



NADC/NAWC
15th Reunion Banquet

" Thanks for the Memories ..."

Spring Mill Manor
Ivyland, Pennsylvania
October 29, 2011





This wonderful gathering is to celebrate the accomplishments and the relationships realized by the employees of the Naval Air Development Center during almost sixty years of service to the United States Navy.

Under the leadership of very dedicated and competent Naval Officers and Enlisted men and women, the NADC thrived as a very influential force in the R&D of Naval Weapons Systems. We are all fortunate to have had the opportunity to participate in such a remarkable organization.

This booklet is dedicated to all of the individuals who had the good fortune of working at the Naval Air Development Center, Warminster, PA.



NADC/NAWC 15th REUNION BANQUET

COCKTAILS / Hors D'Oeuvres 4 - 6:00 PM

DINNER 6 - 8:00 PM

INVOCATION Aris Pasles



**Jerry Guarini
Master of Ceremonies**

**Dessert Time Presentation by the
Cold War Historical Society**

Mingling and Socializing 8 - 11 PM

Cash Bar all Evening

In the Booklet distributed at the 10th Reunion (Oct. 2006), former Commanding Officer Wm. McCracken discussed the 1944 through early 1950s history in a very comprehensive manner. I will utilize that as a starting point for my discussion and not reiterate any significant portion of those early years.



By early 1950, the newly-named Naval Air Development Center in Johnsville, Penna., had already acquired, through the merger of several major facilities, a strong foundation of expertise as required to support airborne Naval Warfare.

The following decade witnessed an explosion of personnel, expertise, facilities and equipments that eventually encompassed every area of Naval Air Warfare. The NADC became a Center of Excellence for Anti- Submarine Warfare (ASW):

- platforms (the P-3 and S-3 aircraft; the LAMPS helicopter)
- systems (the PROTEUS computer; acoustic processing; communications / navigation, displays)
- associated technologies (sonobuoys, acoustic transducers; arrays)

Simultaneously, Center personnel were getting **more involved** with Tactical Aircraft platforms (F-14A; F/A-18) and several missile systems (the Eagle missile system used by the F-14A; the Sparrow missile for the F/A-18). Earlier work with the air-launched, TV-guided Bullpup missile, provided an expertise for such expansion and future aircraft-to-missile communication links and guidance systems.

By the late 50s, Center personnel had assembled an extremely broad-based capability of technologies, analyses, facilities that became the springboard into other areas of support for the U.S. Navy. The earlier assemblage of post-WW II scientific skills, coupled with the judicious acquisition of specific Naval expertise, honed the overall capability and postured NADC for a greater role in the Navy's future. By now, the overall Center cadre of personnel and facilities included:

- Basic Research in just about every area required for Naval Warfare
- Overall system design and development of Naval airborne platforms
- Analyses (performance, cost, logistics) for each of the associated weapon systems
- Experimentation / application of across-the-board technologies for Naval weapons
- A sophisticated computer laboratory unlike any other within the complex of Naval Laboratories
- A Crew Systems department of Medical Doctors, Physiologists, and researchers concerned with the critical Human Factors of Naval Warfare

- A Dynamic Flight Simulator (the Centrifuge) to determine the effects of high speed / acceleration on Naval Pilots. The centrifuge was also used extensively by the Mercury Seven Astronauts to gain an understanding of G-Forces prior to space flight.
- A unified aerodynamic, materials and structures capability within the Center's Air Vehicle Dept.
- A remote Navigation Lab, anchored at bedrock, to provide precision nav systems for airborne platforms, as well as highly sophisticated Fleet Ballistic Missile Submarines
- Three large Hangers, and a long runway, to support a number of Naval aircraft and helicopters used in the conduct of project investigations
- An ASW Laboratory consisting of an exact simulation of the equipments in the P-3 aircraft



- A complete LAMPS Helicopter simulation laboratory
- A 31 acre tract of land off Bristol Rd. for antenna measurements. In the early 60s this facility added a large 80 ft. Anechoic Chamber (for indoor RF antenna measurements) and two buildings that supported full-scale aircraft and helos
- A large indoor dark room used in the research, development, test and evaluation of infrared and laser systems
- A facility at a nearby Quarry was used to evaluate sonobuoys in water; and a deep water facility at St Croix (in the Caribbean) that enabled working with actual submarines for the RDT&E of ASW systems / components
- A comprehensive and invaluable Supporting Organization (Contracts / Procurements; a large Personnel and Training Dept., Security; Public Works)
- The totality of these capabilities was unequalled within the Naval Warfare segment of the DOD. Swelled by the addition of extremely talented scientist and engineers that had been relocated from the Brooklyn Navigation Laboratory, and later the Frankford Arsenal, NADC reached a maximum of 2570 employees in the mid-80s. The incorporation of the Johnsville Post Office into the

Warminster community also resulted in a name change to the Naval Air Development Center, Warminster, PA.

- The ever growing strength of the evolving NADC work force resulted in many assignments *beyond* ASW and Tactical aircraft systems. A few of the more significant non-ASW programs assigned to NADC because of the confidence that the DOD had in the overall capability are:



Vice President George Bush tours NADC in 1982

- The TACAMO / ECX aircraft, a primary system used to relay emergency Presidential messages to submerged U.S. submarines in the event of a surprise enemy attack;
- The Marines' Presidential helicopters that are always seen on TV when leaving the White House lawn to

transport the President to another location. The original helos were flown to NADC and situated within a secreted area for the actual installation by a small group of employees who provided the total redesign of the avionics system (Comm and Nav) used by that helo

- The NAVAIRDEVCON's extensive airborne radar experience was demonstrated during the development of the E-2A / B Airborne Command and Control aircraft. The 250 mile detection range, combined with the ability to track multiple targets, resulted in seven patents for the engineering staff that worked in the rooftop Cadillac Balcony facility
- The early stages of the HSM/JVX, that eventually became the Marine's V-22. It was a revolutionary concept in that it rotated its engines 90 degrees after vertical take-off to permit horizontal flight.

In the late '60s through the late '80s, the organization flourished with the successful completion of many projects for the Navy. NADC had always been blessed with cream of the crop military personnel whose leadership was outstanding. No matter their birthplaces, they were always merged harmoniously into the local family of employees. The Center was also supported by a very complementary mix of local contractors. And finally, close ties with the Naval Air Test Center, Patuxent River, MD, facilitated NADC's ability to flight test any assigned projects. All of these affiliations were blended with the result that NADC became uniquely qualified in all Naval research, development, test and evaluation (RDT&E).

A significant example was the critical program to determine whether or not the Soviets had “purposely” used lasers to attempt to blind pilots flying an NADC P-3 aircraft. The particular aircraft was positioned in the Pacific, along with many other Countries’ assets, to record the splash-down of a Soviet ICBM. A Soviet destroyer (a Sovormmy) was also there and illuminated the P-3 cockpit with a (red) ruby laser, which could have resulted in pilot blindness. An NADC camera system, located in the tail of the aircraft had recorded the event. Electro-optic personnel from NADC borrowed an instrumented Air Force van, an Army Ruby Laser, and permission to use a nearby hillside in Buckingham to illuminate the same camera system which was now located on the NADC rooftop. The laser’s power was adjusted until the camera received the same pulse level as from the Soviet ship. The tests revealed that the amount of energy used was NOT sufficient to cause damage and definitely was not an attempt to blind the P-3 pilots. The information was fed to the Defense Intelligence Agency ‘a day before’ President Regan was due to hold a news conference to chastise the Soviets about the incident. The news conference was cancelled due to NADC’s quick response. This NADC program was one of many that had National impact.

During the Vietnam War, the NADC acoustics capability was put to good use in an attempt to obtain intelligence information about Viet Cong (VC) movements. Sonobuoys, normally used in the ocean to listen for acoustic signals from enemy submarines, were converted to jungle use by dropping them into the upper canopy of jungle foliage and left hanging there to listen for acoustic data of all sorts. The data were then relayed to overhead aircraft and subsequently analyzed to determine troop and truck movements. Eventually, we were even able to determine the size of enemy vehicles and whether or not they carried a load. It was fascinating that sometimes we even picked up conversations

of VC troops sitting beneath the devices, not knowing of the sonobuoy above them. Such advanced systems caused the VC to stop using the Ho Chi Ming trail for incursions into South Vietnam. The VC moved westward through neutral countries and in so doing, would select locations to hide large quantities of ammunitions and weapons. Fortunately, NADC had experience using magnetic anomaly detection (MAD) to detect submarines moving below the ocean surface. Over a weekend, NADC personnel installed a version of the MAD system in a helo which was then transported to SE Asia in a C-5 aircraft. Within a short time, that airborne system detected the **largest cache** of VC weapons during the Vietnam War. US Forces destroyed the enemy's munitions.

An NADC scientist was the first ever to communicate via a laser from an airborne platform to a submarine deep below the surface of the ocean.

An NADC Physiologist had been working on causing aircraft canopy material to become opaque in the event of intense light from an atomic explosion. Her efforts in Photochromics resulted in some of the first patents for the materials so prevalent in today's sun glasses.

There are many other stories of this sort from our days at NADC. The Center made many significant contributions to the US Government.

In retrospect, NADC was a wonderful collection of very talented and dedicated individuals who accomplished much for the DOD, and the Navy in particular. We are proud to have been a member of such a wonderful organization. It was a privilege.....and fun to work there.

Jerry Guarini (Proud NADC Alumnus 1954 – 1988)

IN MEMORIAM

The listing of deceased former employees, by no means complete, vivifies the quality of individuals with whom we have had the honor of calling fellow employees. Although they are not here with us today, they will always hold a place in our hearts.

Ahn Sr. Wesley R.
Akinfosile Forrestine
Algeo Brad
Allen Frederick C.
Aller Paul
Anderson Parke E.
Andinolfi Ciro
Angermann William
Appel Edward A.
Aronson Frank
Asness Manny
Avery Stetson (Bud)
Babiarz John
Baddorf Carl E.
Bair Earl
Ballaro Chuck
Balonis Robert M.
Barlow Robert
Barno Walter
Barr Darrin
Barrett Alfred
Bartberger Charlie
Basciano Al
Bashore Clete
Bass Aaron
Bates Albert
Bazow Emil
Becker Robert
Bello Robert (Bob)
Bellows Morris
Bock Eugene
Bogusky Andrew
Boka Frank Joseph
Bollard Bob
Bolmarcich Larry
Boose Stuart
Boyce Theodore J.
Bradshaw Elmer
Brenner Bill

Brown Jim
Brown William
Buck Frances E.
Cahill Paul
Campbell Carl
Canavo Pasqual(AI)
Carr Charlie
Carson Ralph
Catone Vince
Caviller Floyd
Celli Jim
Chambers Dick
Chapman John A.
Childers Richard F.
Cipriano Michael
Claussen George
Cohen Mary Lou
Coop Dr. J. J.
Crippen Cynthia
Dale Robert
Darrigo Daniel R.
Davidson James J.
Davis Harry
DeLaurentis Anthony
DeLeon Alexis
DelleRose Charles
DeLuccia John
Denelsbeck John S.
DePalantino Edward R.
DePalantino Eleanor J.
DiPalma Ron
Doerfel Harold
Doray Ronald
Dorff John Joseph
Douglass Fran
Drelick Jean
DuHaime Arthur R. II
Dunn Lee A.
Dupee Bernard H.

Dyson Anna Mae
Eck George and Margaret
Eckert Ray
Eddowes Florence
Edwards Lawrence V.
Ellsworth Mary N.
Faherty Paul
Farley Rosemary
Fay Roy
Felix John L.
Fessenden Emma
Field James E.
Finizie Lyonel
Fisher Clair
Fitzpatrick Lisa
Fiumara Sylvia M.
Frederick Florence
Freitag Valentine (Wally)
Frisch George
Furta Margaret Claire
Gallagher James
Garner Carrie P.
Garofalo Frank
Garofalo Rosalie T.
Garrison Edward
Gaydos Joseph John
Gianos Christy
Giannascoli Bob
Gifford Edward
Gilles Rosalie
Gittings Lee
Gleiter Werner
Glenn James
Godshall John
Greco Louis
Green Hal
Gross Gary
Grzwacz Walter
Guarino Louis
Guidos Joeseeph
Gustafson Walter
Gutt Al
Hafele Paul
Hammond David C.
Hammond David Chalmers
Hand Paul
Hansen Harry
Harrison Ben
Harrison David
Hayes Ellen
Heitzman Irene

Henderson Charles Arthur
Hendler Edwin Ph.D.
Herbert Dennis Joseph
Hicklin William
Hilger Mary
Hollingsworth Gil
Horan John
Horan Ruth
Horton Ralph C.
Howard Jim
Howard Margaret Hildenberger
Huey Homer
Iatesta Matt
Jacobs Chuck
Jaconski Helen
James Richard P.
Jewell Ezra
Jones Robert
Kacergis Joseph
Kane Daniel J.
Kaniss Sam
Kannair Richard
Kauker Jack
Keane John
Keener Edward
Keifer John
King Sue
Klock David Bruce
Klump Bob
Knebel Bill
Knouse Roy
Koochembere Chris
Krause Alwin O.
Kreshover Neil
Kreuter Mike
Kromer Vern
Krumboltz Howard Donald
Krutter Dr. Harry
Kuklinski John
Kulcheski Larry
Kulick John
Kupek Ray
Kupetz John M.
Kydd Dr. George
LaFranchi Vince
Langen William A.
Larr Robert
Law William
Lawler John
Lazarus Beverly
Lee John

Lehman Larry
Leitsch Herb
Lesoravage Edward
Leupold Walt
Linke Edward
Lippel Louis
Lis Frank L.
Llorens Richard E.
Loggia Nick
Lorenz John
Luecke Carla (Mackey)
Lyons Joan M.
Mackiernan Don
Maloy Edward
Mancinelli Dino
Markow John W.
Marshall Frank
Maslin Bill
Mason Russ
Massey Thomas
Mattucci Mario
McCauley Dan
McCreary Delisa
McCullough John
McDonagh Ronald
McFarland Jim
McFetridge Robert G.
McGrath Barbara A.
McKee Glenn
McManimie William
Mellon John J.
Metcalf Norwood J. (Woody)
Micklin Ted
Mickus Tony
Middelton William
Miller George F.
Miller Joseph F.
Miller Richard
Mills Dan
Mitchell Millard
Monastra John
Moore Kathleen
Morgan John
Morris Bernice F.
Morris Lee G.
Morris Marie
Morrison Ted
Morrisey Philip T.
Murrow Charles
Myers Gordon "Flash"

Ngo David
Nichparenko Edith M.
Niemzura Edward
Nikander Eileen
Nissley Scott
Notafrancesco Anthony
Nycum James
Oakley Bob
Odom Tom
O'Donnell Bill
O'Donnell Gene
Ohora Jim
Olenick Stanley M.
Oliver Constance Clayton
Oliver Jim
Oliveri Paul
Packard Albert
Palatucci Jerry
Panko Steven
Peischel William
Pelosi Louis
Pembroke Peg
Perkins Homer
Petronne Vince
Pisechko Don
Plantarich Carl P.
Pohle Char
Polin Ben
Polis Dr. Bill
Potchak John
Powers Ralph L.
Preedy Desmond F.
Purchase Martha
Querin Albert
Radzai Roy Raymond
Reeves John M.
Reisinger Lillian
Ribson Tom
Rickner Edward
Ridley Gilbert
Rinelli Mike
Ritz Joe
Roach James Alton
Ross Marc
Rossetti John J.
Rossnick Ida
Rosso Dan
Routzan Rae
Rubisch John H.
Rud Russell

Russo Anthony J.
Russo Lou
Sammer Joseph N.
Santini John L.
Savage Donald
Schafer Robert
Schmidt Harry Charles
Schmidt Harry Karl
Schnipper Joe
Scholl Ken
Schrandt William
Shmukler Dr. Herman
Shopples Thomas
Sikora Stephen Joseph
Sizgorich Samuek
Sloane Murray
Smith John
Snuffin William
Spector Alvin (Tim)
Sprunger Lee
Stabilito John
Stampfl Dr. Rudy
Starry Robert F.
Steenland Thor
Stein Harry
Stewart CDR Edward
Stewart Christine
Stradling William
Strobel John
Sweeney Edward P.
Swift Joseph J.
Tatnall George
Tavani Nick
Teichgraber Walt
Terry Chester Evander
Thomas Squire
Tinari Erminia M.
Tinari Sr. Ralph
Tither Joe
Toland Gerald D.
Tollison Wendy Stewart
Toth Andy
Toth Gladys Cummings

Tremblay Harold G.
Trilling Ted
Triplett Roscoe
Troxell Harold
Tunstall Walter
Turnock Ted
Uphoff Frank
Uslin Louis
Vaccaro Joe
Vafakos Basil
Vaughn Ron
Vekteris Stanley
Ventriglia Tony
Verdi Jim
Villanti Ben
Vincent John
Vogel Charles
Voss George P.
Walter Peggy
Walter Robert
Ware Diane (Sierzega)
Washington Jerome
Watts Bernie
Watts Rosemary H.
Welk Horace B.
Werb Donald
West Herb
Whiteman Jane W.
Wirtz William
Woodward Clifford
Wykes Ernie
Yankovich Steve
Yannuzzi Edward A.
Yates Jack
Yentzer Harold
Young Paul
Yowell Adm. Grover
Zabelicky Richard
Zaccaria Dominic
Zaleski Robert J.
Zimmerman David
Zimmerman Ruth
Zuegel Irene

An attempt has been made to include as many fellow NADC associated employees that we have lost over the years, both from your input and that gleaned from local obituaries. A memorial list is updated periodically on the NADC website and current obituaries are sent out on the NADC email list as they are received. Please send any obituary notices to doug@crompton.com for inclusion in this list.



In planning for this event and this program booklet, it was thought that we might have included a variety of past NADC pictures for your viewing enjoyment. Unfortunately the sheer quantity of pictures to choose from and the limited space and added cost to print them was a limiting factor. Instead, we decided that since most of the photographs already appear on the NADC web page we would advertise that fact and direct you there instead. The NADC website can be found at:

www.navairdevcen.org

There you will find many historical documents, personal accounts, pictures, REFLECTORS, information on get-togethers and events, and other interesting links. You may also subscribe to our NADC mail list for immediate updates on events. Information on subscription is at the web site. If you have old documents, pictures, REFLECTORS or other NADC history we would be interested in obtaining or copying them for use on the web page and in our archives. Please contact doug@crompton.com

I am sure that many of you took some great pictures at tonight's reunion banquet. Please share them for all to see by sending them to us either via email or on digital media. All photos received will appear at the NADC website.

A thank you to the staff that made this all possible

Celebrations such as this require much effort in order to assure success for the event. A small cadre of dedicated, former employees worked tirelessly to make this night such a success. The core team of Jack Eyth, Steve Fleischut, and Doug Crompton, supported by Bill and Barabra McCracken, John Bowes, Bill Lyons, and Toastmaster Jerry Guarini, deserve your appreciation for their unselfish efforts.

Please seek them out tonight, and thank them for their hard work, which have made this evening an *Affair to Remember!*

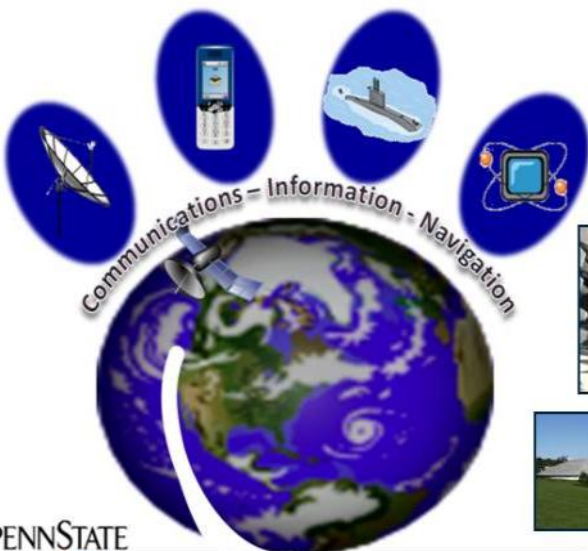


Unfortunately one of NADC's earliest employees, John Vincent (top center) is no longer with us.

Millie Klicka, (left) pictured with Captain Rigsbee and his wife, was the earliest employee at the 10th reunion in 2006.



Fair Winds and Following Seas NADC / NAWC



PENNSTATE



Applied Research Laboratory

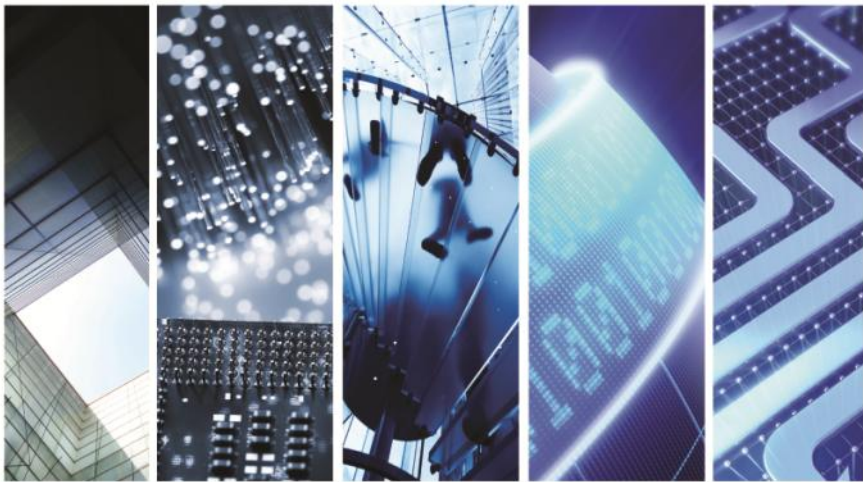
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