

The NAR Rocket Science Achievement Award, the NAR RSA Award

These awards will be on a special recognition folder on the NAR website. Each award recipient will receive a handsome certificate of award achievement suitable for framing and hanging in your office. They will also have their award information posted on the NAR RSA website section in the respective category of the award granted. [Unless they wish to OPT-Out of the website posting for privacy reasons]

To receive the award, each award prospect will submit their FAA Class 1 or Class 2 rocket design (a CAD drawing, a hand drawing [it will be scanned], or a Common Rocket Simulation program file), the award application form signed by another NAR member, and the downloaded substantiation data. The rocket design and the data will be available for others to download and learn from.

You may request an application for the award from ArtUpton@NAR.org and put in NAR RSA in the subject line please. NAR RSA Awards will start to be posted to:

<http://www.nar.org/hpcert/NARhprresources.html>

Your application can be for a flight you already have performed, if you have all the substantiating data and a NAR witness of the flight to be able to sign off on the application.

The 3 current NAR RSA Award categories are:

- Faster Than Sound
- Mile Marker [1,2,3, miles, etc. of achieved flight]
- Data Downlink for In-Flight Insight [Real-time telemetry data beyond altitude, single axis acceleration, and data derived from only single axis acceleration]

The requirements for substantiation data for each category are:

Faster than sound

- The successful award candidate will submit a recording commercial accelerometer flight computer downloaded data file that substantiates flight faster than Mach 1.0. The candidate will need to show the approximate air pressure and temperature from the launch area and flight level that the Mach barrier was broken at and use the math to determine the Mach number from the FPS, or MPH in the downloaded data . [Barometric altimeters that provide estimated speed are not eligible]
- Aviation websites can provide such data for the candidate, and providing this part of the Mach equation will help broaden skills at aviation weather awareness.
- The successful award recipient's rocket design, downloaded data, and aviation data will be posted in the award section for others to learn from.
- One exception to the flight computer download data requirement is that of the Jolly Logic 2 [and any similar LCD only accelerometer flight computer that does not have a data download function, but provides a complete set of flight statistics beyond just peak altitude and speed]. Recorded video of the candidate, their rocket, and then ALL their Jolly Logics data outputs on the display can be used as downloaded data. This video link will be posted in the same section as the data download of a conventional downloading flight computer.

Mile Marker

- This award is for candidates that have constructed and successfully flown their Hobby Rocket to a goal of one mile or more in one mile increments.
- A member may have more than one award, for example Mile Marker 1, Mile Marker 3, Mile Marker 4 etc., gained at different points in their achievement status.
- The successful award candidate will submit a recording commercial flight computer downloaded data file that substantiates flight above ground level, above the mile marker goal submitted. The Barometric data of the smoothed graph curve will be used for flights under 30K MSL. For flights above that, extra data points such as GPS or other methods will also have to accompany the data. Optical tracking will not be accepted as the only data, but could be used along with the flight computer data. The same exception for the Jolly Logic 2 also applies for this category as well.

Data Downlink for In Flight Insight

- This award is for candidates that have constructed and successfully flown their Hobby Rocket with in-flight telemetry that records and displays in real time data reflecting the insight to the dynamics of the rocket flight. These may include altitude, acceleration, and speed; but must contain at least one or more other significant data points. Roll rates, attitude, 3-axis accelerations, 6DOF, or 9DOF etc... Gamma rays, radiation, and other science data is welcome.
- The successful award candidate will submit the ground recorded data from the flight, along with a video clip of at least a portion of the real time display being used at the candidate's mission control observation point. The data will be posted on the award site for others to learn from.