

## NS-56 Results and NS-57 Announcement! (Tentatively 07/30/16)

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### NS-56 Low Altitude Flight!

Sometimes, not everything goes according to plan and NS-56 is evidence of just that.

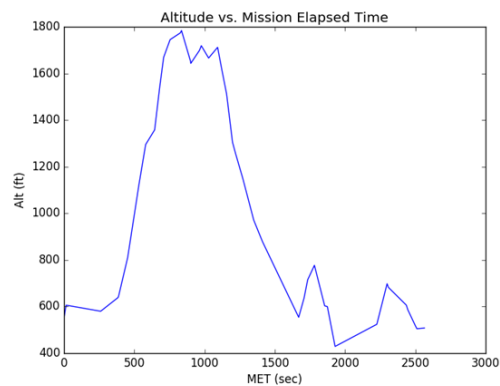
It was just like any summer launch: a beautiful sunrise with partly cloudy skies and temperatures in the high 80s. After inflating our 3000g balloon and tying in our payloads, the balloon took off from Clear Springs Elementary School at around 8:20 AM with an estimated burst altitude of above 100'000 feet and a flight time of 2 hours.

However, right after release, the team members and guests of the Nearspace High Altitude Balloon Program noticed the balloon slowly floating at an ascent rate of approximately 3 ft/sec! Revised predictions had an estimated flight time of 6 hours traveling over Washington D.C. and possibly out to sea! Fortunately, the balloon's ascent rate dropped before reaching 2'000 feet and the team was able to recover the balloon

within 6 miles of Clear Springs after a half hour chase.



## Explanations and Results



The simple explanation is that we didn't have enough Helium in the balloon to lift all the payloads. It was a somewhat heavier string of payloads than usual, with 9 distinct boxes including 2 cut-down modules, 3 environmental sensing payloads, 2 engineering demos, and a telescope.

Despite the short and low altitude flight, several payloads were still successful. The team was able to fill the balloon through the Helios payload, GANONDORF (Gravity Assisted Nearspace Operations Node for

Downward Oriented Release and Fall), the mechanical cut-down, activated successfully and dropped Data Pigeon, and finally, videos, pictures, and data were obtained even on this short flight.

## NS-57 Announcement

Since not all the payloads were sufficiently tested, we are currently planning for a re-flight this weekend on Saturday 7/30. We are closely monitoring the weather and ground track for favorable conditions.

The location and time of the launch, as always, is Clear Springs Elementary School (12627 Broadfording Rd Clear Spring, Maryland 21722) around 8:00 AM. Look out for more information to follow!

## Pictures/Videos

Some photos from the launch and flight can be found below!



"Landing Struggles" by *Bach's Box*



Payload leads ready to launch their payloads!



"Aravind, Slayer of Balloons"

## Questions?

Contact Dr. Mary Bowden

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## Live Updates

You can follow our live tweetup of the launch day [here](#) with [#ns56](#).

You can also track us on the [APRS](#) website using UMD's callsign: [W3EAX-8](#).

*The NearSpace High Altitude Balloon Team thanks the **Maryland Space Grant** for its continued support and effort to make our program possible.*

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