Balloon Federation of America

Competition Rules

2025

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INTRODUCTION

This booklet contains approved competition rules used by the Balloon Federation of America Hot Air Competition Division (BFA/HACD) for events desiring to submit scores to be included in the National Eligibility List System.

A separate document, ***Competition Regulations, Policies and Procedures*** includes all pertinent policies and procedures regarding BFA/HACD competitive flying. See below for a list of topics in each section of that publication.

History of the National Eligibility List System

The BFA/HACD Competition Regulations and Policies were initially inaugurated in August 1974 with a vote of the general membership of the BFA. Before that time, open participation in the Nationals competition had been a simple matter, considering that from 1970 through 1973 there were less than 100 competitors registered at the US National Hot Air Balloon Championship. By 1974, however, with 450 pilot members on the BFA roster and 168 registering to compete, the logistics of continued open competition posed potential problems.

The need to establish a fair method of evaluating pilot skills to determine eligible entrants in the US Nationals competition created a mandate for the BFA to develop a **Nationals Ranking System**. In the autumn of 1974, the Events Committee was authorized to produce such a system and the nucleus of the present Competition Regulations and Policies and National Eligibility List System was born. The system became operable in January 1975 and has been the criterion for the selection of pilots who are eligible to compete for the title of US National Hot Air Balloon Champion since then.

To more accurately describe the use of this system, in 2015 the HACD Board changed its name to the **National Eligibility List (NEL).**

HACD Policies, Procedures, and Regulations

- Policies and regulations on numerous topics impacting US and International competition are contained in this separate document. This publication includes detailed information on the following:
- Section I: Competition Policies, Rules and Regulations
- Section II: Scoring and the National Eligibility List (NEL)
- Section III: Types of Competitive Events and Requirements – Other Than US Nationals
- Section IV: Event Application and Approval Process
- Section V: Eligibility for Participation in NEL Qualifying Tasks
- Section VI: Event Official Requirements for State, Regional, and US National Tasks and Events
- Section VII: National Eligibility List and National Competitions
- Section VIII: International Eligibility List (IEL))
- Section IX: U.S. National Eligibility Rules and Ranking Order

Competition Operations Handbook

The FAI/CIA Competition Operations Handbook (COH) should be referenced by anyone involved in the organization or management of a competitive hot air balloon event. This handbook thoroughly covers a wide array of subjects dealing with Hot Air Balloon competitions. The details of this handbook will not fit all kinds of AX competitions or all sizes of events. However, the philosophy of the handbook is to operate a 'Safe and Fair' competition and deliver knowledge and experience to organizers around the world. The use of the COH at Cat.1 events is mandatory. Using the Event Organizers tab the COH can be accessed and downloaded by going to the Competition Operations Handbook (COH)

BFA Competition Scoring Program

The HACD provides three programs to assist Chief Scorers. Links to the programs can also be found on the BFA website and are shown here. Event officials are encouraged to use these programs to properly score and monitor competitive events in the US.

- Shortcut to BFA Simplified and Full Scoring Program with Logger Scoring, Reckless Flying Program, and BFA Logger Management Program:
  https://www.bfa.net/index.php/tools-for-event-organizers/bfa-scoring-program

Balloon Event Guidelines

The BFA's *Balloon Event Guidelines* should be referenced by event organizers and officials responsible for the organization and management of hot air balloon events. These guidelines cover a wide variety of organizational and safety-related issues that should be considered by anyone involved in any type of balloon event. The Balloon Event Guidelines can be downloaded by going to Balloon Event Guidelines (bfa.net)

DISCLAIMER

The Balloon Federation of America offers this set of competition rules for aeronauts who are interested in competitive ballooning. These rules are designed to afford balloonists and balloon organizations the opportunity to participate in competitive hot-air ballooning activities while observing the principles of sportsmanship and the mandates of the Federal Aviation Regulations (FARs).

These rules are only examples to be used by persons or organizations who are interested in exploring the world of competitive hot-air ballooning. While these rules have been developed by the BFA over years of competition, they are no substitute for well-reasoned pilot decision-making by pilots in command of lighter-than-air craft. Likewise, they are not intended as a substitute for the Federal Aviation Regulations with which competing pilots should be totally familiar.

Many of the tasks referenced in these rules could potentially involve flight which would be below the minimum safe altitudes mandated by FAR 91.119 (b) and (c) (14 C.F.R. § 91.119(b), (c)). ***These competition rules do not grant participating pilots the right to contravene FARs, including minimum safe altitudes.*** Limited operational airspace waivers may be available. However, the applicant must comply with the requirements of the Federal Aviation Administration to obtain such a waiver. Applications for waivers must be submitted on FAA Form # 7711-2 which can be found on the FAA Website at APPLICATION FOR CERTIFICATE OF WAIVER OR AUTHORIZATION (faa.gov). ***Organizers should not attempt to stage a competitive event without contacting their local Flight Service District Office (FSDO)***

THESE RULES ARE OFFERED BY THE BALLOON FEDERATION OF AMERICA, WITHOUT CHARGE TO THE USER, ONLY AS A SERVICE TO HOT AIR BALLOON PILOTS AND ORGANIZATIONS. NO PERSON OR ORGANIZATION MAY, WITHOUT THE WRITTEN PERMISSION OF THE BALLOON FEDERATION OF AMERICA PRESIDENT, MAKE ANY USE OF THE BFA NAME OR LOGO OR IN ANY WAY, EXPRESSLY OR IMPLIEDLY REPRESENT THAT THE USER HAS ANY CONNECTION WITH OR SANCTION FROM THE BALLOON FEDERATION OF AMERICA.

SECTION I – EVENT DETAILS

I. 1 TITLE

The Event shall be known as ***the Angola Balloons Aloft.***

I. 2 NATIONAL ELIGIBILITY QUALIFICATION

The event has applied for and received permission to submit scores and results for inclusion in the BFA NEL. ***This event will be a "Scores-Only" event.***

I. 3 ORGANIZATION

The event is organized by ***the Angola Balloons Aloft (501c3).***

I. 4 CORRESPONDENCE

All entries and official correspondence should be addressed to:

Angola Balloons Aloft
c/o Phil Clinger
480 N Wayne St
Angola, IN 46703
Phone: 269-969-1328

Competition Division correspondence should be addressed to:

Paul Petrehn, HACD Chairperson
c/o BFA
PO Box 400
Indianola, Iowa 50125
Email: hacdsecretary@gmail.com
Phone: (505) 948-0944

I. 5 PERSONNEL

Competition Director: Phil Clinger

Asst. Competition Director: N/A

Chief Safety Officer: Donna Fox

Chief Weather Officer: Joe Sullivan

Asst. Weather Officer: N/A

Chief Scoring Officer: JC Smith

Chief of Measuring Teams: Tom Jones

Landowner Relations: Marvin Tenbrink

I. 6 PLACE

The Event will be held at the Angola High School, Angola, Indiana.

I. 7 DATES

The Event will run from ***Friday July 11, 2025***
The last flying day will be ***Sunday July 13, 2025***

I. 8 PROTEST FEE

The protest fee to accompany a protest is $100.00 cash.

I. 9 LANGUAGE

In the rules, the masculine form is used as a standard. Wherever you find the masculine form, it is implied that the feminine form is included.

I.10 PARTICIPATION

The Event is open to pilots ***that receive an invitation to the event and*** who qualify under conditions detailed in the registration materials provided. All pilots must meet the requirements of ***the Angola Balloons Aloft and the Competition Director***.

I.11 CLOSING ENTRY DATE

The closing entry date for the Event is ***February 28, 2025.***

I.12 ACKNOWLEDGEMENT OF RESPONSIBILITY AND ASSUMPTION OF RISK

I.12.1 A competitor, by entering the event, acknowledges awareness of, and agreement with, the responsibility legally transferred to the pilot in command under the Federal Aviation Regulations (FARs) about the personal decision to fly their balloon and any bodily injury or property damage resulting therefrom is solely the pilot's liability.

1.12.2 The competitor acknowledges that none of the flights are mandatory and that all flights will be made at the sole discretion of the competitor. Competitor's decisions as pilots in command may affect their standings in competitive events and any awards or prizes to which the competitor might otherwise be entitled if choosing not to fly.

1.12.3 The balloon and other property of a competitor shall always be at risk of the competitor. By entering the Event a competitor agrees to waive all claim for injury to themself or loss or damage to their property.

I.13 INSURANCE

Each balloon and competitor shall be insured against all claims by third parties to a minimum of $100,000 per passenger, $100,000 property damage, and a minimum limit of ***$1,000,000*** combined single limit coverage on the operation of their balloon. The competitor shall produce documentary evidence of this insurance valid for the period of the Event covering any balloon which they may fly.

SECTION II – COMPETITION DETAILS

II. 1 CONTEST AREA (7.1)

The competition map will consist of ***special editions of maps produced using DeLorme XMap® 6 software licensed for this application.*** Paper maps will be distributed at on-site pilot registration. Digital versions of the competition map will be available for download from the Electronic Notice Board on WatchMeFly.

The contest area is ***the entire competition map***. Any changes will be published on the Official Competition Map and posted on the Official Notice Board. The contest area is as shown on the map and defined as:

- ***<From the North, the gridline 2300***
- ***From the West, the gridline 5600***
- ***From the South, the gridline 9900***
- ***From the East, the gridline 8100>***

II. 2 OUT OF BOUNDS (7.2)

All red PZs and blue PZs are out of bounds. Ground contact and other penalties will still be applied. The detail of out of bounds areas will be printed on the Official Competition Map, and changes will be posted on the Official Notice Board.

II. 3 PZ LIST (7.3)

The details of Prohibited Zones will be printed on the Official Competition Map and changes will be posted on the Official Notice Board and written supplements will be distributed at task briefings as changes occur.

II. 4 COMMON LAUNCH AREA(S) (9.1.1)

The Common Launch Area (CLA) will be located at the Angola High School. Additional CLAs may be announced later at the General or Task Briefings.

II. 5 COMMON LAUNCH POINT(S) (9.1.2)

16T . 668839E 4611098N 1024'MSL

This data may be changed before the event and the final information will be published on the Official Notice Board and covered in the General Briefing.

II. 6 LANDOWNER'S PERMISSION (9.3)

Landowner's permission must be obtained for each launch/landing and if several competitors launch/land at the same location, each competitor must ask for permission. Pilot must obtain landowner name, address, and phone number to submit on their Flight Report Form.

Public areas such as public parks, schools and industrial areas are considered as places without need for permission for take-offs or landings. Landowner permission is not required if the basket and retrieve vehicle is on a public road or driveway and the envelope is laid out in a field which is not fenced and not cultivated and no damage is done. Traffic may not be obstructed. Church property may also be used in this manner as long as no retrieve vehicle is on grassy areas.

These provisions and instructions are subject to change before or during the event any time by announcements by the Event Director.

II. 7 LIVESTOCK AND CROP (10.6)

Balloons shall not fly closer than ***200 ft.*** from livestock or buildings containing livestock.

II. 8 DRIVING LAW (10.11)

All participants are requested to follow Indiana laws and regulations. Indiana does require seat belts to be used by all passengers in a moving motor vehicles. Riding in the back of an unenclosed cargo storage area of a truck or trailer is illegal without the use of seatbelts.

II. 9 AIR LAW (10.14)

When flying over congested areas, persons, livestock, or property, competitors must follow the restrictions issued by the FAA in the Event Waiver. Violation of this rule will result in a penalty. ***The entire contest area will have 8,000 ft. MSL as a maximum altitude (Blue PZ) during competition flights.*** This may be subject to change before or during the event by announcements by the Event Director.

II.10 RECALL PROCEDURE (10.15)

All pilots are required to utilize WhatsApp messaging app for the Angola Balloons Aloft. All important information such as a recall will be issued through WhatsApp.

II.11 VERTICAL SPEED

II.11.1 All logger tracks will be checked using the Balloon Safety Analyzer. Competitors exceeding the limits of vertical speed below will be penalized:

Limit	3D Proximity	Relative Vertical Speed
Limit 1	25 m	3 m/s (600 ft/min)
Limit 2	50 m	5 m/s (1000 ft/min)
Limit 3	75 m	8 m/s (1600 ft/min)
Limit 4	Exceeding the absolute vertical ascent speed of 8 m/s will be penalized	

II.11.2 The following table provides guidance on the penalties for violations of vertical speed limits.

Limit 4 will be penalized by 250 points per 1 m/s, or part of, exceeding the limit.

All penalties are reflected in competition points.

Lower Balloon				**Upper Balloon**			
Vertical Speed (m/s)	Limit 1 Penalty	Limit 2 Penalty	Limit 3 Penalty	Vertical Speed (m/s)	Limit 1 Penalty	Limit 2 Penalty	Limit 3 Penalty
0 ≤ v < 2	-	-	-	0 ≥ v > -2	-	-	-
2 ≤ v < 3	50/WRN	-	-	-2 ≥ v > -3	100/WRN	-	-
3 ≤ v < 4	100/WRN	50/WRN	-	-3 ≥ v > -4	200	50/WR	-
4 ≤ v < 5	300	100/WRN	50/WRN	-4 ≥ v > -5	400	100/WR	-
5 ≤ v < 6	500	300	100/WRN	-5 ≥ v > -6	600	200	100/WRN
6 ≤ v < 7	700	500	300	-6 ≥ v > -7	800	400	200
7 ≤ v < 8	900	700	500	-7 ≥ v > -8	1000	600	400
8 or more	1000	900	700	8 or more	1000	800	600

II.12 GOALS SELECTED BY A COMPETITOR (12.2), GOAL CENTER (12.1)

II.12.1 Competitors will not be required to declare goals by reference to map features (junctions, etc.). Pilots are required to select goals as indicated on the TDS.

II.11.1 Declaration methods:

- Electronic declaration(s) are required using the Balloon Live App as specified on the TDS.
- A competitor who wishes to revise their declaration may do so using a subsequent declaration in the same numbered declaration slot in accordance with TDS requirements.
- If no goal meeting the requirements of II.12 and II.26 is declared, the competitor will not achieve a result. In case the same numbered declaration slot is declared more than once the last declaration in time will be used

These instructions are subject to change before or during the event anytime by announcements by the Event Director.

II.13 LOCATION OF OFFICIAL NOTICE BOARD (5.11)

The Official Notice Board will be available online on WatchMeFly.

II.14 COMMUNICATION TIMES (5.3)

Replies to general inquiries or complaints will be posted immediately as available on the Official Notice Board***. An electronic notification may be made using WhatsApp***. Timing requirements of 5.6.2 will start at the time of the ONB posting.

II.15 PUBLICATION TIMES ON THE LAST FLYING DAY (5.6.3)

All scores, complaints, responses to complaints, protests, and jury reports will be posted immediately as available. Electronic notification of postings to the ONB may be made simultaneously using a text messaging system.

II.16 FLIGHT CREW (Also see Section III, 10.9)

The maximum number of event flight crewmember(s) that may be carried in each balloon during any flight will be two (2) for balloons less than 105,000ft3 and three (3) for balloons 105,000ft3 or larger.

II.17 DETAILS FOR THE USE OF GPS-LOGGERS (See Chapter 6)

a) ***Logger:***
The Logger used in this Event is the FAI "Balloon Live" app with a connected smart device. The app is available for iOS and Android and must be installed by each competitor beforehand on their own recording device (smart device). The price of the app is approx. $6.

Details and instructions on how to use can be found on balloonlive.org

b) Change the operation mode:
Start the app "Balloon Live" > Menu > Change mode
Select Application Mode

Training mode
To test the app in training flights, select the "TRAINING" mode in the action menu (top right). In this mode, no competition data (tracks, declarations, and marker drops) is stored.
Pull down the red label to start a new flight.

Competition Mode
To enter Competition Mode, select the appropriate competition from the available competitions in the user menu. When entering competition mode, the latest competition data is retrieved from the server. The device must be online to do this. It is recommended to load the competition data during flight preparation.

The connection of a smart device or Balloon Live sensor is mandatory for all flights. Please make sure the sensor (smart device) is connected using Bluetooth before entering competition mode.

To start the flight, the latest flight data must also be loaded from the server. This flight data is valid for 5 hours only. Therefore, it is recommended to be online within the last 5 hours before the start of the recording, or just before the start, to load the flight data.

Tap the red button at the bottom of the screen to start a new flight recording and
transmitting the track data to the server.

c) Preconfigured setup for this competition:

- Competition name: Angola Balloons Aloft
- Logging interval (seconds): 1
- UTC offset (seconds): -14,400
- Allow multiple marker drops: inactivate
- Allow multiple goal declarations: active
- Declaration format: 4/4
- Altitude mode: GPS
- Geodetic system: UTM WGS84

Multiple recording devices may record the flight at the same time. The first recorded recording will be considered as the primary recording and will be used for scoring.

d) Handling by competitor:

- ***Throughout the event the competitor is responsible for storing, charging, handling as well as the proper functioning of the devices used (phone, tablet, sensor…).***
- ***The latest version of the Balloon Live App and sensor, if used, firmware must be used. • The Balloon Live app must be started 5-10 min before the intended take-off to allow proper GPS initialization. The recording must also be started at the same time by tapping the red button "Start Flight".***
- ***The competitor is considered to enter the competition flight according to the selected TDS***

with the start of the track recording and the takeoff.

- *During flight the recording device must remain attached to the basket (uprights or basket edge) to ensure optimum GPS reception.*
- *Declarations must be made in 4/4 format unless otherwise stated in the TDS. • Altitudes do not need to be declared unless otherwise stated in the TDS. Altitudes must be indicated with the minimum needed digits.*
- *Goal declarations are registered at the time when the "DECLARE x" button is pushed (x is the number of the goal declaration slot)*
- *Electronic marker drops are registered at the time when the "DROP x" button is pushed (x is the number of the marker).*

5-10 minutes after landing track recording must be stopped in the action menu at the top right of the Balloon Live App. For the transfer of the data, please leave the App open in the foreground (with the flight stopped) and see point f) below.

e) Scoring:

- *Unless otherwise stated in the TDS, an electronic mark is mandatory for each task where no valid mark has been achieved by the physical marker.*
- *In case the same logger-goal is declared more than once the last valid declaration will be used.*
- *If an electronic mark is used more than once, the first mark will be used. [/li][/list]*

f) Track data:

The track data is transferred to the server automatically if a data connection is available during the flight or when made available after the flight.

To resume the data transfer later after the flight, reopen the app and the transmission will start within a minute. Make sure all track points are sent before closing the app or disconnecting the internet connection of the device.

The upload icon at the top left will indicate if the automatic upload is in progress. The color of the icon shows the number of remaining track points to upload: red = more than 100, yellow = between 30 and 100, white = less than 30. If the icon switches to, then the upload is completed. Make sure all track points are sent before closing the app or disconnecting the internet connection of the device.

The track must be transferred to the server no later than 6 hours after the beginning of the flight period. For tracks that are transferred later, the competitor will be penalized by 10 competition points per minute (or part) late (in the last task).

The track data remains the property of the competitor but may be made available to the public for live tracking. In such case, explicit permission must be given by the competitor and the publication should have a minimum of 10 min delay. No publication of a track should be made before the end of the launch period.

II.18 DETAILS FOR TIME LIMITS (rest hours, see 5.6)

The hours between 9:00 PM and 5:00 AM local time will be disregarded for the purpose of the time limits of complaints and protests. The total rest period for the day shall be a minimum of eight (8) hours.

II.19 LOST MARKER (12.15.3)

Competitors may be charged $20 for each lost marker. Lost marker fees if requested must be paid prior to the first briefing following the flight in which the marker was lost.

II.20 BALLOON SIZE (3.3)

The maximum size balloon permitted is AX9 (3000cbm/133000cft).

II.21 ALTITUDE (6.9.2)

The Balloon Live Sensor will use GPS altitude.

II.22 SCORING FORMULA (14.5 AND 14.6, Policies Section II (a) and (b))

The event will be scored using Proportional (14.5) scoring.

II.23 2D / 3D SCORING ALTITUDES

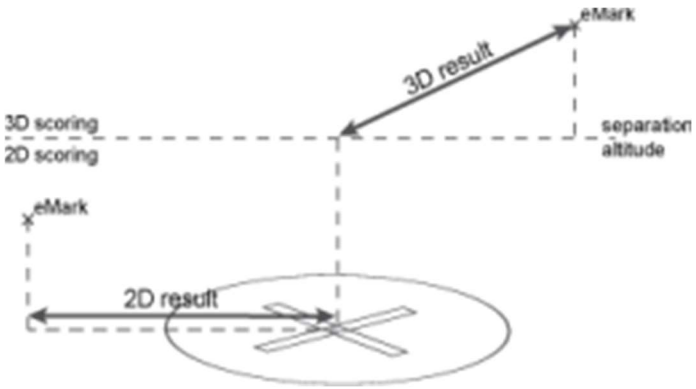
The separation altitude between 2D and 3D scoring is **1500'MSL**

When goals or targets on the ground are used, results based on track points will be the:

• 3D distance to the point at the separation altitude above the goal/target if the track point is above the separation altitude

• 2D distance to the goal/target if the track point/electronic mark is at or below the separation altitude.

When goals/targets above the ground are used, results based on electronic marks will be 3D-distance **above 1500'MSL**



II.23 COMPETITION

STRUCTURE (6.1)

The competition will be conducted using electronic logger drop and physical marker scoring only.

II.24 MAP COORDINATES

The basic map coordinate of a UTM map with WGS84 datum is:

• 16T (Zone reference, where 16=zone and T=latitude band)

• 668839 (6-digit Easting)

• 4611098 (7-digit Northing)

To identify a point on the competition map, the coordinates must be written in one of the following formats:

• 4-4 format: this format uses two times four-digits. First four digits easting and the second four digits northing. (e.g. 6883 / 1109), leaving out the 1m digit (1-meter digit is 0).

The competition area is in two zones, however, the zone reference may be omitted as there are no repeat Easting or Northing grid lines. Eastings must be separated from Northing's by one of the following methods:

• a new line

• a blank space

• a minus character (-) or the slash character (/)

SECTION III – RULES

CHAPTER 1 - OBJECTIVES

1. 1 OBJECTIVES

The objectives of the Event are:

- To determine the Champion Pilot
- To stimulate the development of aerostation by a comparison of the performance of pilots and aerostats; • To reinforce friendship among aeronauts.
- To provide task opportunities for pilots interested in qualifying for the US National Hot Air Balloon Championship through the National Eligibility List System

1. 2 DEFINITIONS OF CHAMPION

1. 2.1 The Champion shall be the competitor who has the highest aggregate score at the end of the event.

1. 2.2 To be recognized as a Champion and for a Champion to be declared for State or Regional Championships. There shall be a minimum of three (3) tasks completed with at least one result from each for the championship to be valid.

1. 2.3 To be recognized as a National Champion a minimum of three (3) tasks and two separate flights must be completed with at least one result from each task for the championship to be valid.

1. 3 INTERPRETATION OF ENGLISH WORDING

1. 3.1 **"Shall"** and **"must"** mean the application is mandatory. Failure to comply will normally lead to a penalty, disadvantageous interpretation, or other disadvantages.

1. 3.2 **"Should"** means that the application is recommended. Failure to comply may lead to penalties, disadvantageous interpretation, or other disadvantages.

1. 3.3" **May"** means that the application is optional.

1. 4 DOCUMENTATION

The following documents will be inspected when competitors register on arrival at the Event:

a) Pilot Certificate
b) Pilot Logbook
c) Balloon Logbook
d) Certificate of Airworthiness
e) Certificate of Registration
f) Certificate of Insurance

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CHAPTER 2 – ENTRY CONDITIONS

2. 1 COMPETITOR

A person entered and competed in the event.

2. 2 COMPETITOR'S RIGHTS OF REPRESENTATION

2. 2.1 Members in good standing and not on probation with the BFA/HACD are eligible to compete in BFA events.

2. 2.2 Special invitational sporting events can be held in the following categories:

GENERAL With no gender or age limitation
FEMALE Where all persons on board of the aerostat, except for competition officials, must be female.
JUNIOR Where all persons on board of the aerostat, except for competition officials, must be aged less than 30 years of age at the start of the event (General Briefing).

2. 3 QUALIFICATION

Each pilot-in-command shall meet the requirements of the organizer and the BFA/HACD Policies and

Regulations.

2. 4 SPORTING LICENSE (NOT USED)

2. 5 ENTRY

The completed entry form and entry fee for each competitor must reach the organizers by the closing entry date, except in the case of extra places offered by the organizers. The entry fee may or may not be refundable.

2. 6 ACKNOWLEDGEMENT

A competitor who has not received acknowledgment of their entry within fourteen days after the closing entry date should make inquiries of the organizer.

2. 7 ACCEPTANCE OF CODE OF CONDUCT, RULES AND REGULATIONS

All entrants and competitors are expected to know, understand, and abide by the competition Rules and Regulations for this event. In addition, the competitors are required to know, understand, accept, and abide by the Code of Conduct (see APPENDIX A), and by entering are deemed to accept without reservation. They should appreciate that they should compete in a sporting manner and that their behavior must be beyond reproach. Violations will be penalized up to 1000 competition points and may lead to disqualification from the task or Event.

2. 8 RELEASE OF LIABILITY

2.8.1 The competitor, by entering the event, agrees that the organizers and sponsors of this event, competition officials, Balloon Federation of America, BFA/HACD, owner of any site, officers, trustees, agents, and/or members of these entities are providing the competitor with the facilities and means for participation in this event and in no way do they supersede the responsibility of the pilot in command as stated in the FAR's, or otherwise.

2.8.2 The competitor releases the aforementioned from liability for their actions or inactions in relation to the event which may arise out of or result from or in any manner related to the balloon flight or activity in which the competitor participates as a pilot in command.

2. 9 LIABILITY TO THIRD PARTIES

By entering the Event, a competitor assumes all liability for injury, loss, or damage to third parties or their property caused by themself or their crew.

2.10 SAFETY

2.10.1 Any meteorological report or forecast, or other safety or navigational information is provided in good faith for the guidance of competitors. The event assumes no responsibility for the completeness or accuracy of such information. It is the competitor's decision whether to rely on that information or acquire additional information.

2.10.2 Officials may be appointed to regulate the inflation and launching of balloons. However, nothing shall diminish the responsibility of each pilot under this chapter.

2.10.3 Recall procedures will be used as described in II.10 and 10.15.

2.11 RESPONSIBILITY

Entrants and competitors remain completely responsible for the safe operation of their aerostats at all stages of inflation, launch, flight, and landing. **Competitors** must ensure that their crew, equipment, and their own level of skill and experience are suitable for the conditions in their own judgment. A competitor is responsible for all the actions of their crew during the event.

2.12 CONDUCT

Competitors and their crew are required to behave in a sportsmanlike manner, follow the Code of Conduct, and comply with the directions of Event Officials. Inconsiderate behavior, profanity, or unsportsmanlike conduct will be penalized up to 1000 competition points and may lead to task disqualification or may be grounds for expulsion of a competitor. (See APPENDIX A for Code of Conduct.)

CHAPTER 3 - BALLOON QUALIFICATIONS

3. 1 DEFINITION OF BALLOON

3. 1.1 Aerostat: a lighter-than-air aircraft
Free Balloon: an aerostat supported statically in the air, with no means of propulsion by any power source.

3. 1.2 Sub-class AX: free balloons that obtain their buoyancy solely as a result of heating air. The envelope may contain no gases other than air and the normal products of combustion.

3. 1.3 The use of vents that are designed to propel a balloon is prohibited. Turning vents may only be operated in flight for the purpose of orienting the basket. Prolonged or excessive use of the turning vents is prohibited. Penalty 250 to 500 task points

3. 2 FUEL

Each balloon shall carry an adequate fuel supply to ensure the completion of the flight with adequate reserve. The lack of adequate fuel to complete a task shall not be grounds for protest.

3. 3 DESIGNATION OF BALLOON

Each competitor shall designate the balloon they will fly during the Event. No change of balloon may be made after the start of the first task briefing except as provided in these rules. The maximum size category is designated in II.20.

3. 4 AIRWORTHINESS

Aerostats flown in the Event must have current certificates of registration and airworthiness, or in place of the latter, an equivalent document from the FAA. All required instruments under the guidelines of the aircraft operations manual must be on board. The organizers/officials are empowered to visually inspect and/or reject any aerostat which in their opinion is not of a reasonable standard of airworthiness.

3. 5 DAMAGE

3. 5.1 If a balloon is damaged during the Event, it may be repaired. Damaged components may be replaced or repaired, except that a complete envelope may be replaced only at the discretion of the Event Director.

3. 5.2 The pilot of a balloon damaged while in flight, to the extent affecting its airworthiness (according to the individual balloon's flight manual), is prohibited from continuing in the task(s) and must land at the first practical opportunity. The damage must be reported to the Safety Officer per rule 3.5.3

3. 5.3 Any damage to a balloon affecting its airworthiness must be reported to the Safety Officer before it is entered for a further flight, and the balloon may only be flown after appropriate repairs have been made and proper evidence and documentation of such has been provided to the Safety Officer. Penalty: up to 1000 competition points.

3. 6 AUTOMATIC FLIGHT CONTROLS

Any device designed to act as an automatic flight control is prohibited, regardless of the specific nature of the device.

3. 7 ALTIMETER

Each balloon shall carry a serviceable altimeter.

3. 8 COMPETITION NUMBERS

The organizer will provide two banners which will be displayed on opposite sides of the basket during tasks. In addition, all crew vehicles shall be clearly identified on opposite sides with competition numbers, if provided. The penalty is up to 200 competition points applied to the first task of the flight(s).

3. 9 BASKET

The term "basket" includes any crew or passenger compartment, regardless of its construction. All sharp objects must be covered to avoid risk to other balloons. When using nylon straps (Zip Tie Straps) to attach basket banners, they must be set (closed) from the inside of the basket. Fuel tanks attached to the outside of the basket must be protected on the bottom ring to ensure there are no spurs or that the surface is covered to protect against any risk to other balloons.

3.10 RETRIEVE

3.10.1 Retrieve Crew shall not be within any MMA or within a 100m radius of a target except with permission and in the presence of an official. Crews are not allowed to make permanent marks on an intersection (temporary marks are

permitted, e.g. paper, chalk).

3.10.2 All vehicles used to aid the retrieval of a balloon shall be marked with the competition number.

3.10.3 Retrieve vehicles shall not be parked within any MMA or within 100m of a goal/target set by the Director or selected by the competitor unless specifically authorized in the briefing.

CHAPTER 4 - ORGANIZATION OFFICIALS

4. 1 EVENT DIRECTOR

4.1.1 The Event Director will be in overall charge of balloon operations of the event. They may have a deputy director and technical officials to assist them.

4.1.2 The Event Director is responsible for the good management, smooth, and safe running of the event. They shall make operational decisions in accordance with the rules of the Event. They may penalize or disqualify a competitor for misconduct or infringement of the rules. They shall attend meetings of the jury and give evidence if requested.

4.1.3 In the rules the word "Director" may be used instead of "Event Director."

4.1.4 The responsibility of the Event Director is limited to competition operations and the operation of the event in accordance with the Code of Conduct. The responsibility does not include any other activity within the event not related to competition operations.

4. 2 STEWARDS

4. 2.1 Stewards are advisors to the Director and, if used, shall:

- Watch over the conduct of the event and report any unfairness or infringement of the regulations or behavior prejudicial to the safety of other competitors or the public or in any way prejudicial to the sport.
- Address competitor requests for assistance and inquiries, process complaints discuss issues with appropriate officials, and report findings to the competitor.
- Investigate protests and assemble information and facts concerning matters to be considered by the Jury.
- Advise on the interpretation of the rules and regulations and advise on penalties.

4. 2.2 A steward has no executive powers; They must not be a member of the organizing committee. A steward may attend a meeting of the Jury as an observer or witness.

4. 3 JURY DUTIES AND COMPOSITION

4.3.1 Matters of advice, arbitration, or rule interpretation shall be the responsibility of the Jury President and the Jury having been appointed in accordance with 4.3.3.

4.3.2 During the event, the Jury deals with protests made by competitors. A Jury member must possess a thorough knowledge of the rules and regulations for the Event. At least one Jury member is to be on-site during the competition operations.

4.3.3 In the event of a protest, the Chief Scorer shall serve as Jury President and select two or more BFA/HACD competitors from the pool of competitors selected at the general briefing. Selected jurors must not have a conflict of interest with the protest to be heard. If the Chief Scorer has a conflict of interest, the Safety Officer or another designee shall serve as Jury President. In the event of a subsequent protest, the Chief Scorer shall make a new selection of jury members. If all members of the pool should have a conflict of interest with the current protest, the Chief Scorer and the Safety Officer shall serve as jury members and shall select one additional member from the competition staff. The Event Director shall not serve as a juror. The Chairman reserves the right to eliminate competitors at their request.

4.3.4 The Chief Scorer, in their role as Jury President, has the right to require the Organizer to abide by the published rules and regulations for the Event. If the Organizer fails to do so, the Chief Scorer has the power to stop the Event until a jury meeting has considered the situation.

4.3.5 Absence of a Jury Member – In special cases, such as illness or conflict of interest, the Director may accept a replacement. The quorum for a Jury meeting shall be at least two-thirds of its total membership.

4. 4 CHIEF SCORER

The Chief Scorer shall be responsible for collecting results and producing scores using the BFA Scoring Software or some other valid method.

4. 5 SAFETY OFFICER

The Safety Officer shall give advice to the Event Director on any matters regarding safety and will be in consultation on weather forecasts and briefings as well as report on any noted changes in weather conditions as noted throughout the flight period. Mandatory operational procedures for the safety officer are contained in the Safety Officer's Handbook (SOH).

4. 6 TECHNICAL SUPPORT OFFICERS

Technical Support Officers are competition officials who are responsible to the Chief Scorer. If utilized, they are responsible for the computer mapping software and verifying the records of each pilot’s flight track. Their duties include the downloading of the GPS tracks and they will be responsible for verifying each pilot's recorded track and recording relevant information regarding their flight and performance during the task for the Chief Scorer.

CHAPTER 5 - COMPLAINTS & PROTESTS

5.1 COMPLAINTS A DETAILED DESCRIPTION OF THE COMPLAINT REQUIREMENTS CAN BE FOUND IN General Section of the FAI Sporting Code 6.2.

5.1.1 ASSISTANCE

A COMPETITOR WHO IS DISSATISFIED ON ANY MATTER SHOULD FIRST ASK THE APPROPRIATE OFFICIAL TO ASSIST THEM. THEY MAY ASK FOR THEIR RESULT OR POINTS SCORE TO BE CHECKED, OR THE CALCULATION TO BE EXPLAINED.

5.1.2 COMPLAINT

THE PURPOSE OF A COMPLAINT IS TO OBTAIN A CORRECTION WITHOUT THE NEED TO MAKE A FORMAL PROTEST. A COMPLAINT IS A REQUEST BY A COMPETITOR TO THE DIRECTOR TO INVESTIGATE ANY MATTER IN WHICH THE COMPETITOR IS DISSATISFIED. A COMPLAINT SHALL CONCERN ONLY ONE MATTER. IN THE CASE OF DIFFERENT MATTERS, SEPARATE COMPLAINTS MUST BE MADE.

5.1.3 COMPLAINT FORM

COMPLAINTS SHALL BE MADE IN WRITING IN ENGLISH OR A LANGUAGE AUTHORIZED FOR THE EVENT.

A JOINT COMPLAINT MUST BE SIGNED BY ALL THE COMPLAINANTS

5.1.4 COMPLAINT PROCEDURE

COMPLAINTS SHALL BE HANDED OR TRANSMITTED BY THE COMPETITOR TO THE EVENT DIRECTOR OR THEIR DESIGNATED OFFICIAL, WHO WILL ACKNOWLEDGE RECEIPT AND RECORD THE TIME OF RECEIPT.

5.1.5 TIME LIMITS FOR COMPLAINTS

COMPLAINTS MUST BE SUBMITTED AS SOON AS POSSIBLE AFTER THE EVENT GIVING RISE TO THE COMPLAINT AND MUST BE DEALT WITH EXPEDITIOUSLY.

Complaints concerning scoring must be made to the Director within eight hours of publication of the official scores for a task. The rest hours defined in the competition details will be disregarded for the purpose of the time limits.

Publication of a new version of official scores will only extend the complaint time in the matter concerned.

5.1.6 SHORTENED TIME LIMITS FOR COMPLAINTS

Complaints made on or after the last flying day of the event must be submitted to the Director within one hour of publication of the official scores.

The Director shall announce the publication times for all task scores on the last flying day.

Time limits applying to scores published after 1300 on the day before the last flying day will also be reduced to one hour on or after the last flying day of the event.

5.1.7 COMMUNICATION AND PUBLICATION

REPLIES TO COMPLAINTS SHALL BE POSTED ON THE OFFICIAL NOTICE BOARD AT FIXED TIMES, ANNOUNCED IN ADVANCE BY THE DIRECTOR. THE EVENT DIRECTOR SHALL PUBLISH THE COMPLAINT AND ITS RULING.

WHEN THE RESULTS OF AN EVENT MAY BE AFFECTED BY THE RULING OF A COMPLAINT, THEY SHALL NOT BE CONSIDERED FINAL UNTIL THE COMPLAINT HAS BEEN RULED UPON.

5.1.8 COMPLAINT AFTER AN EVENT

ARE NOT PERMISSIBLE FOR ANY CIA-SANCTIONED EVENT.

5.2 PROTESTS

A DETAILED DESCRIPTION OF THE PROTEST REQUIREMENTS CAN BE FOUND IN G.S.6.3.

5.2.1 PROTEST

IF DISSATISFIED WITH THE DECISION ON A COMPLAINT MADE DURING THE EVENT, A COMPETITOR HAS THE RIGHT OF PROTEST. A PROTEST SHALL CONCERN ONLY ONE MATTER. IN THE CASE OF DIFFERENT MATTERS, SEPARATE PROTESTS MUST BE MADE.

5.2.2 PROTEST FORM

WITHIN ONE HOUR OF THE REPLY TO THEIR COMPLAINT, THE COMPETITOR SHALL DECLARE THEIR INTENTION TO PROTEST TO THE EVENT DIRECTOR. A PROTEST SHALL ONLY DEAL WITH ONE SINGLE MATTER.

WITHIN 8 HOURS OF THE REPLY TO THEIR COMPLAINT, THE COMPETITOR SHALL SUBMIT THEIR PROTEST IN ENGLISH AND WRITING ACCOMPANIED BY THE PROTEST FEE.

5.2.3 PROTEST FEE

THE AMOUNT OF THE PROTEST FEE TO ACCOMPANY A PROTEST SHALL BE $100. IN CASE OF A JOINT PROTEST, EVERY PROTESTING PERSON MUST PAY THE PROTEST FEE.

5.2.4 PROTEST PROCEDURE

DECLARATIONS OF INTENTION TO PROTEST, AND PROTESTS WITH PROTEST FEES, SHALL BE HANDED OR TRANSMITTED BY THE COMPETITOR TO THE EVENT DIRECTOR, WHO WILL ACKNOWLEDGE RECEIPT AND RECORD THE TIME OF RECEIPT.

THE EVENT DIRECTOR MUST PRESENT ANY PROTEST TO THE JURY PRESIDENT WITHOUT DELAY.

THE PRESIDENT SHALL SCHEDULE A MEETING OF THE INTERNATIONAL JURY WITHIN 24 HOURS OF RECEIVING A PROTEST.

THE JURY SHALL HEAR ALL INVOLVED PARTIES ON THE MATTER OF ANY PROTEST, APPLYING THE RELEVANT FAI REGULATIONS AND THE RULES FOR THE EVENT. (GS 6.3.2 part)

THE PRESIDENT OF THE JURY SHALL REPORT THE RESULT AND A SUMMARY OF ANY RELEVANT CONSIDERATIONS IN WRITING TO THE EVENT DIRECTOR WITHOUT DELAY, WHO SHALL MAKE PUBLIC THE PRESIDENT'S REPORT.

5.2.5 TIME LIMITS FOR PROTESTS

DECLARATIONS OF INTENTION TO PROTEST AND PROTESTS MUST BE SUBMITTED WITHIN SET TIME LIMITS (see 5.12.1, 5.12.2).

The rest hours defined in the competition details will be disregarded for the purpose of the time limits.

5.2.6 SHORTENED TIME LIMITS FOR PROTESTS

PROTESTS MADE ON OR AFTER THE LAST FLYING DAY OF THE EVENT, MUST BE SUBMITTED WITHIN within one hour of the reply to a complaint.

The Director shall announce the publication times for all task scores on the last flying day.

Time limits applying to scores published after 1300 on the day before the last flying day will also be reduced to one hour on or after the last flying day of the event.

5.2.7 PUBLICATION

THE TEXT OF ALL PROTESTS AND THE DECISIONS OF THE JURY SHALL BE POSTED ON THE OFFICIAL NOTICE BOARD.

5.2.8 RIGHT OF HEARING

A COMPETITOR WHO HAS MADE A PROTEST HAS THE RIGHT TO MAKE A VERBAL PRESENTATION OF THEIR CASE TO THE JURY. THEY MAY BE ASSISTED BY AN INTERPRETER OR ADVISOR OF THEIR CHOICE DURING THIS MEETING.

5.2.9 PROOF OF RULES VIOLATION

THE PRODUCTION AND DEMONSTRATION OF EVIDENCE FOR ANY ALLEGED INFRINGEMENT BY A COMPETITOR ALWAYS RESTS ENTIRELY WITH THE EVENT OFFICIALS. RULES SHALL NOT BE WRITTEN IN ORDER TO OBLIGE THE COMPETITOR TO PROVE THEIR COMPLIANCE WITH THE RULES OR THEIR INNOCENCE IN CASE OF ALLEGED INFRINGEMENT.

5.2.10 PROTEST AFTER AN EVENT

ARE NOT PERMISSIBLE FOR ANY CIA-SANCTIONED EVENT.

5.2.11 APPEAL OF DECISION OF THE PROTEST JURY

The decision of the Jury or Disqualification may be appealed to the HACD Board, provided:

a) The competitor initiated a complaint and formal protest in accordance with the above rules and in accordance with time limits at the event level
b) The appeal is in writing
c) The appeal includes all written material related to the original protest and the name of the Jury President, the old Section 5.10 appeal to the HACD should probably be left in. Otherwise, there is no mechanism for appeal. Event Director and Chief Scorer involved in the original decision as well as any material relating to any disqualification, if applicable. Only the original protest and materials presented to the Protest Jury will be considered.
d) Information on the selection of the Jury members along with the names of jurors involved in the decision is submitted with the appeal
e) The appeal is sent to the Chairman of the HACD within 72 hours of the decision of the Jury or the disqualification decision

5.3 FURTHER RULES REGARDING COMPLAINTS AND PROTESTS

5.3.1 RETURN OF PROTEST FEE

THE PROTEST FEE IS RETURNABLE ONLY IF THE PROTEST IS WITHDRAWN PRIOR TO THE BEGINNING OF THE EFFECTIVE TREATMENT OF THE PROTEST, OR IF IT IS DECIDED THAT THE PROTEST IS WELL FOUNDED. THE PROTEST FEE IS RETURNABLE ONLY IF THE PROTEST IS WITHDRAWN BEFORE PROCEEDINGS BEGIN OR IF THE PROTEST IS UPHELD.

5.3.2 JURY APPROVAL OF SCORES & PRIZEGIVING

THE LAST ACTION OF THE JURY IS TO VERIFY AND APPROVE THE COMPETITION RESULTS OF THE EVENT AND DECLARE THE EVENT VALID PROVIDING IT HAS BEEN CONDUCTED IN ACCORDANCE WITH THE RULES AND THE DECISIONS OF THE JURY. (GS 5.2.4.7 part)

THE SCORES OF THE EVENT SHALL BE FINAL ONLY AFTER ALL PROTESTS HAVE BEEN DEALT WITH BY THE JURY AND THE JURY HAS CEASED ITS FUNCTIONS. THE FINAL SCORES MUST BE MADE PUBLIC BEFORE THE PRIZE-GIVING IS HELD. (S1 An3 9)

The Jury shall verify and sign the final total scores before they are made public.

5.3.3 OFFICIAL NOTICE BOARD

The Official Notice Board (ONB) is the place where all results, scores, replies to complaints and protests, and other official communications directly relating to the event will be published. It should be marked OFFICIAL NOTICE BOARD.

All information posted shall be dated and timed.

The ONB will either be online or in paper format.

All information posted on the paper ONB will be additionally signed.

In case of unavailability of the online ONB, a fallback paper ONB will be installed and competitors shall be notified. In case of conflict between the online ONB and the paper ONB the paper ONB will prevail.

CHAPTER 6 – LOGGERS

6. 1 COMPETITION STRUCTURE

The competition will be conducted as defined in Section II.25**. Rules 6.2 to 6.8 apply only to competitions with observers**

6. 2–6.8 (NOT USED)

6. 9 GPS-LOGGERS

A GPS Data Logger is a device that logs the track and altitude of a balloon. The track points of the log will specify the position (latitude/longitude), the altitude (barometric or GPS altitude as specified in II.22), and a time stamp. Devices enabling competitor's input may additionally be available depending on the type of logger. GPS loggers may be used in competition as an observation tool to monitor compliance with the rules, for task setting, and for achieving a score or result. Competitors must comply with the operational instructions on their use (see II.17).

6.10 HANDLING (II.17)

6.10.1 Rules on the handling of loggers are specified in Section II.

6.10.2 The competitor will take the logger with them after the briefing, turn it on, and attach it to their balloon before take-off at the appropriate spot and in the appropriate manner and location.

6.10.3 After landing, the competitor will detach the logger, turn it off, and return it to the Operations Center or other location designated by the Director in the briefing.

6.10.4 At no time is the competitor allowed to modify the logger's critical settings (see 6.13.3) or interfere with its operation other than specifically instructed by the Director.

6.11 FLIGHT REPORT FORM (FRF) - when required by the Director

6.11.1 A Flight Report Form (FRF) stating the take-off and landing place and time, estimated task results, landowner-related issues, and other relevant data shall be completed and signed by the competitor.

6.11.2 Any undue delay in submitting the FRF or any other requested material such as BLS, logger, or unused markers may be penalized up to 100 task points.

6.13 GPS-LOGGER FAILURE (II.17)

6.13.1 Reported malfunctions are considered failures only when they can be reproduced after flight. When a failure is found, the officials may ask the competitor to provide their GPS equipment to substitute the missing track information. Not carrying the official logger in the basket or not turning it on does not constitute logger malfunction.

6.13.2 If the official logger is not carried in flight, not turned on or turned on after launch, but an approved GPS (see 6.9.2) with a usable track is provided, the competitor will receive a penalty of up to 200 task points on the first task of the flight for a first offense. A competitor penalized under this rule cannot achieve a score less than Group B.

Subsequent offenses will be penalized by no result on logger results and up to 200 task points on marker results.

6.13.3 In case both the official track log and the competitor's GPS do not provide the necessary information to establish a result, the competitor will not receive a result based on track points. Marker results will be penalized by 200 task points when no official or approved track log is available. It is therefore in the competitor's interest to equip themself with a GPS that provides track information usable for scoring (position, altitude, and time in accordance with II.22) and use the same set-up (sampling time interval, map datum, minimum track point memory, etc. in accordance with II.17) as the official logger. A competitor's backup logger recording either GPS or barometric altitude is permitted. Results based on a backup logger with a different altitude setting will not be grounds for protest.

6.13.4 An electronic mark recorded by a competitor's GPS equipment can only be used if the equipment has been approved by the Director before the flight or specific rules under Section II have been followed. Otherwise, the competitor will be scored to their nearest electronic mark of the official logger, nearest physical mark, or landing position, whichever is best. A score to a track point will not be made.

CHAPTER 7 - MAPS

7. 1 CONTEST AREA (II. 1)

An area defined by reference to the official competition map published at the start of the Event. Tasks will not be set, and results will not be measured, outside this area.

7. 2 OUT OF BOUNDS (II. 2)

The Director may define areas or airspaces as out of bounds. Take-offs or contest landings in OFB areas are prohibited and the competitor will achieve no result in the relevant task. Goal declarations in OFB areas or airspaces will be considered invalid. Competitors cannot achieve a valid mark, valid track point, or result in OFB areas or airspaces.

7. 3 PROHIBITED ZONES (PZ's) (II.2 and II. 3)

7. 3.1 The Director may define airspace or other areas as prohibited. A mark or track point inside a red, yellow, or blue PZ is valid unless the area is defined as OFB. The boundaries and, if applicable, the altitude limits in feet MSL, shall be published in writing for each PZ.

7. 3.2 There are three classifications of PZs: Red, Yellow, and Blue.

7. 3.3 A Red PZ is restricted airspace and will include an upper altitude limit which a competitor shall not fly below. Ground contact with the inflated balloon is not permitted.

7. 3.4 A Red Road PZ identifies restricted airspace surrounding major roadways or interstates. It is measured from the centerline (expressed as a tunnel around the axis) of an interstate or other major highway identified as red roads.

7. 3.5 A Yellow PZ is a restricted area where no take-offs, landings, or ground handling are permitted.

7. 3.6 A Blue PZ is a restricted airspace and will include a lower altitude limit which a competitor shall not fly above. The Blue PZ is considered OFB and infractions will be penalized under Rule 10.14.2

7. 4 PZ's IN FORCE

At each task briefing, PZs will be published as in force or not in force for competition purposes in that flight. This does not necessarily describe their operational activity or status for other aviation purposes.

7. 5 PZ INFRINGEMENT

A competitor violating a PZ in force will be penalized by up to 1000 competition points, proportionally to the offense. See COH for official guidance on the calculation of PZ infringement penalty violations.

7. 6 MAPS

A competitor is required to carry a competition map, paper or digital, in the basket. All published PZs, whether in force for the task or all out-of-bounds areas shall be clearly and accurately marked on the map. An adequate map of aeronautical restrictions must be carried unless these are also marked on the competition map. A competitor violating this rule will be penalized up to 250 competition points.

7. 7 EARTH TO BE FLAT

For scoring purposes, the earth is flat, and calculations based on the map datum and grid system as specified in Section II will be taken as accurate without rounding. Distance calculations will be made in 2-D except for results explicitly defined otherwise in the TDS

7. 8 MAP COORDINATES

To identify a point on the competition map, the coordinates must be written in eight-digit format (first four digits west/east and the second four digits south/north - Easting then Northing) or one of the formats as defined in Section II. For goal declaration of pre-defined goals, the complete goal number of the published list may be used. The penalty for inappropriate but unambiguous declarations is up to 100 task points.

7. 9 DEGREE REFERENCE

Unless otherwise stated, directions are expressed in degrees referenced to the grid system printed on the competition map.

CHAPTER 8 – PROGRAM, BRIEFINGS

8. 1 TASK PROGRAM

The Event will consist of a series of tasks. The number and frequency of the tasks and rest periods are at the discretion of the Director. At the first task briefing on the day before the last planned flying day, the Director shall publish the remaining flying program.

8. 2 VALID TASK

8. 2.1 A valid task is defined as one in which all entered competitors were given a fair opportunity to make a valid takeoff unless they had withdrawn or had been disqualified.

No changes to task data are allowed after the start of the launch period.

8. 2.2 The Director has the authority to cancel a task(s) for safety reasons or for reasons out of the control of the director at any time before the official status task scores are published.

8. 2.3 Tasks are not valid if less than 50% of the competitors take off.

8. 3 TASK SELECTION

The Director shall select tasks from those described in Chapter 15. Particular tasks may be set more than once or not at all.

8. 4 MULTIPLE TASKS

8. 4.1 The Director may set more than one task to be performed on one flight. The tasks will be scored separately, with a winning score of 1000 points (or best positional score per 14.6.2) before penalties for each task. The combination of tasks should aim at the possibility of winning each task independently.

8. 4.2 Unless otherwise specified, tasks in a multiple-task flight shall be flown in the order indicated in the Task Data, penalty of up to 1000 task points in each task.

8. 4.3 When markers are used, dropping the marker(s) of a task inside the set MMA indicates the completion of that task and the start of the following task, if applicable. 8. 4.4 Competitors missing the MMA or choosing not to drop their marker(s) or when scoring by track points is indicated, are considered flying in the follow-on task if they cross the boundary line (area, grid line, arc, etc.) or boundary time of the follow-on task.

8. 4.5 When a task includes a competitor's declared center point, (LRN in a circle, 3D shapes, etc.), competitors are considered flying in the task if they cross the circumference of the circle or enter the air space defined by the declared center point. No further declarations can be made for the task.

8. 4.6 Penalties related to the take-off will normally be applied in the first task. Penalties related to the landing will normally be applied in the last task. Other penalties should be applied in the task in which they were incurred unless this is impossible, in which case they will be divided equally over more than one or all tasks.

8. 4.7 The Task Data shall specify for each task the marker(s) and/or electronic marks to be used. If no competitive advantage is gained, the penalty for releasing the wrong marker or dropping the wrong electronic mark is 25 task points per task. 8. 4.8 If more than the allocated number of physical markers are released and achieves a valid mark in the task, the competitor will be scored by an electronic mark or, if loggers are not in use, to the least advantageous mark. If an electronic mark is dropped more than once, the first electronic mark in time will be scored.

8. 5 MODIFICATION OF RULES

8. 5.1 No further modification, after approval by the BFA/HACD Board, shall be permitted during the Competition Year unless approved by a three-quarter majority of the HACD/Board. No such rule addition or modification shall be retroactive.

8. 5.2 The task rules of Sections I, II, and III, Chapter 15 are defined as variable rules, and changes to those may be made without authorization.

8. 5.3 Variations to task rules shall be provided individually to each competitor in writing.

8. 6 GENERAL BRIEFING

A General Briefing on the rules, regulations, and all major aspects of the Event will be held before the start of the Event. Attendance at the General Briefing is compulsory for all entrants and Officials. The official competitors list, compiled from the roll call of the entrants taken at the General Briefing, shall be published as soon as practical after the General Briefing, but before the first task briefing. Where a justifiable reason exists, a late entry may be accepted by the Director in consultation with the Jury President, but before the publication of the first scores.

8. 7 TASK BRIEFING

8. 7.1 Task briefings will be called by the Director at times published on the Official Notice Board. Alternative methods may be used as announced in the General Briefing. At the briefing, the following information will be given verbally, by written circular, or by posted notices:

a) Meteorological information
b) Air traffic and safety information (if any)
c) Task Data

8. 7.2 Where written information is supplied, adequate study time should be allowed before the briefing proceeds (as specified in the COH).

8. 8 TASK DATA

8. 8.1 At task briefings the Task Data, preferably in writing, shall be given to competitors. The Task Datasheets (TDS) will contain flight data related to all tasks and individual Task Data.

8. 8.2 Flight data:

a) Date
b) Official sunrise/sunset
c) PZs in force
d) Launch area
e) Minimum distance from ILP to all goals/targets set by the director (if applicable)
f) Launch period
g) Provisional time and place of the next briefing
h) Solo flight (if directed)
i) Search period
j) QNH/Barometric Pressure (if needed for logger scoring)

8. 8.3 Individual Task Data:

a) Marker(s) color to be used (if used)
b) Task/Marker order (if other than normal)
c) Dropping method (if gravity drop directed)
d) Marker Measuring Area (MMA)
e) Scoring period, scoring area, and/or scoring airspace (if set)
f) Task Data as per task rule

8. 9 SUPPLEMENTARY BRIEFING

If it should be necessary to publish additional or revised information to competitors at the common launch area, a pink flag will be raised at the signals point before the start of the launch period.

. The competitor should attend in person or send a responsible crew member to the signal point. The information will be given verbally, and a written copy may be displayed. All competitors will be deemed to have proper notice of the information. Alternatively, an official may circulate a written notice to each balloon and obtain the signature of the competitor or crew member. Supplemental information may also be disseminated electronically via text messaging or special apps.

8.10. SUPPLEMENTARY INFORMATION BY ELECTRONIC COMMUNICATION TOOLS

For individual launch areas and as a further possibility for common launch areas, electronic communication tools may be used to publish additional or revised information to competitors. At a common launch area competitors will be informed of the change by a method defined in the general briefing.

Safety-related announcements (cancellations, danger warnings) can be made anytime using electronic communication tools.

Launch period delays and minor amendments to task data can be made up to 20 minutes before the start of the launch period at ILP and up to 10 minutes at a CLP.

Any other task changes must be made at in-person briefings or supplementary briefings.

8.11 ENTRY FOR TASKS

A competitor shall enter a task by answering their name or competition number at roll call at the task briefing. Alternative methods of checking the competitor's attendance may be used.

8.12 LATE ENTRY

8.12.1 A competitor may make a late entry at the signals point with a penalty of 50 task points up to five minutes before the start of the launch period, or 100 task points thereafter. Officials will not be available to give a personal briefing except for Air Traffic, safety matters, and PZs.

8.12.2 In tasks where competitors select their own launch areas, late entries shall be made by contacting an official and making arrangements on where to be briefed and receive a task sheet, GPS logger, weather sheet, and markers.

8.13 OFFICIAL TIME

The official time is GPS time corrected for the local time offset.

CHAPTER 9 - LAUNCH PROCEDURES

9. 1 COMMON LAUNCH AREA(S) (CLA) (II. 4)

9. 1.1 One or more areas are defined by the Organizer and used when the task requires all pilots to launch from a common area. A competitor taking off outside the prescribed common launch area (CLA) will not achieve a result for any of the tasks of that flight. Once their balloon is inflated a competitor may not move their balloon on the CLA except for safety reasons and only after approval from a responsible official.

9. 1.2 The Common Launch Point (CLP) is a point in or near the launch area, physically marked on the ground before the beginning of the Event, from which all angles and distances are measured, irrespective of the take-off points of individual balloons. (II. 5)

9. 2 INDIVIDUAL LAUNCH AREAS (ILA)

9. 2.1 Individual launch areas are selected by the competitors. The boundary of the Launch Area is a circle of 100-meter radius from the position of the basket at the start of hot inflation.

9. 2.2 Competitors must ensure permission has been obtained from the landowner or occupants before driving onto or launching from, any land that is enclosed or cultivated, private, or used for agricultural purposes. The penalty for infringement is up to 250 task points.

9. 2.3 In tasks where competitors select an individual launch area, the Individual Launch Point (ILP) is the position of the basket at take-off. Unless otherwise stated in the TDS only one take-off is permitted.

9. 2.4 In tasks where multiple take-offs are allowed unless the balloon is deflated, the landing position of the discontinued flight is considered the ILP for the next take-off.

9. 2.5 Individual launch areas shall not be selected outside the contest area. Penalty: no result in the first task of that flight.

9. 2.6 A balloon inflated in an individual launch area shall not be moved and taken outside of that launch area unless it is deflated, moved to another launch area, and re-inflated. Penalty: no result in the first task of that flight.

9. 3 LAUNCH PROCEDURES (II.6)

9. 3.1 The launch director may allocate to each competitor a space in which to prepare and inflate their balloon. They have the authority to regulate the operation of all balloons and vehicles in the launch area. The penalty is up to 200 task points.

9. 3.2 Quick-release tie-offs must be used for all balloons inflating in a common launch area and are recommended in individual launch areas.

9. 4 VEHICLES

9. 4.1 Not more than one vehicle per balloon may be present in the common launch area during the launch period. Penalty: 100 task points.

9. 4.2 Vehicles must be driven at suitably reduced speeds within the launch area. The Safety Officer and the Launch Directors may bar from the area any vehicle that is driven inconsiderately.

9. 4.3 No vehicle may enter the common launch area after the advance yellow warning flag has been raised except by permission of a Launch Director or other official. Penalty: 100 task points.

9. 5 COLD INFLATION

Burners may be briefly tested, and cold air may be induced into the envelopes for rigging and inspection, but before permission for hot inflation has been given, there must be no hot inflation, no use of powered fans, and no part of the envelope fabric may be more than two meters off the ground. Fans may be tested or used before the launch period until a flag of any color has been raised. This rule does not apply to ILA.

9. 6 SIGNALS POINT

One or more points at the launch area where flag signals may be displayed and competitor's task declarations, late entries, and supplementary briefings take place. Competitors are responsible for keeping observation of the signal point, and its obscuration shall not be grounds for complaint.

9. 7 LAUNCH SIGNALS

9. 7.1 Colored flags shall have the following meanings when displayed at the signal point:

RED No inflation or take-off permitted. Previous permission to take off was canceled.
GREEN General permission to all balloons to begin hot inflation.
BLUE Permission to 'blue' wave (odd-numbered balloons) to begin hot inflation.
WHITE Permission to 'white' wave (even numbered balloons) to begin hot inflation.
YELLOW Five-minute warning.
PINK Supplementary or amended briefing information available at signals point.
BLACK Task canceled.
VIOLET (Reserve) Meaning as notified at task briefing for a particular task.

9. 7.2 An audible signal may be given to draw attention to changes in flag signals.

9. 8 PUBLIC ADDRESS

Unless the Director has specified at the task briefing that the public address system will be used, any information given over the public address system is of no effect for competition purposes.

9. 9 LAUNCH PERIOD

Take-off may not be made before or after the launch period. Any take-off made outside the launch period, except under rule 9.12, will be subject to a penalty of 50 task points per minute or partial minute early or late. The yellow warning flag will be raised five or more minutes before the end of the launch period (for launches from a CLA)

9.10 OBSTRUCTION

Once their balloon is fully inflated a competitor may not unnecessarily remain in a position where their balloon obstructs another.

9.11 ADEQUATE TIME

A competitor who has been given permission to begin hot inflation 20 or more minutes before the end of the announced launch period is deemed to have adequate time, even if the launch period is curtailed for any reason.

9.12 EXTENSION OF TIME

A competitor may request an extension of time from the Launch Director. The Launch Director may grant an extension if they are satisfied that the competitor was delayed by the action of officials or other competitors, or by causes outside their control (equipment malfunction excluded).

9.13 LAUNCHING ORDER

Balloons may be allotted an order of priority for inflation, which will be rotated from one task to the next. Competitors may commence hot inflation according to the flag signal being hoisted or when given individual permission by the Launch Director.

9.14 LAUNCH DIRECTORS

9.14.1 Launch directors are officials designated by the Director to regulate the operation of all balloons and vehicles in the launch area and to assist in the launching of balloons from CLAs.

9.14.2 The Director can make the use of launch directors compulsory for all competitors or optional.

9.15 PROCEDURES WHEN LAUNCH DIRECTORS ARE COMPULSORY

9.15.1 When a competitor is completely ready for take-off and has positive buoyancy, they should wave a white flag to indicate their readiness to the launch director. When the launch director has acknowledged this signal, the competitor should leave the flag displayed on the edge of the basket and await further instructions while maintaining their readiness to take off. The launch director will, as far as possible, launch balloons in order to signal their readiness. Competitors should equip themselves with a suitable white flag about 50 cm square (handkerchief) for this purpose.

9.15.2 To avoid congestion, an extension of time will not be granted when competitors wave their white flag within the last ten minutes of the launch period.

9.15.3 The launch director will give each competitor permission to take off according to the signals as published. The competitor may then take off at will, subject to any instructions from the launch director at the time.

I acknowledge your white flag.

Stay on the ground; follow instructions of my right hand.

I'm going to clear you for take-off.

Clear for take-off

Cancel all previous instructions. Wait.

9.15.4 This permission does not relieve the competitor of complete responsibility for their take-off, including adequate lift to clear obstacles and other balloons, and to continue safely in flight. A competitor taking off without permission, whether due to loss of control or any other reason, may be penalized up to 500 competition points

9.15.5 If the balloon does not take off within 30 seconds, permission to take off may be canceled by the launch director.

9.16 PROCEDURES WHEN LAUNCH DIRECTORS ARE OPTIONAL

When a competitor is completely ready for take-off, they should have an experienced crew member advise when the airspace above and upwind is clear for launch. Alternatively, the competitor may ask an available launch director or official to clear them for launch.

9.17 LOSS OF CONTROL

A competitor losing control of their balloon shall deflate immediately or take other appropriate action.

9.18 TAKE-OFF (T/O)

The point and/or time at which an aerostat first becomes airborne.

An aerostat is airborne when its envelope, gondola, crew, and all substantial parts of its equipment and payload have no contact with the ground or water surface or anything attached or resting on the ground or water.

9.19 VALID TAKE-OFF

A balloon is considered to have taken off and to be flying the task(s) if a mark has been achieved or if the balloon passes over the boundary of any launch area.

9.20 ABORTED TAKE-OFF

9.20.1 A competitor may abort their take-off for safety reasons but must avoid the obstruction of other balloons. They may attempt further take-off(s) inside the launch period.

9.20.2 At a Common Launch Area the competitor must inflate in their originally allocated space, except by permission of the Launch Director, and must again obtain permission to take off.

9.21 CLEARING LAUNCH AREA

Within three minutes of their basket first leaving the ground, a competitor shall have passed over the boundary of the launch area or shall have climbed to 500 feet AGL, regardless of the end of the launch period. They shall not re-enter the launch area below 500 ft. AGL before the end of the launch period or until after all balloons have taken off, whichever is earlier.

CHAPTER 10 - FLIGHT RULES

10. 1 BALLOON COLLISION

10. 1.1 When two balloons are converging in flight, both competitors are responsible for avoiding collision. The competitor of the higher balloon shall give way and shall climb if necessary.

10. 1.2 Competitors shall not initiate or maintain a vertical speed exceeding 1.5 m/s (300 ft./min) unless they are certain that no balloon is in their flight path.

10. 1.3 Competitors causing a collision, in the air or on the ground, will be penalized by up to 1000 competition points.

A repeated offense will be penalized at least 1000 competition points and the competitor may be grounded for the next flight(s).

10. 1.4 Envelope-to-envelope contact in approximate level flight will generally not be penalized.

10. 2 DANGEROUS FLYING

10.2.1 Dangerous flying (e.g. any flying creating an unnecessary risk to other balloons or people on the ground), not necessarily causing a collision, will be penalized up to disqualification from the event.

10.2.2 Exceeding the vertical speed limits as defined in Section II will be penalized in accordance with parameters published and may additionally be penalized under 10.2.1.

10. 3 CLEARING GOAL/TARGET AREA

A competitor who has dropped their marker shall clear the vicinity of the goal/target as quickly as reasonably possible.

10. 4 DROPPING OBJECTS

No objects may be dropped from the balloon except for official markers, small pieces of paper, or similar lightweight materials for navigational purposes.

10. 5 BEHAVIOR

Competitors are required to fly with proper consideration for persons and livestock on the ground and to follow good landowner relations etiquette and the code of conduct. Inconsiderate behavior by competitors or crew members, or endangering the public during flight, may be penalized up to 1000 competition points. Repeated violations may result in disqualification from the event.

10. 6 LIVESTOCK AND CROP (II. 7)

Balloons must not fly closer than defined in Section II from livestock or buildings containing livestock, and competitors and crews must not damage crops unless given permission by the landowner or person responsible for the crop. Penalty up to 1000 competition points.

10. 7 LANDOWNER

In these rules, the term "Landowner" means the person who is responsible for any crop or livestock on the land, not necessarily the legal owner of the land itself.

10. 8 COLLISION

A competitor whose balloon is in collision with power or telephone lines or their supports at any time between inflation and completion of the final landing will be penalized up to 500 competition points. Collisions may additionally be penalized under the rule for dangerous flying.

10. 9 PERSONS ON BOARD (Section II.16)

10. 9.1 Competitors may carry other crew during a flight, and they may perform any duties assigned to them, except to act as pilot-in-command and as specified in Section II.16.

10. 9.2 The total number of persons on board (including competitors) shall not exceed that noted in II.16.

10. 9.3 The Event is operating under a standard FAA Waiver and flight crew are required to sign ‘designated flight crew’ forms.

10. 9.4 Competitors may be required to perform a flight “solo” as specified in the Task Data. Penalty: the competitor will not receive a result.

10.10 GROUND CREW

10.10.1 Crew are those persons associated with the launch and retrieval of the balloon and those providing the pilot with information about the tasks such as weather, and position of other balloons during the competition.

10.10.2 Each competitor will ensure that they have sufficient crew to operate their balloon and retrieve the vehicle. They will ensure that all those involved with their balloon are adequately briefed on safety.

10.11 DRIVING (II. 8)

Vehicles must be driven safely during the retrieve and comply with local driving laws. Penalty up to 500 competition points.

10.12 DISEMBARKATION

No person may enter or leave the basket between take-off and completion of the final task of that flight.

10.13 ASSISTANCE

The use of handling lines or any handling assistance from persons on the ground is forbidden during flight.

10.14 AIR LAW (II. 9)

Infringements of air law impacting the safety of the competitor, other competitors or the general public may be penalized up to 1000 points or may result in disqualification from the flight or event at the discretion of the Director.

10.15 RECALL PROCEDURE (II.10)

The organizer's recall procedure is defined in Section II.10.

CHAPTER 11 - LANDINGS

11. 1 LANDINGS

A competitor may land at will when they have completed all tasks during the flight.

11. 2 LANDING AT WILL

11. 2.1 When a competitor makes a landing at will, the landing point is the final resting place of the basket after landing.

11. 2.2 All pilots must have landed by sunset as published or announced at the task briefing. The penalty for infringement of this rule is 100 task points per minute or part thereof.

11. 2.3 Unless otherwise stated in the task data, a landing at will is not permitted within 50 m of an MMA or if no MMA is set, within 200 meters of any goal/target set by the Director or selected by the competitor or any physical mark of the competitor (for penalty see distance infringements).

11. 3 CONTEST LANDING

11. 3.1 The scoring position for a contest landing is the final resting place of the basket. Published scoring periods and search periods apply.

11. 3.2 No handling assistance may be received from anyone on the ground and no one of the flight crew may leave the basket before the basket has reached its final resting place.

11. 3.3 Any retained marker must be handed over to an official at the earliest opportunity.

11. 3.4 Unless otherwise stated in the task data, a contest landing is not permitted within 50 m of an MMA or if no MMA is set, within 200 meters of any goal/target set by the Director or selected by the competitor or within an MMA (for penalty see distance infringements).

11. 4 GROUND CONTACT 1

After passing over the boundary of any launch area, no part of the balloon or anything attached to it may make solid contact with the ground or water surface or anything resting on or attached to the ground, until the last task has been completed. The penalty for each contact is 200 task points.

- Note 1: A contact is solid if it is prolonged or results in a change of motion of the basket or the envelope.
- Note 2: Incidental contact with grass or leaves will not be penalized

11.5 GROUND CONTACT 2

No part of the balloon or anything attached to it may contact the ground or water surface or anything resting on or attached to the ground (marker excepted) within the Marker Measuring Area or 200 meters of any goal/target set by the Director or selected by a competitor. The penalty for each contact is 100 task points if light and 500 task points if solid. The penalty is applied to the task of the goal/target involved. A contact is solid if it is prolonged or results in a change of motion of the basket or the envelope.

- Note 1: A contact is solid if prolonged or results in a change of motion of the basket or the envelope.
- Note 2: Incidental contact with grass or leaves will not be penalized.
- Note 3: Competitors will not be penalized under both rules for any single contact. If a landing occurs within an MMA, the competitor will be penalized under Rule 13.3.4 distance infringements.

11.6 PERMISSION TO RETRIEVE

Competitors must ensure that permission has been obtained from the landowner or occupier before driving onto any land that is enclosed or cultivated or apparently private or used for agricultural purposes. The penalty is up to 250 task points.

CHAPTER 12 – GOAL, TARGET, MARKER, TRACK POINT

12. 1 GOAL (II.11)

12. 1.1 A place defined by coordinate and altitude, set by the Director or chosen by a competitor.

12. 1.2 If a target is not displayed at the given coordinate and no target is displayed within 100 m, the competitor should aim for the coordinates and make an electronic mark. The MMA rule 12.18.3 does not apply. These coordinates will also be taken to calculate/measure any other related tasks of that flight.

12. 1.3 The Director may provide a list with predetermined goals. The goals are numbered followed by the map coordinates.

12. 2 GOAL SELECTED BY A COMPETITOR (II.12)

12. 2.1 The types of goals allowed for goal declaration by competitors must comply with the TDS and Section II. According to the Task Data, competitors may be required to choose one or more goals from the list of predetermined goals or as listed in the TDS.

12. 2.2 Measurements will be made from the properly formatted goal declaration to the competitor's mark or closest track point as recorded in the official logger. (see Section II.11).

12. 3 DECLARATIONS BY COMPETITORS (II.12)

12.3.1 A competitor shall identify their goal by map coordinates. They shall add descriptive detail to distinguish between possible goals located close together near their coordinates. For goal declaration of pre-defined goals the 3-digit goal number may be used.

12.3.2 In case of ambiguity between more than one valid goal within 200 m of the coordinates, the goal achieving the least advantageous result will be placed upon a competitor's declaration. If there is no valid goal shown on the map within 200 m of the coordinates, the competitor will not achieve a result

12.3.3 A goal declaration violating the restrictions of Section II or the TDS will be considered invalid and the competitor will not achieve a result. In case the competitor is allowed to declare more than one goal in a task and one or more goals are invalid, the competitor will be scored to the nearest valid goal if any.

12.3.4 In tasks where a competitor is required to declare their goal(s) or other declarations according to the TDS, they shall do so in writing and their declaration shall be deposited before declaration time at the place of the declaration box specified in the briefing data, clearly identified with the competitor's name and/or competition number. If more goals or declarations are made than permitted, the competitor will be scored to the least advantageous valid goal.
A competitor who wishes to revise a declaration may deposit a further declaration, within the declaration time, provided that it is clearly marked to distinguish it from any previous declaration(s).
The timekeeper will close the declaration box precisely at the declaration time, and will accept late goal declarations, writing the time in minutes and seconds on each.

12.3.5 Penalty for late declarations that must be made by a specified time before take-off is 50 task points per minute or part minute late.
If the competitor fails to declare before take-off, they will not achieve a result.

12.3.6 If a declaration may be made in flight - before a defined time, point or boundary - and the competitor fails to do so, the declaration will be invalid.

12.3.7 Goals not meeting distance or relative altitude limitations will be scored according to the rule on distance infringements. Declarations not meeting boundaries or absolute altitude limits will be invalid.

12.3.8 If the competitor doesn't have a valid declaration, they will not achieve a result.

12.3.9 All declarations made before TO will be assumed at TO, in time, position and altitude for any limit verifications.

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12. 4 (NOT USED)

12. 5 TARGET

A prominent cross intended to be displayed within 100 meters of a goal or at a specified coordinate. Where a target is displayed, any measurements are made from the target, not from the goal. A competitor reaching a goal where an expected target is not displayed should aim for the goal coordinate.

12. 6 MARKER

Markers (as specified in the COH) supplied by the organizer will be used for scoring purposes to create a physical mark. Competitors are responsible for collecting the necessary marker(s) before the task. The marker must not be modified in any way. The penalty for modified or unauthorized markers is up to 250 task points.

12. 7 (NOT USED)

12. 8 MARKER RELEASE

The marker may be thrown by hand unless a Gravity Marker Drop is specified on the TDS.

12. 9 GRAVITY MARKER DROP (GMD)

12. 9.1 In a GMD, no horizontal motion shall be applied to the marker in relation to the basket and gravity shall be the only means for the marker to drop. The person releasing the marker must hold the unrolled marker by the tail. The person's hand holding the tail of the marker shall not be outside the basket.

Penalty for violating this rule, unless otherwise stated on the TDS:

- Minor infringements with no competitive advantage: 50 task points
- Infringements with a competitive advantage: 50 meters will be added to the competitor's result in the least advantageous direction.

12. 9.2 Unless otherwise stated on the TDS, a marker thrown into an MMA or scoring area under limited scoring will be regarded as a valid result and the penalty will be applied.

12.10 FREE MARKER DROP (FMD)

The marker must be completely unrolled prior to coming to rest on the ground. No mechanism may be used to propel the marker. The person releasing the marker must stand on the floor of the basket. Penalty for minor infringement with no competitive advantage: 50 task points; otherwise, 250 task points for a competitive advantage.

12.11 MARK (12.20 and 12.21)

12.11.1 A physical mark is a point on the ground vertically below the weighted part of the official marker where it comes to rest after falling from the balloon. If the marker has been moved after landing and there is indisputable evidence available showing its original position, measurements will be based on the evidence. If the marker is displaced after coming to rest or disappears subsequently from view (e.g. beneath water level), the earliest position an official or observer has seen the marker in ground contact, or having come to rest, will be taken with the accuracy available. The same applies if the marker is carried on top of another balloon, automobile, train, etc.

12.11.2 An electronic mark is a track point identified for scoring purposes. The technical details and procedures are defined in Section II. If the scoring criteria defined in the TDS are not met, the competitor will not achieve a result in the relevant task.

12.11.3 If no mark has been achieved the competitor will be scored to their next mark in time or landing position, whichever is best.

12.12 (NOT USED)

12.13 INTERFERENCE WITH MARKER

No person other than an official may touch or interfere with a marker on the ground. Any marker moved must be replaced to its original position based on the best evidence available.

12.14 SEARCH PERIOD

12.14.1 Competitors have a specified period from the actual start of the launch period in which to find their marker(s).

12.14.2 The choice between searching for the marker and first recovering the competitor rests with the competitor or their crew.

12.15 LOST MARKERS

12.15.1 A marker, dropped within the Marker Measuring Area, is considered lost if it is not found and in possession of Officials within the time limit specified. Competitors may inquire with the measuring officials at a target or goal if they have doubt that their marker will be found. Competitors will not be allowed to search for markers in the MMA without the presence of an official. If a marker dropped, or allegedly dropped, in the MMA is considered lost the competitor will be scored by electronic mark as if the competitor had missed the MMA.

12.15.2 If the marker has earlier been seen by an official on the ground and is estimated within the Marker Measuring Area, the official's evidence, together with the logger's data, will be used to determine the competitor's result based on the least advantageous interpretation of evidence available.

12.15.3 Competitors are required to pay for any marker damaged, not reusable, lost, or not brought back in time. Charges for lost or damaged markers are stipulated in Section II. Competitors are responsible for returning markers dropped outside the MMA.

12.16 (NOT USED)

12.17 SCORING PERIOD (SCP)

12.17.1 When defined by the Director in the task briefing, the scoring period is the time limits, within which a goal/target or scoring area is valid.

12.17.2 A competitor will only score if they have a physical marker on the ground, have landed, or have a valid electronic mark within the set time limit.

12.17.3 A competitor who does not achieve a scoring position within the scoring period (if set) or within the search period (if no scoring period is set) will not achieve a result.

12.17.4 Under all circumstances scoring within the last fifteen (15) minutes prior to official sunset is prohibited.

12.18 SCORING AREA (SCA)

12.18.1 An area or areas, defined by the Director in the Task Data within which a valid mark or track point can be achieved. Unless otherwise stated in the Task Data, the boundary will be the inner hard surface or gravel edge of a road, the inner bank of a river, or other defined marked area. Any part of the weighted bag that is on the inner edge will be considered valid.

12.18.2 A competitor who does not achieve a scoring position inside the scoring area(s) will not achieve a result.

12.19 SCORING AIR SPACE

An air space or spaces defined by the Director in the Task Data within which a valid track point can be achieved. Unless otherwise stated in the Task Data, the boundary will be defined by coordinate lines. The altitude limits are defined by altitude as recorded by the logger and under Rule II.22. Any recorded track point exactly on the line or altitude limit will be considered valid.

12.20 MARKER MEASURING AREA (MMA)

12.20.1 The MMA is an area defined by a radius around a goal/target or an otherwise clearly defined area within which results will be achieved by markers.

12.20.2 The MMA will be provided for each task in which markers are used.

12.20.3 Competitors not achieving a physical mark within the MMA will be scored by electronic mark.

12.21 VALID MARK

12.21.1 A physical mark is considered valid if it is within the MMA or scoring area and within the scoring period if set.

12.21.2 An electronic mark is considered valid if the recorded track point meets all scoring criteria defined in the TDS.

12.21.3 A valid physical mark shall have precedence over any track point or electronic mark. 12.21.4 Measurements

will be made to the closest point of the weighted bag portion of the marker.

12.22 TRACK POINT

12.22.1 A track point is defined by the recorded date/time, coordinates, and altitude of a point of the track of a GPS logger.

12.22.2 When goals or targets are used, results based on electronic marks

will be the 2D or 3D distance from the goal/target to the track or electronic mark. The shortest distance is best.

12.22.3 A competitor's result based on a track point cannot be better than the worst possible result in the MMA.

12.22.4 In tasks without goals or targets, the horizontal distance (2D distance) between points will be used to calculate results.

12.23 VALID TRACK POINT

A valid track point is a track point meeting all scoring criteria set in the Task Data such as scoring area, and/or scoring airspace, and/or scoring period.

12.24 TARGET OFFICIALS

Target Officials are assigned to establish the competitor's results and possible rule violations. In general, in all tasks having set goals or targets, the Target Officials will measure the results with tape or surveyor equipment within the Marker Measuring Area (MMA) or Scoring Area.

CHAPTER 13 - PENALTIES

13. 1 SERIOUS INFRINGEMENTS, UNSPORTING BEHAVIOR

13. 1.1 Serious infringements include dangerous or hazardous actions or repetitions of lesser infringements and will be penalized according to the appropriate rule.

13. 1.2 Dishonesty or unsporting behavior, including deliberate attempts to deceive or mislead officials, willful interference with other competitors, falsification of documents, use of forbidden equipment or prohibited drugs, or repeated serious infringements of rules should, as a guide, result in disqualification from the event.

13. 2 UNSPECIFIED PENALTIES

13. 2.1 A competitor infringing any rule for which a penalty is not specified in the rules may have a penalty (distance, angle, or time) applied to their result or a deduction of points.

13. 2.2 Where safety is not an issue, and no competitive advantage has been gained, they will normally receive a warning in the first instance.

13. 2.3 A competitor may not be penalized for infringing a rule for which the penalty is not specified, if they have already been penalized under the same rule in a previous task but have not been informed of the fact before the beginning of the task in question, except for follow-on tasks in the same flight.

13. 3 DISTANCE INFRINGEMENTS (also see II.12)

13. 3.1 Where the individual launch point, a goal selected by a competitor, a mark, or a final landing infringes a distance or altitude limit at any time, the competitor will be penalized.

13. 3.2 If a launch point infringes a natural set boundary, the infringement is the distance to the closest correct point.

13. 3.3 Competitors landingwithin 50m of an MMA or if no MMA is set, landing within 200 meters of goals/targets or any physical mark of the competitor will be penalized 200 task points.

13. 3.4 Where the penalty relates to landing too close to a goal/target or mark, the competitor will only receive a penalty for the greater infringement.

13. 3.5 The penalty will be waived if the competitor can show that they were unable to comply because of safety reasons, or because of light winds (unable to clear the area within 10 minutes).

13. 3.6 For competitors taking off too close to a goal or target, declaring a goal outside the limits specified in the TDS, or otherwise abusing the set distance or altitude limits of a task, the penalty will be 2 task points per 0.1% infringement. Above 25% infringement, the competitor will be scored in group B.

For Elbow, Angle, and Land Run Tasks, the percent infringements will be the sum of the percent infringements of each ‘leg’, unless otherwise defined in the TDS. A competitor penalized under this rule cannot achieve a score less than Group B because of the distance infringement penalty.

13. 4 PENALTY POINTS

13.4.1 There are two kinds of point penalties: task points and competition points.

13.4.2 Task point penalties are subtracted from a competitor’s task score, which cannot be reduced below zero (0). Competition point penalties are also subtracted from a competitor’s task score and may result in a negative score, which will be set against their total score in the Event.

13. 6 FARs

It is the responsibility of competitors to follow the requirements of the Federal Aviation Regulations and any waiver for the event. In all cases involving a violation of air traffic rules and air safety noted by the assigned FAA monitor, the Director or their delegated official will act in concert with the FAA Monitor.

CHAPTER 14 - SCORING

14. 1 RESULT

A competitor's result is the achieved outcome in a task including result penalties. Results should be expressed in meters, square kilometers, feet, and minutes, with an accuracy of two decimal places. Degrees will be measured to an accuracy of one or two decimal places depending on the distance defined in the TDS. See COH 6.9.2 for guidance.

14. 2 SCORE

A competitor's score in the Event is the total of all the points achieved in a task when applying the appropriate formulas. Task or competition penalties may be applied according to the rules.

14. 3 PUBLICATION OF SCORES

14. 3.1 The scores of each task shall be published with a minimum of delay on the Official Notice Board.

14. 3.2 Task score sheets shall include:

a) Event name, task date and time, task sequence number, task name, and rules reference. b) For each competitor, their: rank, competition number and name, result, score, and, if applicable, penalties followed by the kind of penalty, a rule reference, and a brief description.
c) The fixed data used in the Scoring Formulas (P, A, M, RM, W, and SM) and the checksum
d) Publication date and time and version number
e) If more than one score sheet version is published for a task, the changes from the previous issue shall be marked and the different versions shall be numbered in sequence.

14. 3.3 Task score sheets will have the following status:

PROVISIONAL RESULTS Provisional result scores are published for information only and have no validity for timing purposes. They serve the purpose of allowing competitors to check their pending results before a penalty or result mistakes (if any) are placed into the scoring software for the assignment of points

OFFICIAL Time periods for complaints/protests start from the publication of official scores. **FINAL** Official scores automatically become final after all relevant time periods have expired. The Jury may require a correction of the results and/or penalties prior to approving and signing the final scores.

14. 3.4 Total score sheets shall include:

a) Event name
b) For each competitor, their: rank, competition number and name, total score, and task scores c) Task checksums

14. 3.5 Total scores are for information only and will not carry a signature.

14. 4 RANKING ORDER

14. 4.1 Competitors will be ranked in order of performance according to the rules for each task, after adjustment for any penalties. Competitors will be ranked in the following groups for each task:

GROUP A Competitors whose results have been measured or have been assessed under the rule for lost markers.

GROUP B Competitors flying the task, but not achieving a result. They will be scored equally using Formula Three, or share equally the remaining points using Formula Two, whichever is the higher.

Group C Competitors not making a valid launch or disqualified in the event, will not be ranked in all tasks of that flight.

14. 4.2 After calculating the points score with the applicable formula, any penalty points will be subtracted to obtain the competitor's final task score. The competitor's final task scores will be ranked again before being published.

14. 5 POINTS FORMULA - PROPORTIONAL SCORING

14.5.1 Each competitor will be awarded a number of points according to their performance. The formula to be used will depend on the competitor's place in the ranking order for the task.

14.5.2 The best result can be awarded up to 1000 points before deduction of any penalty points.

14.5.3 The superior half of the results will receive a score between 1000 and approximately 500 points, in proportion to

their performance using Formula One.

14.5.4 The inferior half of the results will receive a score between approximately 500 points and 0 points according to their relative position in the ranking order using Formula Two.

14.5.5 FORMULA ONE: (superior half of performances):

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

FORMULA TWO: (inferior half of performances):

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

FORMULA THREE: (competitors in Group B):

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

P = number of competitors ranked in the flight.
M = P/2 (rounded to the next higher number) (Median Rank)
R = competitor's result (meters, etc.) if in the superior half.
RM = result achieved by the median ranking competitor.
L = competitor's ranking position if in the inferior portion.
W = the winning result of the task.
A = number of competitors in Group A
SM = rounded points score of the median ranking competitor, calculated under formula two. 14.5.6 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.

14.5.7 In tasks where no competitor achieves a result, all competitors in Group B will receive a score of 500 points before any penalty points.

14.5.8 Points scores will be rounded to the nearest whole number.

14.6 POINTS FORMULA - POSITIONAL SCORING (Used for National Eligibility List System) See Section II of HACD ***Competition Regulations, Policies, and Procedures*** for the definition of ***Competitive Field.***

14.6.1 Positional scoring is the formula used for all individual tasks used in the BFA National Eligibility List. All tasks entered into the Eligibility List whether originally scored under Proportional Scoring or Positional Scoring are converted to Positional Scoring for entry into the National Eligibility List.

14.6.2 Scores of competing pilots entered in each Sanctioned Task shall be computed by the following formula:

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

P = number of competitors flying the task (***Competitive Field***)
N = numerical position of competitor among the ***Competitive Field*** when competitors are numbered in sequence according to their standing in the task results. Scores will be rounded to the nearest whole number. In the event of a tie in a task, tied competitors shall each be awarded the average score of the tied places.

14. 7 PRECISION

14. 7.1 Results will be established with the highest precision available.

14. 7.2 The following standards will be used:

Result Method	Precision	Example (m)
Tape/surveying	Centimeters	1.23 m
Map coordinates	Decameters	1250.00 m
Track point - GPS	Meters	1231.00 m

Any combination of result methods will revert to the lowest precision method used.

If positions can be determined relative to a common coordinate with a more accurate method, the precision of that method will be used.

Interpolation between track points may be used to establish the scoring position.

When establishing distances or positions, rounding should only be made at the end of calculations but not in intermediate steps.

14. 7.3 Results are considered tied when the outcome is the same after applying the above-mentioned principles. Competitors whose results are tied will share equally between them the points, that they would have received had they not been so tied.

14. 7.4 The altitude used in the Event is specified in Section II.22.

14. 8 MEASURING (for events without logger scoring)

14. 8.1 Measurements by the measuring officials take precedence.

14. 8.2 Within 200 meters, tape/surveying, should be used. If there is reason to believe that a GPS measurement may be more accurate or safer for officials/crew than the tape/surveying, a GPS measurement shall be recorded.

14. 8.3 All marks outside 200 meters shall be recorded by GPS. In case of a goal selected by the competitor, the coordinates of the goal shall also be recorded by GPS.

14.9 TOTAL SCORES

14.9.1 The Total Score is the addition of the individual task scores.

14.9.2 Where two competitors have equal total scores in an Event, the competitor with the smaller difference between their best and worst scores will be ranked higher.

CHAPTER 15 - TASKS

15. 1 PILOT DECLARED GOAL (PDG)

15. 1.1 Competitors will attempt to achieve a mark close to a goal selected and declared by them before take-off.

15. 1.2 Task Data:

a) Method of declaration (also see Section II.12 and 12.3)
b) Number of goals permitted
c) Goals available for declaration
d) Minimum and maximum distances of goal(s) from CLP or ILP as per TDS
e) Minimum distance of goal(s) from any subsequent goals or targets, if applicable

15. 1.3 The result is the distance from the mark or closest valid track point to the nearest valid declared goal. The smallest result is best.

15. 2 JUDGE DECLARED GOAL (JDG)

15. 2.1 Competitors will attempt to achieve a mark or valid track point close to a set goal.

15. 2.2 Task Data:

a) Position of set goal/target

15. 2.3 Result is the distance from the mark or closest valid track point to the target if displayed, or goal. The smallest result is best.

15. 3 HESITATION WALTZ (HWZ)

15. 3.1 Competitors will attempt to achieve a mark or valid track point close to one of several set goals.

15. 3.2 Task Data:

a) Position of various set goals/targets

15. 3.3 The result is the distance from the mark or closest valid track point to the nearest target, if displayed, or the goal. The smallest result is best.

15. 4 FLY IN (FIN)

15. 4.1 Competitors find their own launch areas and attempt to achieve a mark or valid track point close to a set goal or target.

15. 4.2 Task Data:

a) Position of set goal/target

15. 4.3 The result is the distance from the mark or closest valid track point to the target, if displayed, or the goal. The smallest result is best.

15. 4.4 Only one scoring attempt (marker drop) may be made.

15. 5 FLY ON (FON)

15. 5.1 Competitors will attempt to achieve a mark or valid track point close to a goal selected and declared by them before take-off or during flight.

15. 5.2 Task Data:

a) Method of declaration (also see Section II.12 and 12.3)
b) Number of goals permitted
c) Goals available for declaration
d) Declaration point requirement
e) Minimum and maximum distance between declaration point and declared goal(s)
f) Minimum and maximum distances of declared goal(s) from any other targets noted on TDS.

15. 5.3 The result is the distance from the mark or closest valid track point to the nearest valid declared goal. The smallest result is best.

15 .5.4 Rules governing the declaration methods are in Section II.12 and shall be detailed on the TDS.

15. 6 HARE AND HOUNDS (HNH)

15. 6.1 Competitors will follow a hare balloon and attempt to achieve a mark or valid track point close to a target displayed by the hare no more than two meters upwind of the basket after landing.

15. 6.2 Task Data:

a) Description of hare balloon(s)
b) Intended flight duration of hare balloon(s)

15. 6.3 The result is the distance from the mark or the closest valid track point to the target. The smallest result

is best. 15. 6.4 Variation from the intended flight duration of the hare shall not be grounds for complaint. 15. 6.5

The hare may deflate after landing and may be removed from the field.

15. 6.6 The hare balloon may display a banner hanging below it. No competitor shall display any banner hanging below the basket during this task.

15. 7 WATERSHIP DOWN (WSD)

15. 7.1 Competitors will fly to the launch point of a hare balloon, follow the hare, and attempt to achieve a mark or valid track point close to a target displayed by the hare no more than two meters upwind of the basket after landing.

15. 7.2 Task Data:

a) Description of hare balloon
b) Location of the launch point of the hare balloon
c) Set the take-off time of the hare balloon
d) Intended flight duration of the hare balloon

15. 7.3 The result is the distance from the mark or closest valid track point to the target. The smallest result is best.

15. 7.4 If the hare balloon does not take off within five minutes after the set time, then this task is considered

canceled. 15. 7.5 Variation from the intended flight duration of the hare shall not be grounds for complaint. 15. 7.6 The

hare may deflate after landing and may be removed from the field.

15. 7.7 The hare may display a banner hanging below their basket. No competitor shall display any banner hanging below the basket during this task.

15. 8 GORDON BENNETT MEMORIAL (GBM)

15. 8.1 Competitors will attempt to achieve a mark or the closest valid track point within a scoring area(s) close to a set goal.

15. 8.2 Task Data:

a) Position of goal/target
b) Description of scoring area(s)

15. 8.3 The result is the distance from the mark or closest valid track point to the target, if displayed, or the goal. The smallest result is best.

15. 9 CALCULATED RATE OF APPROACH TASK (CRT)

15. 9.1 Competitors will attempt to achieve a mark within a valid scoring area close to a set goal. The scoring area(s) will have unique times of validity.

15. 9.2 Task Data:

a) Position of goal/target
b) Description of scoring area(s) and their validity times

15. 9.3 The result is the distance from the mark to the target. The smallest result is best.

15. 9.4 A competitor who does not achieve a mark (marker on the ground) inside a scoring area during the time of validity will not achieve a result.

15.10 RACE TO AN AREA (RTA)

15.10.1 Competitors will attempt to achieve a mark or valid track point, as specified in the Task Data in the shortest time within a scoring area(s) or airspace(s).

15.10.2 Task Data:

a) Arrangements for timing
b) Description of Scoring Area(s)

15.10.3 The result is the elapsed time from the initial timing point to the mark ~~or~~ first valid track point. The shortest time is best.

15.10.4 Timing ends at the moment the marker is released, falling, or on the ground, as seen by the officials, the electronic mark is dropped (Flytec loggers only) or at the moment of the first valid track point in the scoring area if track points only were set.

15.11 ELBOW (ELB)

15.11.1 Competitors will attempt to achieve the greatest change of direction in flight.

15.11.2 Task Data: (If no markers are used)

a) Description of point “A”
b) Description of point “B”
c) Description of point “C”

15.11.3 The result is 180 degrees minus the angle ABC. Greatest result is the best.

15.12 LAND RUN (LRN)

15.12.1 Competitors will attempt to achieve the greatest area of a triangle ABC.

15.12.2 Task Data:

a) Location of point "A"
b) Method of determining point "B"
c) Method of determining point "C"
d) Description of scoring area(s)

15.12.3 The result is the area of triangle ABC. Greatest result is the best.

15.13 MINIMUM DISTANCE (MDT)

15.13.1 Competitors will attempt to achieve a mark or valid track point close to the common reference point, after flying a minimum set time or distance.

15.13.2 Task Data:

a) Arrangements of timing
b) Minimum set time or distance
c) Reference point

15.13.3 The result is the distance from the mark or closest valid track point to the common reference point. The smallest 2D result is best.

15.13.4 The scoring position is the mark or best track point after the minimum time or distance has elapsed. Otherwise, the scoring position will be the landing position, provided that the balloon has been seen by an official to be still airborne after the minimum time

15.14 SHORTEST FLIGHT (SFL)

15.14.1 Competitors will attempt to achieve a mark or valid track point within a set scoring area(s) close to the common reference point.

15.14.2 Task Data:

a) Description of scoring area(s)
b) Reference point

15.14.3 The result is the distance from the mark or best valid track point to the common reference point. The smallest 2D result

is best.

15.15 MINIMUM DISTANCE DOUBLE DROP (MDD)

15.15.1 Competitors will attempt to achieve two marks or valid track points close together in different scoring areas.

15.15.2 Task Data:

a) Description of the scoring areas

15.15.3 The result is the distance between the marks or track points. The smallest 2D result is best.

15.15.4 Competitors will not achieve a result unless they have valid track points or marks in different scoring areas as per the TDS.

15.16 MAXIMUM DISTANCE TIME (XDT)

15.16.1 Competitors will attempt to achieve a mark or valid track point far away from the common reference point, within a maximum set time.

15.16.2 Task Data:

a) Maximum set time
b) Arrangements for timing
c) Reference point

15.16.3 The result is the distance from the mark or the furthest valid track point to the common reference point. The greatest 2D result is the best.

15.17 MAXIMUM DISTANCE (XDI)

15.17.1 Competitors will attempt to achieve a mark or valid track point within a set scoring area(s) far away from the common reference point.

15.17.2 Task Data:

a) Description of scoring area(s)
b) Reference point

15.17.3 The result is the distance from the mark or valid track point to the common reference point. The greatest 2D distance is best.

15.18 MAXIMUM DISTANCE DOUBLE DROP (XDD)

15.18.1 Competitors will attempt to achieve two marks or valid track points far apart in the scoring area(s).

15.18.2 Task Data:

a) Description of Scoring Area(s)

15.18.3 The result is the distance between the marks or farthest valid track points. The greatest 2D result is the best.

15.19 ANGLE TASK (ANG)

15.19.1 Competitors will attempt to achieve the greatest change of direction from a set direction. The change of direction is the angle between the set direction and lines “A-B”.

15.19.2 Task Data:

a) Description of points “A” and “B”
b) Set direction (degrees)
c) Minimum and maximum distances from “A” to “B”

15.19.3 The result is the angle between the set direction and the line “A-B”. The greatest result is the best.

15.20 3-D SHAPE TASK (3DT) (for events with logger scoring)

15.20.1 Competitors will attempt to achieve the greatest distance within a set airspace.

15.20.2 Task Data:

a) Description of set airspace(s)

15.20.3 The result is the accumulated horizontal distance between valid track points in the set airspace(s). Greatest result is best.

15.21 Altitude Profile Task (APT)

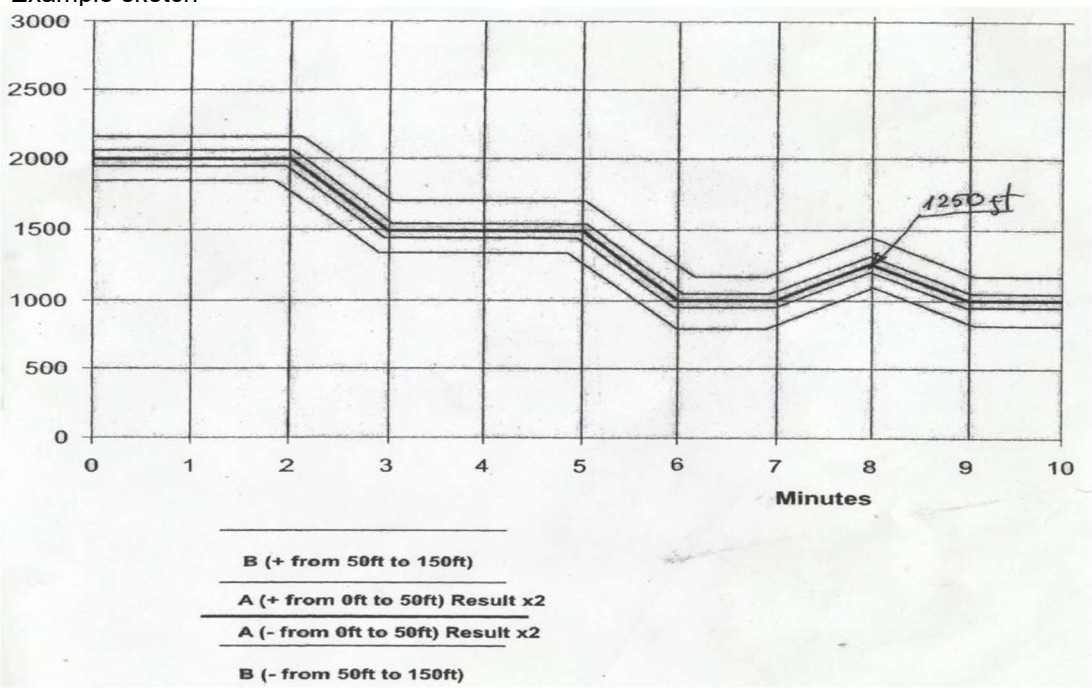
15.21.1 Competitors will attempt to achieve the greatest time within a set airspace. The airspace is defined by one or two bands around a given altitude profile where the time within the inner band counts 2x, the time within the outer band counts 1x and the time outside the outer band does not count. The task will be started with an electronic mark.

15.21.2 Task data:

a. description of set airspace(s) (see sketch).

15.21.3 The result is the accumulated time in seconds in the set airspace(s). Greatest result is the best.

Example sketch



APPENDICES

APPENDIX A - CODE OF CONDUCT

All **OFFICIALS, PILOTS/COMPETITORS, AND CREWS** are required to comply with the Code of Conduct. In addition to the excerpts from the Competition Rules shown below, competitors and crews are expected to conduct themselves in a manner that promotes the sport of hot air ballooning while behaving in a sportsmanlike manner. All participants will treat fellow pilots, crews, officials, sponsors, etc. with respect at all times. Repeated violations may result in disqualification from the event.

2.12 CONDUCT

Competitors and their crew are required to behave in a sportsmanlike manner, follow the Code of Conduct, and comply with the directions of Event Officials. Inconsiderate behavior, profanity, or unsportsmanlike conduct will be penalized up to 1000 competition points and may lead to task disqualification or may be grounds for expulsion of a competitor.

10.5 BEHAVIOR

Competitors are required to fly with proper consideration for fellow competitors, persons, and livestock on the ground and to follow good landowner relations etiquette and the code of conduct. Inconsiderate behavior by competitors or crew members, or endangering the public during flight, may be penalized up to 1000 competition points. All pilots and their crews will conduct themselves in such ways as their actions will be a credit to and in the best interests of hot air ballooning and the Event, its officials and staff, and its Event sponsors.

13. 1 SERIOUS INFRINGEMENTS, UNSPORTING BEHAVIOR

Cheating or unsporting behavior, including deliberate attempts to deceive or mislead officials, willful interference with other competitors, falsification of documents, use of forbidden equipment or prohibited drugs, or repeated serious infringements of rules will be penalized up to 1000 competition points and may be disqualified from the task or Event. Pilots/crews found to misappropriate propane during the event would be penalized and/or disqualified.

EVENT ETIQUETTE

Pilots and crew are expected to treat our event hosts, community, volunteers, hotel staff, and anyone associated with the event in a professional and polite manner.

Pilots registering for and attending events are expected to be present for the General Briefing and attend all flight briefings. In circumstances requiring a participating pilot to miss a briefing or flight, the pilot is responsible for notifying the organizer and Event Director of their situation. Violations of normally accepted conduct will result in a warning and possible expulsion from the Event.

Penalty for violation, regardless of NEL standing, may include DQ from State, Regional, National, and International competition for the next year.

Pilots will be responsible for operating within both the letter <u>and</u> spirit of the Event Competition Rules.

APPENDIX B - LANDOWNER RELATIONS

All competitors and crews are reminded of the importance of Landowner Relations and that the countryside is the farmer's livelihood. It is important to remember that good rural relations are essential to our sport. Grass is a crop, cattle, pigs, and horses are easily frightened and farmers depend on electric power for many purposes not the least of which is for their milking plant.

Please remember these guidelines when dealing with our landowners:

1. Always be COURTEOUS and respectful of the fact that you are trespassing unless invited onto the property. 2. Select a landing site that will cause the least possible inconvenience to the farmer. Select a field FREE OF CROPS and be particularly CAREFUL OF ANIMALS on the approach and on possible overshoot.
3. After landing, DISCOURAGE ONLOOKERS from coming onto the land unless the owner is there, and they have their permission.
4. ALWAYS obtain permission BEFORE you bring the retrieved vehicle into the field.
5. Ensure farm FENCES are NOT DAMAGED and gates are left as you find them.
6. DO NOT let anyone LITTER the property.
7. If damage is caused, or the farmer wishes to take further action, exchange names and addresses and report the facts to race officials upon your return.
8. Remember not to use the "ran out of fuel" excuse if you do damage. It is a violation of the FARs to run out of fuel.

APPENDIX C – PROPANE REFUELING

When refueling, please follow these guidelines:

1. Have your refueling adapters hooked up prior to entering the fueling area. After completing refueling, leave the area to complete the covering of your balloon and any other housekeeping that may be required. 2. No more than two from each balloon crew may be in the refueling station area. Persons involved in refueling must be experienced in refueling propane tanks.
3. Pilots are responsible for the proper filling of tanks.
4. Disarm strikers and remove them from the basket.
5. Leave cell phones in the chase vehicle.
6. No nylon jackets in the refueling area.
7. Only tanks used in flight will be refueled.
8. Pilot lights in campers, chase commanders, etc., must be turned off.
9. All vehicles must be turned off.
10. No persons are permitted inside the balloon basket or vehicle passenger compartment during refueling. 11. No refueling of tanks in enclosed trailers or vans.
12. Absolutely no smoking in the area.

Emergency Procedures.
In the event of a fire during refueling. It is recommended to leave your keys in your vehicle prior to refueling -- in the ignition or on the dash.

Fire is not involving your balloon system:

1. Stop all refueling operations.
2. Shut all valves, including liquid and vapor.
3. Leave your equipment connected.
4. Confirm with the propane operator the “Emergency Shut Off” on the propane vehicle is activated. 5. Leave the refueling area and report to the check-in location.
6. Do Not attempt to remove your vehicle from the refueling area.
7. Stand by for further instruction from Public Safety Officials.

Fire involving your balloon systems:

1. Shut all valves, including liquid and vapor, if conditions will allow.
2. Notify the propane operator of the fire.
3. Confirm with the propane operator the “Emergency Shut Off” on the propane vehicle is activated. 4. Report all injuries to Public Safety Officials if not injuries are not noticeable.

APPENDIX D – ALLOWABLE DAMAGE on Balloon Envelopes and Baskets

The following is provided only for general guidance to event officials to quickly evaluate the effect of envelope and/or basket damage during a balloon event. In all cases, the manufacturer's manuals for continued airworthiness for each particular aerostat MUST be consulted when evaluating any situation of 'allowable damage. Refer to Rule 3.5 for further guidance.

Manufacturer Allowable Damage Limitations

ADAMS No allowable damage is listed.

AEROSTAR For fabric with less than 100 hours and less than 3 years old:

- Above 1ST horizontal band below the equator: 1 inch.
- Below 1ST horizontal band and above 6 feet above mouth: 2 inches.
- Envelope within 6 feet of mouth: 18 inches

For fabric with greater than 100 hours and greater than 3 years old:

- Above 1ST horizontal band below the equator: 3/8 inch.
- Below 1ST horizontal band and above 6 feet above mouth: 1 inch.
- Envelope within 6 feet of mouth: 12 inches

Envelope skirt or Dipper: no more than 10%.

AVIAN ½" long tear, hole, or wear area from the equator to the top of the envelope;
1-1/2" long tear, hole, or wear area from 10 feet above mouth to equator;
12" long tear, hole, or wear area from the mouth to 10 feet up envelope
No load tape may be damaged

FIREFLY AND GALAXY
Fabric: holes, tears, or areas of the damaged fabric of 1 cm (3/8 inch) in maximum dimensions are acceptable above the equator and of 2.5 cm (1 inch) below the equator, and a maximum of 30.5 cm (12 inches) in the bottom panel no.1 if:

1. They are more than 30.5 cm (12 inches) apart and more than 30.5 cm (12 inches) away from a seam.
2. There are no more than four in any one panel.

Basket wicker: Holes up to 25cm (10 inches) may be considered acceptable providing the damage does not endanger passenger safety or fuel system components.

CAMERON In the lowest 10', holes need not be repaired provided load tapes are undamaged; above 10' ≤3/4" in the longest dimension.

Basket damage – horizontal <3/4" in floor; <1/4" of thickness gone

LINDSTRAND BALLOONS
No damage to envelope fabric which is above the lower two nylon panels may be larger than ¾" in any one direction. No damage is permissible to load tapes, control lines, or parachute valve rigging.

No damage to the basket that exceeds more than five strands of a basket wire broken, or more than six broken consecutive strands in the woven floor is permissible. No damage to a plywood floor that is more than 10", visible from both sides of the floor has separated from the lower stainless-steel frame is permissible.

HEAD Maximum damage near mouth 12"; more than 72" from the bottom of the envelope, but below the equator, not greater than 1"; above equator not greater than ½".

No damage is listed for the basket.

PICCARD The manual only lists damage above the lower horizontal load tape. This damage must be less than 1". No damage limitations are given below the lower horizontal load tape.

No broken wicker is allowed on the basket which might affect passenger safety.

THUNDER & COLT
No damage to the envelope may be greater than 1". Damage to the basket is acceptable if "hand or foot size."

NATIONAL No damage limitations are listed.

KUBICEK Any damage to the envelope fabric below the third horizontal load tape is permitted. The maximum size of an unrepaired tear or damage to the envelope fabric above the third horizontal load tape is 5mm (0.2 in).

ULTRAMAGIC Damage to the fabric in the lower third of the envelope must be limited to an area affecting no more than 3 panels, though they may be completely damaged, and panels may be adjacent. Holes no greater than 10mm in diameter (e.g. cigarette burn) are permitted elsewhere on the envelope. These holes must not be within 25mm of a load tape, with no more than 5 in any one panel and no closer than 50 mm to each other. No more than 3 panels in the upper two-thirds of the envelope may have these small holes. No damage is permitted to any part of the burner, fuel, or load suspension system.