

Science Olympiad 2015-2016 Season Air Trajectory Checklist / Data Sheet

- 6.c.i. Competitors may submit up to 4 plots for scoring
- 6.c.ii. Graphs and data tables on same side of sheet of paper
- 2.b. Competitors must impound: device, graphs, materials
- 2.b. No need to impound eye protection / calculators
- 2.c. Teams wear eye protection during setup / operation
- 3.a. Mass impounded detached and ≤ 3.5 kg (C), 5.0 kg (B)
- 3.b. Device converts energy to air pressure / air movement
- 3.c. Device air chambers start at and return automatically to ambient air pressure
- 3.d. Device and all components fit in 70 x 70 x 70 cm (C), 80 x 80 x 80 cm (B) box in ready to launch configuration
- 3.e. Triggering device extends >75 cm out of launch area and is not dangerous
- 3.f. Teams provide unmodified (except for labeling) tennis, racquet, ping-pong, and/or plastic/foam golf balls
- 3.g. Device does not damage or alter the floor
- 3.h. Device does not include electrical components
- 4.b. Competitors not within 75cm or in front of launch area during a launch
- 4.c. No part of device extends outside launch area before or after launch is complete
- 4.f. No practice shots are made
- 4.g. Team announces target before launches
- 4.h. Team does not touch targets

Team #: _____

Team Name: _____

Competitor Names: _____

Plot Data

# graphs submitted (4 max)	_____
Data table score (20 pts max)	_____
Graph score (20 pts max)	_____
Graph matches table (20 pts max)	_____
Proper labeling (40 pts max)	_____

Other Data

# Penalties issued	_____
Total mass impounded (in g)	_____
Violation of any other rule (tiered)	_____

Close Target 1

Initial impact to target center (nearest mm)	_____
Fails to launch	_____

Close Target 2

Initial impact to target center (nearest mm)	_____
Fails to launch	_____
Bucket attempt (first shot within 500 mm)	_____
Hit bucket	_____
Contact with bucket bottom	_____

Far Target 1

Initial impact to target center (nearest mm)	_____
Fails to launch	_____

Far Target 2

Initial impact to target center (nearest mm)	_____
Fails to launch	_____
Bucket attempt (first shot within 500 mm)	_____
Hit bucket	_____
Contact with bucket bottom	_____