



Spaceport America Cup: Intercollegiate Rocket Engineering Competition (IREC)

2023 Integrated Master Schedule Document

Note: Team and Student tickets for Spaceport America Cup: Intercollegiate Rocket Engineering Competition are sold by the Experimental Sounding Rocket Association (ERSA) and not via Spaceport America. Proceeds from ticket sales directly benefit ESRA. ESRA is a registered 501(c)(3) non-profit organization dedicated to fostering and promoting engineering knowledge and experience in the field of rocketry. See www.soundingrocket.org for more information.

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1.0 INTRODUCTION

The Experimental Sounding Rocket Association (ESRA) and the New Mexico Spaceport Authority (aka Spaceport America) have partnered to host and support the Spaceport America Cup: Intercollegiate Rocket Engineering Competition, a week-long series of events which will set the background and provide structure for the world's largest university rocket engineering competition. This host-event continues the Intercollegiate Rocket Engineering Competition's (IREC) legacy of inspiring student design teams from across the country and around the world.

1.1 BACKGROUND

The “smoke and fire,” noise, high speeds, and sleek aerodynamics of rocketry encourage students to pursue science, technology, and mathematics based careers. They have "Rocket Fever!", and competition motivates them to extend themselves beyond the classroom to design and build the rockets themselves. These students also learn to work as a team, solving real world problems under the same pressures they'll experience in their future careers.

ESRA held the first annual IREC in 2006. The competition achieved international status in 2011 when Canadian and Brazilian universities threw their hats in the ring. These schools have since been joined by others from every inhabited continent. In fact, the competition has roughly doubled in size every year since 2013, becoming the largest known collegiate level rocket engineering competition in the world in 2014. Attendance in 2016 included as many as 600 participants – including faculty, family, and friends of students from over 50 colleges and universities. 2017 marked the start of a new era with the inaugural Spaceport America Cup. Over 1,100 students, faculty, and representatives from 22 industry partners participated in an academic conference, rocket and payload engineering competitions, and non-competing demonstration flight tests.

1.2 PURPOSE AND SCOPE

This document primarily defines the schedule on which participants in the Spaceport America Cup: Intercollegiate Rocket Engineering Competition must submit required deliverables to the event organizers in order to be considered "timely" in scoring. The impact of timeliness on scoring is described for each respective deliverable in Section 2.6 of the *IREC Rules & Requirements Document*, maintained on the ESRA website (<http://www.soundingrocket.org/sa-cup-documents--forms.html>).

Furthermore, this document, integrates other information useful to participants, such as the deadlines for early, on-time, or late-payment of fees, due dates for required waivers/forms, and the detailed event schedule of the Spaceport America Cup itself.

1.1 REVISION

The Integrated Master Schedule Document is a living document and will be updated as needed throughout the year leading up to the Spaceport America Cup – at the event itself if necessary – in response to real-world events. The most up to date version will always be maintained on the ESRA website (<http://www.soundingrocket.org/sa-cup-documents--forms.html>). Participants should always verify they are working to the correct version by checking the Effective Date recorded on the header of their copy matches the version currently stored on the ESRA website. Updates to the SAC Integrated Master Schedule Document will always be announced via e-mail and other means.

NOTE: The event organizers will never revise the SAC Integrated Master Schedule Document to make the due dates of upcoming deliverables sooner than originally scheduled.

1.2 DOCUMENTATION

The following documents include standards, guidelines, schedules, or required standard forms. The documents listed in this section are either applicable to the extent specified in this document or contain reference information useful in the application of this document.

DOCUMENT	FILE LOCATION
IREC Rules & Requirements Document	http://www.soundingrocket.org/sa-cup-documents--forms.html
SA Cup Range Standard Operating Procedures	http://www.soundingrocket.org/sa-cup-documents--forms.html
IREC Forms and Templates	http://www.soundingrocket.org/sa-cup-documents--forms.html

2.0 IREC DELIVERABLES SCHEDULE AND OTHER IMPORTANT PRE-EVENT DATES

The following table records the schedule on which participants in the Spaceport America Cup: Intercollegiate Rocket Engineering Competition must submit required deliverables to the event organizers in order to be considered "timely" in scoring, as well as the due dates for competition fees and required waivers/forms. Unless otherwise specified, all times given are Mountain Standard Time due to the location of the event in New Mexico.

All deliverables are now managed via the Spaceport America Cup 2023 Hero^X challenge page at: <https://www.herox.com/SpaceportAmericaCup2023>

DATE	ACTION(S)
0100 01 OCT 2022	Entry Application window begins per Section 2.6.1 of the <i>IREC Rules & Requirements Document</i> https://www.herox.com/SpaceportAmericaCup2023
1700 16 OCT 2022	Entry Application window closes per Section 2.6.1 of the <i>IREC Rules & Requirements Document</i> https://www.herox.com/SpaceportAmericaCup2023
2000 28 OCT 2022	Acceptance Announcement per Section 2.6.1 of the <i>IREC Rules & Requirements Document</i> https://www.herox.com/SpaceportAmericaCup2023
1700 16 DEC 2022	Submit 1 st Interim Progress Update per Section 2.6.1 of the <i>IREC Rules & Requirements Document</i> https://www.herox.com/SpaceportAmericaCup2023
1700 16 DEC 2022	\$300 Entry Deposit fee* is due using the payment link provided on the IREC Fees webpage of the ESRA website: https://www.soundingrocket.org/irec-fees.html *fees are payable to ESRA
1700 17 FEB 2023	Submit 2 nd Interim Progress Update per Section 2.6.1 of the <i>IREC Rules & Requirements Document</i> https://www.herox.com/SpaceportAmericaCup2023

1700 21 APR 2023	The \$300 Entry Deposit fee is no longer refundable if paid after this date, or if a team who has paid announces their intention to withdraw after this date.
	This is the on-time payment deadline for the \$700 Rocket Fee. This fee increases to \$900 for late-payment. The Rocket Fee will be paid using the payment link provided on the IREC Fees webpage of the ESRA website http://www.soundingrocket.org/irec-fees.html *fees are payable to ESRA
	This is the on-time payment deadline for the \$75 individual Rocketeer Fee. This fee increases to \$90 for late-payment. Each participant will pay using the payment link provided on the IREC Fees webpage of the ESRA website http://www.soundingrocket.org/irec-fees.html *fees are payable to ESRA
	Submit 3rd Interim Progress Update per Section 2.6.1 of the <i>IREC Rules & Requirements Document</i> . <i>Scheduled Video Reviews should be coordinated to be completed no later than May 10th.</i> https://www.herox.com/SpaceportAmericaCup2023
1700 12 MAY 2023	Submit Project Technical Report per Section 2.6.2 of the <i>IREC Rules & Requirements Document</i> https://www.herox.com/SpaceportAmericaCup2023
	Submit Poster Session Materials per Section 2.6.3 of the <i>IREC Rules & Requirements Document</i> https://www.herox.com/SpaceportAmericaCup2023
	Submit Podium Session Materials per Section 2.6.4 of the <i>IREC Rules & Requirements Document</i> - Slide Deck and Extended Abstract https://www.herox.com/SpaceportAmericaCup2023
	Submit School Participation Letter per Section 2.6.5.1 of the <i>IREC Rules & Requirements Document</i> https://www.herox.com/SpaceportAmericaCup2023

3.0 SPACEPORT AMERICA CUP EVENT SCHEDULE OVERVIEW

The following table records the detailed schedule of events for the Spaceport America Cup. Unless otherwise specified, all times given are Mountain Daylight Time (MDT). The Spaceport America Cup will be held at Spaceport America and Las Cruces, New Mexico. Detailed schedules of each day’s events are provided in the following sections.

DATE	EVENT(S)
<p>Monday 19 JUN 2023 Las Cruces Convention Center</p>	<p>Team Registration and Rocketeer Check-in: Check-in begins at 10am MDT at the Las Cruces Convention Center. All student rocketeers, mentors and Fliers of Record for each team should arrive at the Arena NO LATER THAN 5pm MST.</p> <ul style="list-style-type: none"> ● Confirmation of team/student fees payment ● Confirmation of Tripoli membership (as required) ● Student rocketeer passes and car passes ● Distribution of T-Shirts and Team Swag ● Team Photo (WEAR YOUR TEAM SHIRTS) ● Rocket Safety Reviews <p>Teams unable to check in on Monday, must check in on Tuesday morning. Late Check Ins will have points deducted from their score. Team checking in on Tuesday will also experience long lines and limited availability of correct T-shirt sizes, etc.</p> <p>Event Staff, Judge, and Volunteer Coordination Kick-off Meeting: All event staff, Range Safety and Launch Operations team members, judges, and volunteers will meet at the Las Cruces Convention Center at 6pm MDT for a coordination kick-off meeting. ESRA Leadership team will brief the teams on the schedule of activities, distribute necessary materials, and answer all questions from those assembled. (This meeting is Not for Students)</p> <p>Mass Group Photo: All participants will gather for group photos outside the Las Cruces Convention Center, opting for themselves whether or not to include their projects. ESRA Volunteer/Staff group photos will be directly afterward.</p>
<p>Tuesday 20 JUN 2023 Las Cruces Convention Center</p>	<p>Opening Ceremony, Conference Day Podium and Poster Sessions: Held at the Las Cruces Convention Center, the Conference Day gives students, judges, recruiters, the public, and media a chance to see all the projects.</p> <p>Judges will begin evaluating all projects for the "category place awards", "team conduct awards" and "overall winner award" defined in the <i>IREC Rules & Requirements Document</i>.</p> <p>Judges will begin evaluating projects accepted into the podium session for special "technical awards" defined in the <i>IREC Rules & Requirements Document</i>.</p> <p>ESRA Volunteer Pizza Social: ESRA volunteers are invited to gather at the Marriott Courtyard lobby following the Mass Photo for a pizza social. Pizza and soft drinks provided by ESRA. Hotel Bar is open for libations and other food options.</p>

<p>Wednesday 21 JUN 2023 Spaceport America Vertical Launch Area</p>	<p>Launch Preparations and Design Implementation Evaluation: While being judged and monitored for flight safety concerns, all teams will spend the day on-site at the Spaceport America Vertical Launch Area (VLA), setting up the Rocket Assembly Area(s), assembling their systems, and troubleshooting components in preparation for launch.</p> <p>Early Launch Opportunity: Teams who have received Final Launch Safety approval can proceed to Launch and recovery operations no earlier than 12 noon.</p>
<p>Thursday 22 JUN 2023 Spaceport America Vertical Launch Area</p>	<p>Launch Day: Launch and recovery operations will occur on-site at the Spaceport America VLA.</p>
<p>Friday 23 JUN 2023 Spaceport America Vertical Launch Area</p>	<p>Launch Day: Launch and recovery operations will occur on-site at the Spaceport America VLA. There will be spectator viewing areas set up and teams will be able to display their rockets after recovery.</p> <p>TEAMS THAT HAVE NOT COMPLETED FLIGHT SAFETY REVIEW BY NOON (MDT) ON FRIDAY WILL NOT BE PERMITTED TO FLY FOR THE REMAINDER OF THE COMPETITION</p>
<p>Saturday 24 JUN 2023 Spaceport America Vertical Launch Area and Pan American Center in Las Cruces</p>	<p>Final Launch Day: Launch and recovery operations will occur on-site at the Spaceport America VLA.</p> <p>Site Cleanup: All teams support cleanup of the Rocket Assembly Area(s) and immediate surroundings to remove equipment and properly dispose of trash, discarded material, etc. To care for this land, the goal is to leave it in better condition than when we arrived!</p> <p>Awards Ceremony: To be held at the Pan American Center in Las Cruces Saturday evening. For participants, family, friends, faculty, and media.</p>

3.1 SUNDAY, JUNE 18, 2023 SCHEDULE DETAILS

Note: All times recorded below are subject to change by ESRA as needed based on extenuating circumstances. ESRA will make every attempt to communicate schedule changes in advance; however, we ask that teams remain flexible and adaptable to changes if/when they occur.

TIME (MDT)	EVENT(S)
<p>Sunday, June 18, 2023 10:00am-5:00pm</p> <p>Vertical Launch Area at Spaceport America</p>	<p>Hybrid and Liquid Teams Ground Support Equipment Set Up (Optional):</p> <p>Hybrid and Liquid Category Student Teams may begin setting up their Ground Support Equipment at the Vertical Launch Area at Spaceport America</p> <p>Teams must coordinate with their ESRA Hybrid Safety Team before arriving to be included on the Security Access List.</p> <p>Any ordered gasses may not arrive until Monday or Tuesday. Check with your ESRA Safety Team for additional details.</p> <p><u>IMPORTANT:</u> All participants shall carry their respective form of government issued photo ID with them at all times, while on Spaceport America property. Spaceport America Protective Services personnel may request a participant's ID at any time to confirm the individual's identity.</p>

3.2 MONDAY, JUNE 19, 2023 SCHEDULE DETAILS

Events scheduled include Check-in for Rocketeers, and a Coordination Kick-off Meeting for all Event Staff, Judges, and Volunteers. Check-in occurs and the Event Staff meetings will occur at the Las Cruces Convention Center

Note: All times recorded below are subject to change by ESRA as needed based on extenuating circumstances. ESRA will make every attempt to communicate schedule changes in advance; however, we ask that teams remain flexible and adaptable to changes if/when they occur.

TIME (MDT)	EVENT(S)
<p>Monday 10:00am-4:00pm (or last in line)</p> <p>Las Cruces Convention Center</p>	<p>Student Team Check-in and Poster Area Set up:</p> <p>Student Team Check-in begins at 10am MDT at the Las Cruces Convention Center. All the student rocketeers, mentors and Flier of Record for each team should arrive at the Pan Am Center NO LATER THAN 5pm MDT.</p> <ul style="list-style-type: none"> ● Confirmation of team/student fees payment ● Confirmation of Tripoli/NAR membership (as required) ● Student rocketeer passes and car passes ● Student T-Shirts and Cup Swag ● Team Photo ● Recovery team safety briefing ● Set up Team Display and Poster Presentation Tables ● Rocket Safety Reviews <p>IREC Teams will be directed to bring their poster displays, project hardware, and any other materials through the rear entrances or through the cargo dock. Teams will find tables assigned to them.</p> <p>Eight-foot-long tables are provided for each team. Space will be VERY LIMITED. All tables will be numbered and assigned. All manner of standing displays (e.g. roll-ups, spider frames, etc.) are permitted as long as they do not interfere with other teams' displays or create a safety hazard. Teams unable to check in on Monday, may check in on Tuesday, but will have points deducted from their score. Team checking in on Tuesday will also experience long lines, limited availability of correct T-shirt sizes, etc.</p> <p><u>IMPORTANT:</u> All participants shall carry their respective form of government issued photo ID with them at all times, while on Spaceport America property. Spaceport America Protective Services personnel may request a participant's ID at any time to confirm the individual's identity.</p>
<p>Monday 4:00pm</p> <p>Las Cruces Convention Center</p>	<p>Group Photo:</p> <p>At 4:30 PM MDT, a mass group photo will be taken outside the Conference Center. Teams not ready at 4:15 PM will not be in the photo. It is the team's responsibility to be ready at 4:15 PM. Rockets are optional. Teams can bring school and/or national flags. There will be two photos - one with school and/or national spirit, and one without.</p>

<p>Monday 6:00pm-10:00pm (or last question)</p> <p>Las Cruces Convention Center</p>	<p>Event Staff, Judge, and Volunteer Coordination Kick-off Meeting:</p> <p>Event Staff, Judges, and Volunteer Coordination Kick-off Meeting: All event staff, Range Safety and Launch Operations team members, judges, and volunteers will meet Las Cruces Convention Center at 6pm MDT for a coordination kick-off meeting. ESRA Leadership team will brief the team on the coming schedule of activities, distribute necessary materials, and answer all questions from those assembled. (This meeting is Not for Students)</p> <p><u>IMPORTANT:</u> All students, event staff, judges, and volunteers must always wear their badges during the convention or while on Spaceport America property. Badges shall be worn where they are clearly visible – clipped either to a garment or a provided lanyard or above the waist. Only vehicles (not including trailers) with a vehicle placard will be admitted onto Spaceport America property. Placards shall be displayed prominently – either on top of the dashboard or hanging from the rearview mirror.</p>
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1.3 TUESDAY, JUNE 20, 2023 SCHEDULE DETAILS

Events scheduled include Conference Day Proceedings and late check-in. The Conference Day Proceedings will occur at the Las Cruces Convention Center

Time (MDT)	EVENT(S)
<p>Tuesday 6:00am-7:00am Las Cruces Convention Center</p>	<p>Continued Student Team and Sponsor Area Set-up:</p> <p>Spaceport America Cup sponsors, recruiters, vendors, exhibitors and IREC teams will set-up their displays and booths in specified areas.</p> <p>Sponsors, recruiters, vendors, exhibitors will enter through the front entrance to set up at designated locations. A table and chairs are provided for each Sponsor area.</p> <p>Any sponsors or IREC Teams who do not finish setting up their booth prior to the Kick-off All-hands Briefing at 0700, may continue setting up after the briefing.</p> <p><u>IMPORTANT:</u> All students, event staff, judges, and volunteers must always wear their badges during the convention or while on Spaceport America property. Badges shall be worn where they are clearly visible – clipped either to a garment or a provided lanyard or above the waist. Only vehicles (not including trailers) with a vehicle placard will be admitted onto Spaceport America property. Placards shall be displayed prominently – either on top of the dashboard or hanging from the rearview mirror.</p>
<p>Tuesday 7:00am-8:00am Las Cruces Convention Center</p>	<p>Kick-off All-hands Briefing:</p> <p>All event attendees will gather within the arena for the official opening of the Spaceport America Cup. There will be plenty of seats for everyone. Representatives from ESRA and Spaceport America will introduce themselves, acknowledge sponsors, provide general safety info, and any additional updates. A Keynote Address will be given.</p>
<p>8:00am-8:30am Las Cruces Convention Center</p>	<p>Team Officers, Mentors, Flyers of Record & Faculty Briefing:</p> <p>Each team should have the two most senior members, Mentors, Flier of Record and faculty advisors (if present) for a detailed briefing on the launch operations procedures for the event. There will be a Q & A session during this briefing.</p>

Time (MDT)	EVENT(S)
9:00am-5:00pm Las Cruces Convention Center	Late Check-in: Any teams which did not check-in on Monday, must <u>check in during the conference day</u> . Please refer to details recorded in Section 3.3 of this Document under “Registration Day” for check-in requirements.
9:00am-5:00pm Las Cruces Convention Center	Doors open to the general public:
9:00am-5:00pm Las Cruces Convention Center	Conference Poster Session: IREC Team Poster Displays, project hardware, and other materials on display in the Exhibit Hall all-day offer students, judges, recruiters, the general public, and media a chance to see all the projects. At least one member of the team must be present with their display at all times, both to supervise the booth and engage with any visiting event attendees.
9:00am-11:00am Las Cruces Convention Center	Conference Podium Session: There will be two areas designated for Technical Podium Presentations. Each area will concurrently host student presentations. Each presentation is expected to be twenty minutes long with an additional five minutes allotted for Q&A. There may be as many as 24 such presentations – 12 in each area.
11:00am-12:00pm	Podium Session pauses while the judging panel breaks for lunch
12:00pm-5:00pm Las Cruces Convention Center	Conference Podium Sessions Resume
4:00pm-5:00pm Las Cruces Convention Center	Tear Down: All Spaceport America Cup sponsors, recruiters, vendors, exhibitors and IREC teams should remove their displays from the Pan Am Center by 6:30 PM MDT, remembering to break to join the group photo at 5:30pm. Teams may pack up as much as they need to before and/or after the photo.
5:00pm Las Cruces Convention Center Closed	ALL TEAMS MUST EXIT THE BUILDING, NO RE-ENTRY
6:00pm-10:00pm Marriott Courtyard (across the street from Convention Center)	ESRA Staff, Judge and Volunteer Pizza Dinner: ESRA Staff, Judges, and Volunteers will meet for a working dinner at the Marriott Courtyard across the street from the convention center.. ESRA personnel will de-brief each other following the Conference Day, and coordinate on the next day’s activities at the Spaceport.

3.3 WEDNESDAY, JUNE 21, 2023 SCHEDULE DETAILS

Events scheduled include Event Setup at the Spaceport, Launch Preparations, and an opportunity for any well organized teams using solid propulsion to attempt flight. All these events will occur on Spaceport America Property. The Spaceport is located on County Road A021, Truth or Consequences, NM 87901. More specific driving directions will be provided during the Team Officers & Faculty Briefing at the Conference. Once at the Spaceport participants will be heavily assisted in reaching their appropriate locations by ESRA and Spaceport America personnel.

TIME (MDT)	EVENT(S)
7:00am Spaceport America VLA	Gates open: The gate to Vertical Launch Area (VLA) opens at 6:00am. Teams may begin showing up no earlier than 6:00am – Spaceport America security staff will direct the participants to the VLA. Spaceport Security will establish the participant parking and rocket assembly areas.
10:00am-10:30am Spaceport America VLA	Morning Flyer Meeting: <u>All Team Project Managers and Safety Officers must meet for mandatory Flyer's Meeting each morning until they complete their flight.</u> These morning meetings cover launch operations, safety instructions and any updates to procedures that have been made. It is the responsibility of the team project manager and safety officer to disseminate the information to all team members. Students attending the Flyers Meeting should expect to take notes.
10:00am-4:30pm Spaceport America VLA	Launch Preparations and Judging Evaluations: Once the Rocket Assembly Area is established, participants will begin preparing their projects for flight. Judging and Range Safety Evaluations not completed by this afternoon, will continue the next day.
12:00pm-4:30pm Spaceport America VLA	Range open for launch operations: ESRA anticipates both staff and students being prepared to support launches no earlier than 12 noon.
5:30pm-6:00pm Spaceport America VLA	Evening Flyer Meeting: Mandatory for all teams attempting to launch early the following morning before the next scheduled Morning Flyer Meeting, and any other team told to attend by event staff. Optional to all other teams. On Wednesday, this is mandatory for all high altitude launches – which will attempt flight early Thursday morning This briefing will be similar to the Morning Flyer's Meeting., but will also act as a way for teams and ESRA to give feedback to one another.
4:30pm-5:00pm Spaceport America VLA	Judges Coordination Meeting: Judges will convene in the VLA for a quick debrief of the first day and prepare for the next day's launch operations.
10:00pm Spaceport America VLA	Spaceport America VLA Gates Close - All Students must depart the VLA. Camping isn't allowed.

3.4 THURSDAY, JUNE 22, 2023 SCHEDULE DETAILS

Events scheduled include launch operations and the resolution of any judging activities not completed the previous day. All these events will occur on Spaceport America Property.

TIME (MDT)	EVENT(S)
6:00am Spaceport America VLA	Spaceport America VLA Gates Open
8:30am-9:00am Spaceport America VLA	Morning Flyer Meeting: <u>All Team Project Managers and Safety Officers must meet for mandatory Flyer's Meeting each morning until they complete their flight.</u> These morning meetings are to cover launch operations, safety instructions and any updates to procedures that have been made. It is the responsibility of the team project manager and safety officer to disseminate the information to all team members. Students attending the Flyers Meeting should expect to take notes.
9:00am-4:30pm Spaceport America VLA	Range open for launch operations: ESRA anticipates both staff and students being prepared to support launches no earlier than 0600. Launches will not commence until the sun rises over the mountains and the RSO has officially approved launches can proceed.
5:30pm-6:00pm Spaceport America VLA	Evening Flyer Meeting: Mandatory for all teams attempting to launch early the following morning before the next scheduled Morning Flyer Meeting, and any other team told to attend by event staff. Optional to all other teams. On Wednesday, this is mandatory for all high altitude launches – which will attempt flight early Thursday morning This briefing will be similar to the Morning Flyer's Meeting., but will also act as a way for teams and ESRA to give feedback to one another.
4:30pm-5:00pm Spaceport America VLA	Judges Coordination Meeting: Judges will convene in the VLA for a quick debrief of the first day and prepare for the next day's launch operations.
10:00pm Spaceport America VLA	Spaceport America VLA Gates Close - All Students must depart the VLA. No camping is allowed

3.6 FRIDAY, JUNE 23, 2023 SCHEDULE DETAILS

Events scheduled include launch operations and the resolution of any judging activities not completed the previous day. All these events will occur on Spaceport America Property.

TIME (MDT)	EVENT(S)
6:00am Spaceport America VLA	Spaceport America VLA Gates Open
8:30am-9:00am Spaceport America VLA	<u>Morning Flyer Meeting:</u> These morning meetings are to cover launch operations, safety instructions and any updates to procedures that have been made. It is the responsibility of the team project manager and safety officer to disseminate the information to all team members. Students attending the Flyers Meeting should expect to take notes.
9:00am-4:30pm Spaceport America VLA	<u>Range open for launch operations:</u> ESRA anticipates both staff and students being prepared to support launches no earlier than 0600. Launches will not commence until the sun rises over the mountains and the RSO has officially approved launches can proceed. Any remaining teams unable to fly on Friday are at a <u>VERY HIGH RISK of not launching on Saturday.</u>
5:30pm-6:00pm Spaceport America VLA	<u>Evening Flyer Meeting:</u> Mandatory for all teams attempting to launch early the following morning before the next scheduled Morning Flyer Meeting, and any other team told to attend by event staff. Optional to all other teams. On Wednesday, this is mandatory for all high altitude launches – which will attempt flight early Thursday morning This briefing will be similar to the Morning Flyer's Meeting., but will also act as a way for teams and ESRA to give feedback to one another. <u>Flight Safety Review Cutoff:</u> Teams that have not completed flight safety review by this time will not be permitted to fly for the remainder of the competition. Teams who fly on Saturday <u>may not receive a score for their flight due to delays in getting the data to the judges.</u>
4:30pm-5:00pm Spaceport America VLA	<u>Judges Coordination Meeting:</u> Judges will convene in the VLA for a quick debrief of the first day and prepare for the next day's launch operations.
10:00pm Spaceport America VLA	Spaceport America VLA Gates Close - All Students must depart the VLA. No camping is allowed

3.7 SATURDAY, JUNE 24, 2023 SCHEDULE DETAILS

Events scheduled include launch operations, final judging deliberations, and the Awards Ceremony.

TIME (MDT)	EVENT(S)
6:00am Spaceport America VLA	Spaceport America VLA Gates Open
7:00am-12:00pm Spaceport America VLA	<p><u>Range open for launch operations:</u> Launches will not commence until the sun rises over the mountains and the RSO has officially approved launches can proceed.</p> <p><u>IMPORTANT</u> - The final remaining rockets ready to fly must be on the pads by 11:00am. All flights must be launched before 12:00pm when the waiver officially closes and the airspace is returned to White Sands control.</p> <p><u>IMPORTANT</u> - Teams who fly on Saturday <u>may not receive a score for their flight due to delays in getting the data to the judges.</u> Data Recovery must have your flight apogee data and status before 12:00pm in order to provide it to the judges committee for consideration.</p> <p>The Launch Window closes at 12n. Any team who has not cleared RSO inspection and the Final Checkpoint by <u>10am Saturday</u> morning will not get to launch. Any team showing up to the Rangehead with your rocket at 12n for inspection will be turned away. DO NOT WAIT UNTIL THE FINAL DAY TO LAUNCH!!!</p>
7:00am-7:30am Spaceport America VLA	<p><u>Morning Flyer Meeting:</u> <u>Any remaining teams who need to fly should attend.</u></p>
12:00pm-3:00pm Spaceport America VLA	<p><u>Range Close and Site Cleanup:</u> ESRA will start packing up any non-essential resources. This includes any rails and launch equipment that will not be needed, ESRA tents, etc.</p> <p>ESRA will be asking for volunteers from the teams over the PA system to help make this quicker. ESRA asks that each team provide one or two people to assist in range tear down. The goal is to leave the area in better condition than when we arrived!</p>
12:00pm-4:00pm Spaceport America Special Operations Center (SOC)	<p><u>Judges meet for final deliberations:</u> All scored flights must have been recovered and completed post-flight processing no later than 12:00pm.</p>

TIME (MDT)	EVENT(S)
3:00pm-5:00pm Spaceport America VLA	<u>Hard Range Close and Site Cleanup:</u> ESRA will ask for one last wave of volunteers to help pack up all remaining equipment. The goal is for the last vehicle to be leaving no later than 5pm for Las Cruces. If all the teams pitch in a couple volunteers, the process will proceed quickly and everyone will have a chance to go back to town, eat dinner, and clean themselves up for the awards ceremony.
6:00pm – 6:30pm Pan American Center in Las Cruces	<u>Pan American Center in Las Cruces Doors Open</u> - Social time and gathering for all attendees. Watch videos submitted from teams for the Video Challenge
6:30pm – 8:30pm Pan American Center in Las Cruces	<u>Spaceport America Cup Awards:</u> Featuring keynote speakers, closing remarks will be made, music will be played, and winners of all competitions and categories will be announced.