

# APRSAF-23 WATER ROCKET EVENT

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## RULES FOR LAUNCH COMPETITION

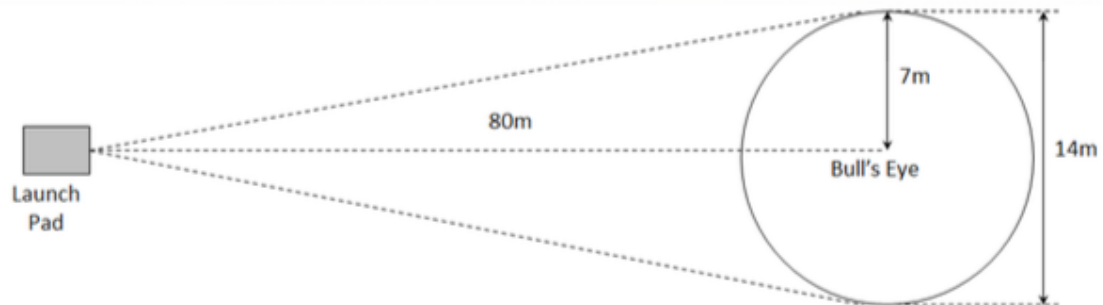
1. The APRSAF-23 Water Rocket Launch Competition will be held at the Grand Stand of University of the Philippines, Los Baños College, Laguna, Philippines on November 13, 2016 (Sunday).



University of the Philippines Los Baños, Laguna, Philippines

2. All materials to make and launch the water rockets, including the launcher and air pump will be provided by the organizer. Pre-made materials or launchers brought in by participants will not be allowed for the competition.
3. Each competitor should make two (2) rockets. Each student will receive:
  - a. Six (6) 1.5 Litre PET Bottles
  - b. PVC Sheets (217 x 331 mm, 200mic)
  - c. Three (3) pcs. Marking Tape (6m each)
  - d. Scissors
  - e. Pen knife
  - f. Ruler
  - g. Plasticine
4. The students are encouraged to be creative in the design of the nose cones and fins of their water rocket.

5. The launch aims at precision flight of the rocket. A target will be placed with the center 80m from the launcher. (see figure 2 below)



**Figure 2: Water rocket launch and target site setup plan.**

6. The distance will be measured from the center of the target to the point of impact. The rocket that lands closest to the bull's eye gets the best score.
7. During the competition, each student will be given opportunities to conduct two (2) launches. Exact distance from the point of impact and the center of target will be measured. The result of the best launch will be recorded.
8. Each competitor will be given a voucher to conduct one (1) test launch prior to the competition.
9. In order to reduce possibility of error, the competitors will draw lots of their launching sequence and assigned with the respective launchers. In this way, the students can practice with the assigned launcher during the trial.
10. There will be four (4) launchers available during the launch competition. The students will launch one (1) rocket at a time. The remaining competitors can prepare their rocket while waiting for their turn.
11. Each competitor may adjust the volume of water, air pressure, launch angle and direction at the time of launch. There is no limit on water volume but air pressure must not exceed 80 psi (5.516 bar).
12. The competitor who achieves the best score, i.e. the best score of the two (2) launches as stated in item 7 will be declared as the winner of the competition.
13. In case of a draw, the two launches will be taken into consideration to determine the winner between the competitors.