



16th Annual First Nations Launch Kick-Off Meeting

Welcome, as you enter please type in
the chat:
Your Name & School

**Note: This presentation will be
recorded so team members not in
attendance may be able to rewatch
later**





16th Annual First Nations Launch Kick-Off Meeting

October 29, 2024



ARTEMIS
STUDENT
CHALLENGES

nasa.gov/stem/artemis.html



Partner

The material contained in this document is based upon work supported by a National Aeronautics and Space Administration (NASA) grant or cooperative agreement. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of NASA.



Overview

- Welcome and Introductions
- Competition Overview
- Reports and Scoring
- Prizes and Awards
- Recruitment
- Resources
- Reimbursements
- Patch Contest
- #IAMFNL





Meet the Team

■ Wisconsin Space Grant Consortium

- Kevin Crosby, Director
- Christine Bolz, Assistant Director, FNL Program Director
- Rob Cannon, FNL Program Manager
- Connie Engberg, Project Support Assistant

kcrosby@carthage.edu

cbolz@carthage.edu

rcannon@carthage.edu

cengberg@carthage.edu

■ First Nations Launch Administrative Team

- Frank Nobile, Wisconsin Tripoli
- Mark Abotossaway, Blue Origin - Structures Engineer
- Brittany Nez, GE Aerospace - Controls Engineer
- Bob Justus, Illinois Tripoli

maxq3@aol.com

mark.a.abotossaway@gmail.com

brittanyanez4@gmail.com

bob@mhbofni.com

■ NASA

- Grace Johnson, Kennedy Space Center



Meet the Judges

- NASA
 - Aaron Yazzie, Navajo
 - Ben Cervantes, Karuk
 - James Wood, Osage
 - Joe Connolly, Haudenosaunee, Onondaga Nation
 - Lauren Denson, Apache
 - Orson John, Navajo
- BAE Systems
 - Evie Clarke, Muscogee Nation
- Blue Origin
 - Bree Shepard
- Boeing
 - Garrett Nez
 - Starr Fowler
- Raytheon
 - Aaron Ashley, Dakota-Omaha
 - Alexa Martinez, Mescalero Apache
 - Jadon Shortman, Ft. Belknap Reservation, Assiniboine and Gros Ventre Tribes
- USSF
 - Haida Star Eagle, SouthEastern Cherokee
- W.L. Gore & Associates
 - Aaron Watson, Navajo





Gateway Challenge Teams

- College of Muscogee Nation
- Leech Lake Tribal College
- College of Menominee Nation





Moon Challenge Teams

- Honolulu Community College
- Northern Oklahoma College
- Rochester Institute of Technology
- University of Alaska-Fairbanks
- University of British Columbia
- University of California-Davis
- University of Waterloo





Mars Challenge Teams

- Fort Lewis College
- Haskell Indian Nations University
- Northern Arizona University
- Queen's University
- Stanford University
- Turtle Mountain Community College
- University of California-Los Angeles
- University of Colorado-Boulder
- University of Hawaii-Manoa
- University of Kansas
- University of North Carolina-Pembroke
- University of Washington-Seattle





Supplied by WSGC to Teams

- **Project Travel Award of \$4000**
 - Reimbursements issued through Carthage College
 - Reimbursement request deadlines are March 3 and May 12
 - Additional travel funds are available upon request for teams traveling more than 1,000 miles to Carthage College
- **Launch Weekend Hotel Accommodations and Select Meals**
 - Maximum three (3) rooms for three (3) nights per team at competition hotel
 - Last day to secure lodging is February 17, 2025
 - Meals on Friday: breakfast, lunch, and dinner and Saturday: breakfast, lunch, and dinner
- **Two (2) Rocketry Reference Books (New Schools)**
 - Modern Rocket Design and Construction
 - Modern High Powered Rocketry 2
- **Report Feedback**
 - Teams will receive report feedback at least 1 week prior to next report
- **Low-Powered Rocket for Demo Flight**
 - Each team will receive a low-power rocket for the demonstration flight requirement
 - New teams will receive a launch pad
 - Flight demo deadline is January 27, 2025
- **Launch Weekend Flights**
 - One (1) reloadable motor and one (1) motor casing per team will be provided
 - Motor selection is due February 17, 2025
 - Competition Ejection Charges





Optional Travel Support from WSGC for Teams

■ Additional Travel Funds

- Additional travel funds for teams more than 1000 miles from Carthage College, based on one-way travel
 - \$500
 - 1,000-1,999 miles
 - \$1,000
 - 2,000-2,999 miles
 - \$1,500
 - 3,000+ miles



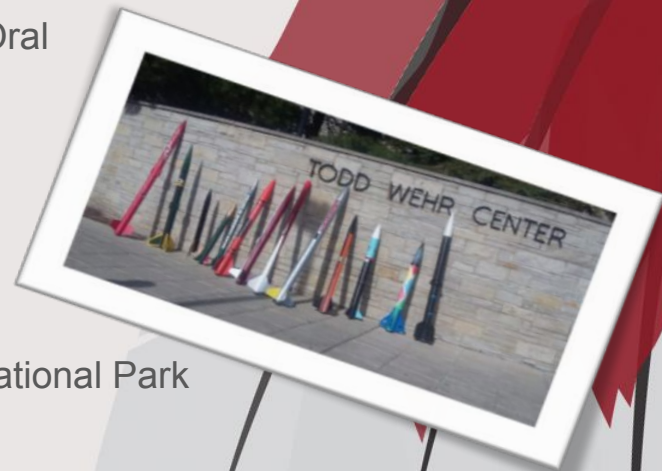
Additional Non-FNL Support

- Additional funding should be above and beyond FNL funding
- Additional support should not replace FNL funding
- Funds can come from:
 - Your state's Space Grant
 - <https://national.spacegrant.org>
 - Academic Institutions
 - Student Groups
 - Industry
- Non-FNL additional funding can be used for
 - Travel to and from Kenosha, WI for mentors and additional team members
 - Stipend for team's TRA/NAR mentor(s)
 - Mobile tools for the rocket group (battery operated, hammer, Dremel, drill, screwdriver, scale)
 - Traveling tool box to bring to launch weekend
 - Safety equipment – PPE
 - Launch 2 Learn Workshop at academic institution
 - Level I Rocket, Motor, and Certification Fee
 - Level II Rocket, Motor, and Certification Fee
 - Outreach events (i.e. low-powered rocket event, displays, etc.)
 - Team shirts, jackets, etc.



Launch Weekend: April 25-27, 2025

- Thursday, April 24, 2025
 - Teams Arrive in Wisconsin
- Friday, April 25, 2025
 - Welcome Breakfast/Competition Kick-off, Team Workday, Motor Build Workshop, Breakout Sessions, Final Safety Inspections, Oral Presentations
- Saturday, April 26, 2025
 - Launch Day @ Richard Bong Recreational Park
 - Closing Banquet @ Carthage College
- Sunday, April 27, 2025
 - Rain Date, Certification Launches @ Richard Bong Recreational Park





Competition Timeline Highlights

■ Milestones

- Preliminary Design Review: December 2, 2024
- Critical Design Review: January 27, 2025
- Flight Readiness Review: March 17, 2025
- Launch Weekend: April 25-27, 2025
- Post Launch Assessment Review: May 12, 2025

■ Upcoming Webinars

- Challenge Parameters: November 5, 2024
- Introduction to RockSim: November 12, 2024
- Project Management: November 19, 2024
- Structures: December 3, 2024
- Avionics/Altimeters: January 21, 2025
- Recovery: February 11, 2025
- Build & Assembly Techniques: March 4, 2025
- Launch Operations: April 8, 2025





Key Changes for 2025

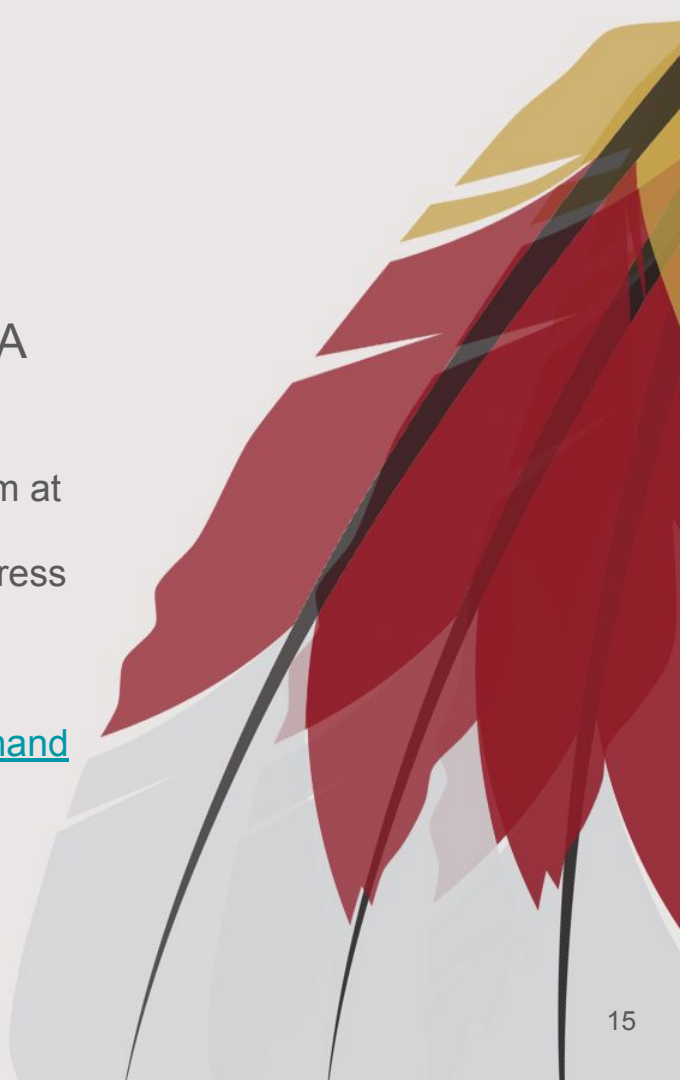
- Challenge Handbooks
- NASA STEM Gateway Registration
 - Extra step will be required this year. More information to come.
- Office Hours
 - Last year was a set day time, would like to explore allowing teams to schedule time with me/the team.
- Google Drive Team Folders
 - Used last year in limited capacity, expanding use this year.





NASA STEM Gateway

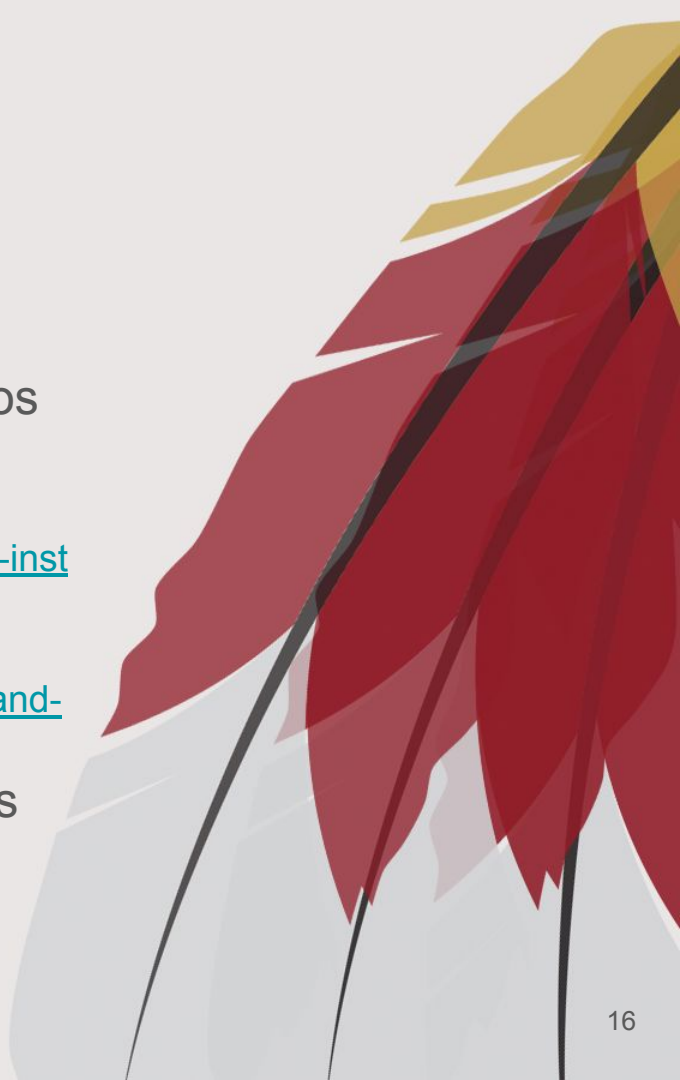
- New requirement from NASA that all education program participants must register within the NASA STEM Gateway system
 - Requirement for competitors to create a profile
 - You only need to create/update a profile in the system at this time
 - The FNL application has a field that asks for the email address you used to create a profile in the system
 - A full walkthrough on creating a profile is available in the competition handbook:
 - <https://spacegrant.carthage.edu/live/files/6500-fnl25handbookadvisorpdf>
 - Link to the NASA STEM Gateway system:
 - <https://stemgateway.nasa.gov/public/s>





Challenge Levels

- Challenges build off each other
 - Gateway → Moon → Mars
- FNL website has video series of instructional videos and webinars:
 - Instructional Video Series:
<https://spacegrant.carthage.edu/first-nations-launch/rocket-instructional-videoswebinars/>
 - Webinars:
<https://spacegrant.carthage.edu/first-nations-launch/tools-and-tips/>
- Final date to change to different Challenge Level is February 3, 2025





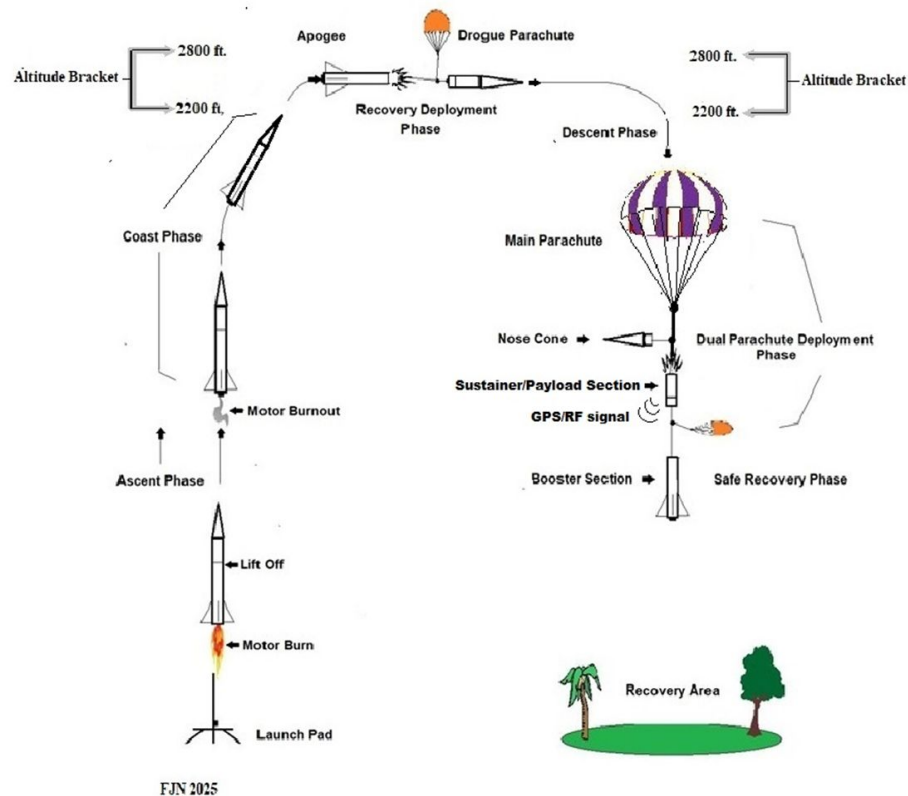
Gateway Challenge

- Teams shall design and construct a dual deploy high-power rocket from the following list of kits:
 - Loc Precision "FANTOM 438 EXL"
 - Loc Precision "Patriot"
 - Loc Precision "LOC IV X2"
- Teams may customize their kit with special add-ons provided by the manufacturer
- Pyro energetics via altimeter shall be used for main deployment recovery
 - Research altimeters to ensure it can support deployments, some altimeters are solely flight recorders (i.e., Jolly Logic)
- There is no payload/challenge associated with this challenge, with focus being on the safe and complete selection, simulation, procurement, assembly/fabrication, and flight of the kit rocket.
- The flight shall be stable and reach an apogee between 2200' - 2800' AGL.

FNL Gateway 2025

Flight Profile

Altitude 2200' - 2800' AGL





Gateway Challenge

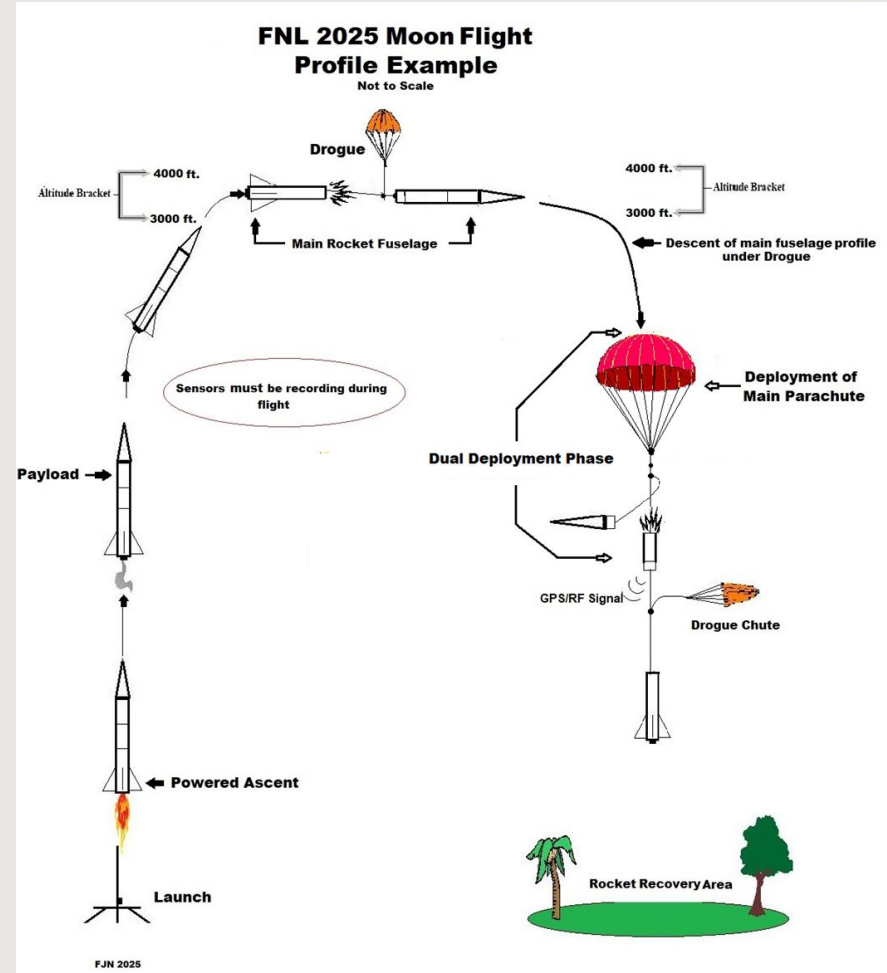
- When ordering your kit, make sure to include the following components:
 - E-bay module
 - 38mm motor adapter
- Teams will select between two preselected motors per kit





Moon Challenge

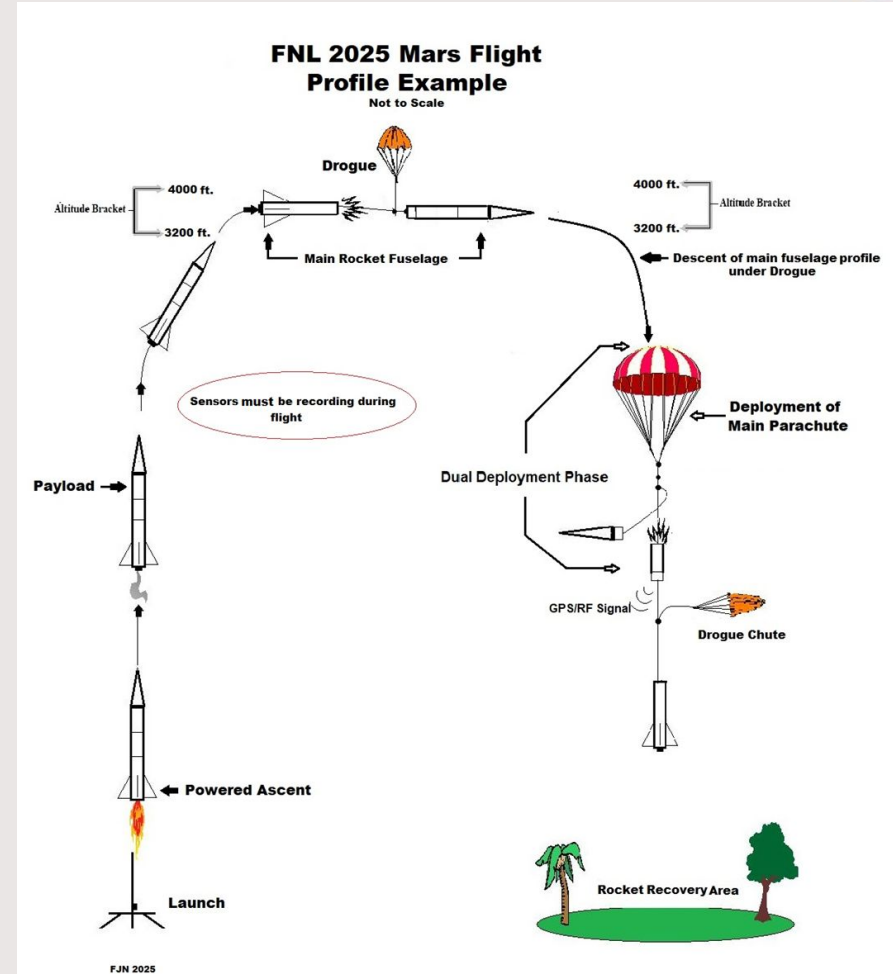
- Teams shall design, test, and fabricate a minimum 4-inch diameter rocket
- The challenge this year will be to integrate two sensors into the rocket
- The rocket flight shall be stable and reach an apogee between 3,000' - 4,000' AGL.





Mars Challenge

- Teams shall design, test, and fabricate a minimum 4-inch diameter rocket
- The challenge this year will be to integrate five sensors into the rocket
- The rocket flight shall be stable and reach an apogee between 3,200' - 4,000' AGL.





Safe and Successful Flight

- Safe Flight must achieve:
 - Launch
 - Stable, vertical flight during ascent
 - Recovery system(s) must successfully deploy
 - Rocket must be recovered in flyable condition





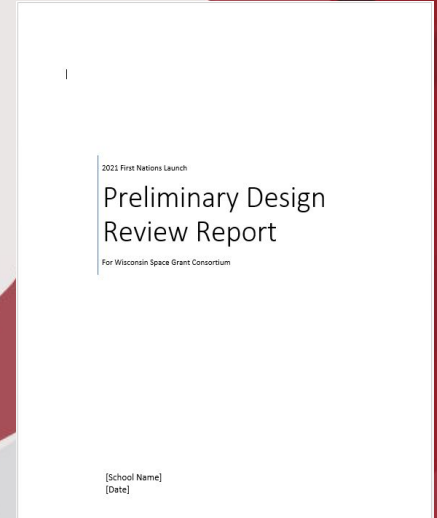
Competition Criteria (All Teams)

- All teams must follow all requirements of the Competition Handbook- the following is a subset of those requirements:
 - All projects during the construction process must have a minimum of one (1) scheduled virtual inspections with the designated safety officer (TBA)
 - All projects must be 90% constructed and ready to fly two (2) weeks prior to launch day
 - 90% = Airframe, motor mount, fins, payload airframe, couplers, bulkheads, should be permanently attached.
 - All projects must be designed to enable the motor deployment charge as a backup recovery system at apogee.
 - All final competition projects must have a documented flight/stable RockSim simulation profile.
 - Photographs are required during the construction of the motor mount and fin fillet assembly process to ensure proper construction techniques has been adhered.
 - All projects must have an aero-dynamic design. No odd rocs. Note: No flying pyramids, saucers or spoons.
 - The “Center of Pressure” (CP) and the “Center of Gravity” (CG) must be indicated on rocket.
 - Quality and timely completion of program milestones (see Program Milestones section in handbook)
 - Success of competition flight
 - Recorded altitude of competition flight



Scoring Overview (Moon/Mars)

- Written Reports are due:
 - Proposal, PDR, CDR, FRR, PLAR
 - Each report carries equal weight
 - Each report builds on previous reports
- 2 Virtual Presentations w/judges
 - In-time feedback (minimum one week prior to next report due date)
- Flight and payload performance are scored
- Late reports are docked 20% per day
 - Due date is 11:59 CST / CDT (see Calendar)
- Outreach effort
 - Up to 10 bonus points





Written Design Reviews (Moon / Mars)

- Communicate the engineering and design effort involved
 - Analysis of predicted performance (compare actual)
 - Temporary RockSim V11 – TARC Temporary License (Exp. Aug 31) - \$20
 - https://www.apogeerockets.com/Rocket_Software/RockSim_Educational_TARC
 - TARC Team Number: FNL25_(Your team's award #)
 - SHOW the design and construction as it progresses (pictures, diagrams, etc.)
- Reports are due as posted on Competition Calendar
 - Reports = 60% of overall score
- A Report Template (MS Word) is provided for each report
 - Link to Report Templates are found on the WSGC Website
 - <https://spacegrant.carthage.edu/first-nations-launch/rubric/>
- Gateway Teams do not submit reports





Flysheets (All Teams)

- Flysheet Milestone Templates can be found on the FNL Website under 'Report Templates and Scoring Rubrics'
 - <https://spacegrant.carthage.edu/first-nations-launch/rubric/>
- The Flysheet is a summary of the technical specifications of your rocket / payload
- Fill out the Flysheet after your report is complete
 - Fill as much as you can at each cycle, from info in your report
 - You may not understand much at Proposal, but will have a complete sheet at FRR
 - If you don't understand a specification – ask
 - If you don't have a specification, leave it blank
 - We don't expect all specifications at the Proposal
- Mars Teams are required to submit a flysheet at the first 4 Milestones: Proposal, PDR, CDR, FRR
- Moon Teams are required to submit a flysheet at PDR, CDR, and FRR
- Gateway Teams will submit a flysheet at CDR and FRR



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- Gateway Teams will submit a flysheet at CDR and FRR



Flysheets Example (All)

| Milestone Review Flysheet 2022-2023 | | | |
|--|--|----------|--|
| Institution | | School | |
| Milestone | | Proposal | |
| Vehicle Properties | | | |
| Manufacturer / Kit (if applicable) | | | |
| Total Rocket Length (in) | | | |
| Airframe Diameter (in) | | | |
| Gross Lift Off Weight (lb) | | | |
| Airframe Material(s) | | | |
| Fin Material and Thickness (in) | | | |
| Motor Properties | | | |
| Motor Brand/Designation | | | |
| Max/Average Thrust (lb) | | | |
| Total Impulse (lbf-s) | | | |
| Mass Before/After Burn (lb) | | | |
| Liftoff Thrust (lb) | | | |
| Motor Retention Method | | | |
| Stability Analysis | | | |
| Center of Pressure (in. from nose) | | | |
| Center of Gravity (in. from nose) | | | |
| Static Stability Margin (on pad) | | | |
| Thrust-to-Weight Ratio | | | |
| Rail Size/Type and Length (in) | | | |
| Rail Exit Velocity (ft/s) | | | |
| Ascent Analysis | | | |
| Maximum Velocity (ft/s) | | | |
| Maximum Mach Number | | | |
| Maximum Acceleration (ft/s^2) | | | |
| Target Apogee (ft) | | | |
| Predicted Apogee (From Sim.) (ft) | | | |
| Payload Deployment | | | |
| Location: Air / Ground (If applicable) | | | |
| Altitude of Deployment (If applicable) | | | |
| Recovery System Properties - Recovery Electronics | | | |
| Primary Altimeter (Make/Model) | | | |
| *Secondary Altimeter (Make/Model) | | | |
| Switch Type/Make/Model | | | |
| Rocket Locator (Make/Model) | | | |
| *Additional Locators (if applicable) | | | |
| Recovery System Properties - Drogue Parachute | | | |
| Manufacturer/Model | | | |
| Size or Diameter (in or ft) | | | |
| Primary Altimeter Deployment Setting (ft) | | | |
| *Secondary Altimeter Deployment Setting (ft) | | | |
| Velocity at Deployment (ft/s) | | | |
| Recovery Harness Material, Size, Type (ex. 1/2 in. tubular nylon or 1 in. flat Kevlar strap) | | | |
| Recovery Harness Length (ft) | | | |



Virtual Design Reviews (All Teams)

- Summarize and present your written design report
- A PowerPoint template is provided for each Virtual Review
 - Links to virtual review templates are found in the WSGC Website
 - <https://spacegrant.carthage.edu/first-nations-launch/rubric/>
- Every team member should participate during the presentation.
 - The presentation is limited to 20 minutes
 - Teams present report (8-10 minutes)
 - Judges and Tripoli Rocketry Association member will ask questions about your design at the end of your presentation (3-5 minutes)
- Each team given a presentation slot based on Judge's schedule.
 - It will be the team's responsibility to be in attendance



Flight Readiness Review

- Similar to your Virtual Design Reviews – except in-person - summarize and present your entire First Nations Launch experience and present your as-built rocket and payload
- A PowerPoint template is provided for presentation
 - Link to Launch Weekend Presentation template is found in the WSGC Website
 - <https://spacegrant.carthage.edu/first-nations-launch/rubric/>
- Every team member should participate during the presentation
 - The presentation is limited to 15 minutes (6-8 minutes for your team to give the presentation, 3-5 minutes for judges and questions and 5 minutes for scoring).
- Judges only will ask questions, following presentation (3-5 minutes). If time allows there may be additional questions from the audience.
 - Consider documenting your project with video or picture logs, using this information to compile your presentation.



Competition Scoring (Mars/Moon)



| | | | |
|---|----------------------|---------|----------------|
| Competition Proposal | Written Report | 5 pts. | 75 pts overall |
| Preliminary Design Review (PDR) | Written Report | 15 pts. | |
| PDR Presentation w/ judges | Virtual Presentation | 5 pts. | |
| Critical Design Review (CDR) | Written Report | 15 pts. | |
| CDR Presentation w/judges | Virtual Presentation | 5 pts. | |
| Flight Readiness Review (FRR) | Written Report | 15 pts. | |
| FRR Virtual Safety Inspection | Virtual Presentation | 5 pts. | |
| Post-Launch Assessment Review Report (PLAR) | Written Presentation | 10 pts. | |
| Launch Weekend Oral Flight Readiness Presentation | | 5 pts. | 5 pts |
| Launch Weekend- Mission Performance | | 10 pts. | 20 pts overall |
| Launch Weekend- Challenge | | 10 pts. | |
| TOTAL | | 100 pts | |
| Conduct an Education Outreach Project | | | Up to 10 pts |
| Submit Education/Public Outreach Form | | | |
| BONUS | | | |

Submissions received after 11:59 pm CST on the due date will receive a deduction of 20% for each day they are late.



Competition Awarded Prizes



Grand Prize Award

\$3000 w/invitation to a NASA Center

2nd Place

\$2000

3rd Place

\$1000

Aesthetic Award

Team whose rocket has the most innovative and professional appearance

Team Spirit Award

Team chosen by their peers as the team that shows interactive spirit, helpfulness, and cooperation.

Altitude Award

Team whose actual apogee is closest to the predicted apogee in the Flight Readiness Report.

Judges Award

Team chosen by the judges as the team who met the goals of the program and exemplified hard work and determination

Next Step Award

Up to \$15000 Project/Team Travel Award w/invitation to Student Launch at Marshall Space Flight Center and/or RockOn! at Wallops Flight Facility

Outreach Award

\$500

Patch Design Award

\$100

Team Advisor Stipend

Up to \$1000 (Teams must meet the conditions of participation

Top Advisor

Awarded to an advisor or co-advisor that equips, encourages, and empowers their team to compete with confidence and capabilities that lead to next step opportunities

Top Team Lead

Awarded to the team lead that fulfills their role with excellence

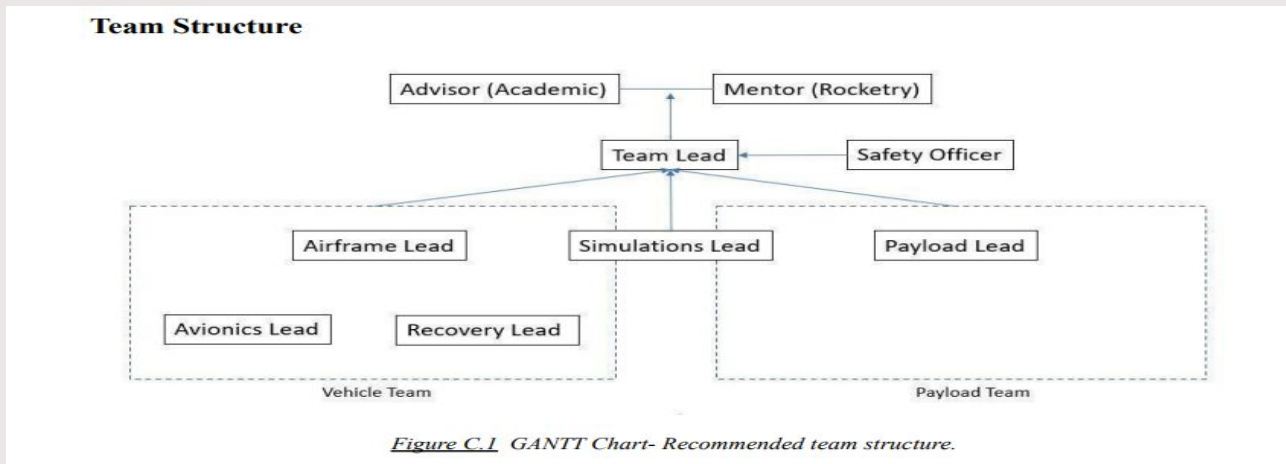
Rookie Team

Awarded to a new team that completes all phases of the rocket competition with determination and perseverance.

Gateway Challenge

Awarded to top performing Gateway team

First Nations Launch Teams



- 4-6 members per team on average
- Advisor
- Meetings/Telecons for assistance, maintain student driven project
- New schools/new advisor: Can be paired up with a veteran advisor
- Team Lead: Meetings/Telecons for assistance
- Team Lead Responsibility: Communication and document submission



Team Recruitment

How do we get students to participate and be engaged this year?

- Coordinate 5-10 minute presentations in classrooms and club meetings
- Hold a virtual recruiting event
 - Max 20 minute presentation
 - Invite FNL alumni (from your institution or another returning team)
- Reach out to other faculty for assistance, ask that they share recruiting emails
- Tap into new applicant pools
- Use the excitement of the L2L Workshop to get Level 1 certification
- Share other ideas in the chat!





Training Video Series

<https://spacegrant.carthage.edu/first-nations-launch/rocket-instructional-videoswebinars/>

- Overview
- Avionics
- Recovery Systems
- Rocket Assembly
- RockSim
- Range and Motor Safety





Launch 2 Learn (L2L): Introductory Rocket Workshop

In-Person @ Carthage College (max 15 participants)

- Recommended for Gateway Challenge/New Teams
 - Up to three individuals maximum per school (one advisor, two students)
 - Travel, lodging, and most meals are provided
 - Workshop Materials provided:
 - Rocket kit, motor, and Tripoli Rocketry Association Level 1 Certification (pending successful certification launch)

Virtually (max 30 participants)

- January 17-18, 2025
 - Request to participate due December 9, 2024
- Up to three individuals maximum per school (one advisor, two students)
- Rocket kit and supplies provided by FNL
- Motor and Tripoli Rocketry Association Level 1 Certification supplies at TRA Certification Launch

REGISTER for the L2L Workshop:

<https://spacegrant.carthage.edu/first-nations-launch/launch-2-learn-rocket-certification-workshop>





Outreach

- One goal of First Nations Launch is to promote science, technology, engineering, and math (STEM) fields through educational opportunities throughout the United States.
 - [Outreach Form](#)



Team Scheduling Guidance

- Create a project schedule early on (can be a Gantt chart, excel spreadsheet or similar) to meet report deadlines
- Schedule will assist with having a safe and successful flight
- Choose a schedule that works best for the entire team (simple or detailed)
- Update the project schedule regularly so you can anticipate any schedule issues early on
- Include concept phase, preliminary phase, design phase, flight readiness, post launch
- Details may include: purchase deadlines, build deadlines, report deadlines
- Project Management Webinar – November 19, 2024



Competition Weekend

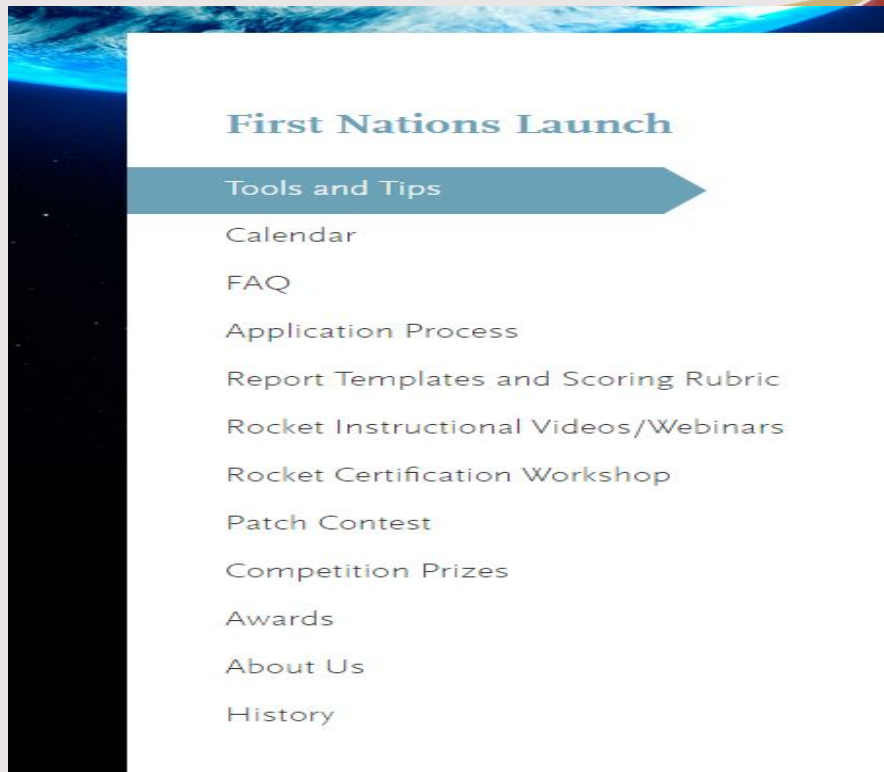
- **Welcome Breakfast**
 - One team to host the icebreaker event
 - ??? - 2025
 - Northern Oklahoma College - 2024
 - Northern Arizona University - 2023
 - University of Hawaii at Manoa - 2022
 - College of Menominee Nation - 2019
- **Special Guests**
 - Bret Benally Thompson - AISES Tribal Elder
 - Professionals leading breakout sessions
- **Motor Build Workshop**
 - 99% Ready to Fly - Limit to Minor Fixes
 - Half-day workshop
- **Breakout Sessions**
 - Special Topics
 - 30-60 minutes presentations
 - Special Topics
- **Rocket Fair**
 - Present your rocket as a team to other teams, judges, and special guests





FNL Website

- Tools and Tips
- Calendar
- FAQ
- Application Process
- Report Templates and Scoring Rubric
- Rocket Instructional Videos/Webinars
- Rocket Certification Workshop
- Patch Contest
- Awards
- About Us
- History





Tools and Tips

- FNL Resources
 - Team Bio Form
 - Team Roster and Lodging Form
- Reimbursement Request Forms
 - Project and Travel Expense Reimbursement Forms
 - Project and Travel Expense Form
 - Instructions
- Travel Guidelines
- First Nations Launch Home Page
 - Competition Handbook
 - Calendar
- Link for forms and additional information
<https://spacegrant.carthage.edu/first-nations-launch/tools-and-tips/>
- General Resources:
<https://spacegrant.carthage.edu/fnl/faq/>

First Nations Launch

Tools and Tips

Calendar

FAQ

Application Process

Report Templates and Scoring Rubric

Rocket Instructional Videos/Webinars

Rocket Certification Workshop

Patch Contest

Competition Prizes

Awards

About Us

History

WSGC NEWS

NASA FUNDING OPPORTUNITY: TEAM II

NASA's Teams Engaging Affiliated Museums and Informal Institutions (TEAM II) program has selected an additional informal education organization to help inspire the next generation of engineers and scientists.

Tools and Tips

FNL Resources

Webinars & Presentations

Reimbursement Request Forms

WSGC Launch 2 Learn Workshop 2022

WSGC Launch 2 Learn Workshop 2021

Workshop Resources

Rocket Resources

Logos

Vendors



Team TRA / NAR Mentors

- Each team requires (can be the same individual)
 - Faculty Advisor (usually non-technical)
 - Certified, active TRA / NAR Rocketry Mentor (experienced in HPR)
- Mentor must be
 - Experienced
 - Active TRA or NAR member (membership number needed)
 - Certified at or above the level of team rocket (L2 or higher)
 - Local to the team with access to a certified launch site
 - Mentor does not need to attend Launch Weekend
- The Advisor Liaison will help teams find a local Mentor
 - Use the TRA / NAR websites to find local clubs/contacts



WSGC Reimbursement

Two Options:

- The FNL team will submit reimbursement requests to WSGC through the University/College.
 - Quarterly Invoice by Institution

OR

- Individuals will submit reimbursement requests to WSGC for supply and travel expenses.
 - March 3, 2025 and May 12, 2025 deadlines
 - Submit digital receipts and reimbursement forms per the reimbursement instructions.

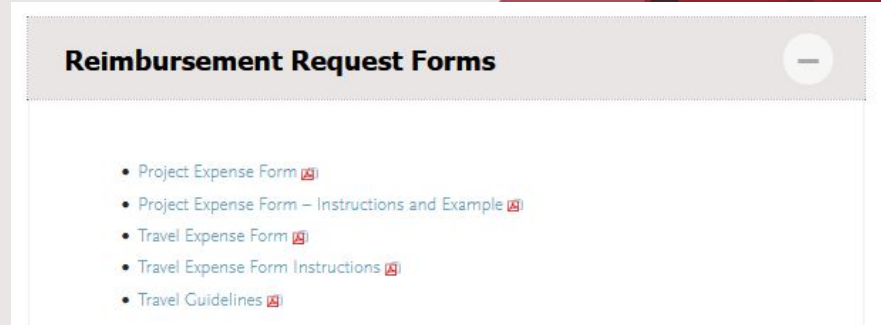


Submitting Reimbursement Requests

Reimbursement request forms available on "Tools & Tips" under "Reimbursement Request Forms"

[Tools and Tips | Wisconsin Space Grant Consortium | Carthage College](#)

- [Project Expense Form](#)
- [Project Expense Form Instructions](#)
- [Travel Expense Form](#)
- [Travel Expense Form Instructions](#)
- [Travel Guidelines](#)





Submitting Reimbursement Requests

- Project reimbursement form
- Travel reimbursement form
- Updated reimbursement forms
 - .655 Mileage
- Incomplete information will be delayed in being submitted for reimbursement
- Email reimbursement forms, along with digital receipts, to WSGC Accounts
wsgc.accounts@carthage.edu

TRAVEL EXPENSE FORM

To receive reimbursement, this form must be submitted by each team member who made a purchase.
NOTE: The team leader cannot be reimbursed for purchases made by team members and then distribute the money.

Email Form and Receipts To: WSGC Accounts
wsgc.accounts@carthage.edu
(262) 551-6054

Please Make Check Payable To: Name:
Address line 1:
Address line 2:
City, State, Zip:

Travel Start Date: Travel End Date: Team Institution:

Travel Purpose:

| Receipt Category | Description | Sun | Mon | Tues | Wed | Thurs | Fri | Sat | Line Total |
|------------------|------------------------|-----|-----|------|-----|-------|-----|-----|------------|
| 1 | Mileage Total | | | | | | | | |
| | miles x 0.655 | | | | | | | | \$ 0.00 |
| 2 | Air/Rail Fare | | | | | | | | \$ 0.00 |
| 3 | Baggage Fee(s) | | | | | | | | \$ 0.00 |
| 4 | Rental Car | | | | | | | | \$ 0.00 |
| 5 | Uber/Lyft/Taxi/Metro | | | | | | | | \$ 0.00 |
| 6 | Parking/Tolls | | | | | | | | \$ 0.00 |
| 7 | Misc. Ground Transport | | | | | | | | \$ 0.00 |
| 8 | | | | | | | | | |

PROJECT EXPENSE FORM

To receive reimbursement, this form must be submitted by each team member who made a purchase.
NOTE: The team leader cannot be reimbursed for purchases made by team members and then distribute the money.

Email Form and Receipts To: WSGC Accounts
wsgc.accounts@carthage.edu
(262) 551-6054

Please Make Check Payable To: Name:
Address line 1:
Address line 2:
City, State, Zip:

Team Institution:

| Rcpt #: | Date | Vendor/Store | Description | Amount |
|---------|------|--------------|-------------|--------|
| | | | | |
| | | | | |
| | | | | |



Patch Contest

- FNL participants can enter
- Details and template available on website
- <https://spacegrant.carthage.edu/first-nations-launch/patch-contest>
- Entries Due February 17, 2025



Evie Clark, University of Colorado, Boulder
2024 Winning Design
2024 Theme: Deployable Payloads



Janna Steen, Nueta Hidatsa Sahnish College
2020 Winning Design
2020 Theme: Moon Capsule and Moon Lander Vehicle



Alex Armendariz, Cal Poly Pomona
2021 Winning Design
2021 Theme: Moon Warning Sensor System



Evie Clark, University of Colorado, Boulder
2022 Winning Design
2022 Theme: Moon GPS and Mars Cold Gas Thruster



Peyton Meader, Massachusetts Institute of Technology
2023 Winning Design
2023 Theme: Lightweight Rocket Fabrication

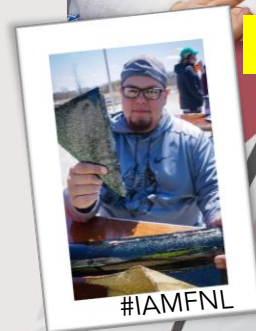


#IAMFNL

- Send #IAMFNL a 30-second video clip
- Send #IAMFNL photos
- Tag Wisconsin Space Grant Consortium in videos and photos
- Tell your story about how FNL has made a difference
- Be featured during launch weekend



#IAMFNL



#IAMFNL



LAUNCH: A DOCUMENTARY FEATURE

[*september.club/film/launch/*](https://september.club/film/launch/)





Moon Mars Proposal Milestone Next Steps

- Virtual Discussions this week, sign up:
- <https://calendar.app.google/DNTnqYRPHSnuPxKV6>

FNL - First Nations Launch Competition

FNL25 Proposal Virtual Discussion

🕒 15 min appointments

Select an appointment time

October 2024

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| 29 | 30 | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |

| WED 30 | THU 31 | FRI 1 |
|-----------|-----------|----------|
| 5:20pm | 5:00pm | 5:00pm |
| 5:40pm | 5:20pm | 5:20pm |
| 6:00pm | 5:40pm | 5:40pm |
| 6:20pm | 6:00pm | 6:00pm |
| 6:40pm | 6:20pm | 6:20pm |
| 7:00pm | 6:40pm | 6:40pm |
| 7:20pm | 7:00pm | 7:00pm |
| 7:40pm | 7:20pm | 7:40pm |
| — | 7:40pm | — |



Any Questions?

