind App

The Women's US Nationals and the GPBD will use the Remind App for recall procedures. This app will also be used to keep pilot, crews, scorers, volunteers, and officials apprised to various issues during the event.

Airspace

Minimum Altitude Diagram



Brookfield, MO Sectional

