



**BALLOON FEDERATION
OF AMERICA
GAS BALLOON DIVISION**

*SANCTIONED
COMPETITION
RULES AND
REGULATIONS*

*Approved June 1,
2016*

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Contents

Contents	1
CHAPTER 1 SCORING	5
1.1 SCORING	5
1.2 B.F.A. RANKING SYSTEM.....	6
1.3 DEPOSITS AND OBLIGATION TO PARTICIPATE	7
1.4 MINIMUM NUMBER OF ENTRANTS AND BALLOONS LAUNCHED.....	7
1.5 COPILOT RANKING.....	7
CHAPTER 2 ELIGIBILITY AND PILOT RESPONSIBILITY	7
2.1 PILOT CERTIFICATE	7
2.2 NON SANCTIONED COMPETITORS	7
2.3 ELIGIBILITY	8
2.4 FAMILIARITY AND ACCEPTANCE OF RULES AND REGULATIONS	8
2.5 PILOT RESPONSIBILITY	8
2.6 REGISTRATION FOR A BFA GAS DIVISION EVENT	9
CHAPTER 3 APPLICABILITY.....	9
3.1 U.S. CHAMPIONSHIP.....	9
3.2 REPRESENTATIVES TO WORLD CHAMPIONSHIPS	9
3.3 WORLD CHAMPIONSHIPS IN THE U.S.A.	10
3.5 REPRESENTATIVES TO OTHER F.A.I. EVENTS.....	10
3.6 NOTIFICATION	11
CHAPTER 4 SANCTIONING PROCEDURE AND FEES	11
4.1 PUBLICATION	11
4.2 OPEN SANCTION	11
4.3 APPLICATION	11
CHAPTER 5 GENERAL TASK RULES.....	12
5.1 ORGANIZER, AUTHORITY, AND POWERS	12
5.2 SELECTION OF TASKS.....	12
5.3 CONTACTING WITNESS	12
5.4 SCORING AND SAFETY OFFICERS.....	13
5.5 MEASUREMENTS.....	13

5.6 ACCURACY OF MEASUREMENT	13
5.7 GREAT CIRCLE	13
5.8 MEASUREMENT UP TO 100 Km.....	13
5.9 STRAIGHT LINE MEASUREMENT.....	13
5.10 FEDERAL AVIATION REGULATIONS (F.A.R.s)	13
5.11 BRIEFINGS.....	14
5.12 FLIGHT CREW.....	14
5.13 BALLOON QUALIFICATION AND INSTRUMENTS.....	14
CHAPTER 6 OBSERVERS.....	15
6.1 OBSERVER.....	15
6.2 APPOINTMENT	15
6.3 ASSISTANCE	15
6.4 TRANSPORT	15
6.5 OBSERVER ON RETRIEVE	16
CHAPTER 7 MAPS AND PCZs.....	16
7.1 OFFICIAL MAPS.....	16
7.2 PROHIBITED COMPETITION ZONES (PCZ).....	16
CHAPTER 8 COMPLAINTS AND PROTESTS.....	16
8.1 COMPLAINTS	16
8.2 PROTESTS	17
CHAPTER 9 LAUNCH PROCEDURES	17
9.1 LAUNCH POINT	17
9.2 LAUNCH AREA	17
9.3 ACTIVATING FLIGHT RECORDING EQUIPMENT	18
9.4 LAUNCHING WITHOUT PERMISSION.....	18
9.5 LAUNCH WINDOW	18
9.6 DETAILS.....	18
9.7 EXTENSION OF TIME.....	18
9.8 LAUNCH ORDER.....	18
9.9 TAKE OFF	18
CHAPTER 10 FLIGHT RULES	18
10.1 RATE OF CLIMB.....	18
10.2 RIGHT OF WAY.....	18

10.3 CLEARING GOAL AREA.....	19
10.4 PROPERTY DAMAGE	19
10.5 GROUND CREW	19
10.6 FLIGHT INTERRUPTIONS	19
10.7 BALLAST	19
10.8 ASSISTANCE	19
10.9 LANDING.....	19
10.10 LANDING REPORT	20
10.11 FLIGHT DOSSIER AND FLIGHT RECORDING EQUIPMENT	20
10.12 MALFUNCTIONING FLIGHT RECORDING EQUIPMENT	20
CHAPTER 11 GOAL MARKER.....	21
11.1 GOAL.....	21
11.2 IDENTIFICATION	21
11.3 LIMITATIONS	21
11.4 TARGET	21
11.5 MARKER.....	21
11.6 MARK.....	22
11.7 OBSERVED MARK.....	22
11.8 CONTEST LANDING.....	22
11.9 LOST MARKERS	22
11.10 SEARCH PERIOD.....	22
CHAPTER 12 PENALTIES.....	23
12.1 MISCONDUCT	23
12.2 DISHONESTY	23
12.3 CONDUCT	23
12.4 DISTANCE PENALTIES	23
CHAPTER 13 TASKS.....	23
13.1 TASK LIST	23
13.2 DISTANCE.....	23
13.3 DISTANCE WITHIN A BOUNDARY	23
13.4 DISTANCE WITH TIME LIMIT.....	24
13.5 DURATION	24
13.6 DISTANCE AND DURATION	24

13.7 HARE AND HOUND 24
13.8 PILOT DECLARED GOAL: SINGLE OR MULTIPLE 25
13.9 JUDGE DECLARED GOAL: SINGLE OR MULTIPLE..... 25
13.10 FLY ON 26
13.11 COMBINATION OF TASKS 26
APPENDIX A 27
APPENDIX B 27
APPENDIX C 27

CHAPTER 1 SCORING

1.1 SCORING

Scores of competing pilots entered in each sanctioned task shall be computed by the following formula

$$\text{Pilots Points} = 1000 - [(1000 - \text{SL}) + (\text{RL} - \text{W}) \times (\text{P} - \text{W})]$$

SL = Points of last place pilot

RL = Results of last place pilot, in mileage* adjusted from 1.1.2.

P = A pilots result in mileage*

W = Result of first place pilot, in mileage*

*Mileage from target may be in dimensions consistent with the task flown or ratio.

First place is established at 1000 points before any penalties

SL is established at 250 points

DNF and DNR will be scored 250 then adjusted to zero.

Note: DNF Score is computed as 150% of furthest distance reported then adjusted to zero.

SL = 250
 RL = 22.19 miles
 W = 2.71 miles

Scoring Results Example Listed Below:

PILOT	DISTANCE MILES	POINTS	PENALTY	FINAL TASK POINTS
Team 1	14.79	534.9		534.9
Team 2	2.71	1000.0		1000.0
Team 3	13.98	566.1	50	516.1 *
Team 4	14.53	544.9		544.9
Team 5	22.19	250.0		0.00 DNF

** DNF Score is computed as 150% of furthest distance reported then adjusted to zero.

* Reported Late Rule (Postmarked one day late)

Task Name: - Multiple Judge Declared Goal

Goal Distance= distance from launch site to goal

Goal distance (if greater than 100 km) is determined by great circle formula

Landing Distance= distance from landing site to goal

Landing distance (if greater than 10 km) is determined by great circle formula

Ratio= Landing distance+ Goal distance

Lowest ratio is the winner

Ratio will be used in place of mileage in scoring formula

1.1.2 Scores shall be recorded to one decimal place.

1.1.3 If the nature of the task mandates best score as the greatest distance, before applying the scoring formula (1.1.1) the results will be adjusted by subtracting them from the greatest distance flown in that event.

1.2 B.F.A. RANKING SYSTEM

The B.F.A. Gas Balloon Competitive Ranking System will be used to compute and maintain a numerical ranking of all qualified pilots. The ranking shall be computed as follows:

1.2.1. Compute an average score for each pilot who has competed in Two (2) sanctioned tasks in the current year by averaging the scores from the first Two (2) tasks. After the third task, the lowest score is dropped and an average of the highest two (2) tasks is computed. For each sanctioned task entered after the first four, if the task score is higher than the average, then the new score is averaged into the old score and a new average is calculated. All task scores shall be maintained in the record.

1.2.2 List the pilots in order of decreasing average scores, then number in sequence. This number is the pilot's competitive ranking.

If multiple gas events are not held then the BFA Gas Division Board will select Representatives for any national championship world gas balloon events or Gordon Bennett races from the result of the events that have been held.

In the event that said Qualifying Event is not held in the current year, then the representatives shall be determined by the last qualifying event. Any U.S. pilot who, while representing the U.S., wins the official C.I.A. recognized Gordon Bennett Balloon Competition Race shall be offered the first U.S. position for the following race. If no gas division events are held for two year period the BFA Gas Division Board has the right to choose the teams from US eligible gas division pilots. Recent gas flight experience as well as previous participation in a national or world event will be considered.

The BFA Gas Division reserves the right to hold a non-sanctioned gas balloon event to determine pilot eligibility and ranking if necessary.

1.2.3 A competitive year runs from January 1 through December 31.

1.3 DEPOSITS AND OBLIGATION TO PARTICIPATE

Pilots shall pay a registration or entry fee to the organizer along with their entry form 30 days prior to the first briefing. Once a pilot has agreed in writing to participate in a sanctioned task, that pilot is obligated to participate unless the director is notified at least four days in advance of the mandatory pilots briefing that the pilot is unable to attend. Failure to so notify will result in a loss of the deposit and disqualification; i.e., a zero score for the tasks in which that pilot agreed to participate. The Director may excuse pilots from the obligation and return their deposit if the minimum number of balloons have agreed to participate in the task.

1.4 MINIMUM NUMBER OF ENTRANTS AND BALLOONS LAUNCHED

There must be at least three (3) pilots, who are eligible to be national champion, registered and launched in order for that task to be valid and included in the B.F.A. Competitive Ranking System. Registered pilots who do not fly shall be disqualified.

1.5 COPILOT RANKING

Copilots with a gas balloon pilot certificate will be scored and ranked by the same method as pilots. At the end of the competitive year, awards will be given to the first, second, and third place copilots who have participated in a minimum of three tasks in a competitive year. The sole purpose for scoring and ranking copilots will be for these awards only. Any points accumulated as a copilot will not count toward pilot points.

CHAPTER 2 ELIGIBILITY AND PILOT RESPONSIBILITY

2.1 PILOT CERTIFICATE

In order to qualify to represent the USA in the Coupe Aeronautique Gordon Bennett, the primary pilot must be a U.S. Citizen or permanent legal resident and member of the B.F.A. Gas Division.

A Co-pilot must hold at least a private pilot certificate issued by the F.A.A. with an L.T.A. Free Balloon rating, must be a member of the B.F.A. the Gas Balloon Division.

2.2 NON SANCTIONED COMPETITORS

All pilots participating in a sanctioned event will be considered as sanctioned competitors with the exception of foreign pilots not eligible under 2.3.

2.3 ELIGIBILITY

Any B.F.A. pilot who is not a U.S. citizen may enter the B.F.A. Competitive Ranking System but will not be eligible to be the national champion nor to be a U.S. representative to an F.A.I. sanctioned event unless that pilot is a permanent resident in the U.S.

Any B.F.A. pilot who has represented another C.I.A. member at an F.A.I. sanctioned event within the preceding three (3) calendar years may enter the B.F.A. Competitive Ranking System but will not be eligible to be the national champion nor to be a U.S. representative to an F.A.I. sanctioned event.

2.4 FAMILIARITY AND ACCEPTANCE OF RULES AND REGULATIONS

All competitors and officials shall be completely familiar with these rules and the F.A.I. Sporting Code. Competitors shall ensure that their ground crews understand all relevant parts. Ignorance of the rules or of published amendments will not be grounds for protest.

2.5 PILOT RESPONSIBILITY

2.5.1. WAIVER

By entering the task, a competitor waives any right of action against the organizers, the owner of any operational site and their respective members, employees and personnel for any loss or damages sustained by him in consequence of any act or omission on the part of the said bodies, their officials, members, employees or personnel or on the part of other competitors.

2.5.2 RISK

The balloon and other property of a competitor shall be at the risk of the competitor at all times.

2.5.3 LIABILITY TO THIRD PARTIES

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

2.5.4 CERTIFICATE OF INSURANCE

Each competitor shall be insured against all claims by third parties to a minimum of one million dollars (\$1,000,000) U.S. He shall produce a certificate of such insurance valid for the period of the event covering him and any balloon, which he may fly. Insurance will not be available from the organizer.

2.5.5 SAFETY

Any meteorological report or forecast, or other safety or navigational information, is provided in good faith for the guidance of competitors. Officials will be appointed to regulate the inflation and launching of balloons, however, nothing shall diminish the responsibility of competitors under this chapter. There will be a

communications command post manned 24 hours a day for the duration of the event.

2.5.6 RESPONSIBILITY

A competitor remains completely responsible for the safe operation of his balloon at all stages of inflation, launch, flight and landing. He must ensure that his equipment, his crew and his own level of skill and expertise are suitable for the conditions in his own judgment.

2.6 REGISTRATION FOR A BFA GAS DIVISION EVENT

A pilot may register for a BFA Gas Division Event by either informing the Chairman of the Gas Balloon Division in writing or by registering and participating in a sanctioned event. Once a pilot has registered, he shall receive an entry form for all sanctioned events and timely notice of results, complaints, rulings on complaints, and protest and jury decisions of all sanctioned events taking place after such registration.

CHAPTER 3 APPLICABILITY

3.1 U.S. CHAMPIONSHIP

The determination of the United States National Gas Balloon Champion and all runner-up positions shall be determined by the results of all sanctioned competitive events held that year. The pilot with the highest competitive ranking at the end of the competitive year will be the national champion.

3.2 REPRESENTATIVES TO WORLD CHAMPIONSHIPS

The U.S. representatives to the World Gas Balloon Championships will be chosen in order of their rank in the following ranking system.

3.2.1 Pilots shall be ranked according to their place in the B.F.A. competitive ranking system from the two years prior to the year in which a World Championship is held.

- 1 - First place pilot with highest average score
- 2 - Other first place pilot
- 3 - Second place pilot with highest average score
- 4 - Other second place pilot
- 5 - Third place pilot with highest average score
- 6 - Other third place pilot etc.

If there are an insufficient number of ranked pilots to nominate a world team, then for the purpose of this rule only, pilots with only two tasks will be ranked below all pilots with two or more tasks according to their average score. Pilots with only one task will be ranked below pilots with two or more tasks according to their score.

3.2.2 Pilots ranked twice shall be omitted from second ranking.

3.2.3 Pilots not available to compete shall be deleted from the list.

3.2.4 Pilots not eligible to represent the U.S. per rule 2.3 shall be deleted from the list and the rank of other pilots for that year shall be adjusted.

3.3 WORLD CHAMPIONSHIPS IN THE U.S.A.

World Gas Balloon Championships held in the U.S. shall be organized by the B.F.A. Gas Balloon Division. Potential sites will be reviewed by the Division and recommendations will be sent to the B.F.A. Board of Directors for ratification.

3.4 REPRESENTATIVES TO COUPE AERONAUTIQUE GORDON BENNETT

Representatives to the Coupe Aeronautique Gordon Bennett shall be determined by the results of the Gordon Bennett Qualifying Event. The Qualifying Event shall be run in accordance with these rules and shall be a one-part task for distance. The rules for the Qualifier can be modified by the Gas Division Board any time prior to the event. Flight Recording Equipment shall be required.

In order to qualify to represent the USA in the Coupe Aeronautique Gordon Bennett, the primary pilot must be a U.S. Citizen or permanent legal resident and member of the B.F.A. Gas Division.

In the event that said Qualifying Event is not held in any year, then the representatives shall be determined by the last qualifying event.

Any U.S. pilot who, while representing the U.S., wins the official C.I.A. recognized Gordon Bennett Balloon Race shall be offered the first U.S. position for the following race.

In the event that the existing selection process for the US Gordon Bennett team does not produce three willing teams, then the following step will be invoked.

If, after all first pilots who flew in the U.S. qualifying competition, have been offered a spot on the U.S. team, and less than three teams have accepted, then and only then, qualifying second pilots will be offered the remaining spot(s) on the team in the order of their finish in the qualifier. To be a 'qualified' second pilot, that pilot must be either a U.S. citizen or a permanent resident of the U.S. and must have achieved a legal result in the U.S. qualifying event.

3.5 REPRESENTATIVES TO OTHER F.A.I. EVENTS

The determination of representatives to all other F.A.I. sanctioned gas balloon competitions for which the B.F.A. is invited to select participants representing the United States shall be determined by the previous year's competitive ranking system. If additional ranking is needed, then those pilots who competed in two sanctioned tasks shall be ranked according to their average score for those two tasks and if additional ranking is still needed, then those pilots who competed in one sanctioned task shall be ranked according to his score in that task. If no

tasks are completed in any calendar year, then the next previous calendar year in which a task was completed shall be used for this rule.

3.6 NOTIFICATION

Each year the Chairman of the Gas Division, in cooperation with the scoring officer and the rules subcommittee chairman, shall notify the top five pilots who qualify under rule 3.4 for the Coupe Aeronautique Gordon Bennett and in a Gas World Championship year he shall also notify the top five pilots who qualify under rule 3.2. The notification shall be mailed before February 15 and pilots shall notify the chairman of their intentions within 20 days. The chairman shall notify those pilots eligible for an open slot and those pilots must send in their full entry fee within fifteen days of said notice. If the entry fee is not yet determined it will be estimated to be \$2,500.00. Any deposits shall be applied to entry fees. Any unused deposit shall be returned after the event. If open competition slots are still available after the time periods have run, the chairman shall notify the next eligible pilots under the appropriate rule and they shall have fifteen days to respond with their letter of intent and their entry fee. The chairman shall follow this procedure until all slots have been filled. All notices and responses shall be sent by registered mail or by email. Any eligible pilot who has received notification and has not responded by the appropriate deadline shall be dropped from the eligibility list for that year. If after a pilot has indicated his intention to compete he should wish to withdraw, then the deposit is forfeited. If another eligible pilot is available to take the vacated slot, then the deposit shall be returned.

CHAPTER 4 SANCTIONING PROCEDURE AND FEES

4.1 PUBLICATION

An organizer must announce via the BFA Website, social media site and e-mail the date of an event at least thirty (30) days prior to the event, as a prerequisite to Sanction. If time is a factor, the organizer may announce the event as "Sanction Pending" however, this announcement must be concurrent with Application (or Letter of Intent) to the Division for Sanction. An organizer may e-mail announcements to all current Gas Division members announcing the event. This shall be at least thirty (30) days prior to the event.

4.2 OPEN SANCTION

Any sanctioned event must be open to all eligible participants.

4.3 APPLICATION

An application for Sanction must be accompanied by a check for \$100.00. If the organizer does not yet have a blank application, he may send a "Letter of Intent" along with the \$100.00 check. The \$100.00 advance will be applied toward sanction fees if the Sanction is granted, or returned to the organizer if the

Division denies Sanction. The \$100.00 will be forfeited if the organizer withdraws the Sanction Application (or "letter of Intent").

CHAPTER 5 GENERAL TASK RULES

5.1 ORGANIZER, AUTHORITY, AND POWERS

5.1.1 Organizer: That body receiving official sanction from the Gas Balloon Division of the B.F.A.

5.1.2 Complete authority over an event is vested in the sanctioned body and its designated officials under the authority of the B.F.A. Gas Balloon Division. Included in the Authority of the Director and other designated officials is the right to interpret all rules and regulations in exceptional circumstances in the interest of fairness or to insure the safety of the public or the contestants. This authority does not include the right to make substantive changes to these rules.

5.1.3 Powers have been vested in the Director, Scoring Officer, Safety Officer, and Technical Officials. They shall act on all matters involving violations of flying rules, damage to property, or improper action. They shall penalize and/or disqualify any pilot found in violation of the rules or proper flying practices. Such penalties shall be assessed by the Scoring Officer after consultation with the Director and other officials.

5.1.4 All penalties, whether specifically defined or not, will be assessed within the spirit of these rules, the F.A.R.s and the F.A.I. Sporting Code.

5.1.5 Competitors infringing any rule for which the penalty is no specified in the rules may be penalized by increasing their scoring distance, by deduction of points or by disqualification from the task.

5.1.6 Complete authority over these events is vested in the B.F.A. Gas Balloon Division. No rule changes are allowed after the first competitive event during a competition year.

5.2 SELECTION OF TASKS

Organizers may request certain tasks, however, final decisions on task selection and launch windows are the prerogative of the Safety Officer and Director.

5.3 CONTACTING WITNESS

If observers are not used, the Scoring Officer will personally contact a witness to the landing certificate and verify its authenticity.

5.4 SCORING AND SAFETY OFFICERS

A Scoring Officer and Safety Officer shall be appointed by the event organizer. These officials shall designate assistants for each event who have been nominated by the organizer. The assistants shall report directly to their official and they must be present at all briefings and the launching of all balloons in an event.

5.5 MEASUREMENTS

All measurements shall be in metric units.

5.6 ACCURACY OF MEASUREMENT

Competitors, whose scoring distances or times are separated by less than the accuracy of measurement method employed, as assessed by the officials, may, at their discretion be judged to have tied and will share an equal position in the ranking for that task. A physically measured distance takes precedence over calculated distances.

5.7 GREAT CIRCLE

5.7.1 Distances of over 100 Km. shall be measured by determining the arc of a great circle, at sea level, which joins the vertical lines of two given points.

5.7.2 For purposes of this calculation, the earth is considered to be a sphere with a radius (as adopted by the F.A.I.) of 6,371 km.

5.8 MEASUREMENT UP TO 100 Km.

Distances up to 100 Km. shall be measured on an appropriate aeronautical chart.

5.9 STRAIGHT LINE MEASUREMENT

Measurement of distances may be changed by the director to a straight line measurement if necessitated by the task.

5.10 FEDERAL AVIATION REGULATIONS (F.A.R.s)

Infringement of Federal Aviation Regulations is in the first instance a matter between the pilot and the Federal Aviation Administration. However, where the Director finds F.A.R.s have been violated, the violation shall be penalized. Penalty for violation of F.A.R.s is up to 1000 points. A ceiling of 18,000 feet MSL shall be in force unless written permission has been obtained in advance for all competitors in an event. In the event of a declared emergency, a pilot may deviate from this rule. In the event of such emergency and deviation, the pilot concerned shall include a written report with his flight dossier explaining the deviation. Any competitive advantage obtained by the deviation shall be penalized.

5.11 BRIEFINGS

5.11.1 A mandatory preliminary briefing will be held at a specified time and place. Pilots will have been informed of this briefing in writing, at least ten days prior to the event.

5.11.2 All documents must be in order by the time of this briefing or appropriate arrangements made with the scoring officials and/or organizers. The Flight Recording Equipment must be made available to the Scoring Officer by this briefing. This briefing will provide information of the major aspects of the event and its rules and procedures.

5.11.3 Supplemental mandatory briefings will be held as announced by the Director at the preliminary briefing and/or by subsequent notices.

5.11.4 The pilot or copilot with gas rating must attend all mandatory briefings. Failure to attend a briefing will result in a 200 point penalty for each briefing missed.

5.12 FLIGHT CREW

5.12.1 The flight crew shall consist to two crew members. The PIC of the aircraft must hold at least a Private pilot certificate and be rated for Lighter than Air with free balloon endorsement. The second crew member must hold at least a private pilot certificate with Lighter than Air rating. Penalty for infringement is disqualification. Balloons with a volume of 800 cubic meters or less may be flown solo.

5.13 BALLOON QUALIFICATION AND INSTRUMENTS

5.13.1 A gas balloon is defined as a non-dirigible aerostat which derives its buoyancy or lift solely as a result of the Lighter-Than-Air Gas supplied by the race organizer; the envelope of which may contain no other gases nor be induced by any airborne heating mechanism other than direct sunlight to enhance the lift of the gas supplied.

5.13.2 No mechanism or power source may be employed to induce horizontal motion relative to the atmospheric air mass. No super-pressure balloons are allowed. No Rosier or cluster balloons are allowed.

5.13.3 Balloons entered must have current certificates of registration and airworthiness, or in place of the latter, an equivalent document from the recognized authority of the nation concerned.

5.13.4 A maximum volume of 1000 cubic meters is established (with a tolerance of 5%). The volume capacity of any attached filler tubes and overflow ducts will be considered as part of the volume.

5.13.5 INSTRUMENTS

Each balloon must be equipped with appropriate communication, navigation, lighting materials and instruments to fly according to the F.A.R.s and the rules of the task or event. Additionally, each balloon will carry Flight Recording Equipment which has been sealed (mechanically or electronically), and activated by the competition officials.

5.13.6 OMMITED

5.13.7 Each balloon may be inspected by the Safety Officer and disqualified if found not conforming to generally acceptable standards of airworthiness.

5.13.8 Any balloon not carrying the required instrumentation or safety equipment will be disqualified.

CHAPTER 6 OBSERVERS

6.1 OBSERVER

An observer is a Competition Official, responsible to the Chief Observer. His duties are primarily the recording impartially of particulars of positions, times, distances, etc. achieved during tasks. He has the duty to report any apparent infringement of these rules of air law and any case of inconsistent behavior to land owners or the public by any competitor or crewmember.

6.2 APPOINTMENT

At task briefings an observer may be appointed to each balloon for that task.

6.3 ASSISTANCE

An observer may assist in the ground handling if he wishes and is asked to do so by the pilot. An observer shall not attempt and is not qualified to amplify, explain or interpret the rules.

6.4 TRANSPORT

It is the duty of each competitor and his crew to convey the observer to the Launch Area and to return him promptly to the Competition Center after measurement of results and recovery of the balloon.

6.5 OBSERVER ON RETRIEVE

When the observer is not flying in the basket he will occupy a seat in the retrieve vehicle with a clear view. The crew must do their best to keep in visual contact with the balloon until the final marker has been dropped. The Observer may assist with map reading during the retrieve if asked to do so by the crew, at their responsibility.

CHAPTER 7 MAPS AND PCZs

7.1 OFFICIAL MAPS

The official competition map will be the current aeronautical chart system. Pilots shall provide their own maps.

7.2 PROHIBITED COMPETITION ZONES (PCZ)

The Director may define airspace or landing areas as prohibited for competition purposes. PCZs may be of any shape with an upper limit in feet above sea level or with no upper limit. A competitor flying within a PCZ shall be penalized 500 to 1000 competition points. The penalty shall be proportionate to the offense.

CHAPTER 8 COMPLAINTS AND PROTESTS

8.1 COMPLAINTS

8.1.1 A pilot may file a complaint with the officials up to 48 hour after the competition landing.

8.1.2 Such complaints must be in writing, indicating supporting evidence if any.

8.1.3 Each complaint must state ONE situation.

8.1.4 These complaints will be heard by the officials acting as a Jury. The time and place of the Jury meeting will be available at Race Headquarters.

8.1.5 The Jury will notify the accuser and accused (if one is involved), hear any brief statements they or their witnesses may wish to present, determine if additional evidence is available and attempt to acquire it and make brief written statements of their determination within one week of the receipt of the written complaint. This statement is to be forwarded to the Gas Balloon Division Scoring Officer along with the official task sheets and other documents.

8.1.6 Any official who has a conflict of interest may be excused either at his own request or by a majority vote of the other officials.

8.1.7 A \$50.00 cash bond is to be posted which will be refunded providing the complaint is upheld or is found to be well founded.

8.1.8 If a complaint has not been responded to within seven days after filing the complaint, the petitioner may contact the Chairman of the Gas Balloon Division for resolution.

8.2 PROTESTS

8.2.1 A pilot may protest if he is not satisfied with the written answer to the complaint or if the situation provoking the complaint arises after the official results are posted. The right to protest is possessed by pilots having flown the task and pilots who have registered for the National Championship.

8.2.2 The official Protest Jury shall consist of three qualified pilots chosen by the event organizer who are members in good standing with their NAC. A Protest Jury member may not be a gas balloon competitor during that year.

8.2.3 Protests must be postmarked and filed with the Protest Jury Chairman in writing within one week after a complaint has been answered or within one week after posting of the official results. Posting is defined as seven days after the results have been postmarked. Protests must be accompanied by \$250.00 which shall be refunded only if the protest is deemed to have been well founded, or if so directed by the Protest Jury.

8.2.4 A majority vote of the Protest Jury shall be needed to determine the outcome of a protest.

8.2.5 The decision of the Protest Jury shall be made on the basis of the case before it, and shall not be influenced in its decision by the effect the protest shall have on the point score of any individual pilot, or of the effect on the validity of the sanctioned task in question.

8.2.6 A written decision from the Protest Jury is due two weeks after receipt of the protest.

CHAPTER 9 LAUNCH PROCEDURES

9.1 LAUNCH POINT

A launch point will be established by the Director from which all angles and distances will be computed regardless of individual take off points.

9.2 LAUNCH AREA

Each balloon will be assigned a specific launch area at the initial briefing. If Hydrogen is being used as a lifting gas, there shall be a separate restricted launch area for hydrogen balloons and only persons authorized shall be allowed in the launch area.

9.3 ACTIVATING FLIGHT RECORDING EQUIPMENT

Each balloon will be launched by one of the officials. The competitive Flight Recording Equipment will be activated and task sheet notations made under the direction of this official.

9.4 LAUNCHING WITHOUT PERMISSION

Any balloon launching without permission will be disqualified.

9.5 LAUNCH WINDOW

A launch window should not exceed three hours in duration. The event director may extend the launch window due to changing conditions.

9.6 DETAILS

The launch will be coordinated by the Safety Officer. Details will be explained at the first briefing.

9.7 EXTENSION OF TIME

Unless deterioration of weather causes curtailment of the launch period on safety grounds, all balloons will launch in the specified launch window set at the pre-launch briefing. Penalty for infringement is disqualification.

9.8 LAUNCH ORDER

The Launch Director will, in so far as possible, launch balloons in the order of their drawn position and in the shortest time period possible.

9.9 TAKE OFF

A balloon is considered to have taken off and is flying task from the moment the underside of the basket becomes visible and all helpers are standing clear. Timing commence from that moment. Should conditions be such that a second launch is necessitated within the confines of the launch are the Director may allow the pilot to continue without penalty. Timing will commence from the second launch.

CHAPTER 10 FLIGHT RULES

10.1 RATE OF CLIMB

A competitor shall not initiate or maintain a fast climb unless he is quite certain that no higher balloon is in his ascent path.

10.2 RIGHT OF WAY

A pilot is responsible for avoiding contact with any part of his balloon and any part of any balloon which is not in flight. When two balloons are converging, pilot of the higher balloon shall give way and climb necessary to avoid collision. Penalty for infringement shall not be less than 500 competition points.

10.3 CLEARING GOAL AREA

A competitor who has released his marker shall clear vicinity of the goal as quickly as reasonably possible.

10.4 PROPERTY DAMAGE

Competitors and crews shall not damage any property, unless given permission by the landowner or unless absolutely necessary a safe landing. Competitors must not damage property to gain a competitive advantage. In the event of any property damage, the competitor must attempt to contact the landowner or property owner and make any necessary arrangements for damages. Penalty for infringement of this rule is up to 500 Points.

10.5 GROUND CREW

Each competitor shall ensure that he has sufficient crew operate his balloon and retrieve vehicle. He shall ensure that all those involved with his balloon are adequately briefed ensure safe operation. A competitor is responsible for the actions of his crew during a task.

10.6 FLIGHT INTERRUPTIONS

Ground contact during a task is not permitted. Under no circumstance may ballast be added to the balloon if ground contact has been made.

Landing for the purpose of changing or adding passengers may only occur after all tasks have been completed.

Trailing on the trail rope immediately before landing is not considered ground contact. Penalty for infringement of this rule is up to 500 points.

10.7 BALLAST

In addition to the usual ballast sand, each balloon may be required to carry water to be used anywhere the dropping of sand could lead to damage or complaint.

10.8 ASSISTANCE

During a task, any physical assistance (physical movement of the balloon) from persons on the ground prior to completing the task is not permitted, except during take-off and during landings for the purpose of changing or adding passengers. Any physical assistance during such a landing may not be for competitive advantage. Penalty for infringement is DISQUALIFICATION.

10.9 LANDING

All tasks are completed when the pilot lands after dropping his final marker or when the balloon has come to rest after a contest landing. A contest landing

shall be determined by a straight, smooth horizontal trace on the Flight Recording Equipment covering a time lapse of at least five minutes. The pilot may land at his discretion subject to any minimum distances required by the task rules. Water landings on lakes or seas will lead to disqualification. The balloon may be packed up but the basket may not be moved from its final resting place after landing until the landing has been recorded by an observer, an official or by two impartial witnesses (minimum age 18 years). A pilot may elect to fly on after a competition landing provided all competition rules for the landing are complied with.

10.10 LANDING REPORT

Competitors are required to telephone the designated official at a designated place, or report in person, within four hours of his landing time. Information given will consist of landing location, landing time, and any other information pertinent to preliminary scoring. A penalty of 10 points per hour shall accrue to any pilot failing to report within the four (4) hour limit. Extenuating circumstances will be considered by the Director.

10.11 FLIGHT DOSSIER AND FLIGHT RECORDING EQUIPMENT

A pilot's flight dossier, including signed aeronautical chart, Flight Recording Equipment or signed trace, landing report and any other required material must be returned to the scoring officer in the supplied pre-addressed envelope, mailed by the second business day after landing. A penalty of fifty points per day (or fraction of a day thereof) shall accrue to any pilot failing to comply; however, after 7 days Rule 1.1.2 will apply. Extenuating circumstances will be considered by the officials.

10.11.2 Pilots may elect to return their sealed Flight Recording Equipment or they may elect to return the trace only, providing the following qualifications are met:

- a. If necessary, the trace must be "set" and protected from further markings by the use of a fixative such as Krylon or hair spray, and sealed with an acetate cover
- b. The trace if possible should be accompanied by the statements of two impartial witnesses. The statement must include the names, addresses, phone numbers, and titles of the witnesses. If Observers are assigned to each pilot, the Observer may take the place of two impartial witnesses. Pilots using electronic Flight Recording Equipment may return the Flight Recording Equipment trace with the completed flight dossier.

10.11.3 A pilot waives relief under "malfunction" provisions regarding the Flight Recording Equipment by opening the Flight Recording Equipment.

10.12 MALFUNCTIONING FLIGHT RECORDING EQUIPMENT

If a competitive advantage ensues, a penalty of up to 900 points may be assessed. If "malfunction" is due to pilot error, a distance penalty commensurate

with the time discrepancy based on the average per hour distance flown for the entire flight will be assessed.

CHAPTER 11 GOAL MARKER

11.1 GOAL

A distinct feature shown on a competition map, set by the officials or chosen by the pilot. A valid goal must appear from the map to be easily accessible to vehicles on the ground and precisely identifiable for measurement. Unless otherwise allowed in the Task Briefing, it will be the intersection of two minor public roads or a railroad track and a public road, or the center of an uncontrolled airport. (See Appendix A.) Pilots declaring an invalid goal will receive a result but will receive a penalty of 200 task points.

11.2 IDENTIFICATION

When declaring a goal, a competitor shall identify his goal by the geographic coordinates in degrees and minutes longitude and latitude. He may add descriptive detail to distinguish between possible goals located close together near his coordinates. In the case of any ambiguity, the least advantageous interpretation will be placed on a competitor's declaration. Where there is no valid goal shown on the map within 500 meters of the coordinates given by the competitor, he will be scored to the coordinates and 1500 meters will be added to his result.

11.3 LIMITATIONS

No goal selected by a competitor may be within a congested area, or within 500 meters of a PCZ, a power line marked on a competition map, or a highway designated by the Director. A goal declared in such an area is an invalid goal.

11.4 TARGET

An X made from bright material with each leg at least one meter wide and eight meters long displayed in the vicinity of the goal. Where a target is used, measurements are made from the center of the target, not from the goal, unless otherwise specified during the task briefing. A pilot reaching a goal where an expected target is not displayed should aim for the goal.

11.5 MARKER

A weighted streamer supplied by the organizer for a given task. The marker bag shall weigh approximately four ounces and the tail shall be a bright color and approximately four inches wide and seventy-two inches long. The competitor is responsible for collecting any necessary marker before each task. The marker's streamer must be unfurled before release. The marker must not be modified in any way, however, up to one hundred feet of surveyors tape may be attached to the marker to aid in locating it. No mechanism may be used to propel the marker. Penalty for infringement of this rule is up to 300 points.

11.6 MARK

The point on the ground vertically below where an official marker comes to rest after dropping from the balloon

11.7 OBSERVED MARK

A observed mark is defined as a mark which has been measured by an official or an observer. It is the duty of the retrieve crew to assist the Observer to locate the marker and measure its position. The Observer may not be left unaccompanied to search for a marker. No person other than an authorized official or an appointed Observer may touch or interfere with the marker on the ground.

11.8 CONTEST LANDING

Unless prohibited in the task briefing, a competitor may elect not to drop his marker and to make a contest landing. The marker must be retained in the basket and handed over to an Observer at the earliest opportunity. Task rules which require a minimum distance from marker to landing do not apply but all other rules, including distance limits, must be complied with. The scoring position is the final resting place of the basket.

11.9 LOST MARKERS

The results of pilots whose markers are lost will be assessed in accordance to whatever independent evidence is available to the officials. Assessment shall be based on the least advantageous interpretation of evidence available and 100 meters will be added to the pilots result. The unsupported evidence of the pilot and crew will be disregarded for this purpose.

A 50 point penalty is assessed if the marker is not recovered. Where independent evidence can show that the marker was stolen, the penalty is waived.

In the absence of better evidence, a competitor's assessed mark shall be his final landing position.

11.10 SEARCH PERIOD

When markers are used in a task pilots will have twenty-four hours from final landing to locate their markers. The director may grant an extension under extenuating circumstances.

CHAPTER 12 PENALTIES

12.1 MISCONDUCT

The Director shall penalize or disqualify a competitor for misconduct or failure to obey the rules.

12.2 DISHONESTY

A competitor who deliberately attempts to deceive or mislead the Observers or Officials or who interferes with another competitor or his property will be disqualified from all tasks.

12.3 CONDUCT

Competitors and their crew are required to conduct themselves in a sportsmanlike manner, and to comply with the direction of championship officials.

12.4 DISTANCE PENALTIES

Where a Goal selected by a competitor, or a final landing infringes a distance limit, the competitors result will be increased by twice the amount of the infringement, except that where the penalty relates to landing too close to a Goal or the marker then it will be waived if the competitor can show that he was unable to comply within 30 minutes because of light wind.

CHAPTER 13 TASKS

13.1 TASK LIST

A selection will be made among the following tasks:

- a. Distance
- b. Distance within a boundary
- c. Distance with time limit
- d. Duration
- e. Distance and Duration
- f. Hare and Hound
- g. Pilot Declared Goal: single or multiple
- h. Judge Declared Goal: single or multiple
- i. Fly On

13.2 DISTANCE

The distance event will be measured by the Great Circle, calculated in kilometers from the launch point to the point of landing. The word distance will not be interpreted as total kilometers traveled but as the straight line distance between launch and landing. The pilot with the greatest distance from the launch point receives the highest score.

13.3 DISTANCE WITHIN A BOUNDARY

Pilots will attempt to fly the longest distance within a given boundary. Markers may be used if Observers are assigned. The longest distance will be best. (1000 Points)

13.3.1 Briefing Data: a. Boundary

13.3.2 Where landing is outside the boundary, the result will be reduced by twice the distance outside the boundary. The distance outside the boundary shall be the distance from the mark to the boundary in a straight line toward the launch point.

13.4 DISTANCE WITH TIME LIMIT

13.4.1 Pilots will attempt to fly the longest distance within a fixed time period. No use of markers. The longest distance will be best.

13.4.2 Duration will be measured by Flight Recording Equipment.

13.4.3 Where landing is outside time limit, the score will be reduced by 30 points per overlapping minute or part thereof.

13.5 DURATION

Pilots will attempt to fly for the greatest time period. The duration event shall be scored by the length of time aloft. The time will be calculated in Greenwich Mean Time. Duration of flight will be determined by the Flight Recording Equipment trace.

13.6 DISTANCE AND DURATION

Distance and duration is a two part task which will be handled under the same scoring method as previously described, added together and divided by two.

13.7 HARE AND HOUND

A hare balloon will fly from the launch site, and after landing will display a target upwind of the basket. Competitors will fly from the launch site and attempt to drop a marker or land near the target. The hare balloon may be a hot air balloon.

13.7.1 Briefing Data

- a. Description of Hare Balloon
- b. Intended launch time and flight duration of Hare (minimum 2 hours unless flight curtailed for reasons of safety)
- c. Time limit for display of target

13.7.2 Variations from the intended launch time and flight duration of the Hare shall not be grounds for complaint.

13.7.3 No competitor shall display any banner or streamer hanging below the basket during this task.

13.7.4 No landing is permitted within 100 meters of the target or the mark.

13.7.5 The hare balloon will not be deflated until 30 minutes after landing if weather conditions allow.

13.7.6 The hare balloon shall make hourly reports of its position through the use of aircraft radios, flares, spotlight or any other appropriate means.

13.8 PILOT DECLARED GOAL: SINGLE OR MULTIPLE

13.8.1 Each competitor will fly from the Launch site and attempt to drop a marker or land near a goal or goals selected and declared by him before the task.

13.8.2 Briefing Data:

- a. Declaration Time,
- b. Number of goals permitted.
- c. Minimum and maximum distance of goal(s) from launch point. (The minimum distance must be at least 10km.)

13.8.3 For scoring purposes, a competitor's measurement, being the distance from the mark or landing position to the selected goal, is divided by the distance between the launch point and the selected goal. The ratio of the two measurements is the competitor's result. The lowest ratio is best.

13.8.4 Each competitor will define his goal(s) by coordinates in degrees and minutes of latitude and longitude in writing and hand it in at the Signals Point before the Declaration Time, clearly identified with his name and competition number. A competitor who wishes to revise his declaration may deposit a further declaration within the time provided, clearly annotated to distinguish it from any previous declaration.

13.8.5 Where a pilot makes a late goal declaration his penalty shall be 100 points for every minute or part thereof after the declaration time. 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. Any delay caused by this procedure will not be grounds for protest.

13.8.6 If a pilot is permitted to declare more than one goal he will be scored to the goal nearest his mark.

13.8.7 No landing is permitted within 100 meters of a pilot's goal or a mark.

13.9 JUDGE DECLARED GOAL: SINGLE OR MULTIPLE

13.9.1 Each competitor will fly from the Launch Site and attempt to drop a marker or land close to a Goal.

13.9.2 Briefing Data:

- a. Goal(s)
- b. Period of target display, if applicable

13.9.3 If multiple goals are chosen, the pilot will be scored to the nearest goal.

13.9.4 No ground contact is permitted within 100 meters of a target or goal.

13.9.5 No landing is permitted within 100 meters of a goal or mark.

13.10 FLY ON

A supplementary task where a competitor declares one or two goals to which he flies after dropping his marker in another task. For scoring purposes, a competitor's measurement, being the distance from the marker or landing position to the selected goal, is divided by the distance between the previous mark and the selected goal, the ratio of the two measurements is the competitor's result. The lowest ratio is best. If a pilot is permitted to declare two goals, he will be scored to the goal nearest his mark.

13.10.1 Briefing Data:

- a. Minimum distance between previous mark and declared goal.
- b. Maximum distance between previous mark and declared goal. (The minimum fly-on distance must be at least 10km.)

13.10.2 The competitor shall write clearly on the first marker his declared goal for the fly-on. If there is no legible goal on the recovered marker the competitor will not achieve a result in the fly-on.

13.10.3 As a precaution in case the first marker should be lost, the competitor may write a provisional goal on the observer's score sheet. He will be scored to this goal if the first marker is lost, but if it is found, then the provisional declaration is of no effect. The competitor may make or revise this provisional declaration at any time up to the release of the first marker. A verbal declaration is of no effect and will not be recorded.

13.10.4 No landing is permitted within 100 meters of pilot's mark.

13.11 COMBINATION OF TASKS

Up to three tasks may be combined for an event if they are not mutually incompatible, except for Distance (13.2) and Duration (13.5). Markers and observers must be used for all but the last task.

APPENDIX A

RULE 11.1

1. If a pilot declared goal is flown in a remote area, the director may allow pilots to declare a goal as a point on a minor road, a certain number of kilometers in a certain direction from an intersection marked on a sectional chart.
2. The center of an airport used for a goal shall be as follows:
 - a. If there is only one runway, the center point of that runway.
 - b. If there are two intersecting runways the intersection point of the runways.
 - c. If there are three runways forming a triangle, the center point of the triangle.
 - d. If there is any other configuration of runways, the center point shall be the center of the smallest circle which will encompass all of the runways.
 - e. If there are any paved runways, then non-paved runways shall be disregarded.

APPENDIX B

1. This appendix is applicable in the event that a one site National Championship is held during any calendar year.
2. The Rules and Regulation for the U.S. National Gas Balloon Championship shall apply and shall supersede any conflicting rule included here.
3. In the event that less than three tasks are flown in a Championship, then those tasks flown shall be valid as tasks flown under these rules, and these rules shall apply to all other tasks flown.
4. If three or more tasks are completed and a Champion is declared, then the final results of the Championship shall be used for all rankings under these rules and any other tasks flown during the year shall not be considered.
5. The Copilots shall be ranked only among themselves and shall not be ranked among the pilots in command for eligibility to international events.

APPENDIX C

1) Purpose:

If at all possible, a qualifying race will continue to be the method of choice to send three U. S. teams to the Gordon Bennett. This method has proven to promote the sport of gas ballooning and has in the past given promoters a reason behind having such an event. In addition it allows a web site for many people to go to and track the race which again, is a benefit to the sport and the promoter. However, if such a qualifying race has not been put together by a certain date, the paragraphs below define the qualifying process to be used.

This paragraph defines the qualifying process to be used to determine the United States (US) qualifying teams for future Coupe Aeronautique Gordon Bennett (G-B) competitions. The US is entitled to send three teams of two persons (pilot-in-command plus co-pilot) to each G-B. This process selects the pilot-in-command, who is then free to select his/her co-pilot.

The intent of this process is to select the three eligible pilots who have made the three longest, properly documented, pure gas balloon flights in eligible balloons within the qualification period.

The selection process shall be conducted by the Selection Committee of the Gas Division (GD) of the Balloon Federation of America (BFA). The members of this committee will be determined by the Board of the GD of the BFA.

2) Pilot Qualification Requirements:

The Pilot-in-Command (PIC) and Co-Pilot of the qualifying flight must be either U.S citizens or permanent resident aliens. He/she must also be a current member of the GD of the BFA.

Note: Applicants should also be aware that G-B event rules may require U.S. team members to hold a third class medical certificate.

3) Eligible Balloon Systems and lifting gasses:

Balloon systems shall be FAI Category AA with a maximum volume of 1,000 cubic meters, with a 5% volume allowance for measurement and construction uncertainty. Any lifting gas may be used to inflate and fly the balloon system.

4) Qualifying period:

For each G-B, the qualifying period shall be January 1 thru December 31 of the year preceding year the applicable G-B. Example: For the 2015 G-B, the qualifying period is the calendar year 2014.

5) Flight Documentation Requirements:

All flight records shall be submitted to the Selection Committee of the GD of the BFA, no later than January 31, of the G-B Competition Year. Documentation shall include at least the following items:

- 1) The name, USPS address, e-mail address and BFA number of the person acting as PIC for the qualifying flight. Note: This information must be submitted to the Selection Committee Coordinator at least 48 hours prior to the launch;
- 2) The date(s), duration (hours), launch & landing location (name & GPS coordinates) of the flight;
- 3) A trajectory map of the flight showing track over ground for the flight;
- 4) The identifying number, make and model of the aircraft used;
- 5) A flight log showing all ATC contacts made during the flight;
- 6) An electronic barograph recording showing flight altitudes during the flight;
- 7) A landing certificate showing a map of the local area of the landing. This shall be signed by an official or witness who viewed the landing or was present at the landing site while the system was still deployed on the ground;
- 8) Photographs of the landing site with the balloon deployed.

Incomplete documentation will be cause for rejection of any application.

6) Selection Process:

Qualifying individuals may submit documentation for multiple flights, but only one PIC shall be listed for each flight. Qualifying flights will be ranked in order of total

great circle distance. In the case that one PIC has more than one flight in the top three ranking, that pilot will receive only one nomination to the U.S G-B team for that year and the selection process will use the next ranked flight(s) to complete the team. A submission may be disqualified by the committee if any FAA/ATC or civil law violations are found to have occurred during the flight.

A list of already certified flights will be available upon request during the qualifying period.

7) U. S. Team Announcement

The Selection Committee of the Gas Division will announce the composition of the U.S team no later than the first of February following the close of the qualifying period. All decisions of the Committee shall be final.