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MARCONIGRAPH

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Camp Evans and the "Runaway" Balloon

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JLENS, which is short for Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System, is a U.S. Army persistent surveillance system consisting of two aerostats, or unmanned, tethered airships that float 10,000 feet in the air. The system consists of both a fire-control system aerostat and a surveillance aerostat, and was undergoing a three-year operational exercise. The helium filled aerostats, each nearly as long as a football field, carry powerful radars that can protect a territory roughly the size of Texas from airborne threats. JLENS provides 360-degrees of defensive radar coverage and can detect and track objects like missiles, and manned and unmanned aircraft from up to 340 miles away. JLENS can also remain aloft and operational for up to 30 days at a time. The system was undergoing field - testing in the National Capitol Region to optimize the two radars for operation against various types of potential moving target threats.

JLENS Aerostat at White Sands Missile Range (U.S. Army photo)

An embarrassing incident occurred last fall when the JLENS broke free in Maryland and floated into Pennsylvania dragging its mooring line. JLENS broke free from its mooring station just outside of Aberdeen Proving Ground, Maryland, and traveled across Pennsylvania causing several large power outages by hitting power lines with its long tether. The blimp required two F-16 fighter jets to escort it on its lumbering journey across the Pennsylvania countryside. The system finally deflated enough to fall out of the sky, landing slowly in a field. State troopers then fired on the blimp to get it to fully deflate.

Investigators found that the incident resulted from a loss of air pressure in the blimp's tail fins, which was caused by "a malfunctioning pressure sensing device called a pitot tube." The loss of pressure caused the aerostat to become unstable in the air. The loss of aerodynamic efficiency along with increased wind drag exacerbated the tension on the aerostat's tether to the point of breakage.

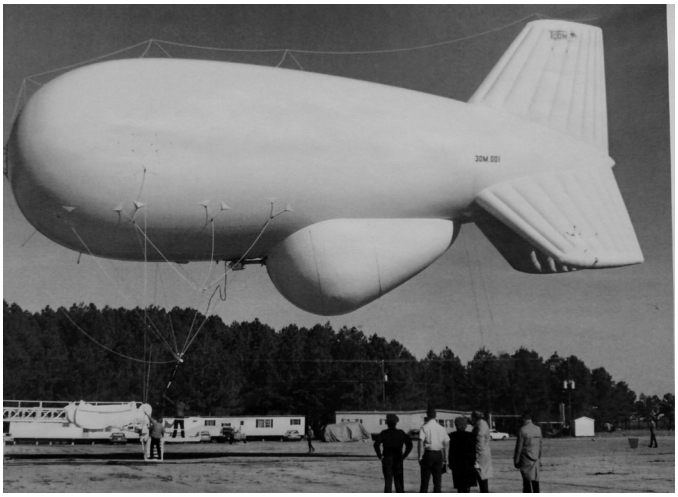
The Army has dealt with such an incident before. In fact, the Aerostat program has its origins at Camp Evans many decades ago when Tom Daniels, an InfoAge Wall of Honor recipient was in charge of the Special sensors group. It reached its peak under Stephen Makrinos, an original InfoAge Board of Trustees member, who was the Program Manager for the Small Aerostat Surveillance System (SASS). Stephen describes the program below, in detail.

The Small Aerostat Surveillance System (SASS) came into existence as the result of the Geo political developments of the Cold War. The withdraw of the US from South Vietnam, and its eventual take over by the North Vietnamese Communists, emboldened the Soviet Union and its Allies to attempt and spread Communism in Central and South America. With support from the Soviet Union, Cuba's Dictator, Fidel Castro provided military support to the Communist Sandinista Regime in Nicaragua and they in turn supported the Communist rebels In El Salvador, by shipping arms across the Gulf of Fonseca.

The election of Ronald Reagan changed the dynamics on the ground starting with the invasion of Grenada, although with a Democratic Congress and the aftermath of the Vietnam War fresh in their minds, the restrictions on the US Military were very severe. The Reagan Administration's support of the Contras and the subsequent Iran-Contra controversy exacerbated the situation for the Administration. Fearful of another Vietnam, the Congress placed severe limits on the number and duration that US Military personnel that could be deployed in Theater.

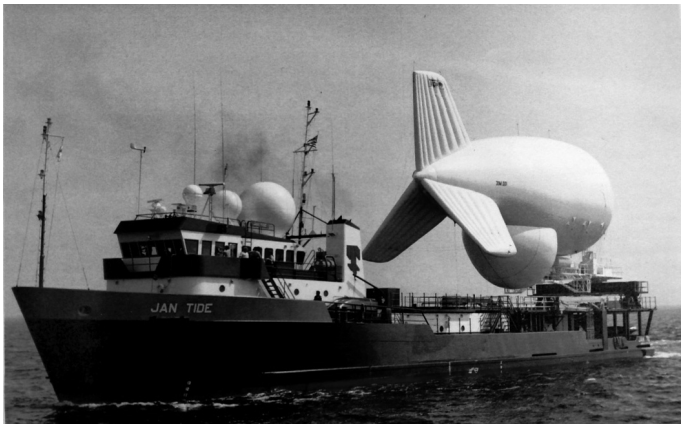
The need however, for 24/7 Reconnaissance, Surveillance and Target Acquisition was critical, if the insurgency in El Salvador was to be defeated. In this environment PM SOTAS/JSTARS, located in Building 15 of the Evans Area, was called upon to develop and field the SASS. Executed as a Quick Reaction Program, a system was integrated, tested and deployed to the Theater within 16 months. The SASS presence in the Theater of Operations played a vital, pivotal and decisive role in stopping the flow of arms to the rebels in El Salvador and made a difference in defeating the insurgency. It was also instrumental in the overthrow of the Sandinistas in Nicaragua, by providing critical intelligence information to the Contras.

Tethered and untethered aerostats come in a variety of sizes. Large systems, such as those used by NASA and operated by the USAF at Cape Kennedy during the Space Shuttle Missions to track and recover the booster rockets, were about 400,000 cubic feet and had a payload of approximately 5,000 lbs. They operated at an altitude of 12,000 ft., carried a long - range radar (L-Band), a diesel generator to power the radar and communications systems, as well as, a fuel tank that enabled the aerostat to stay aloft for 20-25 days.

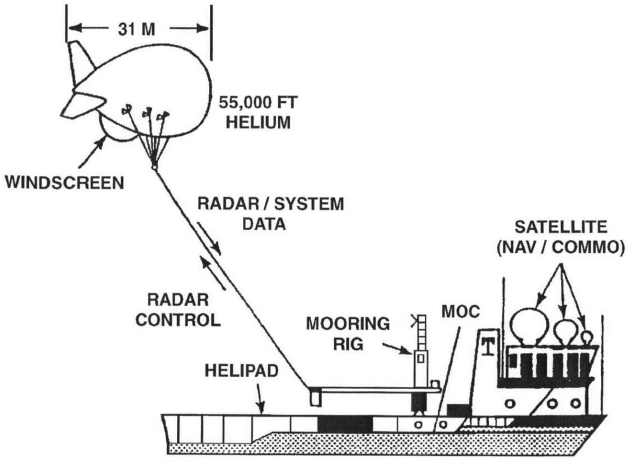


SSAS at Lakehurst Naval Air Station

The Small Aerostat Surveillance System (SASS) consisted of a 55,000 cubic ft., 31 meter balloon that had a 500 lbs. payload capability and could be raised to an altitude of 3,000 ft. Aerostats can be integrated on a variety of platforms, such as a flatbed truck, enabling it to be moved along a Border or other locations, placed on a permanent location such as on a hill top, as it was done in South Korea or on a gantry integrated on a small vessel, such as an oil rig re supply vessel, as was the case of the SASS.

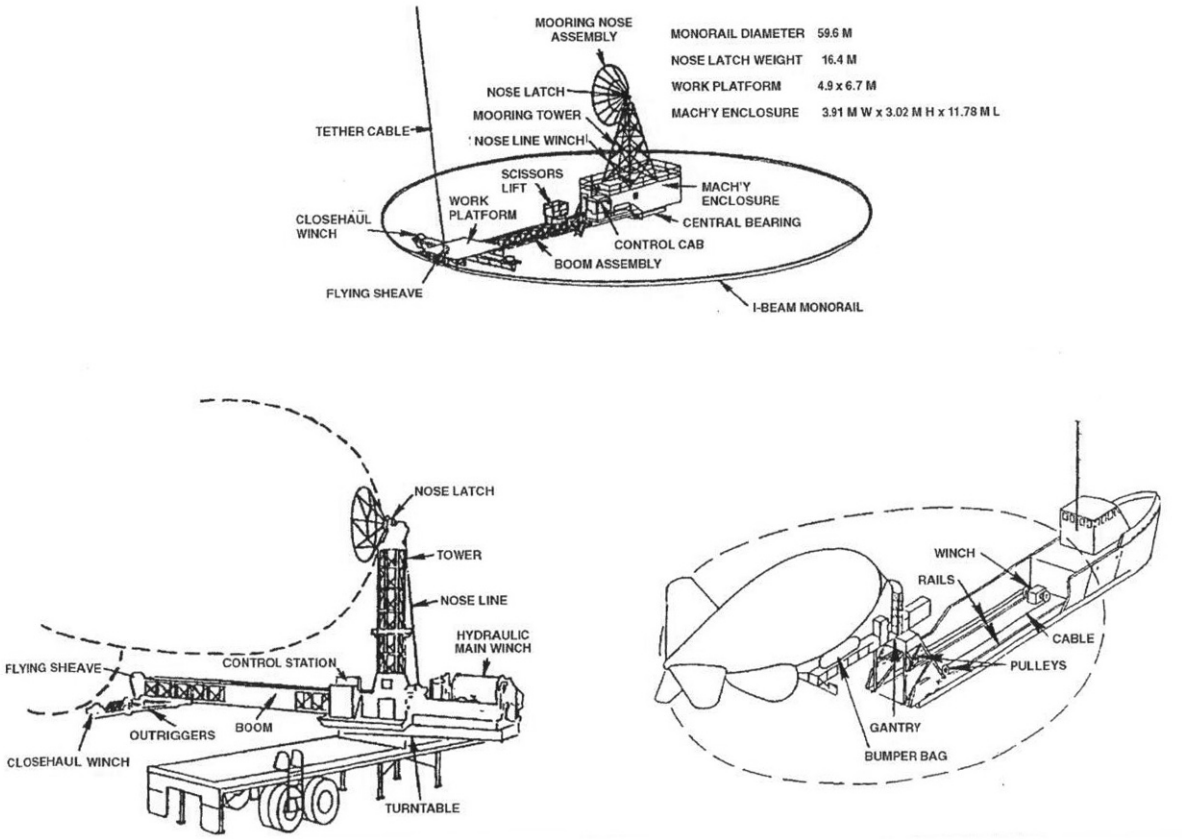


SSAS System deployed on a ship



SSAS System Shipboard Configuration

One difference between the Large and Small aerostats is the tether. In the case of the large aerostat the tether was a steel cable designed to keep the Aerostat in place. The Small Aerostat, featured a cable that incorporated a Kevlar core, stranded copper cables that were used to bring power up to the sensor payloads, covered by an inner strand shield. Three Fiber Optic cables were used for the transfer of data from the sensors to the Ground Station, and again up the cable from the Ground Station, to the communication devices for data transmission and dissemination. The outer layer consisted of lightning conductor that was covered by an extruded semi conductive jacket. The cable was coiled on a nine foot long drum, having a diameter of approximately five feet that had a capacity to hold about 3,600 ft. of cable.



SSAS Mooring Configuration

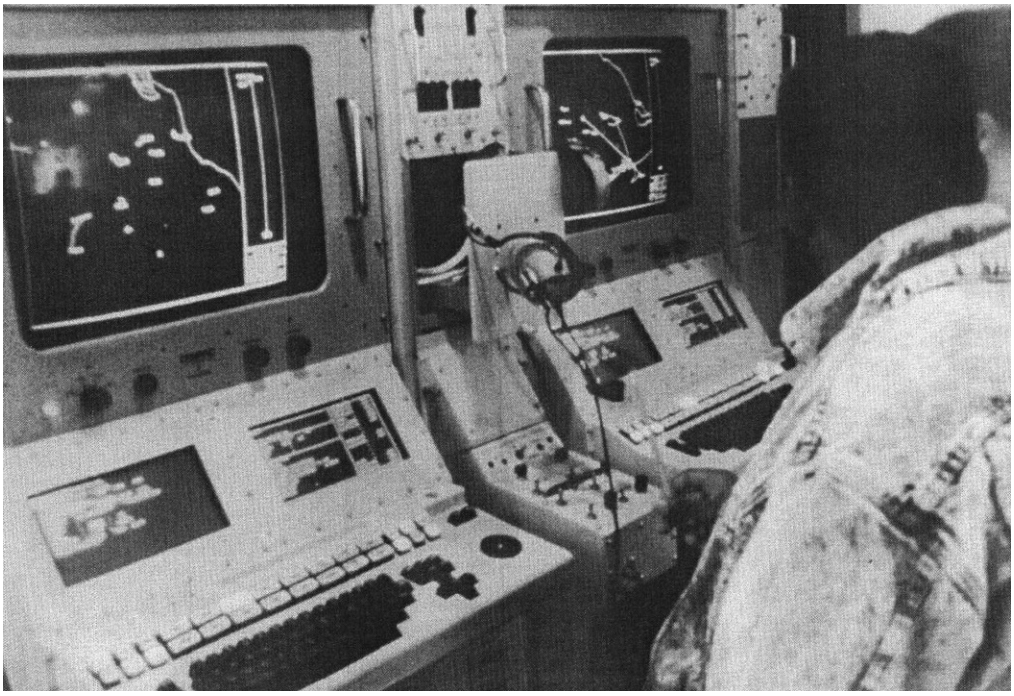
The old type of Aerostats used cloth as the primary material for the construction of the balloon, and either coal gas or hydrogen as the primary gas to create lift. Modern aerostats took advantage of newly developed fabrics such as, Dacron Polyester cloth and Mylar that were used in several layers and held together using Hytrel adhesive. These new materials and adhesives provided more strength and flexibility, and were less porous resulting in the minimum loss of gas through the fabric, thus extending flight times and less frequent replacement of gas. Helium replaced Hydrogen as the gas used to create lift. It has 92% the lifting capability of hydrogen, however it is much safer since it is not flammable.

The payload consisted initially of a modified F-16 Radar (AN/APG-66), with a FLIR (Forward looking Infra-red sensor) and Signals Intelligence (SIGINT) payloads being added at a later time. The vessel was equipped with HF communications and also had freeze frame video and Ultra High Frequency (UHF) Satellite Communications (SATCOM) for data transfer to airborne platforms for interdiction, as well as, providing data to Tactical Commanders on the ground or other Intelligence Operation Centers.

W. Kenneally and S. Makrinos with SASS

Data from the payloads onboard the aerostat was sent via the fiber optic cables inside the tether to the Ground Control Station housed in an S-280 Shelter that provided the data processing and displays. The figure below shows the radar displays inside the GSM.

The SASS once deployed in the Theater of Operation met fully all of its operational requirements. The commercial vessel was leased and the crew consisted of professional seamen. The civilian crew that operated the aerostat, payload and data analysis and dissemination were all civilians. The system met all of the conditions placed by Congress on the Army. The only military person onboard the vessel in charge of the mission was an Army major. The vessel could stay on station



SSAS Radar Displays

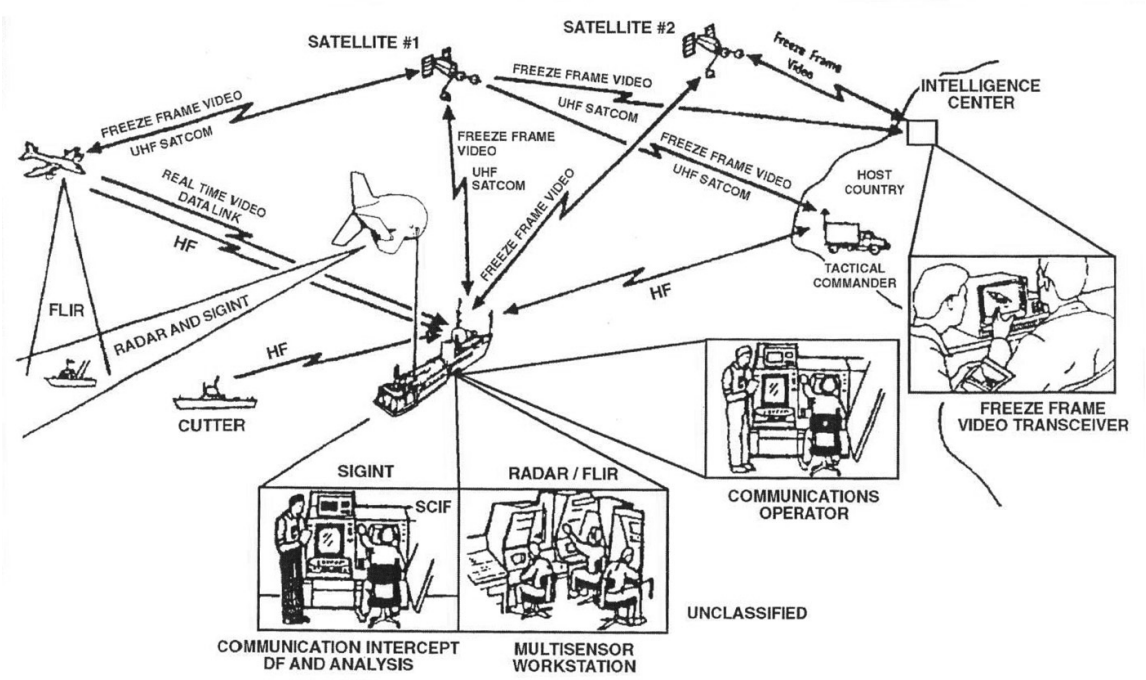
as much as thirty days and provided 24/7 Reconnaissance Surveillance and Target Acquisition.

The developer of the System was HQ CECOM (PM SOTAS/JSTARS) – Headquarters Communications and Electronics Command, Program Manager Standoff Target Acquisition System/Joint Stars. The Executive Agent for Operations was HQ INSCOM, (Intelligence and Security Command). There was an interesting development that occurred during the first mission. As the vessel sailed from The Canal Zone in Panama to the area of interest in the Gulf of Fonseca, it deployed the Aerostat and begun collecting data. As is common in the tropics thunderstorms with lighting and squalls with high winds are a common daily occurrence. Seeing the impending storm, in order to protect the system from a potential lightning strike, they attempted to bring the Aerostat down as quickly as possible. The storm however, was moving rapidly and it was evident that the system could not be secured in time. In an effort to gain some time, the captain of the vessel steered towards a small island nearby and attempted to get behind it, while the crew was frantically working to bring down and secure the Aerostat on its mooring station.

It was only a few minutes after the vessel approached the island when three Panamanian patrol boats with 50 caliber machine guns fore and aft appeared. One approached the vessel while the other two flanked the vessel on either side. Two Panamanian officers boarded the vessel and escorted the Captain and the Army Major to shore. What the Captain of the US vessel did not know was that the island was a Panamanian Penal Colony. When the Panamanians saw the vessel with the unusual superstructure and balloon they thought that someone was planning an elaborate escape. The fact of the matter is of course that HQ INSCOM, as the Executive Agent should have contacted the State Department and also the countries of Panama and El Salvador that the vessel would be operating in their territorial waters for an extended period. Ten hours after the Captain and Army major were taken from the vessel and subsequent to an explanation and formal apology by the State Department for not advising these countries in advance, the Captain and Major were returned to the vessel and the mission continued.

Based on the success of the mission in the Gulf of Fonseca and the pending Seoul Olympics a request from CINC PACOM (Commander In Chief Pacific Command) was received for the deployment of a SASS system to Korea. The reason for the request was that North Korea had not been invited to the Olympic games and the concern was that Kim Il Sung, might had decided to be a spoiler, by sending agents and paramilitary personnel to South Korea in order to upset the games. A land system was deployed and placed on a hill top on a small island in the north western part of South Korea about 10km South of the DMZ (De-Militarized Zone).

The island had two small hilltops. On the western hilltop was an Intel collection station and the SASS was placed on the other. The distance between the two was about 6 km. The Aerostat was manned by a civilian (Westinghouse employee), the GSM was manned by the US Army personnel remotely on the mainland. An Aerostat is a very stable platform. When fully inflated it faces into the wind and hardly moves. There are sensors inside the balloon that



SSAS Operational Concept

measure gas pressure, temperature, humidity and winds aloft. Dials inside the aerostat control station provide the operator a full picture as to the status and health of the system. If there is a loss of helium, the winds aloft deform the shape of the aerostat causing it to loose lift. When this occurs if the Aerostat is not brought down immediately and helium added to bring it back to full inflation, it will start to oscillate back and forth and eventually break the tether.

One day, late afternoon, a soldier stepped out of the listening station for a smoke and as he looked across the island he saw the Aerostat doing figures eights in the sky. Immediately he jumped in his jeep and tried to get across the island to warn the operator. By the time he arrived at the control station the Aerostat had broken the tether and was drifting in a North Easterly direction across the DMZ trailing 3,000 feet of cable. Based on interviews of the locals by the South Korean Police in a village just south of the DMZ, the last sighting was from a retired Colonel smoking in his garden at dusk as the evening fog had started to set in. He stated that he saw a giant white balloon shaped object in the sky moving slowly across the DMZ trailing a long wire.

The call from CG CECOM, Gen. Thomas was received at 2300 hrs. asking me to be at his office at 0700 hrs. When I arrived at his office, the first question from him was; "Makrinos is there anything explosive on the payload of that Aerostat"? Luckily for me the answer was, "No Sir." Had the incident taken place a week later the answer would have been different, since there was a plan to place explosive devices to destroy the processor chips of the radar, as well as, other critical components, in the event the balloon was lost or captured by the North Koreans.

The next day every USAF and Army airborne asset in Theater, including Satellites where looking to locate the balloon. I recall from my days in Vietnam when another balloon had broken its tethered, two Cobra gunships were dispatched to bring it down. They kept firing at it with their 50 caliber machine guns, from a close range, until they were out of ammunition, yet impervious to all the bullets, it continued to drift slowly across the border into Cambodia.

Needless to say neither the USAF or Army assets were able to locate it. The Army's Guardrail system geo - located the system's beacon somewhere over the North Pacific. Satellite imagery did not show any of the North Koreans farmers wearing white rain coats that would have been made from the aerostat fabric, therefore, it was assumed that it settled somewhere on the bottom of the Pacific Ocean. The North Koreans were told that the aerostat carried weather radar for research purposes. I don't know if they believed it or not. The important thing was that it was not captured.

The system remained in the Korean Theater for three years after the Olympics providing 24/7 intelligence information on surface and airborne targets North of the DMZ. The system that was on the vessel after its mission was completed in the Gulf of Fonseca was turned over to the US Coast Guard were it was used for drug interdiction, in the Caribbean. It was instrumental in the detection tracking and capture of two fast boats carrying drugs. Variants of those Aerostats made their presence known in the SWA conflicts and are still being used today.

Loco Parts Recovery, Transport and Sequestration

Dan Lieb
New Jersey Historical Divers Association • 732-776-6261 • info@njhda.org

Since 2002, the New Jersey Historical Divers Association, Inc. (NJHDA), owners and operators of the New Jersey Shipwreck Museum at InfoAge, have been working to solve a mystery off the New Jersey Coast – a pair of sunken locomotives that pre-date the Civil War. Lilliputian by comparison to other locomotives of their day, these two locomotives have proved difficult in identifying their makers or owners. Clearly they were on a vessel of some sort, but exactly how and why they are now on the ocean floor is still a mystery. Working for years to solve this, NJHDA is closer than ever to figuring it all out, but there are a few details – a few "i's" to be dotted and a few "t's" to be crossed before we can present our theories and make our case.

The Author (center) discusses the recovery operations to divers Shawn Sweeney (left) and Tom Junay (right).

Many, but not all, of the finer details have long eroded away, leaving the basic forms of a classic 2-2-2T (two leading wheels, two drivers, two trailing wheels and its own tank of water) on the bottom. Those few details that remain are in the form of valves and lubricators, some of which have thread patterns completely unknown. The only real clue as to a possible origin is some writing on the whistles recovered years ago that indicates they - the whistles - were made in Boston. It is completely possible the locomotives were built there as well, but this is far from guaranteed.

We had the choice and decided years ago that the best way for us to discover the locomotives' origins was to do selective recovery of certain parts that we felt would most likely and quickly lead to either the owners or the manufacturers of the two, small steam engines. When we first began work on the engines they were already in a state of deterioration. Any attempt to raise them "intact" would be costly and would likely lead to their falling apart on land. Mapping them extensively under water would take years of enduring cold water, and for only relatively short periods of time. Divers would need to work for only short periods of about a half hour, slowly decompress on the way up to avoid the bends, and then return a few hours later for another round of mapping. This would take years and cost a bit more than we have to continually run trips out to the site. Our best option is to select certain objects we feel we can use to resolve our mystery, recover them, record and research them, and put them on display in our shipwreck museum.

With the decision made, the only problem now was how to remove those parts. Long rusted together, these parts weren't going to come off that easily. We had to think of something. While pondering this, commercial fishermen in the region solved the problem for us. A few years ago, one of them fished too close to the locomotives, caught their fishing gear on one of the locomotives and literally starting pulling it apart. It seemed now all we needed to do was to pick up the pieces. Easier said than done; the standing weight of the locomotives was at least 12 tons – each. Even relatively small pieces were 150 to 500 pounds. Some of the bigger pieces weigh more than a ton. The pieces we selected to recover were the one of the sets of rear wheels and axel (about one ton), one of steam chests, pistons and piston rods (1,300 pounds), and what may wind up being one of the water pumps (250 pounds).

The recovery team includes (left to right) Shawn Sweeney, Dan Lieb, Tom Junay, Ruth Hepler, Captain Paul Hepler and Mike Haas. Not shown is photgrapher and underwater videographer F. Allan Vogel.

In October of 2015 aboard the dive boat Venture III out of Belmar Marina, we set out to begin recovery operations at the site. The smaller, air pump came up first. We rigged the rear wheels top come up using a lift bag, then rigged the piston. A lift bag is a heavily constructed vinyl bag meant to be filled with air so whatever it is attached to will float up to the surface. The whole arrangement resembles a hot air balloon. Once at the surface, we would use the davit system onboard the Venture III to lift the pieces out of the water and onto her rear deck. The davit is equipped with two, single wheel pulleys. Between the two larger pieces, I wanted the easier of the two, the piston, to come up first in case we had difficulty with the sheer size of the rear wheels.

Secured to the deck of a flatbed truck, the piston is ready to transport to InfoAge

We did experience difficulty, but not with the wheels. Instead, the piston proved too big for the Venture III's davit to work with readily. It took all hands and every bit of juice we could squeeze out of the davit's electric winch to get the piston onto the Venture's rear deck. Floating the pieces to the surface was no problem. Getting the pieces from the surface and onto the deck – a distance of only four feet - was going to require we get a hold of pulleys that are double-wheeled so we can use the davit's electric winch more effectively.

Once aboard and securely lashed to the deck, we headed back into port and a facility where we could transfer the piston from the deck of the Venture III to a flatbed truck. After arriving at InfoAge, we transferred the piston from the truck to our facility with the aid of a forklift. The smaller pump was easier to handle with a few strong-backs. The pieces are now resting in makeshift tanks of fresh water, slowly desalinating from more than 150 years on the ocean floor. Now, the slow process of cleaning, preservation and study begins.

The InfoAge Technical Library

Ray Chase
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InfoAge has many outstanding assets, most of which are seen regularly by our visiting public but one of our most valuable assets that is not seen regularly and may not be well known even to some of our regular members and visitors is our Technical Library. Presently located in a room at the top of the stairs on the second floor of the 9001 hotel, and ably run by Steve Rosenfeld, the library is a semi hidden treasure. Steve has been the InfoAge librarian since 2007 and is on site most Wednesdays diligently cataloging, shelving and keeping track of all the technical and historical documentation that InfoAge owns. What is contained in the library? Specifically, the contents can be broken down as follows:

1. Hard cover books on wireless, radio, radar, TV, vacuum tubes, electricity and WWII History.
2. Magazines; IRE, IEEE, QST, Wireless Age, Wireless World, Communications, telephone related subjects and many others going back to the turn of the 20th century.
3. Marconi original equipment drawings.
4. Technical manuals for RCA manufactured Radio & TV broadcasting equipment totaling 12,759 items acquired from Sarnoff Laboratories.
5. Ten shoe boxes of amateur QSL cards, mostly pre WWII.
6. 600 early wireless and radio photos from the Ed Raser collection.
7. Radio and TV repair manuals, Riders, SAM's and other technical repair information.
8. Military issued TM's (tech manuals)
9. Advertising pamphlets, brochures and other miscellaneous related technical documents.
10. Edison cylinder records, CD's, cassette tapes, VHS tapes, reel to reel tapes, 16 mm films.

The Marconi equipment drawings are among the most prized assets. These number 1900 original ink drawings on vellum media that came from the Marconi factory in New Jersey and define all the details of manufacturing Marconi wireless equipment from the WWI era.

Steve Rosenfeld and a sample of our precious Marconi original drawings.

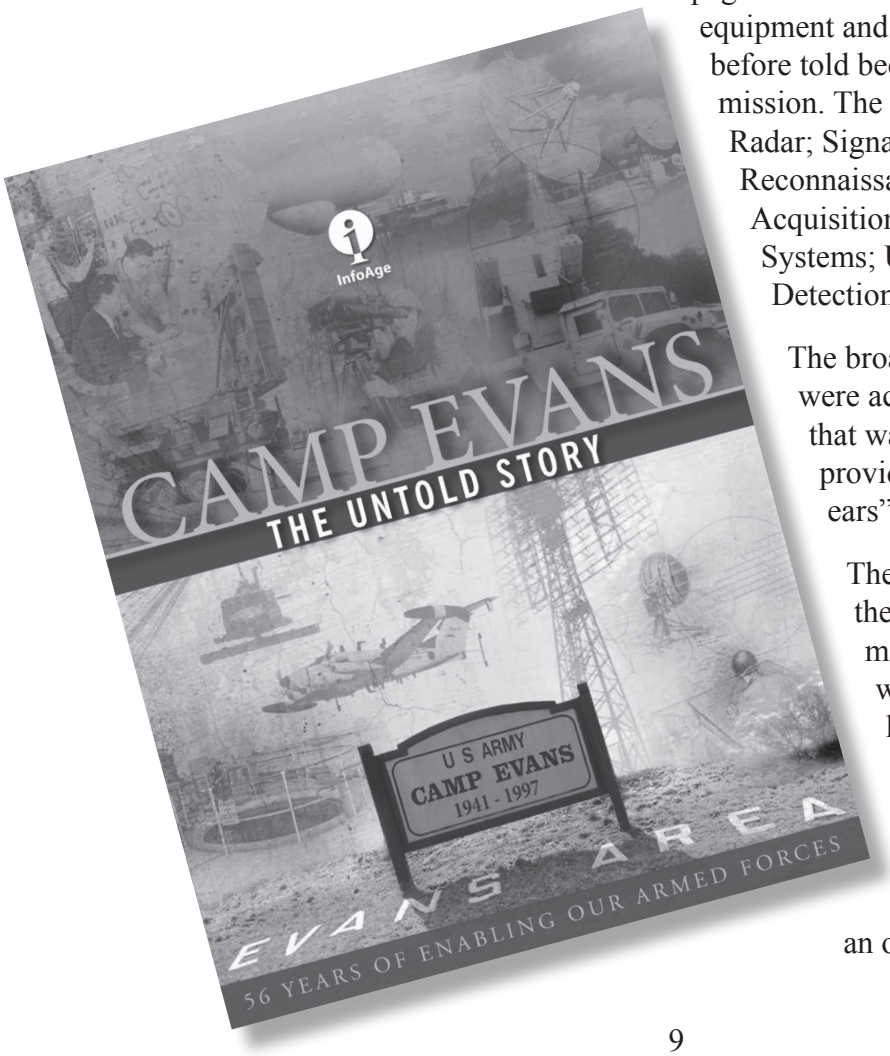
Steve has Excel computer records of over 25,000 items backed up in several locations for security and he has donated approximately 1300 paper items (books, manuals, magazines, etc) from his own personal collection. At present, he has five file cabinets and 4 to 5 bookcases of material yet to inventory; about 3 years work if nothing else comes in and donations do continue to come in quite regularly. Most of the hard cover books and better drawings are contained in the library room on the second floor of the hotel but a large part of the inventory must be stored in the hotel attic. Hopefully as InfoAge expands better quarters will be allocated to this valuable asset.

At present, nothing can be removed from the library as it is a reference source not a lending library. Because of limited staff, material to be reviewed must be requested in advance and could require up to four weeks to schedule a visit and to prepare the requested material. Copies can be provided for a fee and about 600 copies have been sold to date. Steve's goal is to provide an excellent technical library that includes the history of all the events and work that took place at this site.

Camp Evans: The Untold Story

InfoAge is proud to sponsor the book, "Camp Evans: The Untold Story," in recognition of the significant contributions made by men and women, both military, civilian, and contractors who served at Camp Evans, Wall Township, New Jersey and who left a legacy of innovation that had enabled and continues to enable our Armed Forces.

The InfoAge Science History Learning Center and Museum at Camp Evans is a focal point for the preservation and interpretation of New Jersey's rich communications, computer, and electronics history, providing a specialized learning center for all visitors. The area is especially significant in history, serving as the site of the Marconi Wireless Telegraph Company of America. During World War I the Navy operated the station under the authority of the Radio Act of 1912. The message announcing that World War I had ended and the Armistice had been signed was received at the Marconi Station and retransmitted to Washington.



Camp Evans' U.S. Army Signal Corps provided America's first World War II radar systems. In 1946, Camp Evans under Project Diana opened the "space age" by reflecting radar signals off the moon. During the 1950s, innovative and far reaching technologies were developed at Camp Evans.

It is appropriate that InfoAge, as a science and technology learning center, has its start at such an historic location. The intent of InfoAge is to provide visitors a dynamic and evolving interactive atmosphere, rich in specialized history, technologies, and basic science, and similarly, to invoke an appreciation for the vital contributions of the many engineers and scientists who developed the technology.

We ask that you consider purchasing this important book which captures the tremendous heritage of technological innovation at this historic site.

"Camp Evans: The Untold Story" has over 200 pages and 100s of photographs showing the actual equipment and technology developed in a story never before told because of the classified nature of the mission. The breadth of the work described covers Radar; Signals Intelligence; Electronic Warfare; Reconnaissance and Surveillance Sensors; Target Acquisition Systems; Identification Friend or Foe Systems; Unattended Sensor Systems; Radiation Detection Systems; and Meteorology Systems.

The broad spectrum of accomplishments were achieved with an assembled workforce that was considered the best in the country, providing products that were the "eyes and ears" on the battlefield.

The legacy of Camp Evans will live on in the hearts and minds of those who helped make that history. Their contributions will hopefully be better appreciated by having been recounted in this book.

To order your copy of "Camp Evans: The Untold Story," contact InfoAge at 732-280-3000, or contact us via e-mail at rfginc@optonline.net and an order form will be forwarded.

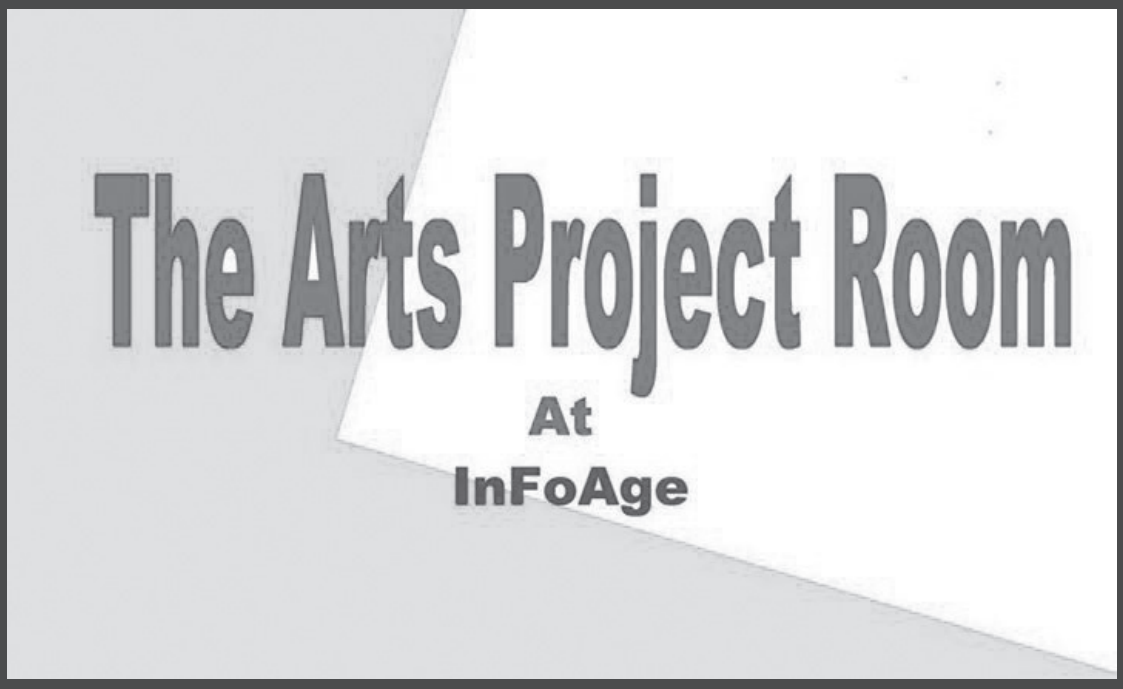
Project Diana and Life on the Jersey Shore During the Postwar Years

Cindy Pomerleau
InfoAge Science History Center and Museum • 734-678-4725 • cspomerleau@gmail.com

If you're interested in Project Diana and the historical milieu in which it was carried out, I invite you to visit my website on Project Diana: The Men Who Shot the Moon (http://www.projectdiana-eme.com/) and its associated blog (http://www.projectdiana-eme.com/to-the-moon-and-back-blog). This website began as a tribute to the five-man team of engineers who in1946 succeeded in bouncing radar waves off the moon, and to their colleagues at Camp Evans who helped to make the dream come true. But always, in the back of my mind, lurked the suspicion that there was more to be said, and that Project Diana might constitute an interesting lens for examining the transformations and dislocations occurring in the US in the aftermath of World War II.

I grew up in Diana's shadow on the Jersey Shore. My father, E. King Stodola, was the Project's chief scientist, and my earliest playmates were other Project Diana and Camp Evans "legacies." I launched the blog on January 10th, 2016, the 70th anniversary of the first successful moon bounce; since then my posts have covered the Shark River (which has no sharks and is not a river), a kids'-eye view of Shark River Hills featuring my adorable girlhood friend Sally (now sadly deceased), and an extraordinary pair of African American scientists who thrived in the surprisingly welcoming Camp Evans environment. Waiting in the wings are posts on the "Marconi Trail," a "Tom Thumb wedding" at the storied Shark River Hills Clubhouse, the experience of growing up in an amusement park, and many more.

If you'd like to be added to my email distribution list and be notified whenever a new blog entry is posted, please email me at cspomerleau@gmail.com, or follow me on twitter (Cindy_Pomerleau). Comments welcome!



Infoage would like to announce a new addition to the Museum, The Arts Project Room. This growing group or artists is hosting new art classes, workshops and a host of other events for both adults and children all year round. Check their schedule on our website or at The Arts Project Room at Infoage on Facebook.

YOU ARE CORDIALLY INVITED TO ATTEND OUR 2016

AWARDS RECEPTION

Saturday, June 4, 2016 at 7:00pm

honoring

"WALL of HONOR" Inductees

William B.Gould III – Radio & EW Pioneer

Richard Paolella – Infrared Countermeasures

Willie Johnson, Jr. – Radar & Combat ID

"Chairman's Award" Recipient

New Jersey Natural Gas

"PATRIOT Award" Recipient

U.S. Congressman Chris Smith

Donation: $125 per Person
Dress: Black Tie or Business Attire
Kindly respond for Dinner Reservations by May 20th.

If you have any questions, please call John Cervini, 732-598-2576.
For Ad Journal opportunities, please call Mike Ruane at 908-565-4691 and leave a call-back number.

Thanks!!!
Mike

Michael T. Ruane
Chief Operations Officer
The James Thomas Group, LLC
Force Protection and Emergency Management Consulting
www.thejamesthomasgroup.com

InfoAge
Science/History Center
at Camp Evans, Wall, NJ

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The Newsletter of InfoAge

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May 14

Wall Of Honor
June 4

VCF Technical Workshop
June 11-12

Art Fair
July 9

VCF Technical Workshop
July 16-17

NJARC Summer Swap Meet
July 23

Andrea Doria Presentation
July 23

VCF Technical Repair Workshop
August 20-21

*For more information about these events, such as admission costs and times, **call 732-280-3000** or visit us online at **www.infoage.org**.*

The Information Age Learning Center (InfoAge) received a General Operating Support grant from the New Jersey Historical Commission, a division of the Department of State.