



## SATURDAY SESSIONS





**BRAKE, PAT  
LIND, RUTH  
SHEPPARD, TOM  
SPAETH, DEBBIE**

**BALLOON EVENT ORGANIZATION & MARKETING**

**BRAKE, PAT  
LIND, RUTH  
SHEPPARD, TOM  
SPAETH, DEBBIE**

## **BALLOON EVENT ORGANIZATION & MARKETING**

### **PANEL MEMBERS**

Pat Brake

- Event Director, Albuquerque International Balloon Fiesta
- Chair, FAI/CIA Public & Media Relations Sub-Committee
- Competition Director, Albuquerque, Gordon Bennett Gas Race
- Recipient FAI Montgolfier Diploma 2006
- 25 Years Ballooning

Ruth Lind

- Event Organizer – Northeast
- Editor Ballooning & Skylines – 13 Years
- Former BFA Board – Secretary of Board
- Recipient BFA Shields Trauger Award 2000
- 29 Years Ballooning

Tom Sheppard

- Event Director - World HAB, World Gas & Rozier, US & Canadian Championships
- Brought Observer System to USA in 1978
- Expert on Competition Rules & Scoring Systems
- Former BFA President & US Delegate to CIA
- Recipient FAI Montgolfier Diploma 1990 & BFA Shields Trauger Award 1979 & 1996
- 34 Years Ballooning

Debbie Spaeth

- Event Organizer –Local, National & International Events
- Deputy Event Director – World HAB, Airship Championships
- Scoring Manager for Hot Air & Gas Divisions
- Secretary General of International Ballooning Commission/CIA for 8 years
- Recipient FAI Montgolfier Diploma 1986 & BFA Shields Trauger Award 1984
- 34 Years Ballooning

### **Budgeting**

- Insurance
  - Hotel Rooms
  - Rooms for Briefing/Debriefing
  - Propane
  - Staff Travel
  - Pilot Prize Money
  - Award Gifts/Trophies
  - Balloon Expenses-Maps, Markers, Banners
  - Socials

### **Reference Guides on Web**

- CIA/International Ballooning Commission  
[www.fai.org/ballooning](http://www.fai.org/ballooning)
- Balloon Federation of America  
[www.bfa.net](http://www.bfa.net)

**BRAKE, PAT (cont'd)**  
**LIND, RUTH**  
**SHEPPARD, TOM**  
**SPAETH, DEBBIE**

## **BALLOON EVENT ORGANIZATION & MARKETING**

### **What do Pilots Want**

- For all Events
- For Competitive Events
- For Fiesta Events
- For Corporate Balloons

### **What's Important**

- Organizational Skills
  - Cover the Details Before Events Starts
- Keep participants informed
  - Before & During Event
- Be honest about expectations for event
- Get Best staff you can afford
- Honest, Accurate Weather Briefing
- Have Fun





## PAT BRAKE ORGANIZING ON A MAJOR SCALE

## **BRAKE, PAT**

### **Organizing on a Major Scale**

Board of Directors

Staff

Planning

Policy

Volunteers

Budgetary Goals

Sources of Income

Expenses

Amenities

Waivers

Category 1 Competition within Balloon Fiesta

(Jumping through hoops)

Application of a Category 1

Apply to the CIA for approval

Rules of governing body—CIA

General Section

Section 1

FAI anti-doping rules and procedures

FAI Code of Conduct

Rules of Event

FAI advertising rules

FAI online style guide

Officials—

Event Director

Jury (international)

Safety

Protocol

Opening and closing ceremonies





**GRIFFIN, JOHN  
MILLER, BETH  
HOT AIR BALLOON INSURANCE**

**MAIN COVERAGES**

- General Liability
- Passenger Liability
- Defense Coverage
- Medical Payments
- Hull Coverage

**RATING FACTORS**

- Commercial vs. Sport use.
- Number of passengers.
- Hull Limits, Deductible
- Credits, Debits.
- Number in Flight.

**UNDERWRITING FACTORS**

- Hours in Type, Experience
- Pilots
- Prior Claims/Incidents
- System Age
- Annual certification
- Partitioned Baskets
- Payment History

**COMMERCIAL VS. SPORT USE & HOW IT AFFECTS RATES**

- IMC
- Schantz

**COVERAGE ISSUES**

- One In Flight
- Liability Begins and Ends When?
- Timely Reporting of Claims
- Territory Covered
  - General Liability
  - Passenger Liability
- Timely Reporting of Claims
- Territory Covered

**OTHER ITEMS**

- Additional Insured
  - Define
  - Effect on Limits
  - What it does not do
  - Certificate of Insurance
  - Define
  - Loss Payees

**YOUR PERSONAL RESPONSIBILITIES IN CASE OF LOSS**

- Provide First Aid
- Get Help
- Call 911 if Necessary
- Call Event Personnel
- FAA/NTSB Notifications

**WHEN TO REPORT A CLAIM**

- ALWAYS!
- Delayed Reports by Claimants
- If You Hear From an Attorney First, Call Us/Company Right Away

**QUALITY OF CARRIERS**

- IMC
  - Tudor Insurance Company
- Schantz
  - Old Republic
- Others

**WAIVERS**

- Are They Useful?
- When to use?
- Elements of a good waiver:
  - One Page
  - Initial various paragraphs
  - Clear on injuries, including death
  - Effective Hold Harmless
  - Sign in Advance
  - Retain

**TYPICAL CLAIMS**

- Hull Claims
  - Landing Damage
  - Theft
  - Auto Accident
- Liability
  - Hard Landings
  - First Aid-Medical Payments
  - Damaged Property
    - Passengers
    - Others
- Frequency vs. Severity

**HOW DOES A CLAIM/ACCIDENT AFFECT MY COMMERCIAL USE?**

- Coverage Effects
- Payout
- Total Claims in 3/5 Years
- Aggregate Limit
- Commercial Use
- Credits/Debits

**GRIFFIN, JOHN M. (cont'd)**  
**MILLER, BETH**

## **YOUR HOT AIR BALLOON INSURANCE**

### **HOW TO LOWER YOUR INSURANCE PREMIUMS**

- Fewer Claims
- Limit of Liability, # of Passengers
- Hull Values, Deductible
- Percent Of Commercial Use (Check your log book)
- Credits: Experience, SAFETY SEMINARS, System Age, , Memberships
- Debits: Hours, Claims, Other

### **THANK YOU VERY MUCH!**

- Beth Miller  
IMC Balloon Agency
- John Griffin  
Schantz Agency



**LIND, RUTH  
BALLOON EVENT ORGANIZATION  
and MARKETING**

LIND, RUTH

## BALLOON EVENT ORGANIZATION and MARKETING



February 26, 2007

Dear Pilot,

It's time once again to make plans for the annual Stoweflake Balloon Festival, scheduled for July 6-8, 2007. Chuck Baraw and the Stoweflake Mountain Resort and Spa will again host this terrific event.

*Before getting into the registration specifics, please read this paragraph carefully.* As those of you who have participated in this festival well know, it has grown over the years, from a small, loosely organized gathering of friends, into one of Stowe's premier summer events. The Stoweflake has slowly increased its sales of paid rides to the point where there are passengers for all pilots, and ride sales have come to represent a significant portion of the funds necessary to fund the festival. For that reason, we find it necessary to make it clear that *all* pilots who join us in Stowe will be asked to take paying passengers when they are available. We understand that some pilots are more eager than others to carry paying passengers, and we will try to schedule passengers accordingly. However, if the ride desk is full, we need you *all* to carry the guests.

That said, the Stoweflake event has never pressured pilots to fly in conditions in which they feel unsafe. Sometimes the weather in the mountains challenges the most experienced pilot. Quite often, however, the winds calm down very close to sunset, or the fog lifts a couple hours after sunrise. While free flight is not an option this late in the day, balloon glows or static displays can be quite safe. If the balloonmeister and safety officer determine conditions to be suitable for inflation, you will be expected to stand your balloon up for at least 30 minutes.

As usual, every pilot will be required to carry two passengers for the event. These may or may not be sponsor passengers, but in any event, your first two passengers will be counted as your obligation to the festival. Pilots and crews may not sell rides either on the field or ahead of time. *New this year:* the Stoweflake will pay pilots a minimum of \$150 per passenger, for those carried above your sponsor obligation.

Sponsor rides of course take priority, and most will be scheduled for Friday night, so plan to arrive no later than 5:00 p.m. Registration will be from 3:00 p.m. to 5:00 p.m. at the Stoweflake. You must register for the event before you register for your room. A complete schedule of briefings, flights, social events and other activities will be in your pilot pack on arrival.

One room will be complimentary to each balloon crew, and **ONE** additional room will be available at the special rate of \$95 per night. **All rooming requests and Stoweflake communications must be made through me. Do NOT contact the Stoweflake directly.** Rooming preference will be determined in the order in which we receive completed packages, including a complete application form, logbook copies, additional insured endorsement and balloon photograph. Requesting your additional insured endorsement will not satisfy this requirement: I must have the endorsement on my desk. Please follow up with your insurance company to make sure they have sent me the endorsement.

Please name "Baraw Enterprises, Incorporated—dba The Stoweflake Resort" as an additional insured on your insurance policy. I must have your additional insured endorsement sent to me at the address below no later than June 1, 2007. When you get your additional insured endorsement, you must pay your insurance company for the cost of this endorsement. The Stoweflake will not make any payments to insurance companies, but will give you a check for \$35 to help cover the cost.

*Note: I now live in Maine full time, and I do not have a fax. Please send all documents/additional insureds to the address below.*

The Stowe Area Chamber will again publish a program for the festival. Please send a photograph if you have a new balloon, and a fresh bio if your information has changed. In order to participate in the Stoweflake Balloon Festival, you must have flown at least 15 hours as Pilot In Command in balloons during the 12 calendar months preceding the event. The flights must be logged. Of course, you must also show currency in accordance with FAA regulations. Please send a photocopy of your pilot log book since July 9, 2006 with your application. If you haven't already met the minimum hour requirement as of this date, go ahead and apply anyway, including your logbook copies. As the festival approaches, if you will not have been able to fly the required hours, you'll be asked to withdraw from the event. The more notice you can give us of withdrawing, the more we'll appreciate it.

Please feel free to call or email me with any questions or concerns. I look forward to seeing you!

Sincerely,

Ruth Lind  
Balloonmeister  
enclosure

Ruth Lind • P.O. Box 527 • Stockton Springs, ME 04981 • 207-567-3274 • [moxielady@mac.com](mailto:moxielady@mac.com)

BALLOON EVENT ORGANIZATION and MARKETING



Please return to:  
 Ruth Lind, Balloonmeister  
 P.O. Box 527  
 Stockton Springs, ME 04981

**Pilot**

Name \_\_\_\_\_ street \_\_\_\_\_  
 city, state, zip \_\_\_\_\_ email address \_\_\_\_\_  
 evening phone \_\_\_\_\_ daytime phone \_\_\_\_\_  
 airman certificate number \_\_\_\_\_ rating \_\_\_\_\_  
 P.I.C. hours \_\_\_\_\_ last biennial \_\_\_\_\_  
 hours since last biennial \_\_\_\_\_ hours since July 9, 2006 \_\_\_\_\_  
 Insurance Company \_\_\_\_\_ Policy number and expiration date \_\_\_\_\_

**A copy of your insurance certificate naming Baraw Enterprises, Inc. (DBA Stoweflake Resort) as additional insured must be received in Stockton Springs no later than June 1, 2007.**

**Balloon**

Balloon make and size in cubic feet \_\_\_\_\_ Year \_\_\_\_\_  
 Reg. number \_\_\_\_\_ Envelope hours \_\_\_\_\_  
 Date of last annual \_\_\_\_\_ Hours since annual \_\_\_\_\_

**Documents, Information and Other Stuff**

Pilot will be asked to give one flight (first flyable slot) to two passengers and display a basket banner. The pilot agrees to attend every scheduled pilot briefing, and to make a best effort to fly every scheduled flight, weather permitting. Pilot also agrees to arrive by 5:00 p.m. Friday, July 6, 2007, to be available to fly the sponsor flight on Friday evening. Pilot further agrees to remain on the field at the direction of the balloonmeister, and to make a good faith effort to stand the pilot's balloon up should conditions prohibit free flight.

I hereby certify that I will have available for festival officials at pilot registration:

- a commercial hot air balloon license and **at least 75 hours LTA PIC, 15 hours LTA PIC in previous 12 months**
- current biennial flight review
- pilot logbook showing currency and previous 12 months
- flight activity (bring original, copy not accepted) • aircraft log showing current annual
- registration & airworthiness certificates and current annual inspection for the above balloon

- I will need one additional room at the special event rate of \$95 per night.
- Condo requested if available
- Please put my name at the top of the list for paying passengers.

**Agreement to Terms and Acknowledgment of Responsibility.**

I certify that all the above information is true and I agree with the terms of the event as set forth on this form and the letter of invitation. I am aware of and agree with the responsibility legally transferred to me under the Federal Aviation Regulations as regards my personal decision to fly my balloon, and any bodily injury and/or property damage resultant there from is my liability. I agree to have in effect for the entire duration of this event a balloon insurance policy with third party liability and property damage liability limits in an amount not less than \$500,000 plus \$100,000 per passenger. I agree that the organizers and sponsors of this event are providing me with the facilities and means for my participation and in no way do they supercede the responsibility of the Pilot In Command as shown in the FARs. As PIC, I will thoroughly familiarize myself and my crew with all the rules and safety procedures published by the festival organizers and will abide by them. I will familiarize myself with the terrain and acceptable landing sites and local flying conditions associated with this event. Further, I agree to attend every scheduled pilot briefing, and to make a best effort to fly every scheduled flight, safety considerations permitting. If I elect not to fly any given flight, I agree to inflate my balloon for at least 30 minutes, as directed by the balloonmeister and/or safety officer.

Signed \_\_\_\_\_ Date \_\_\_\_\_

LIND, RUTH (cont'd)

BALLOON EVENT ORGANIZATION and MARKETING



June 11, 2007

Dear Pilot,

This letter will serve as your formal acceptance to the Stowe Balloon Festival, July 8-10, 2005. We are looking forward to a fun event this year.

As a reminder, please make sure you have secured your additional insured endorsement from your insurance carrier, naming Baraw Enterprises, Inc., dba Stoweflake, as additional insured for the weekend. Please have the endorsement, or a copy of it, sent to me here in Stockton Springs by June 1.

If you are a new attendee this year, please send me a short (100 words) pilot bio right away, as well as a photograph of your balloon. If you are a returning pilot and would like to update your bio or send a new balloon photograph, please send me a new one no later than May 15.

When you arrive at pilot check-in, please have ready the following documents:

Pilot certificate.

Pilot logbook (or a copy) showing flight currency and current biennial.

Aircraft logbook (or copy), showing annual or 100/hour inspection.

(original logbooks, no copies please)

Aircraft registration and airworthiness certificate.

If you have any questions, or need to make other arrangements for your additional insured endorsement (to accommodate policy expiration dates), please get in touch with me at the address, email or phone below.

Looking forward to seeing you in July!

Sincerely,

Ruth Lind  
Balloonmeister

**If I have not received the items checked below, your application is not complete. You will be put on a waiting list until I have received a complete package.**

- Additional Insured endorsement from your carrier
- bio and photograph (returning pilots will be shown as in last year's program unless new information is received)
- logbook copies showing 15 hours PIC since last year's festival
- daytime phone number
- email address

Ruth Lind • P.O. Box 527 • Stockton Springs, ME 04981 • 207-567-3274 • [moxielady@mac.com](mailto:moxielady@mac.com)





**PARKS, SAM  
BFA COMPETITION DIVISION  
REPORT**

## **PARKS, SAM**

**Balloon Federation of America  
Hot Air Competition Division  
Annual General Meeting Report  
Albuquerque, NM  
October, 2007**

**Chairperson:** Sam Parks-Southeast Region

**Directors:**

Jim Thompson - North Central Region  
Steve Wilkinson – West Region  
Steve Lombardi – Southwest Region  
Nick Donner – Northeast Region  
Richard Donnelly – Great Lakes Region  
John C. Davis IV – At-Large  
Paul Clinton – At-Large  
Mike Gilligan– At-Large Official  
Barb Davis- Chief Observer  
David Levin – Competition Director  
Andy Baird – BFA Board Liaison

**Directors Stepping Down This October:**

Steve Wilkinson – West Region  
Nick Donner – Northeast Region  
Paul Clinton – At-Large

**Directors Taking Board Seats This October:**

Dale Wong – West Region  
Richard Sabin – At-large  
Al Nels – Northeast region (appointed)

**Board Positions and Managers:**

Board Vice Chairman: Steve Lombardi  
Board Secretary: Barb Davis  
Board Financial Officer: Richard Donnelly  
Sanction Manager: Phil Bryant  
National Ranking Manager: Jim Thompson  
Safety Manager: Richard Sabin  
Rules Manager: Paul Clinton  
Scoring Manager: Mike Gilligan  
Officials Manager: David Levin  
Equipment Manager: Al Nels  
Communications Director/Newsletter Editor: Glen Moyer  
Web Site Manager: Christian Amundin

**Sanction Activity in Current Year:**

**Number of Paid Sanction Task Cards Issued:** 240 (135 in 2006)  
**Number of Sanction Events Approved:** 50 (23 in 2006)  
**Number of Sanction Tasks Run (estimated):** 2660 so far (1210 in 2006)  
**Number of Pilots Currently in the National Ranking System:** 175  
**Four (4) Regional Championships in 2007**

**2007 US National Hot Air Balloon Championship (Waco, TX)**

## **PARKS, SAM (cont'd)**

\$13,500 Sanction Fee and \$6,500 for World Team Collected  
45 Pilots Competed, With Over 50 Pilots Submitting Applications  
3 Flights With 10 Tasks  
Joe Heartsill – 2007 National Champion  
Sandy Graf – 2007 U.S. Women's National Champion  
Rookie of the Year – Jeremy Rubin  
Joe Heartsill – 2007 Duane C. Clark Memorial Award (Sr. Division Champ)  
Observer of the Year – Kathy Lester Ross  
Rookie Observer of the Year – Tommie Stamfer  
Domont Safety Award – Jim Thompson

### **2006 National Points System Awards (\$5,000, Plus Trophies)**

National Points Winner – Nick Donner \$500  
Top Ranked Female – Christine Bertch \$300  
Top Ranked Rookie – Steve Lacroix \$300  
Most Improved – Christine Bertch \$300  
Top Ranked Senior Pilot (over 55) – Dick Goss \$300  
Pilots ranked 2<sup>nd</sup> through 20<sup>th</sup> on the ranking list will receive a check for \$175.00.

### **2008 World Championship (Hofkirchen, Austria)**

#### **Team members:**

John Petrehn (Current World Champion)  
Joe Heartsill (Runner-up 2006 World Championship)  
Pat Cannon  
Paul Petrehn  
Al Nels  
Owen Keown  
Joe Zvada  
Nick Donner  
Andy Baird (Team Manager)  
David Levin (Championship Director)

\$14,000 in World Team Fund  
\$4,000 in 2008 Budget Money to Purchase Additional Team Radios

### **2007 Accomplishments:**

Completed Transition from a Committee to a Division.  
Established By-laws for this New Division.  
Established the Election Cycle for the HACD Board Members.  
Conducted Elections for Three Board Seats with 6 Candidates for the At-Large Position.  
Increased the Number of Task Cards.  
Increased the Number of Sanctioned Events.  
Increased the Number of Tasks Run.  
Mike Gilligan continued his work on the BFA scoring program; advancing the program to accommodate GPS Logger scoring.  
The BFA Scoring Program is starting to be used by Competitions outside the USA.  
Conducted the first US Nationals with a "hybrid" system of Observers and GPS Loggers.  
Conducted the first "Non-Nationals" balloon competition with Logger scoring at the Southeast Regional Championship in Baton Rouge, LA.  
Conducted first "web-based" post Nationals survey.  
Offered first time Task Card buyers in 2007 a special price of \$25.00.  
Made a capital purchase of 30 additional Garmin GPS units.  
Established the Duane C. Clark Memorial Senior Award.  
Returned to the Standard BFA Regions for the HACD Regions.  
Glen Moyer created the new "Competitor" newsletter, with electronic distribution.  
Glen Moyer created the "On-Target" Pod-Cast, an extra feature of the BFA web site.  
BFA Web site competition page, with scores and stories about competition.

## **PARKS, SAM (cont'd)**

### **Short Range Goals:**

"Sanction in a Box".

Presentation/Program for the 2008 BFA Convention.

Safety articles on the competition web page.

More event coverage, including photos on the competition web page.

E-mail list of all HACD members (better communication) and establishing an open forum page.

Changes to the rule book.

Regional representatives taking an active role in promoting more competition events in their areas, plus acting as a monitor (mentor) for these events.

Make change in the by-laws concerning the number of nominees for regional representatives and At-Large position.

Make minor changes to the on-line sanction application.

Create a list of "BFA approved" event officials.

Create a list of "BFA approved" competition seminar speakers.

Examine the National Ranking list scoring formula for possible changes.

### **Long Range Goals:**

Sustain a growth rate of HACD members of 10% or more per year.

World Championship location in the USA.

Create a marketing strategy and presentation for future US Nationals.

Examine the selection process for the World Championship Team for possible changes.

Explore the Non-Owned Aircraft Policy issue to determine if there is a better way of protecting our event officials.

Continue efforts to unify competitive ballooning in the USA.

**Respectfully submitted,**

**Sam Parks**

**Chairman,**

**Balloon Federation of America Hot Air Competition Division**



## SCHWONTKOWSKI, GORDON ACCIDENT-PREVENTION CREWING

Of everyone vested with ballooning safety – pilots, instructors, manufacturers, FAA, insurance providers – no one is perhaps more valuable in warding off trouble than crew. Who else knows your pilot, equipment, flight area, and local conditions better than you? Taking active steps to prevent the most common and deadly mishaps that have plagued ballooning for decades.

**Safety and command – legal versus operational definitions**

**Crew's untapped safety contribution potential – prevention and redundancy**

**FIRST AID**

**MEDIA PLAN**

**GENERAL GUIDELINES**

1. Respect potential risks, don't fear them
2. Situations deteriorate 3-10X faster than they improve
3. Learn how to recognize threats, stop events, and get out first
4. Plan ahead how you'll handle emergencies if your pilot can't
5. Standardize your emergency approach
6. Always know where you are
7. Stay calm
8. Protect yourself first, then others
9. Protect people before property
10. You are not alone – know how to reach help
11. If you don't do everything you can, you'll never feel you did all you could
12. You're right – it probably won't happen to you, but will you be ready if you're wrong just once?

**KNOW YOUR SAFETY ROLES AND GOALS:**

**CAN YOUR CREW RECOGNIZE, PREVENT, AVOID, AND MANAGE THE FOLLOWING RISKS:**

**WEATHER MISHAPS**

Forecast accuracy and crew  
Does hot air always rise?  
Cold fronts and warm fronts  
Reading winds  
Precipitation

**FIRES**

Protecting yourself first  
Clothing and gloves  
Fire extinguishers  
Fuel systems  
Refueling safety

**POWER LINE STRIKES**

Standing balloon touching lines  
Fabric draped over lines – basket mid-air or on ground  
Severed basket freefalls to ground

Pilot training on power line strikes  
Touch and step potentials  
Most common injuries  
Preventing line strikes  
Power Line Strike Do's and Don'ts  
How to know when the power's off  
Is balloon fabric conductive?

**HIGH-WIND INFLATIONS AND GUSTS ON LANDING**

- Load ring ground control
- Pulling the red line
- Crown line techniques
- Single crosswind line or double "Y" lines

**HIGH-WIND OR HARD LANDINGS**

- Giving a passenger briefing
- Being there on landing – driving and parking
- Crew-assisted landings
- Scouting landing sites
- Adding weight to the basket
- Drop-line landings

**NOTES:**

A complete discussion of topics and techniques discussed in this presentation may be found in the new edition of the book "Hot Air Balloon Crewing Essentials" by Gordon Schwontkowski.

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## SCHWONTKOWSKI, GORDON CREW PROFICIENCY

**Answer the following questions to assess your crewing knowledge, skills, and beliefs.**

1. Your own safety as a crew member always comes first.
2. A fire extinguisher is the best way to fight a fuel fire.
3. Simple clothing choices can prevent most crew injuries.
4. Children around balloons should be supervised at all times.
5. A crew member may need to pull the red line in some situations.
6. Electrocution poses the greatest risk in a power line strike.
7. An accurate weather briefing can err by 5 knots and 90 degrees.
8. You can detect rain on a launch field before it appears on radar.
9. Electronic navigation has replaced the paper map.
10. A fan poses more risks than any other balloon component.
11. Passengers will stay in basket if told to do so.
12. Most balloons take 4-10 seconds to respond to pilot or crew action.
13. A single downwind crown line works best in light conditions.
14. More weight on the basket or crown line will tame strong winds.
15. A crosswind crown line can prevent and control lateral roll.
16. 2-3 skilled crew can control an envelope in winds to 15 knots.
17. During a flight, your pilot always sees terrain and features better than you can.
18. Crew can contribute as much or more than a pilot in an emergency landing.
19. Crew must be able to assess potential landing site size in under 5 seconds.
20. Crew can safely approach a moving basket from any direction.
21. A drop line can pull your balloon into what you want to avoid.
22. Crew often determine the state and course of landowner relations.
23. More hands always make packing up quicker and easier.
24. Tethering places less strain on equipment and crew than free flying.
25. Pilots and crew can direct the media's coverage of ballooning.

## ANSWERS

1. True. Always keep this in mind! No one is as concerned with your safety as you are or can be. Your pilot must focus on the balloon and passengers. One moment of inattention can incapacitate you, create crises, and jeopardize flight safety. A simple blister can prevent you from handling a crown line or running to add weight on landing. More serious incidents limit your contributions and draw flight resources. Pay attention. Minimize flight risks; don't enlarge or create them.
2. False. Shutting off the fuel source when possible is often much more effective. Basket fire extinguishers better suit small collateral fires: wicker, clothing, vegetation. Constantly watch and sniff for fuel leaks. Always enforce no-smoking around your basket. Wear leather gloves when near propane tanks. Do not fight a fuel fire after 20 seconds; tank or system failure often follows. Your job is to prevent fires from starting or spreading. Get help with large fires - don't be a hero.
3. True. Supportive footwear can prevent sprains or minimize foot injuries. Leather gloves will prevent blisters, burns (burner, fuel, fan exhaust), and contact with plant irritants. Long sleeves and pants can minimize abrasions, cuts, and burns as well. Hot? Sweat dries quicker than blood clots or bones mend. Avoid synthetic materials which will carry static charges and present fueling hazards. Dress sensibly; cotton or wool blends next to your skin offer the greatest burn protection.
4. True. Tell your crew chief if children will be nearby; assume they will at festivals or when landing at schools or in neighborhoods. Children of all ages are naturally curious. Warn parents of the youngest children that burners or even the fan can startle and bring tears. Keep all children behind the truck, away from the basket and fan, and well back from the envelope on inflation. Watch closely for children every time you move your vehicle - they're not watching for you.
5. True. During inflation your pilot may be 5-10 seconds away from the basket: inspecting the balloon, tabbing the parachute, or on a quick run to the truck. A fan mishap, sudden gust, or changing weather might require immediate deflation. A crew chief and the throat crew nearest the red line should have the judgment, confidence, and authorization to "rip out" when needed to protect everyone and everything nearby - on their own and even without pilot direction.
6. False. Falls from power line height cause 90% of these injuries and deaths. Burns cause most of the rest; electrocution occurs less than 1% of the time. Constantly watch for power poles (thicker and easier to spot than lines) during flight, and assume they'll parallel every road. Develop a line strike response plan you regularly discuss. Always keep a cell phone and emergency number contacts in your truck. Enroll in a basic or refresher first aid course.
7. True. In fact, a briefing erring by 10 knots and 180 degrees is still considered legally accurate. Crew need to gather weather information themselves. Learn how to get automated updates and read a wind meter or weather station. Always watch conditions; a balloon creates an enormous pilot blind spot. Constantly read surface winds as well as your balloon's speed and direction aloft especially near landing. Report any surprises to your pilot immediately and in a calm voice.
8. True. Precipitation can develop quickly and evade radar, making forecasts unreliable in this aspect. Your truck's windshield will show the finest drops of mist as silvery spots long before you feel them on your skin (or showing up on vehicle body panels). Drops of any size also appear as silvery streaks in the halo of headlights, lighted signs, or street lamps. Notify your pilot immediately and prepare for an immediate landing and/or quick pack-up.
9. False. Depending exclusively on this new trend carries some risks. Electronics require time for proficiency, may fail when relied on heavily and needed most, and offer a false sense of security. Electronics will not substitute for learning how to plot a flight path, identifying red zones, and predicting likely landing sites. Take advantage of available technology when it suits your needs without over-relying on it - keep that paper map at hand in your truck.
10. True. Propane poses 2 serious threats: cold burns and explosive fires. Fans, however, create many more. A shattered prop can spray shrapnel on anyone nearby. Loose clothing and ropes pulled into the cage can cause injury and damage. A hot exhaust can burn, and fumes blown into the basket can disorient a pilot. Debris blown into the envelope can cause a fiery rain on stand-up. A vigilant crew member who knows how to shut the fan off should attend it at every moment.
11. False. Never make this assumption. Many excited passengers won't listen to pre-flight briefings, believing they can exit the basket at will. A sudden loss of 200# can start an unplanned 200-400fpm climb which threatens everyone's safety. A crew chief should be able to deliver a pre-flight briefing or at least its highlights (Do NOT leave the basket unless called by name), and crew can physically block exiting passengers with their bodies around the sides of the basket.

CREW PROFICIENCY

12. True. Most balloons take 4-10 seconds to respond to crown line pressure, adding heat, venting in-flight, starting to “walk” a standing balloon, etc. Crew must constantly think seconds and minutes ahead to account for this lag time. Radio your pilot as soon as possible when you’ve identified hidden power lines, livestock, or other obstacles that require altering the flight path. Real-time responding is too late; your real control is over what will happen 4-10 seconds later.

13. True. Crew use a single downwind crown line to stabilize crosswind roll, control stand-up on hot inflation, and prevent the envelope from going past vertical. Roll will not usually develop in light winds, and the downwind line position’s effectiveness comes from plane of rotation alignment. Crew are aligned with the plane of rotation when the load ring moves directly to or away from them. In light winds, the plane of rotation almost always parallels wind direction.

14. False. Two misconceptions are at work here. First, stabilizing the basket doesn’t automatically stabilize the balloon. Stabilizing the load ring is the only consistent way to stabilize a balloon in moderate to strong winds. Second, more crown line crew can compound handling issues. Unified efforts are rare, and one mis-step can take everyone down. A smaller properly-placed crew with an effective strategy will consistently outperform much larger crews.

15. True. A tied-off balloon can only dissipate wind pressure and energy by rolling crosswind. Crew must align crown line pressure with load ring movement - NOT WIND DIRECTION. As even moderate winds can swing an envelope in a 180-degree arc, a crown line at some angle cross wind offers the most hot or cold inflation stability. Walk upwind on stand-up to maintain this angle and stability. Adjust relative to load ring motion, not wind direction or basket position.

16. True. A skilled and knowledgeable crew chief can do this single-handedly or walk 1-2 first-time crew through this task with little risk. Sustained line pressure in the plane of rotation can stabilize a standing balloon (load ring movement no more than 5’ in any direction) in moderate to strong conditions for minutes or even hours. Often little crew movement - several steps backward or forward - is necessary. This skill alone often determines inflation safety and the ability to launch.

17. False. Never assume your pilot sees what you see or knows what you know. Flying low or sun glare can interfere with a pilot’s sight lines. Trees often hide power lines. Livestock often gather near fencing or buildings. Target fixation can lead a pilot to tune out visual cues or even fly directly into a hazard. A simple and calm radio call (lines upwind, horses running, traffic at the target) can snap a pilot out of fixation and back into awareness.

18. True. A skilled crew can make or break a landing (where most accidents occur). Crew can scout out potential landing sites ahead of their balloon or even create new ones by moving vehicles/crowds or stopping traffic on a road. Adding weight can shorten or eliminate dragging. A drop line can stop a balloon or even take it crosswind or upwind. Skillfully handling the balloon in tight landing sites or in strong conditions can further prevent damage and injury.

19. True. Pilots often ask crew if a site is large enough for landing and need decisive answers quickly. Know your balloon’s space requirements. Pace off your balloon’s width and basket-load ring length. While walking, stop when you think you’re this close to your car or front door and then pace it off to determine your accuracy. This minimum space doesn’t account for weather, approach angle, and obstacles: factor these into your site assessments.

20. False. NEVER get in front of a moving basket: one that is ready to launch, approaching a landing, bouncing, dragging, or being walked to another site. A moving basket can throw you backwards or pull you underneath, pinning or running you over. Always approach a moving basket from the side or back. Ensure your feet don’t get run over or caught in rope handles or lines of any sort. Remain on the ground at all times!

21. True. Forward movement becomes downward movement when using a drop line. Drop line pressure in a steady wind or on a descending balloon often pulls the balloon directly downward and into that roof, fence, or tree you want to avoid. The pilot must add enough heat to remain level or even slightly positive before crew can pull the balloon without it descending. Two lines often provide more control and precision needed to safely guide a balloon to a better site.

22. True. Crew are ambassadors for their pilots and the entire sport of ballooning. Often the first to meet landowners, crew set the tone for all interactions that follow. Never argue with a landowner. Get their permission before doing anything (except in a true emergency); without it, you’re just another trespasser. Maximize positive impressions and minimize complaint potential in every way you can. Protect their interests and yours, and make it pleasant - no matter what.

**CREW PROFICIENCY**

23. False. Too many hands may in fact slow work down. Why hurry? Rain is moving in, other pilots need your landing site, the landowner's hostile, crew face brutal cold or heat, and many other reasons. Placing the bag near the equator and pulling streamered fabric over itself before stuffing it in will simplify and speed work. Carrying the half-full bag to the throat and stuffing progressively lighter fabric will save your back and stages you for backing your truck and loading quickly.

24. False. Tethering restricts hot air's natural tendency to rise, places extra stress on equipment, and creates extra demands for crew. Repeated launch-land cycles subject the entire balloon system and tether lines to restraining lift, wind pressure, and several tons of momentum. Crew must manage multiple lines, crowd control, and frequent passenger and tank loading/unloading while physically handling the balloon for prolonged periods - often in mid-day conditions.

25. True. Human error is the leading cause of flying accidents. Flying mishaps often feature headlines, photos, details, interviews, and commentary. Good news of safe flying lasts 3 days while bad news lasts 8-10 months in the public's mind. Established routines and plans prevent mishaps. Consider the consequences of your every move and ask yourself how they would look on the front page. You're an ambassador for all of us, and we're all always one decision away from CNN.





## SCHWONTKOWSKI, GORDON CROWN LINE COMMAND

Legal command and physical command of a balloon on the ground are often two entirely different matters. Handled properly, that 100' length of rope holds more power than both your burners and entire crew combined. Learn the basics of crown line command that provide unmatched levels of safety and fun

**Why do we have a crown line at all?**

- Positive throat pressure
- Burner output
- Lateral or crosswind roll

**Why study crown line command?**

- Safety
- Cost
- Perception

**Effectiveness/results when handled properly**

**Who's on your crown line?**

- What's your briefing?
- How do you handle a crown line?
- When does your technique fail?

**3 Generations of Crown Lines - Effectiveness**

- None
- Single – One-Size-Fits-All-Conditions/Situations (downwind) Crosswind or Double lines

**What would true crown line command look like?**

- Upside down – load ring controls balloon until airborne
- Load ring in the "zone"
- Minimal crew for maximum effect
- Crown line deployed unless in-flight
- Crew appear motionless/relaxed
- Crew effort/safety as function of wind speed

**Causes of Instability in ANY conditions**

- Moderate – high winds
- Slack crown line pressure
- Wind shift
- Envelope hit in crowded launch site
- Fan angle causes spinnaker effect

**Playground physics**

- Crack the whip
- Red rover
- Fluid dynamics

**Inflation dynamics – the rules have changed**

- Any balloon not in flight behaves more like a ground-based vehicle than an aircraft
- On the ground, the load ring – not the burner – controls the balloon's movement and stability
- As wind speed increases on a tied-off balloon, the risk of crosswind roll increases while the risk of standing up too fast drops to zero



**Pilot Guidelines**

- Use tie-off
- Pack it
- Peak it
- Park it
- Pork it

**Crew Choices**

- Single line downwind
- Single line crosswind
- Double line "Y"

**Crew Guidelines:**

- Briefings
- Plane of rotation: TO and AWAY load ring movement  
(forget wind direction)
- Constant pressure
- 3-5 second pressure window
- Single line – which way to break?
- Move upwind – not to basket – on stand-up
- Last-In/First-Out Rule: keep line deployed until launch/deflation

**NOTES:**

A complete discussion of concepts and techniques described in this presentation may be found in the new edition of "Hot Air Balloon Crewing Essentials" by Gordon Schwontkowski.

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## SCHWONTKOWSKI, GORDON LANDOWNER RELATIONS

Softer skills such as managing landowner relations may prove more essential to ballooning than technical flying skills. Every crew must know how to avoid, prevent, and manage a full range of situations that may await them on any given flight.

**LAND NOW, NO SIR versus LAND NOW OR LATER**

**History of landowner relations issues**

**Preparation begins long before landing**

**CARDINAL RULES OF LANDOWNER RELATIONS**

- Always ask permission before doing anything
  - Get permission: thank landowner, cooperate, proceed
  - Permission declined: don't argue, tell pilot, fly on, find another site
  - Pilot deflates w/o permission: leave vehicle on road, seek landowner and then balloon on foot
  - Emergency landing: get down safely and sort out details/explain/cooperate later
- Maximize positive impressions, minimize complaint potential
- Scales of invasion: people and vehicles
- Act as ambassadors for your pilot and entire sport
  - Landowner gifts
  - Steer clear of steer, take stock of livestock

**Last choice sites and ones to avoid at all costs**

**Farm landings**

- Definition of farm
- Hooves and horns

**Hostile landowners**

- Why they're mad
- It's not personal
- Defusing anger
- Knowing when to back down

**When the landowner has fangs....**

**Quick pack-up techniques**

**NOTES:**

A complete discussion of topics and techniques described in this presentation may be found in the new edition of the book "Hot Air Balloon Crewing Essentials" by Gordon Schwontkowski.



**TOM SHEPPARD  
BALLOON EVENT ORGANIZATION  
and MARKETING**

## FAA WAIVER DETAILS

FAA 8900-1 formally 8700-1  
Vol. 3

### 3-141. PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

- A. Issue Certificate of Authorization. 1220.
- B. Issue Certificate of Waiver. 1230.
- C. Complete DD Form 2535. 1231.

### 3-142. OBJECTIVE.

### 3-143. GENERAL.

### 3-144. APPLICATION FOR A CERTIFICATE OF WAIVER OR AUTHORIZATION.

**A. FAA Form 7711-2, Certificate of Waiver or Authorization Application.** An inspector who reviews relevant information about the proposed operation and site suitability processes applications for aviation events. FAA Form 7711-2 (Figure 3-27) is used. Not all items on the form may apply to each event. In other cases, additional information may be required. The FSDO manager has the authority to sign a waiver or authorization when the application is approved.

**C. Completion of Form 7711-2.** Upon receipt, the application should be reviewed for obvious discrepancies. If discrepancies exist, a meeting with the applicant should be arranged to resolve the issues to mutual satisfaction. The information submitted by the applicant on FAA Form 7711-2 must be revised by the applicant and will not be altered by the FSDO.

b) The event organizer of an airshow may be an individual, a group of individuals, or an organization. The event organizer of an airshow may appoint a responsible person that has the overall responsibility for the conduct of the airshow in a safe manner and in accordance with the conditions contained in the certificate of waiver or authorization issued for the airshow. The event organizer may delegate to other persons the authority to organize and control particular aspects of the event. At a small event, one person may be able to coordinate more than one activity, while at a large event, an activity may be controlled by a committee of persons delegated the appropriate authority.

8) Item 11. There is no specific requirement for the use of uniformed police or security guards. The need for policing depends upon several factors that must be discussed with the IIC to ensure adequate crowd control. However, it is highly recommended that uniform clothing be worn (high visibility T-shirts, hats, etc.) by individuals performing crowd control or other official duties.

a) The event organizer must ensure that the airshow demonstrations are conducted safely and without creating a hazard to any nonparticipants or spectators. It is imperative that all areas adjacent to the airshow site containing homes, factories, major highways, traveled thoroughfares, or any occupied vessel, vehicle, or structure be carefully evaluated before making a final decision for site selection, and that these areas can remain sterile if they are located under the aerobatic box.

b) With respect to crowd control, it is the event organizer's responsibility to ensure that all reasonable efforts are made to confine spectators to the spectator areas, ensure that sterile areas are evacuated and remain sterile, and to present a plan to the IIC in sufficient detail that specifies how this will be accomplished and who is responsible to police the aviation event.

b) If a scheduled air carrier serves an airport that is the site of an aviation event, arrangements must be made for the arrival and departure of such aircraft. It is usually adequate to schedule a break in the activities to allow for scheduled arrivals and departures. The event organizer should complete prior coordination with the air carrier and ATC.

11) Item 14. The FAA must see a proposed schedule of events to evaluate the application. It should contain at least a general description of the types of events and their approximate sequence in the show. The application may be accepted with a notation in item 14 that a schedule of events will be provided at a later, specified date and time.

### 3-152. BALLOON MEETS AND COMPETITIONS.

**A. Balloon Meets.** Routine balloon ascensions can usually be conducted in accordance with the provisions of part [91](#), and no waiver is required. However, balloon competitions will likely require a certificate of waiver or authorization with appropriate special provisions to maintain the safety of the nonparticipating public.

**B. Balloon Operations.** Flight competitions by manned balloons often involve operations at horizontal and vertical distances less than those required by part [91](#), § [91.119\(b\)](#) and [\(c\)](#). Operations at these altitudes are necessary to take advantage of varying wind conditions at different altitudes that are the balloonist's only means of directional control. These operations are acceptable when appropriate limitations are developed to ensure public safety and the safety of the participants.

**FAA WAIVER DETAILS**

**C. Public Safety.** Ballooning has grown significantly in recent years, and competitive tasks have been refined and standardized. The FAA's concern is that every effort is made to ensure public safety. The intent of § 91.119 should never be compromised when issuing waivers and developing special provisions.

1) Target areas must be under the control of event officials. The use of portable bull horns or public address systems provides an adequate means for crowd control, or for directing balloonists away from the target area in an emergency. Balloon landings are not normally permitted closer than 1,500 feet from the target or goal, although event officials may allow a reduction of this distance to 500 feet for safety considerations. Only balloon recovery ground support crewmembers and authorized event officials can be present at the landing site.

2) The relatively slow speed of balloons allows spectators to move from harm more easily than at an airshow where fast moving aircraft are performing. Accordingly, the designated spectator area can be minimized to a 200-foot radius away from the designated balloon goal/target. IICs should ensure that the sponsors assure spectators remain clear of the goal/target area during balloon meets or competitions.

**D. Balloon Competition Event Waivers.** To be found eligible for a waiver of § 91.119(b) and (c), the applicant must prepare and maintain an organized manned balloon competition manual that has been found ACCEPTABLE by the jurisdictional FSDO. The contents of the manual are the basis for issuance of the waiver. The applicant and the participants must comply with the balloon manual contents and requirements. No operations can be conducted under a waiver except while in VFR conditions during the period from sunrise to sunset, as specified in § 91.155.

1) Event organizers should be asked to submit a set of competition rules when applying for a waiver. Although this is not a regulatory requirement, it should be encouraged for the sake of conformity and safety. These competition rules should generally conform to a recognized industry standard, such as those developed by the Balloon Federation of America (BFA) for events sanctioned by the BFA Competition Division.

2) A waiver of § 91.119(b) and (c) for organized balloon competitions can be issued based on submission of an application containing the proposed operations and contents of the organized manned balloon competition manual. (See subparagraph 3-152E below.)

3) Section 91.119(b) and (c) should be waived only to the *extent necessary* to accommodate the event while allowing an acceptable level of safety. Evaluation of the site by the IIC determines the actual separation distances for a specific event; however, the following *minimum* distances and special provisions MUST be observed.

a) Section 91.119(b) may be waived to allow flight over a congested area at an altitude of no less than 500 feet above the highest obstacle within a 500-foot horizontal radius of the balloon. This section of the regulation may only be waived within a specified maximum distance from designated launch sites and/or target areas. This designated area will be determined by the event organizer and the FAA; this area must also be clearly delineated in the event organizer's manual before the event. (A scaled map, drawing, and/or aerial photographs should be in the event organizer's manual before the event.) The designated area should be the minimum area necessary to accommodate the event, and the area should be consistent with the event organizer's ability to control operations. A waiver of § 91.119(b) should not be issued if the target area is so small that a normal descent (200 to 300 feet per minute) cannot be made.

b) Section 91.119(b) may be waived to allow flight above, but not less than 75 feet from, any open-air assembly of persons (designated spectator area) under the direct control of the event organizer.

c) Section 91.119(c) may be waived to allow flight over open water or sparsely populated areas, no closer than 200 feet horizontally to any person, vessel, vehicle, or structure.

**E. Organized Manned Balloon Competition Manual.** The following is a list of the minimum required topics that must be addressed in the competition manual for a balloon event. Other information may also be included (see Figure 3-41).

1) Responsibilities and Procedures:

- Duties of personnel
- Registration and airworthiness determinations
- Pilot qualifications
- Pilot/crewmember briefing responsibilities
- Copy of letter(s) of agreement
- Event flight crewmember qualifications, experience, and maximum numbers onboard each balloon for each type of event

2) Ground Operations:

- Clear areas
- Spectator areas (designated primary and potential secondary areas)
- Crowd control requirements
- Landowner relations/notification

## FAA WAIVER DETAILS

- 3) Flight operations:
  - Areas of operations
  - Types of operations
  - Altitudes
  - Weather requirements
  - Communications requirements
  - Air traffic coordination

4) The organized manned balloon competition manual must incorporate § [91.119\(b\)](#) and [\(c\)](#) limitations as appropriate to the event in a form and manner acceptable to the FAA and the event organizer. The event organizer should describe in the manual as clearly as possible the manner of operations that are needed to comply with the event waiver.

5) The organized manned balloon competition manual must include a list and description of all events, tasks, and races to be included in the waiver.

**F. Personnel.** The organized manned balloon competition manual must contain the names of the following personnel who are responsible for the event:

- Flight director (event director)
- Person responsible for establishing and maintaining crowd control
- Event organizer's FAA liaison
- Persons responsible for obtaining weather data and conducting the pre-event pilot and event flight crewmember briefings

**G. Letters of Agreement.** In addition to the organized manned balloon competition manual, a letter of agreement clearly detailing all responsibilities may provide an excellent means of control. In the manual, the event organizer outlines the responsibilities assumed, such as crowd control, notification, communication, and briefing of participating pilots and event flight crewmembers. ATC identifies the services they provide, such as up-to-date weather, a portable tower, or direct communication line with the tower. The FSDO identifies the necessary aircraft and airman certification qualifications and site inspection requirements through the waiver process.

**H. Balloon Event Flight Crewmembers.** Only pilot and event flight crewmembers, as described in the organized manned balloon competition manual, may be carried onboard any balloon operating under the waiver issued to the event organizer.

1) Event flight crewmembers will be restricted to the minimum number required for the type of event as specified in the organized manned balloon competition manual. Event flight crewmembers should be kept to a minimum for competitive events.

2) All event flight crewmembers must have received appropriate training concerning their duties relative to the event, and must attend the event pilot and flight crewmember briefing before each event. These crewmembers must sign a statement that they have been briefed and that they are designated event flight crewmembers for the purpose of the specific event for which the waiver was granted.

3) The PIC of each balloon is responsible for obtaining the signed statements on a form furnished by the event organizer. This form will be maintained by the PIC during the event, and returned to the event organizer and made available to the FAA upon request.

4) Balloon event flight crewmembers are differentiated from ground support launch and recovery crewmembers.


**I. Maximum Wind Speed.** The maximum wind speed for launch and at the target zones is mutually determined by the event organizer/flight director and the FAA. These limitations will be placed in the operations manual. The maximum wind speed limitations should be determined after considering the local terrain conditions and the competency of the participating airmen and the limitations of the aircraft. If a balloon does not have an FAA-approved flight manual, operating limitations can be found on the type certificate data sheet (TCDS). The actual means of determining the wind speed must be mutually agreeable to the FAA and the event organizer. The IIC and/or the event organizer/flight director may wish to consider moving the designated spectator area barriers if the wind speed is excessive.



**J. Types of Competitive Tasks.** Competitive tasks are exercises in navigation using changes in wind direction. The winner of a task is the balloonist who can best take advantage of changes in wind direction by ascending and descending. Event organizers generally engage launch directors to control staggered launch times and ensure safety for multiple launches. The following are some typical balloon competitive tasks, based on information provided by the BFA. See Figure 3-41 for detailed descriptions of the tasks.

- Pilot declared goal (PDG)
- Judge declared goal (JDG)
- Multiple judge declared goal (MJDG)
- Elbow (ELBO)
- Hare and hound (HNN)
- Convergent navigational task (CNT)
- Fly on task (FOT)
- Gordon Bennett memorial (GBM)
- Watership down
- Key grab

FAA WAIVER DETAILS Figure 3-27, Sample FAA Form 7711-2, Certificate of Waiver or Authorization

 US Department of Transportation Federal Aviation Administration  <b>APPLICATION FOR                  CERTIFICATE OF WAIVER                  OR AUTHORIZATION</b>		Form Approved: O.M.B. No. 2120-0027 APPLICANTS - DO NOT USE THESE SPACES			
		Region	GREAT LAKES	MARCH 23, 2006	
		Action	As Per 7711-1		
		<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved - Explain under "Remarks"			
		Signature of authorized FAA representative <i>James E. Hightower</i>			
<b>INSTRUCTIONS</b>					
Submit this application in triplicate (3) to any FAA Flight Standards district office.					
Applicants requesting a Certificate of Waiver or Authorization for an aviation event must complete all the applicable items on this form and attach a properly marked 7.5 series Topographic Quadrangle Map(s), published by the U.S. Geological Survey (scale 1:24,000), of the proposed operating area. The map(s) must include scale depictions of the flightlines, showlines, race courses, and the location of the air event control point, Police dispatch, ambulance, and fire fighting equipment. The applicant may also wish to submit photographs and scale diagrams as supplemental material to assist in the FAA's evaluation of a particular site. Application for a Certificate of Waiver or Authorization must be submitted 45 days prior to the requested date of the event.					
Applicants requesting a Certificate of Waiver or Authorization for activities other than an aviation event will complete items 1 through 8 only and the certification, item 15, on the reverse.					
1. Name of organization		2. Name of responsible person			
HIGH ON KALAMAZOO, INC.		JOHN M. ELLIS			
3. Permanent mailing address	House number and street or route number	City	State and ZIP code	Telephone No.	
	5605 PORTAGE ROAD	KALAMAZOO	MI 49002	(616) 343-2548	
4. FAR section and number to be waived					
91.117 (a & b), 91.303 (c, d, & e), 91.119 (b & c), 91.121, 91.127, 91.129, 105.15					
5. Detailed description of proposed operation (Attach supplement if needed)					
6. Area of operation (Location, altitudes, etc.)					
KALAMAZOO COUNTY AIRPORT 10,000' AND BELOW, RADIUS OF TEN (10) NAUTICAL MILES					
7a. Beginning (Date and hour)		b. Ending (Date and hour)			
APPLICANT MAY USE ATTACHMENT		APPLICANT MAY USE ATTACHMENT			
8. Aircraft make and model (a)	Pilot's Name (b)	Certificate number and rating (c)	Home address (Street, City, State) (d)		
	APPLICANT MAY USE ATTACHMENT				

Application FAA Form 7711-2 (6-86) Supersedes Previous Editions

FAA WAIVER DETAILS

▶ <i>ITEMS 9 THROUGH 14 TO BE FILLED OUT FOR AIR SHOW/AIR RACE WAIVER REQUESTS ONLY.</i>				
9. The air event will be sponsored by: <p style="text-align: center;">HIGH ON KALAMAZOO, INC.</p>				
10. Permanent mailing address	House number and street or route number <p style="text-align: center;">5605 PORTAGE ROAD</p>	City <p style="text-align: center;">KALAMAZOO</p>	State and ZIP code <p style="text-align: center;">MI 49002</p>	Telephone No. <p style="text-align: center;">(616) 343-2548</p>
11. Policing (Describe provisions to be made for policing the event.)  APPLICANT MAY USE ATTACHMENT				
12. Emergency facilities (Mark all that will be available at time and place of air event.)  <input checked="" type="checkbox"/> Physician <input checked="" type="checkbox"/> Fire truck <input checked="" type="checkbox"/> Other - Specify <u>EMS HELICOPTER</u> <input checked="" type="checkbox"/> Ambulance <input checked="" type="checkbox"/> Crash wagon _____				
13. Air Traffic control (Describe method of controlling traffic, including provision for arrival and departure of scheduled aircraft.)  APPLICANT MAY USE ATTACHMENT				
14. Schedule of Events (include arrival and departure of scheduled aircraft and other periods the airport may be open.)				
Hour (a)	Date (b)	Event (c)		
APPLICANT MAY USE ATTACHMENT				
<i>If sufficient space is not available, the entire schedule of events may be submitted on separate sheets, in the order and manner indicated above.</i>				
<div style="display: flex; align-items: center;"> <div style="font-size: 2em; margin-right: 10px;">▶</div> <div> <p><b>Please Read</b></p> <p>The undersigned applicant accepts full responsibility for the strict observance of the terms of the Certificate of Waiver or Authorization, and understands that the authorization contained in such certificate will be strictly limited to the above described operation.</p> </div> </div>				
15. Certification - I CERTIFY that the foregoing statements are true.				
Date <p style="text-align: center;">3/9/2006</p>	Signature of Applicant			
Remarks				

This manual has been prepared as part of the application for the issuance of a Certificate of Waiver with attachments and special provisions for a Manned Free Balloon Competition on [insert date]. [Insert event name] BALLOON RACE.

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#### Section I. Purpose

This manual is submitted as a part of an application for a waiver of Title 14 of the Code of Federal Regulations ([14 CFR part 91](#) , §§ [91.119\(b\)](#) and [91.119\(c\)](#) , by the [insert name of organization] for the [insert name of event] Balloon Race. Specifically, the waiver will allow officially registered balloons to operate at an altitude of no less than [insert number] feet above the highest obstacle within a [insert number]-foot radius of the balloon en route to the target within a [insert number] nautical mile (or other specified distance) radius of the designated launch field or goal. It will also allow for officially registered balloons to operate at [insert number] feet AGL over spectators and to set goals and/or targets at a minimum distance of [insert number] feet from physical barriers provided for spectator control.

No waiver is requested nor is a waiver required by 14 CFR for any mass ascensions or pilot choice launches.

#### Section II. Responsibilities and Procedures

- a) Duties of Personnel
  - 1) Event Director—[insert name]
  - 2) Operations Director—[insert name]
  - 3) FAA Liaison—[insert name]
  - 4) Weather Officer—[insert name]
  - 5) Safety Officer—[insert name]
- b) Registration and Airworthiness Determination.

Balloons flown at the event must have current certificates of registration and airworthiness, or in place of the latter, an equivalent document from the Federal Aviation Administration. Chapter [insert number] of the competition rules cover procedures for balloons damaged or otherwise made unairworthy during the event. Throughout the event the Safety Officer or his designees; and appropriate FAA personnel will be consulted as necessary.

**FAA WAIVER DETAILS**

c) Pilot and Event Flight Crewmembers

Each pilot must hold the appropriate pilot certificate (Private or Commercial) with Lighter-than-Air Category and Free Balloon Class Rating. Each pilot must show evidence of current Flight Review ([14 CFR part 61](#), § [61.56](#)) and must also show evidence of currency per § [61.57](#). Minimum hours as PIC per the organizers specified time must also be shown.

Event flight crewmembers carried on board a balloon during the event must have been briefed by the pilot of the balloon and must attend the pilot briefing for that flight. Each event flight crewmember must sign the waiver form supplied by the pilot. Each event flight crewmember must attest that they have attended the applicable pilot briefing(s) and have read and understand the conditions of the waiver. Only [insert number] event flight crewmember(s) may be carried in each balloon during the flight.

d) Pilot Crew Briefing Procedures

All pilots are required to sign a statement indicating that they have read and understand the provisions of the waiver and the official [insert title] Competition Rules prior to any competitive flight.

Before each flight all pilots must attend the flight briefing. Chapter [insert number] of the competition rules provides details of all briefings.

e) Letter of Agreement

Letter of agreement will be issued and signed as required for the specific type of event.

f) Event Documentation

All relevant registration files, task data sheets, pilot registration information etc., will be maintained by the organizer at least [insert number] days after the event and will be made available to the FAA Monitor upon request. Competition maps and task sheets will be made available to the FAA Monitor at the time of the pilot briefing.

**Section III. Ground Operations**

a) Clear Areas

Clear areas are established at each target site. These areas are kept clear of spectators and are usually fenced. [Insert type of officials] will police any area (such as the target area on the main launch field) to keep unauthorized persons out. In the Minimum Altitude Diagram, this is referred to as the "Target Area."

b) Spectator Areas

The primary competitive spectator area is located at the main launch site. Crowd control is initiated by physical barriers around the launch site and target areas controlled by [insert type of officials]. Official and balloon recovery vehicles are parked in restricted areas. Traffic is controlled by local police as required. Use of existing and temporary barriers secure spectators from the briefing area and headquarters and from potential low level flight areas surrounding goals/targets (see additional remarks under "ALTITUDES").

Competitive goals/targets set outside of the primary launch area in remote areas attract few, if any, spectators beyond those involved in race operations (officials and crews). Scoring/measuring officials control these areas as determined by conditions, and will isolate the area surrounding the goal/target from any unauthorized personnel.

c) Crowd Control Requirements

Crowd control will be provided by [enter law enforcement agency name(s)] agencies and officials of the balloon event under the direction of the Safety Officer.

d) Landowner Relations/Notification

Positive landowner relations are vital to the continuance of sanctioned events. There is an ongoing effort by all involved persons to maintain good landowner relations for the event. Additionally, as per Rule [enter number] pilots must obtain permission for launch from private property; and per Rule [enter number] minimize disturbing landowners. Landowners may request that their property be indicated on the competition map as a Prohibited Zone (PZ) as per Rule [enter number].

**Section IV. Flight Operations**

a) Area of Operation

The operations will occur in a [insert number] mile radius of the launch field located at [insert name] Airport as indicated on the official competition map (to be provided as requested). Final landings may occur beyond these boundaries, but no pilot choice takeoffs or mass ascensions will exceed these boundaries. Headquarters for the event operations will be located at the [insert name of location].

**b) Types of Operations**

The event will consist of single and multiple tasks as called by the Director after consultation with other approved competition officials, as appropriate, considering the conditions at hand and forecast to develop during the anticipated flight times.

The tasks will include:

**1) Pilot Declared Goal**

Each pilot will fly from a launch area and will attempt to drop a marker close to a goal selected by him/her. Pilots define goals by description and map reference. The goals are declared in writing and given to a timekeeper. Each pilot flies from the designated launch area and attempts to drop a marker close to the selected goal. The result is the distance from the declared goal to the observed mark. The shortest distance wins. The landing after dropping the marker cannot be less than 1,500 feet from the declared goal.

**2) Judge Declared Goal**

Each pilot flies from the designated launch area and attempts to drop a marker as close as possible to a goal set by the officials. The result is the distance from the declared goal to the observed mark. The shortest distance wins. The landing after dropping the marker cannot be less than 1,500 feet from the declared goal.

**3) Multiple Judge Declared Goal**

Each pilot flies from the launch area and chooses one of a number of goals set by the officials. The pilot attempts to drop a marker near the goal chosen. The result is the distance from the observed mark to the nearest goal. The shortest distance wins. The landing after dropping the marker cannot be less than 1,500 feet from the selected goal.

**4) Hare and Hound**

A hare balloon will fly from the launch area and each pilot will attempt to fly near the final landing place of the hare and drop the marker. In the West, this may be referred to as the "Road Runner Race." The lead balloon, "the hare," takes off several minutes before the rest of the balloons and drops a marker at a designated point. The hare balloon deflates and is removed from the landing area. The marker dropped by the hare balloon becomes the target for the later balloons, "the hounds." The hounds try to drop markers as close as possible to the hare balloon's target. After dropping the marker from the hound balloon, landing is at the pilot's discretion but cannot be less than 1,500 feet from the target.

**5) Fly In Task**

Pilots find their own launch areas and attempt to reach a set goal or target.

**6) Fly On Task**

A task where a pilot declares a goal to which he flies, after dropping his marker in another task.

**7) Gordon Bennett Memorial**

The competitors will maneuver their balloons a prescribed distance from a target on the ground (scoring area). They will then attempt to maneuver back to the scoring area and drop markers on the target.

**8) Max Distance<sup>3</sup>/<sub>4</sub> Minimum Distance**

Pilots will attempt to drop their markers in the Scoring Area a maximum or minimum distance from the launch point as specified on the task sheet.

**9) Elbow (ELBO)**

Each pilot flies from the launch area and attempts to achieve the greatest change of flight direction during the flight with the least angle of divergence. A 180-degree change in direction with a zero angle of divergence is best. Two concentric circles, specific distances apart, surround the launch point. The pilot drops two markers. The first marker must be dropped between the inner and outer circle. The second marker must be dropped within the outer circle. The second marker cannot be less than 5,000 feet from the first marker. Landing after dropping the marker is at the pilot's discretion.

**10) Convergent Navigational Task (CNT)**

Officials establish a goal, but pilots find their own launch areas for the attempt to reach the goal. The boundary of the launch area declared by the pilot is the physical boundary of a field or a circle with a 300-foot radius from the inflation point, whichever is less. The officials place a target at the goal 30 minutes before the launch period. The pilot launches from a selected site, attempts to navigate to the target, and drops a marker. The result is the distance from the target to the marker. The shortest distance wins. The landing after dropping the marker is at the pilot's discretion but cannot be less than 1,500 feet from the target.

FAA WAIVER DETAILS

11) Watership Down

This is a two-part task. Pilots find their own launch sites and fly to a target established by the officials. At a specified time before the launch, a hare balloon takes off adjacent to the target and drops a marker at a designated point. This marker becomes the second target. The hare balloon deflates, and the envelope remains flattened on the ground to serve as a guide to the second target area. Each competing pilot drops a marker as close as possible to the first target, which was the launch site of the hare balloon. Pilots then fly-on to drop a second marker as close as possible to the target marker placed by the hare balloon.

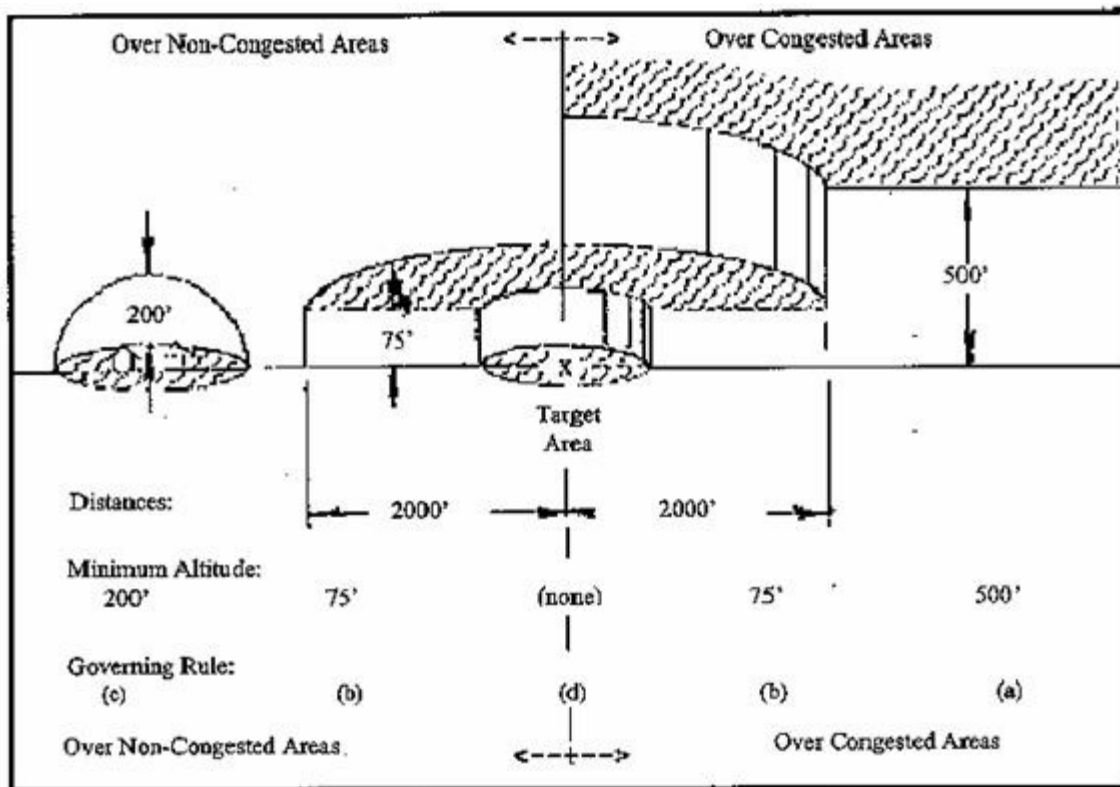
12) Key Grab

This event usually has a target (generally a tall pole with the keys to a new automobile affixed to the top) in a centralized location. The balloonist must depart a predetermined distance from the target. The object is to maneuver the balloons, one by one, over the target so the pilot can attempt to grab the keys as the balloon goes by the pole.

The area around the pole must be completely clear of spectators and under the control of the event officials. Event organizers should have portable bull horns or a public address system to control the crowd movements or to direct the balloonist away from the target area in an emergency. If these precautions are observed, a waiver of § 91.119(c) can be issued to allow operations closer than 500 feet to the crowd.

The event organizer must establish procedures to ensure that the balloonists will abort the key grab attempt if it becomes apparent that the balloons' ground tracks will not be within the operating area or when a realistic chance for the key is no longer possible. The landing areas must be segregated from the spectators; only bona fide recovery crews should be present in the landing area to assist the balloonist with recovery. All participants must be briefed before the operations.

c) Minimum Altitude Diagram



d) Altitudes

The waiver provides that registered balloons will be allowed to make approaches to targets and/or goals within the designated areas. Balloons making these approaches will be permitted to fly over the designated spectator areas at an altitude of not less than [insert number] feet AGL. The balloons must have attained a state of altitude equilibrium at this [insert number]-foot minimum altitude and not be descending while passing over designated spectator areas. It is felt that this altitude is sufficient to allow for unusual circumstances with an adequate margin of safety for spectators.

## **SHEPPARD, TOM (cont'd)**

### **FAA WAIVER DETAILS**

In order to provide the highest possible level of safety for spectators, the scoring officials will cause scoring/measuring officials to be positioned among the spectators to allow crowds to be shifted as necessary and to provide warning regarding any markers that may be dropped in the spectator areas. Announcements over the public address systems will also advise the spectators of the possibilities of both low flying balloons over the area and of markers being dropped in this area.

#### **e) Weather Requirements**

Flight operations will be conducted during the period from published sunrise to sunset, with the Visual Flight Rules (VFR) and weather conditions as specified in § [91.155](#). Maximum demonstrated surface winds must be [insert number] or less.

The decision for flight is the sole responsibility of the pilot and the decision of whether to hold a task is the sole responsibility of the director after consultation with appropriate safety officials.

#### **f) Communications Requirements**

Primarily by required pilot briefing, however, supplementary information is also given on local radio stations and on the public address system. Most pilots carry either FM, CB, or aircraft radios, and some communication is possible by radio.

#### **g) Air Traffic Coordination**

A NOTAM will be requested from the [insert name] FSS advising air traffic of numerous balloons in the [insert name] area at varying altitudes from [insert date] through [insert date] during the three hours immediately after sunrise and three hours prior to sunset.

This Operations Manual includes the information and requirements contained in the following attachments.

#### **ATTACHMENTS:**

- Sectional of Area
- List of Pilot Entries
- Schedule of Events
- Statement of Responsibility
- Competition Rules

#### **WEATHER BRIEFER:**

#### **AIRSHOW DIRECTOR / EVENT SPONSOR:**

(Including that person named on the waiver as being "responsible to ensure safety of the event")

#### **WHO SHOULD NOT ATTEND:**

- Pets
- Individual Sponsors
- Media Representatives
- Spouses
- Children
- Relatives/Friends
- Anyone not directly associated with the performance



This manual has been prepared as part of the application for the issuance of a Certificate of Waiver with attachments and special provisions for a Manned Free Balloon Competition on June 14 to June 18, 2006. 2006 MONROE BALLOON RALLY WITH HONDA WORLD GRAND PRIX.

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**SECTION I.**

**PURPOSE:**

This manual is submitted as a part of an application for a waiver of Title 14 of the Code of Federal Regulations (14 CFR) part 91, Sections 91.119(b) and 91.119(c) by the North American Balloon Association for the Monroe Balloon Race . Specifically, the waiver will allow officially registered balloons to operate at an altitude of no less than five hundred (500) feet above the highest obstacle within 500 feet radius of the balloon enroute to the target within a ten nautical mile (or other specified distance) radius of the designated launch field or goal. It will also allow for officially registered balloons to operate at seventy five (75) feet AGL over spectators and to set goals and/or targets at a minimum distance of 200 feet from physical barriers provided for spectator control.

No waiver is requested nor is a waiver required by 14 CFR for any mass ascensions or pilot choice launches.

**SECTION II**

**RESPONSIBILITIES AND PROCEDURES**

a) TECHNICAL OPERATIONS PERSONNEL

- 1) Operations Director – Debbra A. Spaeth  
Competition Director – Maury Sullivan  
FAA Liaison - Thomas A.F. Sheppard  
Meteorologist – Allen Yost  
Safety Officer - Allen Yost  
Launch Director - Debbra A. Spaeth

**b) CERTIFICATION/AIRWORTHINESS PROCEDURES**

Balloons flown at the event must have current certificates of registration and airworthiness, or in place of the latter, an equivalent document from the Federal Aviation Administration. Chapter 3 of the competition rules cover procedures for balloons damaged or otherwise made unairworthy during the event. Throughout the event the Safety Officer or his designees; and appropriate FAA personnel will be consulted as necessary.

**c) PILOT AND AIR EVENT FLIGHT CREWMEMBERS**

Each pilot must hold the appropriate pilot certificate (Private or Commercial) with Lighter-Than-Air Category and Free Balloon Class Rating. Each pilot must show evidence of current Flight Review (FAR 61.56) and must also show evidence of currency per FAR 61.57. Minimum hours as PIC per the organizers specified time must also be shown.

Event flight crewmembers carried on board a balloon during the event must have been briefed by the pilot of the balloon and must attend the General Briefing and the pilot briefing for that flight. Each event flight crewmember must sign the waiver form supplied by the pilot. Each event flight crewmember must attest that they have attended the applicable pilot briefing(s) and have read and understand the conditions of the waiver. Only two event flight crewmembers may be carried in each balloon during the flight.

**d) PILOT BRIEFING PROCEDURES**

All pilots are required to sign a statement indicating that they have read and understand the provisions of the waiver and the official NABA Sanctioned Competition Rules prior to any competitive flight.

Before each flight all pilots must attend the flight briefing. Chapter 8 of the competition rules provides details of all briefings.

**e) LETTER OF AGREEMENT**

Letter of agreement will be issued and signed as required for the specific type of event.

**f) EVENT DOCUMENTATION**

All relevant registration files, task data sheets, pilot registration information etc., will be maintained by the organizer at least sixty days after the event and will be made available to the FAA Monitor upon request. Competition maps and task sheets will be made available to the FAA Monitor at the time of the pilot briefing

**SECTION III**

**GROUND OPERATIONS**

**a) CLEAR AREAS**

Clear areas are established at each target site. These areas are kept clear of spectators and are usually fenced. Launch officials will police any area such as target areas to keep unauthorized persons out. In the Minimum Altitude Diagram, this is referred to as the "Target Area".

**b) SPECTATOR AREAS**

The primary competitive spectator area is located at the main launch site. Crowd control is initiated by physical barriers around the launch site and target areas controlled by law enforcement officials. Official and balloon recovery vehicles are parked in restricted areas. Traffic is controlled by local police as required. Use of existing and temporary barriers secure spectators from the briefing area and headquarters and from potential low level flight areas surrounding goals/targets (see additional remarks under "ALTITUDES"). It should be noted that the flight of the balloon is occurring at sufficiently low speeds that people have ample opportunity of movement away from approaching balloons.

Competitive goals/targets set outside of the primary launch area in remote areas attract few, if any, spectators beyond those involved in race operations (officials and crews). Scoring/measuring officials control these areas as determined by conditions, but in general isolate the area surrounding the goal/target from any unauthorized personnel.

**c) CROWD CONTROL**

Crowd control will be provided by the appropriate local law enforcement agencies and officials of the balloon event under the direction of the Safety Officer.

**d) LANDOWNER RELATIONS**

Positive landowner relations are vital to the continuance of sanctioned events. There is an ongoing effort by all involved persons to maintain good landowner relations for the event. Additionally, as per Rule #9.4, pilots must obtain permission for launch from private property; and per Rule #10.5, minimize disturbing landowners. Landowners may request that their property be indicated on the competition map as a Prohibited Zone (PZ) as per Rule #7.3. (Rule numbers are for NABA Sanctioned Events only)

**SECTION IV.**

**FLIGHT OPERATIONS**

**a) AREA OF OPERATION**

The operations will occur in a 10 nautical mile radius of the launch field located at Green County Fairgrounds (N42o37.04' W089o47.49') as indicated on the official competition map (to be provided as requested). Final landings may occur beyond these boundaries, but no pilot choice take-offs or mass ascensions will exceed these boundaries. Headquarters for the event operations will be located at the Green County Fairgrounds.

**b) TYPES OF OPERATIONS**

The event will consist of single and multiple tasks as called by the Competition Director after consultation with other approved competition officials and the FAA monitor (if available), as appropriate, considering the conditions at hand and forecast to develop during the anticipated flight times.

The tasks will include:

**1) PILOT DECLARED GOAL**

Each pilot will fly from a launch area and shall attempt to drop a marker close to a goal selected by him.

**2) JUDGE DECLARED OR MULTIPLE JUDGE DECLARED GOAL**

Each pilot will fly from a launch area and attempt to drop a marker close to a goal or goals.

**3) HARE AND HOUND**

A hare balloon will fly from the launch area and each pilot will attempt to fly near the final landing place of the hare and drop a marker.

**4) FLY IN TASK**

Pilots find their own launch areas and attempt to reach a set goal or target.

**5) FLY ON TASK**

A task where a pilot declares a goal, to which he flies after dropping his marker in another task.

**6) GORDON BENNETT MEMORIAL**

Pilots will attempt to drop their markers within a Scoring Area as close as possible to a target or other defined location(s).

**7) MAX DISTANCE - MINIMUM DISTANCE**

Pilots will attempt to drop their markers in the Scoring Area a maximum or minimum distance from the launch point as specified on the task sheet.

**8) RACE TO A LINE**

Pilots are timed to a specified point by use of GPS.

**9) CONSTELLATION TASK (Scattered Goals)**

Up to eight targets are located in various locations. Pilots are required to drop markers in up to three of the targets.

**c) ALTITUDES**

The waiver provides that registered balloons will be allowed to make approaches to targets and/or goals within the designated areas. Balloons making these approaches will be permitted to fly over the designated spectator areas at an altitude of not less than seventy five (75) feet above ground level. The balloons must have attained a state of altitude equilibrium at this 75 feet minimum altitude and not be descending while passing over designated spectator areas. It is felt that this altitude is sufficient to allow for unusual circumstances with an adequate margin of safety for spectators.

In order to provide the highest possible level of safety for spectators the scoring officials will cause scoring/measuring officials to be positioned among the spectators to allow crowds to be shifted as necessary and to provide warning regarding any markers that may be dropped in the spectator areas. Announcements over the public address systems will also advise the spectators of the possibilities of both low flying balloons over the area and of markers being dropped in this area

**d) WEATHER REQUIREMENTS**

Flight operations will be conducted during the period from published Sunrise to Sunset, with Visual Flight Rules (VFR)(VMC) and weather conditions as specified in FAR 91.155.

Maximum demonstrated surface winds must be 10kts (5m/s) or less.

The decision for flight is the sole responsibility of the Pilot and the decision of whether to hold a task is the sole responsibility of the Director after consultation with appropriate safety officials and the FAA Monitor (if available).

**e) COMMUNICATIONS**

Primarily by required pilot briefing, however, supplementary information is also given on local radio stations and on the public address system. Most pilots carry either FM, CB or aircraft radios and some communication is possible by radio.

**f) AIR TRAFFIC NOTIFICATION**

A NOTAM will be requested from the Green Bay FSS advising air traffic of numerous balloons in the Monroe area at varying altitudes from Wednesday June 14, 2006 through Sunday June 18, 2006 during the three hours immediately after sunrise and three hours prior to sunset.

This Operations Manual includes the information and requirements contained in the following attachments.

**ATTACHMENTS:**

- Sectional of area
- List of Pilot Entries
- Schedule of Events.
- Statement of Responsibility.

**EMERGENCY PLANS FOR BALLOON EVENTS**

OBJECTIVE: To control an emergency involving a balloon, multiple balloons or retrieve vehicles.

A briefing will be held prior to the Master Briefing with all persons involved with the Emergency Plan. This emergency plan meeting will usually be held immediately after the officials briefing.

There are many considerations when formulating the emergency plan for YOUR event. These include:

- Who is in the communications loop during an emergency.
- What are each persons responsibilities.
- Use of code words for minimum disclosure.
- Managing the crowd (if applicable)
- Managing the press
- Managing the other pilots and crews.
- Managing the Organizer/Sponsor.
- Post emergency meetings.
- Post emergency statements.

Important:

- Never speak off the record.
- Personalize your communications, e.g. "I believe", "In my opinion".

In some cities the "Emergency Service" groups like to be involved. These should be welcomed as they can provide valuable information on local emergency plans and facilities. You are usually an outsider, so work closely with the local volunteers and learn all you can from them.

PLAN OF ACTION The Event Director, or his assigned assistant, will take command of an emergency situation. This is understood and agreed upon with the organizer/host/sponsor etc. prior to the start of the event.

Emergencies will occur in the vicinity of the launch field or in the countryside. When an emergency occurs in the countryside the event spectators, generally speaking, know nothing of the occurrence until they see it on TV or read about it in the papers.

If at a large event, with a public address personality, it is essential that he/she be briefed on what to do in the event of a disaster at the launch field. Nothing could be worse than giving a graphic blow by blow description of the disaster to the spectators.

There are basically four types of emergencies that may have to be dealt with.

- Landowner problem
- Accident with injuries
- Accident with fatalities
- Refueling accident

Upon report of an emergency, the Director will make, or arrange for, the necessary announcement and/or phone calls, to enable assigned persons with the flight operations staff and the organizers staff to be called together to be briefed and sent to their respective positions to handle the situation.

If an announcement has to be made, it is better done in code. Several codes can be used, either a straight message such as "Mother wants you to come home" or code numbers such as "Code18". If you use several codes, make sure they are different enough that no one will confuse them.

Upon the prearranged command or announcement, the following persons will meet in the Event Directors office or other designated place as instructed:

- Event Director
- Safety Officer
- Land Owner Relations Officer
- Event Organizers Representative
- Public Relations/ Media Representative
- Police and/or Sheriffs Dept. Representative
- Others as instructed.

**EMERGENCY PLANS FOR BALLOON EVENTS**

The Director or his assistant will take charge of the emergency plan.

The Safety Officer will go to the scene of the accident.

If the Safety Officer is off-site he may receive instructions from the Director by telephone.

The public relations/media representative will communicate with the media to name the emergency situation spokesperson and advise when and where the news conference will take place. It is very important to talk to the press as quickly as possible, and to keep them informed. Tell them as much as you feel comfortable with, but **DO NOT SPECULATE**. The press will do their best to get from you, in the form of speculation, more information than you have. Be polite and firm; tell them only the facts as you know them. Remember the press can be very cruel, try not to give them any information that will cause pain or anguish to a pilot's or crew member's family. The term "News" covers a multitude of sins.

At large events, an FAA Liaison may be on the technical staff. At most events, the Safety Officer performs this function. The FAA may, or may not, have a monitor on site. The FAA must be kept informed by the appropriate person on the technical staff.

After an emergency, the rumor mill among pilots and crews will run rampant. The Director must keep this under control by deciding what to tell, and when, at future briefings. The goal is to "get on with the event", without dwelling on the past during pilot briefings.

A good Event Director (Often referred to as Balloonmeister at weekend events) is **ALWAYS** available, 24hrs a day. Someone knows where he can be reached at any time should there be an emergency. He should not be off flying the task and unavailable if he is needed at a moments notice.

EMERGENCY PLANS FOR BALLOON EVENTS

SAMPLE

SAMPLE

SAMPLE

EMERGENCY PLAN FOR < >

The Director will be responsible for coordinating activates when the Emergency Plan is put into effect. This plan will be activated under, but not limited to, the following:

- Flight accident involving one or more balloons.
- Retrieve crew accident involving injuries or death.
- Serious problems with landowner(s).
- Refueling accident.

The following persons will be part of the emergency plan loop:

- < > Event Director
- < > Deputy Director
- < > Safety Officer
- < > Land Owner Relations
- < > Event Organizer Representative
- < > PR/Media Representative
- < Local police and/or Sheriffs' Dept. Representative>
- < Others may be named depending on type of event>

On report of an emergency, the Event Director will assess the situation and make an announcement to call a meeting of the named staff.

The meeting will be held at the < launch field location > or the < hotel or headquarters >.

Telephone Numbers (M is Mobile Phone).

- < Director > < ----- > <M ----- >
- < Deputy Director > < ----- > <M ----- >
- < Safety Officer > < ----- > <M ----- >
- < Event Org. Rep.> < ----- > <M ----- >
- < Media Tent > < ----- >
- < Sheriff's Trailer > < ----- >
- < Land Owner Relations > < ----- > <M ----- >
- < List others depending on Event >

The Director is to be advised of any and all emergencies. He will then consults with the appropriate personnel and decide the course of action. A meeting will be called as appropriate. The persons concerned will be called by telephone or by announcement on the PA system depending on the circumstances.

The announcement could be "Mother wants you to come home" (or similar) When this announcement is made, all persons will meet in the Director's office.

Depending on the type and extent of the emergency the Director may have already dispatched members of the team to the scene to get an up to date report during the meeting.

All personnel will be given their assignments for the particular situation at hand and the Director will advise of time of time and place of any further meetings.

## BALLOON COMPETITION SCORING

For the majority of competitors their eyes glaze over when we talk about scoring. They are interested in the number of points they receive but do not want to know how we came up with that number. For the convenience of the Scoring Officers, most scoring software systems are designed so they are very easy to use and are very user friendly. The reason for this is that most Scoring Officers around the country only use it once or twice a year.

There are several scoring formulas used in balloon competition and they all have a specific purpose. Let us look at each one in detail.

The first formula, the one we use for sanction tasks is:

$$\frac{(P - N + 0.5) \times 1000}{P}$$

Where P = the number of pilots entered in the task.

N = Numerical position of pilot when pilots are numbered in sequence according to their standing in the task results.

Note: We add 0.5 in the formula. More about that later.

As you know, sanction tasks are flown all over the country at events large and small, they are reported to the BFA as number of pilots in the task and the pilots position in the task. The software on the computer, in the BFA office, calculates the points and keeps a record of them in that pilot's file.

The first sanctioned task was held in West Bend WI. Soon after this the Events Committee decided it needed to score these tasks. It would also be necessary to require a record kept of these scores. Before we had computers this was done by hand and all the records were kept in two ledgers. In those days we had long waiting lists for the Nationals so the ranking was important.

An important point to remember is that the sanction task formula is designed for single task use only. It should not be used as the formula for a multiple task event, where the points are added together, as it is possible to get inaccurate results. Only use it for reporting individual tasks to the BFA.

Most scoring software will ask you in the event setup if you want to run multiple formulas in parallel, i.e. Sanction and international.

The formula is designed to be able to reasonably compare all pilots flying in sanction tasks no matter which part of the country they fly. It also takes into consideration the number of pilots flying the task, as far as point allocation. First place in a 50 balloon task will earn more points than a pilot flying in a 10 balloon task. (The 0.5 addition in the formula takes care of this.) Some examples are, in a 50 balloon task, first place pilot gets 990 points. For each pilot after first place the number of points is reduced by 20 points. In a 10 balloon task first place pilot gets 950 points and for each pilot after first place the number of points is reduced by 100.

Now for the more complex formula, one we use for large events, championship events etc.

## INTERNATIONAL SCORING FORMULA

The international scoring formula consists of three elements. The top half of the results for a given task are scored with formula one. The bottom half of the results are scored with formula two. 'No Results' are scored with formula three.

At first glance, formula one looks quite complicated but it really isn't. The elements of the formula for the task are printed at the bottom of each task sheet.

The international rules state that the winning result will receive 1000 points.

You will see that the pilots in the task are split into two groups, the top half results and the bottom half results. Pilots in the top half results are rewarded with points when their result is compared with the winning result and the median result. If you look at a printout of a task sheet you will notice that the points spread with the top half pilots is not reduced by a set number. Those pilots whose results are below the median will be scored under formula two.

Pilots with "No Result" are scored with formula three and receive 200 points less than the best score of the lower half results.

A historical note. Formula three was introduced in the eighties after a World Championship when a "No Result" could reduce the points given by 400. A competitor who had done very well throughout the championship got a "No Result" on the last task and lost 400 points.



## BALLOON COMPETITION SCORING

For the example in this text the following elements will apply with 63 pilots

P = 63 number of pilots entered in the competition  
 M = 32 Median P/2 rounded to the next higher number  
 R = 8.50 Pilot's Result if in the better half results  
 RM = 62.50 Result of Median Pilot  
 L = Pilot's ranking position in bottom half results  
 SM = 508 Points score of the median pilot calculated from formula two  
 W = 1.60 Winning Result of the task  
 A = 61 Number of pilots in group A

Formula One: (better half results)

$$1000 - [(1000 - SM)/(RM - W)] \times (R - W)$$

$$1000 - [(1000 - 508)/(62.5 - 1.60)] \times (8.50 - 1.60)$$

$$1000 - [492/60.90] \times 6.90$$

$$1000 - (8.0788 \times 6.90)$$

$$1000 - 55.7437 = 944.25 \text{ points}$$

Formula Two: (lower half results)

$$1000 \times (P + 1 - L)/P$$

Formula Three: (pilots in group B - No Result)

$$1000 \times [(P + 1 - A)/P] - 200$$

If fewer than half of the competitors achieve a result in the task, the following changes in definition will apply.

RM = Lowest ranking result in Group A.

SM = Rounded score of the lowest ranking competitor in Group A, calculated under formula two.

M = Lowest ranking competitor in Group A.

## CHECKSUMS

Checksum numbers are printed for each pilot to verify any changes made from the original printed scores.

