

THE **STINGER**

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COMMANDER'S COMMENTS



Editorial by Col. Thomas Sodeman

This month I would like to discuss what flight medicine is and where it sits in relationship to the base and healthcare in general. Among the questions I would like to cover are of course, what is flight medicine, what are flight surgeons and flight nurses, what are flight and operational medical technicians and how do they all train for their mission?

One question I can answer right away is 'do flight surgeons do surgery while flying?' The answer is no, the military term surgeon is actually a generic term for a physician inherited from the Army. While some flight surgeons are actually surgeons, we do not operate in the back of a cargo plane while dodging enemy fire.

Flight medicine is simply the branch of medical care devoted to ensuring the health of, and dealing with the problems associated with air crews. In the Air Force this includes pilots, aircrew, flight surgeons, and those on jump duty such as in the pararescue career field. Those who fly, especially fighter pilots, operate in sometimes extreme environments. Their commanders need to be sure they are well enough to fly without risking injury to themselves or others. It is easy enough to declare someone unable to fly, in fact any provider can do this. For example, it does not require a flight surgeon to decide someone with a broken leg probably shouldn't be piloting a fighter. Only a flight surgeon can decide when someone is well enough to fly once they have been taken off flying status.

Taking care of air crews means more than sitting in clinic

seeing patients all day. To know the stresses involved in flight, flight surgeons are required to fly in their airframe when possible. Obviously this is easier in a unit flying C-17 cargo planes than one flying A-10 Warthogs, which are only single-seat airplanes. In addition to understanding the issues involved with flying, this gives the flight surgeon an opportunity to spend time with those for whom they are responsible outside of clinic.

In the Air Force, flight surgeons are also responsible for a variety of non-flight related issues on the ground. These include responsibility for occupational and environmental health, ensuring Airmen are not injured on the job. It also includes public health, watching for insect borne diseases, and monitoring a base's food safety. While this may seem out of place and having nothing to do with flying, in reality it does. The purpose of a base is to provide aircraft for a combatant commander. If the personnel on the base are injuring themselves on the job, or too ill from issues with unclean food or workplace chemical exposure, the base may not be able to fulfill its mission, failing the needs of the commander.

Flight surgeons come in a wide variety. Before discussing the types, a brief digression into medical school might be helpful. In the U.S., the standard path to medical school is to complete an undergraduate degree, along with a variety of science based classes thought necessary to

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THE CHAPEL CONNECTION

By Chaplain Peter Drury



Trust is an essential component in healthy relationships. We have financial trust, land trust, irrevocable trust, living trust, estate trust...every working relationship needs some level of trust.

Friendships require some measure of trust. Do they mean what they say? Are they reliable? Trust can make or break friendships.

Dating and marriage requires increasingly greater measures of trust. Once, I saw a funny quote that read, "The purpose of a wedding ring is to cut off our circulation." When trust in a marriage erodes, it may require some intervention; trust is the bond that keeps everything together.

Children need to trust their parents. If they don't, it definitely affects their decisions. Parents have to balance giving freedom as trust grows or to grow their trust by giving more freedom.

Trust is also essential for leaders. President Reagan was known for using the Russian proverb, "Trust, but verify." Leaders want to build trust in their followers; the more a leader can trust their people, the more effective their leadership becomes. Additionally, when followers fully trust their leaders, they will go to the ends of the earth for them. According to Stephen Covey, if leaders aren't trusted, it's like a hidden tax putting a surcharge on every transaction. Every communication, interaction, decision or strategy becomes taxed, making each process more difficult. It's in everyone's best interest to build trust.

Trust can be defined as the "assured reliance on the character, ability, strength, or truth of someone or something." In placing our confidence in someone else, we rely on them to balance our interests with the bigger picture. I've heard people say, "Just trust God or just trust your spouse," which makes me wonder if they're just hoping for an outcome they want or relying on the other person

to make the best choice. Trust isn't just hope for the outcome you want. Trust is reliance. Is the other person really trustworthy? A lot of faith in an untrustworthy person is foolish; however, a little trust in a trustworthy person is rock solid.

Trust is critical in the profession of arms. When we place our lives in the hands of leadership, we have to trust them like few civilians can ever experience.

"Trust the process." This is a phrase we sometimes use to encourage people who may have difficulty in understanding what it takes to make a sound decision or to facilitate a sensible solution.

When trust is lost or weak, it means that others may not be inclined to follow. Most layers of a bureaucracy are added due to a lack of trust. Imagine how much more efficient we'd be if we could trust one another. Leaders want to trust followers and followers want to trust leaders. It's important to know where we stand with others. To what extent do I trust you? Do you trust me? One way to find the appropriate level of trust is through taking the time to track and to mentor.

In our spiritual fitness, trust has something to do with the transcendent – a sense that there is something larger than me. Our trust is what guides us to make decisions for the greater good, not just for the moment. We serve others before self because of a higher rewarding purpose.

The goal is learning to assign the appropriate level of trust and be willing to take appropriate steps of risk with others.

Trust is a part of life. It pays to learn about trust, how it works and how to build it. Take a moment to Google the word and to begin a dialogue with Wingmen, Supervisors, Chaplains or loved ones to work through trust issues. It's worth the effort. 🙏

180TH FW HOSTS BLOOD DRIVE

Story & Photo by Airman Hope Geiger

The American Red Cross hosted a blood drive from 8 a.m. to 2 p.m. Dec. 13 at the medical facility on base. The Red Cross's goal was to receive 27 units of donated blood and two double red cell donations.

Donations were sent to Cleveland, where they are tested and prepared for Hospitals, said, Kelly Chambers, a collections specialist with the American Red Cross.

With blood supply going down rapidly, the American Red Cross needs donations.

"We need blood donations," said, Chambers. "We run out of blood really fast and we need to meet our goals every day. If we are short on our goals for even a week, we have a blood shortage."

"Less than five percent of the population donates, so that is why the need is so great," said Steven Nash, a collections specialist at the Red Cross.

When the Red Cross runs out of blood, they have to take blood from another area which may be further away from where the blood

is needed, said Chambers.

"If there is medical emergency and we don't have enough blood, it might take time to get blood from another area," said Chambers. "That time could be crucial to the situation, so that is why it is very important for people to donate so we can keep our area stocked."

Donations are used in many ways.

"Just one pint of blood we receive from one donor today saves three lives, but it is in three different components," said Chambers. "It's one unit of red blood cells, one unit of platelets, and one unit of plasma."

"The red blood cells are used for patients who lose lots of blood, platelets help clot blood and the plasma is used for blood transfusions," Chambers said. "The donations are given to a variety of different patients for everything from terminal illness to trauma."

"The personnel who donated are greatly appreciated," Chambers said.

Each person who donated, with their own motivations, helped keep up the blood supply and save three different lives in different situations. They are a part of the five percent. 🙏

Master Sgt. Melissa Hurst, the Comptroller Superintendent assigned to the 180th Fighter Wing, waits while technicians prepare for her blood donation at the American Red Cross blood drive in Swanton, Ohio Dec. 14, 2016. Community blood drives are a way for the Airmen of the 180FW to sustain the relationship with the community they serve. (U.S. Air National Guard photo by Airman Hope Geiger)



INHERENT DANGER

Story by Staff Sgt. John Wilkes

“Working with any type of munitions is inherently dangerous,” said Master Sgt. Daniel Denig, munitions facility production supervisor assigned to the 180th Fighter Wing, Ohio Air National Guard. “Airmen at our munitions facility in Swanton, Ohio, work tirelessly to ensure pilots have the munitions necessary to respond quickly and precisely, at home and abroad, for training and combat engagements.”

Here at the 180FW, munitions systems specialists procure, inspect, store, recondition, issue, transport, maintain, test and assemble GPS/laser guided and unguided munitions for the wing’s F-16 Fighting Falcons.

The typical day of a munitions systems specialist varies greatly from base to base and mission to mission, to include loading an F-16 fighter jet with AIM-9 Sidewinder missiles, loading an A-10 Thunderbolt with 30mm high-explosive incendiary rounds or assembling bombs for the B-2 Spirit Stealth Bomber.

According to the U. S. Air Force, Airmen work with the most advanced munitions in the world, along with the jet fighters and bombers that use them. And since the U.S. Air Force presence spans the globe, you could be assigned to support U.S. military aircraft anywhere from Nellis Air Force Base, Nevada, to Yokota Air Base, Japan.

“We have approximately 50 Airmen who love what they do,” Denig said. “The work they do is very rewarding and they know what they do is important to the success of the 180FW.”

The munitions team is responsible for supplying munitions to multiple sections throughout the wing, including security forces, wing safety office and the wing’s primary weapon system – the fighter jets.

The F-16 Fighting Falcon is a highly versatile aircraft with one 20mm Gatlin gun with a capacity of up to 500 rounds; external mounts that can carry up to six air-to-air missiles, conventional air-to-air and air-to-surface munitions and electronic countermeasure pods. The maximum payload is two 2,000-pound bombs, two AIM-9 Sidewinder missiles, two AIM-120 Advanced Medium-Range Air-to-Air missiles and two 2400-pound external fuel tanks.

In 2016, the 180FW expended more than \$3 million dollars in munitions during training and combat operations.

“Due to the inherently dangerous nature of working with munitions, Airmen must be very professional and remain up to date with current training processes and procedures,” said Denig.

According to Denig, the 180FW munitions facilities and personnel are among the best in the Air National Guard and will serve as a model for all Air National Guard installations to emulate.

Not only is the team proud of their members and facilities, they are also very proud of the family atmosphere they have built, a necessity for the type of work they do.

*Photo by Staff Sgt.
John Wilkes*



Inherent Danger

“We have a very tight-knit group of Airmen,” said Senior Airman Steven Welling, a munition systems specialist who has been with the 180FW for three years. “During my recruitment process I came to the munitions facility for a tour and the family atmosphere was the first thing I noticed. Everyone is very passionate about their jobs and loves what they do.”

The tight-knit environment is not only important in the workplace, but also with the Airmen’s families as the team is essential to the 180FW mission and are tasked to deploy frequently. During a deployment, family is an essential source of support for Airmen.

“Anytime a deployment opportunity arises we have so many volunteers we often can’t take everyone,” said Denig. “That says a lot about the pride and passion that we have for what we do.”

Though the job requires the team to work in a dangerous environment, both at home and abroad, the ANG is also focused on the success of the Airmen in their civilian lives and career goals.

“I have been in the Air National Guard for three years now and have been going to school for two years,” said Welling, who is a nursing student at the University of Toledo in Toledo, Ohio. “I am

able to accomplish both of my goals because of the flexibility and benefits of being in the ANG.”

An added benefit of the ANG is that required military training can often apply credit hours to civilian college degree programs or contribute to earning a degree from the Community College of the Air Force.

Munitions systems specialists complete a 43 day technical school which awards 16 transferable college credits and gives them the knowledge, skills and abilities required to perform their job. Following technical school Airmen go through more specialized training for their functional area as well as on-the-job training.

“I absolutely love it,” Welling said. “Every day is different from the weapons system that you are working on to the new and improved weapons systems that are always being developed. I come out here every opportunity I get.”

The munitions systems specialist field is currently a critical needs career. Being deemed a critical needs career field means there is a higher need for recruitment into that job and select monetary bonuses may apply outside of the college tuition in the state of Ohio and Montgomery G.I. bill that assist National Guard Members pursuing college education. 🇺🇸

Photo by 2nd Lt. Jordyn Sadowski



Photo by Staff Sgt. John Wilkes



Photo by Staff Sgt. Shane Hughes

STINGERS TRAIN AT MACDILL



Photo by Tech. Sgt. Joseph Boyer



Photos by Tech. Sgt. Nic Kuetemeyer





Story by Tech. Sgt. Nic Kuetemeyer

The Ohio Air National Guard's 180th Fighter Wing deployed approximately 150 pilots, maintainers, operations support personnel and F-16 Fighting Falcon fighter jets to MacDill Air Force Base, Florida to conduct a two-week training exercise Jan. 20, 2017.

They spent two weeks flying simulated combat missions, taking full advantage of the optimal Florida weather. Flying operations can be difficult in Ohio due to the frigid winter weather, but at MacDill, the sunny skies allow Airmen to train daily.

"Being down here offers us the ability to go and fly each day," said U.S. Air Force Captain Robert Welch, an F-16 fighter pilot assigned to the 180FW. "We're flying eight jets at a time, two times a day. Back home, we might only fly one day a week."

The pilots also trained against F-18 Hornet fighter jets from the Canadian 425th Tactical Fighter Squadron, in order to get experience training alongside and fighting aircraft with different capabilities.

"For training, you're usually flying against other F-16s, if you're doing air-to-air. So you kind of get used to that," said Welch. "Here, we're fighting something we haven't seen, or we don't see every day. For me, this is the first time I've gotten to fly against an F-18 Hornet. We're getting increased combat capability."

Additionally, the training grounds over the Gulf of Mexico provided more freedom for the fighter pilots to push the limits of their aircraft and hone their skills. Flying over the populated areas of the Midwestern mainland puts restrictions on speed, maneuvers, elevation and distances the pilots can achieve.

"Here the airspace is larger, geographically speaking. When you're flying over the water, you have much less restrictive rules," said Welch. "You can go super-sonic and you can fly closer to the ground based on the terrain."

However, the exercise wasn't only valuable for the pilots. Part-time maintenance personnel got a chance to experience high-tempo flying operations over an extended period of time.

"You get to find your jet's personality, what it likes and what it doesn't like," said Senior Airman Joshua Wakefield, a crew chief with the 180FW. "It's great for the Guardsmen who don't get to do this a lot, they might run into issues they're not used to seeing. We're all learning and training together."

Training in new locations and with international partners ensures the Airmen of the 180FW are ready to deploy around the world at all times. ✈️

Photo by Tech. Sgt. Joseph Boyer

AIRMAN, INVENTOR, ENTREPRENEUR

180TH FIGHTER WING AIRMAN EMBRACES INNOVATION

Story by Staff Sgt. Shane Hughes

Steve Jobs, Elon Musk, Bill Gates; these are a few of the names which come to mind when people talk about success. Tom Burden is not on this list... yet.

Tech. Sgt. Tom Burden, an F-16 weapons mechanic assigned to the 180th Fighter Wing, developed a flexible, non-slip tool tray for aircraft mechanics called the Grypmat.

The inspiration came in 2013 after he almost fell off an F-16 while trying to retrieve a tool sliding off the curved surface of the jet. He knew there had to be a better way to keep the tools he needed nearby and secure while he worked. An idea came to him while he was sitting in his mom's car and he noticed she had a non-slip mat on the dashboard to hold her cell phone. The problem was that he needed a similar product large enough to hold tools used by aircraft mechanics on steep angles or curved surfaces, non-static for use around sensitive electronics, and resistant to corrosive chemicals used in aircraft maintenance.

To solve these problems, he developed a special polymer-silicone blend that is anti-static, chemical resistant and can hold tools securely at up to a 70 degree angle.

"I faced a lot of challenges," Burden said, "but the hardest part was figuring out the chemistry."

His very first prototype was form-fitted to an F-16 gun trough and clipped onto the aircraft, but this limited his product to that specific section of the F-16 and he wanted mechanics to be able to use the Grypmat wherever they worked, so he began working with F-16 electricians from the 180FW to analyze their needs and improve their maintenance process. They provided feedback on his product and helped brainstorm ideas for a new prototype, which he made to meet their specific needs.

Burden's biggest breakthrough came when one of the electricians asked him for a simple mat with border tray around the edges. All of his previous prototypes had borders along one or two edges because he knew how the mat would clip onto an F-16 and where a tray would be needed to hold the tools. He hadn't considered making it like a box.

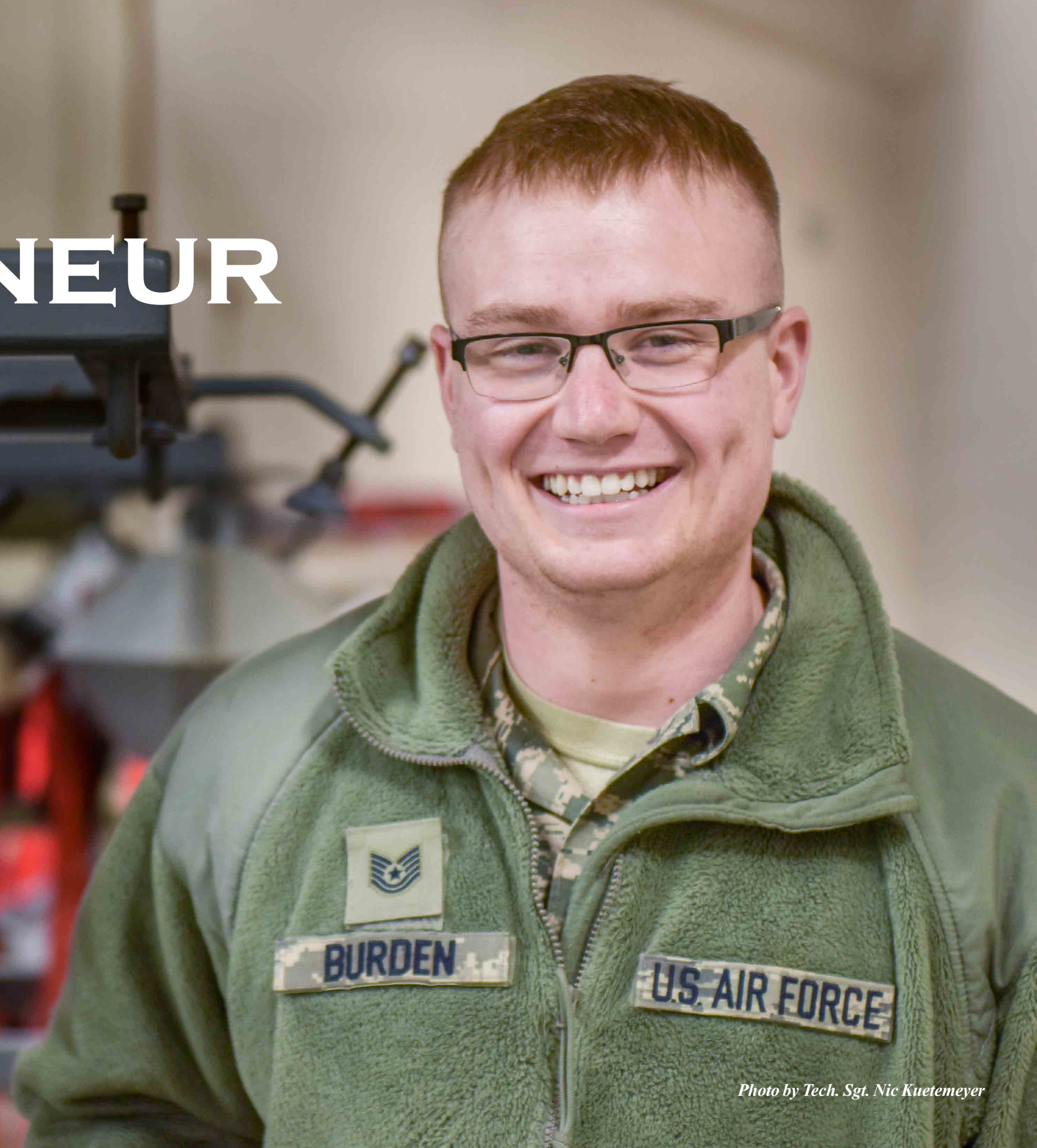


Photo by Tech. Sgt. Nic Kuetemeyer

“The form-fitted prototype took me weeks and weeks to get the measurements right, but the one he wanted took me about five minutes to create in CADD (computer-aided design and drafting),” Burden said.

After he had the new prototype, Burden asked for feedback from 180FW mechanics about their preferences between the form-fitted mat and the simple mat. Everyone preferred the simple mat because of its versatility.

Once he had his final prototype, his next big challenge was finding a manufacturer.

“The hard part was getting the chemistry that would translate from a prototype to manufacturing,” Burden said. “It takes me 24 hours to make one prototype because it takes that long for the material to cure. I can’t do that in manufacturing. The process has to happen really fast. “

Every time he took his prototype to a potential manufacturer, there would be problems producing the Grypmat. One manufacturer added graphite to eliminate the static, but this made the product black. The mat needed to be brightly colored so mechanics could easily see their tools. Another concern was the price. When he found a manufacturer who could make the mat to his specifications, they estimated the price at \$60 apiece, so the production costs were four times higher than what he needed them to be for the Grypmat to be profitable.

“There was always something wrong,” Burden said. “Maybe it was brightly colored or it was anti-static or the price was okay, but the rubber was like the rubber on your boot and wouldn’t hold tools at half the angle it needed to. We would get a product that would grip really well, but now it’s priced way too high and it’s high in static, so I can’t sell it to F-16 mechanics who can’t use it because all the weapons are charged with electricity.”

Things began to turn around after a short vacation in Michigan.

His friend kept asking him to go up to Michigan for a week to visit his lake house. Burden kept turning down the offer because he couldn’t afford to take a week off. He was too busy trying to solve his problems with the manufacturing process. Eventually his friend convinced him to take the weekend off to visit the lake and the trip turned out to be the answer to all his problems.

While at the lake house, he met a man named Tom Mansfield who manufactures products for Amazon. Burden told Mansfield about all the manufacturing problems he was dealing with, and Mansfield said he could manufacture the Grypmat to the needed specifications and he could do it at an affordable price. After his experiences with other manufacturers, Burden was skeptical, but Mansfield produced the mat exactly as he claimed.

After Burden had the prototype he needed, he reserved a booth at the 2016 Experimental Aircraft Association tradeshow. He took 600 Grypmats with him to the show, as many as he could fit into his dad’s truck, and had plans to sell them all, but at the end of day one he’d only sold 14.

He refused to let himself be discouraged though. The next day, while driving to the show, he said he pumped himself up by yelling, “I will sell a hundred Grypmats,” over and over again until he arrived. His determination paid off and he met his goal, but he still had a lot of inventory left to sell.

“I told myself, ‘I’m going to talk to every single vendor here, and everyone’s going to know who I am before I leave,’” Burden said. “There will be no opportunity lost due to my effort.”

On the last day of the tradeshow, he was approached by another vendor, Mueller Motorwerks, who bought his remaining inventory, becoming the first distributor for Grypmat.

Business grants played a large role in funding his efforts. He raised \$150,000 in grants through various business competitions, applying



Photo provided



Photos by Senior Master Sgt. Beth Holliker

to everything and anything that might get him closer to achieving his dreams.

Burden even moved to Milwaukee to apply for a grant for Wisconsin residents who are military members. He later found out the grant was fraud, but was undeterred by the setback. Instead, he applied for another \$25,000 business grant. The new grant was only available to Wisconsin students, so he enrolled in yoga, soccer, and tennis at a local university. The risk paid off and he won the grant.

The grant money helped, but it wasn't consistent and it didn't cover all his expenses. Burden almost went bankrupt twice while developing prototypes, finding manufacturers and marketing at tradeshow, all while studying mechanical engineering at the University of Toledo.

"I went to a big military tradeshow early on and I spent all my money to be there," Burden said. "It was \$4,000 just for a booth and that's not counting expenses for staying a week in Chicago, booth materials and samples. In four days, I spent around \$10,000 and when you're a college kid that's a lot of money."

The obstacles he faced were stressful and led him to doubt himself at times.

"I called my friend and told him I was ready to quit everything," Burden said. "I would spend 10 hours a day at an airshow and at night I would write the grants. I actually used the money from the pre-orders just to get home because I didn't have any money."

Times were tough, but he remained persistent and determined to succeed against all odds. He sold his house in August of 2016 and spent a month living in his car so he could afford to continue pursuing his dream of becoming an inventor before moving into an apartment with friends in Columbus.

Throughout his journey, his mom has always been his biggest supporter Burden said. His father, however, didn't always understand his drive and determination to become a successful inventor and entrepreneur.

"I would say, 'I've got a meeting with this big company that might buy the Grypmat,' and my dad would say, 'Do you think they'd hire you?' Every time I was like, 'Yeah, they probably would, but that's not the point.' He asked me that for years, but eventually he realized I was in it for the long haul."

Burden said creating, manufacturing and promoting the Grypmat was his full-time job. He couldn't imagine trying to pursue his dreams part-time.

"Trying to pursue your passion while working full-time is like trying to be a long-jumper and keep one leg on the ground. You're just not going to go as far. You have to take the leap if you want it."

Burden knew the risks he was taking, but knew he couldn't let fear hold him back.

"People don't really explore their fear," Burden said. "You have to ask yourself how far you're willing to go for your company. Technically, I was homeless. I mean, worst case scenario, I'd put the driver's seat back and sleep for a couple hours, or I'd call a friend and ask if I could sleep on their couch, or I'd go and stay a night at my parent's house. It's never as bad as people imagine."

Burden uses his own experience as inspiration for others. He said one of his friends wanted to start a company but was afraid he wouldn't be able to provide for his family. Burden advised his friend to explore the worst case scenario, which Burden said is always worse in peoples' imaginations than in reality.

"What are you afraid of?" he asked. "Are you afraid they won't eat? Because in this country, that's almost impossible. Or are you really afraid of registering for food stamps? Are you afraid of standing in line at a food pantry? Or are you afraid of asking your parents for money?"

Are you afraid they won't have a roof over their head? Because that's not a real fear. Or are you afraid that you'd have to sell your house and downsize to a small apartment? Are you afraid you'd have to move into your in-laws basement? Is that the real fear? Because that's what is most likely to happen. You're not going to be living in a box on the street. That's not a realistic fear. People exaggerate their fears."

The risk and effort have paid off and he's gotten the attention of some big name organizations. One of them is NASA. They ordered a small batch of Grypmat to test in their workspaces. After passing the initial tests, they ordered a larger batch for their mechanics to test how well the product fits into their workflow. Burden expects them to place a much larger order if the feedback from those tests is positive.

While most people would be impressed by interest from a major organization such as NASA, Burden said he's more excited about possibly working with Aviall, the world's largest diversified aircraft

parts distributor, whose market is much broader.

Last month, Burden started a Kickstarter campaign which was fully funded within the first 10 hours. The campaign ended after 29 days with \$113,000, exceeding his fundraising goal, and he has pre-orders available on IndieGoGo.

He is now working with a digital marketing specialist, who is promoting direct sales while Burden promotes the product to large distributors like Pep Boys and Aviall. He has developed a dozen additional products to expand his line and plans to focus on the products with large markets before shifting his focus to more specialized markets.

"Flexibility and innovation are the bedrock of the Air National Guard and Sgt. Burden embodies these two attributes to his core," said Col. Kevin V. Doyle, the commander of the 180FW. "We as leaders always talk about wanting our Airmen to enhance the way we do business and to work through obstacles and overcome adversity wherever possible

and Tom has done this. His willingness to put his personal lifestyle at risk to improve how aircraft maintenance personnel accomplish their jobs across the Department of Defense and civilian sector is a perfect example of a 180th Fighter Wing Airman demonstrating two of the Air Force's core values. I am proud to have Sgt. Burden as one of my Airmen and look forward to seeing where he goes from here."

Even though Burden has made a great deal of progress, he realizes he still has a lot more work left to do.

"You always think the light at the end of the tunnel is way closer than what it really is," Burden said.

The determination to overcome obstacles, the resilience to push beyond adversity, and the spirit of innovation are unique hallmarks of the culture of success ingrained in the American people, the U.S military and the Ohio Air National Guard and these are the values which will carry Burden into a successful future. 🇺🇸

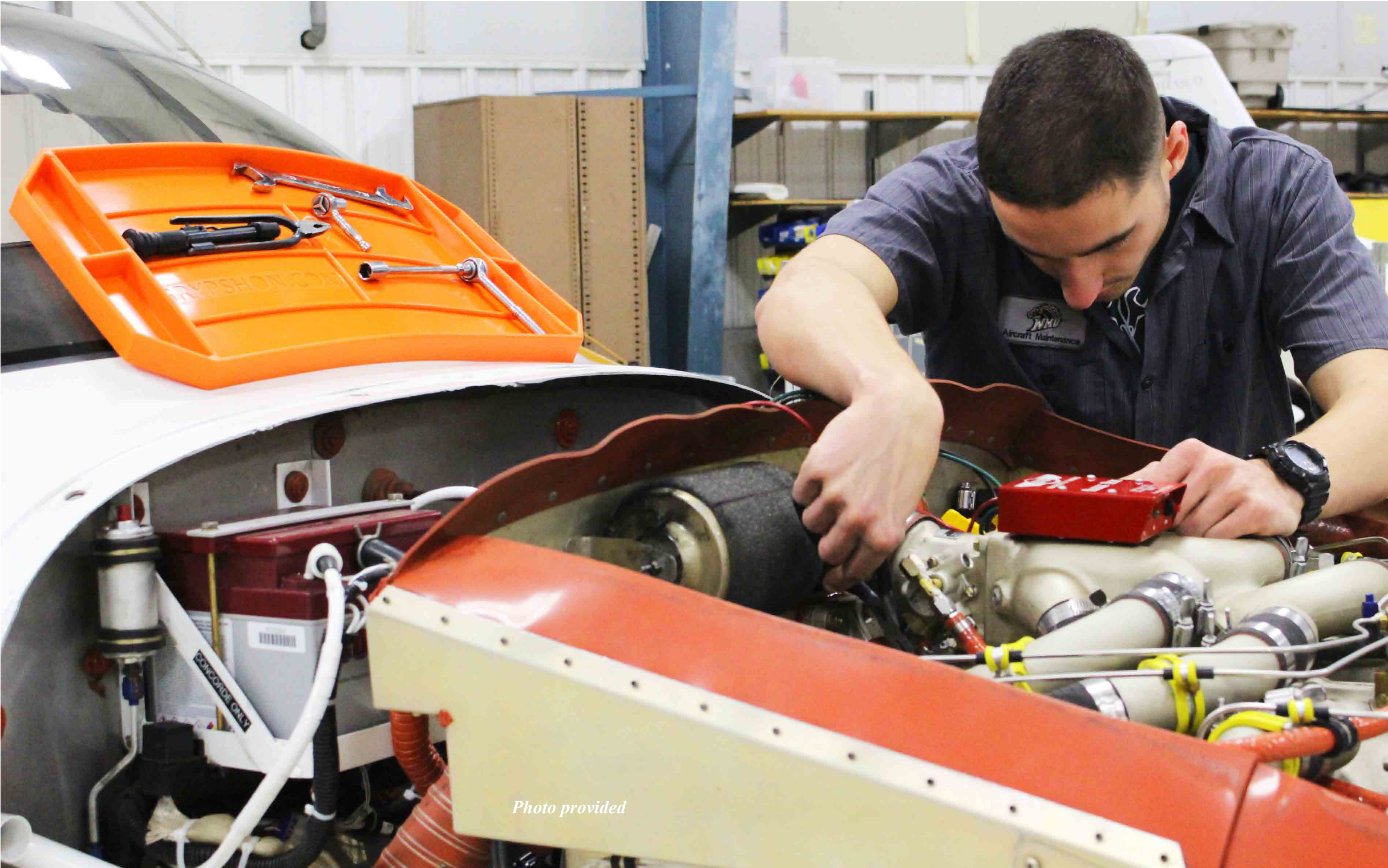


Photo provided

PERSPECTIVES ON CHARACTER AND LEADERSHIP

Essay by David V. Day

Originally published in the *Journal of Character and Leadership Scholarship*
Volume 1, Issue 1 - December 2009

No less a leadership expert than General Norman Schwarzkopf has noted that leaders are more likely to fail because of a lack of character than a lack of competence (Mason, 1992). In writing about shortcomings in executive selection, George Hollenbeck (2008) argued recently that the desired approach to selecting organizational leaders should focus first on issues of individual character and then on leader competence and relevant competencies (in that order). In line with Gen. Schwarzkopf's observations, Hollenbeck attributes a good deal of the "widespread executive failure" (p. 134) to selection approaches that have focused on competencies and competence with little regard to leader character.

This raises the obvious question that if character is so important for leadership then why is there not more attention given to it in the scholarly and practical arenas? A secondary question is "what are some possible ways to better emphasize the importance of developing and selecting leaders of character?" In addressing these questions a good place to begin is with a definition of leader character. Bass

(2008) defines the character of a leader as involving "ethical and moral beliefs, intentions, and behavior" (p. 219). From this definition it is apparent that much of the onus with regard to character is on the individual leader, especially in terms of internalized character traits (e.g., Platonic virtues of honesty, justice, courage, among others).

Kohlberg (1981, 1984) was among the first in the modern era (with all due respect to Plato) to focus on the topic of moral development as a rightful domain of scholarly theory and research. His groundbreaking scholarship has served as the foundation for others interested in the application of moral development to understanding ethical decision-making in general (Rest, 1979; Reynolds, 2006) as well as more specific issues associated with individual ethical decision making in organizational contexts (Jones, 1991; Treviño, 1986). More recently, I have proposed with colleagues that moral development must be an inherent part of the leader development process because (a) nearly every decision a leader makes has ethical implications, (b) leaders serve as role models and are the focus of identification and emulation by followers, and (c) leaders shape the ethical and moral climate of

their respective units (Day, Harrison, & Halpin, 2009). All of these approaches put forward a number of leader-centric perspectives on character and its development. What has received comparatively little attention is the role of the follower in defining the character of a leader.

It was through the tutelage and mentoring of Bob Lord that I first came to appreciate the role of the follower in shaping leadership processes. The theoretical and empirical work of Lord and colleagues has demonstrated the importance of leadership perceptions (e.g., Lord, Foti, & De Vader, 1984; Lord, De Vader, & Alliger, 1986; Lord & Maher, 1991). In many ways, followers determine through their perceptual and categorization processes which individuals are seen as "leader-like." This is a relevant concern because it is followers who make leaders successful by producing the desirable effects that are generally attributed

to their leaders (Lord & Brown, 2004). In short, if you do not perceive someone as a leader then you are unlikely to allow that individual to influence you and influence is often considered to be essential to effective leadership. In similar ways, the notion of

leader integrity is something that is defined by followers through interactions with their leaders and potential leaders.

Bass (2008) noted that "the virtue of integrity is at the core of character and ethical leadership" (p. 222). Integrity is typically conceptualized in terms of leaders keeping their promises, doing what they say they will do, and following up on their commitments. A variant of this view of leader integrity is behavioral integrity, which is an ascribed trait in which followers perceive a pattern of alignment between someone's words and his or her deeds (Simons, 2002). Looking at it a different way, behavioral integrity can be considered the opposite of hypocrisy when the latter is defined as the inconsistency between talk and action. These perceptions and attributions are made as a result of followers' experience and history with their leaders. In this way, behavioral integrity is retrospective in nature whereas the related concept of credibility is prospective. Similar to the related construct of trust, credibility is forward looking and is built on a foundation of behavioral integrity from what has occurred in the past.

Although research on behavioral integrity is only just beginning

to emerge (e.g., Simons, Friedman, Liu, & McClean Parks, 2007), it offers a potentially valuable addition to theory and research on leader character and integrity. In particular, this follower-centric approach to character emphasizes that behavioral integrity is subjective in nature (which makes it especially difficult to manage), is ascribed as a trait to leaders by followers, is attributed at multiple levels (individual and groups of individuals), and contains "an asymmetry between the ease of confirming...and violating it" (Simons, 2002, p. 25). The latter point refers to something that has been observed about trust—that is, it is slow to build but can disappear quickly. As attributed to Benjamin Franklin, "It takes many good deeds to build a reputation and only one bad one to lose it."

This raises the interesting question of whether behavioral integrity is really about character at all. It has been said that someone's reputation is what other people think of him (or her) but character is what (s)he really is (Anonymous). The issue becomes how to know what people "really are" apart from their words and deeds, and the alignment between the two. This could be why character is rarely explicitly considered in most leader development programs and initiatives. Nonetheless, attempting to understand it from others' perspectives helps to bring home the point that whether you call it character, reputation, or something else it is at least partly constructed by others in the interpersonal environment. Others' perceptions matter and they matter a lot in leadership. From recent theory and research on behavioral integrity, it seems that others' perceptions matter as well in the construction, maintenance, and management of leader character. As initiatives move forward at the United States Air Force Academy in terms of further integrating character development with leadership development, it would also be wise to keep the critical role and perceptions of followers in focus as integral components of what it means to be a leader of character.

An overarching theme of this brief essay is that there are multiple perspectives on character. Put somewhat differently, in the leadership domain there will always be various stakeholders and a difficult task for any leader involves managing his/her own behavior in ways that maximize behavioral integrity. From a research perspective, this will involve studying character and integrity as socio-perceptual phenomena in ways similar to how Lord and colleagues have done in the leadership domain.

This does not mean that character exists only in the eye of the beholder; however, followers are important leadership stakeholders. Yet followers are not always a homogenous stakeholder group as research in areas such as leader-member exchange (LMX) theory attest.

behavioral integrity is viewed across stakeholder groups. One group might see as a leader as adaptable by changing strategy to reflect changing situational circumstances whereas another group may see the same action as breaking promises. These are important issues to understand because the higher a leader rises in the organizational hierarchy, the more visible the leader becomes and the more politicized the climate. Under such conditions behavioral integrity is especially difficult to manage. It is not only a test of a leader's character but also challenging on an interpersonal level.

In closing, character is most certainly a critical issue for developing leaders and building leadership in any organization. But it is not solely an issue of what is in a leader's heart, soul, or temperament. Character is also something that is constructed by those who are affected by a leader's actions. One of the many things the USAFA Center for Character and Leadership Development can do through research, education, and training is help leaders build character and manifest behavioral integrity across multiple stakeholders and dynamic environments.

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"If you do not perceive someone as a leader then you are unlikely to allow that individual to influence you and influence is often considered to be essential to effective leadership."

"Leaders develop different relationship qualities among their followers, which might contribute to inconsistencies in terms of how a leader is perceived."

Research on LMX (see Graen & Uhl-Bien, 1995 for an overview and summary) has shown that leaders develop different relationship qualities among their followers, which might contribute to inconsistencies in terms of how a leader is perceived. Thus, a relevant concern involves (among other things) studying how consistently leader character or



Photo by Staff Sgt. Shane Hughes

Flight Medicine, cont. from pg. 3

prepare for medical school. It is not necessary to have a degree in biology or chemistry. For example, my degree is in mathematics and I have known students with degrees in music, English, and geology. Medical school itself is four years in length and generally divided into what are termed preclinical and clinical years. The first two are spent in lectures learning about anatomy, biochemistry and physiology, among other subjects, in preparation for the last two years where this knowledge is put to work, seeing patients in a variety of supervised settings.

Once a student graduates, they are not ready yet to practice on their own. During their fourth year of school they have to pick a career path, such as surgery, pediatrics,

internal medicine, etc., and apply to training programs, or residencies. In March of that year they ‘match’ into a program using a nationwide computerized system designed to balance the needs and desires of training programs and potential residents. Match Day, as it is called, where we found out where we were headed, is probably the most stressful day of the four years of medical school.

Residencies can last three to seven or more years, depending upon the field. Once a residency is finished a doctor may go into practice or pursue further training, called a fellowship. This is where for example cardiologists and gastroenterologists are trained. The military uses these approaches for training, but has another pathway, namely what is called an internship. This is a one year

training program after medical school designed to prepare general practitioners to enter active service as a general medical officer, or GMO. Some will stay generalists for their career and some may return at a later date to pursue further training and finish a residency. Now, back to flight surgeons.

Flight surgeon training consists of three two-week courses at the School of Aerospace Medicine at Wright-Patterson AFB. The first course familiarizes the trainee with the aerospace environment, the second goes deeply into medical and administrative issues and the third is spent piloting civilian aircraft. The course is not long enough to earn a civilian pilot license, instead it is designed to give trainees hands-on experience with issues related to

piloting aircraft.

Flight surgeons can, and do deploy with their units to maintain the health of their members in deployed settings, whether at a temporary duty base for training, or overseas. While in these situations flight surgeons are responsible for taking care of the entire deployed unit, not just the aircrew. I have used these deployments as an opportunity to get out and see what our maintainers do when sending jets out and retrieving them, something that I’m not always able to do at home station.

Flight nurses are nurses who have received advanced training in critical care and are part of Critical Care Air Transport Teams, or CCAT. These teams consist of a flight nurse, a physician trained in critical care, they may or may not be a flight surgeon, and a respiratory technician. These teams are responsible for transporting critically ill and severely injured patients to medical centers for definitive care and have an awesome responsibility and my greatest respect. Selection for the flight nurse career field is difficult, but extremely rewarding.

Flight and Operational Medical Technicians are enlisted medics who have received advanced training in flight medicine, and are nationally registered emergency medical technicians. FOMTs can act as independent duty medical technicians and augment the flight surgeon’s ability to care for fliers both at the home base and in deployed situations. They can be assigned to flying squadrons as the Squadron Medical Element, spending their time away from the clinic and on the line with the fliers and maintainers. They can serve in other roles, for instance as hyperbaric technicians in altitude chambers, or with special operations groups in the field.

To summarize, flight medicine is more than a yearly flight physical for pilots. It is a comprehensive program ensuring the ability to project airpower where and when needed, using a multidisciplinary team approach. It does this by ensuring the health and safety of not only pilots and aircrew, but also the rest of the unit, from the commander all the way down to the newest airman just back from technical school. 🇺🇸

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