Spaceport America Update
Special to the PACA Pulse

Launch News
Spaceport America hosted its first FAA licensed launch on October 6. This was also the 16th vertical launch at the Spaceport. The launch was conducted by Armadillo Aerospace. The vehicle was their STIG B, the latest member of their STIG family. The rocket carried research payloads developed by Purdue University and by the Technical University of Braunschweig, Germany. Launch preparations went very smoothly, but shortly after launch, the STIG B approached the limit of the safety zone and thrust was automatically terminated. As planned, the recovery system brought the vehicle back to a gentle landing near the launch pad. The second launch of the STIG B took place on November 3 with similar result. Although the vehicle failed to achieve the intended altitude on both flights, they are considered largely successful because the safety and recovery systems performed as planned, and the rocket survived to fly another day.

Infrastructure News
A new launch control van for the vertical launch area was delivered recently. The facility will help the Spaceport better meet the needs of vertical launch customers. The airfield modification contractor, A.S. Horner, has begun mobilizing at the site. Under this contract, the runway will be extended to 12,000 feet. The NMSA Board of Directors also approved award of the Construction Manager contract to SDV Construction of Albuquerque to manage Phase 2 construction at the Spaceport, and another contract to AMEC of Albuquerque for independent quality assurance testing services of the airfield modification. Both companies are resident businesses in New Mexico.

The project to pave the southern road from I-25 Exit 32 to the Spaceport is progressing, although more slowly than expected. Issues remaining to be resolved include the existing CenturyLink fiber optic right-of-way along the road, ranchers’ requirements, and mitigation measures for El Camino Real Trail and the thirty archaeological sites along the road. The exact road construction cost will not be fully known until bids are received by Doña Ana County. IDEAS, the NMSA visitor experience development contractor, has continued to make progress on the design of the on-site Spaceport Visitor Center and the T or C Welcome Center. All floor plans have been continued on following page
Spaceport America continued

finalized. Construction drawings are on track for completion in December and the plan is to release both a visitor experience developer RFP and operator RFP by the end of 2012. Bids will be solicited from 1) commercial real estate developers to capitalize, construct, and lease back the designed buildings to NMSA, and from 2) firms that wish to operate/co-operate the business under a license from NMSA. The operator would be responsible for a broad, turn-key scope, including customer service, marketing, merchandising, transportation, and food and beverage service. Details will be forthcoming on these critical RFPs. Work on guest show content is also progressing. IDEAS staff members have begun soliciting input and feedback on the media treatments from various key project stakeholders within New Mexico.

Informed Consent

New Mexico has fallen behind Texas, Florida, Virginia, and Colorado on informed consent. Informed consent is a waiver that fully informs participants of risks of spaceflight prior to flying. As currently enacted in New Mexico, it pertains only to spaceflight participants. It holds harmless spaceflight companies in cases other than gross negligence or mal intent. It does not apply to manufacturers and suppliers as do the more robust laws in the states listed above. Broadening the law to include manufacturers and suppliers is critical if New Mexico is to remain competitive and reach its full potential in commercial space. California recently passed a law similar to New Mexico’s and the aerospace industry there is working very hard to get a stronger law passed. PACA members can help by informing New Mexico legislators of the importance of this matter.

Upcoming Luncheon Speakers

November 20 – Ken Hodges, Innovation Director, New Mexico Manufacturing Extension Partnership (NM MEP)

New Mexico MEP is a statewide assistance center dedicated to increasing the competitiveness of the state’s small and mid-size businesses. The organization assists the manufacturing and business community in New Mexico by strengthening their industry competitiveness nationally and globally. This includes providing expertise in results-driven methodologies, best practices, and innovative technologies designed to increase profitability. As a public/private partnership, NM MEP brings together government, not-for-profit, and industry resources to offer comprehensive programs and services to their clientele.

As the Innovation Director, Mr. Hodges works with businesses in the state to determine what is limiting company top and bottom-line growth. He and his team members assist the business owners in pinpointing what is preventing them from achieving their goals and exploring how they can be overcome.

Mr. Hodges’ long career includes previously serving as a senior business consultant and as a senior vice president and general manager for McNally Industries. He holds an MBA from New Mexico Highlands University.

January 15 – Dr. Beverlee J. McClure, President and CEO of the Association of Commerce & Industry

Dr. Beverlee McClure is the President and Chief Executive Officer of the New Mexico Association of Commerce and Industry (ACI). In this capacity, she is working to facilitate positive change in the laws and regulations that govern business and industry. She previously served as New Mexico’s first Cabinet Secretary of Higher Education.

Dr. McClure is a member of the Board of Directors of New Mexico Community Capital, LLC and New Mexico First. She came to the state ten years ago as the President of Clovis Community College and was the youngest sitting college president in the nation. While serving as President, she was appointed by the Governor to serve on the State Board of Education (no longer in existence).

In addition to being a member of the New Mexico Women’s Forum and the New Mexico Amigos, Dr. McClure is also a Founding member and Vice President of the New Mexico Heart Gallery Foundation and of the Board of Directors of New Mexico Community Capital, LLC.

Friday, December 7

PACA Holiday Luncheon

11:30 a.m. – Networking social
12:00 noon – Lunch served

Tanoan Country Club Ballroom

You and a guest are guaranteed to have a five star good time!

RSVP on the PACA website: www.pacanm.org

No December meeting. Only celebrating permitted.

Upcoming Speakers continued on following page
Upcoming Speakers  continued

February 19 – Dr. Catalin Roman, UNM Dean of Engineering, and Dr. Chris Hall, Professor and UNM Chairman of Mechanical Engineering

Dr. Catalin Roman was a Fulbright Scholar and graduated from the University of Pennsylvania with a BS, MS, and Ph.D., all in Computer Science. He has a reputation for being an advocate for diversity, outreach, multidisciplinary education, and collaborative research across schools and departments.

Dr. Roman has had a rewarding research career publishing over 180 technical papers and graduating nineteen doctoral students with the majority pursuing their own academic careers. He has also secured strong levels of research funding, both alone and in collaboration with colleagues in the department and outside; held leadership positions in key international conferences; and served as associate and guest editor for several leading software engineering journals.

Dr. Chris Hall previously served as the Department Head of Aerospace and Ocean Engineering at Virginia Tech from 2006 to 2011. Prior to joining Virginia Tech, he served in the USAF as an electronics technician, as a satellite systems engineer at the Blue Cube at Onizuka Air Force Base in Sunnyvale, California, and as a professor of spacecraft dynamics, control, and design at the Air Force Institute of Technology.

Dr. Hall is a Fellow of the American Astronautical Society, an Associate Fellow of the American Institute of Aeronautics and Astronautics, and a member of the American Society of Engineering Education. He is past Chair of the AIAA Astrodynamics Technical Committee and has served on the AAS Space Flight Mechanics Committee.

He has also served as Associate Editor and Book Review Editor of the AIAA Journal of Guidance, Control, and Dynamics, Associate Editor of the AAS Journal of the Astronautical Sciences, and Associate Editor of the Journal Celestial Mechanics and Dynamical Astronomy.

Dr. Hall has published more than 100 technical papers on various subjects in dynamics and control. He earned his BS in Aerospace Engineering at Auburn University, MS in Systems Engineering at the Air Force Institute of Technology, and Ph.D. in Theoretical and Applied Mechanics at Cornell University.

We meet the 3rd Tuesday of each month at Tanoan Country Club (Rolling Hills entrance east of Eubank off Academy). Registration begins at 11:30 a.m. followed by lunch at noon. Members are admitted free and the guest fee is $15.

To RSVP, register online at www.pacanm.org. Include your name, guest’s name, and menu selection. Please RSVP by noon on the Friday before the week of the meeting.
Another outstanding company represented in PACA is Sharp Informatics, LLC. Sharp is an innovator in the design and upgrade of information systems for commercial and government customers.

Located in Albuquerque, Sharp Informatics was founded in 1997 by John Sharp. John, who holds a Ph.D. in Electrical Engineering from the University of Illinois, was employed by Sandia National Laboratories for 18 years. While at Sandia, he held staff and management positions in all areas of information technology. Truly a small business, Sharp Informatics has only one other employee, Eric Mechenbier. Eric is a graduate of the University of Oklahoma where he received a degree in Management Information Systems, played soccer and was also a kicker for the Sooner football team. Returning to his hometown of Albuquerque, Eric received an MBA from the University of New Mexico with a dual concentration in Finance and Marketing. Eric currently serves the company as senior consultant and will soon be a partner in the business.

Sharp Informatics focuses on providing database designs to its customers. These designs employ Natural Language Modeling (NLM), Sharp’s proprietary algorithm. NLM is a proven procedure developed over 35 years of research that combines logic and natural language to achieve superior information systems. According to Sharp, NLM can change business analysis from an esoteric art into an engineering discipline with a precision of logic and the understandability of plain English.

The most critical factor in the failure of business information designs is the lack of precise specifications arising from a language barrier between data users on one side and IT specialists on the other. NLM provides an understanding of the logical rules that are necessary to transform a simple sentence into precise information requirements. Utilizing NLM in business system development seamlessly guides this process from concept to requirements documentation to implementation.

Through its engagements, Sharp Informatics allows users to design their own systems, even without any IT experience. The initial analysis can be achieved via:

- Interviews with those most familiar with the business (also known as “Subject Matter Experts”)
- Data from tables or spreadsheets
- User documentation/forms

Subject Matter Experts are asked simple questions about their respective areas of expertise. Sharp Informatics uses NLM to process these answers and produce blueprints of the customer’s desired database. NLM results in cost savings from a diminished need for reworking of the database architecture both during development and, to an even greater extent, following implementation. This process has proven to be a worthwhile exercise for customers, it results not only in a superior database, but also reveals to the customer valuable information as to how the customer’s business actually functions. In sum, through the NLM process, Sharp helps customers improve their bottom line by reducing the time and effort devoted to data management and by identifying obstacles to efficiency in their business operations.

Utilizing NLM, Sharp Informatics offers its customers the following services:

- Automation of business
- Creation of new data models and systems
- Validation of existing systems (forensic risk reduction)
- Integration and consolidation of disparate systems
- Extraction of structure from raw data
- Establishment of information architecture standards
- Proof of compliance with published requirements/standards
- Evaluation of suitability of commercial off-the-shelf products
- Training of analysts in NLM

Sharp Informatics’ customers have included the National Institutes of Health, Sandia National Laboratories, the Department of Defense, the Department of Energy, Boeing, and Honeywell. The company is currently focused on providing services to businesses experiencing trouble managing their data, as well as application designers for end users. For both types of customers, Sharp can correct/upgrade database architectures or build databases from scratch.

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Sharp Informatics is also looking to provide services to government customers either directly or as a subcontractor. The company is actively seeking teaming partners.

Eric Mechenbier currently serves as PACA’s vice president and president elect. Eric values his membership in PACA. He appreciates the opportunity to get to know the contracting community’s “best and brightest” and the reach PACA provides into the AFRL and Kirtland AFB in general. According to Eric, through PACA he has “met a lot of the right people” and he hopes his PACA membership will continue to provide insight into technical solutions, government needs, and business opportunities.

As John Sharp is also a PACA member, Sharp Informatics can boast that 100% of the company’s employees are PACA members. This is a standard to which all companies can aspire!
President’s Corner  
By Patricia Knighten

With PACA’s diverse membership base, steady attendance at events, and rich legacy, the opportunities are endless for creating and offering beneficial programs and activities to our members. At the half way point in my term as President, I thought it appropriate to do a “mid-term check” and see how well our planned activities align with the key PACA objectives, membership benefits, community involvement, and legislative advocacy that are described on our website.

PACA’s annual Briefing for Industry event is the premier opportunity for government agency interchange with huge networking potential. Monthly luncheons are designed to provide the same and fill information gaps presented by relevant and diverse presenters. In generating programs of interest for our member luncheons, Don Nash, PACA Program Officer, together with Stuart Purviance, have done a great job of reaching out to contact speakers and evaluate potential topics. Speakers are secured through February of next year. Program topics will include regional manufacturing, state university engineering and science initiatives, legislative advocacy for business in New Mexico, and U.S. Air Force updates provided by Air Force Directors and Commanders.

We are also working on some very special community involvement programs. All the residual funds garnered from PACA activities, combined with donations from members, are managed carefully to support study in science and engineering. We have established a fund for scholarships at UNM Anderson School of Management for graduate business students with a bachelor’s degree in science or engineering. This is a very exciting program, not only for the obvious reasons of supporting the ambitions of future generations, but also to build PACA’s network and relationships with regional universities. This special Hall of Fame scholarship is in addition to the generous scholarship funds we contribute annually to the University of New Mexico, New Mexico State University, and New Mexico Institute of Mining and Technology engineering students. We will soon announce and unveil the Hall of Fame with Hal Shelton and Dick Trask as initial inductees. PACA’s December holiday luncheon will include a formal presentation of these scholarship funds to our state’s universities.

Beyond university programs, PACA rewards high school science fair participants with annual prizes. The Board of Directors is in discussion about additional programs to support Science, Engineering Technology and Math (STEM) programs for high school students to feed the pipeline of candidates and participants in future higher education programs. You can look forward to seeing more student members at our meetings! I encourage you to get to know them, and consider informal mentoring or more formal internships or assignments in your companies.

And finally, PACA will make a sizeable donation to the Wounded Warriors program to honor and support those who have been injured during their service to defend our freedom.

Regarding legislative advocacy, PACA is now a member of the Association of Commerce and Industry (ACI). We are also active participants in the Joint Tech Associations of New Mexico, nicknamed the JT8, representing the eight associations that sponsored and kicked off the collaboration of technology focused organizations last year. The purpose is to work together to advocate and move common initiatives to create a healthy business environment in New Mexico, particularly for technology and science related industries. PACA also has strong support from Brian Barnett, our legislative liaison, who continues to keep us aware of issues facing the aviation industry in general, and from Bill Dettmer, who serves as the Spaceport America liaison for PACA. We believe that as part of an organization like ACI, we can strengthen our voice on these matters. All PACA members are encouraged to get involved with these activities, and are urged to contact Bill and/or Brian to get more information regarding how you can participate and support. Watch for all upcoming events on our website and in e-mails.

The PACA website is being re-designed and will include mobile app capability to help you stay informed about our numerous events. We welcome all member suggestions for programs - drop a line anytime!

Join the JT8 Networking Social on December 5

Two of the axioms of the “rainforest” – a thriving business ecosystem like that in Silicon Valley – are that their vibrancy correlates to the number of people in a network and their ability to connect with one another, and that they depend on people who actively bridge social distances and connect disparate parties together. The JT8 is an informal coalition of New Mexico’s leading technology associations, including PACA, working together to connect their networks and create the conditions for a business ecosystem that not only grows but thrives.

The second annual JT8 Networking Social will be held on Wednesday, December 5 at Tanoan Country Club, 5:30 to 9:00 PM. It promises to be one of the best networking events of the year! Come meet the people who make up the associations that are supporting business growth, and bring your colleagues. The discounted cost for PACA members and your guests is $10. Regular cost is $15 until December 3 when the price escalates to $25. If you have students in your family, bring them at a cost of only $5 each.

Register online at http://JT8-2012.eventbright.com. Enter the discount code [JT8PACA] and you and a guest can attend for $10 each.
Legal Insights: The New SBIR Policy Directive
By Ross Crown

The Small Business Innovation Research (SBIR) program funds R&D efforts to encourage small business to engage in technological innovation and increase private sector commercialization of innovations derived from federal research and development. Federal agencies with an extramural R&D budget exceeding $100 million must spend at least 2.5% of their budgets in an SBIR program. Under the SBIR program, the government enters into agreements to fund research and development projects through contracts, grants, or cooperative agreements.

On August 6, 2012, the Small Business Administration issued a new Small Business Innovation Research Program Policy Directive. 77 Fed. Reg. 46805. By means of this directive, the SBA amended its policies concerning the SBIR program. These amendments implement changes set forth in the National Defense Authorization Act for Fiscal Year 2012. The purpose of the new directive is to meet statutory requirements to simplify and standardize the proposal, selection, contracting, compliance, and audit procedures for the SBIR program to the extent practicable while allowing agencies with SBIR programs flexibility in the operation of these individual programs.

Although the amendments constitute a final policy directive, the SBA accepted comments on the directive through October 5, 2012. Moreover, new regulations will be issued by the SBA and other agencies to implement the requirements of the policy directive. Thus, further changes are on the way.

The new SBIR policy directive amends the SBIR program in the areas of eligibility, the SBIR award process, SBIR program administration and fraud, waste and abuse.

Eligibility
With respect to eligibility for an SBIR award the policy directive:
• Addresses the new statutory requirements permitting small business concerns that are majority owned by multiple venture capital operating companies (VCOCs), hedge funds or private equity firms to participate in the program. Agencies electing to use this authority may issue only a certain percentage of their SBIR awards to such small businesses.
• Allows a Small Business Technology Transfer (STTR) Phase I awardee to receive an SBIR Phase II award to further develop work performed under the STTR Phase I award.
• Permits certain agencies, including DOD, to issue an SBIR Phase II award to a small business that did not receive an SBIR Phase I award.
• Provides that a small business may receive two sequential SBIR Phase II awards.

SBIR Award Process
Concerning the SBIR award process, the policy directive:
• Increases the minimum percentage of an agency’s extramural R&D budget that must be awarded to small businesses under the program. These minimum percentages increase by 0.1% each fiscal year through 2016 and then by 0.2% in 2017. The term “extramural budget” means the sum of the total obligations minus amounts obligated for such activities by employees of the agency in or through government owned and operated facilities.
• Establishes agency measures to evaluate an SBIR Phase I applicant’s success with prior Phase I and Phase II awards. The purpose of these standards is to ensure that repeat Phase I awardees are attempting to and have some success in receiving Phase II awards and commercializing their research.
• Ensures agencies make award decisions within the statutorily required time frames. The purpose of this amendment is to reduce the gap in time between submission of an application and the time of award. Agencies other than NIH and NSF must issue a notice to each applicant as to whether it has been selected for an award within 90 calendar days from the closing date of the solicitation. These agencies must then issue the actual award within 180 calendar days of the closing date of the solicitation.
• Increases the maximum thresholds for Phase I and Phase II awards to $150,000 and $1,000,000, respectively. Agencies may exceed these thresholds by no more than 50% unless the agency requests and is granted a waiver from the SBA.

SBIR Program Administration
With respect to each agency’s administration of the SBIR program, the policy directive:
• Addresses statutory changes for technical assistance provided to SBIR awardees. Agencies may contract with a vendor for up to five years to provide technical assistance to SBIR awardees, permit an agency to provide technical assistance itself to an SBIR awardee in an amount up to

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$5,000 per year or permit the small business to elect to acquire the technical services on its own.

- Creates and sets forth the policies for a new pilot program that permits agencies to use SBIR money for administration of the SBIR program. Agencies may use up to 3% of their SBIR funds for specified activities.
- Sets forth new reporting and data collection requirements. Both applicants and agencies will be able to provide statutorily required information into one or more of seven specific databases, collectively referred to as Tech-Net, which will be available at www.SBIR.gov. The seven databases are (1) Solicitations; (2) Company Registry; (3) Application Information; (4) Award Information; (5) Commercialization; (6) Annual Report; and (7) Other Reports.

**Fraud, Waste and Abuse**

Finally, the policy directive incorporates several amendments relating to fraud, waste and abuse:

- Requires small businesses to certify their satisfying the program’s requirements during the life cycle of a funding agreement. In addition to each small business certifying at the time of award that it is in compliance with law, for Phase I awards agencies must require that awardees submit a certification as to whether they are in compliance with specific SBIR program requirements at the time of final payment or disbursement. For Phase II awards, agencies must require that awardees submit a certification as to whether they are in compliance with specific SBIR program requirements prior to receiving more than 50% of the total award amount and prior to final payment or disbursement. Agencies are also granted the discretion to request additional certifications throughout the life cycle of the award.
- Establishes specific measures to ensure agencies are preventing fraud, waste and abuse in the program. These measures include a telephone hotline or web-based method for reporting fraud, waste and abuse, designation of at least one individual to serve as liaison between the SBIR program, Office of the Inspector General (OIG), and the agency’s Suspension and Debarment Official (SDO) and ensuring there is a system to enforce accountability, such as creating templates for referrals to the OIG or SDO.

**Contractors Need to Stay on Top of Changes**

The new SBIR policy directive imposes many changes on the SBIR program. For the most part these changes expand opportunities under the program, but they also increase the compliance obligations of awardees. Contractors who participate in the SBIR program or who anticipate becoming involved in the program need to be aware of these changes and the additional changes that will soon follow.

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Tony is a partner in the Albuquerque office of the public accounting firm of Moss Adams LLP. He specializes in services to government contractors. For further information, Tony can be reached at 878-7200.
Government Contractor Services Provided by Moss Adams

Moss Adams LLP is a leader in assurance, tax, consulting, risk management, transaction, and wealth services. Moss Adams has a staff of over 1,700 that includes more than 220 partners. The firm focuses on serving public, private, and not-for-profit enterprises across the nation through specialized industry and service teams.

In 1990, the Albuquerque office of Moss Adams formed its Government Contractor Industry Group, led by Tony Royle, to better serve the industry. The group consists of certified public accountants and former DCAA auditors that have specialized training and experience in government contracting. In June 2000, the Government Contractor Industry Group was featured in *The Practical Accountant*, a national publication. Since its formation, the group has continued to grow and expand and now serves more local government contractors than any other CPA firm in the region. Moss Adams’ services to Government Contractors include:

- Financial statement preparation, including audits reviews and compilations
- Out-sourced accounting using Deltek
- DCAA audit representation
- Income tax preparation and consulting
- Business and strategic planning

Anthony W. (Tony) Royle is a partner with Moss Adams LLP with over 30 years experience serving public accounting clients. He has written numerous articles, conducted statewide seminars, and is a frequent speaker on business and tax matters. He is the leader of the firm’s Government Contractor practice in the Southwest.

He is a 1979 cum laude graduate of Weber State University in Ogden, Utah where he received his four year bachelors degree in less than three years. While studying at WSU, he also simultaneously worked full-time at the Internal Revenue Service, Ogden Service Center as a tax auditor. Prior to attending WSU, Tony volunteered to serve in the United States Army where he was appointed to a special nuclear defense unit in Germany.

Tony is a certified public accountant and is also a Diplomat of the American Board of Forensic Accountants. He is a member of the New Mexico Estate Planning Council as well as a number of other organizations, including Rotary International, and is listed in Who’s Who in America and several other Who’s Who publications.

Join PACA!

PACA membership annual dues are $150*. The fiscal year runs from April 1, 2011 to March 31, 2012. Mid-year applications will be pro-rated. You may pay your dues and apply on-line at [www.pacanm.org](http://www.pacanm.org).

For more information, contact Patricia Knighten, 918-5974 / patriciaknighten@comcast.net.

* Dues are subject to change.

Spread the News

If you know a potential member or anyone else who would like to receive the newsletter, please forward their e-mail address to RoSaavedra@msn.com.

This is your newsletter. If you would like to contribute an article, make announcements (promotion, job change, or a new product or service), please submit your newsletter contribution to the editor, Ross Crown, at RCrown@LRLaw.com or call him at 764-5402.

Contributions are welcome!