

THE CONTRAIL



THE OFFICIAL MONTHLY MAGAZINE OF THE 177th FIGHTER WING

THE CONTRAIL

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On the cover: A memorial of photos and stories of the fallen is displayed at the Sixth Annual 24 Hour Challenge, coordinated by members of the 227th Air Support Operations Squadron at the Atlantic City Air National Guard Base, N.J. on March 30, 2017. 177th Fighter Wing unit members, friends and family, as well as employees from the neighboring FAA William Hughes Tech. Center, participated in the 24 hour event. (U.S. Air National Guard photo by Master Sgt. Andrew J. Moseley/Released)

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COMMANDER'S COLUMN



A tradition of striving for excellence, not accepting the status quo

by Chief Master Sgt. James F. McCloskey, 177th Fighter Wing Command Chief



Devils, Congratulations on a successful ACC IG Capstone inspection; I knew you would do very well and a grade of “Effective” is something to be very proud

of. “Effective” means you can meet the needs of our country, community, and each other.

During the inspection, I had the daily opportunity to speak one-on-one with the inspectors. Each and every inspector made comments about how impressed they were with our unit pride, professionalism, and our family atmosphere. Since becoming your Command Chief, I have had the same opportunity to meet more of you; getting to know your shops and missions. Every single day I have been impressed by your level of professionalism and how much you care about what you do. Your

“can do” spirit and willingness to help each other is truly inspiring. You, as leaders, are doing highly effective work ensuring all of us are capable and willing to accomplish our missions effectively. Our future leaders are being developed in this atmosphere and are being groomed to carry on this tradition of striving for excellence and not accepting the status quo. This is not taken for granted. It takes effort to maintain a unit with high morale and proficient mission effectiveness. Respect and discipline coupled with consistent service is the foundation of our successes. These ideals must be instilled in future generations in order to ensure when we retire, we leave this Wing better than we found it.

What has this inspection revealed? We have some things to improve upon; and I know you will succeed in those efforts. We can always get better; throughout our history, this Wing has done nothing but demonstrate that capability. Increasing

effectiveness and bettering our mission execution is part of the continuous improvement process; we are on a good upward trajectory. More importantly, it not only reveals that we are ready to answer the call of our nation and state, but also our fellow Airmen and their families. I am proud of what we do, proud how we go about what we do, and could not be happier that you do this for the right reasons. We do what is needed to advance this unit and its’ missions. We don’t simply have individuals who live by our Core Values; we, as a Wing team, live by them.

I am very proud of you and thankful for your service. Keep up the great work!





177th Fighter Wing

"Community Based, Global Impact"



Mission

Provide Highly Qualified/Combat-Ready Citizen Airmen, Mission-capable Aircraft/Equipment to Support National and State Objectives

Vision

From the Home Front to the Front Lines, Community-based, Professional Airmen, working as One Team, delivering State, National, & Global impact as Full Partners in the Total Force

Priorities

- **ONE TEAM:** unified focus ISO the Wing Mission, supportive of the "Wingman Culture"
- **Transparent Operations and Accountable Execution**
- **Disciplined/Regulatory/Compliant Approach to Mission Execution= Effective/Safe Ops**
- **Leadership that Empowers, Mentors, & Challenges**
- **Focused Professional Development:** producing leaders at Community/State/National levels

Focus Areas

- ❖ **Readiness – Individual, Personal, and Unit Readiness**
- ❖ **Time Management - Use of Airman's Time / Quantity and Prioritization**
- ❖ **Communication – Inter and Intra Unit (up/down/sideways)**
- ❖ **Evaluate/Promote Airmen based on Fitness/Merit/Capability/Performance**

227th Air Support Operations Squadron honors the fallen during the Sixth Annual 24 Hour Challenge

Photos and story by Master Sgt. Andrew J. Moseley



Unit members, family and friends participated in the Sixth Annual “24 Hour Challenge”, an event held from 1200 hrs. on Mar. 30 until 1200 hrs. on Mar. 31, 2017, to provide aid to TACP members and their families in times of need.

Members of the 177th Fighter Wing’s 227th Air Support Operations Squadron (ASOS) organized the event and kept the challenge alive by continuously circling the track overnight in rainy and very cold weather.

“There was a lot of coordination between unit members on base as well as family members and obviously, within our squadron, a lot of guys picking up a lot of the weight to get this thing up and get everything off the ground,” said Senior Airman Michael Curley, the lead organizer from the 227th ASOS. “We received a lot of help from our local community with businesses donating things for the runners; snacks, hoagies and pizza to keep us going throughout the 24 hours.”

The 24 Hour Challenge is a nation-wide event for the JTAC community and last year over \$110 thousand was raised for the TACP Association to raise awareness to continue their support to the TACP community.

A group photo from the Sixth Annual 24 Hour Challenge for fallen tactical air control party airmen, coordinated by members of the 227th Air Support Operations Squadron at the Atlantic City Air National Guard Base, N.J. on March 31, 2017. 177th Fighter Wing unit members, friends and family, as well as employees from the neighboring FAA William Hughes Tech. Center, participated in the 24 hour event.





Above: From left, U.S. Air Force Senior Airman Joshua Derins and Tech. Sgt. John Gomez, with the 227th Air Support Operations Squadron (ASOS), run during the Sixth Annual 24 Hour Challenge for fallen tactical air control party airmen, March 30, 2017.

Below: 24 Hour Challenge participants do memorial pushups for the fallen.

Right: A battlefield cross memorial is displayed at the Sixth Annual 24 Hour Challenge for fallen tactical air control party airmen.

Below Right: New Jersey Air National Guard State Command Chief Master Sgt. Janeen Fillari presents a Command Chief's coin to Senior Airman Michael Curley, recognizing him for his efforts in organizing the Sixth Annual 24 Hour Challenge.



“There have been a lot of changes in the 227th ASOS in the past few years and as we continue to grow and mature, future leadership positions are established,” said Maj. Daniel Roske, 227th Operations Officer. “I’m truly humbled and honored by each and every one of you and what you do every single day. Let’s remember the fallen; Gung ho.” Promoting physical fitness while honoring the fallen, the 24 Hour Challenge gets a lot of people exercising for a good cause and putting in a lot of miles. In 2016, 5,231 participants ran a total of 46,098 miles nationwide; equal to almost two times around the planet.



“This event really puts into focus for me why we show up on a day-to-day basis and what all the little requirements are that lead up to this...to supporting these guys and their families,” said Curley. “We would all want this done for us so it’s really a great honor to be in this position to help set this up and get this thing rolling for these guys. TACPs are such a tight knit community and this is something that we really respect and hold near and dear.”



Above: SrA Michael Curley leads participants in memorial pushups to conclude the 24 Hour Challenge.

Top Right: NJ ANG State Command Chief Master Sgt. Janeen Fillari and 227th ASOS First Sgt., MSgt Courtney Beard, look at a memorial display of photos and stories of the fallen.

Below (L-R): Staff Sgt. Ravi Patel and Tech. Sgt. Bob Johnson participate in the 24 Hour Challenge. Senior Airman Michael Curley carries his daughter, Elliot, while his wife, Brooke, pushes a stroller and carries their youngest daughter, Indiana, as they participate in the 24 Hour Challenge. Tech. Sgt. Jay Hurley, Master Sgt. Wray White, 1st Lt. Rich Ryan, Lt. Col. Michelle Stein, Senior Master Sgt. John White and Tech. Sgt. Kane Lawlor put in laps during the Sixth Annual 24 Hour Challenge to help TACP members and their families in times of need.



The F-16 *Fighting Falcon*

Part 10 - F-16s Beyond Block 30/32

A F-16C Block 40 Viper from the 421st Fighter Squadron/388th Fighter Wing, based at Hill AFB, is shown dropping a GBU-31 JDAM during exercise Combat Hammer of May 2011. (USAF photo)



Background

With last month's installment in the *Contrail* the history of Atlantic City Airport and the 177th Fighter Wing/119th Fighter Squadron was pretty much brought up to date. In this and the next installments, the story of the F-16 *Viper* will be continued, focusing on later production blocks (as well as experimental "one-off" versions). It is believed that these subjects will be of interest to the reader because the 119th is currently flying the F-16C Block 30. The later production blocks, especially the 40/42 and 50/52, could represent the future of the squadron since re-equipment with the F-35A, at least in the short term, is "not in the cards."

F-16C/D Block 40/42

As we have seen in previous installments of this series, "politics" often get in the way of logic. The F-16C Block 40/42 Vipers were originally to be called the F-16G. When the Air Force proposed the procurement of this version, there was a concern that Congress would not approve acquisition of a "new" aircraft as it was thought to be a threat to the production of the F-22A Raptor. Therefore, by the time this production block entered service in 1989, it was to be referred to as the F-16CG/DG series. But in practical terms, the F-16C/D nomenclature prevails.

With this version, the F-16 gained significant capabilities for navigation and precision attack in all weather conditions and at night. For this reason it gained the unofficial and little-used "Night Falcon" name. The first Block 40 *Viper*, serial 87-0350, made its first flight on 31 December 1988, while the first Block 42, serial 87-356, took to the air 25 April 1989. Interestingly, that first Block 40 jet, '0350', is still flying with the *Triple Nickel* (555th) fighter squadron based at Aviano AB, Italy,



As introduced with the Block 30/32 jets, the configuration of the engine bay provided for either the General Electric F110-GE-100 (Block 40) or the Pratt & Whitney F100-PW-220 (Block 42). But as was true with the Block 30/32 airframes, the two engines were really not interchangeable. All told, 777 examples of the F-16C/D Block 40/42 were produced for USAF and foreign air forces. Although production temporarily stopped by Lockheed-Martin in 1995 it was restarted in 1999 to fulfill Egypt's order for a further 21 aircraft. Bahrain then ordered a further 10 F-16C Block 40s, with the last aircraft from this order being delivered in June 2001.

The Block 40/42 *Vipers* incorporated many changes, both internal and external, to give it the desired enhanced capabilities as well as greater robustness and longer airframe life. They were the first blocks to roll out of the factory with digital systems to replace analog flight controls and instruments. (Earlier production blocks, such as the Block 30/32s, were retrofitted with these systems while in service.)

The night/all-weather capability was provided by the twin-pod Lockheed Martin LAN-TIRN system. As described last month, an AN/AAQ-13 navigation pod is located on the port side of the air intake, and an AN/AAQ-14 targeting pod is carried on the starboard side. Other new equipment included the AN/APG-69(V) radar, a holographic HUD (heads-up display), GPS navigation, digital flight controls, automatic terrain following capability and the AN/ALE-47 Group A chaff/flare dispenser system. Other improvements included an enhanced envelope gun sight and the capability to bomb moving ground targets.



The first production Block 40 Viper, 87-0350 is shown in the markings of the Triple Nickel Squadron (555th FS/31st FW) visiting Florennes AB in 2006 from its home base at Aviano AB, Italy; it had served with the 34th FS (Hill AFB) and the 510th FS (Aviano) prior to its current assignment to the 555th. (photo from F-16.net)





A true Viper's nest sits on the ramp at Konya AB, Turkey, during exercise Anatolian Eagle 2006, with Block 40 jets from the 510th FS (Aviano AB) in the foreground; Turkey has the largest F-16 fleet after the USAF. (photo from F-16.net)

For the pilot, an important addition was the Combat Edge positive pressure breathing system that enables him/her to better withstand increased g-loads. This Pressure Breathing for G (PBG) system (as opposed to a similar system for altitude, or PBA) consists of a number of components including a pressure vest, modifications to the helmet, and changes to the breathing and g-suit air system, that maintain a sufficient pressure in the pilot's chest cavity to assist the heart in pumping blood to the pilot's eyes and brain while inhibiting downward blood flow. The same pressure applied to the vest is supplied to the pilot via his/her mask. The system, since it squeezes from both the inside and outside of the chest, allows the pilot to breathe but also sustains the blood supply to the head under high-g forces.

The Block 40/42 jets incorporated many of the same improvements of the Block 30/32 versions under the Multi-National Staged Improvement Program [MSIP], Stage III program. An improved on-board Electronic Countermeasures [ECM] system was incorporated, as was the ability to receive information via data-link from Forward Air Controllers, Joint Terminal Attack Controllers and other aircraft including the E-3 AWACS and E-8C J-STARS.

There were some distinctive physical changes as well. Due to the increased air-to-ground precision strike role (and the resultant added aircraft weight) a strong and lengthened landing gear was incorporated. This included larger wheels, tires and brakes that permitted maximum takeoff weight to be increased to 42,300 pounds. As a result, the landing gear doors are bulged to contain the larger landing gear assemblies. These changes also gave greater ground clearance for under-wing and fuselage mounted weapons. The airframe was strengthened to allow the 9-g maneuverability weight to be increased from 26,900 to 28,500 pounds.



In terms of weapons, as-built the Block 40/42 Vipers were designed to carry GBU -10 and GBU-12, (2000 pound Mk 84 and 500 pound Mk 82, respectively, with laser seeker and wings for guidance) Paveway II bombs; GBU-24 Paveway III laser guided 2000 pound Mk84 bomb with optional penetrators; and the GBU-15 glide bomb. In 1989, provision was made to include the AGM-88 High-Speed Anti-Radiation missile [HARM] to the Block 40/42 jets' arsenal. More recently, the capability to deliver the GBU-31 Joint Direct Attack Munition [JDAM], a Mk 84 2000 pound bomb with an inertial navigation/GPS guidance system, was added.

Further Modifications – Sure Strike and Gold Strike

While the history of the F-16 in service has included the constant upgrade of the aircraft, there were two modification programs applied to the Block 40/42 jets that are particularly interesting.

In 1995, close air support [CAS] missions over Bosnia during Operation Deny Flight pointed to the need for even more enhanced capabilities.

As a result 38 F-16C/D Block 40 jets from the 31st Fighter Wing, based at Aviano AB, Italy, were upgraded under the Sure Strike program. This added night vision goggles [NVG] as well as compatible cockpit lighting, and an Improved Data Modem [IDM] to give quick reaction capability for providing close air support to troops in contact with enemy forces. The IDM is particularly valuable since it allows the aircraft to receive latitude, longitude and elevation data for a target direct from a Forward Air Controller [FAC] or Joint Terminal Attack Controller on the ground. That data is then automatically displayed as a waypoint on the pilot's HUD. Using "off the shelf" components, Sure Strike was fielded in just 13 weeks. Sure Strike modified aircraft proved their worth in combat, and these modifications were applied to more Block 40/42 jets starting in 1998.

The Sure Strike system was further upgraded, starting in mid-1997, under project Gold Strike. This improvement adds two-way imagery transmission to the Sure Strike package. This allows the pilot to transmit and receive target video imagery right onto his/her cockpit Multi-Functional Display [MFD].

Production Figures

Lockheed-Martin (General Dynamics) produced a total of 462 F-16C/D Block 40/42 jets. Of that total, 266 or 58% were GE-powered Block 40s, with the remaining 196, or 42%, Pratt & Whitney powered Block 42s. Turkish Aerospace eventually produced a further 315 aircraft. As noted above, production at Lockheed-Martin's Fort Worth, TX, plant switched from producing Block 30/32 jets to the Block 40/42 version under the Fiscal Year 1987 production order. Block 40 jets were supplied to the USAF, as well as the air forces of Turkey, Bahrain, Israel and Egypt. Block 42 jets were only delivered to the USAF.

Production switched to the next version, the F-16C/D Block 50/52, under Fiscal Year 1990. This next production series will be the subject of next month's article in *The Contrail*.



This beautiful shot captures an F-16C Block 40 Viper of the 421st Fighter Squadron, Hill AFB, overhead Nellis AFB during Red Flag 12-4. (F-16.net)



A USAF F-16C Block 40 jet of the famous *Wolf Pack* (8th Fighter Wing) performs a high-speed, low-level "show of force" maneuver near Kunsan AB, Republic Of Korea. (USAF photo)

“Laugh your way to a happy marriage”

Commentary and photos by Master Sgt. Andrew J. Moseley, 177th Public Affairs

Ha, ha, ha, very funny. “Laugh your way to a happy marriage,” they said. I was skeptical, having almost 30 years of marriage under my belt. Sure, we had our bumps in the road. But my wife and I had our own “system”, working opposite shifts so one of us could always be home with our children. It works, because it has to.

I knew the Family Readiness Program Manager and our Chaplains pretty well. I even wrote a blurb or two in our Wing newsletter about previous couples and singles events. They seemed like nice events but not something I would ever do, not with our “system” that worked for us for the past 28 years.

Maybe it was the fact that I was getting ready to head out the door on my fourth combat deployment. Maybe I thought that our system could use some tweaking. Maybe I just wanted to spend some time with my wife in a nice hotel, and enjoy some good food. Maybe, probably, all of these things.

My wife and I attended the free-of-charge, Wing sponsored, “Laugh Your Way to a Better Marriage” event, held at a hotel in Vineland, New Jersey, Mar. 24 – 26, 2017. This was a Chaplain led program called “Strong Bonds” and is one of several workshops they offer for Relational Education and Enhancement. I’m told that plans are in the works for more Strong Bonds Couples, Individual and Student Flight workshops.

The event turned out to be an amazing experience for us. The program was a military version, by Mark Gungor, and with titles like, “The Tale of Two Brains”, “Incredible Sex” and “How to Stay Married and Not Kill Anybody: Forgiveness”. My wife and I, along with six other couples, learned some of the simplest things that could help a married couple understand why we do the things we do and, probably more importantly, how our reactions to them can either perpetuate negative or promote beautiful things in a marriage.

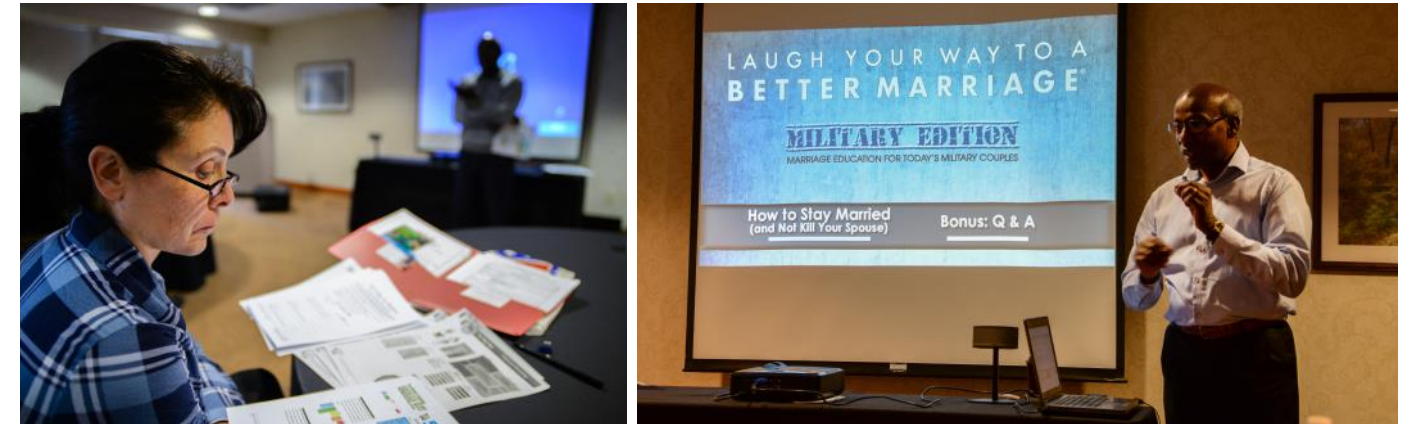
For instance, did you know a man has a “nothing space” in his brain? It’s a place where, without even realizing it, he can get away and refresh the mind from a hard day’s work. It’s also a place where he can get into serious trouble if he doesn’t process the communications of his significant other...or at least acknowledge that the communications are happening or are important.

We also learned that men and women “keep score” of the things we see as accomplishments on a daily basis differently. Men have a scoring system that might rank spending a few hours cutting the lawn as half of the weekend’s quota of hundreds of points, whereas woman might count that as one. A simple act of picking up a piece of dirty clothing on the floor and throwing it into the hamper gets you a point as well.

We were reminded of the connection of the mind and body when it comes to simple touch and intimacy. We were also reminded of probably the two most important words of wisdom for keeping a marriage going, “Be Nice.”

My wife and I are very happy we decided to participate in this event. I would encourage anyone who might be thinking that this is more of a therapy session than a weekend getaway with their spouse to experience it firsthand.

We are still laughing about it today.



PARADOCS

By Dr. Andrew Savicky, 177th Fighter Wing
Director of Psychological Health



Controlling Emotions During Difficult Dialogues (CE3D)

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

An Airman's life can be thrilling, defeating, exhausting, and sometimes exhilarating. They are required to learn on the job completely new situations. At times they feel proud and excited, while other times they may be feeling humbled or stressed. With that in mind, their work can be emotionally charged and lead to a condition I call CE3D. Yes we all need help in controlling emotions during difficult dialogues.

The goal is learning to find one's emotional balance at the work center. It helps when Airman can establish boundaries between their professional self and their personal self. As supervisors and future leaders, they need to understand that almost all interactions require emotional control and clarity. Consider the following recommendations to help keep emotions in check when participating in a CE3D.

Prepare

Almost all emotionally charged conversations require some strategic planning. I believe that clarity and empathy are sure to bring success, and planning helps achieve both of them. For example, what do you need to relay; what are the points; and how can you make them in the clearest, most straightforward way?

Do not forget, how your message will sound to the person on the receiving end. Are they expecting this? You might get the "I saw this coming" nod, or the "deer in headlights" stare?

It helps to find a level of comfort for both possibilities so that you can proceed with confidence. Always try to aim to exhibit composure and leadership in this conversation by building your level of comfort with whatever potential outcome the situation may present.

Visualize how the meeting will transpire, and be flexible when you see how your fellow Airman receives your message.

Know Your Truth

Be prepared to learn some new things in the conversation. Be flexible, on the message because of the reaction you might get. You could get a "game changer" like a legal issue or a serious illness.

Seek guidance from subject matter experts (SME), like the JAG, or SARK. They are able to prepare you for situations like this, and their intervention could be necessary. If it's a less heightened situation and your direct report explains a more standard issue like a struggle with the job, role or dislike for the work, use the (3F) approach of "Feel, Felt, and Found" when responding. By being empathetic as a listener, you will earn valuable respect from the other Airman.

It feels good, when an Airman confides in you. It speaks well of your ability to foster a good dialogue with them, even when it is difficult.

Remember to try to maintain a calm, professional response, despite how the other Airman may react.

Document

Documentation is key. Without proof, everything is hearsay, and that's as it should be. If you need to have a difficult conversation, your endeavor is more likely to succeed if you bring proof to underscore your opinion. This is not a courtroom, but it helps to have as much proof as possible and not make it personal.

This also helps you to keep your emotions out of the conversation, too. Your concerns are clearly not a matter of your opinion. Your issues hinge on these pieces of visible evidence.

Maintain a Positive Tone

The goal is to make a clear case for why you are having the conversation, and encourage the other person too. In many such interactions, the aim is to get the other person to change a pattern of behaviors rather than to prove them wrong. We cannot tell people how to feel, but we can advise them on how to change their behavior, which they can do.

Begin with some positive feedback, then provide feedback on the primary issue of behavior, and then end with another positive behavior, you have observed. It is very important, that you believe in the positive feedback, for this technique to be effective.

Remember, during the next difficult dialogue at the base, you can use CE3D.

Contact me at 609-761-6871 or 609-289-6713 or andrew.savicky.civ@mail.mil if you want to discuss this topic or another.

Congratulations to our members of The Contrail Staff who were recently announced as winners in the 2016 National Guard Media Contest!



Tech. Sgt. Andrew Merlock for Third Place in the Training Documentation category for "Feeling The Burn"



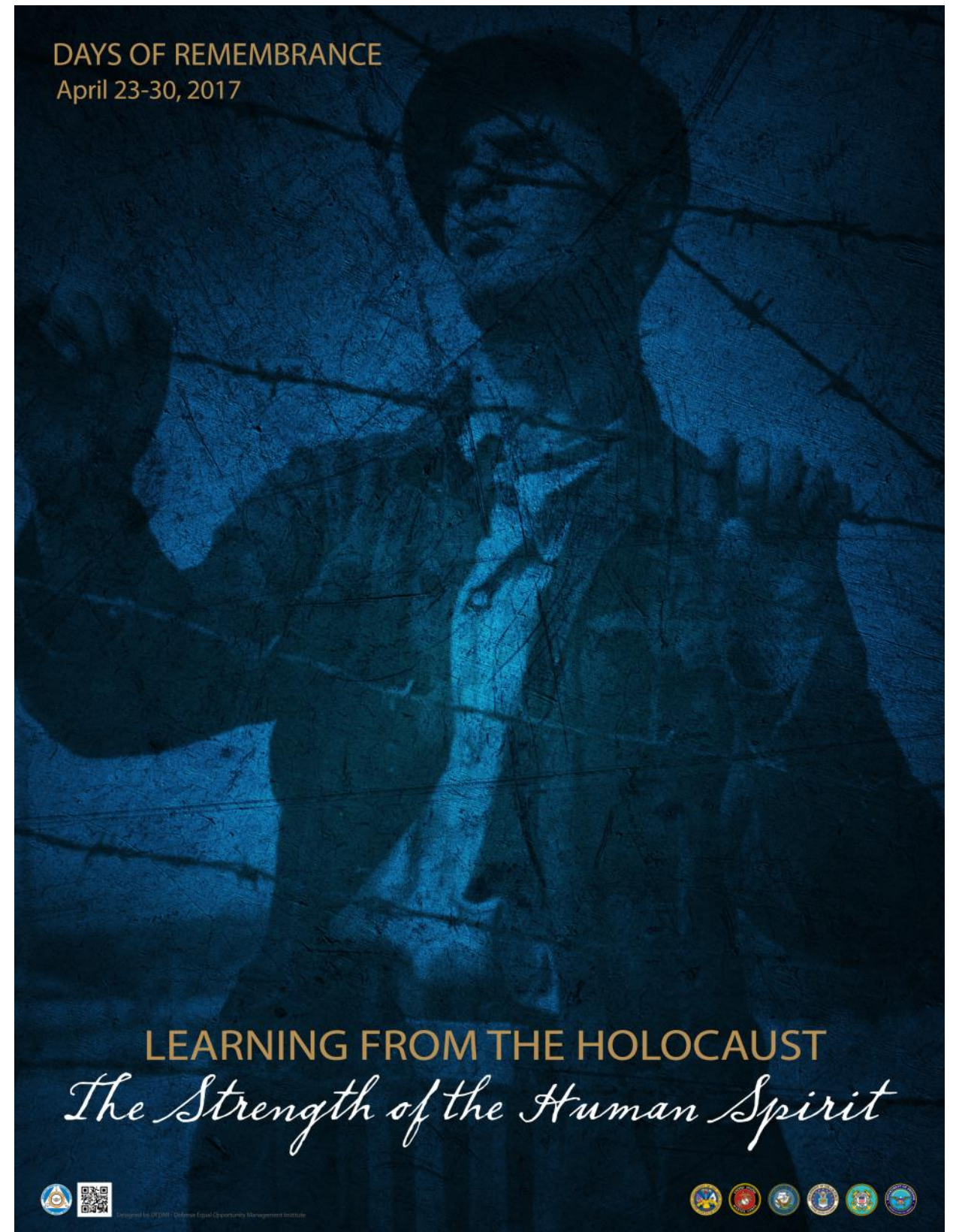
Senior Airman Shane Karp for Third Place in the Portrait Category for "Contamination Control Area Training"



Outstanding!



DAYS OF REMEMBRANCE
April 23-30, 2017



FINAL PHOTO
2016 AIR NATIONAL GUARD MEDIUM UNIT COMMAND POST
OF THE YEAR



Left to right (standing): SSgt Fanourios Seindanis (Records Custodian), SSgt Tarell McLean (2016 FW HQ Staff NCO of the Year), MSgt Justin Kelley (NCOIC of CP Operations), TSgt Gabe Armstrong (2016 "CONR CP Controller of the Year"), SSgt James Mohr-Murphy (Assistant COMSEC Responsible Officer), TSgt Thomas Capito (NCOIC of Emergency Actions), SMSgt Bill Perkins (2016 ANG Command Post SNCO of the Year), SMSgt John Greis (Superintendent), TSgt Damaine Threatt (COMSEC Responsible Officer)
Left to right (kneeling): MSgt Chris Simon (NCOIC of Systems), MSgt Christopher Gallo (NCOIC of Reports), SSgt Michael Romanelli (Safety Representative) (Courtesy Photo)