



Opportunities Above and Beyond TARC

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Next Step Opportunities for TARC Participants

The Vision:

Every successful program needs a higher tier program to maintain interest and educational growth opportunities for the participants.

The Challenge:

As the technology aspect of the launch and payload increases, so does the scope of program deliverables. Therefore a multiple option portfolio is desirable to best fit the diverse interest, strengths, and goals of the participants.



Higher Technology Challenge Opportunities

	NASA Student Launch Program (NASA SLP)	A Rocket Launch for International Student Satellites (ARLISS)	Small Satellites for Secondary Schools (S4)
Program Participation	NASA Selection Process	Open	Open
Structured Deliverables	Yes	No	No
Launch Day Travel Requirement	Yes, ~5 days	Yes, ~4 days	None
Launch Vehicle Construction	Yes	No	No
Payload Dimensional Constraints	No	Yes	Yes
Program Development Cost	> \$1000	> \$1000	\$150
HPR Certification Requirement	Yes, L2 or greater	None	None
Flight Cost	Varies, \$100-\$400	\$500	\$150



NASA Student Launch Program

Inception:

NASA Student Launch began in 2000-2001 when Art Stephenson, the Center Director at the time, announced the idea of the project at an all-hands meeting at Marshall Space Flight Center (MSFC). The staff of the MSFC Academic Affairs Office and the Huntsville Area Rocketry Association (HARA) met to define and implement the envisioned program.



NASA Student Launch Program

Growth and Evolution:

The first year of the NASA SLP occurred during 2003-04 , with 6 High School teams and 2 college teams from the local area. The participation has expanded to allow universities across the US as well as TARC Finalist teams to participate. Since 2013 the program has operated at or near the 60 team program capacity using a NASA selection process. To facilitate the participation expansion, in 2010 NASA contracted NAR to provide launch support services to supplement the efforts of the local NAR section.



NASA Student Launch Program

Impact: “Through the educational engagement program requirement of the NASA Student Launch Program, teams have conducted 1,061 events reaching 201,434 people through their educational engagement and public outreach efforts in the past six years.” - NASA 2016





NASA Student Launch Program

Summary:

“NASA Student Launch engages teams of middle school, high school and undergraduate students in research experiences focused on aerospace design, testing, and systems engineering. Additionally, the project prepares students with the planning, communications and teamwork skills necessary to succeed in their post-project endeavors, whether in higher education or in a demanding career path such as the modern aerospace industry. “ - NASA 2016



NASA Student Launch Program

NASA SLP websites and informational videos:

<https://www.nasa.gov/audience/forstudents/studentlaunch/home/index.html>

<https://www.nasa.gov/audience/forstudents/studentlaunch/handbook/index.html>

<https://www.youtube.com/watch?v=HjkxZVsBRHw>

<https://www.youtube.com/watch?v=RbKTq37duZA>



NASA Student Launch Program

Team Published Videos on YouTube:

<https://www.youtube.com/watch?v=v18YdbtYMsQ>

<https://www.youtube.com/watch?v=I8KX5W1Um9U>

<https://www.youtube.com/watch?v=V4Uyw8IlnDQ>

<https://www.youtube.com/watch?v=ZAZ1i8-OSJI>

https://www.youtube.com/watch?v=2fyv_yIMqg8

<https://www.youtube.com/watch?v=mvpupesaQIA>

<https://www.youtube.com/watch?v=VdJCH5i5zCs>

<https://www.youtube.com/watch?v=X2jaFGf1yU8>

<https://www.youtube.com/watch?v=MfYc3KyPkNg>

<https://www.youtube.com/watch?v=oJFZLvwpWDI>



NASA Student Launch Program

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