

# MARYLAND SPACE GRANT NEARSPACE PROGRAM



## **A perfect launch! Well, almost...**

Weather, check!

Ground track, check!

Balloon and helium, check!

NS-52 started off great. The winds were calm and peaceful and the weather was so beautiful such that this launch, we decided to inflate the balloon without the Balloon Launch Tube (BLT). However, we soon discovered that a fully inflated balloon is very hard to hold on to! Oops!

Time for plan B! As part of our launch preparations, we had a backup balloon - but oh no! We did not have enough helium to fill the second balloon!

Thanks to Camden's quick-thinking Dad, we were able to locate a nearby welding supply store and we were back with a new tank of helium within the hour!



## NS-52.5 Launch Announcement and Updates

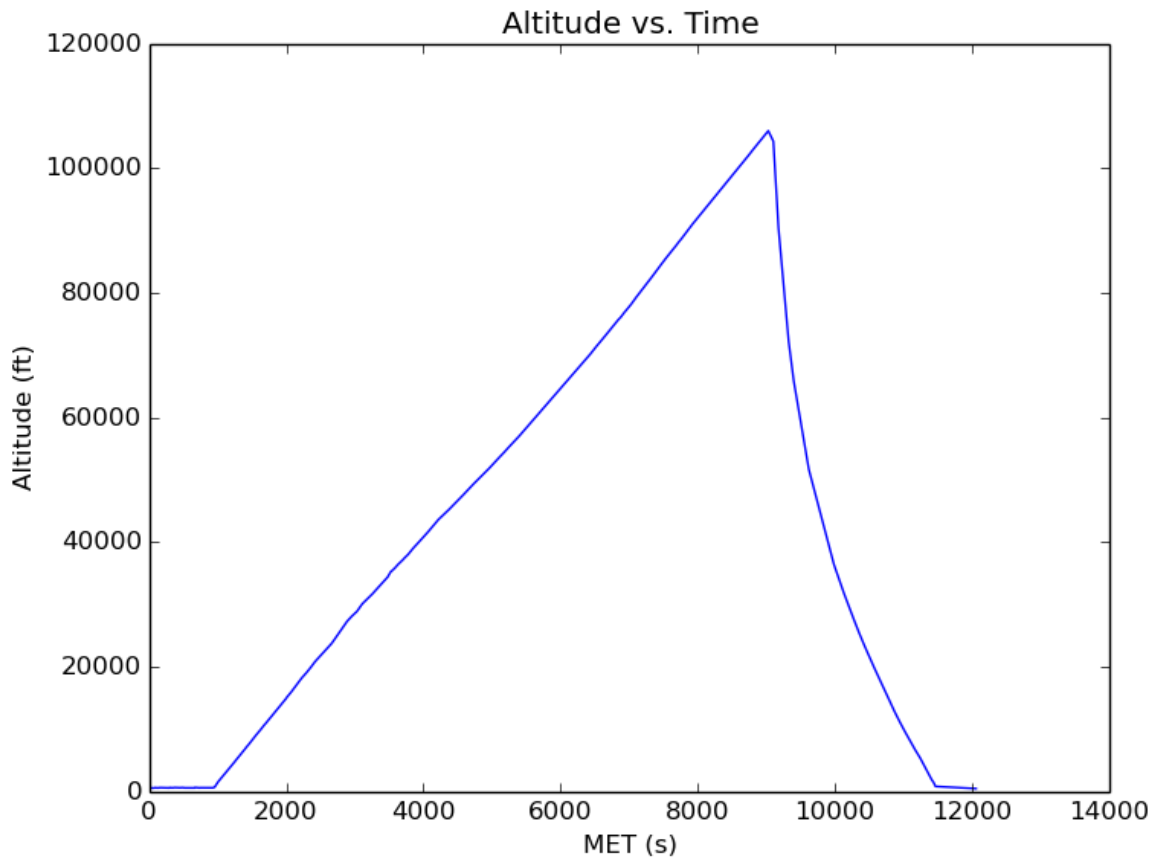


Sorry for the late notice but we're proud to announce NS-52.5! Same location, similar time but a new payload lineup and balloon!

NS-52.5 began with a hybrid balloon launch which consisted of the traditional vertical inflation with BLT. Soon after inflation, we quickly realized that we did not have enough lift for all 6 of our payloads (the newly purchased helium tank was under-filled), so a hard decision was made to leave BADaSS, its hosted payload, HOSTed, and the supporting antenna, Link, on the ground. After obtaining permission for the delayed launch from the Hagerstown Tower, the balloon and payloads were released just after 10 AM.

Due to low winds, the ballooneers of the Nearspace team were able to watch the balloon rise and pop at an altitude around 106,035 feet - a new team record for a payload-laden flight!

## Balloon Altitude Graph



*Data courtesy of Nick Rossomando.*

## **NS-52.5**

As our delayed launch did not occur within the window as defined in our NOTAM, both the Washington Center and the Potomac Center for FAA air traffic control took an interest in our flight, but no worries; we're not in trouble. Following a few conversations with air traffic controllers about our expected flight trajectory, the day ended well when the payloads landed on the ground in a side yard of a very nice residential area southeast of Martinsburg, West Virginia.

Despite our various setbacks, the members of the Balloon Payload Program experienced a pleasant launch day with a nice view of the balloon's flight and an uncomplicated recovery.

On the right, you can see a picture of the payloads just as we found them.



## Pictures/Videos

Pictures, videos, and data retrieved from the duration of the launch can be found on our **server** as they are uploaded.



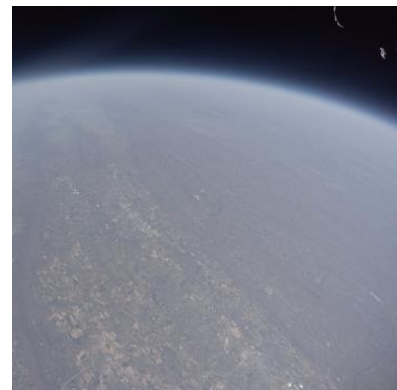
*Photo courtesy of Bach's Box.*

A faraway view of our launch site.



*Photo courtesy of TurtleNest.*

Testudo goes to near space!



*Photo courtesy of Bach's Box.*

In the top right corner, you can see a piece of the balloon as it popped.

## NS-53 Announcement

Soon after NS-52.5, the Balloon Payload Team would like to announce its 53rd launch! The ground track and the payload lineup, which will include BADaSS/HOSTed and Link, will be combined with the launch confirmation email to follow.

### **When:**

Saturday, April 23, 2016  
8:00 AM

### **Where:**

Clear Spring Elementary School  
12627 Broadfording Rd  
Clear Spring, Maryland 21722

### **Google Maps**

## **Questions?**

Contact Dr. Mary Bowden

Email: [bowden@umd.edu](mailto:bowden@umd.edu)

Phone: (301) 275-7723

## **Live Updates**

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

You can also track us on the [APRS website](#) using UMD's callsign: W3EAX-9.

*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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