

THE OFFICIAL MONTHLY MAGAZINE OF THE 177th FIGHTER WING

THE CONTRAL



ATLANTIC CITY

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THE CONTRAIL

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On the Cover—Thunderbirds Overhead- The U.S. Air Force Thunderbirds Air Demonstration Squadron starts their show over the beaches of Atlantic City, N.J., for the "Thunder Over the Boardwalk Air Show" as lifeguard Ryan McCline watches bathers on Aug. 13, 2014. (U.S. Air National Guard photo by Tech. Sgt. Matt Hecht)

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A panoramic image of the beach and boardwalk during the 12th annual 2014 Atlantic City Airshow, "Thunder Over The Boardwalk" in Atlantic City, New Jersey on Aug. 13, 2014. (U.S. Air National Guard photo illustration by Master Sgt. Andrew J. Moseley)

Eyes on the Sky

ANG paves way for Crew Chief

Story by Tech. Sgt. Matt Hecht, 177th Fighter Wing Public Affairs



Austin Daniel, an Airman with the New Jersey Air National Guard's 177th Fighter Wing, flies with the Raiders Demonstration Team in his Yak-52 aircraft over the beaches of Atlantic City, N.J. for the "Thunder Over the Boardwalk Air Show" on Aug. 13, 2014. Daniel works as a traditional Guardsman, and is an F-16C Fighting Falcon crew chief. (U.S. Air National Guard photo by Tech. Sgt. Matt Hecht)

U.S. Air Force Senior Airman Austin Daniel normally works as a crew chief for high performance fighters, but this year he was seen high over the skies of Atlantic City during the 2014 "Thunder Over the Boardwalk" Air Show as a demonstration pilot.

Since Daniel was 5 years old, he knew he wanted to fly.

"For his 5th birthday, all he wanted was for me to take him up," said Austin's father, Jeff Daniel, a former Air Force T-37 instructor pilot. "Once he was up in the air, he was hooked."

The junior Daniel began his flying career at 14, and at 16 had a base tour here at the 177th Fighter Wing.

"That tour was a huge influence," said Daniel. "I got to talk to a fighter pilot, and I asked him, what do I need to accomplish to do what you do? He told me to enlist in the Air National Guard, and that's exactly what I did when I graduated high school."

In 2009 Daniel graduated from Air Force Basic Training as well as technical training to become an F-16 Fighting Falcon crew chief. At the same time, he had already gotten his commercial pilot's license and began flying with the Raiders Demonstration Team, based out of Lumberton, N.J.

"The Guard is the best opportunity in the military," said Daniel. "To have so many options, full-time, part-time, it's so flexible. I was able to work as a crew chief part-time, finish my college degree in Aviation Flight Technology, and fly!"

As a member of the Raiders, Daniel relies on





skills he learned in the Air National Guard.

“The Air National Guard was my first experience working in such a large organization, and the skills I learned as a crew chief, like aircraft systems management, have helped me out immensely as a pilot, and also as a team member,” said Daniel. “Being a crew chief and flying as a demonstration pilot actually have a lot in common; there is a huge amount of trust and comradery in both.”

At 23 years old, Daniel has accumulated an amazing 2,000 flight hours. While flying with the Raiders Demonstration Team as a solo pilot, he flies the Yak-52, a hardy Russian-made training aircraft.

“It’s a great aircraft, very fuel efficient and great in formation flying with basic aerobatic maneuvers,” said Daniel.

Daniel recently achieved one of his goals: being hired by a regional airline as a pilot.

“He started flying with the Yak-52, a very complex aircraft,” said his father Jeff. “It was a unique way to learn how to fly, and it translated well with flying crop dusters and now the airlines.”

“Flying in shows like Thunder Over the Boardwalk here in Atlantic City is exciting,” said Daniel. “I used to be that kid, looking up at planes and getting inspired, and it’s an honor that it’s me up there inspiring kids today. Flying the AC air show feels great, it’s real ‘seat of the pants,’ and it’s a beautiful view!”

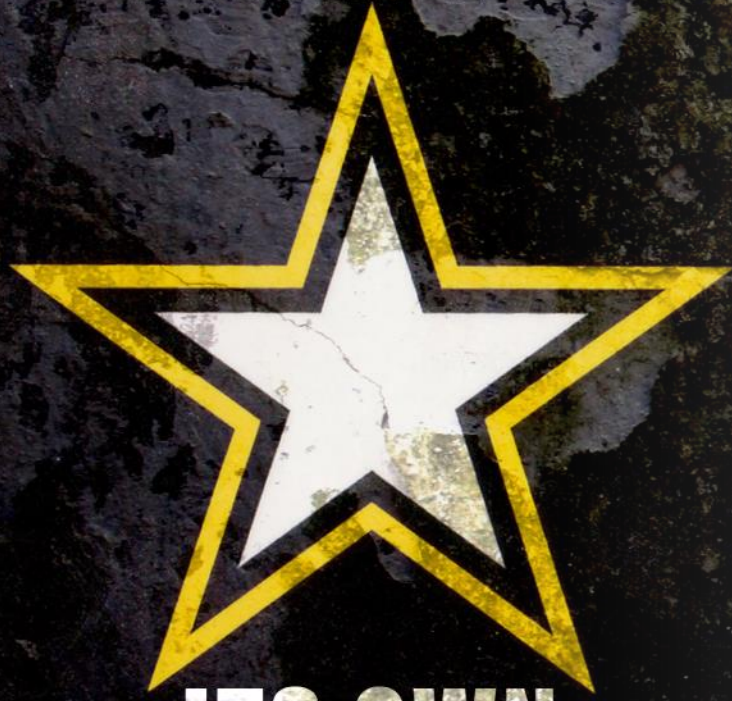
For the future, Daniel is still looking to the sky, hoping to one day fly fighters for the Air National Guard.

Yak-52—Senior Airman Austin Daniel, a crew chief with the New Jersey Air National Guard's 177th Fighter Wing, flies in his Yak-52 demonstration aircraft during the 2014 Thunder Over the Boardwalk air show in Atlantic City, N.J. on Aug. 13. (U.S. Air National Guard photo by Airman Amber Powell)

U.S. ARMY

GOLDEN KNIGHTS:

A FAMILY OF



ITS OWN

Story by Airman 1st Class Shane Karp and
Airman Amber Powell, 177th Fighter Wing Public Affairs

Your typical American family will often wake up, roll out of bed and share breakfast together before starting their day. Each member puts their clothes on one pant leg at a time. This family is no different in that sense.

This family is significantly different though. Later today, this family will be jumping out of a plane with hundreds of thousands of people watching their descent.

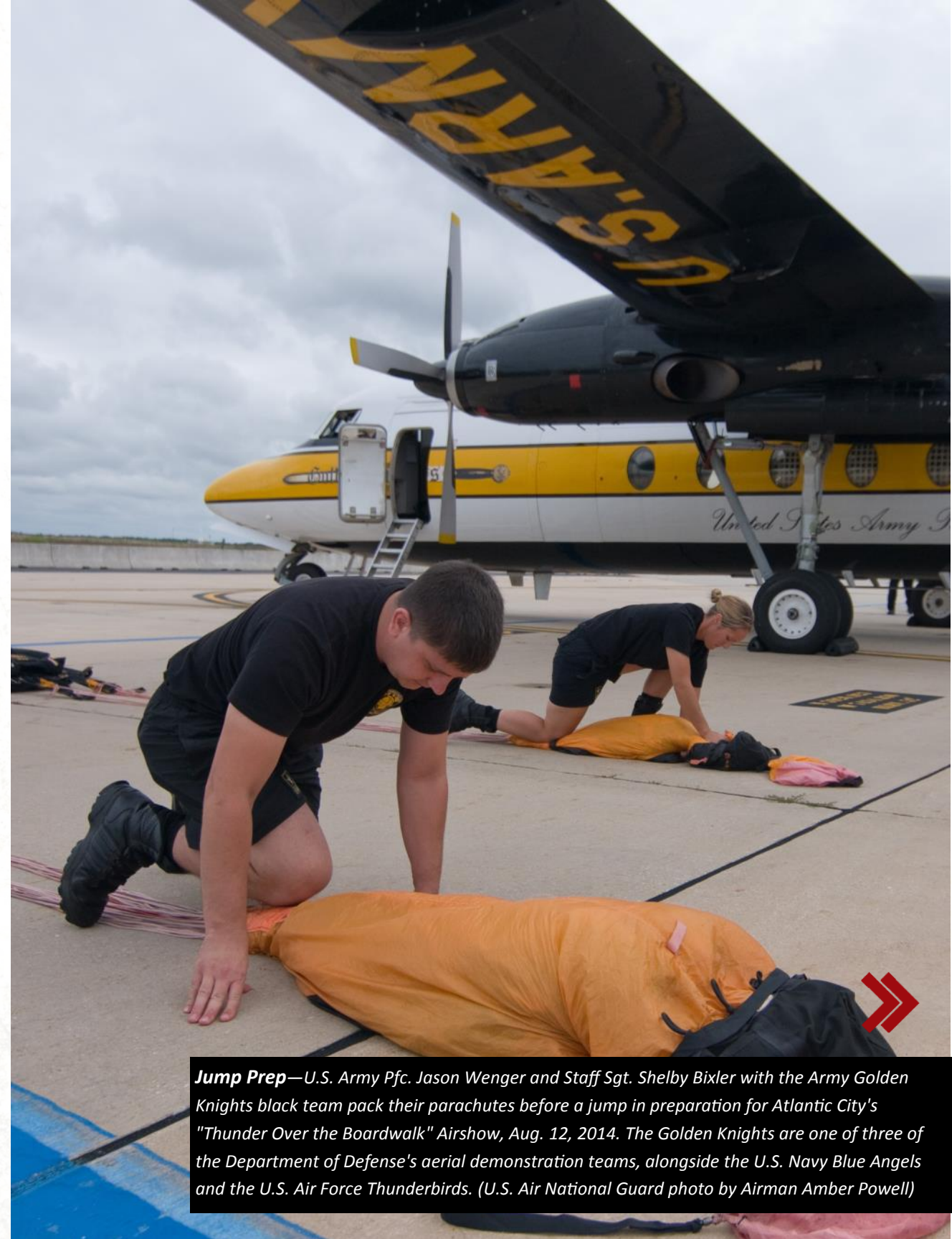
The Golden Knights are the U.S. Army's official aerial demonstration team. They are currently in the middle of show season, which extends from late April into November.

There are four separate teams that make up the Golden Knights; The tandem team, competition team, gold team, and black team. Team members are together roughly 250 days out of the year.

"We are very tight nit. Obviously, with all the high-flying maneuvers we do, it's essential," said Staff Sgt. Shelby Bixler, an airborne recruiter liaison with the black demonstration team.

Just like any other family, there are arguments, but not as often as one would expect.

"Inevitably somebody is going to butt heads, but the team's selection process helps to make sure that doesn't happen often," said Sgt. 1st Class Joe Jones,



Jump Prep—U.S. Army Pfc. Jason Wenger and Staff Sgt. Shelby Bixler with the Army Golden Knights black team pack their parachutes before a jump in preparation for Atlantic City's "Thunder Over the Boardwalk" Airshow, Aug. 12, 2014. The Golden Knights are one of three of the Department of Defense's aerial demonstration teams, alongside the U.S. Navy Blue Angels and the U.S. Air Force Thunderbirds. (U.S. Air National Guard photo by Airman Amber Powell)

Chutes—U.S. Army Golden Knights black team gear sits on their C-31 before their aerial routine. Each soldier on the team went through a challenging six week course where they typically make 150-200 jumps. (U.S. Air National Guard photo by Airman Amber Powell)



Gear Check—A Soldier with the U.S. Army Golden Knights black demonstration team inspects his gear before taking to the skies over Atlantic City, N.J., on Aug. 13, 2014. The Golden Knights are participating in Atlantic City's "Thunder Over the Boardwalk" air show. (U.S. Air National Guard photo by Airman 1st Class Shane S. Karp)



member of the U.S. Army Golden Knights black demonstration team.

"We have tryouts every year, September and October, and the guys that are trying out, they don't go home in the evenings; we have a barracks room at our headquarters that they stay at," Jones said. "We give them tasks to complete during the night before the next day's training, and it's impossible to complete everything, but it's for a purpose. You quickly start to see where the attitudes are, and who the team players are. You can see the guys that are doing what they can to complete the tasks. You can also

see the guys who are sneaking off trying to get to bed early; they're not going to make it," said Jones.

"So when you're asking, when we're on the road do we have any problems? Really we don't, because we already weeded the problem guys out."

Not only do the team members have their Knights family, most of them also maintain a family outside of their day job. Several of the black demonstration team members are married with children.

"You can imagine, roughly 250 days on the road together, you're with your teammates more than your own family," said Pfc. Jason Wenger, airborne air-



Room with a View—U.S. Army Pfc. Jason Wenger and Sgt. 1st Class Kevin Presgraves, members of the U.S. Army Golden Knights black demonstration team, test the air before making a jump over Atlantic City, Aug. 12, 2014. The Golden Knights are participating in Atlantic City's "Thunder Over the Boardwalk" Airshow. (U.S. Air National Guard photo by Airman Amber Powell)



craft repairer.

“My wife is former military, so she is used to the travel, but if you’re newly married, and your wife is not used to the time away, it takes some getting used to,” said Jones.

For some family members of the Knights, this is the only life they have lived.

“I’ve been part of the Golden Knights for 12 years; my son is 14 years old, so this is really all he knows. He knows daddy is home for two or three days, and then he’s on the road for a week,” said Jones.

Even though these highly trained soldiers sacrifice their own time with family to serve in the Golden Knights, they serve to uphold the legacy of those who came before them.

As their creed states, “I volunteered to become an ambassador of my service and I will always endeavor to uphold the prestige, honor, high standards, and esprit de corps of the United States Army Parachute Team. The memories, achievements and legacy of all my predecessors are my responsibility; I will not fail them.”

Over A.C. —U.S. Army Staff Sgt. James Hackett looks for the landing zone while flying over Atlantic City, N.J. beach on Aug. 13, 2014. The Golden Knights are participating in Atlantic City's "Thunder Over the Boardwalk" air show. (U.S. Air National Guard photo by Airman 1st Class Shane S. Karp)





Airborne—Members of the U.S. Army Golden Knights black demonstration team, jump over Atlantic City, N.J. on Aug. 12, 2014. The Golden Knights are participating in Atlantic City's "Thunder Over the Boardwalk" Airshow. (U.S. Air National Guard photo by Airman Amber Powell)





Touchdown—A member of the U.S. Army Golden Knights lands at show center in Atlantic City, N.J. during the Thunder Over the Boardwalk air show. (U.S. Air National Guard photo by Airman Amber Powell)

THUNDERBIRDS IN A.C.



At the Ready—U.S. Air Force Master Sgt. Javier Sariana observes as members of the U.S. Air Force Thunderbirds demonstration team conduct pre-flight checks at the 177th Fighter Wing, Egg Harbor Township, NJ, on Aug. 13, 2014. (U.S. Air National Guard photo by Tech. Sgt. Andrew J. Merlock, Jr.)



Crew Chief—U.S. Air Force Staff Sgt. Stanley Weaver observes as the U.S. Air Force Thunderbirds depart the flightline at the 177th Fighter Wing, Egg Harbor Township, N.J., on Aug. 13, 2014. (U.S. Air National Guard photo by Tech. Sgt. Andrew J. Merlock, Jr.)

Formation Flight—The U.S. Air Force Thunderbirds fly over Atlantic City, N.J. on Aug. 13, 2014. (U.S. Air National Guard photo by Master Sgt. Andrew J. Moseley)



Atlantic City's Air Development Squadron Three Propels The Navy Into The Jet Age

Story by Dr. Richard Porcelli

In earlier issues of *The Contrail*, we related the activities at Naval Air Station Atlantic City [NASAC] after the end of World War II. At that time the Air Station managed to survive the postwar cutbacks by transitioning from a fighter-training base to a center for technology and tactics research and development. In the recent issues, the role of NASAC in developing the Navy's all weather and night fighting and attack capabilities was described, as were the Korean War exploits of Atlantic City's own squadrons, VC-4 and VC-33. During that same period, Naval Air Station Atlantic City was also the home of a squadron totally focused on evaluating and improving new tactical naval aircraft about to enter the fleet. That squadron was Air Development Squadron Three, or VX-3. The squadron's crucial role in supporting the Navy's transition from World War II vintage prop planes to supersonic, carrier-borne fighters provides an interesting history, but even more so when considering that those historic developments took place on Atlantic City's runways and the surrounding airspace.

VX-3 (with an original tail code "XC") started life as a helicopter development squadron. It was established at NAS New York (Floyd Bennett Field, Brooklyn, now partially restored as part of the Gateway National Recreational Area) on July 1, 1946 and shortly thereafter moved to NAS Lakehurst. In its initial role, VX-3 did not last long; it was disestablished on April 1, 1948 and the pilots, aircrew and ground personnel transferred to new, operational helicopter units on the east and west coast.

VX-3 was reestablished in November 1948 at NAS Atlantic City, with the new role of developing and evaluating jet fighter tactics and procedures. Its "rebirth" was at a very crucial time for U.S. military aviation, and naval aviation in particular, as we will describe in the next few issues of *The Contrail*.



Test Subjects—VX-3's stable of aircraft, 1948-1949, from front: Vought F6U Pirate, McDonnell FH-1 Phantom, and McDonnell F2H Banshee fly high above the Jersey Shore. (U.S. Air National Guard photo illustration based on a U.S. Navy photo by Tech. Sgt. Matt Hecht)



As background, during World War II piston engine fighters had been developed to a very high level of performance. For the Army Air Corps, the North American P-51D *Mustang* and the Republic P-47D *Thunderbolt* were unbeatable for air-to-air and air-to-ground combat. For the Navy and Marines, the Grumman F6F-5 *Hellcat* and the Vought F4U-4 *Corsair* were invaluable in securing the defeat of Japan, representing the pinnacle of carrier-borne fighters of the period, with air-to-air kill ratios of 19 to 1 and 11 to 1, respectively.

While research into jet propelled aircraft in Europe and the U.S. actually dates back to before the start of the war, a decision was made by the U.S. War Department to forego the costly and resource-consuming development of this new means of propulsion in favor of focusing instead on perfecting the existing conventional propeller-driven fighters

and building as many as possible for the war effort. Interestingly, in wartime Germany jet and rocket propelled fighters (such as the Henkel He-163 *Volksjager*, Messerschmitt Me-163 *Komet* and Me-262 *Schwabe*) and bombers (including the Arado Ar-234 *Blitz* twin-jet) were in fact developed and operational before the end of hostilities. Fortunately for the Allies, and largely due to the vacillating and often surrealistic policies of Hitler, the Luftwaffe did not get enough of these advanced aircraft in time to impact the



The McDonnell XP-67 Moonbat was first aircraft they produced. Though unsuccessful, it led the way to the FH-1 Phantom and eventually F2H Banshee jets. (U.S. Navy photo)

course of the war. Britain also had operational jet fighters, the deHavilland *Vampire* and Gloster *Meteor*, before the end of the war, but they did not play a significant role in air combat, nor were there ever any examples of a jet vs. jet dogfight recorded.

In the U.S., despite the strategic decision to focus on conventional aircraft for the war's duration, there was some development of jet aircraft and engines. The earliest Army Air Corps jet, the Bell P-59A *Airacomet*, was actually slower than the late model P-51s and P-47s. The next jet, the Lockheed P-80A *Shooting Star* was a major step forward and ultimately

(as an improved P-80C model) served in the Korean War. It also became the basis for the ubiquitous T-33 jet trainer. These early jets provided the foundation for the emerging U.S. Air Force (it was created as a separate military branch on November 18, 1947) and its transition to higher performance jets.

The U.S. Navy lagged behind the Air Force, but for very good reason. While the Air Force usually had the luxury of operation from developed air bases with very long (1 to 2 mile long) runways, the Navy had to fly its tactical aircraft from the decks of aircraft carriers. In the late 1940s and early 1950s, the predominant Navy carriers were World War II vintage, with wooden flight decks measuring about 870 feet long and 150 feet wide. At that time, advances in aerodynamics outpaced developments in jet engine technology. As

a result, most new jet aircraft designs were betrayed by underpowered, unreliable jet engines, giving them very poor acceleration and very high fuel consumption, especially at lower altitudes. Jet powered aircraft also tended to be larger and heavier than their piston engine predecessors, with much higher landing speeds.

This combination of factors severely challenged the Navy's transition to jet powered carrier aircraft. For example, although the carriers were equipped with two hydraulic catapults imbedded the front end of the flight deck, they were designed for occasional use by much lighter prop planes. Usually, prop planes just flew off the deck under their own power. The jets, with their heavier weight and slow acceleration could not; they needed the catapults but even with that aid, often had to be launched with less than full fuel loads and/or limited ordnance, thus minimizing their effectiveness. On return to the carrier, after shorter than normal sorties due to their limited endurance, the landing jets had a much greater landing speed. They also had poor throttle response when trying to adjust their approaches or when taking a 'wave-off', aborting



The VX-3 ramp and hangar at Naval Air Station Atlantic City indicating the variety of aircraft the squadron flew at one time, shot sometime in the early 1950's. (U.S. Navy photo)



the landing. They had to catch one of about a dozen arresting wires strung across the width of the aft deck. If they missed the wires, the jet had to be stopped by nylon barriers. The faster landing, heavier jet aircraft tended to miss the wires and plow through the barriers, crashing into aircraft parked towards the front of the flight deck, with catastrophic and usually fatal results. Also the deck handling of the new jets, with their blowing hot exhausts made the flight deck an even more dangerous place than before.

To illustrate the differences, consider this comparison of the prop-driven F4U-4 *Corsair* and the F9F *Panther* jet. The *Corsair* had a takeoff weight of 14,000 pounds, requiring a 377 foot deck run for takeoff, or less than half the length of the flight deck, with the carrier steaming forward at 25 knots. The *Panther*, weighing 18,000 pounds, theoretically would require more than 1400 feet for a deck run takeoff under the same conditions – hard

to achieve with an 880 foot long flight deck! Returning to the carrier, the *Corsair* had a stall speed of 67 knots, while the *Panther* stalled at 94 knots – adding to the challenge of ‘trapping’ a jet on the heaving flight deck of a carrier moving away from you at 25 knots!

For these reasons, many Navy admirals concluded that jet powered aircraft could never be made suitable for carrier operations. Instead, right after the end of the war the Navy invested in even more powerful propeller aircraft, such as the diminutive Grumman F8F *Bearcat* (the fastest prop fighter ever) and the Ryan FR-1 *Fireball* that featured a jet engine mounted in the tail and a piston engine in the nose as a poor compromise aimed at alleviating the problems of the early pure jets.

With this background, Atlantic City’s VX-3 entered the picture. Their job was basically to try to adapt the early jet fighters and attack aircraft into effective carrier borne

aircraft by testing them under conditions that reflect normal squadron operations, and by developing procedures and tactics to increase their suitability. That period was perhaps the most prolific in history in terms of different new aircraft designs by all of the major aircraft manufacturers, including Chance Vought, Douglas, Grumman, North American and McDonnell competing for lucrative Navy contracts. To ‘cover their bets’ the Navy tended to place small orders for a number of competing aircraft holding off the large-scale orders until after the new types were evaluated.

Starting from its reestablishment in 1948 by merging Atlantic City’s Fighting Squadron 1L (VF-1L) and Attack Squadron 1L (VA-1L) of Light Carrier Air Group 1L, VX-3 started to receive 6 or more examples of every new tactical aircraft or-

dered by the Navy. As a result, the VX-3 ramp that was situated outside of one of the two Navy hangars, was always full of the latest aircraft. Similarly, the squadron pilots were required to fly multiple types. But in those heady days, getting clearance to fly a new aircraft basically involved reading the flight manual, sitting in the cockpit for a few hours finding all the dials and switches, and then going flying. There were no two-seaters for conversion training.

In the early years, the first jet fighters that the Navy evaluated were from Chance Vought, the noted producer of the iconic *Corsair*; *Grumman*, a long-time supplier of Navy aircraft including the *Wildcat* and war-winning *Hellcat* fighters; North American Aviation, famous for building of the superlative *Mustang*; and newcomer McDonnell Aircraft.

Chance Vought’s entry into the jet race, the F6U *Pirate*, turned out to be an embarrassing disappointment. The 13,000-pound, snub-nosed, straight-wing aircraft was powered by a 3000-pound static thrust Westinghouse J34-WE-22 axial turbojet. Eventually, a primitive single-stage afterburner was added boosting the thrust to 4225 pounds. It was advanced in terms of materials of construction, being the first example of the use of composite materials. However, it was grossly underpowered. Twenty examples were provided for evaluation, most going to VX-3 at NAS Atlantic City. It gained the nickname “Groundhog” (for obvious reasons) and after a rather short evaluation, VX-3 aviators found it to be “so sub-marginal in performance that combat utilization was unfeasible.” A total of 3 prototypes plus 30 production *Pirates* were delivered to the Navy but none were assigned to operational squadrons; all but one were scrapped, most with less than 6 hours ‘on the clock’.

Grumman’s first jet aircraft, the single-engine F9F *Panther*, was the Navy’s first successful jet fighter. But it started out as a competitor for the Navy’s request for a radar equipped, all-weather/night fighter that was eventually won by the Douglas F3D *Skynight* that we featured in the April 2014 issue of *The Contrail*. Due to the low power of jet engines at that time, Grumman’s night fighter competitor, known as the XF9F-1, required 4 engines buried in the wings! Fortunately, the losing entry was reconfigured into a single engine day fighter, the F9F-2. Grumman had a long-time policy of never using unproven engines in new airframes. However, proven American jet engines of the time still lacked adequate thrust and Grumman turned to Rolls-Royce whose 5000 pound static thrust *Nene* centrifugal turbojet was already operationally proven in British



A Grumman F9F-2 Panther doing “bounces” at Naval Air station Atlantic City as part of Field Carrier Landing Practice. Not the Landing Signal Officer (LSO) in the foreground giving the pilot the “cut” or cleared to land signal. (U.S. Navy photo)



jet fighters. Pratt & Whitney was contracted to build the *Nene* under license as the J-42 turbojet engine. The straight wing aircraft looked relatively conventional except for the high tail to clear the control surfaces from the jet exhaust. Four 20-millimeter cannons were fit to the unique nose section that could be slid out on tracks to allow rearming or servicing the guns. Similarly, by releasing four bolts, the entire tail section could be pulled away allowing easy access and rapid change of the jet engine.

The first flight from Grumman's Bethpage Airport (Long Island) took place on November 24, 1947, but due to concerns about landing the untried jet on the short runway, it instead landed at Idlewild Airport (now Kennedy International) in Queens. Initial testing by Grumman and then VX-3 proved that the fuel tanks in the fuselage and within the wings were too small for the thirsty jet, and wing-tip tanks were permanently installed. Fortunately, these tanks eliminated aileron flutter and improved the roll rate of the jet. The *Panther's* testing and development was relatively trouble free with a few notable exceptions. One VX-3 pilot was testing arrestor landings at NAS Mustin Field (located adjacent to the now closed Philadelphia Naval Ship Yard), when the tail hook caught a wire and pulled the entire tail off the aircraft! The pilot was unaware that he no longer had a tail section, and tried to takeoff again. Fortunately the tower noticed the predicament and alerted the pilot who aborted the takeoff. In another case, however, a VX-3 pilot was fatally injured on May 25, 1950 when he crashed on landing back at NAS Atlantic City after an air test. Ultimately, Grumman produced 1,382 *Panthers*. Carrier-based Navy and ground-based Marine F9F-2, -3, -4 and -5 *Panthers* saw extensive action in the Korea War. *Panthers* were the first jets used by the Navy's elite *Blue Angels* demonstration team, flying them from 1949 to 1954 when they were replaced by Grumman's swept-wing version, called the F9F-6/8 *Cougar*.

The first Navy jet to fly was actually the North American FJ-1 *Fury*. Basically, they modified the Mustang design, keeping the wings, tail, control surfaces and even the cockpit, all built around a fat, round fuselage



VX-3 commanding officer Capt. Gaylor demonstrates landing of F2H-2 Banshee jet on the aircraft carrier USS Wright in 1951. (U.S. Navy photo)



A VX-3 Patch. (U.S. Navy photo)

large enough to house the Allison J-35-A-2, 4000-pound static thrust jet engine. All thirty production *Furies* were delivered to the Navy in 1947 before VX-3 was established, and saw limited service before being retired to the naval air reserves. However, after the J-35 was replaced with a more powerful General Electric J-47 turbojet and the incorporation of swept wings and tail surfaces, the underperforming FJ-1 became the basis of the fantastic Air Force F-86 *Sabre* and the Navy FJ-2, -3 and -4 series of advanced *Furies*, the latter models being subsequently tested at Atlantic City by VX-3 – more on that later.

Although McDonnell Aircraft Corporation of St. Louis, Missouri was founded in 1939, it built sub-assemblies for other aircraft companies throughout World War II. The only indigenous design was the futuristic XP-67 *Moonbat*, a large twin piston engine powered interceptor proposed to the U.S. Army Air Corps in the early 1940s. Although that project failed, many of the design concepts were revived when McDonnell set to designing its first jet aircraft, the FH-1 *Phantom* (not to be confused with the hugely successful F4 *Phantom II* of Viet Nam War fame, from the same company). Coincidentally, during WWII McDonnell Aircraft had self-sponsored a jet engine development program and with this background, as well as the aerodynamics advances of the XP-67 *Moonbat*, they were well positioned to become a prime contractor for the Navy and ultimately the Air Force.

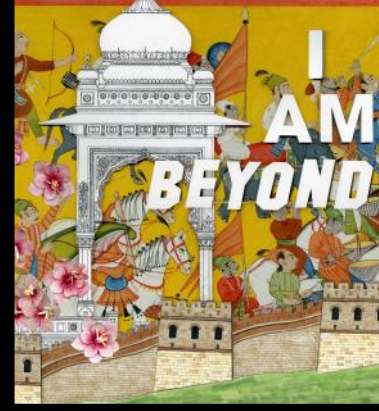
The FH-1 *Phantom* was a straight-wing, twin-engine jet. The Westinghouse J-30-WE turbojets of 1600 pounds static thrust each were buried in the wing roots. Armament was four, 50 caliber machine guns. To reduce landing speeds, split flaps were installed throughout the entire wingspan. The prototype first flew while World War II was still raging, in January 1945. But it was lost shortly thereafter in a fatal crash. It did prove to be the first Navy jet capable of 500 mph, but was underpowered and lacked sufficient range to be of combat value. A total of 62 *Phantoms* were produced. VX-3 received its first examples in 1949, and in fact were the squadron's first jet aircraft. The squadron was as-

signed just a few of these jets mostly for jet-orientation flights since by that time more advanced aircraft were emerging. Most of the FH-1s ended up in Navy air reserve units, including NAS New York/Floyd Bennett Field (Brooklyn).

The most important contribution of the FH-1 *Phantom* was forming the basis of the much more successful F2H *Banshee* series of day fighters, night/all-weather fighters, and photoreconnaissance jets that flew for the Navy and Marines for many years to come. McDonnell originally aimed at a simple modification of the *Phantom*, but so many improvements and changes were made that a new aircraft, the F2H-1 *Banshee*, was designated. Needing more range, more fuel was required; therefore the wings and fuselage were lengthened. The light, World War II vintage 50-caliber machine guns were replaced with heavier 20-millimeter cannons mounted below the nose to avoid the top mounted gun flashes blinding the pilot as happened on the *Phantom*. Other changes included more powerful jet engines, an ejection seat, cockpit pressurization, electrically operated flaps and speed brakes and very importantly, thinner wings and tail surfaces to increase the critical Mach number.

VX-3 received their first *Banshees* in 1949, these being the improved F2H-2's, which would become the first true production models. In June 1951, VX-3's CO Capt. Gaylor and Lt. Reit flew their *Banshees* from Atlantic City out to the light carrier *USS Wright* steaming off the Jersey shore and demonstrated the successful operation of these early jets from an aircraft carrier deck. These tests would be part of much of the critical development work performed by VX-3 in the late 1940s and early 1950s to enhance the safety of jets in carrier operations. That challenging task, often fraught with danger, will be the subject of subsequent articles in *The Contrail*.

ASIAN AMERICAN PACIFIC ISLANDER
HERITAGE MONTH



BLACK HISTORY MONTH
Civil Rights in America



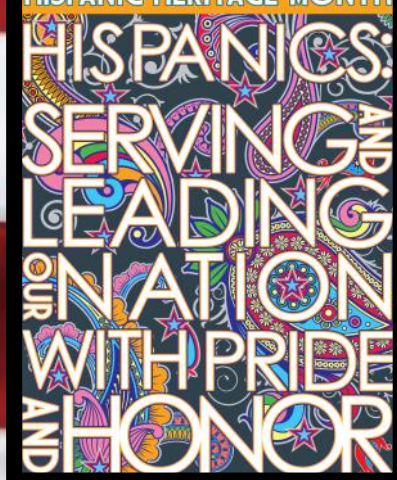
SEXUAL ASSAULT
AWARENESS MONTH
LIVE OUR VALUES



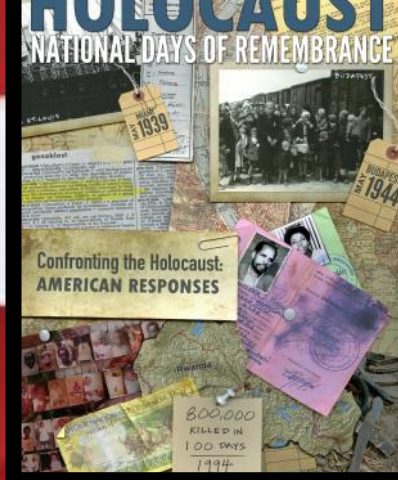
WOMEN'S HISTORY MONTH



HISPANIC HERITAGE MONTH



HOLOCAUST
NATIONAL DAYS OF REMEMBRANCE



WOMEN'S
EQUALITY DAY

August 26th



"We honor the pioneers of women's equality by
doing our part to realize the great American dream."

President Barack Obama
2013

AUGUST 2014

LESBIAN GAY BISEXUAL TRANSGENDER
PRIDE MONTH

JUNE 2014

"Diversity is at the heart
of America's strength."

Secretary of Defense Chris Hagel



NATIONAL DISABILITY EMPLOYMENT
AWARENESS MONTH

BECAUSE
WE ARE
EQUAL
TO THE
TASK





OVER A TWO DAY PERIOD, AIRMEN FROM THE 177TH FIGHTER WING THREW BOTH PRACTICE AND FRAGMENTATION GRENADES AT GRAFENWOEHR TRAINING AREA IN BAVARIA, GERMANY. THE VARIETY OF RANGES OFFERED A UNIQUE TRAINING ENVIRONMENT FOR THE SECURITY FORCES, SERVICES, FORCE SUPPORT, AND TACTICAL AIR CONTROL PARTY AIR NATIONAL GUARDSMEN.

GRENADE TRAINING AT GRAF





Grenade Toss—U.S. Air Force Senior Airman Yu Yuan, left, material management technician with the 227th Air Support Operations Squadron (ASOS), prepares to receive and throws an M67 frag hand grenade during Operation Kriegshammer training at Grafenwoehr Training Area, Germany on July 14, 2014. (U.S. Air National Guard photos by Master Sgt. Andrew J. Moseley)





Over the Wall—U.S. Air Force Major Scott Michalowski, left, Joint Terminal Attack Control Officer with the 227th Air Support Operations Squadron, throws an M67 high explosive frag hand grenade as Master Sgt. Walter Kienzle, Combat Arms Instructor with the 177th Fighter Wing of the New Jersey Air National Guard, checks his technique during Operation Kriegshammer training at Grafenwoehr Training Area, Germany on July 14, 2014. (U.S. Air National Guard photo by Master Sgt. Andrew J. Moseley)

Armed: U.S. Air Force Senior Airman Freddy Vasquez throws a dummy grenade on a practice range at Grafenwoehr Training Area in Bavaria, Germany, July 13. Vasquez is a New Jersey Air National Guardsman from the 177th Force Support Squadron. (U.S. Air National Guard photo by Tech. Sgt. Matt Hecht)



PARA-DOCS

By Doc Savicky, 177th Fighter Wing Director of Psychological Health



"Remember the difference between a boss and a leader....A boss says "Go!" A leader says "Let's go!" ~E.M. Kelly

What makes a true leader has always fascinated me. I have noticed that it is both a combination of their leadership style

in which they lead and their ability to maximize the potential of those around them? In the military organization one can have both traits and neither of them and still be called a leader or a boss.

I remember that one of my supervisors used to say: "a leader leads by example." How true this was when I was in both The Marine Corps and the Air National Guard. I think each one of us is a leader at some point in time and almost everywhere. We all can set an example. You do not have to have a title to be considered one. You simply need influence those around you. When you speak do people listen? What example do you set? More importantly, what example do you want to set?

Ask yourself, if you have these Leadership qualities, which include humility, integrity, fairness, assertiveness, and dedication? Good leaders encourage others to share their ideas and opinions without fear of reprisal. They are in touch with their emotional, mental, and physical needs and those around them. They realize the mission is not about one individual but the whole. Good leaders give credit where credit is due with

words and actions of appreciation as part of their daily routine. They laugh often, listen always, and learn from others.

Good leaders have the ability to "paint the big picture," and provide a rewarding vision. They motivate others to embrace the vision and in turn, become more productive than if they just performed routine job requirements.

Good leaders command confidence and trust, not by demanding but by encouraging. Even in the face of seemingly insurmountable odds, an effective leader will tell you "don't give up but to keep fighting." And isn't that what we are called to do every day at work and at home. If you have any questions or want to discuss your leadership definition, come on over to Building 229 or contact me at 609-761-6871 or Andrew.savicky.ctr@ang.af.mil.

NO DULs NO EXCUSES DRINK RESPONSIBLY

"Think Before You Drink"

A New Program Exists at the 177th ***When You Do Not Have a Plan***

The goal is to eliminate future alcohol-related driving incidents by providing Unit members a method of transportation, without using chain of command and without fear of repercussion. The program operates with a wingman concept in collaboration with similar programs, such as the HERO Campaign.

AADD operates a hotline, (609) 761-6017, that is staffed 24 hours a day, seven days per week. When an individual calls the hotline, the operator asks the following information: Where are you? How many are in your party? Where do you need to go? How can we identify you when we arrive? This service is available to all Unit members, once a Unit member joins the Airmen Against Drunk Driving organization.

The AADD takes its awareness campaign seriously. They are in the birth phase of an organizational life cycle, and are evolving towards growth. Therefore, participation is paramount to maintain viability. Section

Chiefs will be reaching out to Unit members to gain program membership. Unit members will be asked to complete a membership form and return it to the Section Chief. First Sergeants will be managing the recall rosters for volunteer drivers.

SMSgt Perkins, the program coordinator will be visiting each section to educate personnel on criteria to be a volunteer drive, as well as additional program information. For immediate information on the program, Unit members can read 177FW Instruction 34-223, Airmen Against Drunk Driving.



**FINAL
PHOTO
SKIES OVER A.C.**

Looking for the Drop Zone: U.S. Army Sgt. 1st Class Kevin Presgraves, team leader for the U.S. Army Golden Knights black demonstration team, inspects jump conditions over Atlantic City, N.J., while stunt pilot Rob Holland flies by on Aug. 13, 2014. The Golden Knights are participating in Atlantic City's "Thunder Over the Boardwalk" air show. (U.S. Air National Guard photo by Airman 1st Class Shane S. Karp)