Vandenberg Breaks Down Barriers in Support of Commercial Space Companies

Lompoc, CA –SPACE NEWS - Vandenberg Space Force Base has launched TurboLaunch, a new application process and website that streamlines the initial requirements process for commercial launch companies.   The new process makes it easier for companies to begin launch operations, ensure a predictable schedule and optimize cost. TurboLaunch consolidates repetitive application requirements, formerly found across a dozen departments and thousands of pages of documentation, by reducing the application process to a series of detailed questions and answers about the proposed launch operation.

Traditionally, gaining approval to launch at Vandenberg Space Force Base is complex, expensive, and time consuming for first time launchers. It takes three years, on average, for new companies to receive approval from initial contact with range personnel to the first launch attempt. It costs an average of $1 million to achieve approval, not including the cost of the vehicle and payload. To gain approval, applicants must process upwards of a thousand pages of disparate, technical requirements through multiple base departments. Each department has a different submission process and documentation review requirements for initial assessment that range from vehicle performance, environmental approvals, to trajectory planning. This translates to uncertainty for new launch customers when it comes to cost and schedule.

TurboLaunch changes all this, allowing commercial launchers to leverage a new web-based application. TurboLaunch represents a single, authoritative source to qualify for support resources and to speed progress through launch planning and operational approval. TurboLaunch enables launchers to input and update an information model representing the proposed launch activity mapped directly to range requirements. TurboLaunch provides a single point for entering information, and guides the applicant through the submission process. The previous 365 page 'Range User's Handbook' and the dozens of associated submission forms are now a series of prompts that create a single coherent application interface.

 "The U.S. Government is committed to accelerating the commercialization of space launch and in-orbit capabilities to stay competitive with other nations," said Gen William T Riker, USSF Chief of Space Operations. "The U.S. Space Force needs resilient, rapid, repeatable, transparent launch capability to ensure access so that the U.S. warfighter maintains the advantage. Commercial launch customers are responding by developing new, innovative vehicles that they intend to develop, test and launch on aggressive schedules but are met with legacy processes and information management systems. We need to meet our launch partners' innovation with our own by creating modern, customer friendly solutions."

TurboLaunch also provides applicants with 'smart' suggestions to common design and operational inputs that will reduce their time and cost to launch. Customers are presented with proven configurations of launch patterns that have occurred successfully in the past. Examples of these types of configurations include known propulsion systems, launch configurations, telemetry frequency coordination, autonomous flight safety systems, and operational patterns that can translate into confidence for activities like environmental approval and range safety evaluations. Applicants can still opt to submit new and innovative launch patterns in TurboLaunch with the disclosure that it will likely impact their timeline and resourcing requirements further into the launch application process.

Robb Rocket, chief engineer at Breeze Rockets, had this to say: "VSFB's TurboLaunch interview process led us through the application with relevant questions and guidance resulting in a streamlined digital approval process in record time with minimal resources. TurboLaunch expert advice made design suggestions that achieved the base's SoS (Statement of Support) in less than 3 months, half the usual time, and gave us clarity on launch schedule and budgets for the next phases. This contrasts with our previous experience with a complex and confusing process requiring many forms to be completed by hand, submitted across multiple departments with a fragmented and often hidden approval process. Our first launch is scheduled for Jan 1st, 2023, just 18 months after our initial contact with the base and we expect progress to accelerate as we gain experience. Vandenberg knows the way to space!"

To learn more about launching commercial payloads at Vandenberg, visit www.vandenberg.spaceforce.mil/turbolaunch

Customer FAQ (Commercial Launchers):

Q: How much does this cost?

A: *TurboLaunch.com account creation, educational resources, and application submission are free of charge.*

Q: Can we get access to TurboLaunch prior to approaching or interacting VSFB?

A: *No. Access to TurboLaunch is predicated on a basic onboarding process including due diligence of your launch company and personnel. Once that is complete, you are free to use the service without any further requirements to interact with range personnel until you are ready to proceed with submitting a Program Introduction, prior to the issuance of a Statement of Support.*

Q: What is the 'qualification bar' and how do we know if we've met it before we submit?

A: *Similar to similar commercial software offerings that simplify government information gathering on topics like income taxes, TurboLaunch includes a progress bar to visualize progress towards completion of documentation towards a Statement of Support (SoS).*

Q: What will you do with our data and how will you protect it? Our technology and approach is proprietary and we are concerned this could end up in our competitor's hands.

A: *Your data will be collected, stored, and processed on the FedRamp certified infrastructure and will be treated as proprietary and protected as it always has. We do maintain the right to anonymize common launch patterns and the performance of those launch patterns at the range (cost and time to launch) to provide better insights and early design interventions to our staff and other range customers.*

Q: Will this application process work at the other U.S. ranges as well, like the Eastern Range?

A: *We anticipate a roll-out to other ranges by 2023. Your profile and submission/record history will carry over though each range may require additional submission requirements.*

Q: The PR mentions that we will have functional Points of Contact assigned. When do know who those are?

A: *Customers receive POCs assigned from various departments once they have been provided a Statement of Support (SoS) by the Space Launch Delta.*

Q: Who or what departments will have POCs assigned to my company?

A: *Initially, 30 SW/XPR will assign you a primary advocate, and then after the SoS, a Mission Integrator, Environmental planner, Safety, and Range Planning manager will be assigned.*

Q: Will TurboLaunch be the one and only submission process that I use all the way to launch day?

A: *Yes, you will use this application throughout your interaction with the base. We are currently developing an extension of this application into all functional areas of the base, stay tuned.*

Q: Will a CAC card be required to access TurboLaunch?

A: *No. The preference is for a commercial customer to be able to access TurboLaunch without requiring a CAC and for a government customer or user to be able to access it on a computer/network that they are logged onto with a CAC.*

Stakeholder FAQ (Range Support/Functionals):

Q: Does this eliminate 'Working Groups'? Phone and in-person?

A: *At this time we don't see a significant change in our internal working group discussions other than that all departments will be able to track the status of the application, in real time, as the customer matures and progresses.*

Q: How else will this change my day to day process, communications, and workflow?

A: TurboLaunch *will help the customer to answer submission questions compliantly and in a localized spot while reducing the number of interpretation questions that you typically field for a given launch customer. Think about how an application like TurboTax ® streamlines the information acquisition process. Based on the early design intervention recommendations, the customer may choose operational scenarios that make approval decisions more certain, saving your department time. This also puts your department in a position to work more efficiently with customers as you won't have to spend time fielding questions that have often taken up your time that could have been more efficiently with a self-service tool like* TurboLaunch. *This frees up time for you and your department for high value tasks like evaluating new and novel launch/operational configurations and other day to day base business.*

Q: Do I have to be re-trained on yet another application?

A: *A short tutorial will be provided but the application is designed to be as intuitive as possible for all users. The application is primarily customer facing and provides you with a dashboard and detail drill down so you can track the customer's submission process and details. We anticipate that this application will allow you to 'print' out pre-populated forms per your existing submission requirements that will be informed by the* TurboLaunch *submission.*

Q: Will TurboLaunch eliminate my job?

A: *No.* TurboLaunch *will enable you to service base customers more efficiently while freeing you up to focus on higher value tasks.*

Q: How do I reach out to the commercial launch company for additional information?

A: *At this time, applicants using TurboLaunch are assigned a point of contact with 30 SW/XP. This will safeguard the time that you and your department spend on launch customers that haven't yet reached a point of maturity that warrants individual discussion with base functionals. Once the launch customer has received a SoS, the Range Customer Advocate will be the primary liaison between the launch customer and base personnel. They will work to facilitate in depth design and operational discussions to reduce miscommunication and requirements translation to accelerate the approval process.*

Q: When do we start charging customers for our support?

A: *We are exploring opportunities to set up a for fee service for customers who want early or expedited support services. Such services may include in-depth design consulting, launch planning, and expedited launch schedules.*

Q: Who sets my priority?

A: *Currently, your priorities will be set by your managing Director as normal.*

Q: Will TurboLaunch provide the required NEPA forms? I need it for my internal reporting and tracking.

A: *Yes, the NEPA documentation and approval process will remain the same, however the required documentation and forms will be provided and required information will be clearly explained with example data required.*

Q: How will TurboLaunch handle approvals for new, never-done-before-programs?

A: *If customers choose new and novel launch and operational configurations their time to launch and cost uncertainties will increase as this will require more in-depth review by base personnel not unlike how this is performed today.*

Q: Does TurboLaunch require AFSS (Autonomous Flight Safety Systems)?

A: *Yes, AFSS will become the base standard and all new programs should plan for it as it will expedite the safety approval process.*

Stakeholder FAQ (30th Space Launch Delta):

Q: I still have to support the MRTFB mission, how do I ensure that is still a priority at Vandenberg?

A: *The Delta will still drive priorities at Vandenberg.*

Q: Who is providing training to my folks? Who is available for technical support?

A: *Delta work processes are not being changed or reviewed at this stage. You can expect more predictable schedules, timelines, and better documentation to perform your responsibilities.*

Q: Do I lose a capability here with creating a Range Customer Advocate office?

A: *No, you increase launch volume and resiliency with more, diverse launch options at Vandenberg. The Range Customer Advocate role will be an extension of the current Launch Mission Manager function. Junior officers assigned as Range Customer Advocates will be empowered through the base functional approval tracking tools provided via Turbo Launch. 2 SLS will maintain continuity and mentorship through senior civilian members and Range Customer Advocates will provide regular launch customer status updates to leadership. Their job will be focused on the optimizing efficiency and costs, better planning, better launch vehicles, better documentation, and more predictable schedules.*

Q: Is this going to cause friction between my Squadron Commanders?

A: *No, the authority hierarchy, prioritization and responsibilities will not change.*

Q: Is this going to cause more work for me with an 'escalate button' or dashboard review meetings?

A: *No, TurboLaunch will improve your workflow with more predictable schedules, rapid approvals and transparent planning so you can see what work is in the pipeline, giving you ample time to prepare for upcoming work.*

Q: Is this IA compliant?

A: *Yes, all existing Information Assurance protocols are followed with this effort.*

Q: Is this really going to accelerate a brand-new launch company's ability to physically launch from my range? How do we know?

A: *Yes, the biggest delays in historical launch customers derive from naive customers with infeasible designs, poor documentation processes and lack of visibility of process progress. TurboLauch is designed to address these shortcomings. We expect to cut the time and cost of initial launch by 50%.*

Q: Does this program change the risk of operations here at VSFB?

A: *No, there are no changes to the risk management processes.*

Q: How much will this cost?

A: *Initial estimates are $750,000 to develop and deploy TurboLaunch.*

Q: Does this require more or fewer personnel?

A: *Manning will remain at the same levels. We believe TurboLaunch will automate and improve application and documentation process so effectively that the range will be able to allocate personnel to the Range Customer Advocate role to assist more qualified customers at a later maturity level towards a Statement of Support. It will reduce the interaction with unqualified customers at the initial stages of vehicle development.*