HARA TARC Class Topic Schedule 2015-16

Classes start at 6:30 pm prior to the monthly HARA meeting unless otherwise noted. Every TARC class will mention news about the event and review teams’ status and progress. The class will address any questions brought up by teams.

Each month has a specific technical topic that will be presented and demonstrated.

September 3, first class *It Begins*

Overview, Flight profile, rocket components. What makes a winning entry and a winning team?

Emphasis on how to work effectively as a team.

October 1 build session **6** pm at ERF *Some Assembly Required*

Construction, materials, parts, tools, kitbashing. Designing effective egg compartments. Where do you get parts or can you make them?

Prep and preview of TARC October kickoff launch

November 5 *Rocket Science*

CAD programs ROCKSIM and OPEN rocket, stability, aerodynamics, drag, altitude prediction. Sources of error when using the simulator programs. Analyzing flight data.

December 3 *Fire and Smoke*

Propulsion, motors, igniters, launchers and firing systems. Rail vs launch rod - effect on altitude. Emphasize proper igniter installation - perhaps a demo.

January 7 *Safe Landings*

Recovery systems, Nylon chute making, chute prep, altimeters, descent calculation, Thermals. Shock Cords - Length, attachment techniques, material. Emphasis on "design complete" at this point “CDR”

February 4 *Flight Operations*

Field operations and contingencies: What’s in your range box? Importance of check lists, procedures, contest strategies, back up rockets. Emphasize importance of practice flights/testing - what parameters (weight, thrust, wind, drag, etc.) can you control?

March 4, last class *Game On*

Testing and readiness, contest qualification strategies, scoring scheme. Status teams and devote time to those behind. “FRR”. Preview of TARC regional on March 19.