PIONEERS OF STEALTH ™

NEWSLETTER

Pioneers of Stealth Memorial - First Anniversary

Photo by Denny Jarvi

What's Inside . . . . .

LETTER FROM THE PRESIDENT

Greetings Pioneers,

Welcome to our summer edition of the Pioneers of Stealth™ Newsletter. It's hard to imagine but 2024 marks the 50th year since Ken Perko joined DARPA and posed the question to industry: "How low does the radar signature of an aircraft need to be to defeat the new (and future) threats." Three years later on December 1, 1974, Have Blue 1001 took to the skies on its maiden flight and changed the future of military combat aircraft. The Pioneers of Stealth have good reason to to be proud of our heritage and contribution to national security.

The Pioneers of Stealth (POS) also have another milestone: the one year anniversary of the POS Memorial Dedication to the National Museum of the USAF. This newsletter includes the "Journey to the Memorial" article and information on how to access the 190 professional photos located on the POS website.

The spring edition of the Newsletter discussed our initiative to register the Pioneers of Stealth trademark with the US Patents and Trademarks Office. Our submission in February was accepted and has been in process with no queries…which is good news. We originally anticipated receiving approval in July/August; however, we have been notified that that due to a backlog at The US Patent and Trademark office, the approval date may slip to the October/November timeframe.

Finally, the POS Leadership Team's most important task is the planning and execution of the biennial reunion. We have kicked off the detailed planning effort for the 2025 Reunion to be held in Orlando, Florida, and have selected the week of October 20, 2025, as the date for the next reunion. October is one of the best months to visit Florida with temperatures around a high of 80° and low of 65°, seven hours of sunshine per day with fewer tourists to steal your rays, and lower chance of hurricanes interrupting your stay. Your leadership team strives to make these reunions memorable events. As such we will be soliciting via a questionnaire your preference on a variety of topics such as hotels, dining, transportation, events, and venues in order to enhance the experience. Keep an eye out for our email. Your input is important and participation is greatly appreciated.

I hope you and your families have a great summer and look forward to catching up in the POS Fall Newsletter.

Cheers,

John Summerlot

Journey to the Memorial

On July 17, 2023, the Pioneers of Stealth (POS) Memorial was formally dedicated to the National Museum of the United States Air Force, Wright-Patterson Air Force Base, Ohio. This Memorial "recognizes and celebrates the thousands of men and women in the U.S. government and aerospace industry" who worked under the cloak of darkness to create the "first family" of low observable (LO) military aircraft. These initial HQ USAF projects were vital to the much needed solution of increasing aircraft survivability in challenging combat operations. The Memorial focuses on the initial four aircraft managed by Aeronautical Systems Division (ASD), namely Have Blue, F-117A, Tacit Blue, and B-2 bomber. From day one of the conception of the POS memorial, the goal was to honor all pioneers who were a part of the early historic LO aircraft accomplishments.

In the early 1970's, HQ USAF and DARPA initiated studies into reducing aircraft signature as a method of avoiding radar detection during USAF combat missions. The innovation of the concept of low signature observables technology became the survivability priority versus the historical conventional electronic warfare as the means to reduce loss aircraft and pilots. The USAF proceeded to create a compartmented system program office to develop LO programs with the goal of protecting this technology for three to five years, minimum. In 1981, this office was

Group photo inside of the manufacturing area

formally acknowledged as ASD/XRJ. (See ASD letter establishing Directorate of Low Observables in this Newsletter)

The Memorial Project began in 2017 when Dennis Jarvi was asked by the POS leadership to investigate building a monument dedicated to the "pioneers" of the "first family" of LO aircraft. A small team was formed. Larry Morrison at Dodd's Monuments was contacted for advice about the process of designing, building, and installing a monument at the USAF museum. The memorial team showed Larry a monument concept; he asked "how big was our budget," and the response—$7,000." He replied, "That will get you a bench." The effort quickly came to an end.

Early 2021, the POS leadership again brought up the idea of a memorial and asked Denny to lead the project. Realizing the scope and expense of undertaking this project, he put together a team. POS team members initiated the planning, designing, and management tasks. POS Membership selected the final design and construction commenced. A

Journey to the Memorial Continued on Page 13

Excerpt: Living In The "Black World"
Conversations with the Early Pioneers of Stealth
Interview with Sue Hoag
"She Who Always Had the Final Word"

Ms. Hoag: When I first came to Civil Service in 1977, the Black World, as they were then known, had a little room behind a green door in Building 56. This was the door that no one asked about or talked about. It was just there. I worked in the area, but not in that world. It was just close to my office and I was terrified of the whole thing. I knew that if I did something wrong, I would be shot and killed. Later, they moved to Building 14 into a little room in the basement. It was very bleak.

Betty Jo [Frei] and I were friends. In 1979, I was miserable working in an engineering home office. There was nothing to do. I mean, I made wreaths for Christmas. That's what I did: I decorated the halls. I moaned and groaned to Betty Jo about it. So she told Colonel Jack Twigg, the program manager, and he called me for an interview. He said, "Just go into an empty room and I'll meet you there." "Oh, Okay!!" I was going to be the engineering secretary for a special project for Mr. Rall, the chief engineer of ASD [Aeronautical Systems Division]. I jumped at the chance and this was the start of the best experience I have ever had. Lieutenant Colonel Pete Knauth, chief of security in the office, was a big guy and was the one to give me my in-brief on the program. I knew I'd do something wrong. I'd lose my job, I couldn't feed my kids, I'd lose my house. Oh my God, I was so terrified. This guy sat me down and went through this thing, telling me about this invisible airplane. "Wow! An invisible airplane, I saw that in Wonder Woman cartoons, I didn't know they were serious. Wow, this is really cool." Many years later, I told Pete, "Pete, I finally figured out what you were talking about. For years, I really thought we had an invisible airplane." I think that's why I lasted so long. I didn't try to understand certain things. I just put them out of my mind. I didn't want to know. Well, he gives me this whole entire spiel and has me sign this piece of paper swearing never to disclose any information regarding this program. Then he says, "Now, Sue, you have just walked through Alice's magic mirror. If ever anything about this program comes out, and I track it down to you, I will donate my life to seeing you behind bars." To this day, there are words I will never say. I mean, I know I can say them, they are out there in the world, everybody says them every day. But let me tell you, when this man tells you you don't say it, I don't say it. He looks like a big brute of a guy, but he is one of the nicest people, very soft-hearted, but scary.

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Sue Hoag Interview - Continued from Page 4.

They (engineers) were on the road so much and we worked like dogs. We didn't mind because we were doing something that we were proud of and were very excited about. Of course, we could only tell each other, no one else.

When I went down there, the engineers never had a woman sitting back there with them. The first day I went in, I said, "Okay guys. I'm a working woman. I'm not a virgin any more. I'll say 'shit' and 'hell' with the best of you, you know. I don't faint if somebody says 'damn.' But there are two words that I will not, I will not put up with. As much as I'll play, I'm still a lady and I WILL be treated as such. Plus you are smarter than that and you don't need to use those words." They said, "What are the words?" I said, "I'm not going to say those words. But if you say it, I'll let you know." It didn't take very long for the first word to be used. I stood up and said, "That's one! Now, whenever I hear you say this word, you are going to have to pay me a quarter." I still have the bank. It's a little hound dog. I sent my son to college on the funds.

Colonel Twigg was and is such a gentleman. I never heard him say the words, but ONCE! I was sitting at my desk and he didn't know I was there. He was on the phone with some guy that had really disappointed him. He was livid. He was screaming, I mean the old F-word was just flying. Always before, I would say, "Okay guys," go put my hand out and they would give me the quarter. You know, it was a running joke. This time, I thought, "This is not the time to tease Colonel Twigg. I don't think I'm going to tell him that. No, no, no, no." But I told him about it when we had the reunion, probably ten years later. I said, "Remember that time you were on the phone and you were cussing out that guy? Here's my bill, you owe me seven dollars." Then he could laugh about it. I'm not sure he would have seen the humor in it at the time.

Bill Elsner was the original chief engineer. He was really a pill. You just had to argue back with him. When he turned 60, we decided to have a surprise birthday party for him. So we told him I was leaving and I wanted him to attend my going-away party. It started small, but then it grew and grew. We found lots of early workers and contractors that we hadn't seen in a long time, etc. It grew to over 200 people. It was at that time the Pioneers of Stealth was started. We had such a good time talking about old times, we decided to get together every two years on Friday before the [Dayton] Air Show.

After his retirement, he became very ill and was in the hospital. He was being really grouchy and his daughter said, "Daddy, you had better be nice. These people aren't going to like you." He says, Ha! I've been a pain in the ass all my life and when I turned 60, I had 200 people show up at my birthday party, so I must be pretty good."

Skip Hickey is wonderful. He worked so hard. They all worked so hard. The first day I walked in, I heard this little

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Sue Hoag Interview - Continued from Page 5.

voice: 'I'm not coming out. Forget it. I love my kids. I love my wife. But I'm never coming out. You can't make me come out." I looked all over and here was Skip curled up underneath his desk. I didn't know him well enough to say, "Skippy, get your ass from under there." But I learned to do just that. He had the ability to know the right place and time to make people laugh. He always helped us get over the rough places.

Once Tom Willen, another of the early engineers, was told that he was coming to work in the black hole. Back then, you didn't get a choice. If they said you were coming, then you came. He was really fighting it though. He had heard about the long week hours and travel needs. So Skip told him, 'You know, it's so secret in our office that we are not even allowed to know who we work with. We all wear paper bags over our head." Of course, Tom goes, "Yeah, right." "I swear we all wear paper bags on our heads." When the day came for Tom to come over, Skip told him. "Go and stand over in the canteen with a newspaper under your arm and I will find you." Well, on his way to get Tom, Skip comes by the secretaries office. He says, "You're not going to believe what I told this guy. And he's coming over here." I said, "Skip, you know we have to do it." He says, "I know." So all of us handed out paper bags to everyone in our office. These were trash bags that we put classified trash in. We all took the paper bags and drew faces on them. Mr. Elsner always had a pipe in his mouth so we cut out a place for his pipe and the rest of us had cigarettes coming out and everything. So this guy shows up and he walks into the secretaries' office. He sees us and he goes, "Ha, Ha." But nobody laughed. One of us was on the telephone. Another was typing and Betty Jo stands up and says, "Hello, it's very nice to meet you," and shakes his hand and everything. Nobody laughed. Then he went into the back room where all the engineers were. Every last one of them had a bag on his head. Mr. Elsner, yes, our chief engineer, is sitting there with his pipe coming out of his bag. Poor Tom about had a stroke. He went home that night and said, "You are not going to believe…." So it became a running joke. When Don Merkl left—I think it was Merkl—we took a picture of all the secretarial staff with paper bags on our heads. It just kept getting funnier and funnier and funnier.

The B-2 has a bag picture. They're standing holding nothing, acting like they're holding a plaque but there's nothing there. My sister-in-law works over at another office which is a offshoot of our early days and she was

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Sue Hoag Interview - Continued from Page 6.

telling me, "We are going to make a group picture and they wanted me to put a bag over my head." I said, "You got to be kidding. They're still doing the bag pictures?" She says, "Yes, but I have no idea why." I said, "Well, I'll tell you why." So they're still doing the bag pictures. Ours was the very, very first one. That was about 1981 or '82.

I wish everyone could have a job once in their life like we did. It was wonderful.

(For the complete interview with Sue Hoag and others, visit: ***Living in the "Black World"*** at www.pioneersofstealth.org.)

[Sue Hoag, a treasured member of the USAF Program Office at Wright Patterson AFB, Ohio, was recognized as a Pioneers of Stealth Honoree in 1998. She passed away Feb. 16, 2010.]

Jack Gordon Joins the POS Senior Advisory Group

The passing of Sherm Mullen in April 2024 left a vacancy in the membership of the POS Senior Advisory Group (SAG). Consistent with the POS Charter, Sherm was the industry member of the four member Senior Advisory Group (SAG). The POS Steering Committee and SAG has assessed replacement candidates and are pleased to announce that Jack Gordon has accepted the offer to join the SAG.

Jack joined Lockheed in 1963 and held numerous positions to include deputy program manager and chief engineer of the F-117. He served as President of Lockheed Martin Skunk Works from 1994 until his retirement in 1999.


Lockheed Martin photo

Skip's Stealthy Book Corner

BOOK REVIEW: "AREA 51: An Uncensored History Of America's Top Secret Military Base" by Annie Jacobsen

Back Bay Books; Little, Brown & Company Printing 20, 2023 384 pages (not including references, interviews, notes, etc.)

The Nevada Test and Training Range (NTTR) occupies 4687 miles of the state of Nevada. It encompasses the Nevada test site and Area 51.

Annie Jacobsen's fascinating narrative covers a broad range of topics, all interesting and informative. You will learn about the people who made things happen, Interservice rivalry, political decisions and their effect on world events. The high points include the description the nuclear weapons testing at the Nevada test range, and the establishment of Area 51 to test and deploy Lockheed's U-2, A-12, and the Air Force SR-71. Her findings on UFO's will leave the reader wondering.

She connects all these diverse topics by her own exhaustive research, and interviews of 74 Individuals, 32 of which worked and or lived in area 51.

I recommend it. I'll give it 3.5 stars out of four.

Skip Hickey

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Evolution of the Low RCS Signature Pylon

[At the request of the Pioneers Of Stealth, Jack Twigg, Colonel USAF (Retired), has provided the history of the evolution of the of the low signature pylon and the invention of the Azimuth/Elevation (Az/El) positioner for low observable measurements. He did this in coordination with Mr. Roy Wubker, Dr. Carl Mentzer, Mr. Fred Oshiro, and Mr. John Summerlot.]

During the Phase 0 portion of the Defense Advanced Research Projects Agency (DARPA) Experimental Survivable Testbed (XST) program in the early summer of 1975, Lockheed 'Skunk Works' took a .25 scale Radar Cross-Section (RCS) model of their aircraft concept to the McDonnell Douglas Grey Butte outdoor RCS test range near Palmdale, CA. Grey Butte was managed by Bill Mount and had a reputation for providing accurate, affordable, and timely RCS test data with a foam column target support that had the "lowest" RCS signature at the time. The Lockheed .25 scale model was mounted on a foam column that was rotated by a turntable mounted at the bottom of the column for data collection.

RCS Foam Column

However, during the test, the only data recorded on the analog strip chart was the RCS of the column. The rotation of the foam column was stopped to have a look outside of the control room trailer to see if the model had been blown off the foam column by the ever-prevalent Antelope Valley winds. But the model was found to be still there, which immediately sent a quiet shock wave of hope and excitement that a potential breakthrough in the passive RCS signature reduction of an aircraft design may have been achieved. A couple of months later, Northrop had the same experience at Grey Butte with their .25 scale aircraft concept model.

The XST Phase I competitive program was awarded to Lockheed and Northrop. It was required each contractor to build and test full scale models to determine the RCS of their best aircraft design. The winner of this RCS test competition would go on to Phase II of the program that would build, fly, and dynamically test in flight the RCS of their aircraft design, which were statically tested earlier during Phase I. Since both companies had the same experience with the foam columns at Grey Butte that limited the ability to accurately measure the target RCS at very low RCS levels, a new way of statically testing these low RCS aircraft concept had to be invented - immediately.

The ability to measure these new low RCS aircraft designs was not only necessary, it was critical to the

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Evolution of the Low RCS Signature Pylon - Continued from Page 9.

successful outcome of the program and the entire Low Observable (LO) revolution it ignited. Prior to the Yom Kippur War that ultimately promulgated the DARPA XST program, Electronic Warfare (EW) was the established and well-funded USAF path to "ensure" aircraft survivability. Yom Kippur, however, and the post analysis conducted thereof during the 1974 Defense Science Board Summer Study, revealed that the EW methods had failed miserably in the Arab/ Israeli Yom Kippur conflict. This placed the USAF at significant risk if a war were to erupt with the Soviet Union in Europe. The new proposed passive approach to aircraft survivability sought by the XST program clearly reduced the need for complex EW systems as the solution for combat aircraft that urgently needed survivability solutions. If successful, the RCS data collected had to be accurate, without question, to have any chance of turning the funding tide away from the EW community. In addition, many experts consulting to the Pentagon had established a "line-in-the-sand" minimum limit of RCS achievable for an aircraft design. The initial tests at Grey Butte indicated that the levels achieved by the new aircraft design concepts were orders of magnitude lower than what the experts had asserted the lowest levels could be to the Pentagon. Accordingly, the RCS measurements obtained by the XST program had to be without question. Achieving the necessary measurement accuracy would require an alternative to the typical ground surface turntable-mounted foam columns. Without high quality RCS measurements, it was doubtful that the XST program would have resulted in anything more than a science project instead of the breakthrough that forged a change in the culture of USAF combat aircraft design forever.

Lockheed and Northrop began working the foam column replacement problem at Grey Butte. At Lockheed, Denys Overholser led an effort testing the RCS of various faceted shapes, about 14 feet in height, to serve as potential target supports. These tests of plywood faceted shapes covered in sheet metal resulted in a double wedge shape facing the radar transmitter. This shape of the column provided the lowest RCS while still structurally viable as a target support. At Northrop, Fred Oshiro, and his experience with Northrop's RCS computational program, GENSCAT, that was rooted in the RCS of simple shapes from the earlier work by Crispin & Siegel, insisted that an ogive cross section over the column length was superior both for RCS and structurally superior over the double wedge. However, both approaches had issues that required compromises due to the changing background levels and target interactions as the fixed metallic support-structure with the target at the top was rotated by the ground surface turntable.

Installation of ogive RCS pylon at RATSCAT

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Evolution of the Low RCS Signature Pylon - Continued from Page 10.

Dr. Carl Mentzer from the USAF Laboratories at WPAFB was studying non-specular RCS reduction techniques. The XST program office requested that Dr. Mentzer mediate a resolution to the resulting impasse between the two competing contractors. The issue had to be resolved because only one column support system was to be funded and built. It had to support the two full-scale XST RCS models, and both contractors had to agree. Dr. Mentzer hosted a meeting with Lockheed and Northrop representatives to review the issues. After reviewing the most recent turntable-mounted support data and some other options, Dr. Mentzer suggested that a non-rotating, fixed rigid metallic pylon mounted off-normal to the perpendicular might be sufficient to reduce the adverse RCS signature of the column.

The team also agreed that a non-rotating fixed metallic structural support pylon oriented in this fashion could work. After considering different shapes, the team accepted a double wedge cross section that was rounded in the middle where the wedges intersected, simulating an ogival shape.

Lockheed 'Skunk Works' was awarded a contract to build a 36 foot fixed metal pylon of the mutually agreed ogive shape. Northrop was awarded a contract to design and build the Az/El mechanical positioner to be mounted on the pylon top that would be an integral part of the RCS model under test. The Az/El positioner took the place of the traditional ground surface turntable method. The mechanical positioner itself was a necessary invention, like the fixed pylon, and provided a way to collect conical-cut low

RCS Testing of the Lockheed and Northrop XST Models

RCS data for the first time. The invention of the fixed pylon and top-mounted Az/El positioner remains in use to this day at RCS measurement facilities everywhere as the primary method for low RCS target measurement.

Interestingly, Northrop went on to build a 14 foot fixed pylon with an ogive cross section and Az/El positioner that was used by both XST contractors and others for multiple programs at Grey Butte for several years. The pylon was moved by Northrop to its own Tejon test range in the Tehachapi Mountains when it opened in the early 1980s. This ogive cross section fixed pylon, championed by Mr. Fred Oshiro and Dr. Mentzer, has been the accepted pylon design copied many times over, including by Lockheed.

The Lockheed-built 36 foot pylon and Northrop Az/El positioner mounted on its top were delivered and installed at the USAF Radar Target Scatter (RATSCAT) RCS measurement facility at Holloman AFB, NM. Both competing XST full scale aircraft concept models were tested on this pylon. Based on the results of the pole tests and requirements set in part by an independent consultant, Dr. Nickander "Nick" Damaskos, the Lockheed 'Skunk Works' was selected to build the Technology

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Evolution of the Low RCS Signature Pylon - Continued from Page 11.

Demonstrator Aircraft for Phase II. At that point, the USAF took control of the Program Management for the Phase II effort. The XST became the HAVE BLUE technology development and flight test program. Northrop having shown notable competitive achievement, was encouraged to keep working on low RCS concepts by DARPA that finally resulted in the Battlefield Surveillance Aircraft Experimental (BSAX) program. That program then went on to become the USAF TACIT BLUE low signature development and flight test aircraft program.

During the BSAX program, the size and shape of the aircraft concept augmented the issue of signal ground bounce that was contaminating the RCS data being collected. The program then called for a full-scale model of the aircraft concept to be built and tested. To solve the ground bounce issue, the full-scale model requirement was reduced to 80% and a pylon extension was built by Northrop to increase the target height above the ground thus limiting any ground bounce contamination of the data. This lower section piece was built in California, then shipped to RATSCAT where it was fitted to the bottom of the Lockheed-built 36 foot XST program pylon, bringing the total pylon height to 75 feet. That pylon remained for many years at the RATSCAT Main Site facility, bearing the targets of several low signature aircraft development programs that followed, including the B-2 bomber.

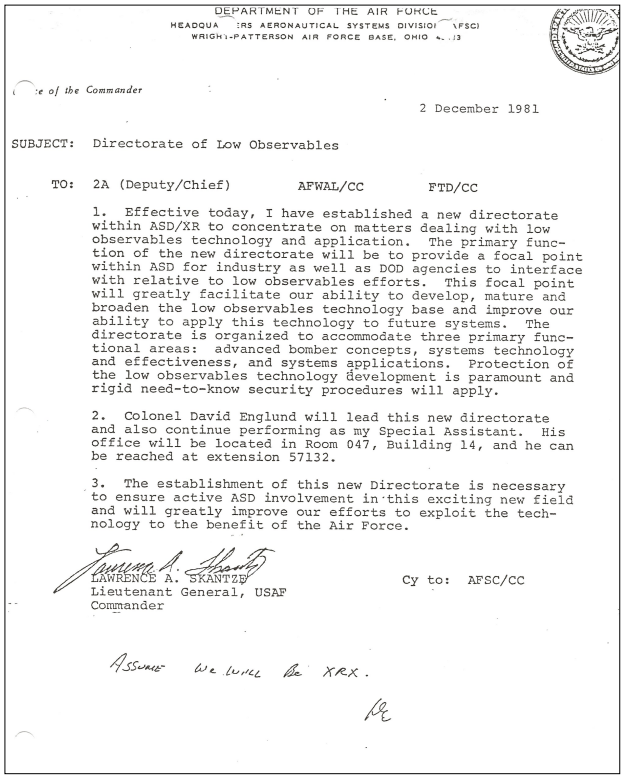
A Blast From the Past

Journey to the Memorial - Continued from Page 3.

decision was made to target the dedication ceremony at the Museum on the 34th anniversary of the B-2 first flight, July 17, 2023. Gen. Joe Ralston, Maj. Gen. John Schoeppner, and the Honorable Paul Kaminski agreed to speak at the Dedication Ceremony and Banquet.

POS members working with TEC Events Services and the USAF National Museum personnel planned and executed the dedication and banquet events which were open to the public. Over 600 people attended the dedication and more than 400 the banquet considered by all to be first class celebration!

ASD Letter Establishing the Directorate of Low Observables



DEPARTMENT OF THE AIR FORCE
HEADQUA :RS AERONAUTICAL SYSTEMS DIVISIO (FSC)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

e of the Commander

2 December 1981

SUBJECT: Directorate of Low Observables

TO: 2A (Deputy/Chief) AFWAL/CC FTD/CC

1. Effective today, I have established a new directorate within ASD/XR to concentrate on matters dealing with low observables technology and application. The primary function of the new directorate will be to provide a focal point within ASD for industry as well as DOD agencies to interface with relative to low observables efforts. This focal point will greatly facilitate our ability to develop, mature and broaden the low observables technology base and improve our ability to apply this technology to future systems. The directorate is organized to accommodate three primary functional areas: advanced bomber concepts, systems technology and effectiveness, and systems applications. Protection of the low observables technology development is paramount and rigid need-to-know security procedures will apply.

2. Colonel David Englund will lead this new directorate and also continue performing as my Special Assistant. His office will be located in Room 047, Building 14, and he can be reached at extension 57132.

3. The establishment of this new Directorate is necessary to ensure active ASD involvement in this exciting new field and will greatly improve our efforts to exploit the technology to the benefit of the Air Force.

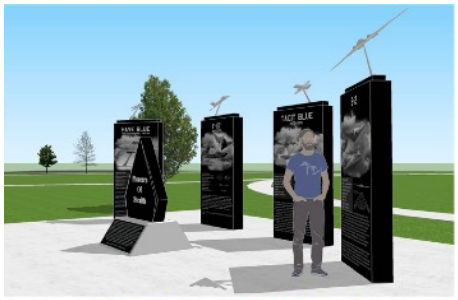
LAWRENCE A. SKANTZE
Lieutenant General, USAF
Commander

Cy to: AFSC/CC

Assume we will be XRX.

Lt Gen Skantze's 1981 Letter

POS Memorial Construction Pictures



POS Memorial - Final Design

The Pioneers of Stealth website features the detailed "journey" to the POS Memorial from conception to completion. Included is Denny Jarvi's after-action report. These can be read by clicking on the "POS Memorial@NMUSAF" Tab.

Pioneers of Stealth™ Website Updates

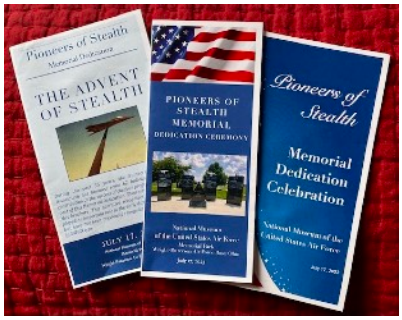
"POS Memorial@NMUSAF" Tab

Memorial Dedication & Celebration Slide Show

As we all played & partied, a terrific professional photographer recorded most everything and produced over 190 images of us having a really great time. The images may be viewed here and your favorites may be downloaded.

After-action Report for the POS Memorial

This detailed report summarizes planning and execution of the Memorial Project (Memorial, Dedication Ceremony, and Celebration Banquet.)



Memorial Publications

Memorial Dedication and Celebration Publications

The three brochures created for this spectacular event for the POS attendees are online in PDF format. Included is a historical brochure detailing the "Advent of Stealth."

"Membership" Tab

The "**Membership**" website page now includes an enhanced definition of the POS membership requirements established in our POS charter. We've added a brief summary of the membership application process, too.

"Membership Only" Tab

The main page for the "**Members Only**" website area has been updated with a new "*Contents:*" listing of the articles therein. Each item in the listing links directly to the narrative for that particular item. Our objective was to make that area more user friendly. Username and password are still required.

Very recently, we had to suspend accepting dues and other payments via ***PayPal*** because the company changed their payments acceptance process to require users to register with ***PayPal*** as a "business" entity. While we haven't yet given up on using their payments process, we decided that it is prudent to suspend use until we can explore our options.

Unchanged is the way we need members to update their contact information. We have an increasing number of folks that have apparently changed their email addresses. *PLEASE* check your email address as shown in the membership roster published in the "**Members Only**" website area. If that is incorrect, please click on the "*MailingList@pioneersofstealth.org*" link at the top of the roster and send in updates to all of your contact information. Also important: Please notify us if you wish to be removed from the mailing list or the membership roster.

Speaking of dues: Dues amounts and payment frequencies are also unchanged. If you have questions about your dues, please contact POS treasurer Pete Knauth: PayDues@pioneersofstealth.org or Home phone: (757) 357-0503.

Jerry Vanden Bosch
Membership & Communications Chairman

PIONEERS OF STEALTH LEADERSHIP

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jrsummerlot@gmail.com
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www.PioneersofStealth.org

Pioneers of Stealth™ Charter

Purpose. The purpose of the Pioneers of Stealth organization is to perpetuate the spirit and achievements of a relatively small number of government and industry people in the early days of low observables technology and development. These "pioneers" believe the bonds created through their sharing of these successful achievements will always be an important part of their life experiences. They are proud of their accomplishments and enjoy being together to visit and revisit with those who all made valuable contributions to these challenging and revolutionary programs. Maintaining this social relationship is extremely important and a primary objective of this organization. The Pioneers of Stealth also believe that their value to the current defense acquisition establishment is best accomplished by using their strong record of achievements to be advocates and mentors for industry-government teamwork, streamlined management procedures, and minimal oversight and reporting requirements – all factors that significantly contributed to the historic successes of the low observables programs.

Next Issue.....

POS 2025 Reunion Update

"Living in the Black World"

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