(This section must be signed)

Individuals outside your company, including the companies listed above and other third parties, potentially including your competitors and others in your industry, may receive and/or review award submissions. All information submitted should address the program’s management, leadership, and processes in a manner that you are comfortable sharing with third parties freely and without restriction and may not include any classified or proprietary information or materials. Do not include any materials marked Confidential or Proprietary or bearing any similar legend. All responses and other submissions, whether in whole or in part (“Submissions”), shall be deemed not to be confidential, proprietary, and/or nonpublic information of any sort for any purpose.

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Thank you for participating,

[Signature]

Gregory Hamilton
President
Aviation Week Network

Acknowledged, agreed, and submitted by

[Signature]
Nominee’s Signature

Nominee’s Name (please print): Nicholas Guida

Title (please print): CEO, CTO, Founder

Company (please print): Tamarack Aerospace

Date: 5.23.22
NOMINATION FORM

Name of Program: Tamarack SMARTWING Technology

Name of Program Leader: Nick Guida

Phone Number: 208-255-4400

Email: beckys@tamarackaero.com

Postal Address: 2021 Industrial Dr. | Sandpoint, ID 83864

☐ Customer Approved

o Date: 23 May 2022

o Customer Contact (name/title/organization/phone): ROBERT B. BRIGGS, OWNER-OPERATOR

☐ Supplier Approved (if named in this nomination form)

o Date: ____________________________

o Supplier Contact (name/title/organization/phone): ____________________________

PLEASE REFER TO PROGRAM EXCELLENCE DIRECTIONS AS YOU COMPLETE THIS FORM.
EXECUTIVE SUMMARY: Make the Case for Excellence (Value: 10 pts)

What is the vision for this program/project? What unique characteristics and properties qualify this program for consideration? (12 pt. Times New Roman) LIMIT YOUR NARRATIVE TO THIS PAGE.

Tamarack Aerospace SMARTWING™ technology continues to demonstrate outstanding leadership and innovation in the fields of aviation technology and engineering, as does the technology inventor and Tamarack founder, Nick Guida. Utilizing a combination of existing and novel, patented technologies, which can be applied to existing aircraft or the clean-sheet production of new aircraft, Tamarack has advanced aircraft efficiency. Our concepts support sustainability: including unmatched fuel-saving, noise pollution reduction, safety enhancement, and ride smoothing - creating a disruptive technology where the whole is greater than the sum of its parts. So far, we have installed nearly 160 Active Winglets on CitationJets. Chief Technology Officer, Chief Executive Officer, and Founder, Nick Guida leads Tamarack's efforts to overcome skepticism that our technology is just too good to be true. Guida’s dogged determination, charismatic leadership, and innovative marketing have captured the imagination leading to development talks with many in Congress, the military, commercial aviation operations, International Civil Aviation Organization and various aviation associations. The company has also overcome some unwarranted reputational challenges that would certainly have deterred or even ended other start-up ventures. Relying on truth, irrefutable testimonials, and loyalty from its customers, Tamarack is looking at a very bright and industry-leading future.

Tamarack’s patented Active Winglet system includes load alleviation at the wingtip via a single Tamarack Active Camber Surface paired with a wing extension and winglet. This groundbreaking technology increases aircraft wingspan (aspect ratio), flight efficiency, and alleviates the associated increased wing bending in elevated load conditions, essentially allowing the system to aerodynamically “turn off” the winglet in specific conditions, eliminating additional loads. Aerodynamically, Active Winglets increase range, reduce fuel consumption and help to maximize climb performance. Through its efforts, Tamarack has set a new standard in sustainable aviation with technology that is proven to reduce fuel burn for existing aircraft, reducing CO2 emissions, to solve the immediate image and performance problems that the world of aviation is facing right now in terms of sustainability. We are arguably the most dynamic combined fuel-saving and safety technology proven and available now in aviation.

Tamarack is not only a business proposition for a sustainable future but has also created a viable business model, boasting a staff of approximately 40 so far, and has expanded its global footprint to include three Transformation (installation) Centers and more than 20 Authorized Service Centers. In its unique brand of leadership, Tamarack has been able to inspire investors and achieve noteworthy market penetration as well as advance research and development for expansion of its technology onto new aircraft platforms, i.e. eight different CitationJet models. We are in the process of certifying two King Air models.

We have been able to identify and address a critical unmet need in the world of aviation sustainability solutions and Tamarack has positioned itself as an innovator in the field, while being compatible with other sustainability solutions such SAFs, aircraft electrification, and improved engines and airframes. A key advantage is worth repeating: Tamarack SMARTWING™ is available now.
Creating a More Efficient Aircraft

The intention from the very beginning of Tamarack was to create more efficient aircraft and a viable business that had growth and community enrichment as ongoing goals. As with any engineering solution, the process began with the understanding of the problem. Founder, Nick Guida, having spent his career developing traditional winglet technologies, was convinced there was a way to improve aircraft efficiency and sustainability without aerodynamic compromise. In 2009, he conceptualized the idea that led to the creation of ATLAST™ Load Alleviation Technology and Active Winglets. The company grew through a six-year development and certification process that included hundreds of hours of test flights on numerous testbed aircraft. In 2015, the aviation world changed when the first set of FAA certified Active Winglets was installed on a Citation CJ1.

Traditional, passive winglets provide a fuel savings of only about 4%, and a comparable reduction in carbon emissions; where Tamarack’s Active Winglet technology has been proven to increase range up to 33%, for instance turning a 3-hour flight into a 4-hour flight without having to add fuel. The goals of emissions reduction and fuel savings in traditional winglets are only moderately achieved, but Active Winglets offer a far more substantial reduction for both without the compromise of added load for support structures and more maintenance required by passive winglets.

Active Winglets (SMARTWING™ technology) are proven to considerably reduce fuel burn for existing aircraft, in so doing, reducing CO2 emissions, to solve the immediate image and performance problems that the world of aviation is facing right now in terms of sustainability. We are arguably the most dynamic combined fuel-saving and safety technology proven and available now in aviation. Our autonomous predictive and reactive technology allows modified aircraft to instantaneously offset wind gusts, get to optimum altitude faster (reducing noise pollution) and without step climbs, take off in high/hot conditions that ground unmodified aircraft, smooth rides and land and take off on shorter runways. These advantages additionally mean safer flying outcomes as flights are smoother and aircraft can reach destinations with increased fuel reserves allowing safer flying choices and reducing the chance of runway over-runs.

Active Winglets are just one application of the technology that Tamarack has been working on since 2010. We hold more than 30 patents and are always looking for new aviation innovations, as well as continually enhancing our current products. Tamarack Active Winglets can be retrofitted onto any aircraft or installed in new production aircraft and can enhance operation of biofuel, electric, hydrogen or other sustainable alternatives being developed for ubiquitous future use.
Total Aircraft Transformation
At Tamarack we refer to our Active Winglet installation process as a Transformation. While this term might not be typical for aircraft modification, we have always been anything but typical; our technology does not just slightly improve an aircraft, but completely transforms it into a new version of itself.

As an innovative technology, the Active Winglet modification was rigorously tested during the certification process, first by the European Union Aviation Safety Agency (EASA) and then by the Federal Aviation Administration (FAA) including many hours of flight testing, including simulated abnormal conditions, to ensure safety performance. Safety is what certification is all about and Tamarack’s Active Winglets passed all the tests of both agencies and more.

In addition, Active Winglets maximize an aircraft’s safety margin in multiple ways. Extra weight allowance, improved climb performance, and ride smoothing technology increases safety and passenger comfort with a noticeably more stable ride. A higher cruise altitude saves fuel, providing peace of mind for both pilot and passenger during those high-traffic landing times - because more fuel reserves on approach mean the pilot has more safety-related options and the ability to land and takeoff on shorter runways reduces runway over-runs and noise pollution while allowing the aircraft to take off under high/hot conditions that ground comparative unmodified planes.

Recently, Tamarack expanded its product line to include the Performance SMARTWING™. Differing from the Active Winglet technology currently found on over 150 CitationJet aircraft, Performance SMARTWING™ technology incorporates key advantages meant to address the specific demands of the military and surveillance market. One such advantage is the dual load alleviation control surfaces engineered to ensure redundancy in complex, mission-critical scenarios, where getting aircraft off the ground faster under difficult conditions and away from enemy fire is vital. Performance SMARTWING™ technology also allows for increased fuel endurance and time on station and increased range for longer sorties.

Dedicated to Continuous Improvement
Tamarack is a rapidly growing company of engineers, inventors and aviators from a diverse set of backgrounds. Under the leadership of Founder Nick Guida, Tamarack is 100% dedicated to continuous improvement. In his distinguishing brand of leadership, Nick has continued to lead initiatives that encourage company growth.

Furthermore, the Active Winglet installation process now takes only 7-10 days to complete. Traditional, passive winglets will take anywhere from 5 to 7 weeks to install. Additional structure must be added to the wing which requires relatively extensive work to the wing structure. At the onset, we completed our first installation in about 3 weeks (350 – 400) man hours. We knew this was only our initial line in the sand to measure ourselves against. We analyzed every step of the process and product to find certifiable solutions for the highest time-consuming areas of the product build and the install. We looked at each of the items that consumed the most time and worked with our engineers and our FAA to incorporate changes that would allow us to minimize the downtime while being able to keep quality and dependability extremely high. Along with the product and process improvements, we invested in some
specialized equipment that not only made the job more replicable, but faster and easier on the technicians doing the work.

Last, but far from least, we value our staff. Instead of the “it’s always been done this way” approach, our entire team (production, installation, quality and engineering) work closely together with a “what if” mentality and asked themselves and each other about all the possibilities at every step. Being open to customer feedback and acting on it has allowed us to keep aircraft down time to 10 calendar days or less (200–225-man hours). The biggest variation we have in our installation time now is the actual paint scheme our customer chooses. They range from plain white to elaborate multicolor schemes.

When a plane arrives, our mechanics go to work and remove the existing wingtip, install the extension, and connect wiring. Within two days, the Active Winglets are installed, and rigging checks are performed, our techs run cabling, and begin inspections to ensure accuracy. We are also in communication with our customer at every step of the process. Once the Transformation is complete, we explain all the changes that have been made, assist with fuel planning, and how to fly the plane most efficiently with Active Winglets. Tamarack participates in the FAA’s WINGS program, instructing and supporting safe flying techniques and decision-making.

The Future of Sustainable Aviation
Tamarack’s current fleet of 150 plus aircraft are demonstrating range increase of up to 33%, with substantial commercial and military fuel savings projected. Tamarack’s focus on the SMARTWING™ program is to do our part in the world to reduce CO2 emissions. The carbon emissions standard set by The International Civil Aviation Organization (ICAO) is intended to require aircraft manufacturers to start producing more efficient airplanes, partly as a response to the UN’s goal to eliminate net carbon emissions by 2050. But even with new efficiency standards, international aviation still has a huge gap between its own environmental goals and expected emissions. Achieving net-zero carbon emissions by 2050 is an enormous task. The UN estimates that by 2050, aviation could be responsible for up to 25 percent of the world’s total carbon budget - so the focus is on the aviation industry to make real, significant changes immediately. This is where we can help.

Installing Tamarack Active Winglets on aircraft allows for an upcycle of older tech aircraft. We can retrofit the current fleet instead of building an entirely new fleet. This will contribute to the zero carbon emissions by 2050, and we want to be a part of that, marching toward that goal with other players in the industry.


The news media (Forbes, Aviation Week, Aviation International News, Aero News Network, BCA, Flying Magazine, Flight Global, NBAA Insider, AOPA, Flight Safety Detectives and many others) and various aviation associations (NBAA, GAMA, ICAO, AOPA, NAA and others) have all been supportive of and
Our Customers Are Our Biggest Advocates
At Tamarack, our goals, our metrics, our results are all based on the customer’s feedback and satisfaction with our product. We know that our very best and reliable feedback is what our customers have to say about their experiences with Active Winglets. For this reason, Tamarack formed an Advisory Team comprised of a representative group of customers, pilots and owners. This Team has been going strong for about 3 years and has contributed to our success by taking a lead role in educating owners and pilots to support Tamarack technology, telling their stories in person, via phone and at industry conventions to prospective partners, providing demonstration rides in their aircraft and acting as ongoing activists and advocates for Tamarack Active Winglet technology.

With nearly 160 Active Winglet equipped aircraft flying, we have fostered a very open relationship with our owner/operators and solicited feedback. We use this feedback for product and process improvement. As an example, we found that one of the biggest deterrents for any upgrade, not just Active Winglets, is downtime during an installation. As we received this feedback, we analyzed every step of our process and product to find an optimum order of operations that would allow the least amount of downtime possible while maintaining quality standards and safety.

We have also used customer feedback to improve the customer delivery and training process. We begin the training simultaneous with the initiation of the sale and then stay in contact with our customers as they get used to their newly transformed aircraft and its new capabilities. As with any new technology, the field operators will find the everyday use bugs in any system. By keeping this open line of communication, we are able to quickly remedy any frailty in our system and get it incorporated into our production units in a very timely fashion.

Commitment to Quality
Tamarack adheres to the utmost in safety, quality standards and customer care. Tamarack Transformation Centers are FAA & EASA approved maintenance facilities. FAA and EASA rules are specific about who can perform maintenance and approve an aircraft or airframe for return to service after maintenance has been performed, and our facilities fit the bill. These facilities are subject to periodic inspections, which ensures that quality is maintained to the highest standards in the world.

All Active Winglet installations are performed by Tamarack trained technicians who have a deep understanding of the technology and specialized training only available to our Tamarack Transformation
Centers. Active Winglets come with an inclusive warranty that covers parts, installation and cosmetic considerations, giving customers peace of mind regarding their investment.

Our team of highly qualified professionals are available to help meet the highest safety standard possible with 24/7 tech support; and our global network of over 20 Authorized Service Centers means that maintenance or AOG support is just around the corner.

Product Reliability
Tamarack Aerospace Group is committed to continuous improvement in every facet of the organization and has partnered with industry leaders as suppliers and continually collaborates with them on how to better our products. From a product reliability position, we use MTBF (Mean Time Between Failure) an industry standard reliability measure. We have a division of our engineering department that is funded and dedicated to continually increasing this number. Again, this portion relies heavily on maintaining an incredibly open relationship with all our owner/operators and learning as much as we can about the different ways they utilize their aircraft and challenge our (and everyone else’s) systems. Our internal team has an intimate knowledge of every aspect of system and can pinpoint the origin of any anomaly and the part of the process affected.

We also persistently monitor the rapid changes in the technology and materials used in our products to quickly identify a “new and improved” material or processes that will improve our reliability and customer satisfaction including the reduced stress on a plane increasing the plane’s life and reduces costs (our technology pays for itself in just a few years and reduces fiscal stress on our owner’s pocketbooks). Our beginning MTBF data collection and analysis showed an industry acceptable number. Through our continuous improvement process, we have grown that number to a 6X improvement since the initial certified release. We will continue this endeavor throughout the life of the product.

On the production side of the world, we closely monitor scrap rate and man hours and ultimately COGS. If one goes up, the others are not far behind. As we have added new team members to the existing seasoned team, we continue to recognize that there is still room to improve our internal processes, and we regularly revise and improve these. New sets of eyes and input are always welcome.

Tamarack routinely invests in newer/better tools for all of our internal disciplines. Having the right tool for the job, no matter what the job, will always be a viable solution in the continuous improvement equation. Tamarack’s internal Quality Policy is a constant goal, “We are committed to continuous improvement.” This is a statement everyone at Tamarack takes great pride in and takes very personally.

Customer Trust & Feedback
We get constant feedback from customers and their passengers who appreciate all of the new capabilities of the technology and Tamarack’s commitment to service. Another noted unique example of customer trust is the Bob Briggs’ story.

Captain Briggs’ is the world record holder for the number of aircraft certifications (109!). He is also a U.S. Army and Navy reservist, a retired Flying Tigers and FedEx pilot and an award-winning pilot for his
contributions to the Angel Flight Network [https://www.youtube.com/watch?v=loor3YUAFXE]. Bob testifies that he can fly so many Angel Flight missions (twice named a flight leader in the TN region) because his CitationJet is modified with Active Winglets. He saves enough costly fuel, provides a smoother and less time-consuming ride for his sick passengers going to and from the hospital because of his modified aircraft.

Tamarack measures the success of its efforts via a series of customer surveys including a post Transformation survey implemented one week after installation as well as an annual customer satisfaction survey. These results of the surveys continue to demonstrate overall quality and satisfaction greater than 4.5 stars (on a 5-point scale). Tamarack also measures its success via media sentiment and listening, which has a vastly positive response from audiences.

DEALING WITH PROGRAM COMPLEXITY (VOLATILITY, UNCERTAINTY, COMPLEXITY, AMBIGUITY, OR VUCA) (Value: 25pts)

Please respond to the following prompts:

10 pts: Describe areas of VUCA faced by your program and why.
15 pts: Explain how your team responded to these challenges.

Tamarack is an innovative, nimble company which allowed it to remain extremely adaptable during the most unprecedented times during the last few years when the pandemic so much affected all parts of our society. We were of course surprised by the pandemic, but we did plan for business interruptions – whether they were supply, business or legal challenges. We role-played crises, what we would do and even how to mitigate crisis. Our planning has served us well as our sales increased during the worst part of the pandemic.

One of our largest challenges is skepticism that our technology is just too good to be true, in great part by Nick Guida’s dogged determination, charismatic leadership and innovative marketing, Tamarack has a “can do” culture that has captured the imagination and consideration of many in Congress, the military, commercial aviation operations, ICAO (International Civil Aviation Organization), various aviation associations and certainly our customers. The company has also overcome some unwarranted reputational challenges that would certainly have deterred or even ended other start-up ventures. Relying on truth, irrefutable testimonials and loyalty by customers, Tamarack is looking at a very bright and industry-leading future.

In 2019, an unusually brief grounding was lifted by both the FAA and the European Union Aviation Safety Agency (EASA) after a review of all facts relating to an unfounded and easily disputable no-injury incident. In addition, incorporating all service bulletins, which Tamarack had previously made available to the fleet at no charge, was implemented as a fleet remedial action. Customers were able to resume normal flight operations within a matter of weeks. During the very short grounding, customers were our staunchest advocates despite the brief inconvenience and hardship of having the use of their aircraft restricted. Remarkably, sales numbers continued to grow during this trying period and then during the worst part of the pandemic.
Tamarack voluntarily filed for Chapter 11 bankruptcy as a direct result of the grounding to continue to operate and focus all activities on supporting the Active Winglet customers and to support EASA and FAA regulations. Throughout the grounding, reorganization, and COVID pandemic, Tamarack has continued to grow, gain government and media attention, and continue sales of its fuel saving, safety enhancing and sustainability supporting-technology. The global fleet of Tamarack Active Winglet customers has grown to over 150 aircraft, just as the company has gained US congressional and international recognition from the ICAO Global Coalition for Sustainable Aviation, forming an important collaboration with the industry. As mentioned, we are active participants in many aviation associations, we present thought-leader speeches and receive much media attention for our award-winning technology.


Chapter 11 protection also preserved Tamarack’s ability to service the existing fleet while addressing creditors. The Eastern District of Washington confirmed the Plan of Reorganization in March 2020, just before the global pandemic impacted all markets and industries. Only 10% of businesses that enter Chapter 11 reach the point of plan confirmation, which is a testament to the health and viability of Tamarack and its product. In addition, the reorganization was completed with all creditors intact.

Tamarack is also engaged with the NTSB, having filed a formal Petition for Reconsideration of a probable cause ruling concerning a 2018 accident. That process is pending and Tamarack’s view that it was physically impossible for our technology to have caused that accident is supported by such aviation leaders as former U.S. Astronaut and aviation hero Capt. Robert (“Hoot”) Gibson, former NTSB Board Member John Goglia and other aviation role models plus the offices of two U.S. Senators. We are hopeful of positive outcomes and recognize that most if not all aviation manufacturers have to weather these kinds of reputational and legal challenges as part of doing business in aviation. Of note, Tamarack has continued to grow and the U.S. military, NASA and the U.S. Congress all are evaluating and are interested in our technology despite these challenges because of customer support and confidence in our safe, proven products.

In 2020, Tamarack announced that it had opened remote installation centers (dubbed “Transformation Centers”) in addition to its primary installation headquarters in Idaho. The new Transformation Centers located in Aiken, South Carolina and Oxford, England have successfully completed multiple transformations since, offering ten-day Active Winglet installations. There are also over twenty Authorized Service Centers operating internationally.
This performance throughout the reorganization has not gone unnoticed. Tamarack has been applauded for its response to these challenges throughout the industry. Tamarack is in discussions with several outside entities about bringing the technology to new platforms on other business jets as well as military applications and commercial aircraft applications. Tamarack’s technology offers the single largest fuel and emission reduction upgrade available right now to reduce aviation’s carbon footprint and reach the industry’s sustainability goals.

**ORGANIZATIONAL BEST PRACTICES AND TEAM LEADERSHIP (Value: 35 pts)**

Please respond to the following prompts

- **15 pts:** Describe the innovative tools and systems used by your team
- **10 pts:** Define how you developed, led and managed people
- **10 pts:** How did you leverage skills and technologies of your suppliers?

When it comes to establishing partnerships, Tamarack aims to find symmetry with suppliers and service centers that match our passion for customer experience. Our suppliers are like partners and not just vendors. We are constantly educating them about our product and improvements and they in turn provide invaluable suggestions and feel they are part of the team. Unlike many in aviation and other industries we had very few supply-chain issues during the pandemic because suppliers saw us and see us as teammates providing an essential product. In an industry that is highly regulated it is important to stay nimble and reactive. With a 100% focus on safety, Tamarack very deliberately kept its innovative design as conventional as possible because the resulting technology is greater than the sum of its parts.

Tamarack was able to grow from a start up with a brand-new disruptive technology and attract and keep employees in a small-town environment by adopting a management style that promotes a culture of customer satisfaction. This management style is based on the philosophy that creating a culture that motivates and inspires employees will in turn influence how customers are regarded. Employees feel empowered to put the customer first because the company’s vision, values and mission support it.

As mentioned previously, we know that our very best and reliable supporters are our customers. This was never more evident than when Tamarack was faced with the hardship of a short grounding and subsequent planned bankruptcy. Tamarack was applauded by its customers and other industry partners with the level of transparency and frequency of communication. It was our customers that played the role of advocate throughout the duration, and this is directly related to their experience working with our team. Without an established culture of customer satisfaction weathering these recent storms would have been much more difficult. If not impossible.

Tamarack makes thinking about customers a clear priority and hires the right people for the job. Once hired, employees are offered a working environment that encourages freedom and responsibility - allowing all employees to engage with customers at every level in the organization, we are a transparent and honest organization. Tamarack also promotes corporate responsibility, having implemented an unlimited PTO policy for all of its staff. By offering this opportunity and creating a culture of service, many employees have chosen to use their time for community stewardship and volunteer activities,
including transforming some of our technology into machinery that manufactured masks during the pandemic.

Tamarack aims to understand and empathize with the customer experience. When it comes to understanding the potential of any technology — what it is, how it works to improve your life, what to do if something goes wrong, and being as informed as possible is crucial. We proactively partnered with the FAA to create a Tamarack Active Winglets WINGS Pilot Proficiency Program. The Tamarack FAA WINGS Pilot Proficiency Program educates those who seek to learn more about our technology, its impact on flight planning, and how to further a safer user experience.

The FAA WINGS Pilot Proficiency Program has been unusually successful, we have nearly a 100 percent pilot/operator/customer participation rate, and many pilots feel far more confident flying with Active Winglets after taking the course and learning more about the technology. Feedback has been overwhelmingly positive, and we recommend all who are interested in installing Active Winglets to take this course. We are committed to continuous improvement of not only ourselves but our technology and supporting our customers.

Tamarack Aerospace Group is a socially conscious and industry innovative company that focuses on product efficiency fueled by imagination and the excitement of flying, flying better, safer and with a vision of careful growth for investors and for the aviators who invest in Flying Further with Tamarack.