

A/TQ

AIRLIFT/TANKER QUARTERLY
Volume 25 • Number 4 • Fall 2017



3RD IN A 3 PART SERIES
MOBILITY AIRMEN – EXCELLENCE IN ACTION
Realizing The Dream:
The Ascendence of Rapid Global Air Mobility 1974 - 2017
“AGILE, INNOVATIVE AND READY TO ROLL”

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AIRLIFT/TANKER QUARTERLY
Volume 25 • Number 4 • Fall 2017

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ON THE COVER: An illustration featuring a Boeing KC-46 Pegasus, a widebody, multirole tanker that can refuel all U.S., allied and coalition military aircraft compatible with international aerial refueling procedures currently in the final phase of flight-testing, refueling a Boeing C-17 Globemaster, which was declared operational in January 1995. (Illustration by Collin Bakse, editor & art director, A/TQ).



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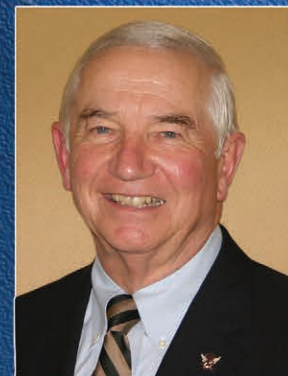
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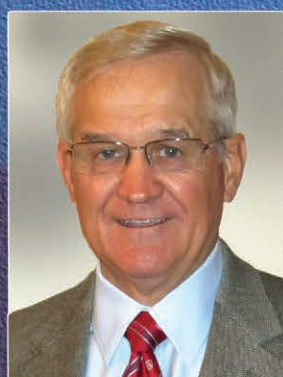
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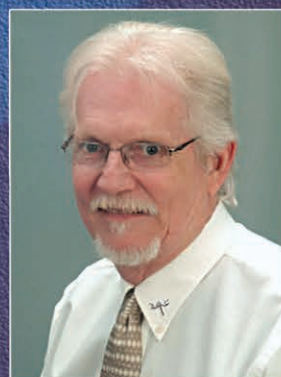
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A Proud History

This edition of A/TQ features the third and final part of "Mobility Airmen: Excellence in Action," a three part history spanning more than a century of the endeavors and accomplishments that Air Mobility warriors have undertaken and achieved while striving to develop America's Air Mobility force into the best in world. *Mission Accomplished!* America's Air Mobility warriors can proudly proclaim that they have achieved "Unrivaled Global Reach for America...ALWAYS!"

Written by Col Greg Cook, USAF (Ret), the three part history began with Part 1 in the Volume 23, Number 4, Fall 2015 edition of A/TQ, with the 1915 exploits of Captain Benjamin D. Foulois and the 1st Aero Squadron and continued from Air Mobility's early days, to World Wars I & II to Operation VITTLES, the Berlin Airlift; Part 2 appeared in the magazine's Volume 24, Number 4, Fall 2016 edition, and highlighted Air Mobility deeds and feats from Korea to Vietnam to Operation NICKLEGRASS in support of Israel; and in this edition, Part 3 features the state of Air Mobility from 1974 to present.

I extend Greg my sincere appreciation for having committed his considerable time and effort to writing this concise and highly readable overview of the notable history and heritage of our nation's Air Mobility forces – the men and women who have and continue to live up to their Anywhere, Anytime, Anything ethos. Greg has contributed many articles to A/TQ over the years, and I genuinely hope he continues to write articles for magazine, his new career as an airline pilot notwithstanding!

The editions of A/TQ mentioned above, along with many more, are available on the A/TA website, www.atalink.org. If you haven't yet taken the time to read the entire history, I highly recommend that you do. After all, it is the history on whose shoulders you now stand, or more aptly, the history from whose shoulders you now soar.

This edition of A/TQ is also jam-packed with other stories about Air Mobility warriors and their accomplishments – from Major General Paul L. Williams, this year's inductee into the Airlift/Tanker Association Hall of Fame to the amazing capability and proficiency demonstrated by this year's A/TA Air Mobility award winners.

The history of Air Mobility is shared with the extraordinary history of America's remarkable aerospace industry. At every juncture these technologically adroit companies have risen to challenges faced by our great Nation. And, the Airlift/Tanker Association is lucky to have the support of a large section of that industry – our Industry Partners. These annual gatherings known affectionately as simply "A/TA," would not be possible without their ongoing support. *Thank You All!*

Collin Bakse, editor



A/TA UpFront

Announcements & Stories
from, and/or about
Association Business,
Members and Chapters

Chairman's Comments



Gen Duncan J. McNabb
USAF, Ret

Our 49th Annual Airlift/Tanker Convention, Air Mobility Technology Exhibition and the Air Mobility Command and A/TA Symposium is here. If you are reading this you are probably at the convention...thanks for coming. On behalf of your A/TA team and our co-sponsor, General Everhart and his AMC staff, welcome to what we hope is one of the best A/TA conventions ever.

With 36 professional seminars, great keynotes, outstanding Mobility Technology Exhibition, and, most importantly, bringing together our Mobility Total Force Team and superb industry partners, what's not to like.

We continue to have tremendous support from our Air Force leadership. We will hear from our new Secretary of the Air Force, the Honorable Heather Wilson, and our Chief of Staff of the Air Force, General David Goldfein. Both are planning to spend some extra time with us as this will be their first A/TA...so lets make sure we give them a big hello. We will also hear from our new Chief Master Sergeant of the Air Force, CMSAF Kaleth Wright. I just saw all three at the AFA National convention and we are really blessed to have them all at the helm during these very pivotal times. I know they are really looking forward to seeing you, thanking you, telling you what's going on, and talking about the future. It will also be great to let them see firsthand why A/TA is the gold standard of associations that support our military and the professional development of our airmen.

We are also excited about hearing from our other major address speakers, General Darren McDew, Commander of USTRANSCOM, General Mike (Mobile) Holmes, Commander of the Air Combat Command, GEN Robert Abrams, Commanding General of Army Forces Command, Lt Gen L Scott (Catfish) Rice, Director of the Air National Guard, and Lt Gen Maryanne Miller, Chief of the Air Force Reserves. Our Cohost and the Commander of AMC, General Dewey Everhart, will wrap up the convention with his address. When I was Commander of AMC, I always thought this was the most important address I made all year, especially since I had a chance to talk

directly to our mobility warriors, our leaders, and our industry partners. I know General Everhart feels the same way.

At our Saturday night Hall of Fame Banquet, we will honor Major General Paul Williams as our 29th Hall of Fame recipient. He superbly commanded our airlift forces in 1944 and 1945, and was responsible for the airlift supporting of our operations in North Africa, Sicily, Italy, Normandy, Holland, and Germany...and his C-47s provided the airlift for General Patton and Third Army's that was pivotal to their race to Berlin to end the war in Europe. A true giant, he is was one of the mobility warriors who laid the foundation on which we now stand...building one of our Nation's greatest asymmetric advantage...the strategic ability to move.

Please make sure you come by the Heritage Room. We want to make it great fun and a place where attendees look forward to stopping by, having a drink, and sharing a few war stories. We have some extraordinary people and stories lined up, and we are looking forward to hearing lots more...especially from our warriors and leaders who have changed the game since 9/11. We do Mobility better than anyone in the world and we need to celebrate it...and learn from it. It was always one of my favorite things about A/TA...and what make this the best convention of its type anywhere.

I want to do a special shout out to our A/TA Chapters, our Civic Leaders, and our Industry Partners, who are so key to everything we do in A/TA. We just got to see this synergy in spades at our recent Board Meeting in Charleston AFB, hosted by Col Jimmy Canlas, the 437 AW Commander and LtCol (sel) Kari Fleming and the Low Country Chapter. They provided outstanding support along with Peter Wertimer and the Palmetto Military Support Group who did a superb fund raiser (with Civic Leaders and industry support) for Charleston AFB, airmen and military families. We get similar support at all our Air Mobility bases and many are here at the Convention. You have our thanks for all you do for us.

So this convention promises to be a place you should be...celebrating our mission, our history, our outstanding people, our future... and helping drive our collective team to be even better. It is also setting the stage for our 50th Anniversary celebration in Dallas in 2018. You being here helps make all of this so. Let's have some fun. I look forward to seeing you. ■

President's Message



CMSgt Mike Kerver
USAF, Ret

Welcome to Orlando, the Marriott World Center and our 49th Airlift/Tanker Association Convention and Air Mobility Command Symposium! Our scheduled keynote speaker list is impressive and there are few conventions you could attend where you'll have an opportunity to hear first-hand, the messages from so many senior Air Force and Mobility leaders. Headlining this notable group are Secretary of the Air Force, the Honorable Dr. Heather A. Wilson, Chief of Staff of the Air Force, General David L. Goldfein, and Chief Master Sergeant of the Air Force, Kaleth O. Wright. During the convention, I would also encourage you to participate in as many professional development seminars as your schedule allows. We have a full schedule and almost 40 to choose from!

This convention remains as one of the very best ways we can showcase our commitment to the entire Mobility Community. Whether that means Active Duty, Reserve, Guard, Industry Partner, friend, or family member, we offer something for everyone. Make no mistake however that beyond the high-profile keynote speakers and professional development seminars, the REAL strength of our convention lies with the intangibles best described as comradery, fellowship and the bond built from shared sacrifice and service to our nation.

My first convention shout out goes to our Vice President of Programs, Miles Wiley. As most of you know, Miles leads a spectacular team of volunteers and has organized our convention for more years than I can remember. Orlando will be his last convention, and I ask you to join me in thanking Miles for his many years of commitment

and dedicated service. In addition to Miles, this is also the last convention for three long serving volunteers. First, our seminar boss, Jeff Bigelow who makes the tough work of scheduling and coordinating all the moving parts look easy; Bob Ford for his many years of behind the scene work making sure everyone has a banquet seat and the million change orders that come with it; and Ron Owens, as our Heritage Chair, attending to all details associated with our Hall of Fame bust, Scott AFB Walk of Fame maintenance, and preserving our Association legacy, as well as performing security and transportation duties during our conventions, to name just a few.

Next, I'd like to congratulate our 2017 A/TA Annual Award recipients and their families! We're excited to have you with us, and I look forward to sharing the stage with you as we recognize your accomplishments. Congratulations as well to our outstanding Air Force Reserve and Air National Guard Air Mobility Wings. In every sense of the word, A/TA is truly a total force Association and we are all very proud of you and look forward to your continued accomplishments.

This year's convention theme, *Mobility Airmen – "Ever Present, Agile, Innovative and Ready to Roll,"* truly reflects the grit and determination our 2017 Airlift Tanker Association Hall of Fame (HOF) recipient, Major General Paul L. Williams exhibited through massive and successful troop-carrier efforts during World War II. Serving at various levels of command during the war, General Williams directed the force buildups, training, doctrine development, and planning of the largest airborne drops in history. General Williams' dedicated service to his country made him a pioneer of air power and a formative leader whose influence continues to shape the organization, tactics, and doctrines directly benefiting generations of mobility Airmen. The HOF award recognizes the outstanding achievements of our very best Airmen, and is the absolute highest honor the Association can bestow. We look forward to seeing you at the HOF banquet

Saturday night as we formally induct General Williams as our 29th HOF recipient.

Over the past year, we conducted a great deal of Association business and wanted to take this opportunity to thank three of our Chapters for hosting national board meetings. In February, we gathered at Scott AFB and were hosted by the Huyser Chapter for our winter board meeting. In May, we traveled to Altus AFB for our spring board meeting and enjoyed the hospitality provided by our Red River Chapter. Our final 2017 board meeting was held at Joint Base Charleston and by the Low Country Chapter where we completed the final planning for this great convention you're enjoying. In every case, we were amazed at the energy and dedication of our chapter presidents and their engagement with both their membership and their local community. On behalf of A/TA and our Board of Officers, I'd like to express my heartfelt gratitude to Capt Steve Azab (Huyser), Capt Mark Watson (Red River), and Maj Kari Fleming (Low Country) for your exemplary leadership and hospitality.

To all those with us at this year's convention, enjoy yourselves and the comradery, fellowship, and many networking opportunities this event offers. As a membership based organization, our livelihood and success begins with you. Our goals are based around the continued growth of the Association, its relevancy, and in supporting Mobility Airmen. To achieve these goals, we need members and new ideas. If you like what you see over the next few days, tell a friend and bring them with you next year.

And speaking of next year, your Airlift Tanker Association will be 50 years old and we plan to celebrate our golden anniversary in a Texas sized way at the Gaylord Texan Resort and Convention Center located in Grapevine, Texas! If you haven't marked those calendars... circle 25-28 October 2018 NOW.

Again, welcome to Orlando! Thanks you for your service, and I appreciate everything you do to support our great Mobility mission. ■

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Welcome to the 2017 Convention and Symposium! I'm certain this will be another fantastic event and an opportunity to learn, re-connect and make new connections among friends and fellow professional Mobility Airmen.



Col. Mike Cassidy
USAF, Ret

Your Association has been keeping very busy lately but there is still work to be done as we continue to make A/TA the world's premier professional association for the Air Mobility community.

Thanks to the incredible team led by our Vice President of Programs, Col (ret) Miles Wiley and our Vice President for Industry Col (ret) Cary Walgamott, once again together they created an incredible event. This is Miles' last convention; he has been working on the Association's amazing convention since 1999. Please take the opportunity to thank him for his great work. Even though Miles is leaving we have a great team in place for our future conventions. Col Walgamott will continue in his role leading the effort to support our industry partners, he and the new team will continue to do incredible work.

But as great as the Convention is there is still more work going on behind the scenes. First, CMSgt (ret) Mike Welch and CMSgt (ret) Jim Wilton from our Board of Advisors, plus a tem of others, developed a strategic plan,

which includes new Vision and Mission Statements, overarching Strategic Objectives and the supporting goals. This work will continue but the original motivation was twofold, strengthen the local A/TA chapters and help those chapters be involved in our Preserving Mobility Culture.

Next, we are reaching out to other like-minded organizations to develop strategic partnerships to help us Strengthen Mobility Bonds. Our goal is to provide mutual support for organizations which are related to the Air Mobility Community.

Additionally, we're working with Veterati to build a tangible way to provide better Support to Mobility Airmen. Veterati is a veteran run company, which has developed a smart-phone-based app to facilitate networking and mentoring opportunities for military members and their spouses. It is 'slick' app and I look forward to hearing what you think about our A/TA portal to their service.

Lastly, I want to mention our latest web site, which also includes the updated registration process. I hope you agree with me the site is better than ever before. If you have time please provide us feedback so we can continue to improve. My hat is off to Gary and Sondra Hart from Starlifter Solutions, our incredible administration team. I also need to thank our technical team from 246Analytics, run by Col (ret) Brou Gautier and his business partner Mr. Scott Young.

There are many other activities, I'll do my best to keep you posted through our web

and our Facebook site.

Allow me also to say thanks to Low Country Chapter President Maj Kari Fleming, from the 437th Airlift Wing, and the Palmetto Military Support Group for their great support of our Summer Board meeting on 19 August 2017. In particular the hospitality extended by Mr. Peter Wertimer, Ms. Cheryl Clark, Mr. Graham Drayton from the Palmetto Military Support Group was phenomenal. Also, once again, thanks to Col John Lamontagne who represented Air Mobility Command during the summer board meeting. Well done, and thanks Low Country Chapter!

You'll notice in this edition and the past couple of A/TQ issues a series we started called 'Smooth Transition'. I would love to add your transition story in a future A/TQ. How have you used the skills you honed as a Mobility professional in your life after active service? Do you have a great story or do you know someone who does? Please let myself and Collin Bakse know.

Air Mobility History Trivia Question: What month and year was our Hall of Fame Nominee, Maj Gen Paul Williams named as the commanding general of the Ninth Troop Carrier Command? For extra credit why was this date significant?

Remember, invite someone you know (Guard, Reserve, Active, Retired, Civic Leader, aircrew, maintenance, port, support, etc.) to join this great organization and get involved with your local chapter.

Thanks for all you do, every day!
Mike

CMSgt William M. Cannon Boulevard Dedicated at McChord Field

At a ceremony held on 19 August 2017 at Joint Base Lewis-McChord, a rare honor was bestowed on prior McChord airman, the late Chief Master Sgt. William M. Cannon,



CMSgt Bill Cannon's family members, including his wife Marion (white shirt), gather under a new street sign proclaiming the street as CMSgt William M. Cannon Blvd., following the street's naming ceremony at McChord Field, just south of Tacoma, Washington, on 19 August 2017. The late Chief and prior McChord airman was inducted into the Airlift/Tanker Hall of Fame as a C-17 Pathfinder Loadmaster in 2015. Bill was also a Past President of the Airlift/Tanker Association. (Courtesy Photo).

who was also a Past President of the Airlift/Tanker Association and an inductee into the Airlift/Tanker Hall of Fame as a C-17 Pathfinder Loadmaster.

The ceremony unveiled McChord Field's newly renamed street Chief Master Sgt. William M. Cannon Boulevard, previously 5th St. NE on Heritage Hill.

The late Cannon was a retired McChord loadmaster who was a Distinguished Flying Cross recipient and made immense contributions to the loadmaster community and the development of the C-17 Globemaster III.

"Chief Master Sgt. Bill Cannon was a seasoned aviator, gifted leader and the 'father of the C-17 loadmaster,'" said Col. Reba Sonkiss, 62nd Airlift Wing commander. "This street, now to be called Chief Master Sgt. William M. Cannon Boulevard, recognizes the contributions of a man who dedicated his entire life and career in service to our great nation and our Air Force."

Serving more than 30 years in the Air Force, Cannon held more than 16,600 flying hours in the C-54, C-24, C-130 and C-141 aircraft, Sonkiss noted. He also served in Vietnam where he earned the Distinguished Flying Cross.

"When you think back to the incredible history of airlift here at McChord, it really puts into perspective the accomplishments and contributions of incredible airmen like Chief Cannon," said Sonkiss. "We can only hope to make him proud in the future as we set out on our own paths."

After retiring as the chief loadmaster at McChord, Cannon was the chief loadmaster of the C-17 flight test program. He was instrumental in the founding of Professional Loadmaster Association and as noted earlier served as President of the the Airlift/Tanker Association.

"Chief Cannon was a great leader, an inspiration to look up to and his dedication to service and others was beyond reproach," said Dan Watson, friend of Cannon. "He was an amazing man and the renaming of the street is befitting of his service to all

loadmasters past, present and future."

Chief Master Sgt. William M. Cannon Blvd. joins those of the distinguished streets and buildings on McChord Field



In a bit of serendipity, not too far from where the newly named CMSgt William M. Cannon Blvd. ceremony took place the street crosses Col Joe Jackson Blvd. named after the 1997 inductee into the Airlift/Tanker Hall of Fame. Chief Cannon and Col Jackson were great friends and often traveled together to A/TA events. (Courtesy Photo).

named after airmen who've made great contributions to the Air Force.

"Chief Cannon left behind an undeniable legacy of service and excellence that paved the way for our current mobility Air Force," said Sonkiss. "This renaming honors the trail that he blazed for the C-17 community, the 62nd Airlift Wing, and the United States Air Force."

A/TA+Veterati: Easing the Military-to-Civilian Workforce Transition

The Airlift/Tanker Association, always on the lookout for ways to add value to A/TA membership, has formed an alliance with Veterati, a digital platform for *Veterans & Military Spouses* to access mentorship-on-demand from successful professionals across the nation, with the mission to create mentorship conversations and networking opportunities between the 100 million Americans currently employed across America and the 1.5 million transitioning veterans and 5.5 million military spouses wanting to join the civilian workforce.

The transition from the military to the civilian workforce is one that is difficult to understand by most Americans who have never even spoken with a veteran. One veteran has describes it as, "...the single most difficult transition. You're transitioning not from one industry to another, but literally from one culture — one ecosystem — to an entirely different world." During these transitions, mentors can serve as guides, sharing expertise and networks to triangulate veterans and spouses into the careers they may or

may not know they're looking for.

Veterati removes the bottleneck that exists in other mentoring programs by democratizing the mentorship experience. For mentees — Veterati puts the power in your



hands to choose as many mentors as you want, from any industry, from peers all the way to CEOs. For mentors — Veterati offers a streamlined mobile technology to eliminate the inconvenience that previously existed with being a mentor, and increases measurable results.

As you look to build and gather the tools

you'll need to successfully transition out of uniform, don't underestimate the power of a strong network of contacts who can help you gain information, contacts, and insights into careers, companies and opportunities!

Veterans strive to make a difference. Not just for themselves, but for others. Veterati offers an innovative platform for transitioning veterans to act as mentors as well as mentees. Strong leadership comes naturally for many veterans. Acting as a mentor allows veterans to share their knowledge and expertise, help others explore their potential and builds camaraderie during a stressful transition, and, having mentors accessible to veterans can help them properly adjust and assimilate into the civilian workforce.

The A/TA will benefit from its alliance with Veterati too — gaining a heightened visibility by being prominently featured as an associate of the innovative networking platform.

To get on the path to workforce success, go online to <https://www.veterati.com> and get started!

A/TA and Logistics Officer Association Sign Strategic Partnership

The Airlift/Tanker Association and the Logistics Officer Association are pleased to announce they have signed a strategic partnering agreement to share and collaborate on best practices, lessons learned and create opportunities to enhance membership value in each organization.

For more information on how to participate in Joint Working Groups in order to improve each of these great organizations please contact:

Lt Col Jondavid DuVall, USAF (ret)
LOA, Chief Operating Officer
and/or
Col Mike Cassidy, USAF (ret)
A/TA Secretary

ABOUT A/TA

The Airlift/Tanker Association is a non-profit professional organization.

The Vision of A/TA is: "To be the World's Premier Professional Association for the Air Mobility Community Embracing Innovation and Operational Excellence...Serving Locally, Engaging Globally, Ready for Tomorrow."

The Association's Mission is: "To Work Across the Air Mobility Enterprise to Promote a Deeper Understanding, Appreciation, and Reinforcement of Air Mobility Heritage, Culture, Values, and Relationships."

Finally, the Association has three Strategic Objectives: 1. Support and Develop Mobility Airmen; 2. Preserve Air Mobility Culture, Heritage and Values; 3. Strengthen Air Mobility Bonds.

Learn more about the Association at the A/TA website: www.atalink.org.

ABOUT LOA

LOA is a non-profit organization comprised of over 4,000 military officers and civilians in the Logistics, Acquisition, and Technology career fields around the globe.

The purpose of LOA is to enhance the mission of the United States Air Force and the Department of Defense (DoD) through concerted efforts to promote quality Logistics, professional development of logistics, acquisition and technology officers, and an open forum for leadership, management and technical interchange. For more information about LOA visit www.atloa.org.

A MESSAGE FROM AIR MOBILITY COMMAND COMMANDER GENERAL CARLTON D. EVERHART II



Gen. Carlton D. Everhart II is commander, Air Mobility Command (AMC), Scott Air Force Base, Illinois. AMC's mission is to provide rapid, global mobility and sustainment for America's armed forces. The command also plays a crucial role in providing humanitarian support at home and around the world. The men and women of AMC - active duty, Air National Guard, Air Force Reserve and civilians - provide airlift, aerial refueling, special air mission and aeromedical evacuation.

General Everhart received his commission in 1983 through the Air Force Reserve Officer Training Corps program at Virginia Polytechnic Institute and State University. He previously served as a flight examiner and instructor and held various aircrew flying assignments in the C-130E, C-17A and C-21A. He was the Air Force aide to the President and has commanded at the squadron, group and wing levels. General Everhart also served at Headquarters U.S. Air Force and Headquarters Air Education and Training Command. Prior to his current assignment, General Everhart was the Commander of the 18th Air Force, Scott AFB, Illinois.

General Everhart's joint assignments include a deployment to Afghanistan as the Deputy Commander of Political-Military Affairs, Combined Security Transition Command - Afghanistan, where he was the direct liaison for the U.S. Ambassador and the Commander, International Security Assistance Force. Prior to his current assignment, the general was the Commander, 3rd Air Force and 17th Expeditionary Air Force, Ramstein Air Base, Germany.

Welcome to the Airlift/Tanker Association Symposium!

Air Mobility Command has been incredibly busy this year. Even with all the activity, participating in premiere professional development opportunities like the Airlift/Tanker Association Symposium is critically important. This forum offers the opportunity to learn and grow as a Total Force team. It also affords a chance to reflect on the global impact our Airmen are having on the world stage while addressing current and future challenges facing our force and families. During this week's discussions, we want to understand your vantage points and we need to hear your voices.

I'm constantly thinking about ways to improve an aging Mobility fleet, pilot shortages, the need to enhance aircraft availability, and ensuring consistent investment in our people, platforms, and total force partnerships. Each has national impact. The need to address these subjects against a backdrop of budgetary pressures and increased global requirements represents a tough challenge. These areas serve as critical focal points for this professional development seminar.

The world continues to present scenarios testing the ability of mobility Airmen to respond and deliver airpower, relief and hope

to those in need. We are busier now than we've ever been. We are also the smallest force that we've ever been. Despite this, every 2.8 minutes, a Mobility Air Force aircraft and crew take off somewhere around the globe. This fact stands as testament to your professionalism, dedication and resolve!

From late August through a good part of October, the Airmen of the 618th Air Operations Center and 18th Air Force, located at Scott AFB, Illinois, served as the centralized planning hub for airlifting personnel and equipment to natural disasters while simultaneously ensuring continuous support to missions worldwide. As Mobility Airmen supported Texans with airlift, aeromedical evacuation, contingency response resources and aerial refueling, AMC postured forces and supplies to respond to the devastation created by Hurricanes Harvey, Irma, and Maria, providing relief and assurance to those in need. All the while, we had Contingency Response professionals deployed to reestablish supply lines, communication networks, and reopen the airports so we could deliver vital supplies.

When people see the American flag on the tail of our AMC aircraft they know we're here to help. That's Gray Tail Diplomacy.

At any given time, in every area of the



Gen. Carlton D. Everhart II, left, Air Mobility Command commander, shakes hands with Senior Airman Anthony Guerriero, 514th Security Forces Squadron, at the Combat Readiness Training Center at Gulfport, Mississippi, 8 March 2017. Close to 700 AMC Airmen from the 514th Air Mobility Wing, 305th Air Mobility Wing, 87th Air Base Wing, and the 621st Contingency Response Wing at Joint Base McGuire-Dix-Lakehurst, N.J., are participating in the mobilization exercise Crisis Response 2017. The primary goal of this exercise is for the four wings to deploy to an austere location and set up and sustain combat air mobility operations. (U.S. Air Force photo by Master Sgt. Mark C. Olsen/Released)



Capt. Bryan Adams, left, and Capt. David Wilfong, 15th Airlift Squadron pilots, fly a C-17 Globemaster III enroute to Puerto Rico, 9 September 2017, to deliver personnel and equipment in support of Hurricane Irma relief operations. (U.S. Air Force photo by Staff Sgt. Charles Rivezzo)

globe, there is an AMC aircraft showcasing American military diplomacy, values, and resolve.

The Islamic State, or ISIS, sees U.S. resolve every day. U.S. tankers have partnered with coalition aircraft to fly more than 42,000 sorties in support of Operation INHERENT RESOLVE, ensuring the necessary reach and persistent airpower effects to apply continuous pressure on ISIS and other extremist organizations. Contingency response forces set the foundation for airpower effects. They ensured the infrastructure and necessary capability to bring the full force of our military to bear against our enemies and in support of our partners and allies. In 2016, our C-5s, C-17s and C-130s flew nearly 47,000 passengers and airlifted nearly 73,000 short tons of cargo in support of the fight against ISIS. We are on pace to exceed these totals in 2017.

The demand for what AMC offers will not subside. This makes addressing challenges like retention more complex. I asked Airmen for input on the ongoing pilot shortage. I received more than 700 responses.

You suggested a need for more focus on improvements to family stability, examining deployment types and tempo, establishment of an aviation-only duty track, and the importance of enhancing trust between Airmen and leadership. You highlighted the strain additional duties present to an already highly-tasked force. These are not issues that can all be fixed overnight, but we have already implemented some changes and will continue to work toward long-term solutions. We hear your concerns.

It's time for us to get some things moving. Airmen have said ops tempo is too high and they are gone too much. They told us that pre-deployment training, planning, staff work, and additional duties all should count when we analyze ops tempo. We have to build an effective model that accurately measures our ops tempo, rather than relying

on methods that don't tell the whole story.

Airmen have said home station additional duties can distract from either being with family or focusing on primary duties. So, we're taking aggressive action to give Airmen time back. I've also asked wing commanders to look at what additional duties are mission essential, and stop doing the rest. We are also looking at the number and necessity of non-flying deployments.

Additionally, I am asking commanders to increase partnership ef-

forts with area schools. Our military families deserve access to quality education. Good education is a retention issue. We are also looking for ways to get our pilots, maintainers, and all our Airmen into the classrooms to inspire the next generation of aviators, mechanics, and Airmen.

We've been working hard to ensure that the projected mobility pilot shortages do not become a full-blown manning crisis. Every chance I get to talk to people that are thinking about leaving the Active Duty Force, I ask

them to consider the Guard or Reserves.

Our nation has come to expect America's Air Force will always be there, ready to respond at a moment's notice. Part of that is ensuring our Total Force team is prepared for future threats.

To ensure enhanced force readiness, this year Air Mobility Command launched Exercise Mobility Guardian 2017. This full spectrum readiness exercise prepared mobility forces to operate effectively in dynamic high-end fight threat environments.

Mobility Guardian enhanced the skills and abilities of more than 3,000 Total Force Airmen, joint military forces, and representatives from 30-plus partner nations. The exercise focused on the core mobility functions of aerial refueling, airlift, aeromedical evacuation, and mobility support. It enhanced collective defense capabilities and our capacity to conduct situation-based mobility missions across the full portfolio, addressing a variety of threats beyond the current fight.

Another component of readiness is our aircraft. Our aircraft provide tremendous strategic effects, but also experience wear-and-tear and moments of discovery that threaten our ability to operate.

Earlier this year, I had to stand-down the C-5M fleet to address a nose landing gear concern. The C-5Ms are flying today because of the hard work, dedication and innovation of our Airmen. This was a



Doctors, nurses and paramedics await take-off from Dulles International Airport aboard a C-17 Globemaster III aircraft from Joint Base Charleston, South Carolina, 9 September 2017. Air Force aircraft from three bases came together to move more than 300 medical personnel to Orlando, Florida, in anticipation of Hurricane Irma making landfall in the state. Air Mobility Command and 18th Air Force are providing airlift, aeromedical evacuation, contingency response and aerial refueling forces as part of the whole-of-community effort to respond to Hurricane Irma. (U.S. Air Force photo by Capt. Ryan DeCamp)

maintainer success story.

An aging fleet requires us to partner with the Total Force to extend the service life of our aircraft. We are already partnering with the Reserves to swap out aircraft to extend the life of platforms experiencing more wear-and-tear.

In 2018, we'll usher in the KC-46A Pegasus. This aircraft will provide our nation, as well as joint and coalition partners, enhanced capability while meeting critical defense needs in an evolving global threat environment. Bringing the KC-46A online is an important step in recapitalizing our aging tanker fleet. However, more needs to be done in this area to ensure our Airmen are prepared to meet future mission requirements.

Even with an aging tanker fleet, our aircraft and Airmen continue to provide critical refueling capabilities to nine combatant commanders worldwide.

Tankers provided the reach when the F-35A Lightning II deployed to Japan. When



An Israeli F-35 "Adir" receives fuel from a Tennessee Air National Guard KC-135 as the aircraft make the flight across the Atlantic, 6 December 2016. The U.S.-made F-35s will be Israel's first fifth generation fighter aircraft and were refueled multiple times while en route to ensure their safe delivery to Israel. (U.S. Air Force photo by 1st Lt. Erik D. Anthony)

the F-35A deployed to Europe for the first time, it was made possible by AMC's aerial refueling

fleet. Multiple tankers from four different bases provided more than 400,000 pounds of fuel to the F-35s flying from the U.S. to Europe, for example. Without the MAF, those jets can't make it to the Pacific or Europe to further our national security objectives.

The Mobility Air Forces machine underpins our military's power for inspiration, deterrence, and incredible precision effects—delivering joint forces, fuel, supplies, relief, weapons, and even the President of the United States to all points on the globe. Whether you contribute to aerial refueling, airlift, aeromedical evacuation, mobility support, or another critical function on the team, events like A/TA create a forum to enhance mission-ready Airmen and offer opportunities for discovery and learning before the world calls us into action once again.

Thank you for taking part in A/TA. I need your help. I need your voices. The team is better because you are on it and I am grateful for your service.



An Army AH-64 Apache helicopter is unloaded from an Air Mobility Command C-5M Galaxy at Ramstein Air Base, Germany, 22 February 2017, in support of Operation ATLANTIC RESOLVE. The four Apache helicopters that arrived are part of a larger contingent of helicopters and personnel comprising of Operation Atlantic Resolve, a U.S. commitment to maintaining peace and stability in the European region. (U.S. Air Force photo/Staff Sgt. Timothy Moore)



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A MESSAGE FROM AIR MOBILITY COMMAND CHIEF

CHIEF MASTER SERGEANT SHELINA FREY



Chief Master Sergeant Shelina Frey is the Command Chief Master Sergeant for Air Mobility Command, Scott Air Force Base, Illinois. She is the principal advisor to the commander and his senior staff on matters of health, welfare and morale, professional development, and the effective utilization of more than 38,000 active duty and 71,000 AFRC/ANG enlisted personnel assigned to the command. She ensures the combat readiness of the command through sound policies, practices and training.

Chief Frey enlisted in the Louisiana Air National Guard in September 1984. She entered active duty in May 1987. Chief Frey has served as an administrative assistant and information manager at Headquarters Air Force and MAJCOM levels. She has also served as a First Sergeant in a variety of locations, as Commandant, Hurlburt Field Airman Leadership School, Special Assistant to the 12th Chief Master Sergeant of the Air Force and as Command Chief in the AFCENT AOR. Chief Frey is a native of New Orleans, Louisiana.

Mobility Airmen,

It's my honor to join General Everhart in welcoming you to this year's Airlift/Tanker Association convention and Mobility Symposium! This year's theme, "Ever Present: Agile, Innovative, and Ready to Roll," perfectly describes Air Mobility Command.

Wherever you go in the world, AMC is there. From providing air refueling operations that enable Air Force bombers to fly around the world in support of missions such as Operation INHERENT RESOLVE, to airlifting humanitarian aid to Hurricane Harvey and Irma survivors, to providing aeromedical evacuation for wounded service members serving in Afghanistan – AMC is ever present.

Thanks to our Airmen, we can get anywhere we need within hours versus days or months. AMC makes the Air Force a global force – we are the very definition of agile. Talk about innovative and ready to roll ... take a minute to walk around and speak with our Mobility Airmen and you will see they're among the best in the world. Their innovations are carrying us into the future and they're always ready to roll.

As the command chief, I have the distinct privilege of getting to know our Airmen, understanding their needs and then advocating to help improve morale and quality of life. Even while facing challenges and adversity, our Airmen's tenacity and innovation remain constant. I've been fortunate to visit with thousands of Airmen from many of our wings and bases. I can't fully tell you how inspired I am by our Airmen. Yes, inspired. The Mobility Airmen I meet inspire me to be a better chief and give me great confidence in our future.

One Airman who inspired me is Airman 1st Class EJ Kevin Sto. Domingo, who I met

while visiting Airmen at the 60th Diagnostics and Therapeutics Squadron at Travis Air Force Base, California. Even though I was on a somewhat-standard distinguished visitor tour, Airman Sto. Domingo's leadership shined through and the ownership he took of his unit's mission were anything but standard. This Airman was brand new to the Air Force, yet not only did he brief me on the process, he walked me step-by-step through the new and innovative procedure for processing blood samples.



U.S. Air Force Command Chief Chief MSgt Shelina Frey speaks with enlisted Dyess personnel at an all call 9 November 2016, at Dyess Air Force Base, Texas. She spoke to Dyess personnel about any concerns dealing with the Air Force and any other questions they may have had. (Air Force photo by Airman 1st Class Austin Mayfield)

Airman Brittany Fuentes. I'm fortunate to work in the same building as her in AMC Headquarters. Just prior to an unsuccessful coup attempt in Turkey, Airman Fuentes deployed to Incirlik Air Base as the lead analyst for the first 48 hours of an 8-day airfield closure. She crafted 23 time-sensitive intelligence reports and provided the pre-mission brief to the first C-17 departure, initiating the safe evacuation of more than 700 family members. She then led her team through a 30-day force protection condition increase, providing 28 intelligence briefings to ensure wing and subordinate squadron threat preparedness.

At home station, Airman Fuentes managed the Weapons and Tactics Team's threat assessment process, analyzing 116 enemy attacks in Iraq, Syria, and Afghanistan, identifying enemy tactics that helped safeguard more than 69,000 Rapid Global Mobility sorties moving 334,000 tons of vital cargo. She epitomizes the characteristics that set someone apart as a leader in our great Air Force.

While I see great leadership potential in our Airmen, I also see innovation from Airmen across our ranks. A shining example of this is Tech. Sgt. Cory Kozlowski, who I met

at Yokota Air Base, Japan. Sergeant Kozlowski is working with an application company and Air Force Material Command to create a training program using mixed virtual reality. This innovation will enable our Airmen to work on a hologram image of the aircraft they are training on while wearing a set of mixed virtual reality glasses. This will provide an incredible training opportunity to our Airmen and move AMC and the entire Air Force into the future – all for about the cost of a laptop.

Airmen like Sergeant Kozlowski enable their squadrons to be on the cutting edge for modernization within the Department of Defense. His squadron, the 730th Air Mobility Squadron, moves a monthly average of nearly 6,000 passengers and more than 1,000 tons of cargo. But, his squadron represents just one piece of what their wing – the 515th Air Mobility Operations Wing – accomplishes with the tremendous work ethic of the en route Airmen.

The 515th AMOW executes the key support mission and maintains the infrastructure and access to project Rapid Global Mobility in and throughout the Pacific. Through their en route maintenance, command and control, and aerial port, the 515th AMOW provides the backbone to our nation's Global Reach capability in the Pacific and across the globe.

While the 515th AMOW takes care of the Pacific theater, the 521st AMOW expedites maximum war-fighting and humanitarian effects for America through rapid and precise global air mobility in Europe, the Middle East and Africa. They provide all command and control, en route maintenance and air transportation services for theater and strategic air mobility missions.

The two AMOWs provide AMC with the ability to support combatant commanders, on a global scale. Their presence is far-reaching. Combined, they own 50 units in 24

countries. Their area of responsibility spans six continents, 15 time zones and more than 105 million square miles. Their Airmen provide the beds, beans and bullets to seven combatant commands.



Senior Airman Brittany Fuentes, a collection requirements manager at Air Mobility Command, briefs information regarding a mobility mission to other analysts July 18, 2017. (U.S. Air Force photo by Staff Sgt. Stephen Wade)

be found throughout AMC. Mobility Airmen are second to none! They enable Air Mobility aircraft to take off nearly every 2.8 minutes. Those Mobility aircraft fuel the fight, deliver humanitarian aid, deliver injured service members to medical care, transport our nation's leaders around the globe...And, so much more!

In being our Airmen's advocate, I have to be upfront in communicating the challenges they face. During this year's symposium, we will discuss some of the concerns facing our command. These concerns tie directly into



Staff Sgt. Zachary Rodewig, 721st Aircraft Maintenance Squadron C-5 Galaxy crew chief, explains the different aspects of maintenance for a C-5 aircraft to Senior Airman Earl Shelton, 721st AMXS aerospace maintenance technician, at Ramstein Air Base, Germany, 14 January 2017. All Airmen within the 721st AMXS must be qualified on C-17 Globemaster III and C-5 aircraft. (U.S. Air Force photo by Senior Airman Tryphena Mayhugh)

that we provide support to enable Airmen to care for themselves and their families.

Currently, a large concern for us is that AMC maintenance manpower authorizations were reduced by more than 1,600 over the last three years. These maintainers provide the critical skills necessary to ensure our legacy fleet keeps flying. The demand

Mobility Airmen remain ready to handle any mission. Airmen assigned to the en route maintain a constant state of readiness to ensure they're prepared to go whenever and wherever we need them to go to provide Rapid Global Mobility. AMOW Airmen are the very definition of Rapid Global Mobility! The work being done in our en route systems is not exclusive to them, but can

for skilled maintainers will only increase as we bring the KC-46 online and continue to generate Rapid Global Mobility. AMC must ensure our capacity to respond anywhere in the world by developing highly capable Airmen who guarantee rapid global access for the joint team.

In spite of challenges, our Mobility Airmen get out there and accomplish the mission! I couldn't be more proud of this outstanding team of professionals. From our maintainers who work on the flightline in freezing temperatures or soaring desert heat to our security forces who work 14 hours or more daily to secure our bases and people, our finance Airmen who ensure we get paid on time to our Airmen who plan and analyze operations, and the communications Airmen who maintain our network and communications capabilities – or any number of the many duties necessary to execute air mobility around the globe – they make me proud to be an Airman!



Senior Airman Earl Shelton, 721st Aircraft Maintenance Squadron aerospace maintenance technician, marshals a C-5M Super Galaxy into place at Ramstein Air Base, Germany, 24 January 2017. After it was in place, 721st AMXS Airmen chocked the wheels, plugged it into a generator, checked tire pressure, refilled oil, and refueled the aircraft. (U.S. Air Force photo by Senior Airman Tryphena Mayhugh)

Our Airmen's commitment to excellence is unrivaled, and it shows with all they do. I must offer a tremendous thank you to our Mobility Airmen and their families as well. Their families' support and sacrifices enable our Airmen to generate Rapid Global Mobility for America.

With our tremendous success over the current year, I'm looking forward to what Mobility Airmen are going to bring to the table next year and even further into the future. We expect a lot of our Airmen. I know our Airmen are working extremely hard and face challenges. We are always looking for ways to better support them. I am inspired by the pride they display in executing the mission with such skill and determination. I join General Everhart and the many military and civilian leaders here in encouraging you to take full advantage of the many opportunities to learn and grow during this Airlift/Tanker Association convention and Mobility Symposium. ■

Editor's Note: This is the third and final part of a 3 part series highlighting the Association's continuing theme "Mobility Airmen: Excellence in Action – Past, Present and Future!" Part 1 appeared in A/TQ Vol. 23, No. 4, Fall 2015 and Part 2 appeared in A/TQ Vol. 24, No. 4, Fall 2016. For reader continuity, Parts 1 & 2 are recapped here.

PART 3

MOBILITY AIRMEN – EXCELLENCE IN ACTION

Realizing The Dream: The Ascendence Of Rapid Global Air Mobility 1974 - 2017

"AGILE, INNOVATIVE AND READY TO ROLL"

by Colonel Gregory P. Cook, USAF (R)

"The aircraft has no heart; it's cold steel, titanium and aluminum; it's really about the people; it's about our airmen, our porters, our maintainers, our operators, our intel, our tactics . . . they are the heart of what we do."

—General Raymond Johns, Commander, Air Mobility Command (2011)

INTRODUCTION

Mobility Airmen – Enablers of the Global Air Mobility System for 100 Years. Rapid global air mobility has been called the foundation of America's national security strategy. It is the product of a system, a complex web of people, organizations, functions, and their countless day-to-day actions and interactions. It is the synergy of this system, in particular the contributions of mobility airmen, that provide the strength behind America's air mobility force. As we navigate further into the 21st Century, our central challenge will be to build on the noble traditions and successes of air mobility even as we rejuvenate our forces and prepare for the operations of the age. It will not be an easy task.

The air mobility system consists of many thousands of people worldwide whose individual efforts in sum enable air mobility's contribution to America's national security. They serve in the active duty Air Force, the Air Force Reserve, and the Air National Guard. They represent other Services or wear the uniform of another nation. Many are civilian and contract workers; some are volunteers. They execute missions in the air and on the ground. They perform their duties at home bases, en route locations and deployed sites, or at major commands, field operating agencies and other staffs. They command and control mobility missions, provide logistical support, perform administrative duties, satisfy information needs, protect the force, and otherwise enable the air mobility mission in countless numbers of ways. From the main gate to the flight line, from the controls of a forklift to a computer keyboard, and from Anybase USA to the farthest reaches of the globe, people make rapid global air mobility a reality every day...

An illustration featuring a Boeing KC-46 Pegasus, a widebody, multirole tanker that can refuel all U.S., allied and coalition military aircraft compatible with international aerial refueling procedures currently in the final phase of flight-testing, refueling a Boeing C-17 Globemaster, which was declared operational in January 1995. (Illustration by Collin Bakse, editor & art director, A/TQ).

...It has not always been so. The current system evolved over a century of operations. The history of global air mobility is an amazing story about people, technology, organizational development and the practical application of the aerospace mission. What made the evolution of air mobility different were the roles played by mobility airmen – officer and enlisted, men and women – and the culture that developed around them. From the first U.S. military transport operation in 1916 to the always engaged and global presence of America's air mobility forces today, mobility airmen have demonstrated time and time again their ability to overcome operational challenges and accomplish their missions through excellence in action, innovation, agility and their readiness to perform the mission. Often unheralded and unsung, these warriors have quietly and competently embraced the unknown with courage, determination and innovation over the last 100 years. In the process, they created and developed a complex air mobility enterprise that today knows no match.

Through the decades, mobility airmen demonstrated and orchestrated the great air mobility achievements of the age, and laid the foundation for today's air mobility forces. Their exploits and accomplishments, plus the system they created and executed, are only just being fully realized and recognized. Air Force leaders who grew up within the air mobility system now occupy key positions in the national defense establishment. Prior to the creation of Air Mobility Command in 1992, both the airlift and tanker communities were generally regarded as less-than-equal "stepchildren" to the more glamorous combat arms of the air force represented by the fighter and bomber communities. The mobility mission and its airmen were often taken for granted in their "supporting" role, their capabilities usually assumed to be present, available and easily accomplished. Despite their continued engagement and successes throughout the spectrum of conflict, the airlift and tanker communities remained relatively unsung, with only occasional recognition of their contributions to national defense.

The air mobility story is about inspired strategic leadership at the highest ranks, plus officer and enlisted airmen serving alongside and in support of each other in the air and on the line. They accomplished a myriad of complex operations, exercises and missions, plus executed many specialized functions and duties in support of air mobility missions. These quiet warriors epitomized the "can-do," pioneering spirit of American aviation, overcoming vast obstacles and challenges along the way. Always "ready to roll," they demonstrated agility, innovation, flexibility and adaptability throughout. In the process, they built a global air mobility system capable of responding to the demands of the time. *In so doing, they exuded competence and excellence in action.*

RECAP OF PART 1:

THE FIRST REVOLUTION IN AIR POWER AND GLOBAL AIR MOBILITY 1916-1949

(A/TQ Vol. 23, No.4, Fall 2015)

Early Operations 1916-1940

Mobility airmen pioneers began demonstrating the potential for air transport and air refueling capabilities early in the aviation age, often at great personal risk and without recognition for their efforts. During World War I, aircraft technology had not evolved enough nor had operational concepts been developed by then to enable significant contributions by transport aircraft. They were used in limited roles to carry dispatches, passengers and a few supplies. The absence of payload capacity associated with early airplanes severely limited their utility in air transport operations.

Following the flight of the Question Mark in 1923, which demonstrated unequivocally the potential of air refueling, a flurry of aerial refueling record chasing occurred until 1935. During the 1930s, dramatic advancements in aviation technology, with improved performance, range and payload, obscured any potential need for air refueling and military air transport requirements were generally satisfied with aircraft designed for civil aviation.

By the time World War II began, Army Air Corps transport forces were unprepared to execute the demands that would eventually be placed upon them. Yet within a single decade – from 1941 to 1949 – the capabilities of American military power would be revolutionized by the foundational building of global air mobility capability. Starting with a nascent Army Air Corps transport force in 1941, mobility

airmen established a global air transportation system, fought bravely in battle in multiple theaters of war, and demonstrated the capability to conduct non-stop global missions through air refueling by 1949.

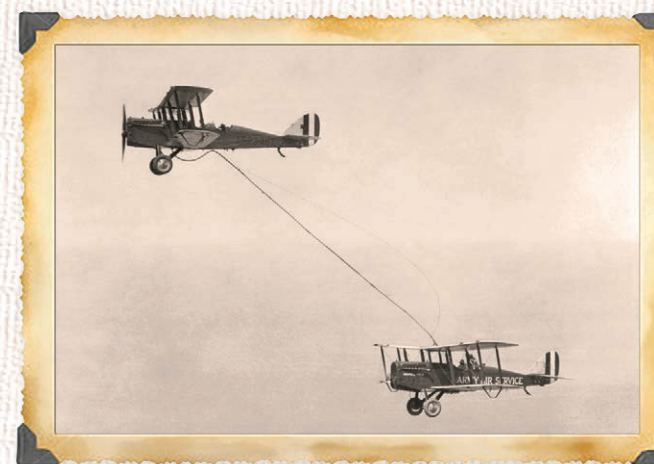
World War II and Global Air Transport Operations 1941-45

Throughout World War II, the Army Air Corps's air transport forces were divided along doctrinal and operational lines. At first, its primary "tactical" airlift mission was to enhance the mobility of bomber, pursuit and attack units by carrying their ground personnel, spare parts, rations and other supplies or equipment necessary to begin and sustain operations upon arrival.

Once ground transportation links and lines of supply were established, transports then engaged in more "strategic" airlift operations that linked these forces to rear supply areas, hospitals, headquarters and the like. Another tactical mission appeared in the requirement to deliver airborne troops into battle, which was satisfied by the creation of Troop Carrier Aviation units.

One of the great achievements of the Army Air Forces (AAF) in World

War II was its development of a worldwide system of air transportation. Air Transport Command established an extensive global air transportation network that delivered people and cargo regularly all over the world. During the conflict, AAF forces would airdrop entire airborne divisions behind enemy lines and resupply allied nations



The flight of the Question Mark in 1923 demonstrated the potential of aerial refueling resulting in a flurry of aerial refueling record chasing which lasted into 1935. (USAAF Photo Circa 1923).

under the most treacherous and demanding conditions, plus move, sustain and otherwise support elements of all the military services in every theater of war. In addition, an extensive network of aeromedical evacuation was established in both theaters. Global air mobility became a reality during this time.

Airlift emerged from World War II as the most flexible component of airpower. More than any other military capability in the U.S. arsenal, the crucible of World War II generated an extraordinary and rapid expansion in the air transport arena. This included dramatic changes in organizational structure, fleet size, mission capabilities, doctrine and the practical application of technology, tactics and procedures. Airlift proved to be an effective means for sustaining armies in the field, enhancing the operational effectiveness and maneuverability of air combat units, and resupplying naval forces.

The war underscored the need for centralized control of airlift. Early on, local commanders often diverted carriers for their own purposes. In time, Air Transport Command gained more power, but the struggle between theater and global control continued, as did problems of coordination between air and ground forces. World War II demonstrated the effectiveness of air mobility in supporting joint and allied forces.

A New Force Emerges as the Cold War Begins

On 18 September 1947, the U.S. Air Force was officially established as a separate service under the new U.S. Department of Defense. At that time, the Air National Guard was also established in law as a separate USAF reserve component, with the Air Force Reserve and the Air National Guard now integral to Air Force operations. The foundations for the Total Force concept were set. The Military Air Transport Service (MATS) was activated on 1 June 1948 in a consolidation of the

United States Navy Naval Air Transport Service (NATS) and the United States Air Force Air Transport Command (ATC) into a single joint command in charge of the military strategic airlift worldwide. MATS was the first joint service command. Troop Carrier Aviation forces remained principally assigned to theater commanders.

Despite early achievements, air refueling efforts stagnated from 1935 until after World War II ended. The Air Force activated the world's first two air refueling squadrons under Strategic Air Command (SAC) in 1948, 25 years after the first successful inflight refueling. The "Boeing boom" was developed shortly thereafter, and the stage was set for the emergence of a strategic air force with global capability and air mobility, enabled by the air refueling force.

The Berlin Airlift in 1948-49 was the first important peacetime use of air mobility as a major and sole instrument of national power to achieve policy objectives. Major General William H. Tunner was placed in charge. Once again, the airlift became the center of jurisdictional battles, with Tunner's staff expecting to run an independent operation and United States Air Forces Europe (USAFE) demanding more control of the action. The Berlin Airlift was a learning experience, and Tunner emerged from it arguing for a single airlift command and for larger cargo aircraft as the only way to increase the flow in saturated air corridors.

As the newly independent U.S. Air Force materialized in the post-war years, organizational relationships were beginning to take shape in the form of new major commands. Air mobility forces were distributed as essential elements of every major operational command and in every theater of operations, while the Military Air Transport Service operated on a global basis. Solid partnerships had also been created with the civil airline industry in a precursor to the development of the Civil Reserve Air Fleet. On the drawing board were new technologies and aircraft that would fundamentally change operational constructs and strategies.



A C-82A Packet being unloaded at Templehof Airport, Berlin during the Berlin Airlift, circa 1948. The Berlin Airlift was the first important peacetime use of air mobility as a major and sole instrument of national power to achieve policy objectives. (U.S. Air Force Photo).

RECAP OF PART 2 BUILDING THE BONDS OF AIR MOBILITY: ORGANIZATIONAL AND OPERATIONAL DEVELOPMENTS 1950 - 1974

(A/TQ Vol. 24, No. 4, Fall 2016)

Air Mobility during the Korean War 1950-1953

MATS responded to the wartime lift requirements of the Korean War by increasing the efficiency and capacity in its transpacific route system. When the war started, MATS was already operating routine routes and missions throughout the Pacific using a string of bases in the central and north Pacific via Hawaii, Alaska and Japan. MATS turned to civil air carriers for augmentation as a precursor to the Civil Reserve Airlift Fleet (CRAF).

Intra-theater transport responsibilities fell to Far East Air Forces (FEAF), which had only two troop carrier squadrons. The Far East Air Forces Combat Cargo Command (FEAF CCC) was created in August 1950, with General William Tunner placed in charge. He requested and received command over all air transport organizations and operations in the theater, including army, naval and air components. Operated on a "common-user" basis, he had at his disposal all air transport capabilities in the theater to realize mission objectives. Thanks to the efforts of Tunner, plus the efficient and effective operations of Combat

Cargo, war planners in all the services grew confident enough about solid airlift support that they incorporated air logistics into their routine operations. Airlift thus fundamentally altered the American way of war by becoming a central element of its operations. This still did not settle old questions of jurisdiction, as both the Army and some elements of the Air Force wanted control over airlift for their own purposes.

The addition of "battlefield" airlift was a game-changer during the war in Korea, with the U.S. Marines and U.S. Army fielding significant capabilities to move fighting units and material throughout and within theater combat zones. Helicopters were used by these forces to supply forward units, evacuate the wounded, and to move entire companies and battalions across the battlefield.

By 1950, the Air Force had fielded its first twelve squadrons of tankers, principally to support the priorities of Strategic Air Command, thus the use of air refueling began slowly in Korea and remained on a small scale. By 1953, air refueling was routinely used to move fighter and bomber units across the Pacific to support combat operations in

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Korea. The first air refueling unit dedicated to tactical air forces was established in Japan in July 1953.

The Korean War again underscored the need for specialized aircraft, thus the Air Force began development of new airlifters such as the Fairchild C-123 Provider and the Lockheed C-130 Hercules. Of even greater importance, the Korean conflict marked the first time that all the elements of the modern air mobility system conducted simultaneous and coordinated operations together in support of combat operations. This included tactical airlift, battlefield airlift, strategic airlift and air refueling.

Major Aircraft Developments in the 1950s and 1960s

The development of the Boeing KC-135 Stratotanker in the mid-1950s was pushed by Cold War strategies that required the U.S. to be able to keep fleets of nuclear – armed strategic bombers airborne around-the-clock. A large fleet of tankers was needed to refuel bombers that would carry out strategic operations in the event of nuclear war with the former Soviet Union.

Lessons learned from the Korean War showed that WWII-era transports were inadequate for modern warfare. Thus USAF issued requirements for a new transport that would have a capacity of 92 passengers, 72 combat troops, or 64 paratroopers in a cargo compartment that was approximately 41 feet long, 9 feet high, and 10 feet wide. The C-130 joined the active force in 1956 and brought with it vastly improved speed, range, and payload over previous aircraft – qualities useful for high-volume or inter-theater operations.

Technological developments during the 1960s fundamentally transformed airlift operations. Modern turbine powered aircraft such as the C-135, C-141 and C-5 were developed and employed with new cargo handling systems and other built-in capabilities that substantially increased the speed and throughput capabilities of the airlift system.

The C-135 Stratolifter was useful for passenger carriage but had limited utility for cargo due to its side-loading doors through which most bulky and oversize equipment would not fit. The C-141 was the first jet powered aircraft specifically designed for military air transport and airdrop, plus the performance of both strategic and tactical airlift missions. The strategic role demanded that the aircraft be capable of missions with a radius of at least 3,500 nautical miles with a 60,000 pounds load. The tactical role required it to be able to perform low-altitude air drops of supplies, as well as carry and drop combat paratroopers.

The C-5 Galaxy was designed to meet Army needs for a long-range jet transport aircraft with a larger cargo bay than the C-141 to carry a variety of their outsized equipment. Many technological innovations incorporated into the C-5 ushered in a new age of strategic airlift capability. It was the first airlift aircraft to be equipped with an air refueling receptacle, enabling non-stop operations anywhere in the world. Key design characteristics of the C-5 provided it with

tremendous built-in capability and flexibility to allow drive-through loading and unloading of wheeled and tracked vehicles, plus faster, easier loading of bulky equipment.

Major Exercises and Operations Enabled by Air Mobility Forces

As usual, air mobility forces responded continually to operational needs and crisis beyond those required by major combat operations. These included the Suez, Lebanon and Taiwan Straits Crises from 1956–1958, the Congo Airlift from 1960–1963, the Berlin Crisis in 1961, and the Cuban Missile Crisis in 1962. In addition, major exercises such as Operation BIG LIFT in 1963 demonstrated the potential for airlift to move large forces into action through various means.

The Vietnam War Redefines Combat Air Mobility

Vietnam was a “war without fronts” that significantly increased the Army’s reliance on airlift and led to the development of an airlift management system. It exposed shortcomings in airlift capabilities and



KC-135A circa late 50’s early 60’s. Wright Air Development Center, Air Research & Development Command, USAF Serial: 53121 (55-3121). Wright-Patterson AFB, Ohio. KC-135A 55-3121 is perhaps the most historically significant airframe in the entire C-135 family. It was the first KC-135A handed directly to the USAF from Boeing’s assembly line, rather than being retained for company testing. It is shown here as it appeared as a testbed with the ARDC’s Wright Air Development Center in the late 1950s. At this time this KC-135A’s duties included Arctic, desert and adverse weather testing, as well as being used as an icing test spray aircraft. The color scheme is fairly standard for the late 1950s, with fluorescent red-orange (faded by the sun to a more orange color) bands and a fashionable white crown over the cockpit area. (U.S. Air Force Photo).

posed new challenges for air mobility forces. The primary mission for airlift forces in Vietnam was tactical – especially the airland movement and resupply of Army units into forward airstrips. USAF airlift became a crucial element in enabling the ability of the Army’s airmobile, airborne, and infantry brigades to complete their missions. The USAF tactical airlift arm performed numerous other tasks in Vietnam, many of them highly challenging. The airlifters heavily supported Special Forces camps operating in border regions, often by airdrop. C-130s performed administrative unit movements to reinforce against enemy buildups. Airlifters provided routine and continuous airlift service throughout Vietnam hauling passengers, mail,

and cargo in sustained operations. During the war, the Air Force lost 175 aircraft while performing airlift missions from 1962 to 1975 from all causes, including the deaths of many aircrew and support personnel. The necessities and lessons learned from combat operations in Vietnam redefined the role of combat air mobility.

The U.S. Army Goes Airmobile

The Army adopted the airmobile concept in 1962, which included the formation of air assault divisions equipped with large numbers of aircraft for hauling troops into battle and providing fire support. Air mobility concepts of operations for both the Army and the Air Force were refined in a series of field exercises from 1963 - 1964. These exercises did not end disagreement between the services, but operational progress was undeniable. Successful partnerships were developed between the Air Force airlifters and Army brigades in three distinct configurations - airmobile, airborne and conventional infantry. The early operations of the airborne brigades in Vietnam reflected the complementary strengths of the helicopter and fixed-wing airlift arms. The helicopter was clearly superior to the parachute for short-distance

assault, but could not match the ability of fixed-wing transports for moving and resupplying substantial forces over medium distances. Air mobility also became the primary means for moving soldiers and marines around the battlefield, whether transported by Air Force or Army fixed wing aircraft or via Army and Marine Corps helicopters.

Air Refueling in Vietnam

During the Vietnam War, it was common for USAF fighter-bombers to be refueled from KC-135s en route to their targets in North Vietnam. Besides extending their range, this enabled them to carry more munitions. Tankers were also available for refueling on the return flight if required. In addition to ferrying aircraft into the theater, heroic aerial refueling efforts made it possible for battle-damaged fighters to return to base. Air refueling also occurred in the Navy with carrier-based tankers and in the Marine Corps via KC-130s.

The Vietnam experience elevated the role of air mobility from an important and valuable adjunct of war to an indispensable central element of the American way of war. The great majority of U.S. military personnel deployed to the conflict traveled by air instead of by sea for the first time in history, as did an increased volume of supplies, material and equipment.

Organizational Developments

Military Airlift Command (MAC) was established on January 1, 1966 as a USAF major command (MAJCOM) at the height of the Vietnam War. It replaced MATS while retaining its command patch and headquarters at Scott Air Force Base, Illinois. In 1967, the Air Force officially changed the designation of all troop carrier units to tactical airlift. The 834th Airlift Division was formed in Vietnam in late 1966.

It established new relationships, operating concepts and requirements to support forward operations in Vietnam that laid the groundwork for future operations. Among them were embedding liaison officers with ground forces, creating Airlift Control Elements (ALCEs) and establishing criteria for mobile, air transportable facilities from which forward command and control of airlift could be accomplished.

Operation NICKEL GRASS (1973)

Air mobility forces demonstrated their amazing capabilities during the Yom Kippur War in the fall of 1973, when the Arab armies of Syria and Egypt attacked Israel on October 6. The war was marked by huge numbers of combat equipment lost to enemy action, as well as enormous consumption rates of ammunition and supplies used in prosecuting the battle. Over the course of the fast-paced conflict and its epic battles, stocks of all war-related materials for both sides became depleted to dangerously low levels. Faced with a difficult and delicate international situation, President Nixon ordered an aerial resupply of Israel, code-named NICKEL GRASS. The operation was a huge success in many ways, and demonstrated the decisive role that airlift could play in determining the outcome of a fast-paced conflict. All the American equipment that reached Israel before the ceasefire arrived by air and before the first ship loaded with supplies reached an Israeli port. The airlift effort delivered the supplies necessary for Israel to continue the fight, with many items engaged in battle just hours after arriving. The pace of offload never slackened. Once it became clear that the U.S. was committed and able to sustain this logistical effort by air, the tide of battle turned and cease-fire negotiations began. America's air mobility forces had again risen to the occasion and performed with strategic, decisive impact.

wings on the C-5 fleet to enable the aircraft to reach its designed service life of 30,000 flight hours and carry its maximum payload on a routine basis. This followed the discovery of structural wing deficiencies after its initial fielding in 1970. Following years of planning and development, the entire C-5 fleet underwent a wing modification program from 1979-1987.

In the meantime, global operations continued unabated. Following the signing of the Vietnam cease-fire agreement in 1973, airlift operations shifted to the redeployment of forces from Southeast Asia and supported the evacuation of Saigon as it fell in 1975. Operation HOMECOMING brought 591 American prisoners of war back from Vietnam in 1973, while Operation BABYLIFT evacuated Vietnamese orphans in 1975 amidst a massive concurrent airlift of over fifty thousand Cambodian and Vietnamese refugees to staging areas throughout the Pacific.

As the air mobility fleet gained in strength and capacity through the 1970s, it began flexing its muscles in other significant ways. Beginning in 1969, regular REFORGER exercises (REturn of FORces to GERmany) demonstrated MAC's ability to reinforce NATO forces in Europe in the event of attack by the Soviet Union. During REFORGER in 1978, air mobility airmen and forces successfully delivered two brigades of the 1st Infantry Division and a 1st Cavalry Division brigade, demonstrating that air mobility could successfully plan and execute a complex operation on a routine basis.

Throughout the decade, air mobility forces and airmen also responded continually to humanitarian crises and contingency operations, including natural disasters that struck from Pakistan and Guatemala to Turkey and the United States itself. The end of the decade marked the beginning of long-term problems in the Middle East as the Iranian revolution unfolded in 1978-79 and the Soviet Union invaded Afghanistan in December 1979.

The 1980s.

As the decade began, American citizens were being held hostage by Iranian revolutionaries in the U.S. embassy in Tehran and the Soviets had begun a ten-year occupation and war in Afghanistan. In response, the U.S. military steadily increased its presence and operations in the Middle East and surrounding areas with heavy support from air mobility forces as a powerful instrument of national security.

These and other developments spurred Congress to include a requirement to study air mobility requirements in the Defense Authorization Act of 1981. This Congressionally Mandated Mobility Study (CMMS) evaluated the proper mix of airlift, sealift and prepositioning resources the U.S. needed to respond to various projected military contingencies. In addition to studying a traditional NATO-Warsaw Pact conflict in Europe, confrontations in the Middle East were also considered both separately and concurrently. Upon finding a significant shortfall in strategic airlift, the CMMS recommended a substantial increase in capacity of 20 million-ton miles per day (MTM/D) in inter-theater airlift for MAC to implement. Headquarters

MAC published a Master Airlift Plan in 1983 to address these shortfalls, followed by implementation of several major programs in addition to those already in work such as the C-141 stretch and C-5 wing modification efforts. Initiatives to increase the capacities and capabilities of CRAF followed, including additional incentives and programs to strengthen the floors plus add larger cargo doors and cargo rollers to enhance their cargo carrying role.

Aircraft procurement initiatives were next. In January 1982, Headquarters USAF recommended purchasing 50 C-5Bs and 44 KC-10 multi-role tanker/cargo aircraft in addition to the 16 KC-10s already acquired by Strategic Airlift Command to augment its KC-135 tanker

force. The C-5Bs were delivered from 1986-89 and the last KC-10 received by SAC in 1990. The air refuelable KC-10 ushered in a new era for USAF air refueling with its ability to carry substantial amounts of both fuel and cargo, plus some were equipped with wing-tip refueling pods containing hose-reel systems for naval and allied receivers utilizing probe-drogue refueling technology. This made the KC-10 capable of refueling all types of receivers on any mission at all times, a first for the USAF.

SAC also began upgrading aging KC-135As by modifying them with modern CFM-56 engines and designating them as a KC-135R, which was first

delivered in June 1984. This resulted in a 50% increase in fuel transfer capability, a 25% reduction in fuel consumption, and a 20% shorter takeoff distance, plus a 95% reduction in noise, a 76% decrease in smoke emissions and 20% fewer gaseous emissions.

Finally, the need to address both inter and intra-theater airlift requirements drove studies beginning in 1979 for an aircraft that could operate from small, austere airfields and haul significant payloads, including outsized cargo, over transcontinental distances directly into combat. After analyzing various alternatives, USAF awarded a contract in January 1981 to McDonnell-Douglas to build the C-17. MAC's 1983 Master Airlift Plan recommended acquiring 220 C-17s to replace C-141s and portions of the C-130 fleet as they were eventually retired in the 21st century.

Beginning in the spring of 1984, a fleet of leased Gates Learjet C-21s and Beech Super King Air C-12s began to replace CT-39s in the operational support airlift role. As part of the 375th Aeromedical Airlift Wing, these aircraft moved high priority passengers plus could carry two litters in an aeromedical evacuation role. The wing's C-9A Nightingale fleet, which joined the force beginning in 1968, moved patients throughout the CONUS as part of the military medical system. C-9s assigned to USAF and PACAF performed the same function in those theaters.

Organizational Developments

In March 1983, 23rd Air Force was activated under MAC, which added the Aerospace Rescue and Recovery Service (ARRS) and Air Force special operations forces under the command's umbrella. In

Continues on page 70 >>>



The C-130 and its variants have been used in almost all wars since their post WWII development. The aircraft were used in Vietnam for recon and troop transport purposes. The plane could ship more vehicles and troops in one flight than most other planes available. The C-130 was also, and still is, used by the Airborne Infantry because of its capability to quickly get large quantities of paratroopers into the battlespace. More recently in the Middle East, the AC-130 and C-130 have been heavily used. (U.S. Air Force Photo).

PART 3

REALIZING THE DREAM:

THE ASCENDENCE OF RAPID GLOBAL AIR MOBILITY 1974 - 2017

“MOBILITY AIRMEN: AGILE, INNOVATIVE AND READY TO ROLL”

The State of Air Mobility in 1974

By 1974, air mobility forces had clearly established themselves as the backbone of deterrence and a foundational, indispensable element of U.S. military operations and the American way of war. Within Strategic Air Command, KC-135 tankers stood alert on the frontlines of the Cold War and extended the reach and endurance of air refueling capable aircraft everywhere. Tactical and strategic airlift capabilities had grown enormously with the introduction of aircraft like the C-130, C-141 and C-5. Combat operations in Korea and Vietnam defined and expanded air mobility concepts of operations.

Whether acknowledged or not, theater and strategic airlift arms were increasingly interconnected and mutually supporting during the Vietnam conflict. MAC personnel involved in strategic airlift missions needed to be prepared for tactical operations, while the reverse was true for tactical airlift forces assigned to theater commanders. In July 1974, the Department of Defense acknowledged this and directed the consolidation of U.S. military airlift capabilities under MAC, which would act as the single manager and provider of airlift for all the military services by the end of fiscal year 1977. This finally realized the dream of General William Tunner and other advocates for establishing a single organization responsible for managing all airlift forces, operating a global system, providing resources to theater commanders, and developing operating concepts and doctrine.

The 1970s

On 29 August 1974, the USAF Chief of Staff announced that all Air Force airlift forces would transfer to MAC, beginning with those belonging to Tactical Air Command in December of that year. Overseas

commands transferred their forces in March 1975, including worldwide aeromedical evacuation capabilities and responsibilities. Theater units from TAC, United States Air Forces Europe (USAFE), Pacific Air Forces (PACAF), USAF Southern Command (SOUTHCOM) and Alaskan Air Command were now all under MAC's command and control. This consolidation eliminated redundant logistical support and improved efficiencies throughout the global airlift system. It simplified command and control, plus addressed problems with airlift management revealed from operations in Southeast Asia and the Israeli airlift, where multiple commands and agencies created conflicts and inefficiencies within the system. As another result, MAC was designated a Specified Command in 1977 directly accountable to the Joint Chiefs of Staff.

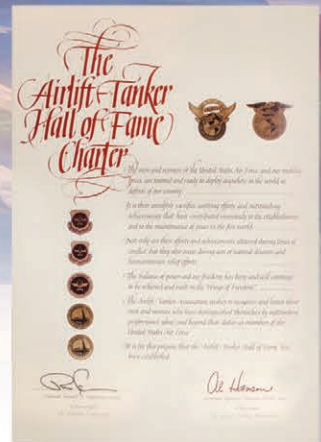
Additional lessons learned from Operation NICKEL GRASS included the realization that air refueling was needed for future strategic airlift operations and that more airlift capacity was needed. A lack of qualified crews and no operational refueling experience prevented utilization of the C-5's refueling capability, and the C-141 was not equipped to do so. Once analysis revealed that air refueling would have dramatically increased payloads and reduced the total number of missions required with 25% less fuel consumed, MAC sought to expand C-5 air refueling crew training. In addition, a program was established to stretch the C-141 to expand its cargo capacity by 30% and add refueling capability. The result was the C-141B. Civil Reserve Air Fleet (CRAF) contracts were also expanded to the point where CRAF was responsible for almost half of the wartime strategic airlift requirement by 1975.

Another major effort to improve strategic airlift was to modify the



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"The men and women of the United States Air Force and our mobility forces, are trained and ready to deploy anywhere in the world in defense of our country. It is their unselfish sacrifice, untiring efforts and outstanding achievements that have contributed immensely to the establishment and to the maintenance of peace in the free world. Not only are their efforts and achievements attained during times of conflict, but they also occur during acts of natural disaster and humanitarian relief efforts. The balance of power and our freedom has been and will continue to be achieved and built on the "wings of Freedom." The Airlift/Tanker Association wishes to recognize and honor those men and women who have distinguished themselves by outstanding performance above and beyond their duties as members of the United States Air Force. It is for this purpose that the "Airlift/Tanker Hall of Fame" has been established."

LT GEN WILLIAM H. TUNNER (1906-1983)

His vision for airlift's role in national defense earned him recognition as "The Father of Military Airlift Command." During World War II, he commanded the India-China division of the Air Transport Command, which was responsible for supplying China by air across the Himalayas. He also commanded the Combined U.S. Air Force/Royal Air Force Berlin Airlift Operation and during the Korean War, the Combat Cargo Command, Far East Air Forces. From July 1958 to May 1960, he served as Commander, Military Air Transport Service. Later assignments included Commander in Chief, United States Air Forces in Europe and Deputy Chief of Staff for Operations, Headquarters U.S. Air Force. **INDUCTED 1989**



"There is no question what the roll of honor in America is. The roll of honor consists of the names of those who have squared their conduct by ideals of duty."

—WOODROW WILSON

DONALD W. DOUGLAS (1892-1981)

Engineer, visionary, and entrepreneur, his aircraft designs revolutionized commercial and military air transport. While the Douglas DC-3 and DC-4 passenger carriers became the C-47 and C-54, the workhorse transports of World War II, it was his C-124 that provided Military Air Transport Service, and later Military Airlift Command, with the first aircraft designed specifically for strategic military airlift. With its ease of loading, heavy lift capacity, and trans-ocean delivery capability, the C-124 made its mark during the Korean War. The Douglas Aircraft military legacy lives on in the McDonnell Douglas-designed, Boeing-built C-17 Globemaster III. **INDUCTED 1990**



GEN LAURENCE S. KUTER (1905-1979)

Commanding the Atlantic Division of the Army Air Force's Air Transport Command (ATC) in 1945, he oversaw the consolidation of resources from several of ATC's wartime divisions into a new Atlantic Division responsible for the airlift service between the United States and Europe, Africa, and the Middle East. As the first Commander, Military Air Transport Service (MATS), June 1948 to November 1951, he consolidated under MATS assets from ATC and the Naval Air Transport Service and he defined and interpreted the future airlift role for the Department of Defense. **INDUCTED 1990**



LT GEN HAROLD L. GEORGE (1917-1986)

Recognized as the "First Leader of Airlift," he commanded the Air Corps Ferrying Command from April 1942 to June 1942 and its successor organization, the Air Transport Command, from June 1942 to September 1946. In those positions, he directed the wartime movement of planes, passengers, and supplies from the United States to combat units around the world. Air Force Chief of Staff Gen Carl A. "Tooney" Spaatz remarked in 1947 that Gen George's "masterful, diplomatic and successful operation of the Air Transport Command gained (for) the Army Air Forces an international reputation for the ability to accomplish the seemingly impossible." **INDUCTED 1991**



MAJ GEN CYRUS R. "C.R." SMITH (1899-1990)

In April 1942, he resigned as President and Director of American Airlines to enter the Army with a commission as colonel in the Air Corps Ferrying Command, which two months later became the Air Transport Command (ATC). As ATC's Chief of Staff and Deputy Commander, he applied his commercial air transport experiences to the wartime, worldwide expansion of military airlift operations. He was principally responsible for convincing the War Department to make ATC the agent for strategic airlift. As a result, by the end of 1943 the Command was operating over air routes in the United States and overseas totaling more than 130,000 miles. **INDUCTED 1992**



LT GEN IRA E. EAKER (1896-1997)

Airpower visionary and pioneer, he secured approval of the Chief of the Air Corps, refined air refueling procedures, and selected planes and crews for the "Question Mark" record-setting endurance flight of 150 hours, 40 minutes in January 1929. Serving as the mission's chief pilot, he took air refueling to the next step by conceiving, organizing, and conducting, from August to September 1929, the "Boeing Hornet Shuttle," the first nonstop transcontinental flight sustained solely by air refuelings. Through those two flights, he significantly advanced the development of air refueling and greatly expanded the possibilities of airpower. **INDUCTED 1993**



GEN ROBERT E. "DUTCH" HUYSER (1924-1997)

Although a bomber pilot most of his career, he became - as Commander in Chief, Military Airlift Command from July 1979 to June 1981 - the Air Force's primary advocate for airlift modernization and a visionary for mobility forces. He pushed forward the C-5 wing modification, C-141 stretch, air refueling modernization, and Civil Reserve Air Fleet enhancement programs. He also championed and helped define the Future Airlift Aircraft Program that would eventually become the C-17. In retirement he continued to support the mobility community through the Airlift Association serving as its chairman from November 1985 to November 1992. **INDUCTED 1994**



LT GEN JOSEPH SMITH (1901-1993)

Although he served in the U.S. military for 35 years, from 1923 to 1958, it was not until 1948 that he began to make his mark as an Airlifter. As commander of the Berlin Airlift Task Force, he established the airlift flow into and out of the city. In November 1951, he took command of the Military Airlift Transport Service (MATS) where, over the next six and one-half years, he oversaw establishment of MATS as the single manager operating agency for airlift service, the Civil Reserve Air Fleet, and the Airlift Service Industrial Fund. Under his command, MATS supported the Korean War, the Suez Crisis, and the Hungarian Refugee Evacuation. **INDUCTED 1995**



NANCY HARKNESS LOVE (1914-1976)

An aviation pioneer, she earned her pilot's license in 1930 at the age of 16 and her air transport rating in 1933. In 1942 she was instrumental in establishing, under Air Transport Command (ATC), the Women's Auxiliary Ferrying Squadron, a predecessor unit to the Women's Airforce Service Pilots, the WASP, serving with the ATC Ferrying Division, she oversaw the training, planning and operations of six WASP ferrying squadrons. Under her leadership the WASP moved during World War II, thousands of aircraft between factories and operational units, thus freeing their male comrades for combat duty. She received the Air Medal for her wartime service. **INDUCTED 1996**



GEN WILLIAM G. MOORE, JR. (1920-2012)

A veteran of three wars - World War II, Korean, and Southwest Asia - with nearly 40 years of military service, he conceived, planned and directed a wide variety of combat aerial delivery methodologies. While commanding the 314th Troop Carrier Wing and the 839th Air Division (AD) from 1962 to 1963, he conducted project "Close Look," which set the foundation for many of today's airlift tactics and procedures. As commander of the 834th AD, he was responsible for tactical airlift in Vietnam, and from April 1977 to June 1979, he commanded the Military Airlift Command. He is the Airlift/Tanker Association's senior founding member. **INDUCTED 1997**



COL JOE M. JACKSON (1923)

Mobility warrior and national hero, he was awarded the Medal of Honor for his actions on 12 May 1968 at Kham Duc, South Vietnam, a U.S. Special Forces camp near the Laotian border. Piloting his C-123 at 9,000 feet over the camp, he descended at 4,000 feet per minute to rescue three combat controllers who had been in charge of evacuating the camp earlier in the day. Encountering intense enemy fire at 4,000 feet that followed the aircraft down the runway, and narrowly avoiding a hit from a 122-mm rocket, he turned for take-off as the three-man team jumped aboard through the open rear cargo door. Again, on ascent, his aircraft encountered heavy enemy fire. **INDUCTED 1997**



A/TA Hall of Fame Continues >

"Great men, unknown to their generation, have their fame among the great who have preceded them, and all true worldly fame subsides from their high estimate beyond the stars."

—HENRY DAVID THOREAU

SGT JOHN L. LEVITOW
(1945-2000)

He received the Medal of Honor for his selfless heroism on the night of 24 February 1969 while serving as loadmaster on an AC-47 gunship over Long Binh, South Vietnam. An enemy 82-mm mortar shell landed on top of the gunship's right wing. Exploding inside the wing frame, the blast raked the fuselage with shrapnel severely wounding him and three other crew members in the rear of the aircraft. Weak from loss of blood and with only partial use of his legs, he pulled an unconscious crew member away from the open cargo door and then grabbed a loose, burning flare and threw it overboard seconds before it exploded. **INDUCTED 1998**



MSGT ROY W. HOOE
(1892-1973)

An aviation pioneer of huge historical stature, he served as aircraft mechanic for Billy Mitchell during aerial gunnery and bombing tests in 1921; Charles Lindbergh for the "Spirit of Saint Louis" goodwill mission to Mexico City in 1927; and Carl Spaatz and Ira Eaker on the "Question Mark" record-setting endurance flight in 1929, for which he was awarded the Distinguished Service Cross. During his 30-year aviation career, he also served as crew chief for other aviation heroes, including Lester Maitland, Albert Hagenberger, and Amelia Earhart. **INDUCTED 2001**



GEN CARL A. "TOOEY" SPAATZ
(1891-1974)

World War I fighter pilot, World War II Commander of Air Forces in Europe and the Pacific, first Chief of Staff of the U.S. Air Force in 1947, and air refueling pioneer, he commanded the "Question Mark" - a U.S. Army C-2A Fokker transport aircraft - in its record-setting endurance flight of 150 hours, 40 minutes in January 1929. This mission proved that aerial refueling was safe and practical and earned him the Distinguished Flying Cross. The flight also helped prove that airpower was no longer a barnstorming sideshow but a serious component of national defense. **INDUCTED 2002**



JOHN F. SHEA
(1919-1996)

Serving as Assistant Deputy Chief of Staff for Plans, Headquarters Military Airlift Command (1960-1983), he helped conceive, develop, and bring to fruition numerous airlift enhancement and modernization programs including the C-5 wing modification, the C-141 stretch, and the addition of emergency cargo conversion features to wide-bodied commercial passenger aircraft in the Civil Reserve Air Fleet, additionally, his vision and expertise in air mobility helped shape the National Airlift Expansion Act, which provided the legislative foundations for joint - military and commercial - aircraft development. **INDUCTED 2003**



COL GAIL S. HALVORSEN
(1920)

During the Berlin Airlift, also called Operation VITTLES, he instituted Operation LITTLE VITTLES by dropping small parachutes laden with candy from his C-54 aircraft to the children of Berlin. While motivating Berliners to never give up hope, his self-initiated act of kindness - which earned him the nickname "Candy Bomber" - also became a symbol of U.S. resolve during the Cold War. Receiving in 1949 the prestigious Cheney Award for his actions during the Berlin Airlift, he has continued to serve as a national ambassador of goodwill. For airlifters he epitomizes their humanitarian spirit and continues to inspire us all to serve others. **INDUCTED 1999**



MAJGEN WINSTON P. "WIMPY" WILSON
(1911-1996)

He rose from an aircraft mechanic in the Arkansas National Guard in 1929 to lead the Air National Guard (ANG) from 1953 to 1963 and the National Guard Bureau from 1963 to 1971. By insisting on realistic training for the ANG, according to active duty Air Force standards, and equipping it with modern-day transports, tankers, and fighters, he transformed the Air Guard from a flying club into a prized, combat-ready component of the Air Force. His initiatives led directly to the Defense Department's Total Force policy. **INDUCTED 2000**



"The talent of success is nothing more than doing what you can do well, and doing well whatever you do without thought of fame. If it comes at all it will come because it is deserved, not because it is sought after."

—HENRY WADSWORTH LONGFELLOW

MAJ GEN JAMES I. "BAGGER" BAGINSKI
(1932-2013)

In his 30 years in the Air Force (1954-1984), he served in a variety of leadership roles, from commander, 374th Tactical Airlift Wing to HQ Military Airlift Command Deputy Chief of Staff for Operations and Personnel. He had a direct, pervasive, and long-lasting influence on air mobility, from the C-5 modernization and C-141 stretch programs to enhanced aircraft and aircrew air refueling capabilities. As Director of Mobility, Joint Deployment Agency, he advanced the services' joint transportation planning policy, systems, and procedures. An Airlift/Tanker Association (A/TA) founding member and Board of Advisors Chairman, he helped lead the A/TA in transitioning from a reunion type airlift organization to a professional air mobility association. At his induction into the A/TA Hall of Fame, he had dedicated 50 years service to the air mobility mission. **INDUCTED 2005**



GEN DUANE H. CASSIDY
(1933-2016)

Instrumental in establishing the United States Transportation Command, he was Commander-in-Chief (1987-1989) of the new joint command, while serving as Commander-in-Chief of Military Airlift Command (1985-1989). The first "dual-hatted" Commander-in-Chief for these two commands, transforming the transportation and air mobility mission, culture, and history. Responsible for military airlift and global land, sea, and air transportation for all US fighting forces and also commanded special operations, rescue, weather, and aeromedical evacuation in his role as the executive director of the Single Manager Operating Agency for Department of Defense Airlift. During his 35 years of honorable service, he lent support to a broad spectrum of initiatives that included improved quality of life, aircrew retention, and spearheading the acquisition of the C-17 Globemaster III aircraft. **INDUCTED 2006**



AEROMEDICAL EVACUATION LEGACY TEAM

Aeromedical Evacuation is a core mission of the Air Mobility Command and a major component of its proud heritage. Evacuating injured personnel using fixed and rotary wing aircraft revolutionized the rapid transport of casualties from areas with inadequate or no medical care. The Aeromedical Evacuation Legacy Team exemplifies this vital mission and the total force concept transparent in today's mobility air forces. Lt Gen Paul Carlton, Col Dennis "Bud" Traynor, Col Regina Aune, Col Robert "Bob" Brannon, Col Jay Johannigman, Lt Reba Whittle, CMSgt Rodney Christa and MSgt Mark McElroy epitomize the thousands of AE professionals who continue to give hope to all in harm's way. The vision and dedication exhibited by these individuals advanced performance to a level where "No One Else Comes Close." **INDUCTED 2007**



MAJ GEN ROBERT B. PATTERSON
(1933)

A champion for special operations and realistic combat training, General Patterson played an integral role in shaping Air Force Special Operations. As the first commander of MAC's 23rd Air Force, he transformed the Air Rescue and Recovery Service into a highly skilled special operations force. Through a number of groundbreaking events, he integrated night vision capabilities into combat rescue, took the first C-130s and C-141s to Exercise RED FLAG, and included the first international teams in VOLANT RODEO, the command's airdrop competition. As 21st Air Force commander, he played a key role in Operation URGENT FURY, the rescue of U.S. medical students from Grenada. A visionary leader and aviator, General Patterson made impressive contributions to the advancement of air mobility and special operations. **INDUCTED 2008**



PIONEERS OF AERIAL REFUELING

Two aviation events during the 1920s had a significant impact on air mobility. During June 1923, U.S. Army Air Service aviators flew two DeHavilland DH-4 aircraft on four missions designed to prove the viability of air-to-air refueling. The first mission lasted 6 hours and 38 minutes and transferred 75 gallons of fuel. The third mission involved 14 air refuelings, with the Receiver aircraft staying aloft for 37 hours and 20 minutes. The final flight on October 25 involved an operational mission covering 1,280 miles from Suma, WA to San Diego, CA. The Airlift/Tanker Association proudly honors these aviators for their efforts proving the feasibility of air refueling: Tanker Crew #1: 1 Lt Virgil Hine and 1 Lt (Col) Frank W. Seifert; Tanker Crew #2: Capt Robert G. Erwin and 1 Lt Oliver R. McNeel; Receiver Crew: Capt (Col) Lowell H. Smith and 1 Lt John Paul Richter. **INDUCTED 2009**



PIONEERS OF AERIAL REFUELING

The second significant air refueling event occurred January 1-7, 1929, with the flight of the Question Mark. The Question Mark, a U.S. Army Air Corps Fokker C-2A aircraft and two Douglas C-1 Aircraft took to the skies to prove that aircraft range and endurance was only limited by aircrew endurance. Utilizing both tanker aircraft, the Question Mark completed 43 refueling contacts, unloaded 5,660+ gallons of fuel and stayed aloft 150 hours and 40 minutes. The Airlift/Tanker Association proudly honors these aviators for their efforts proving the feasibility of air refueling: Tanker Crew #1: Capt Ross G. Hoyt, 1 Lt Aubrey C. Strickland, and 2 Lt Irwin A. Woodring. Tanker Crew #2: 1 Lt Odas Moon, 2 Lt Joseph G. Hopkins, and 2 Lt Andrew F. Salter. Question Mark Crew: Major Carl A. Spaatz, Capt Ira C. Eaker, 1 Lt Harry A. Halverson, 2 Lt Elwood R. Quesada and Sgt Roy Hooe. **INDUCTED 2009**



A/TA Hall of Fame Continues >

GENERAL THOMAS M. RYAN, JR.
(1928)

General Tom Ryan was a natural leader known for his integrity, selfless commitment to the mobility mission and his people and their families. During his leadership tours as Vice Commander (1977-81) and then Commander (1983-85) of the Military Airlift Command, General Ryan presided over mobility operations in support of many significant national and international crises and humanitarian and disaster relief efforts. He oversaw the codification of Airlift Doctrine in support of the combatant commands. General Ryan drove the development and publication of the first U.S. Air Force Airlift Master Plan. He was a huge proponent of increasing the role the Air Reserve Component and worked to transfer C-5 and C-141 aircraft to Air Reserve units. A selfless leader and mentor, he was always the first to highlight the accomplishments of his commanders and airmen. His behind-the-scenes leadership and advocacy helped bring about mobility cultural changes that we take for granted today. **INDUCTED 2011**



COLONEL EARL B. YOUNG
(1913-2015)

Col Young's Air Force career spanned the formative years of air mobility. His insight and dedication proved instrumental in establishing the early organization charged with providing airlift support to the nation. As the Air Transport Command (ATC) Chief of Plans, he was directly involved at the end of WWII in the debate over where airlift resources should be managed and maintained. With the establishment of the Department of Defense in 1947, Col Young was responsible for consolidating airlift resources under one organization that he named the Military Air Transport Service. On March 28, 1951, 18th Air Force was established with Col Young as the first commander. Nine medium Troop Carrier Wings and later 2 Heavy Troop Carrier Wings were assigned to 18th Air Force. Col Young's exceptional leadership and vision at a pivotal time for the Air Force made a lasting impact on air mobility. **INDUCTED 2014**



C-17 PATHFINDER LOADMASTERS

The C-17 Pathfinder Loadmasters – CMSgt (Ret) William M. Cannon, CMSgt Marion D. Fincher, CMSgt James Lis, CMSgt Mark A. Smith, MSgt (Ret) Theodore R. Venturini, And CMSgt Michael M. Welch – provided unparalleled leadership and expertise to produce the first cargo transport aircraft specifically designed for one loadmaster operation. Their unique backgrounds were critical to ensuring the one loadmaster aircrew concept became a reality. These loadmasters authored the mission systems volume, supported major C-17 design reviews, participated in the C-X source selection, worked as requirements managers at HQ Military Airlift Command and the system program office, and participated in the flight test program. The efforts of this key group of loadmasters led to revolutionary design improvements on the C-17 Globemaster III and the advancement of America's airlift capability. **INDUCTED 2015**



SERGEANT WILLIAM H. PITSENBARGER
(1944-1966)

Sergeant Pitsenbarger exemplified the highest professional standards and tradition of military service. In 1965, he was assigned as a pararescue crew member to Det 6, 39th Air Rescue and Recovery Squadron, Bien Hoa Air Base, Vietnam. He participated in almost 300 rescue missions. On April 11, 1966, then Airman First Class Pitsenbarger took part in a rescue mission to extract Army casualties pinned down by intense enemy fire. Arriving on scene, he volunteered to be hoisted down from the rescue helicopter to the ground in order to organize and coordinate rescue efforts, care for the wounded, and evacuate casualties. During an enemy assault, he repeatedly exposed himself to enemy fire to care for the wounded. While resisting the enemy attack he was fatally wounded. For his conspicuous gallantry, Airman Pitsenbarger was awarded the Medal of Honor. **INDUCTED 2012**



GENERAL RONALD R. FOGLEMAN
(1942)

As commander, United States Transportation Command and Air Mobility Command, General Ronald R. Fogleman inspired and drove unprecedented organizational transformation that made a lasting impact on global mobility. Recognizing the importance of a strong commercial air and sealift industry, he revitalized and strengthened both of these critical programs. Under his leadership, AMCs Airlift and Air Refueling Forces proved unprecedented support for high visibility contingency and humanitarian actions around the globe. As the 16th Chief of Staff of the Air Force, he was the driving force behind developing the service's core values of integrity first, service before self, and excellence in all we do. General Fogleman's selfless devotion, patriotism and visionary leadership transformed the U.S. Air Force into the premier air and space force of the 21st century. **INDUCTED 2013**



SIR ALAN COBHAM, KBE, AFC
(1894-1973)

Sir Alan was an aviation pioneer and a significant contributor to air mobility through his historic aerial refueling experiments. He earned his pilot wings with the RAF during WWI. Following the war, he became the first aviator to successfully conduct a round-trip flight to India. This experience convinced him of the value of air-to-air refueling. In 1934, Cobham founded Flight Refueling Ltd to develop aerial refueling equipment. By 1939, FRL had perfected the looped hose system that was used to support 16 non-stop transatlantic mail missions. In March 1949, four KC-29M tankers using FRL air refueling equipment supported the first non-stop around the world flight of a B-50 bomber. In May 1952, KB-29 tankers refueled 12 F-84E fighters on the first USAF combat mission to use aerial refueling. Sir Alan's innovative spirit resulted in operational aerial refueling products that fundamentally changed how air power is employed. **INDUCTED 2016**



2017

Airlift/Tanker Association

Awards



The actions of the men, women and/or organizations inducted into the Airlift/Tanker Hall of Fame and those awarded the coveted annual Airlift/Tanker Association Young Leadership Awards, Huyser Aircrew Awards, P.K. Carlton Award for Valor, Halvorsen Award, Specialized Mission Award, Fogleman ASAM Award, Key Spouse of the Year Award, AFRC Outstanding Unit Award and the ANG Outstanding Unit Award all have exemplary records of performance detailing numerous instances of their outstanding proficiency and excellence – far too extensive to fully cover in the pages of A/TQ.

The examples used in each of the following short biographical descriptions serve only to highlight their extraordinary service to the Air Mobility Community, the United States Air Force and Our Nation –



The 2017 Airlift/Tanker Association

Hall of Fame Inductee

The 2017 Inductee into the Airlift/Tanker Association's Hall of Fame led United States Army Air Forces Troop Carrier forces in the Mediterranean and European theaters of operations during World War II. In various command positions during that period, he directed the force buildups, training, doctrine development and planning of the largest airborne drops in history and often led them, or at least significant elements of them, in the face of active enemy resistance. Further, during the North African Campaign, his leadership of the fighter and bomber groups of the 12th Air Force Air Support Command was vital to blocking the Axis breakthrough at the Kasserine Pass. After the war, he served as commander of the 3rd, 9th, 2nd and 10th Air Forces. In the latter two positions he played an early and vital role in organizing the air defenses of the United States in the face of possible Soviet bomber attacks. In all, his dedicated and successful service to his country made him a pioneer of air power in general, and a formative leader whose influence continues to shape the organization, tactics and doctrines of USAF air mobility forces and makes him truly deserving of the prestigious honor of induction in the A/TA Hall of Fame —

Major General Paul L. Williams

BIOGRAPHY

Major General Paul L. Williams was born in Detroit in 1894. When he was a boy, his family moved to Los Angeles, and he graduated from Leland Stanford University at Palo Alto, California, in 1917 with a Bachelor of Arts degree. He was commissioned a second lieutenant in the Infantry Reserve 28 April 1917. The following October he enlisted as an aviation cadet in the Signal Enlisted Reserve Corps, receiving his wings and a second lieutenant's commission in the Aviation Section of the Signal Reserve on 19 February 1918.

In April of that year he was ordered to Carlstrom Air Force Base, Texas, and moved to Gerstner Air Force Base, Louisiana, the following December. In November 1919 he went to Calexico, California, for border patrol duty with the Ninth Aero Squadron, and served with that squadron at Rockwell and Mather Air Force bases in California from December 1919 to December 1920. Meanwhile he received a regular Army commission as a second lieutenant in the Air Service on 1 July 1 and was promoted to first lieutenant the same day.

He became post transportation officer at Mather Air Force Base in January 1921 and in July of that year went to Clark Air Force Base at Camp Stotsenburg Philippine Islands for duty with the Third Pursuit Squadron. In September 1925 he was transferred to Kindley Air Force Base at Fort Mills, Philippine Islands, where he joined the Second Observation Squadron, serving in post and squadron staff duties. Returning to the United States, he became operations officer for the 96th Bombardment Squadron at Langley Air Force Base, Virginia.

He served at the Air Corps Primary Flying School at Brooks Air Force Base, Texas, from June to October 1927 and became a flying instructor at the primary flying school at March Air Force Base, California, where he was appointed director of flying in July 1930.

In October 1931 he was named director of basic flying training at



the primary flying school at Randolph Air Force Base, Texas. He became director of flying training at the Training Center at Randolph Air Force Base in September 1935.

He entered the Air Corps Tactical School at Maxwell Air Force Base, Alabama, in August 1936, and graduated the following June. His next assignment was at Barksdale Air Force Base, Louisiana, as commander of the 90th Attack Squadron of the Third Attack Group. In September 1940 he became operations officer of the Third Bombardment Group at Barksdale Air Force Base, retaining his position when the group moved to Savannah, Georgia, Air Force Base, and assuming command of it in December 1940.

In July 1941 he became commanding officer of the 27th Bombardment Group at Savannah Air Force Base.

In May 1942 he went to England as one of the first members of the Eighth Air Force. There he aided in the preparation of the Eighth's strategic bombardment campaign against German industry, although his principal task became troop carrier work in the Mediterranean and on the Western Front.

In February 1944 he was named commanding general of the Ninth Troop Carrier Command and on D-Day in Normandy he directed an air armada of more than 1,000 C-47s and 900 gliders. In mid-August 1944 he directed the airborne operations preceding the landings in southern France. Returning to England, he led approximately 1,200 planes and gliders to the northern flank of the Siegfried Line in Holland on 17 September 1944, in the initial operation of the First Allied Airborne Army.

In July 1945 General Williams returned to the United States, retaining his position as head of the Ninth Troop Carrier Command, which had been moved to Stout Air Force Base, Indiana.

He went to Greenville, South Carolina, in April 1946 as commanding general of the Third Air Force, and in November of that year,

when the Third was inactivated he assumed command of the Ninth Air Force at Greenville. In August 1947 he took over the Second Air Force, with headquarters at Offutt Air Force Base, Omaha, Nebraska.

The following July, when the Second was absorbed by the 10th Air Force, General Williams became commander of the 10th Air Force, with headquarters at Fort Benjamin Harrison, Indiana. The 10th Air Force is responsible for protection of vital areas in the middle west against attacks from the north, northwest, or west, and is bounded on the west by Wyoming and Colorado, on the east by Michigan and Illinois, and on the south by Kansas said Missouri.

In January 1950 he moved with the 10th Air Force to Selfridge Air Force Base, Michigan. The following April he was transferred to Air Force headquarters in Washington, D.C., for temporary duty as a member of the Air Force Personnel Board.

Among General Williams' military awards are the Distinguished Service Medal, presented for his leadership of troop carrier operations in Normandy and Holland, and the Distinguished Flying Cross, awarded for his work in the North African Invasion. He also holds an oak leaf cluster to the Distinguished Flying Cross, the Legion of Merit, the French Legion of Honor and the title of British Knight Commander of the Bath.

He was a rated a command pilot, combat observer, aircraft observer and technical observer.

LEADERSHIP, JOB PERFORMANCE, AND NOTEWORTHY ACCOMPLISHMENTS

Major General Paul L. Williams, honorably performed more than 33 years of military service, during which he became one of the Air Force's most experienced airborne tacticians. As head of the Ninth Troop Carrier Command during World War II, he was responsible for the airlift for the mass landings in North Africa, Sicily, Italy, Normandy, southern France, Holland and Germany, including transport for the 17th, 82nd and 101st Airborne Divisions. His C-47s also were largely responsible for the air supply of General George Patton's Third Army in its drive across Europe.

World War II

In September 1940, Williams became Operations Officer of the 3rd Bombardment Group (Light), of which the 90th Bombardment Squadron was a part. He became its commander in December 1940, and was promoted to lieutenant colonel. In July 1941, he became commander of the 27th Bombardment Group. He was promoted to

colonel on 5 January 1942. From May to November 1942 Williams was involved with the organization of the Eighth Air Force in the United Kingdom.

North Africa

When the use of paratroops was contemplated for Operation TORCH, Williams was given the task of organizing and commanding the 51st Troop Carrier Wing. The headquarters of the 51st Troop Carrier Wing arrived in Scotland on 1 September 1942 and was assigned to the Eighth Air Force. Williams was given all three of the troop carrier groups in the theater: the 60th Troop Carrier Group, the 62nd Troop Carrier Group and the 64th Troop Carrier Group. None of them had their full complement of 52 C-47 aircraft and many of the personnel of their air and ground crews were fresh out of training schools. Nonetheless, they constituted the entire Allied troop carrier force in the North African Theater of Operations operating in support of US and British airborne operations in North Africa. Williams



Paratroopers of the 503rd US Parachute Infantry Regiment prepare to board a C-47 Skytrain of the 60th Troop Carrier Group at RAF Aldermaston, Berkshire, England on 23 September 1942 in preparation to participate in Operation TORCH, a British/U.S. invasion of French North Africa during the North African Campaign of World War II, which started on 8 November 1942. In anticipation of the operation, then Colonel Williams was given the task of organizing and commanding the 51st Troop Carrier Wing which included the 60th, 62nd and 6th Troop Carrier Groups. (USAAF Photo).

reached North Africa by air on 15 November 1942. On 28 November Williams personally led forty-four aircraft of the 62nd and 64th Troop Carrier Groups carrying 530 paratroops of the British 2nd Parachute Battalion. The battalion commander, Lieutenant Colonel John Dutton Frost rode with Williams in the lead aircraft. Williams picked his landmarks carefully and successfully navigated his way to Depienne Airfield, dropping the paratroops nearby. All his aircraft returned safely. Frost and his paratroops were not so lucky; half of them were killed or captured fighting their way back to Allied line.

On 21 January 1943, Williams became head of XII Air Support Command, the ground support aircraft operating in support of II Corps on the Tunisian front. Nominally the XII Air Support Command had a strength of 52 P-40s, 23 P-39s, 27 A-20s and eight DB-7s. Williams' assumption of command coincided with an increase in German activity. Reacting to a concentration of German

armor around Faïd, Williams' aircraft bombed and strafed it all day on 26 January, claiming twelve German tanks destroyed. However, German opposition was increasing in the air as well. On 2 February, six P-40s and four P-39s encountered twenty to thirty Stukas escorted by eight to ten Me 109s. A Stuka was shot down; but so were five P-40s. His most experienced group, the 33d Fighter Group took so many losses that it had to be withdrawn to Morocco to rebuild. Then reverses suffered by the ground forces in the Battle of the Kasserine Pass forced Williams to evacuate his forward airfields around Thelepte. Eighteen aircraft, of which five were irreparable, were de-

stroyed to prevent their capture. On 22 and 23 February, Williams attempted to launch an all-out attack on German forces withdrawing through Kasserine Pass, but the weather hampered his efforts.

Sicily

Williams was promoted to brigadier general on 18 March 1943. After four hectic months with the XII Air Support Command, Williams returned to troop carriers as commander of the Northwest African Air Force Troop Carrier Command (Provisional). This had been created on 21 March 1943 to handle the airborne phase of Operation HUSKY, the Allied invasion of Sicily. In addition to the 51st Troop Carrier Wing, the Troop Carrier Command included the 52nd Troop Carrier Wing and No. 38 Wing, RAF. Getting this force ready for action was a major challenge. The 51st was assigned to work with the British and the 52nd with the Americans because the 51st had prior experience working with the British in North Africa, and its aircraft had been modified to work with British troops. However the British plan called for a glider infantry mission and the 51st had no experience with gliders, whereas the 52nd had conducted training with gliders before leaving the United States, but was committed to a parachute mission. Gliders were delivered disassembled and a major effort was required to assemble the required number of gliders. In the meantime, valuable training time was lost.

Williams had not been involved with experiments that had been carried out by troop carriers over the previous months and was therefore not up to speed on the latest pathfinder equipment and tactics, which were neglected during the planning phase of HUSKY. Moreover, the route chosen for the 52nd Troop Carrier Wing's operation was particularly difficult, involving three sharp turns over water in dim moonlight. Williams was unable to secure the necessary agreement from the naval commander, Vice Admiral Henry Kent Hewitt for a straighter route. Nor was he able to persuade the Twelfth Air Force to provide a fighter escort for his troop carriers or to fly searchlight neutralization missions, although the RAF agreed to fly some missions against searchlights. On 21 May, Williams moved his headquarters from Casablanca to Oujda in order to observe the progress of training of the 52nd Troop Carrier Wing and the 82nd Airborne Division. At least one of his group commanders felt that Williams was over-optimistic about the proficiency of his crews.

The British glider operation, codenamed Operation LADBROKE on the night of 9/10 July 1943 was poorly executed. The aircrew of the 51st Troop Carrier Wing had difficulty with navigation and formation flying at night. The aircraft were buffeted by high winds, subjected to flak which caused some aircraft to veer off course, and encountered poor visibility. No aircraft were lost but only 12 of the 133 gliders reached the landing zone, while 47 came down in the sea. The simultaneous American operation, which involved 226 C-47s of the 52nd Troop Carrier Wing carrying 2,781 paratroops, encountered similar problems, resulting in the drop being widely scattered. Less than one-sixth of the paratroops landing on or near the intended drop zone. The 82nd Airborne Division's commander, Major General Matthew Ridgway, felt that the operation had "demonstrated beyond any doubt that the Air Force...cannot at present put parachute units, even as large as a battalion within effective attack distance of a chosen drop zone at night."

The HUSKY mission on 11 July was far less successful. The 144 C-47s of the 52nd Troop Carrier Wing that took part had to fly at night over the front line. Moreover, Allied naval vessels had not been cleared from the approach corridor. The troop carriers came under heavy flak from friend and foe alike. Some 23 aircraft were lost and half of those that did return suffered damage. The paratroops of the 504th Parachute Infantry were widely scattered and suffered heavy casualties. A mission codenamed Operation FUSTIAN, flown on 13 July in support of the British, cost 11 C-47s destroyed and 50 damaged out of 124 participating. After the costly failures in Sicily, Lieutenant General Lesley J. McNair, the commander of Army Ground

Forces, was prepared to break up the airborne divisions, but Williams retained his faith in the possibilities of airborne operations.

Italy

Because no British airborne operations were contemplated for the Allied Invasion of Italy, Williams directed both the 51st and 52nd Troop Carrier Wings to train with the 82nd Airborne Division. Taking the lessons of Sicily to heart, "pathfinders" were created. These were aircrew with the best available navigators carrying specially trained paratroops equipped with navigational aids. These included the British Rebecca/Eureka transponding radar and flashing Krypton lamps. The pathfinders' role was to locate and mark the drop zones for other airborne units. Pathfinder training was conducted in Tunisia and encouraging results led to Williams' decision to employ Eureka in upcoming operations.

The Troop Carrier Command moved from Tunisia to Sicily in early September and Williams opened his headquarters at Licata. Two airborne operations were planned. GIANT I was an airborne assault on the Volturno River crossing. It was cancelled as the risks to both paratroops and aircraft were considered too great. GIANT II was an airborne assault on the Rome area. Williams planned parachute drops on airfields at Poligono di Furbara and Cerveteri, northwest of the city. It too was cancelled amid doubts as to whether the Italian Rome garrison could hold the area. However, in response to the deteriorating situation in the Battle of Salerno, Lieutenant General Mark Clark called for an emergency mission to bring the 82nd Airborne Division. The 51st and 52nd Troop Carrier Wings were given only hours to prepare but Williams was able to improvise by using the plans for GIANT I. This time extraordinary measures were taken to silence Allied anti-aircraft guns afloat and ashore. Three pathfinder aircraft led the way, dropping fifty paratroops equipped with Rebecca/Eureka and Krypton lamps precisely on the drop zone behind Allied lines. Most of the paratroops landed within 200 yards (180 m) of the drop zone, and no troops or aircraft were lost. A second drop the following night was just as successful. This encouraged Allied commanders to attempt a battalion-sized drop behind enemy lines at Avellino the night after but the hilly terrain made it difficult for the pathfinders' Aldis lamps and radio transmitters and the drop was scattered.

Normandy

Planning for Operation OVERLORD, the invasion of Normandy, had begun years before and had included the prospect of airborne operations. To control them, Major General Lewis H. Brereton's Ninth Air Force activated the IX Troop Carrier Command in October 1943 under Brigadier General Benjamin F. Giles. However, even before Giles assumed command, it was understood that Williams would be in charge of the operations. He took over on 25 February 1944, bringing with him a number of experienced officers from the Mediterranean. When Giles assumed command, IX Troop Carrier Command consisted of the 50th Troop Carrier Wing, with the 315th and 434th Troop Carrier Groups. The 53rd Troop Carrier Wing arrived from the United States in February followed by the 52nd Troop Carrier Wing from Sicily in March. This brought the IX Troop Carrier Command's strength to three wings with fourteen groups. By the end of May, it had 1,116 crews and 1,207 operational aircraft. In addition, it had 1,118 operational Waco and 301 operational Horsa gliders.

Williams paired the 52nd Troop carrier Wing with the 82nd Airborne Division and the 53rd Troop Carrier Wing with the 101st Airborne Division. With so many inexperienced units and personnel, the IX Troop Carrier Command embarked on an intensive training regime as a matter of urgency. A Command Pathfinder School opened at Cottesmore on 26 February and one of Williams' first appointments was Lieutenant Colonel Joel L. Crouch as its commandant. A major command exercise called EAGLE was conducted on

the night of 11 May. Except for some serious failures by the very inexperienced 315th and 442nd Troop Carrier Groups, the exercise went very well. Even Air Chief Marshal Sir Trafford Leigh-Mallory, the commander of the Allied Expeditionary Air Force, seemed impressed, although he later warned General Dwight Eisenhower that the American airborne operation was a potential disaster in the making. For Williams, who had already predicted that, barring pathfinder failure or heavy flak, over 90% of the paratroops would land in their correct drop zones in Normandy, the exercise affirmed his opinion. During the final days before the operation, Williams visited his groups, giving pep talks.

On D-Day and D+1, IX Troop Carrier Command flew 1,606 aircraft and 512 glider sorties. Losses of 41 aircraft and 9 gliders were lighter than expected, and Leigh-Mallory was quick to admit that he had been wrong. However, the drop was still scattered. Clouds and flak broke up the formations and fog made identification of the drop zones difficult, and in some areas the enemy prevented the pathfinders from marking the drop zones correctly. In all, some 13,348 paratroops had been embarked for Normandy, of whom 90 were brought back for various reasons and 18 were in a plane that ditched before reaching Normandy. Perhaps as many as 140 were killed when their planes were shot down. Of the rest, about 10% landed on the drop zone, 25-30% within a 1 mile (1.6 km) of their beacon, and 15-20% within 2 miles (3.2 km).

Southern France

The next major operation was Operation DRAGOON, the invasion of southern France. The Mediterranean theatre's troop carrying aircraft had been drawn down by the requirements of OVERLORD, and the XII Troop Carrier Command (Provisional) had been disbanded. All that remained was the 51st Troop Carrier Wing, albeit at full strength following the return of a detachment from China Burma India Theater. General Eisenhower agreed to send the 50th Troop Carrier Wing and 53rd Troop Carrier Wing with a total of 416 aircraft. In addition, 12 pathfinder planes were sent, bringing with them radar and visual aids, and pathfinder teams from the 82nd and 101st Airborne Divisions. The planes flew from the United Kingdom to Italy via Gibraltar or Marrakech and moved to recently captured airfields in the Rome area. They brought with them 225 glider pilots. To provide co-pilots for the gliders, another 375 despatched by the Air Transport Command. Only about 140 gliders were on hand, but the US War Department agreed to ship another 350 on the next convoy. They had to be given special priority in order to clear the congested port of Naples, but by 9 August, 327 gliders had been delivered and assembled.

Williams was sent from the European Theater of Operations with a hand picked staff of 20 officers and 19 enlisted men from the IX Troop Carrier Command to command this force. His headquarters became the Provisional Troop Carrier Air Division on 16 July. Williams and Brigadier General Robert T. Frederick, the commander of the 1st Airborne Task Force, began to jointly plan the operation, code-

named Operation RUGBY, on 13 July. Williams was convinced that a daylight operation conferred a number of advantages. The transport aircraft would have the cover of darkness as they approached the drop zones, as well as surprise, and the airborne troops would be able to begin their assaults before the amphibious landings took place; they would also drop sufficiently late that the Germans would not have enough time to prepare to counter the beach landings. Having the remainder of the 1st Airborne Task Force land by glider in the afternoon would give aircraft crews a rest after the initial drops, and would also give the airborne troops time to clear the landing zones for the gliders.

To ensure that there was no repetition of the sorry experience during Operation HUSKY, safety corridors were established in which all anti-aircraft fire was prohibited and advance notice of aircraft passing overhead was sent to all anti-aircraft positions, both afloat and ashore. Three beacon vessels were provided to highlight where the aircraft would need to turn towards their destinations. The transports

were protected during their journey by fighter cover provided by the Desert Air Force and the XII Tactical Air Command. In all, the Provisional Troop Carrier Air Division flew 444 paratroop, 372 Waco and 36 Horsa sorties, delivering 6,488 paratroops and 2,611 glider troops. Thanks to the daylight and use of navigational aids, 50% of the paratroops and over 90% of the glider troops landed on or near their drop zone. Flak was minimal but fog still caused problems. General Frederick, whose troops took most of its objectives, considered that it had been "a wonderful operation."

The Netherlands

Williams was promoted to Major general on 26 Au-

gust, shortly after returning to the European Theater to resume command of the IX Troop Carrier Command. While he had been away, operational control of IX Troop Carrier Command had been transferred from the Allied Expeditionary Air Force to the First Allied Airborne Army, a newly formed formation under Brereton's command. On 10 September Brereton held a conference with his troop carrier and airborne commanders and their staffs at his headquarters at Sunnyhill Park, near Ascot, Berkshire, where they were briefed on Operation MARKET, an airborne operation to seize a series of bridges in the Netherlands to enable the 21st Army Group to cross the Rhine River. At the conference Williams was given operational control of the Nos 38 and 46 Groups RAF, which he would exercise from his command post at Eastcote.

Brereton ordered MARKET to be flown in daylight. The conference allocated directives to the three airborne divisions, giving the southernmost objectives to the 101st Airborne Division so that the flight paths of aircraft bringing it from its bases in southern England would not cross those bringing the 82nd Airborne Division from the Grantham area. Another fateful decision taken at the conference was to only have C-47s tow a single glider. Double-towing gliders was difficult and dangerous, but single-towing meant stretching the glider lift out over four days. The next day, Williams held a conference with



U.S. Army Pathfinders and USAAF flight crew prior to D-Day, June 1944, in front of a C-47 Skytrain at RAF North Witham in Lincolnshire, England. In charge of operations for IX Troop Carrier Command on D-Day in Normandy, Williams directed an air armada of more than 1,000 C-47s and 900 gliders. (USAAF Photo).

his wing and group commanders. Two routes were considered, a northern one that ran across the occupied Netherlands, and a southern route that approached through Belgium. The northern route was shorter and simpler but the southern was safer.

In the end Williams decided to use both, with the British 1st Airborne Division and the 82nd Airborne Division taking the northern route and the 101st Airborne Division using the southern one. Once again, the 52nd Troop Carrier Wing would work with the 82nd Airborne Division while the 53rd Troop Carrier Wing worked with the 101st Airborne Division.

The gamble to carry out the operation in daylight proved successful. Daylight not only helped the aircraft to navigate better, but also greatly reduced the time required for units to assemble on the drop zones. This was achieved with over 5,200 sorties by fighters and bombers devoted to warding off the Luftwaffe and suppressing German flak batteries. However, it did not eliminate the need for pathfinders. The recovery rate for airdropped supplies also improved but was still poor. The 101st Airborne Division retrieved less than 50% of its supplies, while the 82nd Airborne Division, greatly aided by Dutch civilians, still managed less than 70%. The beleaguered British 1st Airborne Division retrieved less than 15% of its supplies. Major General James M. Gavin of the 82nd Airborne Division estimated that collecting all of the airdropped supplies would have required a third of his men. Nothing like that was available in battle. In all, IX Tactical Air Command flew 4,242 aircraft and 1,899 glider sorties, losing 98 aircraft and 137 gliders. Nos 38 and 46 Groups RAF flew 1,340 aircraft and 627 glider sorties, losing 55 aircraft and two gliders.

Germany

Operation VARSITY was another airborne operation to assist the crossing of the Rhine by the British 21st Army Group. Starting at 0709 on 24 March 1945, transport aircraft carrying the 14,365 troops of the British 6th Airborne Division and the US 17th Airborne Division Varsity took off from airbases in England and France and rendezvoused over Brussels, before turning northeast for the Rhineland dropping zones. The airlift consisted of 540 transport aircraft containing paratroops, and a further 1,050 troop-carriers towing 1,350 gliders. The 17th Airborne Division consisted of 9,387 personnel, who were transported in 836 C-47 transports, 72 C-46 Commando transports, and more than 900 Waco gliders. The 6th Airborne Division consisted of 7,220 personnel transported by 42 Douglas C-54 and 752 C-47 Dakota transport aircraft, as well as 420 Horsa and Hamilcar gliders. This immense armada, which stretched for more than 200 miles (322 km) across the sky and took over two and a half hours to pass any given point, was protected by 1,253 Ninth Air Force and 900 RAF Second Tactical Air Force fighters.

Williams now had routeing, scheduling and tactics down to a fine art. Not one pilot failed to follow the simple, well marked course correctly. In some areas smoke obscured the visual aids but the Eureka beacons worked faultlessly. The major innovation was the use of double-tow, whereby a C-47 towed two gliders instead of one, thereby increasing the glider lift by 50%. The IX Troop Carrier

Command had practiced the technique over the previous months and found it not as difficult as had been feared. The problem of the reduced range of a C-47 towing two gliders was eliminated by using bases in the Paris area instead of in England. The combination of the two divisions in one lift made this the largest single day airborne drop in history. General Brereton rated Operation VARSITY a "tremendous success." But the cost was not light: seven British and 46 American aircraft were lost. The flammability of the C-46 caused an unacceptable loss rate of 28%. Williams returned to the United States in July 1945. He remained in command of the IX Troop Carrier Command, which moved to Stout Air Force Base, Indiana.



Major General Paul Williams, commander of IX Troop Carrier Command, presents the Legion of Merit to several officers under his command at IX TCC Headquarters, Grantham Lodge, Lincolnshire, England. (USAAF Photo).

Post-War

Williams became commanding general of the Third Air Force, a troop carrier air force, based at Greenville, South Carolina in April 1946. The Third Air Force was inactivated in November 1946 and Williams then assumed command of the Ninth Air Force at Greenville. In August 1947 he became commanding general of the Second Air Force, with its headquarters at Offutt Air Force Base, Omaha, Nebraska. In July 1948, the Second Air Force was absorbed by the Tenth Air Force, and Williams became its commander. Based at Fort Benjamin Harrison near Indianapolis, Indiana, the Tenth Air Force was responsible for protection of the mid west against attacks from the north and west. In January 1950 its headquarters moved to Selfridge Air Force Base, Michigan. In April 1950 Williams was transferred to Air Force Headquarters, for temporary duty as a member of the Air Force Personnel Board. He retired on 30 April 1950 as a major general.

SIGNIFICANT CONTRIBUTIONS TO THE ADVANCEMENT OF AIR MOBILITY

General Williams supervised many early innovations and advances in the roles and operations of airlift forces, including;

- Development of seminal tactical procedures, such as formation operations, weather penetration tactics, enroute navigation and control, and the use of electronic and visual navigation aids to improve airdrop accuracies.
- Integration of airdrop and glider assault operations into U.S. airborne operations.
- Organization, training, and equipage of glider pilots to conduct rear area security operations as light infantry companies after landing in airborne battle zones.
- Joint and combined planning and coordination doctrines and procedures to improve the efficiency, reliability, and safety of large Troop Carrier formations.
- Development of the Combined Air Transport Operations Room to control all U.S. and British air transport operations within the European Theater of Operations. This organization greatly improved the efficiency and productivity of air transport operations, reduced productivity losses during the preparation and execution phases of large airborne operations, and set the pattern for all future U.S. theater airlift organizations.

SIGNIFICANT CHANGES TO THE AIR MOBILITY MISSION, CULTURE, AND HISTORY

In short, General Williams played a key role, if not the key role, in inventing theater airlift as a combat element of the Air Force. He was responsible for all Troop Carrier activities in Europe and, as a consequence, he and his personnel shaped the indoctrination, training, and organization of personnel and organizations by I Troop Carrier Command in the United States. Certainly, the Pacific Theater also saw the full scope of Troop Carrier combat and logistical operations, but at nothing near their scale in Europe. Of particular consequence, Williams worked to instill a combat ethos and sense of community among the personnel serving under him, and to establish a close association between the Troop Carrier community and the airborne divisions it supported. Today, when airlift personnel take pride in their values and contribution to the nation's defense, they are doing so at the end of a 75-year line of cultural development kick started by Paul Williams.

WHY NOMINEE IS DESERVING OF INDUCTION

Paul Williams was a pioneer and all-around airpower leader. He served successfully in a wide range of assignments with distinction, while leading or commanding all types of air combat missions.

His early career was varied, successful, and pioneering. He volunteered for service at the very start of the First World War and was selected for pilot training shortly after. Trained too late to see overseas service, he nevertheless was one of the select few pilots retained by the Army Air Service after the war. During the interwar period, General Williams served in virtually every type of flying unit, including observation, training, pursuit, attack, and bombers. On the eve of the Second World War, he was commander of the 27th Bombardment Group at Savannah, Georgia.

Now a colonel, Williams went to Britain to plan and lead bomber operations, but soon found himself in charge of organizing and leading the theater's growing Troop Carrier force. He planned the employment of air transport squadrons in support of Operation TORCH, the invasion of North Africa on November 8, 1942. Immediately after the initial invasion, Williams received command of the 51st Troop Carrier Wing with oversight of all Troop Carrier forces in that theater.

North Africa was Colonel Williams' proving ground, and he excelled. In addition to getting his forces organized and properly supplied under chaotic circumstances, he personally led a lighting series of successful Troop Carrier missions dropping paratroops to capture forward airfields before Axis forces got to them. Despite the newness of the Troop Carrier concept, these missions were notable for the integrity of their formations, precise navigation, and the accuracy of their drops. Faced by serious organizational and leadership problems within its air-ground support forces, the 12th Air Force tapped Colonel Williams to get the 12th Air Support Command back on track. In his book, *Winged Victory: The Army Air Forces in World War II* (p. 190), Geoffrey Perret records that Williams "believed wholeheartedly in ground support," and established close rapport with the senior Army field commanders, who his fighter and bomber squadrons supported. Then, after only three weeks in command, Williams' creative and aggressive leadership during the Battle of Kasserine Pass allowed 12th ASC units to make fighting withdrawals from their forward air bases and play a vital role in bottling up the Axis offensive. The immediate crisis having passed, now Brigadier General Williams left the 12th ASC and took command of the Northwest African Air Forces Troop Carrier Command and began preparing for the airborne portion of Operation HUSKY, the invasion of Sicily.

Husky airborne operations were the real baptism of fire for General Williams and U.S. airborne forces in Europe. High enroute winds, nighttime navigation challenges, friendly fire from un-briefed allied

ships, and inadequate aircrew training all undermined the accuracy and initial effectiveness of the drops. But Troop Carrier crews pushed on to deliver most of their troops within the general battle zone and those troops were able to sow confusion and even local defeats on Axis forces. Out of this experience, General Williams led his staff and tactical units through systematic doctrinal study and tactical developments that greatly improved Troop Carrier capabilities and performance for later missions in northern Europe. These developments included greater use of drop zone pathfinder teams, electronic navigation aids, and better training in day and night formation flying.

Following his return to England as commander of the 9th Air Force Troop Carrier Command in early 1944, British and American theater transport forces became a reliable mainstay of the operations and logistics of the Anglo-American advance from Normandy into Germany. During that campaign, U.S. and British air transports conducted four major airborne invasions in Normandy, Southern France, Holland, and across the Rhine. General Williams flew in all of these operations. The penultimate airborne operation was VARSITY, the airborne attack across the Rhine in March, 1945 by the British 1st and the U.S. 17th Airborne Divisions. To put down 16,000 soldiers and their equipment literally in the midst of defending Wehrmacht troops, General Williams directed an operation involving some 1600 transport aircraft, 1,348 gliders, and supply drops by several groups of B-24s. The resulting air armada was over 250 miles long and took over two-and-one-half hours to pass a given point. Conducted in daylight and supported by electronic navigation systems, the Troop Carriers pressed through poor visibility from battlefield smoke and haze to place almost all troops exactly on or very near their drop zones. Additionally, as a result of Williams' initiatives, over 2,000 glider pilots came together as light infantry companies to man road-blocks, direct traffic, guard prisoners, and otherwise free trained infantry to carry on the assault. In the so-called "Battle of Burp Gun Corner" a group of these officer-infantrymen drove off a German counterattack and destroyed two tanks in the process.

The spectacular airborne operations of the European campaign should not obscure the successful efforts of General Williams and the personnel under his command to develop and exploit Troop Carrier's inherent capability to provide logistical support to many users. Indeed the great majority of Troop Carrier sorties were logistical in nature, moving vital supplies, personnel, prisoners of war, the sick and injured, and other vital materiel around the theater. As an indication of the scale of these operations, British and American transports were lifting over 2,000 tons of cargo per day from rearward depots into forward battle areas in the latter days of the war. During the Battle of the Bulge emergency, Troop Carrier units shifted 13,400 soldiers and over 2,000 tons of combat supplies of the 17th Airborne Division from England to forward locations in France in a period of four days. They did all this while also conducting supply drops to ground units cut off by the German surprise attack and supporting many other smaller-scale but still vital missions. To achieve this high rate of productivity, General Williams oversaw several operational innovations; including establishment of a centralized, theater-level Combined Air Transport Operations Room to allocate lift and sorties among users and flying units, and conducting routine air transport missions as tactical operations to minimize the loss of productive lift to routine training.

Following the war General Williams remained the principal Troop Carrier leader in the Air Force as commander of the 3rd and 9th air forces from 1945 into 1947. He then shifted to direction of air defense forces as commander of the 2nd and 10th Air Forces. In those latter positions he directed the organization and early operations of forces engaged in the air defense of the central United States. Following a brief assignment to the Air Force Personnel Board, General Williams retired from the Air Force in January 1950. He died on 3 March 1968. ■



Young Leadership Awards

The Airlift/Tanker Association Young Leadership Award is presented annually to twelve individuals who have displayed performance excellence, outstanding professional skill, knowledge and leadership in fulfillment of their duties.

Captain Mark R. Amos



Captain Mark R. Amos is currently assigned to the Directorate of Strategic Plans, Requirements, and Programs, Headquarters Air Mobility Command. Captain Amos was born in Indianapolis, Indiana and graduated from Perry Meridian High School as the valedictorian of his class. He then entered the Virginia Tech Corps of Cadets where he rose to serve as the Third Battalion Cadet Commander. Captain Amos graduated summa cum laude from Virginia Tech with a Bachelor of Science

in Electrical Engineering and a minor in Leadership. He received his commission in the United States Air Force as a Distinguished Graduate of the Reserve Officer Training Corps program at Detachment 875.

Upon entering the Air Force, Captain Amos married his high school sweetheart, Melissa, moved to Oklahoma, and attended Joint Specialized Undergraduate Pilot Training at Vance Air Force Base. He earned his wings as a Distinguished Graduate in 2009 and was assigned to fly KC-10s at Joint Base McGuire-Dix-Lakehurst, New Jersey. Captain Amos was a Distinguished Graduate of KC-10 initial qualification and aircraft commander upgrade courses and later served as a KC-10 instructor pilot. During his tenure in the 305th Air Mobility Wing, he deployed and provided aerial refueling in support of Operations ENDURING FREEDOM, NEW DAWN and INHERENT RESOLVE. In 2012 Captain Amos earned a Master of Business Administration from Columbia Southern University, and in 2013 he completed Squadron Officer School as a Distinguished Graduate. While stationed in New Jersey, he and Melissa welcomed three girls, Rebecca, Hannah, and Lydia, into their family.

In 2015, while serving as a wing executive officer, Captain Amos was selected for the initial class of Air Mobility Command's elite leadership development program, PHOENIX TORCH.

He and his family moved to Scott Air Force Base, Illinois, where he was assigned to the Directorate of Operations. Captain Amos served as both the Command Readiness and Platform Requirements Branch Chiefs and was responsible for communicating Air Mobility Command's readiness to Headquarters Air Force and Combatant Commands. In 2016, he moved to the Directorate of Strategic Plans, Requirements, and Programs, where he currently serves as the Chief of KC-46 Requirements. In this role, Captain Amos serves as the focal point for Air Mobility Command's #1 acquisition priority.

*"Lead me, follow me,
or get out of my way."*

—GENERAL GEORGE PATTON

Captain Remington R. Barnes



Captain Remington Barnes is a KC-135R/T Evaluator Pilot assigned to the 100th Operations Group, RAF Mildenhall, England. He is 31 years old and was born in Dallas, Oregon on 8 December 1985.

He attended Dallas High School, where he excelled across the full spectrum of school activities. Captain Barnes was the Student Body President and Captain of the soccer team, as well as a National Honor Society member. He graduated from high

school in 2004.

Captain Barnes attended the United States Air Force Academy and earned a Bachelor's of Science degree in Systems Engineering Management. At USAFA, he held multiple leadership positions including as a member of the Class Council, and the first-ever Wing Character Officer, in charge of the Cadet Character Development programs. He graduated and earned his Air Force commission in 2008.

Captain Barnes entered active duty later that year and completed the Air and Space Basic Course at Maxwell Air Force Base as an "Exceptional Performer." He then attended Specialized Undergraduate Pilot Training at Laughlin Air Force Base. Captain Barnes was the Distinguished Graduate from his pilot training class and earned several other accolades including the AETC Commander's Trophy and Flying Training Award.

From pilot training, Captain Barnes attended formal training for the KC-135 at Altus AFB where he was deemed "Exceptionally Qualified" on his initial qualification checkride. Following training, Captain Barnes reported to his first operational unit in 2010 at Fairchild Air Force Base in Spokane, Washington. He has since deployed eleven times in support of Operations ENDURING FREEDOM, INHERENT RESOLVE, and JUNIPER MICRON. He has flown over 180 combat and combat support missions, forward deployed to Afghanistan, and pioneered the polar overflight routing between Fairchild Air Force Base and Kyrgyzstan in 2011.

Captain Barnes completed Squadron Officer School at Maxwell Air Force Base and earned Distinguished Graduate. At home-station, Captain Barnes has served as an Executive Officer at the squadron and group levels, been a Flight Commander multiple times, and is currently working as an Operations Group Chief Pilot. He completed his Master's Degree in Organizational Leadership from Gonzaga University with a 4.0 grade point average in 2013. Captain Barnes currently resides in Cambridge, England with his wife, Ashly.

Staff Sergeant Dakota M. Boughton



Staff Sergeant Dakota M. Boughton is an Aerospace Maintenance Craftsman filling the Quality Assurance Inspector position for the 23rd Maintenance Group at Moody Air Force Base, Georgia. Sergeant Boughton was born in Milton, Florida, on 10 August 1991. He graduated from Jay High School in May 2010 and enlisted in the Air Force the following September. Upon completion of Basic Military Training at Lackland AFB, Texas, Sergeant Boughton began technical training as an Aerospace Maintenance Technician at Sheppard AFB, Texas.

After graduation, he was assigned to Moody AFB, Georgia and has worked on the HC-130P and HC-130J airframes. He progressed from an A1C to an NCO during his time there. Sergeant Boughton has been deployed to Bastion Air Base, Afghanistan in support of Operation ENDURING FREEDOM and to Djibouti, Africa in support of Operation INHERENT RESOLVE. While there, he has held various positions while at Moody, such as Assistant Dedicated Crew Chief, Dedicated Crew Chief, Primary Data Integrity Monitor, Physical Training Leader, Flying Crew Chief, Flying Crew Chief Monitor and Quality Assurance Inspector.

During his 7 year career, Sergeant Boughton's many awards include the NATO Medal for ISAF, Global War on Terrorism Service Medal, Afghanistan Campaign Medal, Air Force Good Conduct Medal with one oak leaf cluster, Air Force Outstanding Unit Award, Meritorious Unit Award with one oak leaf cluster, and the Air Force Achievement Medal with one oak leaf cluster. He has also won Maintenance Professional and Airman of the Year along with numerous quarterly and monthly awards. He has completed his CCAF and is currently working on his Bachelor's Degree in Engineering Management. Sergeant Boughton is married to the former Krista Ann Watson of Chumuckla, Florida. They have two children, Wyatt Warren Boughton and Weston Eli Boughton.

*"So nigh is Grandeur
to our dust,
so near is God to man,
when Duty whispers low,
'thou must,' the youth replies,
'I can.'"*

—RALPH WALDO EMERSON

*"If your actions inspire others to
dream more, learn more, do more and
become more, you are a leader."*

—JOHN QUINCY ADAMS

Captain Teresa May Crampton



Captain Teresa May Crampton is the Passenger Services Flight Commander, 721 Aerial Port Squadron, Ramstein Air Base, Germany. She was born at Andrews Air Force Base on 14 November 1986 and attended high school at North Kitsap High School in Washington. While in high school Capt Crampton was very active in 4-H, leading several clubs; she was also a district level swimmer, swim instructor, athletic trainer and Senior Class Vice-President. After gradu-

ating from high school in June of 2005, Capt Crampton attended Washington State University, where she was a lifeguard, fitness instructor, and Honor Guard lead while completing her Bachelors of Science in Kinesiology.

Capt Crampton entered the Air Force after commissioning from the Reserve Officer Training Corps in December of 2009. Her first duty station was Fairchild Air Force Base where she served as both the Materiel and Vehicle Management Flight Commander and the Mission Support Group Executive Officer. Capt Crampton's next assignment was to the Logistics Readiness Squadron at Kadena Air Base where she served as the Fuels Management Flight Commander, Deployment and Distribution Flight Commander, and the Installation Deployment Officer. She has also deployed in support of Operation ENDURING FREEDOM. She is married to Captain Zachary Crampton, a Logistics Readiness Officer assigned to United States Air Forces in Europe A4 and is an active member of the Kaiserslautern Military Community 5K Runners Club, Ramstein Logistics Officer Association Barbarossa Chapter and Lean In Circle Ramstein.

Currently, Captain Crampton oversees the Department of Defense's largest passenger terminal leading 104 military, 9 US and Local National civilians in expediting 245,000 passengers annually. Her role includes managing a 115,000 square foot facility valued over \$55 million and a specialized fleet of 44 vehicles valued at \$6.4 million. In addition, she implements AMC's policies and procedures for processing originating, terminating and transiting passengers and baggage. Furthermore, Captain Crampton coordinates passenger airlift requirements with nine major commands for movement across four continents and outlines terminal safety and security precautions.

Captain Crampton was selected as the CGO of the 1st Quarter 2013 for Team Kadena/18th Fighter Wing, 18th Mission Support Group CGO of the Year 2013 and as the 721st Aerial Port Squadron Lance P. Sijan Award 2016. She is also a recipient of the Bronze Star and Air Force Commendation Medal.

Young Leadership Awards continue >>>

Technical Sergeant Chantal I. Gabaldon



Technical Sergeant Chantal I. Gabaldon hails from Flagstaff, Arizona and started her Air Force career in 2004 as a Diet Therapy Technician at Travis AFB, California. In 2008, she was selected to cross-train as a Special Air Missions Flight Attendant. She was reassigned to the 99th Airlift Squadron at Joint Base Andrews, Maryland.

Sergeant Gabaldon's educational endeavors include: 2009 Airman Leadership School; 2015 AA, Aviation Operations, Community College of the Air Force; 2015 BA, Psychology, Ashford University; 2015 Non-Commissioned Officer Academy (DL); and, 2016 AA, Instructor-in-Tech, Community College of the Air Force.

Sergeant Gabaldon was qualified on the C-20B and C-37A/B aircraft; she also served as a Flight Attendant Instructor and the program manager for the Vice President and First Lady Flight Attendant Flying Operations. Sergeant Gabaldon accumulated 1,900 flying hours and deployed once in support of the Global War on Terrorism. In 2016, Sergeant Gabaldon was selected to become an Aircrew Instructor at Joint Base San Antonio-Lackland, Texas. Since her assignment to the 344th Training Squadron, she has accumulated 600 hours of classroom instruction. Sergeant Gabaldon completed her Bachelor of Arts degree in Psychology in 2015 and was recently accepted into a local Master of Science program in Organizational Development and Leadership.

Sergeant Gabaldon's prior awards and achievements include: 2010 Noncommissioned Officer of the quarter (3rd); 2011 Flight Attendant of the quarter (1st); 2012 Flight Attendant of the quarter (3rd) 2013 Flight Attendant of the year; 2013 National Business Aviation Association Scholarship Recipient; 2014 Flight Attendant Instructor of the quarter (1st); 2014 Noncommissioned Officer of the quarter (2nd); 2015 Flight Attendant Instructor of the quarter (2nd); And, 2016 National Business Aviation Association Scholarship Recipient.

"Some leaders are born women."

—GERALDINE FERRARO

"A leader is one who knows the way, goes the way and shows the way."

—JOHN C. MAXWELL

Captain Deborah Gaddis



Captain Deborah Gaddis is a training flight commander and instructor pilot assigned to the 509 Weapons Squadron, Fairchild Air Force Base, Washington. She is 31 years old. Captain Gaddis was born in Wichita Falls, Texas on 30 March 1986 and grew up in Beaverton, Oregon. She attended Westview High School where she was an honor student and excelled across a spectrum of extracurricular activities as the drum major of the high school marching band and section leader in symphonic and jazz bands and Cantores, an elite choral group. After graduating from high school in 2004, Captain Gaddis attended the United States Air Force Academy and graduated in the top 12% of her class, winning a performance award for her Political Science major in 2008.

Upon completion of pilot training at Columbus Air Force Base, Mississippi and follow on KC-135 initial qualification training at Altus Air Force Base, Oklahoma, Captain Gaddis was assigned to Fairchild Air Force Base, Washington. During her time with the 92 Air Refueling Wing at Fairchild Air Force Base, Captain Gaddis deployed seven times as flying aircrew or staff in support of Operations ENDURING FREEDOM, UNIFIED PROTECTOR, INHERENT RESOLVE, and FREEDOM'S SENTINEL. She is active in her local community, regularly volunteering at the local food bank which supports charities, churches and retirement centers across the Inland Northwest.

Captain Gaddis was awarded the Col Joe Jackson Award for Excellence in Mobility Tactics in 2016 and was the Air Combat Command nominee for the Dutch Huyser Award. Additionally, she was selected as the Company Grade Officer of the Quarter for the 57th Wing, Mobility Air Force Company Grade Officer of the Year for the United States Air Force Weapons School, and Pilot of the Year for the 92 Operations Group. Captain Gaddis was also recognized as the Company Grade Officer of the Quarter for the 340 Expeditionary Air Refueling Squadron for her work as the Weapons Officer for the largest flying squadron in the Air Force. She is the recipient of six Air Medals, one Aerial Achievement Medal, two Commendation Medals and one Achievement Medal.

Captain Gaddis is married to Timothy Fleming.

Staff Sergeant James A. Gillispie



Staff Sergeant James A. Gillispie is a Senior Contingency Mission Manager assigned to the 621st Air Mobility Operations Squadron in the 621st Contingency Response Wing at Joint Base McGuire-Dix-Lakehurst, New Jersey. He is 28 years old. Staff Sergeant Gillispie was born in Clearwater, Florida, on 11 March 1988. He attended Osceola High School and excelled across the entire spectrum of school activities. He was 4-year varsity letterman in Football, where

he made the division All-Star team as well as Florida's All-Academic Team. Apart from excelling in football, Staff Sergeant Gillispie also graduated in the top 10 percent of his graduating class. After graduating from high school in 2006, he worked as a HVAC mechanical technician for three years while taking night classes at St. Petersburg College. After the birth of his first child in 2010, he decided to commit to the United States Air Force enlisted core.

Following graduation from the Radio Frequency Transmission Systems apprentice course, he arrived at his first assignment in the 10th Intelligence Squadron, Joint Base Langley-Eustis, Virginia in December 2010. There he excelled as a Link Systems Technician until choosing to cross train to be a Command Post Controller in 2014. After graduation of Command Post Controller technical school, he was assigned to his current position in the 621 Air Mobility Operations Squadron.

During this time, he completed a Bachelor of Science degree in Business Administration and has also received numerous accolades to include the 2016 Wing Command Post NCO of the Year and 2015 AMC Theater Command and Control Enlisted Member of the Year. Staff Sergeant Gillispie is married to Christi Gillispie and they have three kids, Kaylee, Eli, and Blake.

"It is essential to employ, trust and reward those whose perspective, ability and judgment are radically different from yours. It is also rare, for it requires uncommon humility, tolerance and wisdom."

—DEE WARD HOCK

"Leadership and learning are indispensable to each other."

—JOHN F. KENNEDY

Captain Millie A. Hale



Captain Millie A. Hale is a KC-135R/T Aircraft Commander assigned to the 22d Operations Support Squadron as Aircrew Flight Equipment Flight Commander, McConnell Air Force Base, Kansas. Captain Hale was born in Castle Rock, Colorado on 26 August 1988. She graduated valedictorian of her high school class in 2006, and became a Distinguished Graduate from the United States Air Force Academy in 2010 with a Bachelor's of Science in Applied Mathematics. She was competitively selected from

among the USAFA Distinguished Graduates for a Charles Stark Draper Laboratory Fellowship and in-residence program at Rice University, where she earned a Master of the Arts in Computational and Applied Mathematics.

After graduation, Captain Hale attended Euro-NATO Joint Jet Pilot Training at Sheppard AFB, Texas. She accepted a joint spouse KC-135 assignment to McConnell AFB in 2014 where she was assigned to the 344th Air Refueling Squadron. Since arriving at McConnell, she has served in a variety of positions including Scheduling Officer, Assistant Chief of Awards and Decorations, Chief Executive Officer, and Aircrew Flight Equipment Flight Commander. She has deployed four times in support of Operations IRAQI FREEDOM, FREEDOM'S SENTINEL and INHERENT RESOLVE. She also deployed to Andersen AFB, Guam in support of Continuous Bomber Operations in the Pacific.

Captain Hale recently completed Squadron Officer School Professional Military Education, where she earned Distinguished Graduate Honors, was coined by the 33d Student Squadron Commander as an Outstanding Performer, and was selected by her classmates as Outstanding Contributor. She completed an independent in-depth analysis of the Joint Spouse program and provided a policy change recommendation to HAF/A1P which was selected for teleconference. Her proposal was chosen as one focus of the inaugural HAF A1 Talent Management Innovation Cell, which ultimately elected to implement her recommendations Air Force wide.

Captain Hale's hard work and outstanding airmanship have resulted in her recognition as 22d Operations Group Pilot of the Year, and two-time Operations Group Grade Officer of the Year as well as 22d Air Refueling Wing Company Grade Officer of the Quarter. Additionally, she earned the Air Mobility Command Wilma Vaught Visionary Leadership Award in 2016.

First Lieutenant Frank Jackson



First Lieutenant Frank Jackson is an Aeronautical Engineer assigned to the Aerospace Vehicles Division, Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base, Ohio. He is 25 years old. Lieutenant Jackson was born in Augusta, GA on 9 August 1991. He attended Augustus R. Johnson Health Science & Engineering Magnet High School while jointly enrolled at Augusta Technical College where he also received a diploma in Computer Drafting Design in May 2009. After graduating high school, he attended Tuskegee University immediately during fall 2009. While at Tuskegee University, he learned about the legacy of the Tuskegee Airmen, who inspired him to join the Air Force Reserve Officer Training Corps (ROTC) at Tuskegee University. While in ROTC, he received numerous awards and held various leadership positions. He was granted internships for ROTC cadets, specifically at the National Reconnaissance Office during summer 2012. He also interned as a Cybersecurity Engineer at AFRL in Rome, NY during the summers of 2013 and 2014, working with the Chief Scientist on space-related programs funded through the Thurgood Marshall College Fund. To date, he is the first in his family to graduate from college, join the military, and pursue higher education.

Lieutenant Jackson expressed his love for Science, Technology, Engineering, and Math (STEM) and leadership outside of ROTC. He worked at the Tuskegee-Center of Academic Excellence and Innovative Learning as a Mathematics Consultant. Designated as the Math Team Lead, he managed a team of math tutors and coordinated between the mathematics department and the learning center, improving the grades of students. He was named "Best Tutor Overall" and received the Director's Award for longest period of outstanding service. Lieutenant Jackson was also recruited by Navy ROTC as a math tutor to increase the knowledge of midshipmen, meeting Navy

Technical Sergeant Hunter Meadors



Technical Sergeant Hunter Meadors is an Aerospace Maintenance Craftsman assigned to the 100th Aircraft Maintenance Squadron, RAF Mildenhall, England. He is 31 years old and has been in the United States Air Force for 11 years. TSgt Meadors was born in Fort Worth, Texas on 1 February 1986 to Sonya and Terry Meadors. He attended Brewer High School, where he excelled in many areas.

TSgt Meadors was offered multiple college scholarships, but he quickly realized that he would rather follow in the footsteps of his grandfather and enter into military service with the Air Force.

Sergeant Meadors graduated from Basic Military Training and Technical School in 2006 and he received his first assignment to Travis AFB, California. While assigned to the 60th Aircraft Maintenance Squadron, Sergeant Meadors deployed as a C-5 Crew Chief in support of Operation ENDURING FREEDOM and was instrumental to the success of several covert operations throughout the world. During his time in California, TSgt Meadors showed his extensive

ROTC requirements. He was inducted into three academic honor societies, holding leadership positions while remaining an active member. Additionally, Lieutenant Jackson held a key position in the Student Government Association Events Committee, planning events for the student body.

Lieutenant Jackson graduated from Tuskegee University with a degree in Aerospace Engineering as a Summa Cum Laude and commissioned into the Air Force in May 2014. He entered Active Duty in December 2014 as an Aeronautical Engineer. Lieutenant Jackson has actively supported the 42 million dollar Precision Air Drop Flagship Concept Capability, and was co-leader and Program Manager for the 500 thousand dollar Tri-Walled Aerial Delivery System (TRIADS) program. His efforts resulted in modifications to TRIADS, with feasibility testing at the U.S. Army Natick Soldier Research, Development, and Engineering Center and Yuma Proving Grounds. He was also the co-lead and Program Manager on the 1.17 million dollar Air Refueling Automation for automating functions during air refueling/tanking operations. He also led/managed a 600,000 dollar Wind Sensing Integration Study looking to increase the airdrop capabilities of a subset of C-130/H/J's, while balancing other tasks such as being the Control Systems and Application Branch's Security Officer, Safety Officer, and Morale Officer. He is currently enrolled at Wright State University (WSU), pursuing a Master's Degree in Engineering Innovation and Entrepreneurship with a focus on Systems and Industrial Engineering.

Lieutenant Jackson demonstrated leadership skills and dedication to service in AFRL. He co-lead and supported the Back-to-School drive for Fulton Elementary School during fall 2015, where over 300 students were given school supplies valued at 3,500 dollars. He also volunteered at Dunbar High School on a monthly basis, mentoring 20 young teens. Additionally, he also supported the WSU Science, Technology, and Engineering Preparatory Program (STEPP) in the summer of 2015 and 2016 as a math teacher to 10th graders. As a result of his efforts, he was lauded by WSU personnel, the AFRL Commander, and the Air Force Life Cycle Management Center commander. He was also the lead volunteer for a local food drive in Springfield, OH, where he provided food to 160 needy individuals and families.

expertise by being selected to the unit's 2009 C-5 Rodeo Team that captured all the C-5 trophies that year. In 2010, TSgt Meadors was assigned to the 100th Aircraft Maintenance Squadron, RAF Mildenhall. During his time in England, he quickly became a Flying Crew Chief on his second airframe, the KC-135.

TSgt Meadors then became a Maintenance Training Instructor in 2012 and that very same year earned the Maintenance Group Instructor of the Year Award. Also, while in the 100th Maintenance Operations Flight, TSgt Meadors's team won the USAFE/AFAFRICA Maintenance Training Flight of the Year. He has served in multiple positions such as the Dedicated Crew Chief Manager, Flying Crew Chief Manager, Flight Line Expeditor and Sortie Support Section Chief. He is also an incredible father to son Oliver and loving husband to his wife Sophie.

TSgt Meadors devotes time to many sections, ultimately culminating with his selection as the Maintenance Group's Lieutenant General Leo Marquez NCO of the Year nominee. He is always looking for ways to better himself and those around him, as evidenced by his supervision of two ALS Distinguished Grads and multiple CCAF recipients. TSgt Meadors is always willing to help out in the community and has supported multiple events from Special Olympics to the Wing Annual Awards program.

Technical Sergeant Juston L. Milliner



Technical Sergeant Juston L. Milliner is an Air Transportation Standardization Evaluation Program Evaluator for the 89th Aerial Port Squadron, 89th Airlift Support Group, 89th Airlift Wing, Joint Base Andrews Maryland. Sergeant Milliner is responsible for evaluating 170 military and civilian personnel, developing metrics, collecting trend data and reporting to squadron leadership. Additionally, Sergeant Milliner provides continuous feedback and addresses safety hazards, manages information systems and writes reports for the Wing Inspector General.

Sergeant Milliner grew up in Alexander City, Alabama. He entered the Air Force in January 2004 and his background includes duties as a Cargo/Ramp Specialist, Special Handling, Air Terminal Operations Center, Joint Inspector/Load Planner and an ATSEP evaluator. His assignments include Yokota AB, Japan and Joint Base Andrews, MD. He has deployed three times in support of Operations ENDURING and IRAQI FREEDOM.

"Men make history and not the other way around. In periods where there is no leadership, society stands still. Progress occurs when courageous, skillful leaders seize the opportunity to change things for the better."

— HARRY S TRUMAN

"A genuine leader is not a searcher for consensus but a molder of consensus."

— MARTIN LUTHER KING, JR.

Technical Sergeant Gabriel R. Reams



Technical Sergeant Gabriel R. Reams is the Assistant Flight Chief of Standardization and Evaluations, 21st Airlift Squadron, Travis AFB, California. He is responsible for providing leadership and management for nine Airmen. Additionally, he identifies aircrew performance, trend data, and provides training solutions to the commander, ensuring the readiness of over 140 combat-ready personnel. The 21st Airlift Squadron employs 13 C-17 aircraft providing 24 hour-a-day

strategic, operational, and tactical airlift sorties supporting United States and allied forces during contingency operations.

Sergeant Reams was born in Crescent City, California. He graduated from Del Norte High School and entered into the Air Force in August 1998. After graduating Basic Training at Lackland Air Force Base, Texas, he attended basic personnel training at Keesler Air Force Base, Mississippi and was later assigned to Cannon Air Force Base, New Mexico. In 2005, Sergeant Reams cross-trained into the Loadmaster career field and has since been assigned to Joint Base Lewis-McChord as a qualified Airdrop Loadmaster and Joint Airdrop Inspector, as well as Altus Air Force Base as a Formal Training Instructor. He has accumulated over 4,300 C-17A hours, including over 1,200 combat hours while participating in Operations ENDURING FREEDOM, IRAQI FREEDOM, INHERENT RESOLVE, FREEDOM'S SENTINEL and DEEP FREEZE.

Leadership to me means duty, honor, country. It means character and it means listening from time to time.

—GEORGE W. BUSH

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Huyser Awards

The Airlift/Tanker Association General Robert E. "Dutch" Huyser Awards are presented annually to a Wing/Group level or below Pilot, Navigator, Flight Engineer, Loadmaster, Boom Operator, Flight Attendant and Airborne Mission Specialist for sustained excellence in airmanship.

PILOT

Captain Mark G. King



Captain Mark G. King is a Group Tactician and C-130J Aircraft Commander, 39th Airlift Squadron, Dyess Air Force Base (AFB), Texas. Capt King graduated from Mississippi State University in May 2012 with a Bachelor of Music Education with the distinction, Magna Cum Laude. He commissioned through Mississippi State University's Reserve Officer Training Corps program and subsequently completed Specialized Undergraduate Pilot Training at Laughlin AFB, Texas. He then proceeded to C-130J Initial Qualification at Little Rock AFB, Arkansas in October 2013. Following completion of training in June 2014, Capt King reported to Dyess AFB, Texas where he is currently stationed. Prior to his current position, Capt King served as Squadron Tactician, Standards and Evaluations Liaison Officer, and Ground Training Officer. His military awards include the AMC General James H. Doolittle Trophy and the Aerial Achievement Medal.

NAVIGATOR

Captain Thomas P. Licostie



Captain Thomas P. Licostie graduated from Florida State University in 2012 with a B.S. in Computer Science. After earning his commission, Captain Licostie attended Undergraduate Combat Systems Officer Training at Pensacola Naval Air Station, Florida. He was then assigned to the 349th Air Refueling Squadron at McConnell Air Force Base, Kansas in 2013 to fly as one of the last remaining mobility navigators in Air Mobility Command. Captain Licostie has made vast contributions to the 349th Air Refueling Squadron as an Instructor Navigator, Chief Executive Officer, Training Officer, and as Support Flight Officer. He has supported the Combatant Commander in Operations IRAQI FREEDOM, ENDURING FREEDOM, INHERENT RESOLVE, FREEDOM'S SENTINEL, and RESOLUTE SUPPORT as the 340th Expeditionary Air Refueling Squadron Mission Planner and aircrew member.

Captain Licostie is an active member in the Wichita community. He contributes in the Wichita Big Brothers Big Sisters chapter and volunteers to donate blood for the American Red Cross.

FLIGHT ENGINEER

Master Sergeant Louis V. Davis Jr



Master Sergeant Louis Davis is a Squadron Flight Chief, Instructor Flight Engineer, C-5M, for the 9th Airlift Squadron, Dover AFB, Delaware. He is responsible for personnel management, professional development, training, and personnel readiness for all enlisted members of the flight. Sergeant Davis was born in Butler, Pennsylvania, and graduated from Union High School in Rimersburg, Pennsylvania.

He entered active duty service in July 1997 and began his Air Force career with the 2d Maintenance Squadron at Barksdale AFB, Louisiana. He started his Enlisted Aviation career in 2003 when he re-trained as a C-5A/B Galaxy Flight Engineer at Dover AFB, Delaware. MSgt Davis was next assigned to Headquarters, Air Mobility Command, where he filled multiple roles including formal training instructor, courseware specialist, and simulator certification flight engineer. He is currently serving on the C-5M Super Galaxy.

Sergeant Davis' educational background includes graduating from Airman Leadership School in 2002, earning an Associate's Degree in Aircraft Maintenance Technology, an Associate's Degree in Aviation Operation and an Associate's Degree in Instructor in Technology from the Community College of the Air Force in 2008. He completed the Noncommissioned Officer Academy and Senior Enlisted Joint Professional Military Education (by correspondence) in 2010; and, in 2013 he graduated from the Senior Noncommissioned Officer Academy (by correspondence).

Sergeant Davis has supported numerous contingency operations including: Operation SOUTHERN WATCH, Operation IRAQI FREEDOM, Operation ENDURING FREEDOM, Operation INHERENT RESOLVE, and Operation FREEDOM'S SENTINEL. His military awards include: Meritorious Service Medal (one oak leaf cluster), Air Medal (one oak leaf cluster) Air Force Combat Action Medal, Aerial Achievement Medal, and the Air Force Outstanding Unit Award (four oak leaf clusters). Additionally, Sergeant Davis earned the distinction of being named the 2015 HQ AMC Air Operations Squadron SNCO of the Year.

"Perfection is not attainable, but if we chase perfection we can catch excellence."

—VINCE LOMBARDI

"...the battle, sir, is not to the strong alone, it is to the vigilant, the active and brave."

—PATRICK HENRY

FLIGHT ATTENDANT

Master Sergeant Mariel M. Rivera



Master Sergeant Mariel M. Rivera is an Instructor C-37A/C-20H Flight Attendant at Ramstein AB, Germany.

Sergeant Rivera is 37 years old and was born in Berwyn, Illinois on 23 February 1980. She enlisted in the Air Force in January 1999 and arrived at Lackland AFB, Texas, in February 1999.

Sergeant Rivera attended her first technical school at Keesler AFB, Mississippi. She graduated as Communications – Computer Systems Apprentice in June 1999 and reported to Ellsworth AFB, South Dakota, and worked as a switchboard operator and base COMSEC accountant. During that time period, she deployed to RAF Alconbury/Molesworth, Huntingdon, England, where she worked at the Joint Analysis Center.

In December 2000, Sergeant Rivera moved to Osan AB, Japan where she worked as a battle management systems manager. In December 2001, she moved to Andersen AB, Guam, where she worked as a help desk technician. In April 2003, Sergeant Rivera moved to Hickam AFB, Hawaii, where she worked as a network security specialist. In July 2006, she moved to Offutt AFB, Nebraska, where she worked as the non-commissioned officer in charge of the standardization and evaluations office. In 2009, Sergeant Rivera returned to Lackland AFB to cross-train into the flight attendant career field.

In February 2011, Sergeant Rivera reported to Edwards AFB, California, where she flew as an instructor flight attendant aboard the Speckled Trout, a special mission KC-135. During the closure of her squadron, Sergeant Rivera was the only flight attendant selected to augment the MC-12 Sensor Operator program and deployed to Bagram AB, Iraq, until October 2014 when she returned to Edwards AFB and her flight attendant career field. In February 2015, Sergeant Rivera reported to Ramstein AB where she is currently stationed.

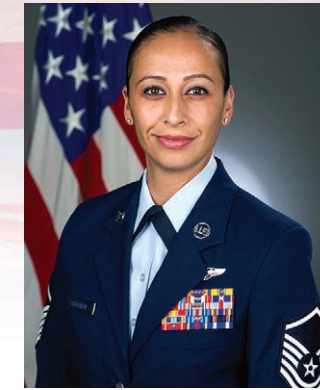
Sergeant Rivera earned an Associate Degree in Information Systems Management from the Community College of the Air Force in 2006; an Associate Degree in Aviation Operations also from the Community College of the Air Force in 2011; and, a Bachelor's Degree in General Studies from the University of Nebraska – Omaha in 2013.

Sergeant Rivera has dedicated her time taking care of 123 Airman as an Additional Duty First Sergeant. Additionally, Sergeant Rivera has volunteered to support the Ramstein Air Base Airman Leadership School review boards. Lastly, Sergeant Rivera's selflessness led to the collection and delivery of 600 pounds of humanitarian goods to over 4,000 Airman and personnel at Incirlik AB following Turkey's failed military coup.

Sergeant Rivera's prior awards and achievements include: an Airman Leadership School Leadership Award; being named the 2016 76 Airlift Squadron SNCO of the Year; the Air Medal (2 OLC); the Aerial Achievement Medal (1 OLC); the Air Force Commendation Medal (2 OLC); and, the Air Force Achievement Medal (3 OLC).

BOOM OPERATOR

Master Sergeant Lucero Stockett



Master Sergeant Lucero Stockett is the 6th Air Refueling Squadron KC-10 In-Flight Refueling Operator Superintendent at Travis AFB, California. MSgt Stockett enlisted in the USAF as a Boom Operator in May 2002. After BMT and tech school, she was selected for the KC-10. At Travis AFB, she was a Boom Scheduler, Flight Instructor, Formal Training Unit Instructor, Boom Superintendent of the Formal Training Unit, and NCOIC of Standards and Evaluations. She has deployed

four times and has flown over 300 combat sorties, accumulating over 3,500 flight hours.

In August of 2013, Sergeant Stockett volunteered to become a Military Training Instructor (MTI). As an MTI, MSgt Stockett led 15 flights and performed the job of a line MTI, Team Chief and Instructor Supervisor. In March of 2015, she was selected as one out of the four Instructor Supervisors to lead and develop the Chief of Staff of the Air Force's new initiative program called Airmen's Week. As an Airmen's Week Instructor Supervisor, she supervised 15 line MTI facilitators and 600-800 Airmen weekly. In August of 2016, MSgt Stockett returned to the flying community and is currently in charge of the 6th Air Refueling Squadron Boom Operator section as the In-flight-Refueling Operator Superintendent.

MSgt Stockett has attended/completed all PME courses to include ALS, NCOA and SNCOA correspondence. She has earned three CCAFs, to include AA of Applied Science in Aviation Operations, Instructor in Technology and Military Science, and Education and Training Management. MSgt Stockett has also received CCAF Instructor Certification Levels I & II. Outside the military, she has received two degrees: an Associate's Degree in General Studies and a Bachelor's of Science degree, with Honors, in Sports and Health Sciences. In 2015, she received her Professional Manager Certification. MSgt Stockett is three classes away from receiving her Master's degree in Executive Management and Leadership, with an expected graduation date in August 2017.

MSgt Stockett has contributed vastly to her community. Recently she led JBASA's Women's History Month, with events across three bases and over 2,000 attendees. She also spearheaded the Feds Feeding Families food bank drive, where she managed to raise \$12,000, an equivalent of 60,000 meals, making her squadron the top contributor in the MAJCOM and ultimately earning her a spot in the Feds Feeding Families Hall of Fame. MSgt Stockett was one of four members out of over 200 MTI's to travel to the USAF Academy. There, she instructed the new cadre of cadets for two weeks on how to engage with brand new recruits. MSgt Stockett's most noteworthy involvement was when she was the only MTI selected to accompany the Wing Commander to Capitol Hill to speak about Basic Training issues and the importance of getting appropriate funding to train the next generation of Air Force members.

Most recently, MSgt Stockett has earned the 6 ARS SNCO of the quarter (4th/1st). In 2015, she earned the 737 TRG SNCO of the Year, the 37 TRW National Latina Style Award and the 37 TRW NCO of the Quarter (1st). In 2014, the 326 TRS NCO of the Year Award and in 2013 the 737 TRG MTI DG and Commandant Award. MSgt Stockett has been the AMC's Instructor Boom Operator of the Year (2010), the 60 OG Boom Operator Instructor of the Year (2009), and the 60 OG NCO of the year (2009). She has received Distinguish Graduate from both Instructor Upgrade and Initial Qualification.

2015 A/TA Huyser Awards continue >>>

*"For to win one hundred victories in one hundred battles is not the acme of skill.
To subdue the enemy without fighting is the acme of skill."*

—SUN TZU

LOADMASTER

Technical Sergeant Daniel J. Stearns



Technical Sergeant Stearns is an MC-130H Instructor Loadmaster assigned to the 1st Special Operations Squadron, 353d Special Operations Group, Kadena Air Base, Japan. He is 28 years old. Sergeant Stearns was born in Carbondale, Illinois on 25 August 1988. He attended Carbondale Community High School and excelled across a range of school activities. After graduating from high school in 2007, Sergeant Stearns was locally employed and participated in multiple humanitarian efforts in the storm ravaged areas of Louisiana.

Sergeant Stearns completed Basic Military Training as an Honor Graduate at Lackland Air Force Base, Texas, in February 2009. After completion of the Aircrew Loadmaster training pipeline he was stationed at the 50th Airlift Squadron (AS) at Little Rock Air Force Base, Arkansas, in November 2009. While assigned to the 50th AS, Sergeant Stearns completed multiple deployments in support of Operations IRAQI FREEDOM, ENDURING FREEDOM, and NEW DAWN. He was selected as the Little Rock Air Force Base and 19th Airlift Wing Airman of the Year in 2011.

In March 2012 Sergeant Stearns attended MC-130H Initial Qualification training at Kirtland Air Force Base, New Mexico, and was subsequently assigned to the 1st Special Operations Squadron where he is currently stationed. Since being assigned to the 1st SOS, Sergeant Stearns has deployed in support of Operation ENDURING FREEDOM-PHILIPPINES and to CENTCOM, where his crew executed the first landing in Syria in direct support of INHERENT RESOLVE. He was awarded the John L. Levitow Award upon completion of Airman Leadership School in February 2013. He was selected as the 1st Special Operations Squadron Non-Commissioned Officer of the Year for 2015, and 353d Special Operations Group Non-Commissioned Officer of the Year for 2016.

He is the recipient of the Air Medal (with 7 oak leaf clusters), Air Force Commendation Medal, Air Force Achievement Medal, and many prizes and awards for his civic involvement. Sergeant Stearns is married and has two children.

COMMUNICATION SYSTEMS OPERATOR

Staff Sergeant Ashley E. Watson



Staff Sergeant Ashley E. Watson is an Instructor C-37A/C-20H Communication System Operator with the 76th Airlift Squadron, Ramstein AB, Germany.

Sergeant Watson is from Greenville, South Carolina. She enlisted in the Air Force in 2012 and arrived at Lackland AFB, Texas, in January 2012 for basic training. Upon graduating from basic training, Sergeant Watson attended the Aircrew Fundamentals course, graduating as the Distinguished Graduate. She

received an assignment to Beale AFB, arriving on station in July 2012. While stationed at Beale AFB, Sergeant Watson deployed three times with the MC-12 to Kabul and Bagram, Afghanistan. She joined the 76th Airlift Squadron, Ramstein AB, Germany in January 2015. Sergeant Watson deployed to Kabul, Afghanistan as a CSO in 2016 supporting Commander, Operation RESOLUTE SUPPORT.

Sergeant Watson earned a Bachelors of Science Degree in Marketing and Finance from the University of South Carolina in 2009 and an Associates Degree in Information Systems Technology from the Community College of the Air Force in 2013.

Sergeant Watson is active in the community as former President of the 76th Airlift Squadron's Booster Club and as a Sports and Events Coordinator for the Kaiserslautern Military Community's First Four.

Sergeant Watson's prior awards and achievements include being named the 2016 86 Operations Group Aircrew Airman of the Year, and the 2016 76 Airlift Squadron Airman of the Year.

"Excellence is an art won by training and habituation. We do not act rightly because we have virtue or excellence, but we rather have those because we have acted rightly. We are what we repeatedly do. Excellence, then, is not an act but a habit."

—ARISTOTLE



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The future of airlift is flying today: the A400M.



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The future of airlift is flying today: the A400M.

AIRBUS

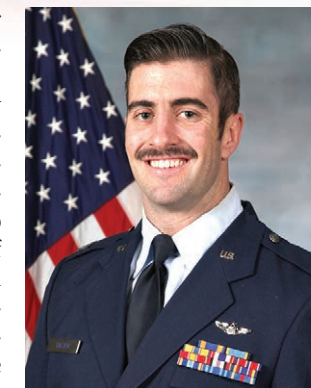


Carlton Award for Valor

The Airlift/Tanker Association General P. K. Carlton Award for Valor is presented annually to an individual who demonstrates courage, strength, determination, bravery and fearlessness during a combat, contingency or humanitarian mission during the previous calendar year.

Captain Michael C. Tolzien

Captain Michael C. Tolzien is a Flight Commander and M/HC-130J Instructor Pilot, 415th Special Operations Squadron, 58th Special Operations Group, 58th Special Operations Wing, Kirtland AFB, New Mexico. He serves as the Scheduling Flight Commander in AETC's only special operations and personnel rescue C-130 squadron. Additionally, he conducts a wide variety of special operations missions to include the infiltration, exfiltration, and resupply of special operations forces in hostile territory, as well as the refueling of special operations vertical lift aircraft. In May 2008, Captain Tolzien earned his Bachelors of Science Degree in Management through the United States Air Force Academy, Colorado Springs, Colorado. He entered the Air Force in May 2008. In December 2009, Captain Tolzien graduated from Undergraduate Pilot Training, followed by Initial Mission Qualification in the C-130J in October 2010. In 2013, he attended MC-130J Commando II qualification training. Captain Tolzien has extensive experience in both Mobility and Special Operations C-130s. His stateside assignments include Laughlin AFB, TX, Little Rock AFB, AR, and Keesler AFB, MS. He has also served overseas at RAF Mildenhall, United Kingdom. Captain Tolzien has over 2,500 flying hours and 493 combat hours supporting Operation ENDURING FREEDOM, Operation FREEDOM's SENTINEL, Operation RESOLUTE SUPPORT, and numerous contingency operations throughout Europe and Africa. Captain Tolzien has received four Air Medals, one Air Medal with Valor, one Air Force Aerial Achievement Medal, two Air Force Commendation Medals, and an Air Force Achievement Medal.



At the JTAC's direction, Capt Tolzien piloted the aircraft to a safe orbit nearby, while the crew analyzed objective area imagery, evaluated the surrounding terrain, and identified the optimum altitude and run-in to maximize airdrop accuracy while minimizing the aircraft's exposure to small arms and anti-aircraft artillery fire.

While orbiting, enemy activity forced the JTAC to alter the desired airdrop point of impact multiple times, requiring the crew to recompute the calculated air release point for an accurate and successful airdrop. Moments later, Capt Tolzien's crew was cleared to conduct the airdrop, only to be turned away again due to hostile fire.

At this point, conditions were rapidly deteriorating in the objective area and now necessitated an armed escort. Capt Tolzien then decisively elected to commence the run-in for the resupply airdrop and at approximately six miles from the release point, the aircraft was joined by an Air Weapons Team escort to mitigate further risk from enemy engagement. Capt Tolzien expertly piloted his aircraft to a successful calculated air release point at approximately 800 feet above ground level.

Immediately after the bundles exited the aircraft, both loadmasters onboard informed the crew they were taking heavy enemy fire from multiple directions and began directing multiple threat maneuvers. At the same time, the JTAC informed the crew he observed heavy ground fire directed at the aircraft. Seconds after the airdrop loads impacted the ground, the JTAC notified the crew that the resupply bundles had landed within 20 meters of the intended point of impact and were 100% recoverable by the SOF team.

Due to the configuration for the airdrop, the aircraft was in a low energy state with limited maneuverability. Capt Tolzien quickly reconfigured the aircraft, accelerated out of the weapon engagement zone, completed the post airdrop checklist providing full aircraft maneuverability, and conducted a rapid climb to maneuver away from the threat. The crew then re-directed the aircraft to land at a forward operating base to position for casualty evacuation. Upon landing, the loadmasters conducted a battle damage assessment of the aircraft and found a medium caliber entry hole in the tail section of the aircraft along with multiple entry and exit holes through the rudder.

The decisive actions and initiative of Capt Tolzien led to the successful resupply of friendly forces, halting any further loss of life and preserving a \$72M aircraft and six crew, despite taking multiple rounds from enemy ground fire. The flawless execution of this combat resupply airdrop by the crew of ARSON 56 not only proved instrumental to the final rescue of the besieged SOF team, but helped to achieve national-level objectives in Afghanistan. The heroic and decisive actions of Capt Tolzien led to the completion of this emergency resupply airdrop under heavy and accurate enemy fire, and makes him clearly deserving of the 2016 General P. K. Carlton Award for Valor. ■

"Valor is stability, not of arms and of legs, but of courage and the soul."

—MICHEL EYQUEM DE MONTAIGNE



Halvorsen Award

The Airlift/Tanker Association
Colonel Gail S. Halvorsen Award is presented annually
to an outstanding Air Transportation (2T2XX) specialist for
sustained excellence in aerial port operations.

Technical Sergeant Michael R. Labarge

As an Aerial Delivery Supervisor assigned to the 19th Logistics Readiness Squadron, Little Rock AFB, Arkansas, Technical Sergeant Michael R. Labarge's technical expertise proved instrumental to his unit's mission. He meticulously led the preparation, loading and recovery of 4,800 airdrop bundles, 6,000 tons of equipment in direct support of 600 sorties which facilitated the training of 1,200 C-130 aircrew members. Additionally, while serving as his unit's Assistant First Sergeant, he excelled as a dedicated focal point for the readiness, health, morale, welfare and quality of life for 370 assigned Airmen.



Sergeant Labarge is currently the NCOIC, Airlift Services at Izmir Air Station, Turkey. He has had many duty assignments during his Air Force career including being a student at Lackland AFB, Texas from July 2006 through November 2006; an Aircraft Services Representative at the 305 Aerial Port Squadron, McGuire AFB, New Jersey from November 2006 through April 2007; a Passenger Service Agent also with the 305 APS from April 2007 through May 2010; a Passenger Services Agent with the 733 Air Mobility Squadron, Kadena AB, Japan from May 2010 until January 2011; the Passenger Services Supervisor with the 733 AMS from January 2011 through October 2012; the Air Terminal Operations Center Information Controller, at the 733 AMS from October 2012 through June 2013; the Aircraft Services Supervisor at the 19th Logistic Readiness Squadron, Little Rock AFB, Arkansas from June 2013 through January 2015; the Aerial Delivery Supervisor, also with the 19th LRS from January 2015 through January 2017; and is presently the NCOIC of Airlift Services with the 425th Air Base Squadron at Izmir Air Station, Turkey.

Sergeant Labarge's educational endeavors include the Hazardous Materials Airlift Inspector Course; the Joint Inspection Course; the Joint Inspection Instructor Qualification Course; the Parachute Rigger Course; the Joint Airdrop Precision Systems Course; the U.S. Customs Border Clearance Agent Course; Airman Leadership

School; USAF NCO Academy, Non-Residence Course 15; the Senior Enlisted Joint PME Course; and he holds a Degree in Transportation Management from the Community College of the Air Force. He is also a Toastmasters Competent Communicator and a 2016 Phoenix Stripe Attendee.

Sergeant Labarge led cleanup efforts for Arkansas's Riverfest; earned \$5K for the Make-a-Wish foundation and \$12K for the 19th LRS Booster Club. He served as VP for Team Little Rock Toastmasters, helping develop public speaking and leadership skills for rising professionals. He has led a Wing Non-Commissioned Officer Professional Enhancement course and delivered Professional Military Education by mentoring 24 junior

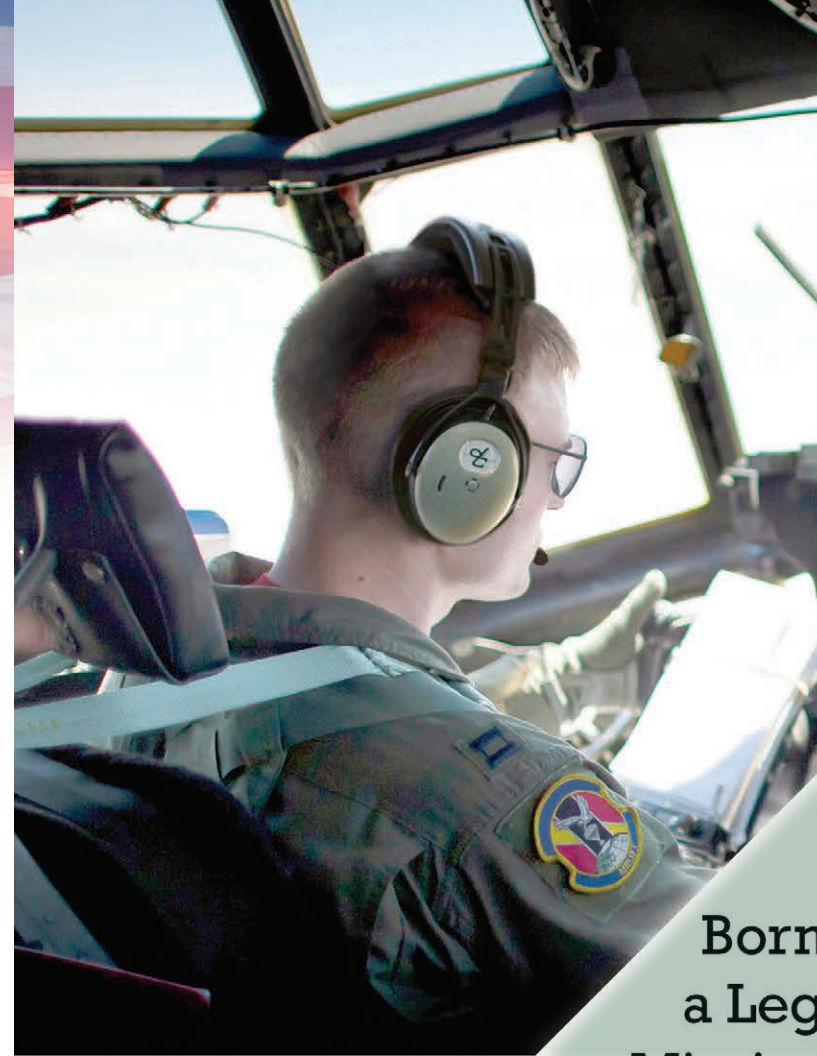
NCO's on leadership and teambuilding fundamentals.

Sergeant Labarge's prior awards and achievements include: Army Achievement Medal, 332nd ELRS, Balad AB, Iraq, 2007; AF Achievement Medal, 332nd ELRS, Balad AB, Iraq, 2007; NCO Unsung Hero Award, 386 ELRS, Ali Al Salem AB, Kuwait, Dec 2011; AF Commendation Medal, 38th ELRS, Ali Al Salem AB, Kuwait, Mar 2012; 515 Wing Global Reach Award, 733 AMS, Kadena AB, Japan, 2013; AF Commendation Medal First Oak Leaf Cluster, 733rd AMS, Kadena AB, Japan, 2013; Large Team of the 1st Quarter, 19th LRS, Little Rock AFB, AR, 2014; Large Team of the 3rd Quarter, 19th LRS, Little Rock AFB, AR, 2014; Team of the Year, A-Flight, 19th LRS, Little Rock AFB, AR, 2014; NCO of the 1st Quarter, 19th LRS, Little Rock AFB, AR, 2015; Team of the Month, 451st ESPTS, Kandahar AB, Afghanistan, Oct 2015; AF Achievement Medal First Oak Leaf Cluster, 451st ESPTS, Kandahar AB, Afghanistan, 2015; NCO of the Year, A-Flight, 19th LRS, Little Rock AFB, AR, 2015; Large Team of the Year, 19th MSG, Little Rock AFB, AR, 2015; NCO of the Year, A-Flight, 19th LRS, Little Rock AFB, AR, 2016; NCO of the 2nd Quarter, 19th LRS, Little Rock AFB, AR, 2016; AF Commendation Medal 2nd Oak Leaf Cluster, 19th LRS, Little Rock AFB, AR, 2016; and the Superior Performer Award, 425th ABS, Izmir AS, Turkey, Apr 2017. ■

*"Too often the ground personnel are taken for granted or overlooked
in major air events that are outcome centered..."*

—COLONEL GAIL S. HALVORSEN, "THE BERLIN CANDY BOMBER"

In order to provide our bases with the resources they need, we must control a lot of moving parts. Responsible for securely managing cargo and passengers, Air Transportation specialists ensure that everything and everyone on a military aircraft is transported safely and quickly. From food and medical supplies to helicopters and ground vehicles, these professionals are responsible for coordinating the valuable people and supplies we ship around the world. Qualifications for the job include having a thorough understanding of passenger and cargo movement functions, completion of a basic air transportation course, and experience in functions such as processing cargo and loading and unloading an aircraft. Air Transportation specialists must possess a valid state driver's license to operate government motor vehicles and must have completed 7.5 weeks of Basic Military Training as well as Airmen's Week, and they must be between the ages of 17 and 39.



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Specialized Mission Award

The Airlift/Tanker Association Specialized Mission Award is presented annually to an outstanding individual whose performance of duties in support of an aerial air mobility mission is exceptionally noteworthy during crises, contingencies, or humanitarian airlift. This award is presented to career fields not covered by the Huyser Award categories.

Staff Sergeant Harvey C. Croutch III

Staff Sergeant Harvey C. Croutch III is a Flying Crew Chief with the 736th Aircraft Maintenance Squadron, MXAFC, Dover AFB, Delaware. The mission of the 736th AMXS is to provide safe, reliable aircraft and dependable maintenance support to Team Dover in fulfilling its global peacetime and combat taskings. The squadron carries out its mission through the services of one aircraft maintenance unit and a sortie support flight. The squadron fulfills a mobility commitment by deploying personnel worldwide in support of Air Mobility Command's off-shore enroute system.

SSgt Croutch is from Yuma, AZ. He joined the Air Force in June, 2017 as an Instruments and Flight Controls Systems (IFCS) Apprentice. Now, as an IFCS Craftsman, he has been selected to become one of the only FCCs in the squadron. His dedication and job knowledge has surpassed his peers. In his time flying, he has flown over 1,200 hours in 95 missions throughout multiple theaters—delivering over 3,400 troops



and 8.9 million lbs of cargo.

Sergeant Croutch has recently earned his CCAF degree in Avionics Systems Technology. He has also completed cross utilization training into six other career fields. His dedication to technical proficiency sets him apart from his peers and has contributed to his excellence.

As a High School and Special Olympics Tennis Coach, SSgt Croutch fostered teamwork for 73 athletes over 3 years. He currently volunteers as an assistant coach in youth sports whenever his mission schedule allows. Last year he volunteered 37 hours.

Among Sergeant Croutch's prior awards and achievements are: a 2017 436th Maintenance Group FCC of the Month Award, March; a 2016 816th Expeditionary Airlift Squadron Flying Crew Chief of the Month Award, December; a 2016 385th Air Expeditionary Group Aircrew of the Year Award; and a 2010 3rd Maintenance Group Airman of the Year Award. ■

*“Wars may be fought
with weapons, but they
are won by men.”*

—GENERAL GEORGE S. PATTON

A Flying Crew Chief Aerospace Maintenance Craftsman maintains aircraft, support equipment (SE), and forms and records. Performs production supervisor, flight chief, expeditor, crew chief, support, aero repair, and maintenance functions. Duties and responsibilities include advising on problems maintaining, servicing, and inspecting aircraft and aerospace SE. Uses technical data to diagnose and solve maintenance problems on aircraft systems; interpreting and advising on maintenance procedures and policies to repair aircraft and SE; troubleshooting and maintaining aircraft structures, systems, components, and SE; testing repaired components using mockups and test equipment; adjusts, aligning, rigging, and calibrating aircraft systems; performing engine run-up; accomplishing weight and balance functions; jacking, towing, and servicing aircraft. As part of the duties a Flying Crew Chief Aerospace Maintenance Craftsman also inspects aircraft structures, systems, components, and SE.; supervises and performs aircraft and component inspections. Interprets inspection findings and determines adequacy of corrective actions; inspects and checks components for clearances, tolerances, proper installation, and operation; inspects and operates powered and nonpowered aerospace ground equipment; inspects and identifies aircraft corrosion for prevention and correction; reviews maintenance forms, aircraft records, and reports to ensure complete documentation; and, inventories and maintains alternate mission equipment. A Flying Crew Chief Aerospace Maintenance Craftsman performs as a production supervisor, flight chief, expeditor, crew chief, aero repairman, supporter, and maintainer; coordinates maintenance plans to meet operational commitments; supervises and assists in launching and recovering aircraft.; reviews maintenance data collection summaries to determine trends and production effectiveness; performs crash recovery duties; and, performs staff and supervisory management functions.



Fogleman ASAM Award

The Airlift/Tanker Association General Ronald R. Fogleman ASAM Award recognizes the top graduate of the Advanced Studies of Air Mobility (ASAM) program, an Air Force-sponsored intermediate developmental education program taught at the USAF Expeditionary Center. The award recognizes excellence across a broad range of criteria, including peer review, leadership, written and oral presentation of research, academic performance and physical fitness.

Major Michael W. Wells



Major Michael W. Wells, a C-17A pilot, has had a diverse military career. After graduating from the United States Military Academy in 2005 with a Bachelor of Science Degree in Mechanical Engineering he was assigned as a Missile Analyst with the 83rd Fighter Weapons Squadron (FWS), 53rd Weapons Evaluation Group, at Tyndall AFB, Florida from 2005 through 2006. Then, from 2006 through 2008 he served as the Lead AIM-120 Missile Analyst with 83rd FWS; and, from 2008 through 2009 he was the 83rd FWS Flight Commander, Telemetry.

Following his duties with the 83rd FWS, Major Wells attended Undergraduate Pilot Training at Columbus AFB, Mississippi. Upon graduation he was first assigned as the Training Officer; then Chief of Flight Training; then Assistant Flight Commander, Operations; and, then Flight Commander, Operations with the 535th Airlift Squadron, 15th Wing, at Joint Base Pearl Harbor-Hickam, Hawaii, from 2011 through 2014. His next assignment was as the Assistant operation Officer with the 6th Airlift Squadron part of the 305th Air Mobility Wing at Joint Base McGuire-Dix-Lakehurst, New Jersey, from 2013 through 2015; he then became the 305AMW Chief, Wing Commander's Action Group, a position he held from 2015 through 2016.

From 2016 through 2017, Major Wells was a student in-residence for the Advanced Studies of Air Mobility (ASAM) program at the USAF Expeditionary Center at JB McGuire-Dix-Lakehurst, an Intermediate Developmental Education program offering Air Force majors the opportunity to become air mobility experts in the military and global classrooms, while earning a Master of Air Mobility degree from the Air Force Institute of Technology (AFIT). He was selected the #1 graduate of 30 students in AFIT's

Graduate School of Engineering and Management with a perfect 4.0 GPA and displaying the attributes of the "whole person" concept based on professional qualities and recommendation of the department heads. Major Wells was awarded an AFIT Operational Sciences Department coin for superior academic performance and being a distinguished graduate. He was 1 of only 16 highly selected students by an AF IDE board following meticulous screening of his academic performance, standardized test scores, record of previous accomplishments, and future leadership potential.

Major Wells absolutely excelled in the rigorous 13-month logistically focused ASAM course designed to cultivate a core of future senior air mobility leaders. His performance was outstanding in all three distinct areas of curriculum: AFIT's master degree, USAF EC courses, and site visits designed to provide a universal perspective on logistics issues through select site visits to DoD, allied and industrial organizations.

Major Wells exceeds standards in Job Knowledge, Leadership Skills, Professional Qualities, Organizational Skills, Judgment and Decisions, Communication Skills, and Physical Fitness. A premier planner, Major Wells will absolutely excel as an Analyst, Headquarters Air Force, Pentagon, Washington DC.

Major Wells' other education accomplishments include being a Distinguished Graduate, Outstanding Contributor at Squadron Officer School in 2012; and, earning a Masters of Science Degree in Leadership from Central Michigan University in 2013.

Major Wells has been awarded the Meritorious Service Medal, the Air Force Commendation Medal (1 OLC), and the Air Force Achievement Medal. ■

"Remember that our nation's first great leaders were also our first great scholars."

—JOHN F. KENNEDY

The ASAM program is a 13-month course of study in Global Reach concepts, and graduates earn an Air Force Institute of Technology accredited Master of Science in Logistics degree. Prospective candidates for the course go through a highly competitive Central Designation Board process before being selected as students in the program, and the curriculum is comprised of four additional components including Expeditionary Center courses, Air Command and Staff College courses, a Graduate Research Project, and site visits. Upon graduation, students take on assignments serving the Department of Defense, war-fighting commanders, Joint Staff, Headquarters Air Force, Air Mobility Command, Strategic Command, Doctrine Centers, the North Atlantic Treaty Organization, Supreme Headquarters Allied Powers Europe, and the United Nations.

"I am an Iraqi Vet, injured in South Baghdad, in 2005. I've had 24 surgeries to be able to walk again. Angel Airlines for Veterans has been such an amazing organization to my wife and I. We have had to go back and forth to BAMC (San Antonio) for medical reasons, and have NOT had to be concerned with transportation from San Diego to BAMC. It is a huge stress relief. Without your support, these trips would be out of our financial reach, therefore not allowing me to receive the proper care needed."

Commercial Airline Tickets
Angel Airlines for Veterans coordinates charitable flights on commercial airlines for patients and escorts needing to travel more than 750 miles to access medical or rehabilitative care. AA4Vets partners with Mercy Medical Angels to provide flights through Delta, United, Southwest and American Airlines' Miles for Kids.

Volunteer Pilot Operations
Through its partner charity Angel Flight, volunteer pilots are available to veterans and escorts needing transportation for medical treatment. Patients must be ambulatory, which means they must be able to walk, enter and exit the plane with little or no assistance, and require no medical care (i.e., doctor or nurse) en route. There must be a financial or compelling need for the flight. Volunteer pilot organizations can assist only when the destination is within 750 miles.

Long Distance Ground Transportation
Angel Airlines for Veterans arranges charitable, non-local trips for veterans who are unable to fly or who need to travel a relatively short distance to access medical care. Through partner charity Angel Wheels, we provide gas cards and commercial train and bus tickets. The typical trip does not exceed 300 miles.



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- ★ Enlisted Member in Grades of E-1 through E-9
- ★ Commander's Recommendation
- ★ Assigned in an air mobility operational and/or support function (an augmentee on a mobility or maintenance support team, for example), OR, anyone directly or indirectly supporting the USAF Airlift or Air Refueling mission.
- ★ Must be a current member of Airlift/Tanker Association during the entire course which you are using to apply for the grant.
- ★ Checks will be issued upon completion of a course with proof of a grade of C or better in an accredited degree program.
 - ★ Application must be postmarked within three (3) months of course completion.
 - ★ Individuals are limited to one ETG per 12-month period.
 - ★ Student financial need is not a criterion
 - ★ May not be used for a lower or lateral previously awarded degree

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Working to Improve America's Air Mobility Force.



Key Spouse of the Year Award

The primary purpose of the AMC Key Spouse of the Year Award is to recognize an AMC Key Spouse who has diligently worked with unit leadership to plan, coordinate and execute the unit's Key Spouse Program. The program impacts mission readiness and retention by ensuring families have appropriate information and resources to meet their needs. The AMC Key Spouse of the Year is selected by AMC leadership.

Amanda Bendle

Amanda Bendle and her husband of six years, SSgt Michael A. Bell, are currently stationed at Travis AFB, California, with the 660th Aircraft Maintenance Squadron. Together they have one child, Brody Bell who is five years old and special needs.

Amanda was born in Denver, Colorado and graduated with a degree in Psychology as well as a degree in Sociology. As an active supporter for spouses and military communities, she has positively influenced countless families at numerous bases to include Joint Base Pearl Harbor Hickam, Hawaii 2010-2014 and Travis AFB, California 2014-present.

Amanda currently works at the Travis Heritage Center as the office manager and continues to volunteer her time in other areas. Leading as a board member for the now combined Travis Spouses Club, she maintains the procedures as



parliamentarian and volunteers her time to making events open for several spouses to attend.

As a Key Spouse for the 660th AMXS, Amanda maintains information and communication between the squadron and spouses by helping to organize events as well as homecomings. Influenced by her son's needs, Amanda has stepped up to helping the Special Needs Task Force, a group to support the EFMP families at Travis. Furthermore, she has joined a local group within the community, TEAM Vacaville, and assists in helping other special needs families.

Amanda lists her most important duties as being a wife and mother, and her hobbies include traveling, reading, cooking, crafting, and spending time with family. Her future aspiration is to become an advocate for special needs and military families who are unable to receive beneficial services. ■

"The best way to find yourself is to lose yourself in the service of others."

—MAHATMA GANDHI

Key spouses are specially trained volunteers who promote individual, family and unit readiness. They are a support system that encourages peer-to-peer support year-round. They meet the vital needs of spouses and provide an informal sounding board through an informal network. They are a part of the leadership team in each unit. The AMC Key Spouse program evolved from an idea to develop an organized program where military spouses help other spouses. Key Spouses work closely with the commander, commander's spouse, First Sergeant, and the Airman and Family Readiness Center.



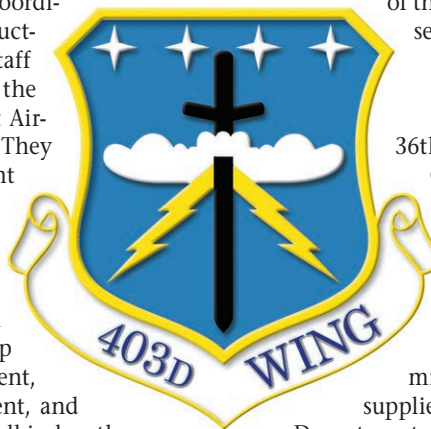
LtGen James E. Sherrard III AFRC Outstanding Unit Award

The Airlift/Tanker Association Lieutenant General James E. Sherrard III Award is presented annually to the most outstanding Air Force Reserve wing or group that distinguished itself in the performance and support of the Mobility Air Forces mission. The unit embodies the spirit and essence of the Citizen Airman, balancing the operational demands of today's global mobility operations, maintaining a viable strategic reserve for tomorrow while embracing responsibilities to their civilian employer, community and family.

403d Operations Group

The 403d Operations Group, 403d Wing, Keesler Air Force Base, Mississippi, distinguished itself by outstanding achievements from 1 July 2016 to 30 June 2017. Through a deftly coordinated and aggressive flight program, they conducted over 100 Chairman of the Joint Chiefs of Staff 1A3 storm missions battling hurricanes in both the Atlantic and Pacific, plus an additional 53 Joint Airborne/Air Transportability Training missions. They delivered on-time and on-target, a 99.5 percent mission success rate despite a 50 percent labor shortage that followed the CY2016 re-generation efforts that threatened to remove half the available aircraft at Keesler. After leveling at a less than 60 percent manning level, the men and women within the 403d Operations Group increased their manning to just shy of 75 percent, shifted from conversion status to pre-deployment, and added a new Aeromedical Evacuation squadron all in less than one year.

A combined 403d Operations Group, led by the Flying Jennies, then went on to lead the first ever Air Force Reserve Command Green



Flag exercise, combining seven reserve crews with seven active duty crews, the largest executed to date. The distinctive accomplishments of the 403d Operations Group reflect credit upon themselves and the United States Air Force Reserve.

The 403d Operations Group is comprised of the 36th Aeromedical Evacuation Squadron, the 403rd Operations Support Flight, the 5th Operational Weather Flight, the 53rd Weather Reconnaissance Squadron "Hurricane Hunters," and the 815th Airlift Squadron "Flying Jennies."

The 403rd Wing provides command and staff supervision to assigned squadrons and flights that support tactical airlift missions. These missions include airlift of personnel, equipment and supplies. Additionally, the wing is the only unit in the Department of Defense tasked to organize, equip, train and perform all hurricane weather reconnaissance in support of the Department of Commerce. The 403rd Wing is located at Keesler Air Force Base, Mississippi. ■

"The patriot volunteer, fighting for country and his rights, makes the most reliable soldier on earth."

—LT GEN THOMAS J. "STONEWALL" JACKSON

LtGen James E. Sherrard III had a most distinguished career – from his early days as a C-130 airlift pilot to his tenure at the highest levels of Air Force Reserve leadership. General Sherrard twice served as vice commander as well as the tenth and longest-serving Chief of the Air Force Reserve and Commander, Air Force Reserve Command. General Sherrard with his leadership and influence has spanned the depth and breadth of the Air Force Reserve Command, including the command of three tactical airlift wings and both air mobility-focused numbered air forces. A true champion of air mobility, among his awards are the Distinguished Service Medal, Legion of Merit, Meritorious Service Medal (3 OLC) and the Armed Forces Reserve Medal with hourglass.

WHERE IN THE WORLD ARE THEY? 2017 A/TA LOST MEMBER LIST

- | | | |
|-----------------------------------|--------------------------------------|---------------------------------|
| Maj Alan B Adams (Ret)* | Lt Col James E Imlay* | Col Mitchell A Monroe* |
| Col Daniel B Ahern (Ret)* | Takashi Irisumi* | A1C Joseph Montes |
| Maj James E Albin* | Capt Lucas D Jessen | Col Tom O Morison (Ret)* |
| MSgt Sean Bailey | Lt Gen Michelle D Johnson* | James P Morrison* |
| James C Bailey* | SMSgt Eileen J Johnson* | Takeshi Murakami* |
| MSgt Robin A Baird (Ret)* | Lt Col Mark A Kahley* | Brian F Muskus* |
| CMSgt Joseph E Barron Jr (Ret) | Maj John B Kelley* | Deborah A Namdar* |
| SrA Taylor R Biddle | Col George W Kinney (Ret)* | Maj Darwin N Orrell (Ret)* |
| Langhorne M Bond* | Capt Jeffrey K Kintzing* | Lt Col John P Pantleo |
| Lt Col Steven M Borden* | Maj David B Knight* | Maj Gen Teresa M Peterson* |
| Lt Col John F Borowski* | Maj Steven D Knott (Ret)* | Patricia Peterson* |
| Maj Karen A Boyle (Ret)* | Lt Col William J Kornitzer Jr (Ret)* | Lt Col Brian H Porter* |
| Maj William J Britt (Ret)* | CMSgt James S Kruse (Ret)* | Col James R Pugh III (Ret)* |
| Capt Gary W Brown* | Maj Gen Charles F Kuyk (Ret)* | SMSgt Gary L Ramsey (Ret)* |
| Jesse L Burdette | Lt Col Edgar LaBenne (Ret) | Lt Col Spencer T Rasmussen |
| Col Ralph T Carlson (Ret) | Col Charles E Lambert* | Col John A Reddy (Ret)* |
| SMSgt Sigrid Carrero-Perez | Maj Val J Laughlin (Ret)* | Donald A Rigg* |
| Capt William Carter III | Lt Col Howard J Lee (Ret)* | SMSgt Thomas W Rising III |
| Lt Col Garry L Castelli (Ret)* | Capt Christian P Leonhard* | Lt Col John D Roach* |
| Capt George M Christensen* | Capt Michelle Lewis* | TSgt Dawn M Roberts* |
| Capt Winston Churchill* | Col Carlisle A Lincoln III* | Wendy J Rogers* |
| Lt Col Chad K Cisewski | MSgt Christopher T Littrell* | SMSgt Kenneth J Rossa |
| 1st Lt James R Clapsaddle* | Col Jerry D Livingston (Ret)* | MSgt Lucas Rotega Jr (Ret)* |
| Capt William E Clore* | TSgt Roger E Marshall (Ret)* | Patrick K Rothwell* |
| Maj Marilyn M Clouden (Ret)* | Gerald Mathis* | TSgt Robert S Russell (Ret)* |
| Col Richard M Cooper (Ret)* | Lt Col Thomas J Maxwell (Ret)* | CMSgt David E Satchell |
| Maj Gen William L Copeland (Ret)* | Maj Walter J Mazurowski (Ret)* | Lt Col Robert A Saunders (Ret)* |
| SSgt Micah Coppage* | MSgt John H McArn (Ret)* | Lt Col Kimberly Scott |
| Lt Col Kenneth R Council Jr* | Col John W McDonald* | SMSgt William J Sheehan (Ret)* |
| SrA Warren M Darrow | MSgt Mark McElroy (Ret)* | Lt Col Bryan H Shelburn (Ret)* |
| TSgt Larry J Davis Jr | SSgt Lorraine E McLoughlin (Ret)* | Col Michael D Shirley Jr (Ret)* |
| Col John E Davis (Ret)* | CMSgt William T McWhirt Jr* | MSgt Homer Simpson (Ret) |
| Lt Col Mark E DeLuca* | 1st Lt Justin C Medlen | Capt Kelan J Skarbek* |
| John A DeLuca (Ret)* | COL J R Meese (Ret)* | Maj Jerry S Smead (Ret)* |
| CMSgt Christopher L Dockery | Peter J Mena* | Lt Col Joseph Smith (Ret)* |
| Gen William G Doherty Jr* | Gregory R Miller | Lt Col Thomas R Stanley* |
| Hans-Dieter Drell* | CMSgt David L Miller Jr (Ret)* | MSgt Timothy S Stanley* |
| Col John C Dunn (Ret)* | Col Charles E Minihan Jr (Ret)* | 1st Lt Cara J Swanson* |
| Robert D Dutton* | SMSgt Curtis L Mize (Ret)* | Col Allan Swartzmiller |
| Ted W Dutton* | Maj Michael Mohr | MSgt Garrett D Toomas |
| SSgt Shane A Eck* | Maj Kevin D Monaghan* | Jobie S Turner |
| SrA Amanda T Escalante | | MSgt Frank A Uecker II |
| Lt Col Monique Farness* | | SSgt George D Voigt* |
| Lt Col Thomas A Farrier (Ret)* | | Col Jonathan T Wall* |
| Col Paul E Feather* | | TSgt Maria-Kristine S Webb |
| Col John E Ford III (Ret)* | | Maj Michael JP Weiland* |
| TSgt Steven A Gack* | | Lt Col Cornelia Weiss* |
| CMSgt Stephen J Gaudino Jr (Ret)* | | Col Charles B West (Ret)* |
| Col Mark J D Gehri* | | Col William O White Jr (Ret)* |
| Maj Gen George A Gray III (Ret)* | | Maj Marsha White (Ret)* |
| Maj William F Gunkel (Ret)* | | SMSgt Timothy D White* |
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| SMSgt Norzell Harris (Ret)* | | Capt Kevin N Whitney |
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| TSgt Pablo Herrera* | | MSgt Nichole M Wilder |
| CMSgt Antonio J Hickey* | | MSgt Bernard J Williams |
| Lt Col Hubert V Hopkins Jr (Ret)* | | |
| Diana R Hundsdorfer* | | |
| Lt Col Carroll Huneycutt (Ret)* | | |

*Denotes Life Member

If you can help find any of these Lost Members, please drop a note to the Association at ata@atalink.org



Maj Gen Stanley F. H. Newman ANG Outstanding Unit Award

The Airlift/Tanker Association's MajGen Stanley F.H. Newman Air National Guard Award recognizes the most outstanding Air National Guard (ANG) Wing or Group contributing to overall success of the Mobility Air Force mission.

The unit embodies the spirit and essence of the Citizen Airman – balancing the operational demands of today's global mobility operations and maintaining a viable strategic reserve for tomorrow, while embracing responsibilities to their State, civilian employer, community and family.

105th Airlift Wing

The 105th Airlift Wing, Stewart Air National Guard Base, New York, distinguished itself in the performance of outstanding service from 1 July 2016 to 30 June 2017. During this period, the 105th Airlift Wing and its assigned units displayed an unmatched ability to respond to, support, and execute critical rapid global mobility requirements with multi-faceted mission sets supporting three Major Commands across the globe. A truly dynamic unit, they provided immediate strategic and tactical airlift in support of Operations FREEDOM'S SENTINEL, INHERENT RESOLVE, and DEEP FREEZE while completing many challenging deployments and domestic operations. A superior support organization, the 105th Airlift Wing engineered presidential level communications projects enhancing Department of Defense operations, which greatly contributed to national defense objectives worldwide. With a standard of excellence, the 105th Airlift Wing epitomized the wingman, leader, warrior concept readily deploying more than 125 Security Forces Airmen to the area of responsibility as the only Air National Guard unit performing outside the wire base defense, as well as 65 Airmen in support of Joint Task Force Empire Shield to protect New York City after a terrorist attack. The distinctive accomplishments of these renowned Airmen



reflect great credit upon themselves, the State of New York, the Air National Guard, and the United States Air Force.

The mission of the 105th Airlift Wing is to support state and national objectives by providing the State of New York and the Department of Defense with the highly skilled people and operationally ready equipment necessary to support civil authorities in domestic operations and meet airlift and expeditionary combat support commitments. 105th AW personnel are leaders within their state and local communities in the use of advanced technologies, in responding to emergencies and protecting the environment.

The 105th Airlift Wing is comprised of the 105th Maintenance Squadron, the 105th Operations Group, a Medical Group, a Maintenance Operations Flight, an Aircraft Maintenance Squadron, the 105th Mission Support Group, a Logistics Readiness Squadron, the 105th Operations Support Flight, the 105th Operations Support Flight, and the 213th Engineering Installation Squadron.

The 105th Airlift Wing's motto is "Excellence: Our Legacy, Our Standard, Our Expectation."

"When we assumed the Soldier, we did not lay aside the Citizen."

—PRESIDENT GEORGE WASHINGTON

MajGen Stanley F. H. Newman was born in Chicago, Illinois, and moved to Oklahoma in 1948 following World War II. He enlisted into the U.S. Army Air Corps in 1942, and become a pilot. He flew 57 missions in P-51s while in the Ninth U.S. Army Air Forces, in Europe. After World War II, he joined the Oklahoma Air National Guard, becoming its commander before retirement. His career includes service in Korea and Vietnam. Among his awards are the Distinguished Service Medal, Legion of Merit, two Distinguished Flying Crosses, Meritorious Service Medal and 14 Air Medals.

Book Review

by Capt Murdock Moore, USAF Ret

THE SPEED OF HEAT
An Airlift Wing At War In Iraq And Afghanistan
by Thomas W. Young, 2008, MacFarland & Company, Jefferson, NC

A pilot of West Virginia's 167th Airlift Wing was on the taxiway at Newark when the Twin Towers were hit. A Pentagon's first responder fireman was a 167th guardsman doing his day job. A third member had just reassured his wife over the telephone everything was going to be OK when UNITED 93 roared over their Pennsylvania farmhouse. To misquote *The Godfather*, 9/11 Wasn't Business, *It Was Personal!*

Flying C-130s for almost 30 years the 167th knew its capabilities. If the unit had one quirk it was Col Jesse Thomas' obsession with night vision goggles (NVG). Everyone from pilot to pallet pusher had to wear them. Of course there hadn't been an Air Force night assault landing since D-Day (and that was with gliders!), but the wing commander let them fly his airplanes, and paid them to do it, so they tolerated him. NVGs were to be a war winning wear!

By 1200 on 9/11 the plow-and-musket folks began reporting in. No one had hit the RECALL button, they just showed up to get things ready. The initial mission frags from AMC HQ weren't direct-to-the-war-zone in nature. Nor inviolate to daily, sometimes hourly changes. Example: LTC Sandie Duker, SG/FN, would build her medical wire chart in the morning. It might change by midday and then perhaps again at 1630. Occasionally "unlady like phrases" were directed at the changer! The Scott AFB grand pubahs had also determined her deploying air med element would contain not only guardsmen but a smattering of regulars and air reserves. While they all knew their jobs, what they didn't know was "how to play together." Each air med element considered themselves to be the anonited ones – the other elements were to bask in their reflected glory. Now Sandie had to take what was dumped on her from above, but not what was rising up. She gathered her med teams in a room, closed the door, then let fly! OK, perhaps it was displaced anger, but when she left that room *SHE HAD A TEAM!*

From such confusion fusion emerged. Soon it was off to Masirah Island, Oman, a giant step towards the people they really wanted to hurt. OK, the snake eating, ground pounding special ops types considered it a rear area R&R spot but you were in the war!

First combat assignment – Kabul Airport. The Brits had taken it but that didn't make it without hazard. You flew in at night without landing or runway lights. It was the dark spot amongst the flickering lights. Via the NVGs you landed on the clear abnormality. The blacked-out RAF tower talker adding to your sense of insecurity by asking, "Are you down yet?" – adding "Did terminal vehicles now use the left side of the taxiway?" In the NVG green gloom you followed unlit markers to the unloading zone, downloaded in the dark,

The Speed of Heat tells the story of one Air National Guard airlift wing as related by its members. The 167th Airlift Wing of the West Virginia Air National Guard consisted of a squadron of 12 C-130 cargo planes, their crews, and all the supporting sections--in all, more than 1,200 people. The author, a former Associated Press reporter turned aviator, flew as an active member of that unit and interviewed nearly 70 servicemen and women for this book. Their stories include C-130 aircrews who dodged heat-seeking missiles, mechanics who made combat repairs, flight nurses who treated and transported the wounded, even two motor pool truck drivers struck by a roadside bomb. The interviewees vividly describe their day-to-day work in the war zone, revealing the inner workings of a part of the military not usually well covered by the news media.

then it was out of Kabul before the sun and the snipers arose!

It would become typical, a myriad of others, to include the bed-and-breakfast bunch, loggies, maintainers, civil engineers, all working all day to keep you up all night.

Things went semi-civilized semi-rapidly. Combat Engineer's plywood palaces gave way to brick buildings. In theory the Afghan/Iraq war was over, but the bases kept taking motor and rocket rounds. Prayer times were good times to eat or do outdoor requirements. If you got tired of "taking it" you could volunteer to be a convoy guard. The convoys were also always taking it, but at least you could DISH IT OUT (note: No 167th member was wounded in convoy activities).

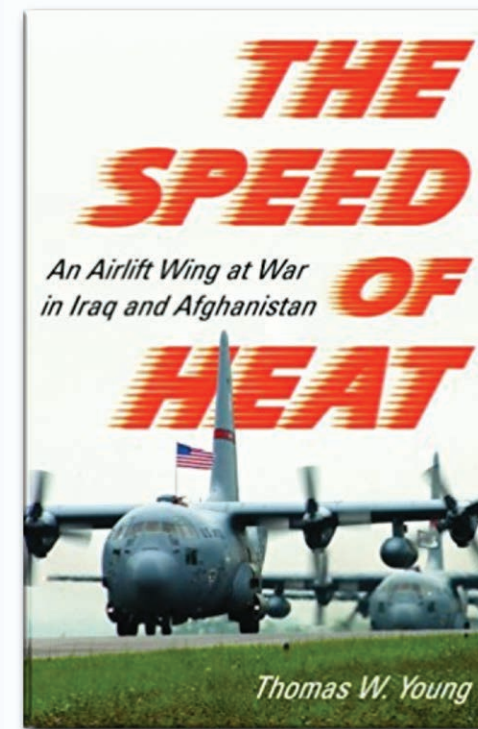
When flying into a semi-secure landing spots the C-130s carried their own shooters, SPs called "Ravens," their expertise made attacking a C-130 "not a good career move."

While those in the higher elevating pilot seats of a C-130 might considered themselves closer to God, their actions occasionally appeared to be made with less than divine judgements. For instance, a pilot notified by his window scanning loadmaster of tracers banked towards them to get a better view. The flight engineer questioned if that was the best move. Need another example? A forward deployed C-130 experienced engine problems at Balad (AKA "Mortaritaville"), Iraq. A "hammer-and-duct-tape" Maintenance Recovery Team returned the engine to semi-serviceable. The pilot cut it, then tried an ineffective restart. The maintainers again exposed themselves for a partial fix. Again a full power run up to a cut! Again an ineffective restart. Their maintenance team chief then explained to the aircraft commander the location was not depot-level-maintenance. Their job was to get him SAFELY IN THE AIR! The engine was refixed and, without a restart, the C-130 lifted off and made it home, as did the crunch crew!

Once in the air low- to mid-altitude flying made you vulnerable to SA-7s and .51 cal. fire. Strangely the cure was to get LOWER! When bearing a good navigator you flew at full power at touch-down altitude. Called *SPEED OF HEAT FLYING* – you breezed by camel and man, the latter, seldom having SAM or even AK in hand, could only beat sand. It was pre-war unthinkable, but it worked!

And on returning home what did the 167th gain for superlative combat efforts? Not factory fresh C-130Js. Too logical. The puzzle palace bean-counters upgraded them to on-time challenged C-5As. No more ridge running! Well, at least until their single digit airhour C-17s arrived in 2015.

An outstanding read of 122 true tales of how a complete Airlift Wing went to war well.





Salute to Our Industry Partners

America's Aerospace Industry plays an integral role in providing our country's decisive military edge; and, the A/TA's Industry Partners play a vital role in assuring the success of the Association.

(Industry Partners as of 15 September 2017)

"A huge thank you to ALL the Industry Partner, Industry Supporter, Government Supporter and Pro Bono Exhibitors! We have a great Exposition lined up for this year's A/TA Convention. Over 90 exhibitors are registered and I anticipate we will surpass 100 by the time we arrive in Orlando. There are a wide variety of companies and organizations as well as many first-time exhibitors. In addition, we have seminars lined up that will be highly informative for all exhibitors. They include: "The Government's Perspective on Business Development in AMC," "The Future of Additive and Aviation," and "Military Transport as Fire Fighters." So, this year will be very exciting – can't wait to get started – Welcome to Orlando!"

— CARY WALGAMOTT



ABILENE MILITARY AFFAIRS COMMITTEE

The Abilene Military Affairs Committee (MAC) has supported Dyess AFB and the Air Force for over 50 years by cultivating an outstanding relationship between the community and the military. The most visible example is the "World's Largest Barbeque" held every spring, at which over 4,000 airmen and their families are served a free barbeque meal. The MAC has also completed several upgrades for the base, including DV quarters, the Linear Air Park, Base Ops Lounge, Memorial Park, and has supported countless base events. Abilene won the AMC Outstanding Community Support Award so many times that AMC disqualified the city from further competition and renamed it the "Abilene Trophy", which is now judged every year by the Abilene MAC. In addition, the 300+ volunteers of the MAC engage with senior military leaders and elected officials at local, state, and national levels to advocate for Air Force and community issues.



AERIAL REFUELING SYSTEMS ADVISORY GROUP INTERNATIONAL (ARSAG)

The Aerial Refueling Systems Advisory Group International, Inc. (ARSAG International, Inc.) was chartered in 2004 as an independent, non-profit technical professional organization dealing with aerial refueling issues on an international scale. ARSAG International provides a single inter-service and international agency that advises on aerial refueling system matters. It currently serves as a coordinating/advisory body for the resolution of existing deficiencies in tanker and receiver aerial refueling systems and for the development and implementation of improvements to these systems. These efforts include providing assistance in engineering, development, testing, support and operating systems that apply to aerial refueling. The by-product of ARSAG International's ongoing efforts is an annual conference/symposium in which the US and international aerial refueling community refreshes and updates its activities during the past year.



AIRBORNE GLOBAL SOLUTIONS

Airborne Global Solutions, Inc. (AGS) specializes in providing operating and leasing solutions utilizing cost-efficient medium wide-body freighter aircraft. AGS, a subsidiary of Air Transport Services Group, Inc. (ATSG), leverages the entire ATSG portfolio and other solution partners to develop bundled, turn-key cargo airline solutions that are flexible, customized and built on decades of experience in global cargo airline operations. Through strategic alliances with the ATSG family of companies, which include two cargo airlines, a maintenance repair organization and ancillary airline service providers, we offer a bundled solution approach to providing the right solution at the right time—anywhere in the world.

<http://www.airborneglobal.com/>

*"Gold is good in its place;
but living, brave, patriotic men,
are better than gold."*

—Abraham Lincoln

AIRBUS

AIRBUS

Airbus Americas, Inc. is the U.S.-based operation of Airbus, a global leader in aerospace, defense, space and related services. Airbus contributes more than \$16.5 billion to the U.S. economy annually and supports over 250,000 American jobs through its network of suppliers. Airbus Americas, Inc., headquartered in Herndon, Va., offers a broad array of advanced solutions to meet U.S. military and commercial requirements, including fixed- and rotary-wing aircraft, homeland security systems, public safety communications, defense electronics and avionics, and threat detection systems.



ALTUS MILITARY AFFAIRS COMMITTEE

The Altus Military Affairs Committee (MAC) was established in 1952 by community leaders to forge a lasting relationship between the community and base. The MAC mission is to sustain Altus AFB as a viable military installation by promoting base growth through community support and protecting one of our nation's most valuable assets. The Committee's vision is "to have the best air force base and community relationship in the U.S. Air Force." To accomplish their mission, committee members engage in a variety of activities including raising financial support, planning and attending community/base functions, building social and professional relationships with base personnel, engaging Senior Air Force leadership, interacting with elected officials and staff at local, state, and federal levels, and serving as a liaison to the community. For the past 55 years, MAC and community members have also organized and attended the annual Altus Quail Breakfast currently hosted by Senator James Inhofe.

*"Outsourcing and globalization of
manufacturing allows companies to reduce
costs, benefits consumers with lower cost
goods and services, causes economic
expansion that reduces unemployment, and
increases productivity and job creation."*

—Larry Elder



ANTONOV COMPANY

With over 70 years' experience, ANTONOV COMPANY is a leader in the design, development and production of transport planes. Backed up by 13,000 employees, ANTONOV offers unique and competitive solutions to airlift requirements world-wide including next generation aircraft types AN-77, AN-178 and AN-132.

As the design, maintenance and life-extension authority, ANTONOV has created and overseen the operations of over one hundred types and modifications of transport, passenger and special-purpose aircraft.

ANTONOV also has 28 years offering airlift charter solutions world-wide through its fleet of AN-124, AN-225 and AN-22 freighters. ANTONOV performs flights for customers in the defense, humanitarian, aerospace and other sectors.

This rich combined experience of aircraft design and aircraft operations feeds through into very efficient airlift solutions.

For more information, visit www.antonov.com/.



ATLAS AIR WORLDWIDE

Atlas Air Worldwide (NASDAQ: AAWW) is a leading global provider of outsourced aircraft and aviation operating services. It is the parent company of Atlas Air, Inc. (Atlas), Southern Air, Inc. (Southern), and Titan Aviation Holdings, Inc. (Titan), and is the majority shareholder of Polar Air Cargo Worldwide, Inc. (Polar). Our companies operate the world's largest fleet of 747 freighter aircraft and provide customers a broad array of Boeing 747, 777, 767, 757 and 737 aircraft for domestic, regional and international applications. We empower our express and e-commerce delivery, airline, freight forwarder, US military (including the CRAF program), and charter customers to increase fleet flexibility and network efficiency, drive an expanded global presence, and more quickly capitalize on market-growth opportunities. In addition, we are the provider of training for Air Force One and for E-4B pilots and flight engineers. For more information, please go to www.atlasair.com.



AVIATION TRAINING CONSULTING, LLC

As one of the most diverse aerospace defense contractors, Aviation Training Consulting provides critical training and logistics services for thousands men and women around the world from the United States and allied nations, supporting many of today's most advanced military programs and aircraft.

ATC's reputation is built upon developing system-wide solutions for DoD and Commercial clients. Our employees are skilled at a number of specialties to include Studies, Analyses, Curriculum and Courseware development, Engineering support, Maintenance support of Training Devices, and Flight and Maintenance Training.

ATC's talented, enthusiastic, professional training team is ready to meet our clients' challenges for training demands. Expertise from the United States Air Force and Marine Corps veterans as well as former career civil-service employees and commercial talent with extensive training and education evaluation backgrounds comprises the ATC staff. Our level of past experience ranges from positions as wing, group, and squadron commanders, school-house instructors, wing-level training, Engineering and Maintenance personnel, Air Training System (ATS) management, air field management, financial management, and support function experience. Averaging over 20 years per employee both inside and/or outside the military environment, ATC applies a laser-like focus on the development of processes, procedures, organizational structure, reporting, and mission blueprint for large-scale life cycle program support.

Learn more at www.atc-hq.com.

"Excellence is not a skill. It is an attitude."

—Ralph Marston



BANGOR INTERNATIONAL AIRPORT

Bangor International Airport (BGR) comprises one of the most experienced, full-service ground handling organizations worldwide. Dedicated to provide customers with prompt and professional service, BGR is renowned for the ability to turn an aircraft quickly and safely.

Strategically located as the first U.S. airport encountered entering U.S. airspace from Europe, Bangor provides 24/7 experienced dispatchers to coordinate an aircraft's arrival, servicing and departure with base operations, 24-hour refueling, 24/7 Customs and Immigration services, and complete ground handling services, and maintenance with a FAA/EASA certified repair station. BGR offers a strategic advantage for all-inclusive cargo handling that provides economic cargo tech-stops and operations.

BGR's runway of 11,440 feet can accommodate any aircraft flying today including the AN-225 and an A380. BGR has 12 million square feet of open ramp space. BGR is an all-weather CAT III access airport with de-icing services, hydrant and truck fueling, and competitively priced services.

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strategy and technology consultants

BOOZ ALLEN HAMILTON

Booz Allen combines the power of consulting expertise, technical skill, and mission knowledge to deliver results that meet our clients' challenges and also inspire new levels of success. We are consulting reimagined, and the power to reimagine is the power to inspire a better future for our clients, communities, and people.

Consulting is only part of our story. For more than 100 years, Booz Allen defined management consulting. We were there as modern corporations emerged in the 1920s and 1930s, the Allies mobilized for World War II, the Cold War began and ended, the Space Age dawned, and Asia and South America rose with strong economies. Booz Allen has helped our nation defend and improve its readiness during the Gulf Wars, respond to the terrorist attacks of 9/11, and combat the rise of new cyber threats that have changed how businesses operate.

Now in our second century, we are as vibrant and innovative as the day we were born. After having created the very concept of management consulting more than a century ago, we have now woven that heritage into a range of highly skilled technological capabilities that have had an exciting impact for our clients, our people, and the communities where we live and work. Our people are bringing their mix of consulting and advanced technology expertise to solve problems with a different, more effective mindset. Their purpose is to devise powerful solutions for our clients' toughest challenges. And their passion is in everything they do; they want to help their country protect and serve its citizens better and make sure their neighbors have adequate food and shelter. We've lasted more than 100 years because we've stood firm on a foundation of the highest character, an unyielding commitment to the best client service, and genuine care for our employees and communities. But importantly, we've also adapted with the needs of the times.

Today, we're building value and opportunity for our second century by investing in technology skills like data science and analytics,

systems delivery, engineering, and cyber, and we're supporting those skills with investments in our culture of innovation. Our clients call upon us to work on their very hardest problems because they see again and again that we are up to the task. And our investors, whose confidence and support give us the ability to serve our clients and communities, see our value each year in strong financial performance and potential for growth. Our nearly 23,000 talented people are pioneering and inspiring new systems and approaches that are transforming our clients' missions. <http://www.boozallen.com/>

*"There exist limitless opportunities
in every industry. Where
there is an open mind,
there will always be a frontier."*

—Charles F. Kettering



BOSE CORPORATION

Bose is one of the largest and best-known audio technology developers. In addition to home, professional, and automotive audio products, Bose manufactures communications headsets for civilian pilots and military aircrews in a variety of applications and aircraft types. Bose headsets with proprietary Acoustic Noise Cancelling® technology offer an unmatched combination of noise reduction, audio performance, and comfortable fit that remains unmatched in the industry.



CAE

CAE is a global leader in providing comprehensive training solutions based on world-leading simulation technology and integrated training services. The company employs 8,000 people at more than 160 sites and training locations in 35 countries. CAE offers our civil aviation and defense and security customers a complete range of highly innovative product, service and training center solutions designed to help them meet their mission critical needs for safety, efficiency and readiness. CAE has the largest installed base of civil and military flight simulators, supported by a range of after-sales services, and has been serving the needs of its customers for nearly 70 years. CAE has the broadest training services network in the world and offers civil aviation, military and helicopter training services in 67 locations worldwide and trains more than 120,000 civil and military crewmembers annually. CAE is a world leader in the design, development, and delivery of training systems for airlift and tanker aircraft, including having delivered more C-130 training systems than any other company. CAE USA is the prime contractor responsible for the KC-135 Aircrew Training System (ATS), supports Lockheed Martin as a subcontractor on the design and manufacture of C-130J and HC/MC-130J simulators and training devices, and is currently upgrading C-5 weapon systems trainers for the USAF.



CAPEWELL AERIAL SYSTEMS, LLC

CAPEWELL AERIAL SYSTEMS IS A GLOBAL LEADER IN AEROSPACE AND LIFE SUPPORT. We are a respected provider of engineered products for aerial delivery, life support and tactical gear for military, law enforcement and humanitarian agencies worldwide. Founded in 1881, Capewell has thrived by helping customers conceive, engineer, prototype, manufacture and field test products that must perform flawlessly in critical situations.

Our life support products consist of restraints, egress devices, flotation vests and emergency breathing systems, as well as soft tactical gear for law enforcement and SAR; AirTEP will revolutionize air rescue. Capewell's parachute equipment includes harnesses, releases and ripcords.

Our aerial delivery products consist of platforms, tow-plates, buffer stop assemblies, cargo slings and centerline restraints; systems applicable to military and humanitarian applications. Additionally, Capewell is the international marketer for the Joint Precision Air Drop System Mission Planner and the Wireless Gate Release System. Capewell Aerial Systems, LLC offers the "Total Package" of Design, Manufacture, Training and Support and is ISO9001 and AS9100 Certified.



CASS

CASS is a premier commercial source of air operations and training. We are a veteran-owned, veteran-operated, small business of subject-matter experts whose experience spans across multiple military and commercial platforms. We offer a full range of consulting, training, and other services from aircraft engineering/test, operations including use of air power, aerial firefighting, air refueling, air-lift, flight/ground crew training, logistics and maintenance, and aircraft ferry services. For example, CASS has developed and managed an Advanced Tanker Crew Training School for the Royal Australian Air Force, the Royal Saudi Air Force, and the United Arab Emirates Air Force. CASS has also helped the US Forest Service launch its C-130H aerial firefighting capability. CASS provides total cradle-to-grave support from initial problem analysis to solution execution. CASS partners are dedicated to helping our nation and its allies find solutions to today's tough mobility and aviation challenges. Our website: www.cass.aero.



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As the world's leading supplier of critical control solutions, we help our customers to increase the safety and mission capabilities of their personnel and equipment in extreme environments. Our proven and trusted solutions in air-to-air refuelling, life support, weapons carriage and unmanned systems, deliver assured performance and class-leading through-life costs that enable our customers to bring complex projects to market quickly, and with minimal risk.



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David Clark Company Incorporated is the world leader in headsets for military, marine, and general aviation, specializing in communication solutions for any high-noise environment. Our Worcester, MA, facility has been manufacturing headsets and communication systems for over half a century. Pilots, both civilian and military, fire departments, coastal interdiction personnel, NASA, and many other government customers are very familiar with the high quality, durability, and serviceability of our products.



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Elbit Systems of America is a leading provider of high performance products, system solutions, and support services focusing on defense, homeland security, commercial aviation and medical instrumentation. With facilities throughout the United States, Elbit Systems of America is dedicated to supporting those who contribute daily to the safety and security of the United States. Elbit Systems of America, LLC is wholly owned by Elbit Systems Ltd. (NASDAQ: ESLT), a global electronics company engaged in a wide range of programs for innovative defense and commercial applications.

Visit us at www.elbitsystems-us.com.



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Essex Industries is a world-class leader in the design, development, production and support of aerospace, life support and safety products and systems. Our unique product lines include crew oxygen delivery systems; ground-based and airborne med-evac liquid oxygen (LOX) life support systems; fixed- and rotary-wing flight control stick, throttle, cyclic and collective grip assemblies; hydraulic pulsation dampeners; portable protective breathing equipment; and hundreds of other mechanical and electromechanical components and assemblies for aircraft fuel, hydraulic, ECS and ground support systems. Over the past 65 years, Essex Industries has established a reputation for providing engineered solutions and superior customer service. With exacting quality standards and manufacturing expertise, Essex Industries is a company that can satisfy the toughest application requirements.

For more information, please see <http://www.essexindustries.com/>
New Product Press Release: Essex Industries has introduced a product designed specifically to provide a logistics solution for flight line LOX requirements. The new 500 Gallon LOX Trailer was developed under a contract for the US Department of Defense.

FIELD AEROSPACE

FIELD AEROSPACE

A U.S. owned and operated small business, Field Aerospace is located in Oklahoma City, Oklahoma and has over 160,000 sq. ft. of facilities that include offices, hangars, and manufacturing/industrial space, as well as a staff of over 300 technicians, mechanics, engineers and other highly skilled personnel.

Our capabilities include aircraft modifications and upgrades, professional project and program management, aircraft maintenance, end-to-end special-mission aircraft services, certification and installation services, logistics, training support and many other custom services. Our integration capabilities include avionics (military and commercial), communications (voice, data links, satellite, secure), ISR (Intelligence, Surveillance, Reconnaissance), and special purpose mission systems.



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“Never tell people how to do things.

Tell them what to do and they will surprise you with their ingenuity.”

—General George S. Patton



FLIGHTSAFETY INTERNATIONAL

FlightSafety International is a simulator-based training company whose contribution to aviation began with its founding in 1951. The company's special emphasis is on developing proficiency in the safe and effective operation of complex, potentially hazardous equipment. This normally means training pilots and maintenance technicians for all types of aircraft. FlightSafety's FAA-certified training revolves around the use of advanced simulators that replicate with certified accuracy the experience of flying. FlightSafety's simulators are designed and built by its Simulator Systems. Company training encompasses all facets of aviation – commercial, corporate, private and military. Military programs include operating and maintaining the new KC-46 Aircrew Training Systems (ATS), the C-5 and KC-10 ATS for the United States Air Force. It also operates the Contractor Logistics Support (CLS) program for the T-1 and T-38 programs. Since its founding, the company has always championed that: “The best safety device in any aircraft is a well-trained crewmember.”



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Intelligent Apps for Pilots™

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ForeFlight Mobile is an elegantly designed and best-selling aviation app for iPad and iPhone. ForeFlight Mobile is used by individual pilots and professional flight crews to efficiently gather preflight weather and destination information, route plan, access and manage electronic charts and terminal procedures, organize flight publications, reference as an enroute navigation aid, and manage iPad deployments. ForeFlight Mobile is backed by the company's Fanatical Pilot Support™ team. Website: <https://www.foreflight.com>.

“From computers to information technology to airplanes, it has been America's unique blend of republican government and free-market capitalism that has allowed us to surpass all other nations in history.”

—George Nethercutt



GANDER INTERNATIONAL AIRPORT AUTHORITY

Gander International Airport (CYQX) has served as a strategic military staging point and technical stop since 1938. In its role as a joint civilian/military airport, CYQX hosts over 2,000 military aircraft annually ranging from F18s to C5s and everything in between.

CYQX is an optimal staging point for military operations with strategic positioning for transatlantic flights and exceptional service on the ground. All services are provided 24/7 with no curfews or abatements. Gander has a proven track record in meeting the high standards demanded by military users and looks forward to accommodating your operation.



GE AVIATION

GE Aviation is a world-leading provider of jet, turboshaft and turboprop engines, components and integrated systems for commercial, military, business and general aviation aircraft. GE Aviation has a global service network to support these offerings.



GEORGIA TECH RESEARCH INSTITUTE

Georgia Tech Research Institute (GTRI) is a global leader in applied research and development whose world-class engineers and scientists solve some of the toughest problems facing government and industry. GTRI is uniquely positioned within the Georgia Institute of Technology (Georgia Tech), a top research university. Many of our experts are recognized internationally in a vast array of research domains. GTRI's core research areas include complex and agile systems engineering, sensor design and integration, modeling and simulation, information management and cyber security, and defense technology development. GTRI has over 2000 employees and conducts more than \$375 million in sponsored research annually. For more information, please visit: GTRI.gatech.edu.



GULFSTREAM AEROSPACE CORPORATION

Gulfstream Aerospace Corporation, a wholly owned subsidiary of General Dynamics (NYSE: GD), designs, develops, manufactures, markets, services and supports the world's most technologically advanced business-jet aircraft. Gulfstream has produced more than 2,500 aircraft for customers around the world since 1958. To meet the diverse transportation needs of the future, Gulfstream offers a comprehensive fleet of aircraft, comprising the Gulfstream G280TM, the Gulfstream G550TM, the Gulfstream G500TM, the Gulfstream G600TM, the Gulfstream G650TM and the Gulfstream G650ERTM. Gulfstream also offers aircraft ownership services via Gulfstream Pre-Owned Aircraft Sales™. We invite you to visit our website for more information and photos at www.gulfstreamnews.com.



HILTON SOFTWARE LLC

Hilton Software is the developer of the award-winning WingX, a multi-platform aviation application for iOS and Android. Innovation is at our core. WingX was the first major mobile app to introduce many of the new technologies we see in mobile Electronic Flight Bags today including Synthetic Vision, Terrain overlays, GPWS, Split Screen, and ADS-B Weather and Traffic.

Hilton Software is a United States Department of Defense Prime Contractor. In 2013, Hilton Software was awarded a 3-year contract worth over \$9M. In 2017, Hilton Software won a 5-year contract worth over \$17M to develop multi-platform solutions used throughout the world by US DoD pilots and our allies. The systems we develop significantly increase efficiency, capability, and safety. Moreover, aircraft fuel burn across the fleet has decreased measurably thereby saving our Government millions of dollars each year.

Awards: Golden Bridge Award for Executive of the Year – Information Technology Software (2017); Golden Bridge Award for Most Innovative Executive of the Year (2017); Gold Stevie® Award for Executive of the Year in Aerospace & Defense (2017); Silver Stevie® Award for Tech Innovator of the Year (2017); Silver Stevie® Award for Executive of the Year – Computer Software – Up to 500 Employees (2017); Won Media Post's Appy Award in the Mapping/Location-Based category (2016).

For more information, please visit <http://www.hiltonsoftware.com>.



HONEYWELL AEROSPACE

Honeywell Aerospace products and services are found on virtually every commercial, defense and space aircraft, and its turbochargers are used by nearly every automaker and truck manufacturer around the world. The Aerospace business unit develops innovative solutions for more fuel efficient automobiles and airplanes, more direct and on-time flights, safer flying and runway traffic, along with aircraft engines, cockpit and cabin electronics, wireless connectivity services, logistics and more. The business delivers safer, faster, and more efficient and comfortable transportation-related experiences worldwide. For more information, visit www.honeywell.com.



JACKSONVILLE JETPORT AT CECIL KVQQ

The Jacksonville JetPort is the premier FBO at Cecil Field (KVQQ) in Jacksonville, Florida. A former Naval Air Station, Cecil has the longest runways in the southeast United States (12,503 feet and two at 8,000 feet) and is strategically located adjacent to the Atlantic and Gulf of Mexico Warning Areas and the Pincastle Target Complex. Cecil is also home to the U. S. Coast Guard HITRON, Customs Air and Marine Aviation and the Florida Army National Guard aviation units. Twenty four hour ARFF, an air traffic control tower and the only DLA-authorized Rapid Refueling location in the country make Cecil your best choice for quick turns and for training and support detachments. Visit us at www.jaxjetport.aero/military.

“The airplane stays up because it doesn't have the time to fall.”

—Orville Wright



JEPPESSEN

For more than 80 years, Jeppesen has made it possible for pilots and their passengers to safely and efficiently reach their destinations. Today, this pioneering spirit continues as Jeppesen delivers transformative information and optimization solutions to improve the efficiency of air and sea operations around the globe. Jeppesen is a Boeing subsidiary and part of the Digital Aviation business unit within Boeing Commercial Aviation Services. Boeing offers the industry's largest portfolio of support and services solutions, providing customers a competitive advantage by solving real operational problems, enabling better decisions, maximizing efficiency and improving environmental performance – intelligent information solutions across the entire aviation ecosystem. www.jeppesen.com.



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JLG INDUSTRIES, INC.

JLG Industries, Inc. is the world's leading designer, manufacturer and marketer of access equipment. The Company's diverse product portfolio includes leading brands such as JLG® aerial work platforms; JLG, SkyTrak® and Lull® telehandlers; and an array of complementary accessories that increase the versatility and efficiency of these products. JLG is an Oshkosh Corporation company [NYSE: OSK].

For more information about JLG Industries, Inc., log onto the company website at www.jlg.com.



Technologies

L-3 TECHNOLOGIES

For more than a decade, L3 Technologies has delivered superior performance to the U.S. government, our allies and leading corporations throughout the world. L3 knows the critical role our products and services play in the protection and defense of freedoms worldwide. L3 Aerospace Systems delivers integrated solutions for global Intelligence, Surveillance and Reconnaissance (ISR) operations and provides modernization, upgrade, sustainment, maintenance and logistical support for a wide variety of aircraft and ground systems. L3 Aerospace Systems is one of the world's preferred sources for highly customized design, integration and certification of mission communication systems and interiors for VIP/Head-of-State aircraft. L3's aircraft logistics services include modernization and refurbishments, upgrades and sustainment, and maintenance support for military, government and commercial customers. With locations in 40 states and 29 countries, L3 has the capacity to modify and service hundreds of aircraft 24/7, supporting our customers and the men and women who proudly serve our country.



LEONARDO DRS

Leonardo DRS (formerly DRS Technologies), is a recognized world leader in the integration of complex technologies into legacy systems and platforms for global military and commercial customers. DRS Land Systems a division of Leonardo DRS headquartered in Saint Louis, Missouri with a 100 acre heavy equipment manufacturing facility in West Plains, Missouri, providing state-of-the-art engineering for and manufacturing of complex welded structures that meet the demanding requirements of today's Warfighter and commercial customers.

DRS Land Systems is proud of our unwavering support to Air Mobility Command Global Air Mobility Mission. Our overhaul, worldwide part supply, and globally positioned field service representatives endure that both the Tunner 60K and the Halvorsen 25K Aircraft Cargo Loaders are mission ready to aid AMC in meeting their global commitments.

See the full range of our capabilities at www.leonardodrs.com.

LifePort

LIFEPORT

LifePort pioneers aircraft solutions that have been utilized in some of the most challenging environments that the world has to offer. We use this experience to ensure that our catalog of products meets the most stringent mission requirements of both current and future operations. LifePort products currently serve dozens of military organizations around the world and have included: Light-weight ballistic protection systems, MEDEVAC and CASEVAC systems, customized mission seating, command and control consoles, and other engineered components for military aircraft. LifePort systems have been developed, improved, and refined over years of high-tempo field use, and we are ready to apply that knowledge to any mission – however challenging.



LOCKHEED MARTIN AERONAUTICS COMPANY

Headquartered in Bethesda, Md., Lockheed Martin is a global security and aerospace company principally engaged in the research, design, development, manufacture, integration, and sustainment of advanced technology systems, products, and services

Lockheed Martin Aeronautics is known for building and supporting the finest military aircraft in the world, which include the C-130 Hercules; C-5 Galaxy; P-3 Orion; U-2 Dragon Lady; F-16 Fighting Falcon; F-22 Raptor and F-35 Lightning.

The C-130 Hercules has earned its reputation of a proven workhorse supporting multiple missions around the world. From aerial refueling to search and rescue, fighting wildfires and special operations, the C-130 Hercules stands ready for its next mission. And for whatever the future holds. www.lockheedmartin.com/C130

“When everything seems to be going against you, remember that the airplane takes off against the wind, not with it.”

— Henry Ford



Louis Berger

LOUIS BERGER SERVICES

Louis Berger is a \$1 billion global corporation that helps clients solve their most complex challenges. Louis Berger performs large-scale government services contracts for multiple branches of DoD and other US government agencies. To these US government clients, we bring decades of business and operational experience in CONUS and OCONUS locations, including Stuttgart, Germany; Naval Air Station, Rota, Spain; Kuwait; and several other critical locations in Southwest Asia and the Far East. We are a trusted partner to national, state and local government agencies; multilateral institutions; and commercial industry clients worldwide. By focusing on client needs to deliver quality, safe, financially-successful projects with integrity, we are committed to deliver on our promise to provide Solutions for a Better World.



MCCLELLAN JET SERVICES

McClellan Jet Services is a central part of the 3,000 acre corporate community known as McClellan Park – the most successful base conversion project in America. At McClellan Park, large corporations and small businesses alike enjoy a wide variety of on-site amenities, including our 10,600 foot airfield. McClellan Jet Services is a “DESC Into Plane Contractor” authorized under DESC Contract number SP0600-06-D-0043. We regularly serve U.S. Coast Guard, U.S. Air Force, U.S. Army, U.S. Navy, U.S. Marines, California Highway Patrol, other federal, state, and local law enforcement agencies. Our Line Service Technicians have experience and expertise in fueling a wide variety of military and homeland security aircraft. McClellan Jet Services has the best Jet A fuel prices in Northern California.

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“You don't concentrate on risks. You concentrate on results. No risk is too great to prevent the necessary job from getting done.”

— Brig General Charles E. “Chuck” Yeager, USAF (Ret)



MILLION AIR - AN AVIATION SERVICES COMPANY

The Million Air chain of fixed-base operations (FBO) stands as the nation's premier provider of upscale aviation services to include our famous Jet-A-Way Café. Million Air delivers general aviation services through a chain of separate FBO franchises strategically located across the U.S., Canada and the Caribbean.

Freeman Holdings Group, L.L.C. owns and operates Million Air FBO franchises in Alexandria, LA; Lake Charles, LA; Bay St Louis, MS; Rome, NY; March Air Reserve Base, Riverside, CA, Moses Lake, WA; Sanford-Orlando International Airport; Topeka, KS, Victorville, CA, and Yuma, AZ. We will be opening or newest FBO soon at Syracuse, NY! Each one of these locations has the DoD fuel contract. Freeman Holdings Group Million Air FBOs are well known throughout all branches of the Armed Forces as the preferred “Military FBO” where the military flight crew always comes first. We offer the best barbeque and Po Boy sandwiches at our Jet-A-Way Cafés.



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Northrop Grumman is a leading global security company providing innovative systems, products and solutions in autonomous systems, cyber, C4ISR, strike, and logistics and modernization to customers worldwide. Please visit www.northropgrumman.com for more information.



OMEGA AIR

Omega Air remains the only commercial supplier of aerial refueling services to the US Military and its allies. With more than 16 years experience supporting the warfighter, Omega has earned an exceptional reputation by providing highly reliable and cost effective strategic aerial refueling around the globe. Utilizing the aerial refueling expertise of highly qualified military veterans, Omega delivers seamless military support with commercial efficiencies delivering mission completion rates of 99%.

Omega uses highly reliable and thoroughly proven tanker platforms, the B-707 and the DC-10. These workhorses have been modified by Omega to ensure the highest possible redundancy. Omega is able to maximize efficiency by overseeing most of the key components that go into the final product. These specialties include its own FAA 145 engine repair station, engineering support for modifications and R&D, maintenance scheduling, flight line maintenance, supply chain for spare parts and operational aircrews. www.omegaairrefueling.com.



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Parker Aerospace is a global leader in flight control, hydraulic, fuel, inerting, fluid conveyance, thermal management, and engine systems and components used on the world's fleet of aircraft and aero-engines. Phone: 949-833-3000. Website: www.parker.com.

“Technology is nothing. What's important is that you have faith in people, that they're basically good and smart, and if you give them tools, they'll do wonderful things with them.”

— Steve Jobs



PHOENIX-MESA GATEWAY AIRPORT

Phoenix-Mesa Gateway Airport (formerly Williams Air Force Base) is a rapidly growing commercial airport in the Greater Phoenix Arizona region. It is a premier business location ideally situated in the Southwest United States as an alternative to many other crowded facilities. Gateway has three long runways averaging 10,000 feet each and has hosted the largest aircraft in the world including the An-225, An-124, C-5s, C-17s, 747-8F, and 747-400F, as well as other wide bodies. Gateway is also actively used by the Arizona Air National Guard for KC-135 training and regularly hosts the Omega Tanker. Gateway Aviation Services is an airport owned and operated FBO that strives to provide the highest quality experience for Gateway customers. Gateway Aviation Services holds the Government Fuel Contract and welcomes all military operations to experience the ease of Gateway.



PORT CITY AIR

Corporate Logo Portsmouth International Airport at Pease (KPSM), home to the 157th Air Refueling Wing and the Pease Greeters, has a rich and loyal history of serving and honoring our military. Port City Air (PCA), caretakers on the civilian side of the field continues this tradition by offering exemplary service for all military branches visiting Portsmouth, NH. As awardees of the DoD military fuel contract currently and in the past, PCA welcomes all types of military traffic, from the most basic trainer to the largest of transports with an emphasis on exceeding expectations.

Our mission-friendly, strategically located airport offers an 11,321 foot runway, 24/7 Customs, no PPR requirements, a fleet of complimentary crew cars, concierge service second to none and a ground staff well versed in providing operational support. We are your "boots on the ground" and pride ourselves on doing our part to make each mission an operational success. Please ask about our "Lobstah Run!" Say "Pease" and we'll always say "Thank You" with our dedicated service!



PRATT & WHITNEY MILITARY ENGINES

Pratt & Whitney, a unit of United Technologies Corp. (NYSE: UTX) company, is a world leader in the design, development, manufacture and support of gas turbine engines for military, commercial, industrial and space application. Pratt & Whitney is proud of its more than 90 year association and support of the United States Air Force as it powers key airlift and fighter aircraft applications worldwide as well as the recently announced B-21 bomber. Our military engines power the Air Force's front line fighters today – the F-15 and F-16 – and our F119 and F135 engines power the only 5th generation fighters in the world – the F-22 Raptor and F-35 Lightning II. Four F117 engines power the Boeing C-17 Globemaster III, the U.S. Air Force's premier airlifter. Pratt & Whitney is also proud to power Boeing's KC-46A, the U.S. Air Force's new aerial tanker with our PW4062 engines. Pratt & Whitney's unmatched record in customer-focused customized maintenance, material, and fleet management programs ensures flight readiness to our partners around the world.

QINETIQ North America

QINETIQ NORTH AMERICA

QinetiQ North America's LAST Armor® (Light-appliqué Armor Systems Technology) is a protective armor solution that provides high performance military ballistic protection. Our LAST Armor is used on a variety of military tactical vehicles including fixed and rotary wing aircraft and naval vessels. Both modular and permanent solutions can be easily installed without any tools. Our armor solution offers superior strength – five times stronger than commercial hook and loop products. LAST Armor has been used on thousands of combat air and land vehicles since its debut in Operation DESERT STORM in 1991. For more information visit www.qinetiq-na.com/products/last-armor/.



ROCKWELL COLLINS

Rockwell Collins provides the right solutions at the right time to enable our customers' mission success. Our solutions have been selected by the U.S. Department of Defense and international ministries of defense, as well as domestic and international military platform manufacturers.

An example of our integration capabilities is the recently completed USAF KC-10 CNS/ATM program. As the prime contractor and avionics systems integrator, we upgraded all 59 aircraft on schedule and on budget to meet changing Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) requirements.

We also provide CNS/ATM upgrades for the 419 USAF C/KC-135 aircraft through the Global Air Traffic Management (GATM) program, the U.S. and NATO E-3 AWACS fleets, and over 190 domestic and international C-130H aircraft. Embraer has also selected our Pro Line Fusion® integrated avionics system for the new KC-390. We also supply products for the Lockheed Martin C-130J and Boeing KC-46 tanker programs.



Rolls-Royce®

ROLLS-ROYCE

Rolls-Royce remains the second largest provider of defense aerospace engine products and services globally with 16,000 engines in the service of 160 customers in 103 countries. Our engines power aircraft in every major sector including: transport, combat, patrol, trainers, helicopters, and unmanned aerial vehicles (UAVs).

*"Manufacturing is more than
just putting parts together.*

It's coming up with ideas, testing principles

and perfecting the engineering,

as well as final assembly."

—James Dyson



SATCOM DIRECT COMMUNICATIONS

Satcom Direct Communications (SDC) is the leading provider of satellite connectivity services to military and government agencies who depend on reliable, global communications to ensure the success of their operations. SDC provides aeronautical, land mobile and maritime satellite communications services to over 7,500 government, military and commercial systems. We are a premier Inmarsat distribution partner (including Jet ConneX), an Iridium service partner, a ViaSat Ku preferred reseller, a value added reseller for Panasonic systems and the exclusive service provider for SmartSky Networks.



STEPHENVILLE AIRPORT CORPORATION

Stephenville Airport (IATA: YJT, ICAO: CYJT) is located 1.5 nautical miles (2.8 km; 1.7 mi) southeast of Stephenville, Newfoundland and Labrador, Canada. It was the largest US Air Force base outside of continental United States of America and operated as Ernest Harmon Air Force Base from 1941-1966.

The base was used as a refueling stop for transatlantic military flights. In addition, Harmon supported three Air Defense Command units. Following closure of the base the Canadian Department of Transportation constructed an airport terminal to accommodate Trans-Canada Air Lines (now Air Canada). Today the Stephenville Airport if a full-service fixed base operation 24 hours a day, providing quick turn refueling, ground handling, catering and a host of other services to corporate, military and general aviation. The team at Stephenville Airport are committed to offering priority in servicing the logistical needs of the USAF Air Mobility requirements during national and international missions.

*"Any sufficiently advanced technology is
indistinguishable from magic."*

—Arthur C. Clarke



THE BOEING COMPANY

Boeing's Defense, Space & Security (BDS) business unit provides end-to-end services for large-scale systems that enhance air-, land-, sea- and space-based platforms for global military, government and commercial customers. In addition to designing, producing, modifying and supporting fighters, bombers, transports, aerial refuelers, rotorcraft, missiles, munitions and spacecraft for military, civil and commercial use, BDS is developing enhanced capabilities through network-enabled solutions, communications and intelligence, surveillance and reconnaissance technologies. BDS supports the U.S. government as a system integrator on several programs of national significance, including NASA's International Space Station and the Missile Defense Agency's Ground-based Midcourse Defense program. BDS is also expanding into new markets and adjacencies, including unmanned systems, cyber security, energy management, and support and logistics.



USAA

USAA Provides insurance, banking, investment and retirement products and services to 10 million members of the U.S. military and their families. Known for its legendary commitment to its members, USAA is consistently recognized for outstanding service, employee well-being and financial strength. USAA membership is open to all who are serving or have honorably served our nation in the U.S. military and their eligible family members. For more information about USAA, or to learn more about membership, visit usaa.com.



UTC AEROSPACE SYSTEMS

UTC Aerospace Systems combines two industry leaders-Hamilton Sundstrand and Goodrich Corporation. UTC Aerospace Systems is one of the world's largest suppliers of technologically advanced aerospace and defense products. We design, manufacture and service systems and components and provide integrated solutions for commercial, regional, business and military aircraft, helicopters and other platforms. www.utcaerospacesystems.com



VOLGA-DNEPR AIRLINES

Volga-Dnepr is the world's largest transporter of outsize and heavy-weight cargo and during 26 years of operations has been providing airlift capability for humanitarian and peace-keeping deployments.

The Group offers a 'Cargo Supermarket' service that enables it to deliver the most efficient transportation solution for every piece of cargo.

This incorporates a fleet of 12 An-124-100 freighters and 5 modernized IL-76TD-90VD. The aircraft's self-supporting abilities mean we can reach the most remote locations with minimal infrastructural support.

Volga-Dnepr also offers complex door-to-door logistics solutions which may also incorporate its Boeing 747 and 737 freighters or even other multimodal transport. <http://www.volga-dnepr.com/en>



VORTEX CONTROL TECHNOLOGIES

VCT's "Finlets" are a patented array of fins placed on the aft-fuselage that reduces drag by redirecting the natural vortex that emanates from aircraft. Reducing aircraft drag saves fuel, reduces carbon emissions, extends aircraft range and endurance and in many cases increases payload and/or reduces takeoff distances. FAA Certification of Finlets for the B-737NG series aircraft is anticipated by the end of 2018 and Finlets have been flight tested on the C-17 and C-130.



ZOLL MEDICAL CORPORATION

ZOLL® Medical Corporation, a leader in medical devices and software solutions, helps military professionals manage, treat, and save lives while also increasing operational efficiency. With innovative products for defibrillation, circulation, pacing, temperature management, and ventilation, ZOLL provides a comprehensive set of technologies, including Real CPR Help® and See-Thru CPR®, that help improve patient outcomes. All ZOLL® products provide the ruggedness, durability, and advanced functionality that military professionals require across the continuum of care.

<<< Continued from page 21

1984, the commanders of MAC and the Army Training and Doctrine Command established the Airlift Concepts and Requirements Agency (ACRA), whose tasks included doctrine development and coordination between the services on airlift requirements to support Army battlefield mobility and sustainment needs.

“...the Cold War had driven airlift and air refueling planning, operations, policies and force structure, although air mobility forces had been used in a multitude of other contingencies and operations throughout the spectrum of conflict. All of that was to about to change in the 1990s.”

The Department of Defense activated two new joint unified commands during 1987 that included the majority of MAC's forces and returned it from specified command status to that of an Air Force major command and a component of the new unified commands. United States Special Operations Command (USSOCOM) was activated on 1 June 1987, which included Army and Navy special forces along with USAF special operations units then commanded by MAC. United States Transportation Command (USTRANSCOM) was activated on 1 October 1987 at Scott Air Force Base, with General Duane Cassidy serving in a dual capacity as both MAC Commander and USTRANSCOM Commander in Chief. In 1990, special operations forces were then moved to a newly established Air Force Special Operations Command (AFSOC). In 1990, MAC combined ARRS, the 41st Rescue and Weather Reconnaissance Wing at McClellan Air Force Base, and the 375th Aeromedical Airlift Wing into the command's Twenty-Second Air Force.

Operation URGENT FURY in Grenada

From October through December 1983, air mobility forces played a major role in Operation URGENT FURY, a combined U.S. and Organization of Eastern Caribbean States (OECS) incursion in Grenada. The three major objectives of the operation were to evacuate American and third-country nationals, neutralize the Grenadian military and any others that might interfere with the evacuation, and to restore political stability and democracy to Grenada. While a relatively small operation in terms of forces with only about 7,000 U.S. and 600 OECS military personnel, this first military operation after Vietnam showcased the ability of mobility airmen to plan, organize and execute a complex operation on short notice with only five days of preparation. MAC C-130s airdropped two Army Ranger battalions on the island and flew in 82d Airborne Division troops as reinforcements. During the deployment phase alone, MAC C-5s, C-141s and C-130s flew 496 missions carrying 11,389 passengers and 7,709 tons of cargo. AC-130 gunships supported ground forces engaged in combat.

Operation ELDORADO CANYON

On 14-16 April 1986, twenty-eight KC-10s and KC-135s supported an F-111 strike force that flew non-stop from Britain to Libya and back in air raids against terrorist strongholds in Tripoli and Benghazi, Libya. A circuitous route was required due to denied overflights of countries enroute.

Operation JUST CAUSE in Panama

From 17 December 1989 through 14 February 1990, air mobility forces took part in a large-scale, complex military operation in Panama to overthrow the dictatorship of Manuel Noriega, protect American citizens and restore democracy in the country. Formations

of C-141s and C-130s airdropped Army Rangers directly into assault areas early on to secure airports and defeat Panamanian Defense Forces, with follow-on forces then delivered to the captured airfields. MAC's airlift forces flew 775 missions in support of JUST CAUSE during this period, delivered almost 14,000 troops in the first five days and a total of 39,994 passengers and 20,675 tons of cargo in and out of the country throughout the operation. SAC tankers provided significant air refueling support as well. MAC's Twenty-Third Air Force's special operations forces fulfilled critical combat roles in the execution of 796 missions during the operation.

In retrospect, the last decade of the Cold War was a high point for air mobility forces, although the next 10 years would bring about great changes. Realizing Tunner's dream, MAC exercised seamless, centralized, global command and control of airlift, special operations, air rescue, aeromedical and operational support airlift forces. A decade of investment and organizational change had created a globally capable force with a streamlined command and control structure to employ it. Since the end of World War II, however, the Cold War had driven airlift and air refueling planning, operations, policies and force structure, although air mobility forces had been used in a multitude of other contingencies and operations throughout the spectrum of conflict. All of that was to about to change in the 1990s.

Air Mobility Forces in 1990

Air mobility forces in 1990 were organized, structured and manned far differently than today. The tanker force belonged primarily to Strategic Air Command (SAC), with most of the large KC-135 force standing on alert to support SAC bombers in the event of nuclear war. A few overseas squadrons supported European and Asian military operations, and somewhat predictable rotations and deployments in support of exercises and operations were the norm for the continental U.S. (CONUS)-based forces. The KC-135R model modification program was in full swing, and provided huge increases in aircraft performance and reliability. The KC-10 fleet, having been procured in the 1980s, was relatively new and proving its tremendous capability as a swing role, air refuelable, airlifter and tanker.

The airlift force belonged primarily to Military Airlift Command (MAC), with several squadrons of tactical and operational support aircraft also assigned to theater commands to satisfy regional needs. The C-5 fleet was relatively healthy, after a significant effort in the mid-1980s to replace the center wing box in the A-model inventory of 78 aircraft. Fifty brand-new C-5Bs had been placed into service from 1986-89. The primary strategic airlift platform remained the C-141B, which continued to carry the bulk of airlift requirements even as plans for its replacement by the C-17 were taking shape. The C-130 force was very large, with a wide variety of special mission-equipped aircraft in addition to those assigned to its primary mission of tactical airlift. CONUS-based Operational Support Airlift and Aeromedical Evacuation aircraft were also assigned to MAC. All of the strategic airlift fleet was now air refuelable and unrestricted due to modification programs completed during the 1980s.

This was the decade that began with the end of the Cold War. After the fall of the Berlin Wall in 1989, the Soviet Union disintegrated and our nuclear and tanker forces came off alert in September 1991 for the first time in over 40 years.

The Gulf War 1990-1991

The prelude, execution, and aftermath of the Gulf War in 1990-91 marked a watershed event for air mobility forces. The massive buildup in the fall of 1991 during Operation DESERT SHIELD, and the combat successes of Operation DESERT STORM validated our operational principles and demonstrated to the world anew the incredible capabilities of U.S. air mobility forces. Strategic airlift forces moved immense amounts of material and people, air refueling enabled both

the rapid deployment of combat aircraft and the air campaign over Iraq, and tactical airlift operations proved pivotal to the ground war. The circumstances of the Gulf War placed a premium on strategic airlift due to the long distances involved. In terms of daily effort and the number of ton miles flown, the airlift of American combat forces during the deployment and combat operations phases of the war were by far the largest and fastest in history. After Iraq attacked and occupied Kuwait in August 1990, only air mobility capabilities could transport a blocking force quickly into place to prevent an Iraqi thrust into Saudi Arabia. In just one month, air mobility forces moved fifteen fighter squadrons, four bomber squadrons, multiple air support units, the entire 82nd Airborne Division, and the personnel of two Marine Expeditionary Brigades, plus a large number of other ground support units and organizations.

Stage 1 of the Civil Reserve Air Fleet was activated for the first time on 17 August 1990, bringing 38 aircraft under MAC's control, then Stage 2 was activated on 17 January 1991 with another 78 aircraft added to the flow. In a series of call-ups, MAC also activated nearly all of its Air Force Reserve and Air National Guard units. SAC's KC-10s contributed mightily by supporting flying unit moves, during which they would refuel deploying aircraft while carrying unit personnel and equipment within. USAF fighters, bombers and tankers all moved into theater this way. The KC-135 force refueled the vast majority of air sorties during combat operations.

During the course of the war, 99% of the over 500,000 American personnel arrived and returned via air. About 540,000 tons of unit equipment and cargo also entered the theater via air transport. Although this was only 5% of the total delivered, the strategic impact of these moves was significant. With so many aircraft in the air at times in corridors stretching from the U.S. to the Middle East, MAC planners coined the term “aluminum bridge” to describe the scope of air mobility operations during this period.

Within the theater, C-130s flew 13,900 missions during DESERT SHIELD and DESERT STORM to move about 159,000 tons of cargo and 184,00 passengers. Famously, they supported the Army's XVIII Airborne Corps “Left Hook” flanking maneuver to the west of Iraqi ground forces in Kuwait. Utilizing an assault strip just 38 feet wide, 1,175 C-130 missions delivered most of the corp's people and light equipment from 16-28 January 1991.

After the war ended, most of the forces were then redeployed during Operation DESERT CALM as the high pace of operations for air mobility forces continued throughout 1991. For the rest of the decade, operations in the Middle East continued unabated under Operations SOUTHERN and NORTHERN WATCH enforcing No-Fly Zones over Iraq, alongside other contingency and combat operations to contain Iraq designated as PHOENIX SCORPIONS 1 through 4.

The decade was also notable for a precipitous rise in peacekeeping and humanitarian operations, ranging from Kurdish refugee relief in Turkey during Operation PROVIDE COMFORT to famine and peacekeeping efforts in Somalia during Operations PROVIDE RELIEF

and RESTORE HOPE, plus responding to genocide in Rwanda. Air mobility forces also provided rapid response to natural disasters worldwide. Time and time again, air mobility answered the call to deliver “anything, anytime, anywhere.” They also responded twice to ethnic strife, repression, and conflict in the Balkans, supporting the full spectrum of contingency, combat, and humanitarian operations in both Bosnia-Herzegovina and in the Kosovo region during Operations PROVIDE PROMISE, DENY FLIGHT and JOINT ENDEAVOR from 1992-96 and Operation ALLIED FORCE in 1999. Many of these operations were concurrent and overlapping, which created a state of constant “surge” operations for air mobility forces.

Force Structure and Organizational Change

Following the Gulf War, the U.S. military underwent dramatic force structure adjustments even as the overall operations tempo continued to increase. With a firm sense of direction given impending budget and personnel reductions, the Air Force implemented wide-ranging organizational restructuring. On 1 June 1992, strategic airlift and air refueling forces came together to forge Air Mobility Com-

mand (AMC), while CONUS-based C-130s were realigned into the new Air Combat Command (ACC). Theater-based airlift and air refueling units were reassigned to USAFE and PACAF, plus air rescue returned to ACC. Operational support aircraft were also assigned to theater commands. To address the return of command and control seams related to the management and integration of strategic and tactical airlift, commanders of airlift forces (COMALFs) were placed in theaters to work air mobility issues. These positions were later renamed as directors of mobility forces (DIRMOBFORs).

Drastic personnel cuts occurred as the Air Force drew down by one third, accompanied by multiple base closings resulting from Base Realignment and Closing (BRAC) actions. In the process, entire wings and squadrons of aircraft and personnel shifted to the bases remaining, causing tremendous readjustment and turmoil in the force. For example, active duty CONUS KC-135 units consolidated from sixteen to five locations to enable core tanker wings, while KC-10 squadrons were moved to new air mobility wings at Travis AFB, California and McGuire AFB, New Jersey.

The Tanker Airlift Control Center (TACC) became operational on 1 April 1992 with a mission of centralized global command and control for air mobility missions previously managed by numbered air forces and air divisions. On 1 July 1993, AMC merged the assets of one air refueling and two airlift numbered air forces (NAFs) to activate two air mobility NAFs consisting of 21 AF at McGuire AFB and 15 AF at Travis AFB. In October 1994, the Air Mobility School and six other air mobility training functions were absorbed into a newly activated Air Mobility Warfare Center near McGuire AFB at Fort Dix, NJ to create an air mobility “Center of Excellence.”

AMC published its first Air Mobility Master Plan (AMMP) in 1994 at the direction of its commander, General Ronald Fogleman, who would move on to become USAF Chief of Staff from 1994-97. This



Troops cross the airfield after disembarking from Military Airlift Command C-141 Starlifter aircraft at a non-disclosed base in Southwest Asia in support of Operation DESERT STORM in February 1991. The C-141 was the primary strategic airlift platform and carried the bulk of airlift requirements as plans for its replacement by the C-17 were taking shape. (U.S. Air Force Photo).

plan laid out a 25-year strategy for air mobility forces, including plans and programs related to people, equipment and infrastructure. As part of the plan, AMC reduced the overseas air mobility en route structure in 1994 from 42 locations to 21, and created two Air Mobility Operations Groups (AMOGs) at McGuire AFB and Travis AFB. Their mission was to enable a concept known as “Global Reach Laydown.” Consisting of a range of capabilities, including command and control, aerial port, maintenance, communications and other career fields, the AMOGs possessed cadres that could be drawn upon to rapidly deploy globally in order to establish air mobility operations.

Soon after, the Air Combat Camera Service was inactivated, with two Combat Camera Squadrons then assigned to the AMOGs.

The rapid drawdown of combat forces also contributed to a temporary Air Force-wide surplus of pilots, many of whom were subsequently absorbed by air mobility squadrons. Up to 200% manned in some cases, mobility units enjoyed unusually high numbers of personnel. Although competing for limited training resources, the extra manning contributed to better management of squadron operations and administrative staff functions, and helped to offset the impact of an increasingly higher operations tempo. Given a relatively large number of aircrew members, the main limiting factor impacting air mobility operations inevitably became the number of aircraft available.

Aircraft Developments

The strategic airlift fleet was particularly stressed during the 1990s. The C-141 fleet began to experience wing structural problems after the Gulf War, which precipitated severe restrictions on its operational use and a rapid, massive retrofit program to repair the fleet. Acquisition of the C-17 gained speed as the realization grew that the C-141 was nearing the end of its structural and economic service life. The first C-17 units gained initial operational capability in January 1995. In the meantime, the C-5 fleet supported a much greater percentage of strategic airlift needs, delivering to places it had never been before. Once C-17 deliveries began, the pace of C-141 retirements brought on another dilemma. For every C-17 that came on board, approximately two C-141s left the inventory. While this created only a slight dip in overall fleet capacity, the number of aircraft – “the tails” – began to shrink. Ironically, the most efficient strategic airlift force structure to support a “two nearly simultaneous major regional conflict” scenario, where the traffic flow concentrates into a few major ports and en route stops, is at odds with the day-to-day dispersed operations of the fleet. In other words, AMC could effectively mass its resources during war to support very challenging lift requirements, but the command’s aircraft were spread too thin in routine operations to meet the full range of global airlift needs.

In 1990, two highly modified Boeing 747 VC-25 Air Force One aircraft entered the inventory to support presidential travel. In 1994, the first Gulfstream IV C-20H was delivered to the 89th Airlift Wing at Andrews AFB to fly special air missions in support of the president

and other national leaders. A few years later, the Gulfstream VC-37A would also join the fleet. In 1996, USAF announced that the Boeing 757-200 would replace VC-137 aircraft at the 89th Airlift Wing and be designated the C-32A. That same year, the new C-130J-30 aircraft completed its inaugural flight. Equipped with new prop-fan engines and fifteen additional feet of fuselage space compared to other C-130s, the aircraft could accommodate 8 versus 6 pallet positions along with improved performance, range and fuel efficiencies. The Air National Guard received the first C-130J in 1994 and the Air Force Reserve Command began receiving them in February 1999. Active duty force deliveries began in 2004.

Modernization of the legacy C-130 fleet began, with an eye towards standardizing the configuration of this diverse fleet. The C-17 passed significant acquisition and operational milestones, and became a star performer in the Air Mobility team. In September 1997, eight C-17s set a distance record for an airdrop after flying 7,897 nautical miles from the U.S. to a drop zone in Kazakhstan, which included three air refuelings with support from nine KC-10s and eleven KC-135s.

The C-141 continued to operate well even as it was retired. The high

pace of operations effectively reduced the operational capability of the C-5 fleet, but realization of its high value spawned a number of acquisition efforts to modernize it through new engines, avionics, and other improvements. The KC-135 fleet began the full-scale Pacer CRAG avionics modernization program, and the entire AMC fleet geared up for expensive modifications to meet new international communication, navigation, and operational requirements.

In the cargo loader arena, AMC made it a priority to develop and field two loaders – the Tunner 60K Loader and the Halvorsen 25K Loader. USAF acquired 318 Tunnors from 1997-2005, which were capable of moving 60,000 pounds of palletized cargo. The smaller Halvorsen Loader, with the capability to move 25,000 pounds, entered service in 2000 and AMC purchased over 400 by 2011.

The late 1990s brought many issues full circle. The CONUS-based C-130 and C-21 operational support aircraft (OSA) fleets were reassigned to Air Mobility Command once again in April 1997, finally consolidating most stateside airlift units under AMC once again. Scheduling of OSA aircraft remained under USTRANSCOM’s Joint Operational Support Airlift Center, which had been activated in 1996 to consolidate OSA scheduling for all the services.

The Expeditionary Air Force (EAF)

In 1999, USAF began implementing the EAF concept, which was intended to address the need to source and deploy limited service capabilities to support continuing, steady-state operations around the globe, the largest involving those related to Iraq. AMC was both a force enabler and force provider under the EAF. As an enabler, AMC and gained units provided en route mission support, tanker air bridges and inter-theater airlift for deploying forces. A force provider, the command’s air refueling tankers, strategic airlifters and combat support assets were integrated into the AEFs. Apart from the EAFs, but

integral to their operation, were five Lead Mobility Wings (LMWs) formed entirely from AMC resources, from which mobility-centric operations could be created.

For mobility airmen, the 1990s will be remembered as a decade of extraordinary turbulence and change. From organizational and structural transformation on a monumental scale to extensive manning cuts and force realignments amid an unending series of wars, contingencies, and crises, these years left an indelible mark on mobility forces. Through it all, mobility airmen shined, rising to the task again and again to guarantee the success of U.S. military and humanitarian operations spanning the globe. Yet the toll was exacting, and the force was nearly stretched to its limits. More was yet to come.

The New Millennium and the Global War on Terror

The world changed on 11 September 2001. The terrorist hijacking of four commercial airliners, and their subsequent use as airborne weapons to attack the twin towers of the World Trade Center in New York and the Pentagon in the nations capital, redirected America’s national security strategy towards a global war on terror. The implications for the nation’s air mobility forces were profound, as they moved from a state of constant surge to a state of constant war. Almost immediately, air defense of the U.S. moved to center stage in the form of Operation NOBLE EAGLE (ONE), which continues to this day. Combat air patrols over New York and Washington DC began on 9/11 and soon, USAF fighters and tankers were routinely patrolling the skies over the U.S. and standing on alert for possible threats to cities, major events and critical infrastructure. In the first year alone, tankers completed 6,175 sorties in support of ONE, with many more completed since then.

War in Afghanistan

On 7 October 2001, the U.S. launched Operation ENDURING FREEDOM (OEF) with airstrikes targeting Al Qaeda and the Taliban in Afghanistan. From the outset, air mobility forces were directly involved, with tankers providing air refueling for all operations and C-17s delivering forces on day one. Since Afghanistan is both remote and landlocked, air mobility operations were indispensable in the conflict, with virtually all personnel, ammunition, weapons, vehicles and other high value supplies delivered by air. Virtually every combat air sortie over the country required air refueling. A major air mobility base was established in-country at Bagram, with regional air refueling bases following at Karshi-Khanabad in neighboring Uzbekistan and in Manas, Krgyzstan. AMC Tanker-Airlift Control Elements (TALCEs) from the command’s AMOGs played pivotal roles in establishing air mobility operating locations throughout the Middle East in support of OEF.

During this operation, the number of American forces increased from about 4,000 by the end of 2001 to a peak of about 97,000 in 2011. After the Taliban was defeated, combat force operations were redirected towards the International Security Assistance Force (ISAF) that followed. Air mobility supported major surges in forces from 2008-2011 until plans were announced to draw down forces and formally end ISAF major combat operations by December 2014, when Operation RESOLUTE SUPPORT replaced ISAF.

War in Iraq

After over ten years of confrontation, the U.S. and a coalition of allied nations initiated combat operations against Iraq on 19 March

2003 during Operation IRAQI FREEDOM (OIF). Once again, air mobility operations delivered major force components plus supported the air campaign through air refueling.

Virtually all of the 424,000 U.S. personnel deployed for the invasion arrived via air, as did thousands of tons of equipment and supplies. AMC provided 7,413 airlift and 6,193 tanker missions during the deployment phase alone, plus deployed some 255 tankers and 140 C-130s into the theater to support the war effort.

Beginning on 26 March 2003, a fleet of C-17s under fighter escort opened a northern front by airdropping 954 American paratroopers plus their equipment from the 172nd Airborne Brigade in an airborne assault at Bashur. Airland operations followed to complete the delivery of the full brigade on the ground within five days. Twenty airmen from the 86th Contingency Response Group at Ramstein Airbase also parachuted into Iraq that night. This was the largest combat airdrop since the invasion of Panama in 1989 and the first for the C-17.

During the early phases of the operation, AMC deployed newly-created Global Assessment Teams from the AMOGs to determine the requirements necessary to open captured airfields for air operations. TALCEs followed to rapidly establish air mobility operations within 24-48 hours of capture, validating the Global Reach Laydown concept in a combat environment. These included airfields at Tallil, Baghdad, Kirkuk and in the desert west of Baghdad, which enabled U.S. and allied forces to open up multiple fronts in the prosecution of the war. After Baghdad fell to coalition troops in April, the focus of effort shifted to stabilizing the country, providing support to the Iraqi people, and supporting the longer-term presence and rotation of American forces in country – all of which required extensive amounts of air mobility support.

As an insurgency erupted and fighting escalated over the next two years, air mobility forces supported a surge of 30,000 additional troops in early 2007 to about 218,500 personnel in country. An important part of the surge was the airlift of over 1500 Mine-Resistant Ambush Protected (MRAP) vehicles to Iraq in just four months. Troop withdrawals reduced the force to about 80,000 by the end of

“The world changed on 11 September 2001. The terrorist hijacking of four commercial airliners, and their subsequent use as airborne weapons to attack the twin towers of the World Trade Center in New York and the Pentagon in the nations capital, redirected America’s national security strategy towards a global war on terror. The implications for the nation’s air mobility forces were profound, as they moved from a state of constant surge to a state of constant war.”

2010 and just a few thousand by the end of 2011. Air mobility forces were heavily engaged throughout these periods.

Operation INHERENT RESOLVE in Iraq and Syria

After the rise of the Islamic State of Iraq and Syria (ISIS), the U.S. began Operation INHERENT RESOLVE to counter ISIS forces and support humanitarian needs resulting from the conflict. Beginning in 2014, air mobility forces conducted humanitarian airdrops of food and supplies to refugees. As the conflict deepened, strike aircraft have depended on tanker support for air operations. Air mobility forces remain heavily engaged today. In 2016 alone, USAF tankers flew over 13,000 sorties to execute nearly 81,000 air refuelings in support of combat operations against ISIS in Iraq and Syria.

Humanitarian and Disaster Relief Operations

Throughout these years, air mobility forces continued to answer the call when natural disasters and humanitarian crises struck

around the globe. From Hurricane Katrina in 2005 to an earthquake in Haiti in 2010, plus a 2011 quake and tsunami in Japan and super-storm Sandy in 2012, air mobility forces responded to aid those in need and support relief efforts.

Organizational Developments

On 1 October 2003, 18th Air Force was reactivated at Scott AFB in a consolidation of air mobility forces assigned to 21AF and 15AF, which were redesignated as 21st and 15th Expeditionary Mobility Task Forces (EMTFs). For the first time, a single commander – the 18AF Commander – had tasking and execution authority for all air mobility missions. Reporting directly to 18AF, the TACC was subsequently redesignated the 618th TACC in April 2007 and then the 618th Air Operations Center (TACC) in August 2010.

As a result of operational successes in Iraq, airbase opening evolved into a primary air mobility mission and led to the two AMOGs being reorganized and designated as the 615th and 621st Contingency Response Wings in March 2005 with missions to provide rapid mobility, contingency response and airbase opening. They reported to the EMTFs.

In March 2007, the Air Mobility Warfare Center was redesignated the USAF Expeditionary Center (USAF EC), with responsibility for advanced expeditionary combat support, training and education. Since then, the center has gained additional responsibilities for en route and installation support, contingency response and partner capacity-building within the global air mobility enterprise. It now consists of nine major units with 14,000 assigned personnel worldwide.

In March 2012, the EMTF's were inactivated and the CRWs assigned to the USAF Expeditionary Center. One month later the 615th CRW was inactivated, with its personnel and resources assigned to the 621st CRW in a continued evolution of the contingency response mission within AMC.

Aircraft and Capability Developments

Sequestration and budget cuts have impacted air mobility force structure for several years. Since 2010, the number of Total Force tankers dropped from about 500 to 455 and the number of C-5 Galaxies from 112 to 52. The bulk of the command's missions are flown by the 222 C-17s in the force, although two C-17 squadrons have closed with the aircraft reassigned to other units. C-130Js continue to be added to the inventory even as older C-130s are retired or modernized.

The last C-141Starlifter retired in 2006 and the C-9 Nightingale aeromedical airlift fleet was phased out in 2005. Aeromedical evacuation flights are now conducted on virtually all air mobility aircraft depending on the need and capabilities required, although most are transported on the C-130, C-17, KC-135 or C-21. During the wars in the Middle East, innovation and agility in aeromedical evacuation have saved countless lives on the battlefield by moving medical care increasingly forward and expediting the evacuation of the wounded from the front lines. Since 2001, more than 48,000 military service

members have been aeromedically evacuated in support of the Global War on Terror for both battle and non-battle injuries.

C-5M Super Galaxy

AMC began upgrading the C-5 in 1997 with a contract to upgrade the high-pressure turbines on the Galaxy. An avionics modernization program followed in 1999, and in early 2000, a multi-billion dollar program called the Reliability Enhancement and Re-engineing Program (RERP) was funded to replace the engines and pylons on the



A C-5M Super Galaxy from Travis Air Force Base, California, takes off during a training flight, on 16 February 2017. The first C-5M rolled out in May 2006, and quickly demonstrated higher climb rates, better range/payload capabilities, improved navigational performance, greater reliability and quieter engines. (U.S. Air Force photo by Louis Briscese).

aircraft and incorporate a series of other improvements on the aircraft. The first C-5M rolled out in May 2006, and quickly demonstrated higher climb rates, better range/payload capabilities, improved navigational performance, greater reliability and quieter engines. Operational deliveries commenced in February 2009. In the meantime, the command's C-5A fleet was retired.

Tanker Acquisition Saga

The aging KC-135 fleet began to decline dramatically by 2002, when nearly one-fourth of the fleet was in depot-level heavy maintenance at any given

time. As urgency grew to replace the fleet, USAF began looking at ways to add new tankers to the air mobility fleet. The first attempt to lease 100 new tankers in 2002 was abandoned a year later following allegations about inside influence of a senior Air Force acquisition officer. A request for proposal for a new tanker design called the "KC-X" went out in 2006, with an initial contract awarded in February 2008. When a Government Accountability Office (GAO) report challenged the outcome, the program was placed on hold in December 2008. The competition was reopened in 2009, with a decision reached in 2011 to acquire the KC-46 Pegasus, a military derivative of the Boeing 767 aircraft. The aircraft first flew in September 2015, with deliveries beginning in Fiscal Year 2018 following extensive testing and development. A total of 179 aircraft are to be delivered under this program, with additional tanker procurement programs to follow that will replace the remainder of the current air refueling fleet.

State of the Force 2017

By the end of 2016, AMC had completed over 875,000 airlift sorties supporting overseas contingency operations since the attacks of 11 September 2001, with more than 25 million passengers and 15 million tons of cargo transported. During this same period, AMC air refueling aircraft offloaded nearly 3 billion gallons of fuel, and aeromedical evacuation crews moved 235,000 patients on about 50,000 sorties. After 9/11, CRAF operations surged as if it was operating at a war-time level without being called up. Flying about a third of AMC's daily operations, CRAF carriers transported 90% of passengers and about 40% of cargo on a regular basis into the Central Command area of operations. While the operations tempo for AMC forces dropped from approximately 1,200 daily sorties to about 600 in 2016, reduced force structure makes managing the fleet more difficult.

Due to budget cuts related to sequestration, AMC was forced to cancel its annual Air Mobility Rodeo for several years. It was revived in 2017 with Exercise MOBILITY GUARDIAN, where AMC and

international participants practiced airlift, air refueling, airfield seizure and setup, aeromedical evacuation, ground support, port operations, air drop and more.

Over twenty-five years of continuous operations since 1990 have greatly impacted the air mobility community, as the entire system remained at maximum operating tempo year after year. For AMC, the essence of force management has been to generate as many aircraft per day as possible, day after day, year after year.

The result is a force constantly in transition, stressed not only by a high operations tempo, but also dealing with a large number of simultaneous modernization and acquisition efforts. The training impact to remain on top of ever-changing aircraft configurations is immense, and the incessant ebb and flow of contingencies and crises inevitably takes operational priority over routine training, if only for short duration. Mobility airmen and their families have been stressed throughout this time too, thus retaining experienced personnel is a significant challenge. The cumulative impact of these issues is a crew force that is less experienced, that spends more time away from home, and fulfills training requirements as best they can. The sense on the line is many times one of "barely hanging on." Are aircrews members still capable and qualified? Absolutely, and when the nation calls, they continue to respond as always with exceptional readiness, professionalism and skill. Yet challenges remain.

While USAF no longer faces reorganization and structural transformation on a massive scale, air mobility forces have realized the benefits of modernization efforts. It is now recognized that air mobility forces will always be engaged, as the demand for their capabilities will always exceed the supply available.

These facts of life are universally accepted. Managing the tasking of air mobility resources as we continue to train our personnel and modernize our fleets is a difficult and challenging endeavor, and an issue the command addresses every day. To successfully meet that challenge, however, will ensure the viability and capability of our forces well into the millennium.

The Culture of Mobility Airmen – "Agile, Innovative and Ready to Roll"

The culture of mobility airmen is derived from shared experiences in the long and storied history of the airlift and air refueling missions. Each of these forces evolved differently over the course of their history, and developed distinctly different cultures and sub-cultures as a result. Yet they also shared some commonalities. The air mobility community is based on a culture of teamwork, coordination, management and hard work centered on logistics and the necessary planning and administration necessary to make the system work. That culture is founded on a "can-do" attitude of going above and beyond in order to "hack" the mission. It's a crew-oriented culture that fosters team mentality as a necessary prerequisite for mission accomplishment. Two slogans epitomize this "can-do" spirit of air mobility warriors. For the airlift community it's "You call, we haul," while for

air refuelers, it's NKAWTG - "Nobody kicks ass without tanker gas." For all those forces that rely on air mobility to deliver and sustain them, the mantra is simple: "If you can't get there, you can't fight."

Although these two communities evolved separately, their merging in 1992 as part of Air Mobility Command created one of the most powerful and impactful military capabilities systems ever – strategic airpower at its best. While early airpower visionaries considered the true impact of strategic airpower to be its destructive combat potential, the irony lies in that the application of air mobility across the spectrum of peace and conflict is perhaps airpower's greatest contribution to national security. Thus what was traditionally relegated to "supporting" or second tier status has evolved into a national strategic capability in its own right.

Over time, the application of this principle has evolved significantly with changes in technology, national priorities and policies. It is also driven by adaptation to real-world operating environments and challenges. The execution and application of the air mobility mission is fundamentally different than that of combat forces. Air mobility requires its own specialized expertise and training as it involves the

management of entirely different sets of variables.

The United States has become an air mobility nation. A century of evolution in airlift and air refueling capabilities, in parallel with real world application of air mobility operational principles, now makes them an essential and critical component of virtually every U.S. military operation. All of the nation's services rely on air mobility support to conduct their operations and deliver their time-critical forces and equipment. The American way of war is dependent upon air mobility forces.

The global air mobility system continues its

long-standing role as the backbone of deterrence, a key enabler of defense operations, and in many respects, the cornerstone of national security. Joint and allied forces alike rely heavily on its capabilities and it has been continuously engaged on the front lines of U.S. military operations for decades. In many respects, air mobility epitomizes the concepts of global power, global reach and global presence. It is omnipresent on the world scene, yet many times neither visible nor recognized for its major contributions. The rapid global air mobility system operates every moment of every day, 365 days a year, year after year, to every corner of the globe, because of mobility airmen – and their excellence in action. *They, as always, remain agile, innovative and ready to roll.* ■



On 19 October 2015, a Boeing KC-46A, lower right, undergoes tests of aircraft acceleration and vibration exposure while flying in receiver formation at various speeds and altitudes behind either the KC-10 Extender or the KC-135 Stratotanker. Testing for this phase was coordinated from Edwards Air Force Base, California. Delivery of operational KC-46 aircraft is scheduled for Fiscal Year 2018. (U.S. Air Force Photo by Christopher Okula).



Gregory P. Cook is a retired Air Force Colonel now engaged as an independent analyst, author, speaker and consultant. A life member of the Airlift/Tanker Association, Cook serves as its Public Affairs Coordinator and is a frequent contributor to A/TQ.

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Creating a network of hope for the families of our fallen heroes.

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The weekend in California meant so much to us. My 3-year-old, who only knew her Daddy during her first two weeks of life, kept saying 'they are doing all of this because my Daddy is a hero'. I said this to one of the pilots, but I have to repeat it, this is the first time in a very long time that the smile actually reached my 10-year-old son's eyes! It meant so much to me to see my son really happy for the first time in over 3 years! We were so blessed to meet such incredible families and volunteers out there - the friendships we made will last a lifetime! When we got home, we had a package of toys waiting for us - it was like the weekend never ended! Have a wonderful and blessed holiday season!
- Jackie Syverson, proud wife of Maj. Paul Syverson



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CAF C-47 Joins Hurricane Harvey Humanitarian Relief Effort

The *Bluebonnet Belle*, a 73-year-old war-bird veteran of World War II, joined the humanitarian relief effort that unfolded in the wake of Hurricane Harvey in late August and early September.

Hurricane Harvey was an extremely destructive Atlantic hurricane which became the first major hurricane to make landfall in the United States since Wilma in 2005, ending a record 12-year span in which no hurricanes made landfall at such an intensity in the country.

In a four-day period, many areas received more than 40 inches of rain as the system slowly meandered over eastern Texas and adjacent waters, causing catastrophic flooding. With peak accumulations of 64.58 inches, Harvey is the wettest tropical cyclone on record in the United States, and the resulting floods inundated hundreds of thousands of homes, displaced more than 30,000 people, and prompted more than 17,000 rescues.

The *Bluebonnet Belle* – a twin-engine propeller driven C-47 cargo plane built in 1944 – flew six missions on Labor Day weekend to deliver water, food, cleaning supplies and even dog food to people and their pets in Beaumont and Orange, Texas.

Volunteers from the *Highland Lakes Squadron*, a Burnet, Texas-based unit of the Commemorative Air Force, loaded 24,000 pounds of supplies on the plane, flying as far away as New Orleans to pick up goods. The beautiful old girl flew about 2,500 miles without any mechanical trouble, said Rick Kelley, one of the pilots. “She didn’t miss a lick,” said Kelley, a 54-year-old United Airlines pilot.

The Commemorative Air Force, a non-profit group based in Dallas, Texas, committed to preserving U.S. combat airplanes, owns the *Bluebonnet Belle*. The plane usually only flies about 30 hours per year in airshows, along with its other three vintage World War II airplanes, said Mark Davis, the 50-year-old squadron leader. When Hurricane Harvey hit, the members of the *Highland Lakes Squadron*, in true airlifter spirit, decided they wanted to help.

“We knew we could help out in ways other people couldn’t because we could haul a lot more cargo than other civilian airplanes,” said Davis, who also sells chemicals to the semiconductor industry.

Chris Dowell, 54, another of the pilots, said he volunteered because he lives in the Houston area and could see all the devastation around him. He knew he could get

a closer view of the flooding because the *Bluebonnet Belle*, with no air pressurization, has to fly at lower altitudes where oxygen isn’t a problem, said Dowell, who is a pilot instructor.



Owned by the Commemorative Air Force, the *Bluebonnet Belle*, pictured here in front of the Highland Lakes Squadron’s hangar in Burnet, Texas, flew 75 missions in Europe and Asia during World War II, and was eventually used by the Royal Canadian Air Force. Other owners used it to haul freight before the squadron bought it in 2002 for \$110,000. In addition to flying, the *Bluebonnet Belle* is used to carry sky divers and airborne reenactors and is equipped with a ‘jump door’ and an anchor-line cable. (Photos Courtesy of the Commemorative Air Force).

The first Hurricane Harvey mission for the *Bluebonnet Belle* was on 1 September, when it flew from its home base at the Burnet Municipal Airport to Georgetown, Texas, to pick up supplies for the disaster relief organization *Sky Hope Network*.

“Seeing it taxi out to do what it was made to do for the first time in 20 to 25 years was kind of emotional,” said David Bonorden, the squadron’s operations officer.

The mission was expensive because the aircraft costs \$1,200 an hour to fly, including gas and maintenance costs, and the squadron pays for it through donations, said Bonorden, a 55-year-old senior technical program manager at Dell. “We weren’t sure how we were going to pay for it because we don’t have a lot of money, but we decided to take the risk on one load,” he said.

After the plane arrived in Beaumont, Texas, for its first mission, however, the crew found out people urgently needed water and food and decided to keep flying, Bonorden said. They picked up water and

food in Conroe, Texas and delivered it to Orange, Texas, a few times before local officials told them what they really needed was cleaning supplies.

The C-47 then flew to New Orleans to pick up a load of cleaning supplies donated by a Commemorative Air Force unit called *The Big Easy*. By the time the Harvey missions ended, the *Bluebonnet Belle* had flown about 14 hours and had burned 1,400 gallons of fuel, Davis said.

The C-47 was built in Oklahoma City in late 1944 as a C-47B serial number 43-49942; then flown to Montreal, Canada where it was transferred to Great Britain under the Lend-Lease program. The aircraft was ferried to England and served with the RAF. In 1945 it was assigned to the No. 435 Transport Squadron, a Canadian unit as KN270. It was ferried to Canada in 1946. The aircraft received the Canadian Forces serial 12909 in 1970. It was surplus and entered civilian service in 1974. From 1974 until 1995, the aircraft was owned by a number of Canadian airline and charter companies, after which it was repatriated to the USA.

The *Highland Lakes Squadron* purchased this aircraft from a Part 135 cargo operator and donated it to the CAF in 2002. While legally airworthy she was in need of a lot of tender loving care. It required a two-year restoration project by the *Highland Lakes Squadron* to bring the aircraft up to operational standards.

Named the “Bluebonnet Belle” in honor of her home base Burnet, Texas, the *Bluebonnet Capital of Texas*, she is flown by experienced crews and treats air show crowds to the roar of her two mighty Pratt and Whitney radial engines. She serves as a living memorial to the thousands of men and women who built, serviced and flew C-47s during the war years.

“She’s not a glamorous plane, but Eisenhower said in the ‘50’s that the C-47 was one of the five main weapons that won World War II,” said Jimenez, a retired systems engineer for BAE Systems.

The *Highland Lake Squadron* wants to fly the *Bluebonnet Belle* to Normandy for the re-enactment of the 75th anniversary of D-Day in 2019, “We have to raise \$100,000 to do this,” Bonorden said.

If you would like to help the *Highland Lakes Squadron* take the *Bluebonnet Belle* to Europe for the 75th D-Day Anniversary, you can donate by visiting the Squadron’s website, highlandlakesquadron.com.

SMOOTH Transitions

Smooth Transitions is a recurring feature highlighting the interesting work, stories or adventures, of Mobility Airmen outside or after their ‘traditional’ service. Col Mike Cassidy, USAF (Ret), the A/TA Secretary, is in search of more of these great stories, please contact him at secretary@atalink.org with your adventures.

Working with NASA

by MSgt Enrique “Moe” Moeller, USAF Ret

When I retired from the U.S. Air Force back in October 2009, I had fully accepted the fact that flying and doing exciting missions on military aircraft would not be in my future as a civilian. Despite traveling around the world and seeing some great places, I knew that I was going to especially miss the airdrop missions the most. On January 2011, I received the most unexpected phone call from an acquaintance I had met while testing for the Air Force out in Yuma, Arizona. A second test director position was opening and it involved working with NASA. Specifically, parachute testing to prepare the Orion Multi-Purpose Crew Vehicle (MPCV) for space flight. The position was looking for an exloadmaster with airdrop and testing experience. Even though flying was not part of the job, I immediately applied and got the job. I’ve happily been with the project now for over six years and have been loving life ever since.

The project uses two drop test vehicles: a Parachute Test Vehicle (PTV), which is shaped like the Orion capsule and a Parachute Compartment Drop Test Vehicle (PCDTV), which is shaped like a large dart. The tests study the effects of wake on the Orion parachutes during its entry, descent, and landing. The capsule uses two mortar deployed drogue chutes between 15,000 and 20,000 feet in order to stabilize the capsule, followed by three mortar deployed pilot chutes, which deploy the three 116 foot main parachutes at about 5,000 feet. The parachutes are packed, secured, and stored on the top portion of the PTV known as the Capsule Parachute Assembly System



PTV under three good Capsule Parachute Assembly System (CPAS) main parachutes. (Courtesy Photo).

(CPAS). Both vehicles support different test objectives and have been dropped from C-130 and C-17 aircraft from 35,000ft. They each utilize their own custom platform for aircraft extraction, which separate from the vehicle outside the aircraft. An incredible sight to see, even from the ground. Due to the oversized dimensions and drop altitudes an Edwards test crew is required for all of the drops.

As of today the test team has completed seventeen developmental tests and four qualification tests. The CPAS project has four more tests to go and concludes at the end of 2018. The same team has also started to plan for three additional tests supporting the Commercial Crew Program, using a PCDTV like vehicle.

I have spent numerous hours at work and lots of time on the road; but as a retired loadmaster, I am truly honored to be a part of this historic program and feel very blessed that I can continue to do what I loved in the military...airdrop. Load clear!

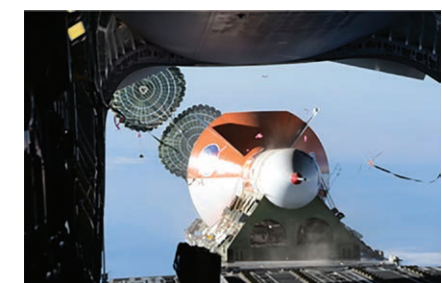
About the Author: Enrique “Moe” Moeller is a retired MSgt living in Houston, Texas. He is a loadmaster with 4,000+ hours on C-141B and C-17A aircraft. He’s acted as a Test Director for the Capsule Parachute Assembly System (CPAS) project for the past six years and recently selected as the Operations Manager for the Commercial Crew Program Airdrop Testing program. Both programs are part of the Johnson Space Center (JSC) Engineering and Technology Science contract with NASA.



At just over 31,000 pounds, the NASA PTV was extracted from an Edwards C-17 on 29 February 2012 over La Poza Drop Zone, Yuma Proving Ground. (Courtesy Photo).



MSgt Enrique “Moe” Moeller, USAF Ret standing next to the PCDTV after being recovered from La Poza DZ, Yuma, Arizona, in November 2016. (Courtesy Photo).



The NASA PCDTV getting extracted from an Edwards C-17 over La Poza Drop Zone, Yuma Proving Ground. (Courtesy Photo).

AIR MOBILITY Classics

Air Mobility Classics is a recurring feature contributed by Lt Col Douglas H. Lloyd, USAF Ret.

During World War Two, the Caribbean was one of the forgotten theaters of war. Early in the war, transport aircraft were in short supply, and, understandably, priority was given to the needs of the European and Pacific theaters. Consequently 6th Air Force, headquartered in Panama, was forced to make do with a motley collection of cast-off military types modified for cargo use, or impressed civilian aircraft. The subject of this issue is one of those commandeered civilian types, all the more interesting because it was the main military transport of our enemy!

The Junkers Ju 52 is truly one of the world's great aircraft, rivaled only by the Douglas DC-3. She was designed as an airliner, and revolutionized the airline industry in Europe, but like the DC-3, made the transition into uniform when war came. To the German soldier and airman she was "Tante Ju," Auntie Junkers, and was every bit as beloved as the "Gooney Bird" was to the Allies. With her stout corrugated construction, tri-motor reliability, and simple fixed landing gear, she was virtually indestructible. So how did one of these icons of European aviation come to serve in the US Army Air Force as the C-79? Her journey was a winding one.

It began when Ju 52/3m, werk #5283 rolled off the production line at the Junkers factory at Dessau, Germany. Receiving the German civil registration D-AENF, the aircraft was purchased by the German national airline Lufthansa, but her destiny wasn't to be European skies. In 1935 she was transferred to Lufthansa's South American subsidiary Sindicato Condor in Brazil, where she was registered PP-CBA and christened "Aconcagua." On 31 August 1937, however, she was transferred back to the main airline and reverted to her original German registration, flying routes throughout South America in Lufthansa colors. A year later, she was transferred to Lufthansa's subsidiary in Peru, Deutsche Lufthansa Sucursal Peru, and registered OA-HHD. In late 1939 she was leased to another German-interest South American airline based in Ecuador; Sociedad Ecuatoriana de Transportes Aereos (SEDTA) and re-registered HC-SAD. Throughout all these changes, she continued to proudly wear the name Aconcagua on her fuselage.

However, by this time war clouds were on the horizon, and the United States was growing suspicious of German airline operations in South America. As a result of US pressure, under the pretense of

still-visible Peruvian markings on an Ecuadorean-registered aircraft, Aconcagua was seized by the government of Ecuador in September 1941. She was passed on to the Ecuadorean Air Force, who in turn transferred her to the United States Army Air Force in May 1942. Given the serial number 42-52883, she was delivered to the Panama Air Depot at Albrook Field, Canal Zone, where she underwent major refurbishment. The aircraft was refitted with Pratt & Whitney R-1690 engines with modified cowlings and 3-bladed propellers in place of the original BMW engines and 2-bladed props. The pneumatic brakes were replaced with hydraulic ones, and a tail wheel was installed instead of the original skid. American radios and instruments replaced the original equipment. Her transformation was complete with the application of the sand/dark olive drab/ white camouflage scheme that was unique to the Caribbean theater. In November 1942 she was assigned to the 20th Troop Carrier Squadron based at Howard Air Base, Canal Zone.

It appears she was little used, although the records indicate she made flights to Aruba and Salinas, Ecuador, and was involved in a taxiing accident in Trinidad in June 1943. Apparently she was a bit of a "hangar queen," and after coming out of one of her maintenance sojourns in October 1943, the 20th TCS Commander reportedly refused to take her back. Shortly thereafter she was declared "un-assignable" and her brief career with the USAAF came to an end. Ironically, though, this was not the end of her service to the US Government. With construction of the Inter-American Highway underway, the US Public Roads Administration thought the old Junkers would be the ideal tool for transporting survey crews and equipment to austere sites in Costa Rica. She was purchased for \$10,000, duly registered as TI-60 in January 1944, and by all accounts gave sterling service until the summer of 1945, when she was no longer needed. Sold yet again, this time to the airline TACA, she remained in Costa Rica for a while, until transferred to TACA, Nicaragua where she received her final registration as AN-ACS. She finally ended her working life in 1948 after suffering irreparable damage in a landing accident, having been operated by no less than six airlines, two air forces, and one US government agency. Fittingly, it took a bulldozer to break up the tough old girl. ■



USAAF JUNKERS C-79

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C-5M photo courtesy U.S. Air Force Roland Balik
C-5M Cockpit photo courtesy U.S. Air Force Master Sgt. Scott T. Sturkol

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