

# Team Competition

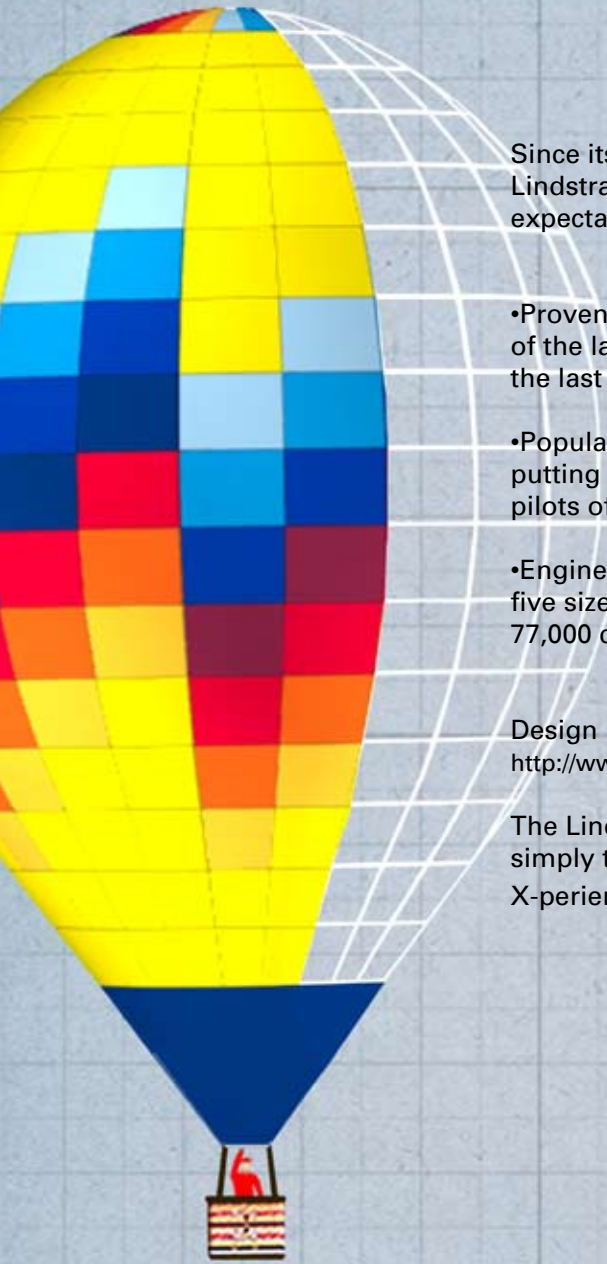
A Guide to Team Tasks and Scoring Methods



Team Minimum Distance Double Drop with Tic-Tac-Toe



# Lindstrand X-Racer



Since its introduction in 2004, the Lindstrand X-Racer has exceeded all expectations.

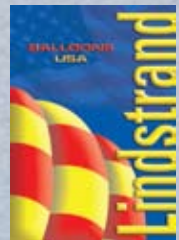
- Proven Performance with wins in 10 of the last 11 U.S. Nationals and 4 of the last 6 World Championships.

- Popular Success as a sport balloon putting the fun back in flying for pilots of all experience levels.

- Engineered Excellence offered in five sizes, a 56, 60, 65, 69, and a 77,000 cubic foot model.

Design it yourself with our app at:  
<http://www.lindstrand.net/configureusa>

The Lindstrand X-Racer is simply today's ultimate flying X-perience!



---

## ***INTRODUCTION***

---

**Team competition was developed in the United States to expand the sport and rejuvenate interest in competition among experienced as well as less experienced competitors. It's an excellent format for mentoring new or less experienced competitive pilots to gain a greater knowledge of competitive flying.**

**Team competition involves three pilots working together to achieve team goals and objectives. Starting with basic AXMER rules, team competition rules are modified and sometimes expanded to include tasks requiring the coordinated effort of all team members to achieve a single result.**

**Methods to determine team composition must be flexible but should consider the primary purpose of encouraging competitive flying at all levels of experience and skill sets.**

**As used in the US since 1995, Team Competition has been designed to encourage blending pilot composition to include no more than one "A" ranked pilot. The determination and definition of "A" ranked pilots can be determined by each organizer based on its goals and objectives. Open team competitive events may not include any restrictions on team composition.**

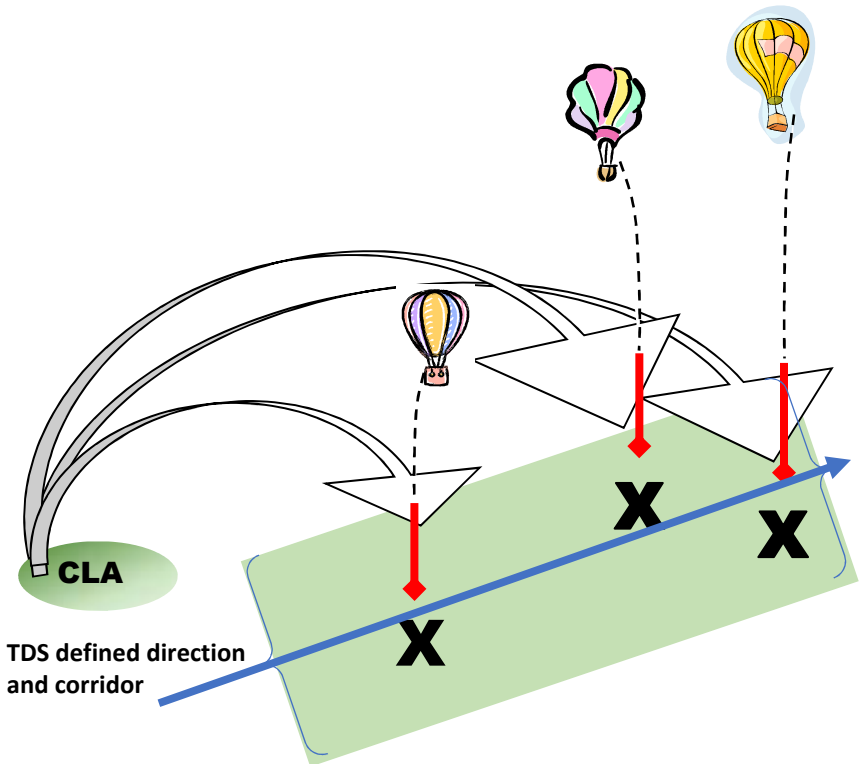
**Team competition provides the ability to rejuvenate the sport as pilots not typically in the upper echelon of the competitive ranks are able to compete against the best of the best more effectively in the team format.**

**This pamphlet has been designed to explain and provide graphic illustrations of tasks unique to Team Competition. These examples, along with standard task rules, provide the framework for Team Competition.**

---

## Team Declared In-Line Goals

---



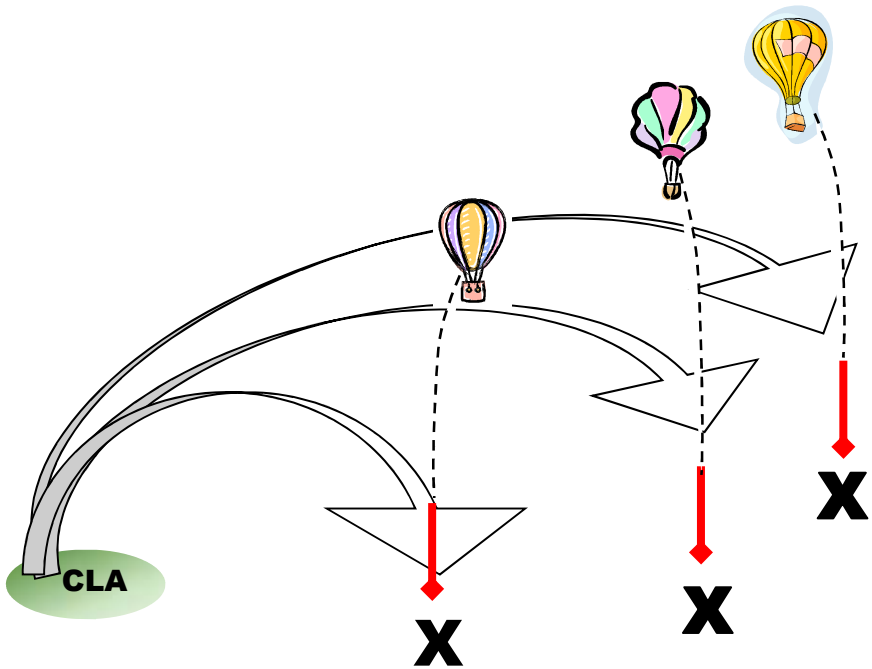
### TEAM DECLARED IN-LINE GOALS

All three team competitors launch from a CLA and attempt to fly to three separate goals. The goals must be within the parameters of a set directional corridor and distance apart provided by the Director. Corridor set direction, variance in meters and minimum distance (e.g. 75°, 1000 meters and minimum of 500 meters apart) included on TDS. All pilots drop their markers or work to achieve a valid track point as close as possible to the selected goal. Shortest distance from target to observed mark is best.

---

## ***Team Judge (or Pilot) Declared Divergent Goals***

---



### **TEAM JUDGE (OR PILOT) DECLARED DIVERGENT GOALS**

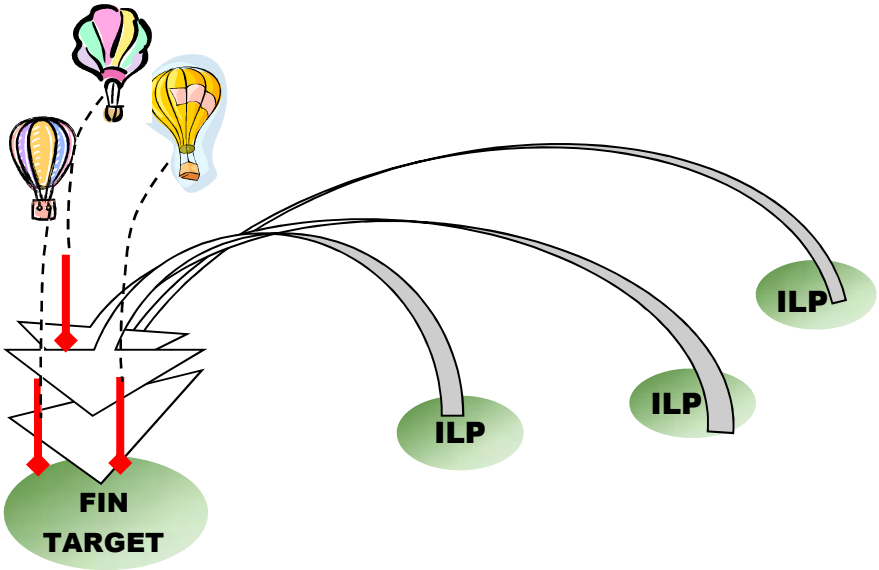
In the judge declared version, the Director identifies the targets, but each team member must fly to a different target than his team mates. In this version of the task the Sum-of-All or Sum-of-Two scoring method is used.

In the pilot declared version, the team selects three distinct goals which are a stipulated distance apart per the TDS. Competitors attempt to drop a marker or achieve a valid track point close to the target. Shortest distance is best.

---

## *Team Convergent Task*

---



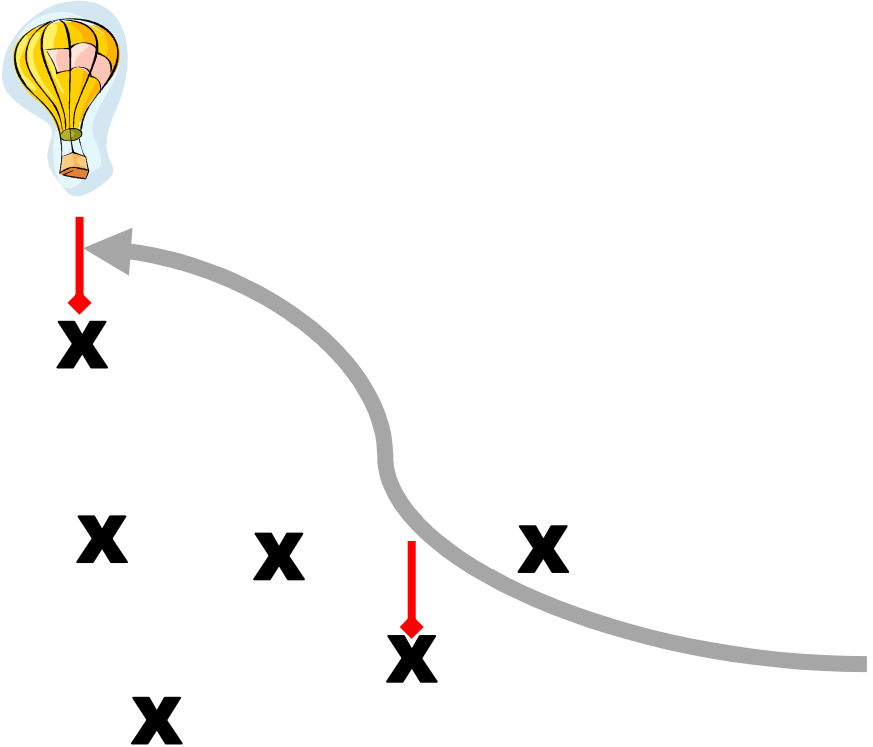
### **TEAM CONVERGENT TASK**

Team competitors select their own launch areas at a TDS stipulated distance from the goal and one another and fly to a common target selected by the Director. All pilots drop their markers as close as possible to the same target. Shortest distance from target to observed mark is best.

---

## Constellation Task

---



### CONSTELLATION TASK

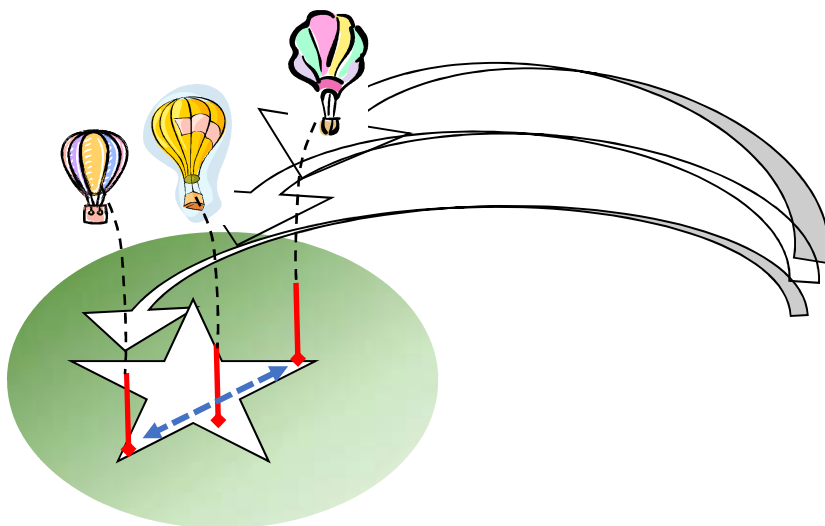
In this multi-part task, competitors attempt to drop a marker or achieve a track point on multiple targets laid out in random order. Each marker or best track point is measured and the result(s) is used to determine the Team score based on the scoring method specified in the TDS. This task would utilize either the Combined or Sum-of-All scoring method. Results could come by utilizing all targets available or limited as detailed on the TDS.

Shortest distance(s) from observed mark to target is best.

---

## *Team Maximum Distance Double Drop*

---



### **TEAM MAXIMUM DISTANCE DOUBLE DROP**

Team members each drop a marker(s) in the defined scoring area(s) with the objective of obtaining the greatest distance apart of any two markers. Two team markers must be in the defined scoring area(s) to achieve a team result. The greatest distance of any two valid marks is used to calculate the team result. This task would be scored using the 3-IN-1 scoring method. The task may also be run using logger results with polygons and/or circles as the defined scoring area(s).

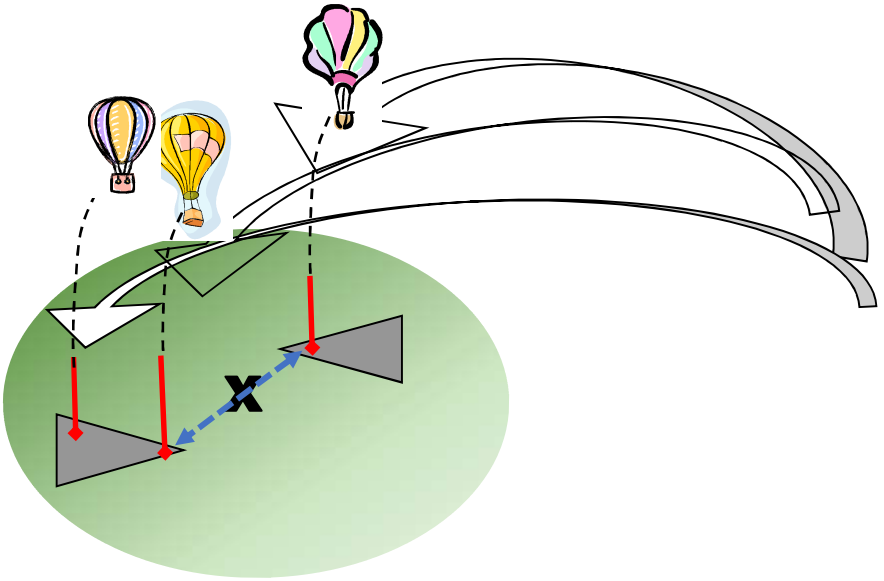
The scoring area(s) is frequently a geometric design laid out at the event's main launch field (CLP) or within areas outlined using the map grid lines.



---

## ***Team Minimum Distance Double Drop***

---



### **TEAM MINIMUM DISTANCE DOUBLE DROP**

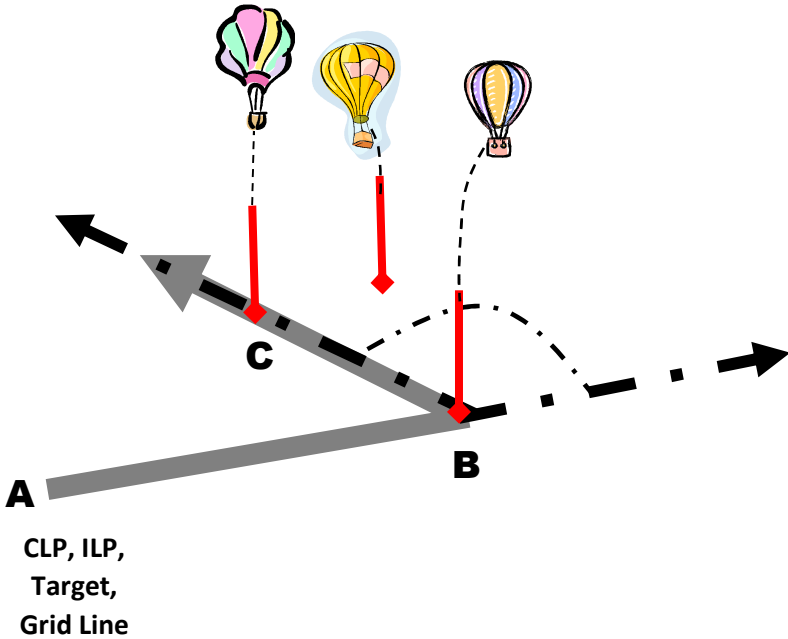
Team members each drop a marker(s) in the defined scoring areas with the objective of obtaining the shortest distance between of any two markers. The team must have a marker in each of the defined scoring areas to achieve a team result. The shortest distance between any two valid marks is used to calculate the team result. This task would be scored using the 3-IN-1 scoring method. The task may also be run using logger results with polygons and/or circles as the defined scoring area(s).

The scoring area(s) is/are frequently a geometric design laid out at the event's main launch field (CLP) or within areas outlined using the map grid lines.

---

## *Team Elbow*

---



### **TEAM ELBOW**

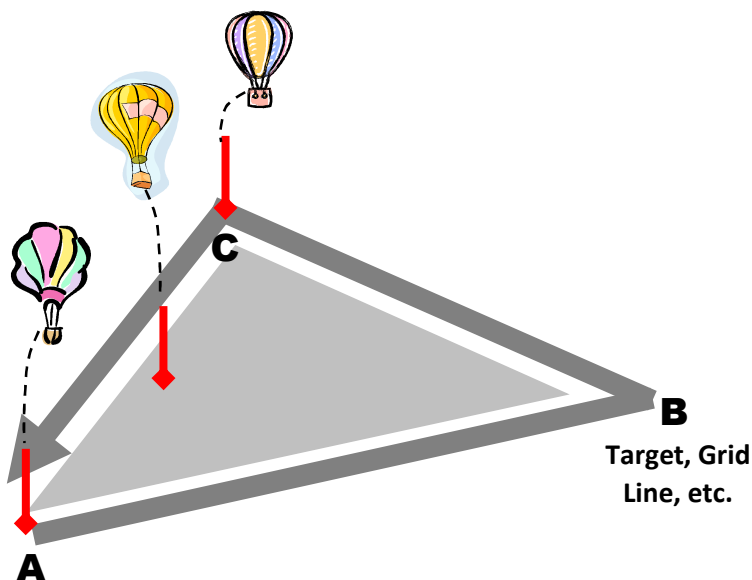
Each team member uses a marker (with observers) or a track point (with GPS loggers) to create points A, B and C. The team attempts to achieve the greatest change in direction during the flight. Team members are required to fly a minimum distance from A to achieve B and a minimum distance from B to achieve C. Each team member's track is analyzed to determine the best combination of the three points to calculate the greatest change in direction expressed in degrees.

Details on how to achieve points A, B and C are contained in the TDS.

---

## ***Team Land Run (Traditional format)***

---



### ***LAND RUN TASK (Traditional Format)***

Competitors attempt to achieve the greatest area of a triangle using a marker (with observers) or a track point (with GPS loggers) to create points A, B and C. Similar in many respects to an Elbow, a triangle is created with marks achieved with course changes as great as possible.

Point "A" is generally named by the Director while points "B" and "C" are achieved by the pilot by dropping a marker (with observers) or establishing a logger mark as defined in the TDS.

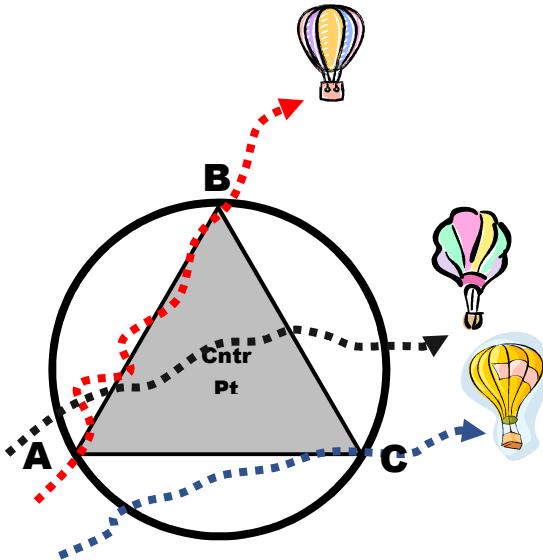
The greater the area of the triangle, expressed in square kilometers, the better the results.

A team task run in this fashion must be scored using the 3-IN-1 scoring method.

---

## *Team Land Run (Inside a Circle)*

---



Competitors attempt to achieve the greatest area of a triangle A, B and C inside a circle with a defined center point and radius. The center point can be declared by the Director or the competitor as stated on the TDS. Similar in many respects to the LRN described above, except points A, B and C are entry and exit track points of the circle created by the team members. At least two team members must have valid entry and exit points to achieve a result.

Each team members' track is analyzed to determine the best combination of the three points to calculate the greatest area of the triangle, expressed in square meters. Up to six (6) points are analyzed to determine the best result unless the TDS stipulates otherwise, e.g. Team Captain must establish Point A. Greatest area is best.

A team task run in this fashion must be scored using the 3-IN-1 scoring method.

---

## ***Team Scoring Methods***

---

Team racing, and related tasking is unique and requires varying scoring methods to provide the Director with the flexibility to create tasks in the spirit of creating team rather than just individual challenges. The Task Data Sheet will specify the scoring method to be used for each task. Team scoring methods include the following:

### **BEST-TO-BEST**

The Best-to-Best method sorts all the pilots into groupings so the pilots with the best results by team for this task are grouped together, those with the second-best results together, and those with the third best results together. These are all scored as groups with “P” equal to the number of teams. Once each members’ score is determined, the three scores are totaled for the team score.

### **BETTER TWO**

Like Best-to-Best, except only the two top team member scores are added together for the team score. The resultant team score is multiplied by one and one-half (1.5).

### **ABC**

Each team must designate their “A”, “B” and “C” member as part of the initial pilot registration. The designation may or may not have anything to do with pilot skill set or Team Captain. The ABC method sorts all the pilots into groupings according to their designation, e.g., “A”, “B” or “C”. These are scored as groups with “P” equal to the number of teams. Once each members’ score is determined, the three team member scores are totaled for the team score.

---

## ***Team Scoring Methods continued***

---

### **COMBINED**

The combined method scores all pilots in one group, “P” equals the entire field. Scores of the team members are then totaled to determine the team score for this task.

### **SUM-OF-ALL**

This method is used only in marker-based tasks with logger scoring or a logger only scored result, e.g. polygons and/or circles. The Sum-of-All method differs significantly in that the results/measurements are added together (not the scores). Pilots with No Result or No Flight are given results of 250 meters beyond the worst achieved result of any pilot. The team score is calculated from the combined results with “P” equal to the number of teams. Penalties incurred by team members will be applied to the team score determined from the sum of results. The resultant team score, after the application of penalties, is multiplied by three (3).

### **SUM-OF-TWO**

This method is used only in marker-based tasks with logger scoring or a logger only scored result, e.g. polygons and/or circles. Like Sum-of-All except only the two top results from each team are used. The resultant team score is multiplied by one and one-half (1.5).

### **BEST ONE OF THREE**

The pilot in the team with the best result is used for scoring. “P” will be equal to the number of teams for this scoring method. The resultant team score is multiplied by three (3).

### **3-IN-1**

Each team member is assigned the task of achieving a unique mark in the completion of a task, e.g., ELB, LRN or Team Maximum or Minimum Distance Double Drop. Results are determined per the Task Data Sheet and scored with “P” equal to the number of teams. The resultant team score is multiplied by three (3).

## Team Task Sheet Example

### TASK DATA SHEET

Day: Saturday	Briefing Time: 06:15	Flight #1	Task #'s: 1, 2, 3
---------------	----------------------	-----------	-------------------

#### FLIGHT DATA

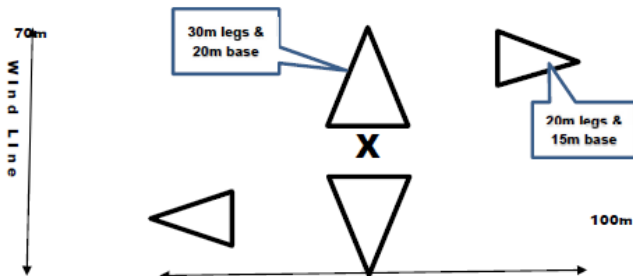
Date	July 29, 2017	Solo Flight	N/A	Next Briefing	18:15
Sunrise	06:22	Min Dist ILP to targets/goals	2 km	PZ's in Force	All in force
Launch Period	06:30	Launch Area	ILP	Logger Return	10:00 Marriott

#### TASK DATA

Task #1	FIN 15.5	Fly In a) Position of set of goal/target	8338 / 2384 See sketch	Task Order: Task #1 & 2 any order Marker Color: Yellow Marker Drop: FMD Scoring Period: Closes 08:30 Scoring Area: Entire contest area MMA: Lesser of 75m or confines of the field Result Scoring: 14.3.1 (e) combined scores; P=27
Task #2	TXDD 15.22	Team Maximum Distance Double Drop a) Description of scoring area(s) b) Special instructions for each team member's marker drop	See sketch See instructions on sketch	Task Order: Task #1 & 2 any order Marker Color: Red Marker Drop: FMD Scoring Period: Closes 08:30 Scoring Area: See sketch MMA: N/A Result Scoring: 14.3.1 (g) 3 IN 1- best team score (P=9)
Task #3	JDDG 15.24	Judge Declared Team Divergent Goals c) Declaration time and place for goals selected by each team member  d) Position of various set goal/targets	1. Paper at briefing within 15 minutes of briefing end 2. BFA Declaration APP or txt Scoring Officer at xxxx (Pilot#, Task#, target #) prior to launch.  xxxx / yyyy xxxx / yyyy xxxx / yyyy	Task Order: In Order Marker Color: Gold Marker Drop: FMD Scoring Period: Ends at 09:00 Scoring Area: Entire contest area MMA: lesser of confines of the field or 100m Result Scoring: 14.3.1 (a) Best to Best (P=9 for each of the three groups)

#### Team Maximum Distance Double Drop

1. To achieve a TXDD score, two team member markers must be dropped inside any two separate triangles. Result is direct-measure distance from the two observed marks that achieve the greatest distance.
2. One team member will receive two markers, choose wisely
3. The white paper marking boundaries is in the scoring area



# Feeling Racy?



Racers are fun to fly...period. Sure, they offer enhanced performance for getting to the target, but they also offer enhanced fun for just flying around – any day of the week.

If you're like many pilots, you want a balloon that can take a passenger or two for regular flights and still get you to the target on the weekend. Finding a balloon that will do both has been a challenge...until now.

Introducing the latest additions to the already impressive lineup of Cameron Racers: ZL-90 and ZL-105. Now there are eight Cameron Racers

from the very sporty ZL-56, to the jumbo performer ZL-105.

If you've been struggling to justify an envelope just for competition, now you can have one balloon that's perfectly designed to wear many hats. Work-horse during the week, and racing machine on the weekend.

The quality of a Cameron and the performance of a ZL-racer comes standard with every model. For more information contact the factory or your local Cameron representative.

**CAMERON  
BALLOONS**



## We've Got Your Number!