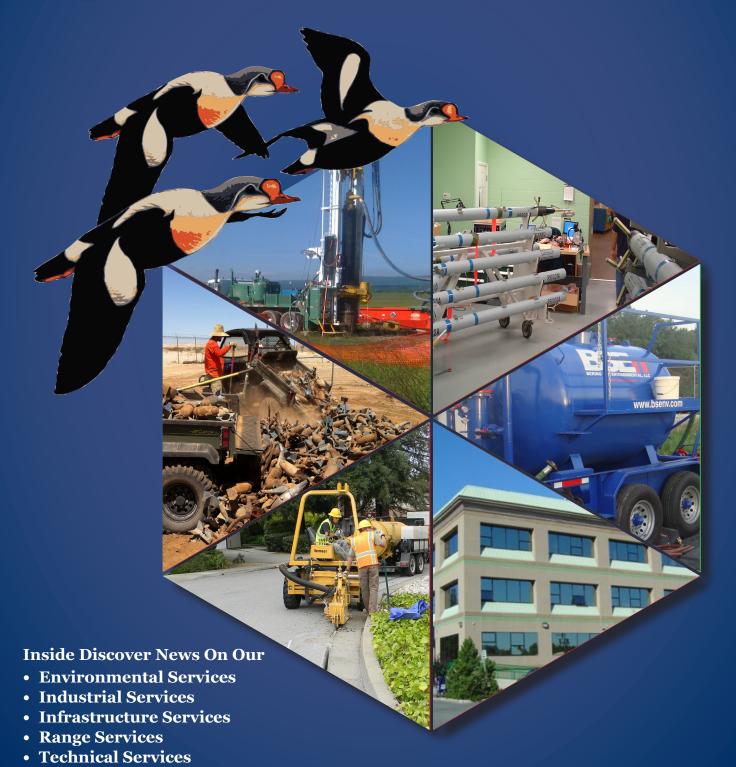
Bering Sea Group Corporate Newsletter

Diversification and Growth

Through a United Goal of

Exceeding Customer Expectations



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Parting Thoughts

William Arterburn - BSG Executive VP

BSG companies have been on a solid growth trajectory the past three years, which, given recession conditions, says a lot about our people, our performance, and our dedication to our customers, and the folks for whom we work. Things have certainly not always been so bullish, but it has been both my luck and my distinct privilege to sit at or near the top of the food chain during the past 15 years with BSG, and before that with Tanadqusix Corporation and its other subsidiaries for another 11 years. The challenges to the Pribilof Aleuts in self determining an economic existence has not always been the smoothest of roads, as we all know. But we have endured, and here we stand 26 years later having achieved sustaining revenues, and starting to learn a thing or two about making profits for our shareholders as well.

Placed in perspective, it is a huge statement that Tanadgusix companies have achieved \$100.0M or more in revenues for 3 years running. Deprived from the start by a remote island location, hampered in terms of normal educational and economic opportunity that most Americans take for granted, and disadvantaged due to our shareholders' status as wards of the federal government, the sole economic tool available to build upon for the St. Paul community in 1984 was a remarkable but outdated skill in the

harvest of Northern Fur Seals in the field. That Aleuts have leapfrogged a century or two in business development in 28 years is nothing short of astounding, and a testament to Aleut determination and grit.

It has been my humbling and enlightening privilege to play some small part in these Aleut achievements, and as I told TDX shareholders in July, the memories and encounters with the many fine folks in the St. Paul community, both living and deceased, involved in these company successes, as well as the strength, courage and resilience shown by the same folks in the face of the setbacks, struggles, and trials, have marked my memories and my life indelibly. That same sentiment extends to all our local and scattered BSG employees out there now, performing with distinction in 15 different states and Europe, meeting the daily challenges of customer expectations, and compiling a record of outstanding performance that many companies could only hope to achieve. You are unique on this planet, and you have all made it easy for me, and given me the confidence to appear from time to time as though I know something.

Unfortunately, the challenge of business and the building of great companies is that they must keep on going, growing and creating. A good enterprise is constantly rebuilding itself and refreshing itself with new people and ideas, and new leadership.

On that latter subject, it is clear to me that the time has come for me to move out of the way, and let younger more energetic types take the helm. Nothing lasts forever in this world, a fact I become more and more cognizant of every time I get up in the morning, check for the working parts, and begin a daily commute to the office. I've heard it said somewhere that the best time to start thinking about retirement is before the boss does. And while there are certainly no current pressures in that regard, it strikes me that it's best to bow out before time does a tap dance on my ability to perform.

For me that means at the end of this fiscal year, I will hand over the reins to Dean Hughes, who is eminently prepared to take on more responsibility. As determined with and by company management, I will share the benefits of my experiential and institutional memory for some period afterwards on an as needed and as available basis, but will be seeking to spend more time with a much neglected and loving wife of 42 years, and my three grandchildren.

George Burns, famous on his own for both comedy and longevity, remarked that at age 65 he still had pimples. While I may not achieve his exalted status (mine are gone when last I checked), I plan to remain active on the sidelines within family and community, and will cherish forever, the many fine friends and memories created during my times within the TDX family. Thank you all for the wonderful, lively, and enlightening times with good friends, and may you be blessed with multiple super successes, growth and wisdom in the years that lie ahead.

Security Awareness Program Packing Security When You Travel

Winter has gone to sleep and summer is wide awake. This is the time of year where the kids are out of school, families are out and about, and summer travel is at its peak. During this time of year, just getting away and relaxing usually tops our to-do list. Ideal time to travel!

Keep in mind as you pack your bags and load up all your important items, don't forget to bring "security" along with you. That right, leave room for security...its light weight, doesn't take up much space, and its easy to unpack at your destination.

SECURI Security being light weight: its easy to jot down a few phone numbers that you may need in case of emergency, familiarize yourself with your destination by scouting it out, inform friends and family of your plans giving them an idea when you are departing and when you expect to return; limit the amount of cash you bringing, if you must carry large amounts ask your traveling partner to share the load (its less likely miss fortune will strike both of you), for any international travel contact the FSO (Melvin or Lenora) at least three days before departure.

you're driving—make sure your vehicle's tune-up is current, travel with a reliable GPS (dare I say maps); travel populated roads; try not to let your gas level fall below ¼ of a tank; lock your doors at rest stops, account for traveling companions

Security doesn't take up much space; if

bags for strangers, report suspicious packages & activities to authorities, be aware of your surroundings, locate police, security, or management personnel.

Security is easy to unpack at your destination: Inform your family and friends that you've arrived, Keep identification readily accessible; enjoy yourself but maintain a low profile, Be aware of your surroundings; only carry the amount of cash you'll need for the day; when paying for something with cash—only pull out a small stash of cash (no need to reveal your entire bank-roll), account for traveling companions often, familiarize yourself with the local area, take note of land marks.

Travelers--remember there is always room for security!

> Industrial Security Contacts Lenora Kochutin FSO lkochutin@bseak.com Melvin Johnson, DFSO mjohnson@bseak.com



often, brief your children with as much information as they can effectively process, if you travel by mass transient (plane, train, bus, etc.), arrive at departure points early, keep control of your "carryons", avoid watching

Congratulations! Congratulations! Congratulations!

Bering Sea Eccotech has achieved it's second consecutive SUPERIOR rating for its Industrial Security Program. That's right; the Defense Security Service conducted a Vulnerability Assessment and found that BSE clearly exceeds the security requirements of the NISPOM. As a result of this achievement, BSE is in the running for the Cogswell Award.

The Cogswell award was established in 1966 and is named in honor of the late Air Force Col. James S. Cogswell, who was the first chief of the unified office of Industrial Security. Col. Cogswell is responsible for the underlying principle of the Industrial Security Program. That principle is the need for a true partnership between industry and government to ensure the protection of classified information, materials, and programs.

The Cogswell award is the most prestigious honor the Defense Security Service may bestow to cleared industry. Of the more than 13,300 cleared contractors, less then one percent are annually selected to receive this award.

The criteria for the award focuses on the principles of industrial security excellence, which includes establishing and maintaining a security program that goes well beyond the minimum National Industrial Security Program requirements and providing leadership to other cleared facilities to set high standards for security.

To receive consideration for the Cogswell award, a facility must be nominated by their assigned Industrial Security Representative and have two consecutive superior industrial security review ratings. They also must show a sustained degree of excellence and innovation in their overall security program management, implementation and oversight. Beginning in 2007, a facility also must have responded to the annual Personnel Security Investigation (PSI) survey as a prerequisite for further consideration.

Once initially nominated, the nominees then go through a vigorous national vetting process that includes external vetting and a national team review. The national review team then consolidates and ranks the nominations, and that ranked listing is submitted to the Director of DSS for final approval.

Accounting Community News

Jeanette Matthews - Controller: jeanette.matthews@bseak.com

Because it was requested that all departments submit articles for the BSG newsletter, even accounting, we will attempt to give you news pertinent to whomever may have an interest (and everyone has an interest in accounting because we are the people who do our best to make sure you get paid).

We have community email boxes to help facilitate long term plans as well as making sure nothing gets left undone should someone be out of the office.

<u>payroll@bseak.com</u> will get you to all payroll personnel as well as Connie Bergo.

<u>ap@bseak.com</u> will make sure bills get paid on time – this will also be used for Purchase Order requests.

<u>ar@bseak.com</u> is for all billing questions as well as any payment issues.

<u>hr@bseak.com</u> will come to Connie and Jeanette to make sure all new hires, pans, changes, questions are handled appropriately.

<u>business@bseak.com</u> is primarily for Lenora and Jeanette to make sure any business issues such as licensing and the like is taken care of.

<u>po@bseak.com</u> will be for Ernie and his backup to create Purchase Order's.

All individual emails will remain exactly as before. The idea here is to make sure everyone is covered if they are out and no work goes unfinished.

We are now set up to send direct deposit slips via email to the individual's preferred email address. Anyone wishing to receive their direct deposit via email rather than through the mail, please send an email to <code>payroll@bseak.com</code> giving permission to do this and the email address you would like us to use. This should take place no later than two pay periods after receiving the request.

We are working diligently to put in place the leave so hours available show up on individual pay stubs. We apologize for the delay in this – setting up a new system correctly takes a lot of time and effort. We are moving along more quickly as we move forward, so hopefully this task can be moved up in priority. Thank you for any feedback you provide.



OUR NEW LOOK!

In an effort to improve communication across our various companies and divisions we are proud to implement the new layout for the Bering Sea Group Corporate Newsletter. Several months have gone in to establishing this new magazine style layout. Instead of the mad scramble to try and get every company represented with all the contracts and efforts we are working on through out our various divisions as well as squeezing them into a tight format, it was decided to open up the pages, use larger text and larger photos and give more space for each of our "Service" areas to be represented in style. Our new seasonal approach (Spring, Summer, Fall, and Winter) is also being implemented at this time. We hope employees as well as current and future customers enjoy the new layout. We also realize that this is a work in progress and welcome a chance to hear your opinions or suggestions for further improvements.

Barry Merrill - IT Manager : bmerrill@bseak.com

Human Resources News

Connie Bergo - HR Manager



For those employees only who are on the TDX Health & Welfare Plan - Alternative Risk Management (ARM) the open enrollment period is now in December, the plan is currently on a calendar year. All other employees insured through the SCA AETNA plan are not affected.



WELCOME!

Please welcome Bobbie McNeil, Accounting Specialist to our Anchorage office. She started with BSE in May and we're very excited to have her on board! Welcome Bobbi!



Convert Any Document to a PDF-No Scanner Needed

Barry Merrill - IT Manager

bmerrill@bseak.com

Interested in saving some valuable time? Try this trick the next time you need a PDF document created.

You will need a Computer with Adobe Acrobat installed – which should be every computer on the current network (there may be exceptions).

Step 1 - Open the document or graphic in the originating application. (Word, Excel, etc)

Step 2 - Click the "File" option, usually located on the top navigation bar, and then select "Print."

Step 3 - Select the "Adobe PDF" option from the Printer Name dropdown list and click "OK." The "File Save" dialog box will appear.

Step 4 - Type a name for the new PDF document in the first input box. Leave the "PDF File" option selected in the second ("File Type") dropdown box.

Step 5 - Click the "Save" button. The PDF print file has been captured and saved.

Step 6 - Open Windows Explorer and navigate to the new PDF file. Open the file in a compatible application such as Adobe Reader or Acrobat to verify.

Optional Step – If you have a multiple page document that requires one or more pages to be signed, you can create a PDF file using the steps above. Print only the pages that require signatures. Sign those pages and then scan those pages as individual PDF files. Open the main PDF file you saved earlier and use the Document > Replace Pages feature with Adobe Acrobat to replace the signature pages.

Information Technology News

Julie Shane - TDXNet President : julies@tdxnet.com

TDXNet is growing to meet all your IT needs. We are dedicated to delivering quality support. Please help us by using our implemented support ticketing system better known as Track-iT!.

Our cloud based service link for Track-iT! is available 24 hrs a day 365 days a year. It can be accessed from any computer with an internet connection at the following link: http://tiweb.tdxnet.com. Using your network login information will provide you access to the Track-iT! system to open a Work Order, check on the status of an existing Work Order or even add additional information to your work order to help us determine the best way to assist you.

We understand that there are times when you computer is locked up, completely down or you do not have an internet connection. One option is to have a supervisor or coworker access the Track-iT! system and submit a work order on your behalf.

One of our newest features for reaching TDXNet Support is by E-mail. Though some of you are already used to this there have been some changes. The helpdesk@tdxnet.com is no longer a valid e-mail address to reach us. However opening a Work Ticket has never been easier. Just send us an e-mail to the following: support@tdxnet.com. Track-iT! will automatically create a Work Order using the information you provide in your

e-mail. Be sure to include a descriptive subject line and as much information as you can including screen-shots. You will receive an e-mail confirmation that a work order has been created.

System Down or Network Down situations occur from time to time and we realize that there may be no other options to reach support. We know that when this happens business production slows down considerably or comes to a halt altogether. Remember that sometimes we do have to prioritize our Work Orders beyond a first in first out basis. In those situations where you need to reach our Support Staff please feel free to call us at (907) 569-4357. We will do our best to answer all phone calls, but remember to be understanding as we may be helping others as we receive many requests for assistance on a daily basis.

During your call please be patient as the Support Staff will have to ask many questions to gain a better understanding of what is wrong so it can be documented correctly. This information will then be used to help us manage your needs more efficiently and to help recognize trends and possible signs of a larger problem with the corporate network.

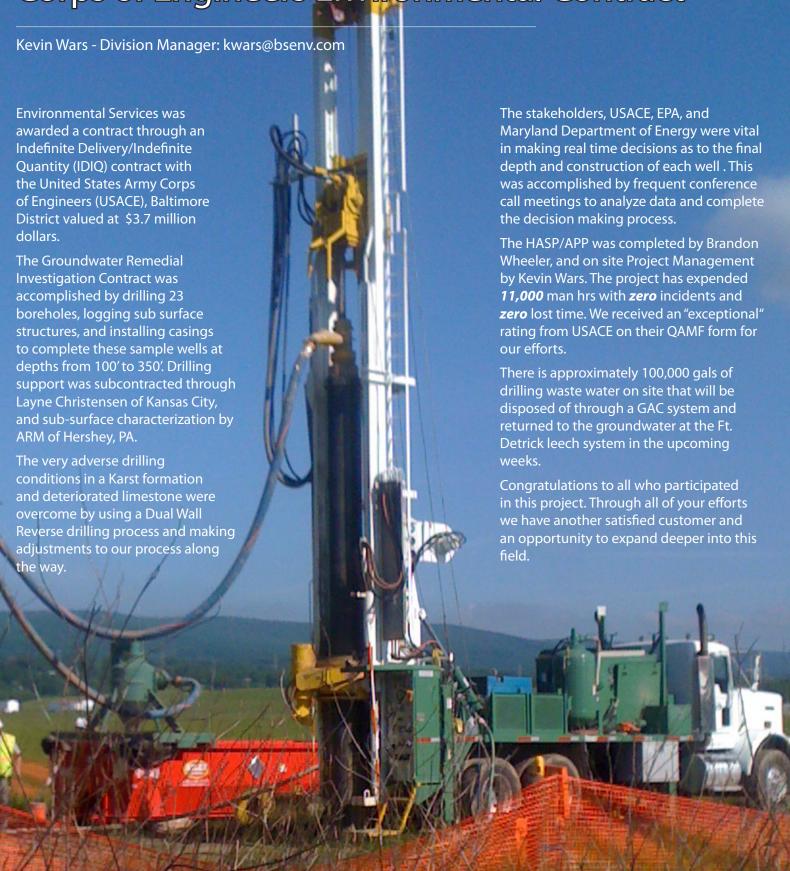
We are always striving to better serve you now and in the future as we are working to provide quality service. We thank you for your continued support and look forward to meeting all your IT needs.

Welcome John Empey to the BSE Fiber & Cable Division!



BSE extends a warm welcome and introduction to Mr. John Empey, our new design and project manager in Fiber & Cable Division based at the Anchorage Office. John will be primarily responsible for design/engineering, QA, and project management of installations under the leadership of Guy Sanford. John has over 30 years experience in the field of telecommunications, he brings a wealth of experience in ISP and OSP projects as well as project management and marketing. John can be reached by email at jempey@bseak.com or by phone at (310)-562-8114.

Ft. Detrick Groundwater Investigation Corps of Engineers Environmental Contract



Anderson Building

Clean Up and Demolition Moves Forward

Brandon Wheeler -Corporate Health & Safety Manager bwheeler@bseak.com

As you may recall from last quarter we told you about the Anderson Building succumbing to fire in February. Although the legal and insurance considerations were lengthy, mostly due to complex ownership, leasing, and insurance coverage for the involved parties, funding was approved by Allied Insurance and mobilization began on July 9th. TDX will be looking to BSE as the prime contractor in the cleanup and demolition effort. BSE has directly contracted environmental consulting services of Seattle-based G-Logics, Inc., originally retained by Trident for the initial site assessment. G-Logics produced a professional and comprehensive initial assessment report and their familiarity of the site, project, and logistics of St. Paul was seen as an invaluable resource for BSE's eventual successful completion of the project.

BSE received its first shipment in St. Paul from Coastal Transportation on Saturday, July 28th, which included some larger project materials and equipment including a Bobcat with attachments and a 50,000 pound shear (shown below on transport ship and to the right being unloaded). A shear is an excavator with a Transformers Robot-like arm that will



Environmental Services

be capable of cutting most metals that make up the Anderson Building and its contents. Those pieces not cut by the shear will be cut by workers using oxygen/acetylene or plasma metal cutters. BSE will have a half dozen or more local workers hired to work on this project. BSE is providing 40-hour and 8-hour HAZWOPER training to St. Paul residents free of charge and regardless of employment or application status. BSE scheduled initial 40hour HAZWOPER training for 12 individuals and an additional 16 people signed up for the 8-hour refresher training. This is another unique opportunity for TDX subsidiary employees and other local workers to receive beneficial training that may or may not be required for their positions.

Once the crew is current in training, invasive work will begin Monday, August 6th. The effort will start with assisting G-Logics to address any areas with specific contaminants so they can be properly containerized for characterization, transportation, and disposal. Once the limited sensitive areas are addressed, then full scale demolition will occur. The building will be pulled apart and reorganized on the existing footprint into major groups of materials for

recycle or disposal. Some of the major categories are iron (building infrastructure, equipment, crab pots, drums, etc.), metal sheeting (roofing and siding), salt (for Trident brine tanks), burn debris (byproducts of wood, plastics, and other materials consumed in the fire), and the concrete slab from under the building. An additional shipment of open-top containers,

drums, super sacks, and other cleanup materials is scheduled to arrive in late August. Only clean, specialized material is slated to remain on St. Paul with 95% of the building and its contents scheduled to be packaged and loaded on a fall, Seattle-bound barge.

This opportunity also lends itself to another St. Paul junker/clunker roundup. With the equipment, personnel, and southbound barge available, there is a high probability that defunct trucks, automobiles, and equipment can be removed from the island simultaneously. If this does take place, only vehicles with batteries, fluids and tires removed will be accepted, as before.

The estimated schedule for completion is mid-September and is contingent upon barging availability and logistics. Ideally, site work will be concluding at August's end and packaging and loading of the barge will be completed in the following two weeks; mid-September. Although the Anderson Building has a one-of-a-kind diary including original sealing operations and crab, fish, and snail processing, the history was not lost with the fire, and some local benefit will be had as the current unsightly mess is leveled and removed.



Industrial Services

BASF Flawless Contract Execution

Derek Peterson Chemical Services Manager: dpeterson@bsenv.com

BSEn Chemical Services recently completed the large scale Ethylene outage for BASF-Sabina Petrochemicals Plant located in Port Arthur, TX. This BASF site is a worldwide leader in the production of Ethylene, Butadiene and Propylene. The turnaround was a major capital upgrade project for BASF and involved over 300 different contractors and lasted 60 days.

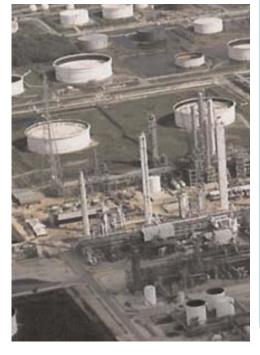
BSEn Chemical Services group played the largest role of providing specialized chemical cleaning and passivation services for the various process units in the facility.

Passivation:

To treat or coat (a metal) in order to reduce the chemical reactivity of its surface.



BSEn's Lance Chapman (left) and Cary Kneupper (right) at BASF-Sabina giving a "thumbs up to safety!"



Industrial Services would like to give special recognition to Derek Peterson. Derek is the Division Manager for the BSEn Chemical Cleaning Services Group. He has been with our company since March of 2009. Chemical cleaning was a new service line for BSEn with no existing customers. In the past three years Derek has built a client base that includes facilities owned or operated by CITCO, BASF, Lyondell, Sasol, Calumet, and ARSC. All are major corporations in the refining and petrochemical business. Annual revenue for this division has shown an average increase of \$1,500,000 per year since start up. Derek has assembled a proven A-Team of personnel and supervisors. Bering Sea Environmental, which was completely unknown for this area of expertise, is currently considered one of the leading providers of

chemical cleaning services in the gulf coast region.

Congratulations to Derek and his team for a job well done.



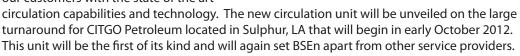
BSEn accumulated over **7,000** man-hours for this project and finished with **ZERO** safety incidents, **ZERO** recordables, **ZERO** Near misses, and **ZERO** impacts to the environment. BSEn has been awarded several more projects based on our outstanding performance during the Port Arthur project. A lot of credit goes to not only the field personnel who performed the work, but also the office and corporate office personnel who supported this work!!

Acquiring new equipment

BSEn recently purchased several new pieces of equipment, most notably the industrial rated bicycles (shown below) and the new Ford F-550 diesel crew truck (right). This truck will be the primary means to haul all of our equipment, circulators, and pumps around to the various client sites in the Gulf region.



BSEn is also finalizing the construction of a new 40' trailer mounted circulation unit (shown below under construction). This circulation unit will allow BSEn to continue to provide our customers with the state of the art







Infrastructure Services

Work Continues with GCI in Alaska

Guy Sanford, Program Mgr: gsanford@bseak.com | John Empey, Design & Project Mgr: jempey@bseak.com



STOP



As soon as the Municipality of Anchorage released construction permits at the end of June, BSE micro-trenching began. Wasting no time, thousands of feet of trenching and micro tubing have been placed in the Cinnabar Loop business park. Once the loop has been completely trenched and the tubing installed, certain designated businesses will receive dedicated fiber-optic connections. When GCI completes the hardware installation, these businesses will have the opportunity to increase their data transmission capabilities ten to a hundred fold.

As planned, our crew works evening hours to avoid normal traffic during the day. This allows our crews to be much more efficient and cost effective. We are taking advantage of the long daylight hours and this allows our team to be rested and ready to go each day. The BSE crew has adapted well to difficult soil conditions and we expect to have the project completed by the end of August. Making up this hardworking and diversified crew we have three native Alaskans, as well as two females both are local to the Anchorage area.

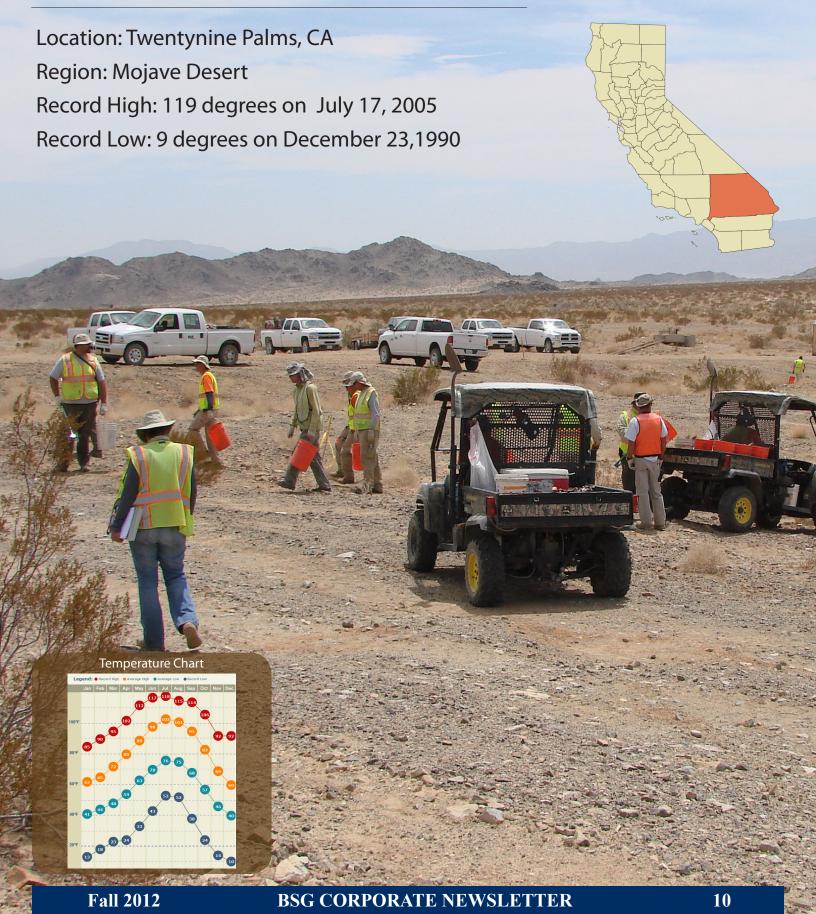
With our continuing successes, GCI has offered up some smaller projects in and around Anchorage this summer and BSE is looking forward to partnering with GCI for many years to come.

Looking forward, we have successfully bid a project for the Port of Long Beach in California. The scope includes installation of Emtelle micro-tubing and fiber in over 20,000 feet of existing OSP conduits for the Port's security department to support a new Maintenance Building currently under construction

In other Fiber & Cable news, new contracts have been released from Shelton Choy's group; CEI and currently we are beginning to ramp up for the Outside Plant survey and design work on the main island of Hawaii. This work covers many miles of roadway and commercial areas. Additionally we are in conversations with a new USC Research Cancer Center which could possibly lead to a large WAN/LAN network and inside wiring opportunity in Los Angeles.

Range Services

If you thought it was Hot, try working in these conditions



Helpful AppsOSHA Heat Safety Tool

When you're working in the heat, safety comes first. With the OSHA Heat Safety Tool, you have vital safety information available whenever and wherever you need it — right on your mobile phone. The Heat Safety Tool Application is available for Android, Blackberry, and iPhone systems.

The App allows workers and supervisors to calculate the heat index for their work site, and, based on the heat index, displays a risk level to outdoor workers. Then, with a simple "click," you can get reminders about the protective measures that should be taken at that risk level to protect workers from heat-related illness—reminders about drinking enough fluids, scheduling rest breaks, planning for and knowing what to do in an emergency, adjusting work operations, gradually building up the workload for new workers, training on heat illness signs and symptoms, and monitoring each other for signs and symptoms of heat-related illness.

Stay informed and safe in the heat, check your risk level.

Download the Heat Safety Tool on OSHA's web site:

http://www.osha.gov/SLTC/heatillness/heat_index/heat_app.html



Responsibility

BT Smith - Director, Technical Services btsmith@beringseagroup.com

This has been a very hectic time of year. We are preparing for our second Red Flag Exercise of the season. We have submitted and negotiated our REI upgrades for RAF Lakenheath and Spangdahlem AB and are awaiting award so we can develop our actual installation schedule. Unfortunately we lost an excellent Site Manager in Will Anderson when he departed Lakenheath and headed home, but fortunately we found an excellent replacement and he is now inbound. We are finishing up our participation on developing our Team's proposal for the Navy's Combined Tactical Training Ranges (CTTR). As things change and move forward each of us has responsibilities to ensure not only our success at work but at home. Sometimes as things pile up we have to prioritize our various responsibilities, and sometimes this requires us to ignore or "put off" some of our tasks to ensure that we take care of those responsibilities that are of a higher priority.

Well this year there is one responsibility we all share and need to ensure we make a priority. What responsibility is that, our right and responsibility to vote. I am certain each of you are at least a little disillusioned in our politicians, but the best option we have in having them hear our voice is to take the time to cast our vote. Of all recent elections I expect this to be a very close race and you need to take the time to vote and if you are going to be on the road ensure you obtain an absentee ballot. In my entire career over half of my votes have been cast by absentee ballots. How important is voting, it is important enough to have a corporate policy to address the issue. Our Voting Leave Policy can be found on the Bering Sea Group Employee Resources site at the following link: (http://www.beringseagroup.com/bsgsecure/bse/policy-corporate.html). So make a plan, take the time and ensure your voice is heard, vote!

Technical ServicesOPS in the Distant Frontier

Neil Emiro - Project Manager/Systems Engineer : nemiro@bseak.com



When we first got the word that we would be doing electronic warfare (EW) and ACMI pod training missions outside Fairbanks, Alaska, I think that all of us from the lower 48 were excited, but nervous at the same time. On the one hand, what a great opportunity for adventure, but on the other, we were aware of the issues of operating and maintain the vast array of electronic equipment spread throughout the extreme Alaska environment. We were heading to the Joint Pacific-Alaska Range Complex, or JPARC as it's called. In the air combat training world, JPARC is legendary for its rugged terrain and complex training environment. JPARC experiences all the weather one can imagine - from sunny skies and nearly 90° in the never ending sun of summer, to snow and brutal -50° winters. Still, when we got the call, we jumped!

So what do we do there? Well, the answer to that question is, LOTS! It has long been established that if an aircrew can survive their first ten missions, then chances are, they will survive the entire conflict. The

whole idea of the JPARC is to provide them those missions in an environment where they will come home, and then learn from any mistakes made.

We start with the Air Combat Maneuvering Instrumentation, or ACMI pod shop. The ACMI pod shop at JPARC is similar to the ones we manage 'state-side' and in Europe, but like everything in Alaska, it's bigger. There are hundreds of pods, each for the several different types of systems, each with different purposes for different missions and aircraft. Our crews maintain all these different pods, and place them on aircraft. Which reminds me - there aren't only USAF aircraft at JPARC. Instead we see aircraft from all of our services, and also those of our ally nations. This means that our ACMI pod crews have to deal with dozens of different types of aircraft, which explains why there are so many pods.

We also operate and maintain various radars to ensure we are able to track all participants, not only those carrying ACMI pods. Once airborne our threat system operators and maintainers provide a realistic electronic warfare environment for aircrews. By simulating the radar signals that real surface to air missile and anti-aircraft artillery systems would send out, we set up scenarios that aircrews would see on their instruments if they flew into a war zone. By training against our simulators, the aircrews learn how to evade and defeat these systems. This prepares them for the real thing, and increases the chances that they will make it home from a real mission. Simulating EW systems is just the start.

We provide safety observers that monitor the "fight" and ensure those that are simulated killed, either from airborne or ground threats actually kill remove to simulate a real combat engagement and provide weapons scoring for those attacking ground targets.

Once a mission is completed, our employees in the Combat Training Center take over. There, the returning aircrews will see debriefs of their missions, to learn how to be more effective. Our debriefers also need to handle one more key piece of complexity. Not all of the aircrews are there. No, in fact, some land at Elmendorf AFB – 360 miles away, in Anchorage. Our technicians link the bases together through a video teleconference system, and send debrief information back and forth through secure networks, all of which has to be maintained by even more technicians. It truly is amazing!

All told, it takes a very skilled team to run everything that BSEn is responsible for which is, spread out over tens of thousands of square miles! Some areas we drive to, others are accessible only by helicopter. All of us feel a strong sense of duty and commitment throughout all of this. We all know that the training these aircrews receive while in our care, will help them to not only be more effective in the jobs that they do, but we also know that they will be safer, and chances are, they are all coming home from a mission to their own loved ones.



Technical Services Division - ECSS Employee of the Quarter



Christopher VanSlooten Electronics Tech Eielson AFB, AK

Job Performance

- Consistently maintains all data links, radios and related equipment scattered throughout 654,000 acre Pacific Alaska Range Complex at or above 99% Equipment Availability Rate (EAR) since 1 November 2011
- Motivator/Mentor—with transition to Exercise status has trained all shop new hires without a single impact to operational requirements or maintenance schedules. His trainees have rapidly become individual stand-outs due to his mentoring.

Community Involvement

· Actively involved with the Fairbanks Humane Society in rehabilitation of sled dogs

Langley AFB, home of the 1st Fighter Wing, and its F22 aircraft presents a brand new problem in air combat training. Unable to carry ACMI pods, the F22 also has no recording device for debrief in use. How will aircrew debriefs work in a world that has become reliant on debrief systems like the P5CTS system we use at other bases? Do we go back to sticks, models, and hand gestures? Fortunately for Langley, this will not be the case.

BSE's Radio Equipment Integration (REI) for the P5 Combat Training System, in use at a few of our state-side bases helps to solve the F22 problem. Before we get into that, let's talk a bit more about what ACMI and REI are, and what they do.

Most USAF fighter bases are equipped with some sort of Air
Combat Maneuvering
Instrumentation, or
ACMI system, the most modern of which is called P5CTS. These

systems record how an aircraft flies during a mission, and also transmits that same data live to a receiver on the ground. Upon return from the mission, data recorded by the system is used to form a



Technical Services

Langley AFB Modernizes for Next-Gen Aircraft

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Project Mgr/Systems Engineer

the aircraft, like F22, cannot carry an ACMI pod? Enter REI.

Engineered and developed entirely inhouse by BSE, REI solves these problems, and brings greater capability to the system in a number of ways. First and foremost, REI provides infrastructure, so that the RRU can be paired up with voice communication radios. What's more, the RRU and radios can be located hundreds of miles away from the base – closer to where the aircraft are flying. This allows data and voice communications. At the base, REI does even more. By providing a simple hardware and software interface an operator on the ground can communicate with flying aircrews, passing along target,

scenario and other information.
But there is more. Through
careful engineering,
REI turns the P5CTS
system into a modular
setup that allows other devices
to be stacked on – like Lego
blocks.

And it's through this modular setup that

Langley's F22 problem is solved. As noted

earlier, the F22 cannot carry an ACMI pod. This means that we should have no way of tracking the aircraft. We don't, but the FAA tracks ALL aircraft flying in US airspace through radar systems. By adding a device called RADS, we can take data from FAA radars, process it, and inject it into the P5CTS debrief system. While not as ideal as an ACMI pod, we can nonetheless 'track' the stealth fighters. Merging this data with data from aircraft that are carrying ACMI pods and other devices, and coupling it all with real time voice communications, Langley AFB solves the F22 problem, and is once again integrated into the modern training world. No sticks or models required.

debrief – a sort of video game replay of the whole mission. In this way, aircrews can see how their aircraft and tactics fared against other aircraft. With the ground receiver, called an RRU (*pictured to the left*), aircrews that are not flying that day can watch the action unfold, live. This is a great enhancement to training.

There are problems, though. For instance, the RRU has a limited range. On top of that, aircraft rarely fly right near the base, so they can quickly get outside the RRU's receiving range. And what if pilots want to talk to someone on the ground? Sure, that works well if they are near the base, and a radio is available. What if they are flying hundreds of miles away? What if

BSENIG SEA ENVIRONMENTAL, LLC An Alaska Native Corporation

Technical Services Division - ACTS Employee of the Quarter



Howard
Jefferson
Electronic Tech II
Langley AFB, VA

Job Performance

 Outstanding Performer—successfully transitioned entire wing from support for podded F-15 aircraft to non-podded support the F-22, provider for over 900 sorties, converting flight data to provide for post mission debriefs

Self Improvement

• Completed all course curriculum for Associates Degree in Electronics Engineering and is pursuing his Bachelor's

Community Involvement

Volunteers as Youth Basketball Assistant Coach for "Black Widows"



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