A/TQ

AIRLIFT/TANKER QUARTERLY
Volume 17 • Number 4 • Fall 2009

Air Mobility: Delivering the Joint/Coalition Team to the Fight!

Pages 10-21

From *the* Question Mark to *a* Question Mark

A Brief History of Aerial Refueling

PART 4

Pages 70-72

Together, we can turn 170,900 lbs. of payload into an immeasurable amount of hope.

You can't deliver deliverance if your equipment isn't ready — which is where team Parker comes in. We provide higher levels of reliability, maintainability, and sustainability by supplying support solutions to OEM standards. Offering innovative contracting. And implementing lifetime support.

Want to maximize readiness and minimize human suffering? Go to Parker for the performance-based logistics, technology insertions, reliability improvement programs, and customized options that will allow us to transform pounds of payload into immeasurable hope.

To learn more, call us at **(949) 833-3000**, or visit **www.parker.com**.

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

See us at the **ATA Convention, Booth 403.**

Parker | Aerospace

ENGINEERING **YOUR** SUCCESS.
www.parker.com

A/TQ
AIRLIFT/TANKER QUARTERLY
Volume 17 • Number 4 • Fall 2009

Airlift/Tanker Quarterly is published four times a year by the Airlift/Tanker Association, Ms. Carol Mauchline, Secretary, 1338 Pepperidge Drive, O'Fallon, IL 62269. Postage paid at Belleville, Illinois.

Subscription rate: $40.00 per year. Change of address requires four weeks notice.

The Airlift/Tanker Association is a non-profit professional organization dedicated to providing a forum for people interested in improving the capability of U.S. air mobility forces. Membership in the Airlift/Tanker Association is $40 annually or $110 for three years. Full-time student membership is $15 per year. Life membership is $500. Corporate membership includes five individual memberships and is $1500 per year. Membership dues include a subscription to ***Airlift/Tanker Quarterly***, and are subject to change.

Airlift/Tanker Quarterly is published for the use of subscribers, officers, advisors and members of the Airlift/Tanker Association.

The appearance of articles or advertisements, including inserts, in ***Airlift/Tanker Quarterly*** does not constitute an endorsement by the Airlift/Tanker Association, the Air Mobility Command, the Department of the Air Force or the Department of Defense, of the viewpoints, products or services mentioned or advertised.

Airlift/Tanker Quarterly is quarterly news cycle-dependent and is distributed as follows: Winter: January/February/March; Spring: April/May/June; Summer: July/August/September; Fall: October/November/December [actual distribution dates vary]. The copy deadline for submitted stories, articles, letters, etc., is as follows: Winter: December 30th; Spring: March 30th; Summer: June 30th; Fall [Convention Edition]: August 30th.

Airlift/Tanker Quarterly accepts advertising for the inside front and back covers for the Winter, Spring and Summer Editions; and for throughout the Fall Convention Edition.

EDITORIAL STAFF:

Gen. Walter Kross, USAF, Retired
Chairman, Board of Officers

Mr. Collin R. Bakse
Editor and Art Director

Ms. Dawn L. Bakse
Editorial and Advertising Coordinator

Mr. Doug Lynch
Business Manager

Col. Ronald E. Owens, USAF Retired
Editorial Advisor

Col. Gregory Cook, USAF
Public Affairs Coordinator

PRINTED IN U.S.A.

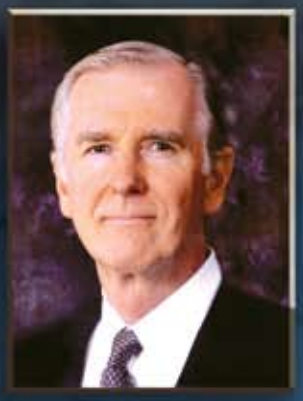
Table of Contents

Association Business

Features

Alphabetical List of Advertisers

2009 A/TA Board of Officers & Convention Staff



Chairman
Gen Walter Kross
USAF, (Ret)

President
CMSgt Mark A. Smith
USAF, (Ret)

Senior Vice President
MajGen Richard C. Marr
USAF, (Ret)

Vice President Programs
Col Dennis L. Murphy
USAF, (Ret)

Vice President Industry Affairs
Col Robert E. Dawson
USAF, (Ret)

Secretary
Ms. Carol Mauchline

Treasurer
Col John J. Murphy, Jr.
USAF, (Ret)

Historian
Ms. Lillian E. Nolan

Legal Advisor
Maj Gen Richard D. Roth
USAF, (Ret)

Convention Chairman
Col Dave Patterson
USAF, (Ret)

Symposium Coordinator
LtCol Jeffrey B. Bigelow
USAF

Master of Cermonies
Col Barry M. Creighton
USAF, (Ret)

Convention Registrar
Col Dennis W. Traynor
USAF, (Ret)

Editor, *A/TQ*
Mr. Collin R. Bakse

FIGHT THE ENEMY, NOT THE WEATHER.

With EFVS Without EFVS

Accomplish the mission and return home safely.

The Elbit Systems of America Enhanced Flight Vision System (EFVS) provides pilots unprecedented capability and situational awareness without relying on any ground infrastructure. Through exciting new technology – proven in the commercial air transport industry – EFVS brings the pilot a real-time image of the forward scene, coupled with primary flight display symbology.

Recognized by the FAA as part of the nation's Next Generation Air Traffic System, the Elbit Systems of America EFVS is FAA-approved for descent below DA/DH to 100 ft. on any runway approach with 2 or 3 times more sensitivity.

Choose the system that puts the weather on your side – the Elbit Systems of America EFVS. For more information, contact Mike Retallick at 817-223-4269.

Elbit Systems of America

Booth #417 at the 41st Annual Airlift Tanker Association Convention and Symposium

The Spirit of Innovation™

The More I Know…

Incredibly, I have been involved with the production of the magazine for the Association for over 20 years. I started working on it way back when the organization was named the Airlift Association, and the magazine was called the *Airlifter,* and all the tankers belonged to SAC.

During my tenure as editor I have had the honor of working with, and getting know, many of the legends of Air Mobility – names like "Dutch" Huyser, Al Hansen, Duane Cassidy, Bob Patterson, Ron Fogleman, Walt Kross and Jim Baginski come to mind – and I have developed lasting and profound friendships with many men and women who proudly call themselves Mobility Warriors. I have had the privilege of spending time with true American heroes like Gail Halvorsen, Joe Jackson and John Levitow. I have been all around America, and the world, covering stories – each one awe inspiring because of the amazing American patriots involved.

Through doing research for the magazine, I have gained an remarkable depth of knowledge about the history of America's Air Mobility mission, and the more I know the more I realize how much I don't know.

Take for instance the group of aviators who are being inducted into the A/TA Hall of Fame this year. I thought I knew the story of the flight of the "Question Mark," having covered the event several times in the past – three members of the "Question Mark" crew having been previously inducted in the A/TA Hall of Fame – but I knew little, other than their names, about the tanker crews which supported the famous event. And, sadly, I knew next to nothing about the 1923 series of aerial refueling flights, or the members of the aircrews involved.

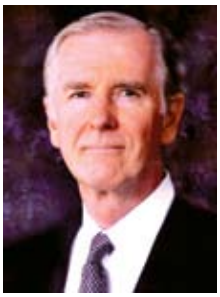
Working on the story about this amazing group of aviators, their exploits, and their backgrounds, opened my eyes to an era filled with wonder, excitement and innovation. I hope you enjoy reading the story as much as I did working on it.

Now for a few things I do know. I know that Air Mobility is America's backbone of deterrence and the key to United States national security strategy. I know that Airlift enables America to get anything, anywhere, anytime. And, I also know that nobody kicks ass without tanker gas, nobody.

I also know that as long as America can field the "award winning' kind of men and women who are covered in the pages of this magazine, we will eventually win the Global War on Terror – we will win because of professionalism, dedication and the dogged determination to win. As Napoleon Bonaparte once remarked, "Victory belongs to the most persevering."

Respectfully,
Collin Bakse, editor

Chairman's Comments



Gen Walter Kross
USAF, Ret

Welcome to our 41st Convention and Air Mobility Symposium. The event's name has morphed slightly over the years, keeping pace with the evolving mission of USAF's Mobility Air Forces (MAF), which now fields and executes the world's most capable air mobility force every day.

When the United States Air Force stood up in September 1947, Airlift was not even listed as a core mission. A short 18 months later, it was the U.S. Air Force's airlift capability that scored the first decisive victory of the 30 years of Cold War that loomed before our fledgling Air Force – the successful completion of the Berlin Airlift.

Air refueling capability was also miniscule as USAF stood up in 1947. Four years later, USAF fielded over 1,000 tanker aircraft, on alert and in the air around the globe – primarily enabling our strategic and tactical nuclear forces on duty during that same Cold War.

Last year, our Air Mobility Symposium highlighted the extraordinary achievements of our airlifters with a Super Panel of Berlin Airlift participants and subject matter experts. It was such a success that we will present an encore of that same panel this year – commemorating the 60th anniversary of the Berlin Airlift victory in May 1949.

This year, however, we turn our primary spotlight on the heritage of our nation's formidable Air Refueling forces. We shall do this in two ways: (1) showcasing this long and unique heritage with a Tanker Heritage Super Panel; and (2) by inducting into the A/TA Hall of Fame those who conceived and executed the 1923 and 1929 mid-air refueling tests and demonstrations – our pioneer tanker crews of the 1920s.

This year, Air Mobility Command has been recognizing our Tanker heritage all year long at various events – and A/TA is proud to team with AMC in this worthy year-end recognition in Nashville.

Our Air Mobility Symposium, co-sponsored by A/TA and AMC, is equally proud to present a rich slate of distinguished speakers, panels, and seminars. Our Friday keynote speaker is Air Force Chief of Staff, General Norty Schwartz. Later Friday morning, the new 16th Chief Master Sergeant of the Air Force, Chief James Roy, will address us.

Saturday, we are pleased to present a dual Saturday Keynote address given by U.S. Transcom Commander General Duncan McNabb and Southwest Airlines Founder and Chairman Emeritus Herb Kelleher. We shall follow with our MAF Commanders Panel. The afternoon will culminate with presentations by Chief of the Air Force Reserve, the Director of the Air National Guard, and the AMC Commander General Art Lichte – making his last such A/TA address as Commander.

Throughout the Convention and Symposium, we will be recognizing Air Mobility's Finest – a privilege that A/TA cherishes very much. So enjoy Nashville 2009.

Welcome to Nashville for…

On the Cover: A C-17 Globemaster III drops cargo bundles just a few hundred feet above another set floating down to coalition forces waiting below during a combat cargo drop in Paktika Province, Afghanistan on 11 October 2009 to support Operation Enduring Freedom. (U.S. Army photo/Spc. Micah E. Clare).

President's Message

CMSgt Mark A. Smith
USAF, Ret

Hooah air mobility warriors! Welcome to the 41st Annual Airlift/Tanker Association Convention and Symposium! Our 2009 theme – ***Air Mobility: Delivering the Joint/Coalition Team to the Fight*** – represents what you do so well every day, and Nashville, Tennessee, is a great place to recognize and celebrate your efforts!

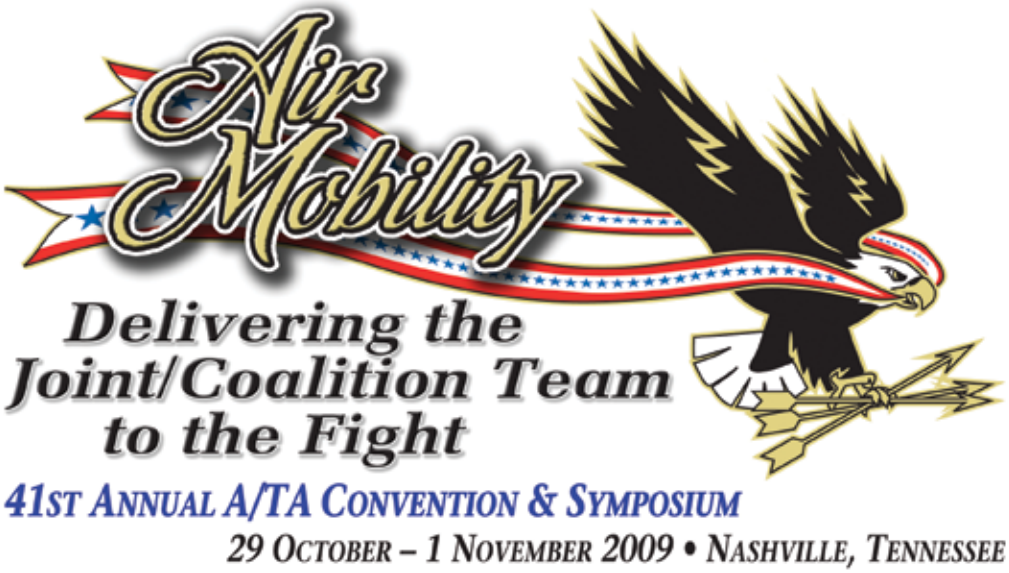
It is always wonderful to see old friends and make new ones as our air mobility warriors occupy the Opryland Hotel! Our symposium agenda is one of the best ever. You will be forced to make some tough decisions as you choose which sessions to attend. We are also thrilled to honor the selection of the ***"Pioneers of Aerial Refueling"*** into the Airlift/Tanker Association Hall of Fame. Captains Robert Erwin, Ross Hoyt, and Lowell Smith; First Lieutenants Virgil Hine, Oliver McNeel, Odas Moon, Paul Richter, Frank Seifert, and Auby Strickland; and Second Lieutenants Joseph Hopkins, Andrew Salter, and Irwin Woodring have truly earned the distinction of being added to the honor roll of men and women who helped build the world's best air mobility force. These men represent the "1923 Army Air Service Aviators" who performed the first mid-air refuelings, and the crewmembers of the "1929 Question Mark" refueling, who continued to develop and refine an air-refueling capability for our forces. The courage, innovation, and aviation skills of these crewmembers ushered in the era of tanker operations and paved the way for our current aerial refueling capability. Our dedicated tanker force is a linchpin to our nation's global reach and we look forward to recognizing your efforts at our convention in Nashville.

I would also like to congratulate the 2009 A/TA Award recipients, and their families, of our General Huyser, General Fogleman, General Carlton, Colonel Halvorsen, Young Leadership, Specialized Mission, and President's Awards. We are proud of your achievements and look forward to recognizing you this week at our convention. I would like to also congratulate the recipients of our two newest awards – the Air Force Reserve and Air National Guard Outstanding Air Mobility Wings – as we continue to recognize our total force; providing dedicated one-team support around the globe.

Lastly, I would like to thank our AMC Commander, General Arthur Lichte, his wife Chris, and our AMC Command Chief, Joe Barron, for your leadership and support to our warriors performing the air mobility mission every day – *you have done a superb job and we look forward to your continued participation next year as you soon begin to wear a different shade of blue!*

In closing, many air mobility forces remain deployed serving our country. Our prayers and support are with you always. For those of you in Nashville – enjoy the Convention! God bless you all!

Cabin Report…Secure!



SECRETARY'S NOTES

Welcome to the 2009 convention! Just a reminder to the Chapter Presidents to check the convention and symposium schedule and be sure to attend the Chapter Presidents' meeting. Also, for all of you, please attend the General Membership Meeting on Saturday – again, check the convention and symposium schedule for the time and location for this important event.

Ms. Carol Mauchline

This will be my last ***"SECRETARY'S NOTES."*** Because of increasing family obligations, I have decided not to seek re-election. It's been a great experience serving on this distinguished Board of Officers, and I enjoyed having the opportunity over the past two years to meet and work with so many of you. I will continue my association with this wonderful organization and encourage all of you to get involved in your local chapters.

I wish you all well and enjoy the convention!

Carol

*Future A/TA Convention & Symposium Locations**

2010 …Marriott World Center, Orlando

2011……Opryland, Nashville

2012……Marriott/Hilton, Anaheim

2013……Opryland, Nashville

****Tentative outline of locations. Subject to change.***

Association Round-Up

Want to highlight your Chapter activities? Send info to: atq@atalink.org

Huyser Chapter

A ceremony to unveil the bust of MajGen Robert B. Patterson, the 2008 Inductee in to the A/TA Hall of Fame, was held at Scott AFB, Illinois, on 24 September. Rain forced the Huyser Chapter president and emcee for event, LtCol Jerry McCrave, USAF ret, to scramble to relocate the ceremony, usually held at the Walk of Fame site on Scott AFB, to a conference room in the AMC Headquarters building.

Afte opening the ceremony with a description of the A/TA Hall of Fame, and the Walk of Fame, colonel McCrave introduced the Air Mobility Command (AMC) commander, General Arthur Lichte who called general Patterson "a champion of Special Operations," and "a man ahead of times." He went on say that general Patterson had left a "lasting legacy" on AMC, and thanked him for his many years of service to his country.

Colonel McCrave then introduced Association Chairman, Gen Walter Kross, USAF ret, who asked the audience to think of the millions of men and women who have served as mobility warriors and then to consider that there are, including general Patterson, only 20 men and women [and one group] who have been singled out for the honor of induction into the A/TA Hall of Fame. He went on to say, "Today general Patterson gains icon status," and then

MajGen Robert "Bob" Patterson (2nd from R) smiles as his bust is "unveiled" at a ceremony held at Scott AFB, Illinois, on 24 September. Also shown are (L to R) LtCol Jerry McCrave, USAF ret; General Arthur Lichte, USAF; Patti Patterson;, and CMSgt Mark Smith, USAF ret. (A/TA Photo by Collin Bakse).

called general Patterson the "quintessential operational commander," because no matter what assignment he faced he was "more than a good steward, he made things better."

General Kross continued by reading the "less then adequate" inscription which appears on the pillar under the bust on the Walk of Fame [see page 24], then exclaimed, "Unveil the bust," and the conference room media screen lit up with an image of the bust on its pillar along the Walk of Fame (colonel McCrave had shrewdly arranged for the photo to be taken the day before "just in case").

General Patterson then took the floor for a few comments. He said that in his 36 years in the Air Force he could not remember a day that could be described as "a day at the beach," but that today's mobility leaders face challenges he could not even imagine. He went on to praise AMC personnel for putting meaning into the phrase "America's Wings of Freedom," coined by his friend and mentor, General Robert "Dutch" Huyser.

General Patterson also paid tribute to other inductees into the Hall of Fame, many of whom he had known and served with. He also paid tribute to his wife Sandy, who he said was "the only hero in the room." He ended his comments by saying that he "could not be more proud," and that he prays every night for the men and women in uniform.

The ceremony was immediately followed by a luncheon at the Scott Club arranged by the Huyser Chapter.

Red River Chapter

While on temporary duty to attend the KC-135 Senior Officer Course, LtGen Robert Allardice, 18th Air Force Commander,

LtGen Allardice discussing his personal experiences with the Airmen of the 97 AMW.

graciously accepted an invitation to speak at a Red River Chapter of the Airlift/Tanker Association luncheon.

On September 18, LtCol Jim Durbin hosted the event where general Allardice spoke to a group of nearly 100 Altus AFB personnel to convey words of inspiration and motivation.

General Allardice shared several stories and reflections from his career in the Air Force, his recent tour in Iraq as Commander of the Coalition Air Force Transition Team, and his philosophy on how air mobility empowers conflict resolution.

After wrapping up his speech, members of the audience asked general Allardice questions ranging from his priorities as 18th AF commander, the KC-45 competition, his thoughts on the future of career enlisted aviation, to his most memorable deployment.

LtGen Allardice sharing his thoughts on "what keeps [him] awake at night."

As the event closed, general Allardice called upon a second lieutenant from the 97th Air Mobility Wing to ask a question. As a response to, "What leadership advice do you have for young lieutenants?," general Allardice described traits he refers to as "The Six Sides of the 'Dice,'" to explain

Red River Chapter president, Lt Col Durbin, presents LtGen Allardice with a small memento of appreciation. (Photos courtesy Red River Chapter).

his six characteristics of good leaders. They are Vision, Communication, Attitude, Discernment, Execution and the Character. To "find what the right thing is and go out and do it."

Members of the Red River Chapter of the A/TA appreciated the opportunity to hear general Allardice's words of wisdom as they prepare for the A/TA Convention in Nashville, Tennessee.

"Learning is not attained by chance. It must be sought for with ardor and attended to with diligence."

– Abigail Adams

The A/TA Enlisted Education Grant Program

The A/TA Enlisted Education Grant Program was created to provide financial help to A/TA enlisted members pursuing lofty educational goals. Recipients are free to use their $200 Enlisted Education Grant for tuition, books, transportation, etc… Think of it as a reward for educational enthusiam and perserverance!

Airlift/Tanker Association Enlisted Education Grants are available to Air Force, Air National Guard and Air Force Reserve A/TA members pursuing undergraduate or graduate degrees.

EEG CRITERIA:

★ *Current Membership in the Airlift/Tanker Association*
★ *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 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*
★ *Individuals are limited to one EEG per 12-month period.*
★ *Student financial need is not a principal criterion*
★ *May not be used for a lower or lateral previously awarded degree*

Additional details and forms are available online at www.atalink.org

If you meet the criteria, apply today! The A/TA wants to help you continue your education, so you, too, can soar like an eagle.

AMERICA'S VISION OF FREEDOM
AIRLIFT/TANKER ASSOCIATION

Working to Improve America's Air Moblity Force.

A Welcome Message from General Lichte

General Arthur J. Lichte is Commander, Air Mobility Command, Scott Air Force Base, Illinois. Air Mobility Command'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 for all of America's armed forces.

Welcome to Nashville and the 2009 Airlift Tanker Association Convention & Symposium where we celebrate our 41st annual gathering of air mobility warriors! This is my third convention and it is just as exciting as my first! Unfortunately it will be my last chance as Commander, Air Mobility Command, but you will see me back at A/TA for years to come because I believe so strongly in the organization. It is such an honor to be here with the men and women who make Unrivaled Global Reach for America a reality each and every day. This year's theme, "Delivering the Joint/Coalition Team to the Fight", reflects Air Mobility Command's vigor and commitment to provide rapid global air mobility, delivering the right effects to the right place at the right time. As you learn and enjoy everything this event has to offer, do not forget our brothers and sisters in arms serving all over the world. As we enter the ninth year of combat around the globe, you, the men and women of the Mobility Air Forces, continue to perform in an outstanding manner, and you have rightfully earned the respect of all.

AMC has operated at a high tempo for a long time and as we shift forces from Iraq to Afghanistan, I don't see the demand for mobility decreasing in the near future. With that, the command is posturing to ensure we maximize use of the assets we have to continue at this pace. We're emphasizing Total Force Integration, relying on commercial partners, aircraft fleet management, and lean initiatives to mitigate the workload. We've effectively utilized our Contingency Response Groups to identify and open additional airfields to handle surge operations. The warfighter's call for airdrop has steadily risen, increasing the importance of air mobility in a country with no rail and limited transportation infrastructure. You have answered the call.

Mobility Forces are engaged daily in winning today's fight as part of the joint and coalition team. We do that through our three core competencies – Airlift, Aeromedical Evacuation and Aerial Refueling. Since 9/11, our Airmen have airlifted over 13 million passengers and over 4.7 million tons of cargo in support of overseas contingency operations. During the same period, over 136,000 patients were aeromedically evacuated to safety. Our aging tanker fleet has been a critical enabler, offloading more than 1.6 billion gallons of fuel since 2001. What an amazing accomplishment!

Airlift continues to do well primarily because of the amazing men and women on the flightline, in mission support work centers, and in the cockpit. The challenges AMC faces can be easily summarized by age, wear, and tear. In the tactical airlift fleet, we are in the process of recapitalizing our C-130Es with the C-130Js. Our total number of C-130Js will reach 72 by the end of November, 2009. Additionally, the Air Force has programmed for 38 C-27J aircraft to provide direct support to the Army.

In the inter-theater airlift arena, we are improving our strategic airlift fleet. The AF recently received its 190th of the programmed 213 C-17 aircraft and in February, I had the opportunity to deliver the first of 52 C-5M aircraft. The C-5M program modernizes avionics and replaces the engines and engine subsystems which will greatly improve its capability and reliability. On the Operational Support Airlift/Very Important Person Special Air Mission (OSA/VIPSAM) front, we have begun working on Presidential Aircraft Recapitalization, aggressively pursuing an agenda to standardize our communications capability across this fleet, and have improved the survivability of these aircraft with the addition of defensive systems.

Our Aeromedical Evacuation competency is an area where we have made the greatest strides and improvements. AMC retired all AE-dedicated aircraft, however, today we have the ability to transform all our MAF aircraft into the equivalent of flying intensive care units at a moment's notice. This flexibility enables us to greatly improve the survivability of our wounded warfighters. Right now, we have the highest battlefield survival rate in

history. Since Vietnam and through DESERT STORM the survival rate was 75%, taking an average of 10 days to get a wounded soldier from the battlefield back to a CONUS facility. Now it takes on average three days to move the wounded from theater to CONUS, with a survival rate of 90-95%. Incredibly, when wounded warriors in Iraq make it to Joint Base Balad and enter the AE system, they have a 98% survival rate. So as you can see, airlift is doing well, as is our AE effort.

With regards to our air refueling core competency, it is the age of our tankers that causes the most concern, especially our KC-135 fleet. I think it is wrong to send people into harm's way in aircraft that average nearly 50 years old. We have pilots and boom operators in our KC-135s whose parents weren't even born when those aircraft rolled off the assembly line. Remarkably, the last pilot who will fly the KC-135 hasn't been born yet! To really appreciate the age of our KC-135s, we need only to look at the age of commercial airline fleets.

Today the average age of commercial airliners is less than 25 years. The airlines operate in this manner because they seek to avoid high routine maintenance costs and they have learned the hidden cost of delayed recapitalization could mean catastrophic failure without warning. Like with anything mechanical or structural, age brings consequences, and these consequences do not improve over time, they only worsen. Simply stated, we need a new tanker, and we need it now!

Now I don't believe anyone involved in the current debate lacks appreciation for the capability tankers provide to our nation. I do, however, fear we have lost sight of the urgent need to renew our tanker fleet and the timeliness of our dilemma. Despite this, we will continue to fly these aircraft well into the future as long as the mission requires it and we can keep them healthy. As a result we have several on-going programs focused on modernizing our tanker fleet to ensure it remains safe and viable.

In order to deliver the joint and coalition team to the fight, it's critical that we optimize our mobility partnerships. In the last three years, AMC vigorously fostered the Total Force Integration (TFI) concept. Active Associates stood up all over the nation, consolidating mobility assets to make more tails available for the fight. March Air Reserve Base, California, now hosts a KC-135R Active Associate while Scott Air Force Base, Illinois, continues its C-40C Active Associate. Cheyenne Air National Guard Base, Wyoming, shares its C-130's with active duty Airmen, conducting global aeromedical evacuation missions. These bases are benchmarks for the Active Associate concept and enable our core competencies; Airlift, Aeromedical Evacuation and Aerial Refueling. The more seamless integration we have with our guard and reserve partners, the more successful we will continue to be. Partnerships with other commands, services, and countries are of upmost importance because it increases our warfighter capability.

A stunning example of mobility partnerships was evident this past July at McChord AFB, Washington, during the 2009 Air Mobility RODEO where 20 international teams proudly represented their countries. "Team McChord" hosted over 2,100 participants, including 113 U.S. teams from the Active Duty, National Guard and Reserve, operating 48 aircraft – your efforts produced amazing results. This year we also saw more combat support skills people participate in several new events including flight attendant competition, combat marksman competition and contingency response competition. Special thanks to all of the industry partners who made the event so successful. RODEO was an excellent opportunity to maximize the synergy of coalitions and the joint team. My sincere congratulations to each and every one of the competitors – it is through you that mobility partnerships are born and developed.

Since 9/11, our Airmen have airlifted over 13 million passengers and over 4.7 million tons of cargo in support of overseas contingency operations. During the same period, over 136,000 patients were aeromedically evacuated to safety. Our aging tanker fleet has been a critical enabler, offloading more than 1.6 billion gallons of fuel since 2001. What an amazing accomplishment!

AMC continues to develop and care for our Airmen and their families. In the last three years, our bases built child development centers, youth centers, and health and wellness centers to serve the members and their families. We continue to promote educational opportunities, and as a result, our Airmen are earning degrees and certificates that not only benefit them, but the Air Force. AMC is committed to improving the quality of life for all our Airmen and their families.

On behalf of AMC, I would like to thank General Walt Kross for his outstanding leadership and service as A/TA Chairman. His leadership is critical in maintaining the strong relationship between AMC and the A/TA. Thank you to retired Chief Master Sergeant Mark Smith, A/TA board members, and the entire staff for executing this convention, an amazing feat.

Of course my eyes and ears of the enlisted force, Chief Joe Barron, has been absolutely incredible. The Chief has been with me since day one and our success to date is in large part due to his expert advice and guidance. As Airmen, we couldn't have asked for a better advocate than Chief Barron.

I leave you with one last thought. The recapitalization of the tanker is the most critical priority for Air Force; without it, delivering the joint and coalition team to the fight would be almost impossible.

The last two years were the most meaningful and exciting for me and my wonderful wife Chris. It has been our honor to serve with you. You are without a doubt the best air mobility force in the world. Chris and I wish you all the best as you continue to provide ***…Unrivaled Global Reach for America…ALWAYS!*** ■

Cover Story

"Partnerships with other commands, services, and countries are of upmost importance because they increase our warfighter capability."

–General Arthur J. Lichte, commander Air Mobility Command

In the on-going overseas contingency operations commonly referred to as the "Global War on Terror," which began in the days following the attacks on America carried out on 11 September 2001 (9/11), virtually all of the various components of America's military structure, Active, Reserve and Guard – the Army, the Navy, the Air Force, the Marines, the Coast Guard – and many civilian, or non-governmental, organizations, along with approximately 25% of the world's 194 independent nations recognized by the United States' State Department that have been a part of the "coalition of the willing" during this perilous and precarious timeframe, have all had one major need in common – the need to get to the fight.

This joint/coalition requirement has been predominately met through the capabilities and efforts of America's air mobility force delivered by the U.S. Air Force's Air Mobility Command (AMC).

Since 9/11 AMC Airmen have airlifted in excess of 13 million passengers and more than 4.7 million tons of cargo, and AMC tanker crews also have provided more than 1.6 billion gallons of fuel in support of global operations...*

Air Mobility: Delivering the Joint/Coalition Team to the Fight!

The Cover Story section was developed by Collin Bakse, editor *A/TQ*, using articles from: The Air Force News Agency; AMC News Service; AMC PA; *Airman* Magazine; USTRANSCOM PA, and, stories filed by SSgt Zachary Wilson, U.S. Air Forces Central Combat Camera Team; SSgt Daniel Bowles, 437th Airlift Wing Public Affairs; TSgt Matthew McGovern, Air Force News Agency; Bob Fehringer, USTRANSCOM Public Affairs; and, TSgt Scott T. Sturkol, AMC PA.

*Editor's Note: The numbers used to describe the amount of passengers, cargo and fuel moved by AMC are in constant escalation – with a mobility aircraft departing every 90 seconds, every day, 365 days a year, the numbers increase almost before they can be recorded. The numbers used in this article were accurate as of mid-September 2009.

Reaching for Success

The foundation of our military's success is the ability to project United States of America's global power. No other nation in our world can match the United States' global reach. Whether it is projecting global power, such as in Operation ENDURING FREEDOM and Operation IRAQI FREEDOM, or our commitment to humanitarian efforts, America has responded to cries of suffering and have helped alleviate suffering by delivering aid, clothes, food, medicine, and rebuilding supplies. We have an air mobility capability designed to move large contingents of troops and weapons for battle, but which can also transport people and supplies for peace.

Our National Defense Strategy has established four strategic objectives: secure the United States from direct attack; secure strategic access and maintain global freedom of action; establish security conditions conducive to a favorable international order; and, strengthen alliances and partnerships to contend with common challenges. The U.S. believes that its interests are best defended as far from its shores as possible, so power projection is essential. Significantly, there are approximately 1,100 large cargo aircraft in the world, and more than 700 of them belong to the U.S. (all in the Air Force), which is nearly 65 percent of the world total. There are also approximately 825 aerial refueling aircraft in the world – the U.S. has more than 700, or about 85 percent of the total. Most of the other large cargo planes and tankers belong to NATO countries. This air mobility force allows the U.S. and its allies to project power anywhere in the world, rapidly, and, just as importantly, to sustain those forces for an extended period of time.

Special Delivery - Aircrew load an M777 A2 Howitzer onto a U.S. Air Force C-130J at Bagram Air Base, Afghanistan. The C-130J is part of the newly assigned 772nd Expeditionary Airlift Squadron, Kandahar Air Field, Afghanistan, that has been set up to assist with the increase in U.S. Troops to the region. (U.S. Air Force photo/ Staff Sgt. James L. Harper Jr.).

An Irregular War

Irregular warfare – a conflict in which one or more of the warring factions is not a state fielding regular forces as defined by the Third Geneva Convention – is nothing new for the men and women of Air Mobility Command, who are well-suited for this type of operation. Members of the command have been involved in making this mission a success around the globe as the nation works to promote its soft power (using co-option and attraction vice coercion and payment).

The command's unique capabilities to combine contingency response elements, airlift, air refueling and aeromedical evacuation enable responders to reach any nation on the planet, but are especially useful in landlocked countries or those lacking robust infrastructure, as are found in many areas where irregular warfare is particularly in play today. This capability also can be seen when AMC officials are called upon to provide rapid humanitarian relief in the aftermath of a natural disaster or other crisis. They can respond on a moment's notice.

"Irregular warfare is about (partner nations), not about us," said Ralph Van Wagner, AMC mobility analyst. "We strive to prevent conflict by enabling partner nations to be self-sufficient and to be valued members of the international community."

He also stated while irregular warfare typically is defined as a protracted form of warfare among state and non-state actors for legitimacy and influence, it also involves the full range of military and other capacities. And, this is where AMC comes in.

Applied in concert with joint, coalition and partner nation measures, air mobility often provides a non-violent, non-kinetic means to achieve peace and stability in modern, nontraditional environments, to prevent insurgents and terrorists from initiating, exacerbating or manipulating unnecessary conflict. AMC's mobility analysts note that air mobility's non-kinetic aspect, where neither a shot is fired nor a bomb dropped, not only provides hope to people all over the world, but also often helps alleviate conflict.

Several recent examples of AMC's direct involvement in irregular warfare have come to the forefront.

An aircrew flying a C-17 Globemaster III delivered a 26,000-pound magnetic resonance imaging machine to Argentina in June.

In another instance, an AMC C-17 and crew, operating in conjunction with officials in U.S. Southern Command, delivered 30,000 life-saving H1N1 influenza prevention kits to six South American countries this past May.

Additionally, at the request of the Pakistani government, two C-17s delivered 40,000 packaged meals and 25 large tents for internally displaced people in Pakistan's northwestern provinces, due to the recent conflict there.

In January, AMC officials sent a contingency response element and its aircraft into Sudan to deliver 75 tons of heavy equipment, including water tankers, fuel trucks and other oversized cargo, in support of United Nations peacekeeping operations in Darfur.

These are but a few examples of how AMC's own organic capability made these operations a success. The command can and does support any user, any mission, anywhere.

AMC mobility analysts emphasize their long-term goal is to achieve self-sufficiency among partner nations. However, until this desired end-state is achieved, the command remains postured to assist with these operations.

"As the global war on terror continues, our forces are in distant countries fighting organized terrorists who seek to destroy our nation and destabilize the world. Military operations in these austere places are challenged by the need to deploy and supply troops over great distances. Airlift is a precious lifeline that keeps them fed and equipped, brings the wounded home, and eventually, brings our forces home."

—Senator Jim Saxton, 2005

"Air Mobility Command plays a key role in irregular warfare as the United States works to improve its relationship with and strengthen its partner nations or to simply provide hope to those in need," said Lt Gen. Rusty Findley, AMC vice commander.

He said it's important to recognize the command's capabilities not only are vitally important in supporting operations involving kinetic solutions, but also those that involve non-kinetic ones or soft power.

Everywhere an AMC aircraft lands with its prominent American Flag on the tail, it sends a signal of the nation's commitment and support.

Bringing "Heavyweights" to the Joint Fight

The heavyweights, in the form of mobility airlift and tankers, are what Gen. Arthur J. Lichte and his 132,000 active duty, Air National Guard, and Air Force Reserve Airmen and civilian counterparts, keep in the fight on a daily basis.

According to officials at the Combined Air Operations Center in

Southwest Asia, mobility airlift and tanker operations account for about 70 percent of sorties flown in the U.S. Central Command area of responsibility. As stated in the intro, since 9/11 AMC aircraft have transported more than 13 million passengers – equivalent to moving the population of metropolitan Los Angeles. In addition, command aircrews delivered more than 4.6 million tons of cargo – equivalent to nearly 92,000 fully-loaded semi trucks.

"Amazingly, on average, one mobility aircraft departs every 90 seconds, every day, 365 days a year," said General Lichte, AMC commander. "But air mobility doesn't just happen; it is the product of incredible Airmen performing an extraordinary mission, delivering the closed fist of justice or the open hand of freedom and hope, anywhere at any time. We're all in the joint fight."

"It is a chain of events, made up by the variety of capabilities that our nation possesses with airlift, that is unmatched by any other country in the world. We do it routinely and make it look easy, but in fact it's quite a tribute to the airmen who make it all work."

—MajGen David Deptula, 2005

The heavyweights in the fight are the C-17 Globemaster IIIs and C-5 Galaxies that bring supplies and weapon systems coalition forces need like M1 Abrams tanks and Mine Resistant Ambush Protected vehicles.

And when airfields aren't readily available, AMC crews can deliver cargo to ground forces via airdrop, or land C-130s on short minimally prepared strips.

New upgrades, like the Joint Precision Airdrop System, use global positioning that provides increased control upon release from the aircraft.

"JPADS allows us to drop supplies from high altitudes with pinpoint accuracy, keeping our air crews and ground troops less exposed to hostile fire…and that's saving lives," General Lichte said.

AMC Airmen save lives in non-war environments as well by playing a crucial role in providing humanitarian support at home and around the world. Operating out of more than 170 countries, AMC Airmen provide lifesaving care, humanitarian airlift, precision airdrop, port opening, and worldwide air refueling.

"On the aerial refueling side of the mobility mission, tankers are a critical force enabler and force multiplier of air power, making it possible for other Air Force, Navy, Marine Corps and allied aircraft to fly farther, stay airborne longer and carry more weapons, equipment and supplies," General Lichte said.

The total force tanker fleet, consisting of Air National Guard, Reserve and active duty crews, fly about 130 sorties on an average day, offloading fuel roughly equivalent to 16 Olympic-sized pools to more than 330 receivers. Some of these tankers keep combat air patrol fighters in the air over the U.S. performing their homeland defense mission. Other tankers fuel fighters moving from stateside to their deployment locations or to refuel airlift aircraft such as C-5s and C-17s as they deliver cargo. Tankers also perform aeromedical evacuation missions daily when required.

Capt. Kristin Sajevic pilots a KC-10 Extender while receiving fuel from an KC-135 Stratotanker June 14 over Afghanistan. Captain Sajevic is assigned to the 908th Expeditionary Air Refueling Squadron. (U.S. Air Force photo/Staff Sgt. Jason Robertson).

Though the tankers get the job done, the KC-135 is a 50-year-old plane and changes to the aging fleet are underway.

"Imagine traveling from New York to California in a 1957 Chevy," General Lichte said. "It might get you there, but what if it breaks down on the side of the road and needs a fan belt or a water pump? You probably won't be able to get parts, and the nearest gas station won't be able to repair it. That's our KC-135, the core of our tanker fleet. We don't like to consider the options if our tanker is broken on the side of the road."

Though the KC-135 continues to handle the majority of the refueling mission, General Lichte said AMC officials anticipate the acquisition process will begin this year for the new KC-X.

The general also said the new tankers will allow AMC operators to take advantage of the technological advances in aviation development from the last 50 years and he stressed the importance of tankers.

"Without tankers, we'd have to quadruple the number of fighters and other aircraft to sustain operations," General Lichte said.

"Without tankers, a bomber would have at least two enroute stops with crew rest and would not arrive over target until day three at the earliest. Tankers allow us to launch a bomber from the Midwest, and with multiple aerial refuelings, arrive on target halfway around the world that same day," he said.

"No other country in the world can consistently do that… nobody," the general said. "Humanitarian and aeromedical evacuation missions also are impacted. Without tankers, we lose options because we can't get people, equipment and supplies to their destination in a hurry. Some countries won't let us overfly or land. If you don't have tankers, you can't get wounded troops back rapidly to the U.S."

The C-5 Galaxy is undergoing modernization with more powerful engines as well as reliability enhancements. After the extensive upgrades the aircraft is then known as the C-5M Super Galaxy. The new engines are capable of delivering a 22 percent increase in thrust and a 58 percent faster climb rate, and they allow significantly more cargo to be hauled over longer distances.

"I recently had the opportunity to deliver the first of 52 C-5M aircraft," General Lichte said. "The C-5M has a modernized avionics system as well as new engines and engine subsystems that will greatly improve its capability and reliability.

"Furthermore, we are working on modernizing the avionics of the entire C-5 fleet," General Lichte said.

AMC's people and "heavyweights" will continue to evolve and train to meet challenges, General Lichte said.

"No one in the world can do what we do," he said. "To continue to be the best, AMC will improve, innovate, overcome, and adapt to changes in the world to ensure our ability to provide worldwide, world-class airlift, air refueling, aeromedical evacuation, and the necessary global reach laydown to support our joint and coalition partners.

Air Mobility in Southwest Asia

Like clockwork, an Air Mobility Command aircraft departs on a mission within the area-of-operations every two minutes every hour of every day.

Providing the three cornerstones of the command's mobility mission – airlift, aerial refueling and aeromedical evacuation – AMC Airmen have provided constant wartime support for operations throughout Afghanistan, Iraq, Pakistan, Republic of Georgia and various other countries in the area.

"AMC is firmly in the fight," said Gen. Arthur J. Lichte, while in the theater visiting Airmen this past July. "We are flying two out of every three sorties in the AOR, putting our three core capabilities of airlift, air refueling and aeromedical evacuation on display every day." AMC

OREGON AERO®

Seat Cushion Systems for Military Aircraft

Our C-130, KC-135 and C-17 seat cushion designs and materials work together to create pain-free seating that improves aircrew endurance. Fabric and wool upholstery resists wear and is low maintenance. Now you can fly any distance without distractions and fatigue caused by seat pain. Call us or visit our website for details and ordering.

C-130

C-130 IPECO Pilot/Co-pilot

C-130 AMI Pilot/Co-pilot/ Navigator/Observer

C-130 Upper Crew Bunk

C-130 Lower Crew Bunk

KC-135

Boom Instructor Pallet (cushion only)

KC-135 Pilot/Co-pilot

KC-135 Navigator/Boomer

Boom Operator Couch (cushion only)

C-17

C-17 Crew Cushion
(Crew Bunk Cushion Also Available)

COASTAL

AIRCRAFT PARTS LLC

the exclusive worldwide distributor of **Oregon Aero®**
Seat Cushion Systems for military fixed wing and rotor wing aircraft.

954-260-6280 • Fax 954-337-2806 • www.CoastalAircraftParts.com • sales@coastalaircraftparts.com

The Power of Mission Planning in a Paperless Cockpit

Photo: Air Force Link

TacView® Portable Mission Display

Improved Situational Awareness at Your Fingertips

Our TacView® Portable Mission Display facilitates airborne mission effectiveness through improved real-time situational awareness. Designed for autonomous operation, TacView provides the means to quickly deploy new capability and functionality at a fraction of the time and cost of an integrated approach.

- Rugged, compact NVIS compatible smart display
- Digital moving map, DOD charts, EFB, weather
- Data link display for network-centric communications
- Portable mission planning - compatible with Portable Flight Planning (PFPS) and FalconView™

Over 100 Years of Innovation

Esterline CMC Electronics

MONTREAL • OTTAWA • CHICAGO • www.cmcelectronics.ca

Airmen fly roughly 900 sorties, moving nearly 2,000 tons of cargo and transporting nearly 2,000 passengers throughout the AOR daily.

"On the frontlines, air mobility is getting convoys off the road through airlift. AMC is decreasing the number of troops and vehicles on the roads, and helping defeat the enemy's improvised explosive device strategy and other attacks," the general said.

Ever-increasing demand for air mobility support continues to grow in Afghanistan as the focus continues to shift from Iraq as coalition forces there continue to perform a responsible withdrawal of forces from Iraqi cities and ultimately, Iraq in coming years.

"We play a vital role in the Afghanistan theater every day," General Lichte said. "It's a sliding scale in terms of as more overhead air performing close-air support increases, the need for more gas increases."

Though operations in Afghanistan are increasing, the responsible withdrawal of American forces from Iraq will require a great deal of effort for AMC Airmen in that country.

"Recently a deadline of spring 2010 was announced by Gen. James Conway, commandant of the Marine Corps, for the Marines to be out of Iraq," General Lichte added. "No doubt this will require an increase in airlift from AMC and once again, when called upon to assist, AMC aircraft and Airmen will be there to provide the airlift and support needed."

Aerial port members load six 1,200-pound bundles of water and Meals, Ready to Eat onto a C-130 Hercules Feb. 16 at Balad, Iraq, in preparation for the first joint precision airdrop system mission in support of Operation Iraq Freedom. JPADS is a new airdrop system used by C-130 aircrews to drop cargo at higher altitudes with precision accuracy. The aerial port members are assigned to the 332nd Expeditionary Logistics Readiness Squadron. (U.S. Air Force photo/Tech. Sgt. Cecilio M. Ricardo Jr.).

General Lichte also noted that the Air Force's tanker fleet is more than 50 years old but is still counted on heavily in the theater, with planes offloading 440,000 gallons of fuel annually to nearly 230 receiver aircraft. The General attributes this to the efforts of the Airmen who support the air refueling mission.

"These Airmen are doing great work all over," he said. "Our maintainers are working hard to perform the maintenance on these planes to keep them flying."

Another critical function of the AMC mission is the aeromedical evacuation mission, which has flight-certified medical Airmen working aboard the command's aircraft to care for and transport wounded servicemembers throughout the AOR.

"[Recently] I took a C-17 (Globemaster III) out of Ramstein Air Base, Germany, on a flight to (Joint Base) Balad to see the aeromedical evacuation mission first-hand," General Lichte said. "The mission went so smoothly and I came away totally impressed with the crew, which was an Air National Guard unit from Jackson, Mississippi."

"The secret of success is to get there first with the most."

—LtGen Nathan Forrest, 1862

General Lichte also mentioned the support the team and the passengers received from the Joint Base Balad servicemembers who showed up at the terminal in force to see them off.

"I was also moved by the volunteers who were at Balad and came out to applaud the wounded servicemembers before we departed – it was amazing, and definitely a rewarding experience."

Though supporting warfighters is a critical mission for AMC, humanitarian operations also play a significant role for the command.

"We also bring hope to the Afghan and Iraqi people," General Lichte said, referring to humanitarian operations Airmen perform in those countries. "When they see a big American flag on the tail of the aircraft, they know Americans are coming to bring them relief, food, doctors and other things; they know the U.S. people support them."

"I'm very proud of all the Airmen serving in these missions," said General Lichte. "They continue to fight every day and they are saving lives."

Air Mobility Maintains the Fight in Afghanistan

Being in a fight is easy; it is having the ability to stay in the fight until you win that is the hard part. This is especially true in the new type of war being fought by the coalition forces in Afghanistan where the enemy's strategy is to outlast the resolve and sustainment capability of U.S. and coalition forces.

In Afghanistan today, the ability of both ground and air forces to engage the enemy is enabled in large part by the processes and systems executed by the Combined Air and Space Operation Center's (CAOC) Air Mobility Division. Through their innovative approach and flexibility, they are able to coordinate and synchronize movement of supplies to those in need in a safe, efficient manner.

The conditions faced by military planners are extremely difficult and take an extraordinary effort to coordinate. The great distances to cover, poor weather conditions, as well as a very unfriendly terrain to navigate, makes getting needed supplies where they need to go extremely difficult.

Because of these challenges, the Air Mobility Division staff working out of the Combined Air and Space Operations Center in Southwest Asia is able to provide valuable direction and oversight for the air mobility mission.

"We provide materials needed by those that are in the fight, whether it is fuel or bombs for close-air-support aircraft, or bullets for troops on the ground," said Lt. Col. John Roscoe, the chief of the Air Mobility Division at the CAOC. "This has been even more important in Afghanistan where a lack of infrastructure limits both overland supply activity as well as capacity for logistics to flow through existing operating locations."

In coordination with other service and coalition partners, the Air Mobility Division staff is responsible for integrating requirements for airlift, airdrop, refueling and aeromedical evacuation. The coordination and synchronization of this effort is done through the air tasking order cycle, which is the mechanism for providing transparency to logistics requirements and assigning available coalition assets to support each requirement.

The airlift operation has come a long way over the last seven years in Afghanistan.

"There have been several innovative approaches that have enabled us to be more proactive versus reactive," Colonel Roscoe said. "We have been able to continuously monitor the force structure to right size available assets needed given changing requirement levels. In some cases we were able to send aircraft home to save resources and reduce the cost of operations."

Experiences in operations Iraqi Freedom and Enduring Freedom have enabled air mobility aircraft to significantly improve their effectiveness and efficiency.

"Being able to anticipate requirements through the use of historical data have enabled us to effectively posture the force," Colonel Roscoe

said. "We are always looking ahead. Since there are never enough aircraft to fully support requirements, we plan in a joint environment and work to use available assets judiciously."

Another innovation that has been particularly effective is the theater express program. Colonel Roscoe said, "Through this program we are able to offer up cargo to commercial air couriers for "tender" where these contract carriers essentially bid to move "non-military cargo" (general replenishment supplies). This allows us to focus military cargo airlift on moving combat systems and passengers while reducing overall cost to the taxpayer."

He said the goal is to move up to 50 percent of the cargo commercially and use the available military aircraft for high-priority missions. "We are moving toward a point where the commercialization of airlift in Iraq is possible as we reduce our presence there in accordance with the Status of Forces Agreement."

While it is much more efficient to land to offload cargo, sometimes troops on the ground need more immediate resupply. For these needs, coalition aircraft have become very proficient at airdropping materials.

"From time to time, the tree of liberty must be watered with the blood of tyrants and patriots."

—Thomas Jefferson

"While airdrops are not as efficient as unloading cargo on a ramp, they do give the capability to provide supplies directly to the user on the ground increasing the effectiveness of resupply efforts," Colonel Roscoe said. "The new technology we employ and the precision of our aircrews forged over years of training and operational missions has enabled coalition units to achieve unparalleled accuracy and success with our airdrop missions."

The improved efficiency has been extremely valuable. In 2008 alone, nearly 15 million pounds of supplies were airdropped in Iraq and Afghanistan.

In another example of innovation in the air refueling mission, also in 2008, more than 1 billion pounds of fuel were passed to coalition aircraft.

"If you take what we offload in one day alone, equal to energy, this is enough power to light Las Vegas for two days," Colonel Roscoe said.

This tremendous requirement for fuel takes precise planning and innovative approaches to complete. Tankers are now much more efficient in supporting combat aircraft.

"We are finding new, innovative ways to reduce the time it takes to refuel our aircraft," Colonel Roscoe added. "This allows aircraft that are responding to support ground operations to reduce their response time significantly and consequently vastly improving their effectiveness. Simply put, the faster we get our strike aircraft to the fight the more lives of friendly forces we save."

"We are also doing a lot to support Afghan and coalition forces through aeromedical evacuations," the colonel said. "We are able to treat in-route and have a 98 percent survival rate once we get them to the theater hospitals."

Airmen unload a Mine Resistant Ambush Protected Vehicle from a C-17 Globemaster III Aug 4 at Bagram Airfield, Afghanistan. The MRAP is designed to be both safe and effective for Soldiers conducting patrols, convoy security and other missions throughout Afghanistan. (U.S. Air Force photo/Senior Airman Felicia Juenke).

He explained they then coordinate for the transport of patients through inter-theater airlift to strategic hospitals, "the safety of how we move people and patients is one of the most important missions we have."

The success of Air Mobility Division's coordination efforts enabled the evacuation of more than 9,800 patients in 2008 by in-theater aeromedical flights.

Colonel Roscoe said the air logistics teams are not resting on their successes.

"We are working toward improved in-transit visibility between various coalition aircraft which will enable us to maximize utilization of available space on our various aircraft," he said. "This will enable us, across all of our missions, to better address the great distances and complexity that we are facing within Afghanistan. This will be enabled by a common scheduling system across the combined/joint forces world."

Moving the Big Stuff

Members of Air Mobility Command's hub for global airlift, air refueling and aeromedical evacuation, the 618th Tanker Airlift Control Center (TACC) at Scott AFB, Illinois, were "all in" with AMC's commitment to support joint worldwide operations, kicking off efforts this past June to airlift more than 300 Stryker vehicles to military forces in Afghanistan.

The term Stryker applies to a family of armored troop-transport vehicles used by the Army for ground operations. One vehicle can carry up to 11 troops and weighs approximately 19 tons, depending on the variation, according to an Army fact sheet.

Moving the Strykers assigned to the 5th Stryker Brigade Combat Team at Fort Lewis, Washington, was accomplished by a combination of sealift and airlift assets. The vehicles and equipment are being taken by ship for the majority of the trip around the world, and then Air Force assets take over to fly the last portion of the journey into land-locked Afghanistan.

Air Mobility Command officials devised a plan to move the 300-plus vehicles and support equipment, totaling nearly 9,500 tons, into Afghanistan over a two month period on C-17 Globemaster IIIs flown by military crews, and AN-124s, operated by commercial partners.

The 618th TACC staff, at Scott AFB, was responsible for planning and executing the airlift missions. All efforts for the move were closely coordinated by officials from the U.S. Transportation Command, also located at Scott AFB.

"When requirements are identified to move large vehicles by air, the 618th TACC schedules those missions, tasks aircraft and aircrews to fly the missions, and obtains permission from other governments to overfly their countries while executing the missions," said Maj. Gen. Mark S. Solo, 618th TACC commander. "And once those missions are airborne, our 24-hour operations floor acts as 'virtual crewmember,' fulfilling any mission needs for that aircrew to make things go as smoothly as possible."

The 618th TACC staff has been the lead for centralized control of AMC airlift, air refueling and aeromedical evacuation operations worldwide since its activation on 1 April 1992. That coordination in recent years has included hundreds of thousands of point-to-point flights (sorties) in support of operations Iraqi Freedom and Enduring Freedom.

In fact, for OIF and OEF alone, AMC aircrews have flown more than 363,000 sorties, which includes transportation of 5 million+ passengers and 2.6 million+ tons of supplies since the operations began.

"We work very hard to meet the needs of our U.S. forces all around

The C-17 Globemaster III. The first choice for any airlift mission. Unmatched in meeting America's growing airlift requirement. Whether it's crossing oceans or continents, supporting warfighters or delivering humanitarian aid, the C-17 is on duty around the clock delivering capability and relief to even the most austere airfields.

C-17. TODAY, MORE THAN EVER.

C-17

Pratt & Whitney
A United Technologies Company

BOEING

SNOWBALL EXPRESS

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

The purpose of the Snowball Express, an all volunteer, registered 501 (c) (3) corporation, is to help create new memories and a few days of joy for lives that have been shattered by the loss of their fallen hero. It is America's chance to give a gift of gratitude to the children and spouses of those men and women in the U.S. Armed Forces who made the ultimate sacrifice since September 11, 2001.

In a million years, I could never thank you for the gift you gave my daughter. I can never take this pain from her, but with the help of organizations like yours, she receives a bond and a clarity that only these beautiful children can give each other... understanding.

So many families will owe you... for life... like mine.

Thank you and God bless you.

Melissa Storey
Proud Army Wife of
SSG Clint J. Storey
KIA 8-4-06 Ar Ramadi, Iraq

You can help make dreams come true...

...to find out how visit www.snowballexpress.org on the web. For more information about how you, your company or organization can help, please contact Trisha Marshall, Fund Development Chairman, at t.marshall@snowballexpress.org

Snowball Express
2973 Harbor Blvd #401
Costa Mesa, CA 92626-3912
Phone/Fax 714.662.2033
www.snowballexpress.org

the world," said Maj. Charlie Velino, the 618th TACC division chief who planned the Stryker airlift missions. "As combatant commands [such as U.S. Central Command, responsible for operations in Iraq and Afghanistan] identify new airlift requirements, we're continually working to plan new missions to meet their needs, in this case the need for Strykers, as fast and as efficiently as possible."

This achievement does not come without the challenge of flying aircraft with an average age of 30.5 years. Such was the case this past July for a C-5 Galaxy aircrew from the 337th Airlift Squadron based out of Westover Air Reserve Base, Massachusetts.

The crew was scheduled to move two mine-resistant ambush-protected (MRAP) vehicles, which are next-generation armored trucks, to a deployed location in Southwest Asia.

The mission originated out of Charleston Air Force Base, South Carolina, where the MRAPs were located.

In addition to the two MRAPs, passengers were scheduled to be flown to Ramstein Air Base Germany, illustrating the unique depth of Air Force mobility operations.

In a single mission, Air Mobility Command officials were able to fuel the war effort with supplies, and at the same time, provide transportation benefits to servicemembers and their families, seamlessly integrating the Air Force's mission and people priorities.

Two Army Stryker Infantry Carrier Vehicles drive onto a C-5 Galaxy June 25 at Joint Base Balad, Iraq. The C-5 has a kneeling landing gear system that permits lowering of the parked aircraft so the cargo floor is at truck-bed height or to facilitate vehicle loading and unloading. The C-5 is from Dover Air Force Base, Del. (U.S. Air Force photo/Senior Airman Julianne Showalter).

Before the passengers could board, maintenance crews worked to correct a weight balance issue with the aircraft to accommodate the weight of the MRAPs. Then, Tech. Sgt. Andrew Cavanaugh, a loadmaster with the 337th AS, precisely positioned the two MRAPs to carefully balance the C-5's center of gravity, making adjustments in the position of vehicles by as little as inches.

Just as their work was nearly finished, the aircrew encountered a snag; a fire suppression warning indicator was giving a false indication.

Parked and crippled on the Charleston AFB flightline, the aircrew immediately requested assistance from the TACC. The flight scheduled to deliver valuable mission assets into Southwest Asia was going nowhere fast without help soon.

Fortunately, another C-5 parked on the Charleston AFB ramp had Staff Sgt. Benjamin Drage, a crew chief on board to help.

Within minutes of arriving on the scene, Sergeant Drage had the problem solved by pinpointing an issue with an electrical connector on a component of the aircraft. After re-seating the connector, the anomalous indication disappeared.

"If he didn't come and help us with that, we would've needed a mission recovery team to find the problem," said Maj. Jay Koelb, a pilot with the 337th AS. "We would have been delayed for days."

Instead, the aircraft was able to deliver the MRAPs onboard to coalition fighting in support of expeditionary operations and to transport the passengers safely to their destination.

The airlift mission is a two-sided coin that can be flipped in either direction at any time. Typically, an aircrew may fly supplies into Afghanistan, and a few hours after arriving, depart with a redeploying Army unit headed back to the U.S. or perform an aeromedical evacuation getting wounded coalition forces to a medical facility.

The actions of Sergeant Drage proved that despite the size of the aircraft, its age or the odds, the success of a mission can unexpectedly hinge on the motivation and proficiency of a single Airman working to keep the mission moving.

USTRANSCOM: Steward of Deployments

Arduous, demanding, challenging – all words that can be used to describe the task that the USTRANSCOM team, including its components and commercial partners, faces as it brings all modes of transportation, military and commercial, into play to simultaneously move the equivalent of six brigades at any given time.

Each week, there is an aircraft taking off and landing every 90 seconds around the globe, carrying thousands passengers, millions of pounds of cargo, dozens of vehicles, providing millions of pounds of fuel and supporting hundreds of patient moves.

By surface, 35 ships are loading, under way or offloading at any given time. An average week includes moving 151 million pounds of unit cargo, 175 MRAPs, 232 million pounds of fuel and conduction 8,100 household goods moves.

Col. Gregory Schwartz, a division chief in USTRANSCOM's Deployment and Distribution Operations Center, has worked with many unit moves to Afghanistan.

"We help each unit figure out how to package their equipment and their people to arrive in theater when they need to get there in order to execute their mission," Schwartz said. "We help them put the packaging together so that they can move from their home station to where their deployment location is and arrive ready to fight with the stuff they need and the right people they need."

This is all accomplished through USTRANSCOM's three service components..

The Navy's Military Sealift Command provides sealift transportation services to deploy, sustain and redeploy U.S. forces around the globe. MSC provides sealift with a fleet of government-owned and chartered U.S.-flagged ships.

The Army's Military Surface Deployment and Distribution Command provides command and control and distribution operations for cargo at the port of departure and when it reaches its destination by ship, train or plane. SDDC provides ocean terminal, commercial ocean liner service and traffic management services. The command is responsible for surface transportation and is the interface between DoD shippers and the commercial transportation carrier industry.

"…the combatant commanders can be confident that we will always get them the forces and supplies they need to win. We will always get through."

—General McNabb, commander USTRANSCOM

Air Mobility Command provides strategic and tactical airlift, air refueling, and aeromedical evacuation services. In addition, AMC works with the commercial air carriers through the Civil Reserve Air Fleet and other programs to move of DoD passengers and cargo.

"When you talk (about) Afghanistan, I think what people don't understand is that it's probably one of the hardest logistical challenges that this country has undertaken in decades," Schwartz said. "It's

a landlocked country with no infrastructure, and we are putting a significantly sized force there, with all their equipment. And we're keeping all those folks fed, watered, bedded down and making sure they have all their ammo and everything else they need to do their job"

Schwartz pointed out that Afghanistan has few airfields, lacks a big international airport, has no rail system and a limited road system. "So, putting a force in and then supplying that force over long periods of time is a logistical feat that we have not attempted in a very long time."

The highest ranking officer in the military, the chairman of the Joint Chiefs of Staff, well understands the logistical challenges of Afghanistan. In a recent interview with the Military Times publications, he talked about how USTRANSCOM has provided the nation the options it needs and the planning it took to get there.

Adm. Michael Mullen compared rotating forces into Afghanistan to going through the eye of a needle, and described the execution as going "exceptionally well."

"I'm comfortable that we're in pretty good shape," the Chairman said. "And a lot of good people have done a lot of good work to get us here." He singled out the men and women of USTRANSCOM, who, he said, "are in many ways the unsung heroes of these wars," because they have "fed the fights extraordinarily well."

Lt. Col. Tommy Atkinson (right) pilots a C-130 Hercules over northern Afghanistan on a humanitarian airdrop mission Aug. 26. The Airmen of the 774th Expeditionary Airlift Squadron have been dropping an average of five to eight tons of supplies and equipment per mission to coalition forces and Afghan civilians in support of Operation Enduring Freedom. (U.S. Air Force photo).

A History of Continuing Success

When the Air Force became a separate service on 18 September 1947, what's known today as Air Mobility Command had started along with it.

In September 1947, the development of a military transport component to the fledgling Air Force was still under discussion, according to the AMC History Office book, "Anything, Anywhere, Anytime: An Illustrated History of the Military Airlift Command, 1941-1991." At that time, the U.S. Army had Air Transportation Command and the Navy had the Naval Air Transport Service.

In July 1947, President Harry Truman established the Air Policy Commission – also known as the Finletter Commission – to look into how the mobility air forces of the day were doing business. By December 1947, the commission made its recommendation for a single military air transport service.

May 1948 saw Secretary of Defense James V. Forrestal sign a memorandum creating the Military Air Transport Service. Through the creation of MATS, the Air Force consolidated ATC and NATS elements creating the roots of Air Mobility Command today.

"The combination of strategic airlift came none too soon," the book shows. "Less than a month after the Military Air Transport Service was created, the Soviet Union blockaded land and water routes to West Berlin, and the United States and her allies inaugurated what would become a historic airlift to resupply the city."

That historic airlift effort was the Berlin Airlift, during which there where 279,111 flights carrying 2,234,257 tons of cargo to help the people of Berlin. According to the history, MATS was not in direct control of the airlift effort but was very much involved. "The command trained replacement aircrews, moved aircraft, furnished transatlantic airlift, and coordinated maintenance, all the time trying to find enough planes to continue supporting its regular customers."

The Berlin Airlift effort carried into the Korean conflict where MATS aircraft flew 210,343 sorties, carried 391,763 tons of cargo, more than 2.6 million passengers and 310,000 patients. During the Korean campaign, more than 15,000 tons of supplies and equipment was also airdropped to troops on the ground. In essence, in addition to airlift, the Korean War further developed tactics, techniques and procedures in aeromedical evacuation and airdrop capabilities and would redefine how the mobility air force does business.

In 1966, MATS became Military Airlift Command. At the same time, operations in the Vietnam War were in full swing. It was a time that saw a convergence of the older propeller driven airlifters, such as the C-97 Stratofreighters and C-124 Globemaster, to the jet driven C-141 Starlifter and C-5 Galaxy. The difference in hauling capabilities were noted in the history.

"The C-124, which had previously formed the backbone of MATS' airlift force, required 95 hours to fly 50,000 pounds from Travis Air Force Base, Calif., to Saigon and back," the book shows. "With a standard mission utilization rate of 6.7 hours per day, a C-124 made the trip in 13 days. In contrast, the Starlifter could carry 57,500 pounds of cargo 4,000 miles or 20,000 pounds non-stop from Travis to Southeast Asia at 431 knots."

The Vietnam War also expanded MAC's mission to include both intertheater and intratheater airlift. During this conflict, "the principal role of airlift changed dramatically, shifting also to a greater emphasis on direct combat support."

Fast forward to operations of the modern AMC era, which began in June 1992, and the contributions of the air refueling can also be noted. Take for example Operation Allied Force in 1999.

In the AMC History book, "Poised for The New Millennium: The Global Reach of the Air Mobility Command," it is noted that during the 78-day conflict that saw over 175 U.S. tankers contribute to the campaign delivering more than 355.8 million pounds of fuel to more than 23,000 receivers. "On occasion during the conflict, some tankers were in harm's way and had to change course due to the proximity of enemy aircraft."

"Sir, the Air Force can deliver anything."

MajGen Curtis E. LeMay, USAF

During the Kosovo conflict, the joint forces air component commander said "tankers turned the tide of the war," the Millennium book states.

In the current operations in Iraq and Afghanistan, the mobility mission continues to maximize the Air Force's global reach capabilities in airlift, airdrop, air refueling and special missions. As an example, a daily airpower summary from mid-August from Air Forces Central-Forward in Southwest Asia described the level of mobility support to today's warfighter.

"Air Force C-130 Hercules aircraft and C-17 Globemaster IIIs provided intra-theater heavy airlift, helping to sustain operations throughout Afghanistan, Iraq and the Horn of Africa," the report said. "Approximately 150 airlift sorties were flown, 675 short tons of cargo were delivered and about 2,800 passengers were transported.

This included about 165,000 pounds of aerial resupply cargo dropped over Afghanistan."

Additionally, the report said, "Air Force tanker crews flew 45 sorties and off-loaded approximately 2.6 million pounds of fuel to 172 receiving aircraft."

Successes are sure to continue as AMC continues its mission "to provide global air mobility...right effects, right place, right time."

The Sobering True Cost of Conflict on the Joint/Coalition Team

A comparison between fatalities in the Global War on Terror and 9/11 was drawn in August of 2006 by Gen. Peter Pace, then chairman of the U.S. Joint Chiefs of Staff, during testimony before the Senate Armed Services Committee. "It's now almost five years since September 11, 2001," Pace said. "And the number of young men and women in our armed forces who have sacrificed their lives that we might live in freedom is approaching the number of Americans (estimated to be approximately 2,669) who were murdered on 9/11 in New York, in Washington, D.C., and in Pennsylvania." Unfortunately, but not unexpectedly, that number has since increased.

As of 15 September 2009 there had been 4,664 coalition deaths in Iraq in support of Operation Iraqi Freedom – 4,347 Americans (including soldiers, marines, airmen, sailors, coast guardsmen and DoD civilians), two Australians, one Azerbaijani, 179 Britons, 13 Bulgarians, one Czech, seven Danes, two Dutch, two Estonians, one Fijian, five Georgians, one Hungarian, 33 Italians, one Kazakh, one South Korean, three Latvians, 22 Poles, three Romanians, five Salvadoran, four Slovaks, 11 Spaniards, two Thai and 18 Ukrainians. At least 31,494 U.S. troops had been wounded in action, according to the Pentagon.

As of the same date, there had been 1,380 coalition deaths in Afghanistan in support of Operation Enduring Freedom – 826 Americans, 11 Australians, one Belgian, 214 Britons, 130 Canadians, three Czech, 24 Danes, 21 Dutch, six Estonians, one Finn, 31 French, 30 Germans, two Hungarians, 14 Italians, three Latvian, one Lithuanian, four Norwegians, 13 Poles, two Portuguese, 11 Romanians, one South Korean, 25 Spaniards, two Swedes, two Turks and two NATO/ISAF members. At least 3,896 U.S. personnel had been wounded in action. ■

An Air Force Mortuary Affairs Operations Center carry team transfers the remains of Staff Sgt. Phillip A. Myers from the aircraft April 5 at Dover Air Force Base, Del. Sergeant Myers died April 4 near Helmand Province, Afghanistan, from wounds suffered from an improvised explosive device. (U.S. Air Force photo/Roland Balik).

"More than 240,000 men and women deployed in harm's way are defending our rights, and those of mankind, this very minute. They, and especially their families, know this: as long as our Nation continues to raise sons and daughters to sacrifice their individual cares for the greater good of all, the revolutionary spirit of Jefferson, Lincoln, and our Republic lives on."

—Admiral Mike Mullen, Chairman of the Joint Chiefs of Staff ■

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.

The A/TA Hall of Fame

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 Command, 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.***

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.***

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 become 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.***

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. "Tooey" 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.***

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.***

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.***

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.***

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.***

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.***

Gen William G. Moore, Jr. (1920)

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.***

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.***

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.***

A/TA Hall of Fame Continues >

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 3-year aviation career, he also served as crew chief for other aviation heroes, including Lester Maitland, Albert Hagenberger, and Amelia Earhart. ***Inducted 2001.***

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.***

Gen Duane H. Cassidy (1933)

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.*

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.***

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.***

Maj Gen James I. "Bagger" Baginski (1932)

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.***

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 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.***

"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

BETWEEN CARRYING MORE AND COSTING LESS, THERE IS ONE IMPORTANT WORD: HOW.

The C-5M Super Galaxy gets troops and supplies where they're needed faster, more reliably, and at significantly lower cost. With more thrust. Shorter takeoff roll. And faster climb rate. The C-5M will continue performing beyond 2040, and will pay for itself through operational and sustainment savings. Carrying more cargo at a lower cost is all a question of how. And it is the how that makes all the difference.

lockheedmartin.com/c5

LOCKHEED MARTIN
We never forget who we're working for®

This year the Airlift/Tanker Association proudly honors a group of intrepid aviation pioneers whose performance and professionalism ushered in the era of tanker operations, enabling the notion of unlimited aircraft range. Their noteworthy accomplishments significantly contributed to the advancement Air Mobility by testing and validating the potential of aerial refueling. The vision, airmanship and fortitude that these crewmembers displayed make them truly worthy of the honor of being named the...

2009 A/TA Hall of Fame Inductee

The Pioneers of Aerial Refueling

The Crewmembers of the First Series of Army Air Service Aerial Refueling Flights in 1923

Tanker Crew #1: 1Lt Virgil Hine and 1Lt Frank W. Seifert
Tanker Crew #2: Capt Robert G. Erwin and 1Lt Oliver R. McNeel
Receiver Crew: Capt Lowell H. Smith and 1Lt John Paul Richter

&

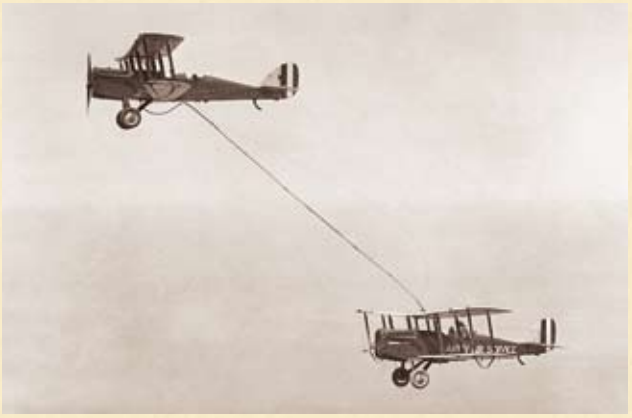
The Tanker Aircraft Crewmembers* Supporting the Flight of the "Question Mark" in 1929

Tanker Crew #1: Capt Ross G. Hoyt, 1Lt Auby C. Strickland and 2Lt Irwin A. Woodring
Tanker Crew #2: 1Lt Odas Moon, 2Lt Joseph G. Hopkins and 2Lt Andrew F. Salter

The decade of the 1920s was a period of American prosperity and optimism – it was the "Roaring Twenties," the decade of bathtub gin, the Model T, the $5 work day and the movie. The 1920s were also an exciting time in aviation. Legendary names like Charles Lindbergh, Amelia Earhart and Bessie Coleman had entered the American lexicon, and a number of developments set the stage for a revolution in which airplanes, flying faster, higher, farther and longer than the anyone had dreamed possible, would absolutely shape the subsequent history of the 20th Century.

Flight technology would open the distant corners of the globe; change the ways in which wars were fought; drive technological change in areas ranging from materials research to electronics and computers; and, most importantly, be the impetus for an ever expanding vision of the possible.

Two 1920s military aviation events, the first in 1923, the second in 1929, embraced this spirit of inventiveness and innovation and had a significant and lasting impact on Air Mobility.



Capt. Lowell H. Smith and Lt. John P. Richter performing the U.S. Army Air Service's first-ever aerial refueling on 27 June 1923. (USAF File Photo).

1923: Proving the Viability of Aerial Refueling for Military Purposes

On a hazy Southern California summer day in June of 1923, an intrepid group of six U.S. Army Air Service aviators flew the first of four missions designed to prove the viability of air-to-air refueling for military purposes. Earlier experiments had proven that aerial refueling was possible, but that didn't mean that military leaders believed that the concept should be embraced, let alone resourced and deployed. Like many important military contributions, aerial refueling would have to first be proven to have a useful military application and then wait for an operational requirement.

That requirement would come along 25 years later when General Curtis E. LeMay and other Air Force leaders pressed forward with a series of key decisions which eventually led to a high-water mark in aerial refueling history – a Cold War-Era force of over 1,100 dedicated, operational air refueling tanker aircraft.

The four 1923 missions were flown by two tanker crews and a

*Three crewmembers of the legendary "Question Mark" receiver aircraft have been previously, and individually, inducted into the Airlift/Tanker Hall of Fame: Major (General) Carl A. Spatz (later Spaatz), inducted in 2002; Capt (MajGen) Ira C. Eaker, inducted in 1993; and, Sgt (MSgt) Roy Hooe, inducted in 2001. There were two other crewmembers: 1Lt (Col) Harry A. Halverson and 2Lt (LtGen) Elwood R. Quesada.

receiver crew. The members of Tanker Crew #1 were 1Lt Virgil Hine and 1Lt Frank W. Seifert; the members of Tanker Crew #2 were Capt Robert G. Erwin and 1Lt Oliver R. McNeel; and, the Receiver Crew consisted of Capt Lowell H. Smith and 1Lt John Paul Richter.

On Mission #1, on 23 June, Tanker #1 and the Receiver Crew, flying from Rockwell Field, in San Diego, California, successfully accomplished the first-ever military daytime air refueling sortie for the U.S. Army Air Service. Flying two DeHavilland DH-4s, the receiver plane stayed aloft for 6 hours and 38 minutes and the tanker aircraft transferred 75 gallons of fuel. The sortie ended after a single refueling when the receiver aircraft developed engine trouble – and there was only one engine. Mission #2 was flown the following day, 24 June, with the same crews keeping the receiver aircraft aloft for 23 hours and 48 minutes, using both day and night transfers. Their efforts were praised in the local press by the Rockwell Field commander, (then) Major Hap Arnold.

The "Question Mark" receiving fuel from Refueling Aircraft #1 during the historic endurance flight 1-7 January 1929. (USAF File Photo).

Mission #3, flown on 23 and 24 August, saw the birth of the "Reliability Tanker," (a tanker aircraft acting as a flying spare should another tanker not be able to pass fuel) when Tanker Crew #2 joined the original two crews. On this mission, using 14 fuel transfers, the Receiver aircraft stayed airborne for 37 hours and 20 minutes flying a racetrack course covering a distance equivalent to flying from Goose Bay, Newfoundland, to Leningrad, Russia – 3,293 miles.

On 25 October, the group, building on their previous successes, flew Mission #4, performing arguably the first-ever operational refueling mission. The Receiver Crew departed Suma, Washington, near the Canadian border and refueled via two contacts with Tanker #1. Then near Sacramento, California, the receiver aircraft made two more successful contacts and flew to the Mexican border, circled the Tijuana Customs House, then landed at Rockwell Field. The flight lasted 12 hours and covered a distance of 1,280 miles.

1929: The Flight of the "Question Mark"

Beginning on New Year's Day, 1929, and ending on 7 January, a tri-engined U.S. Army Air Corps Fokker C-2A, appropriately named the "Question Mark," with a crew of five, and two Douglas C-1 aircraft, each with a crew of three, took to the skies for the sole purpose of proving that the range and endurance of an aircraft are only limited by the people who fly them, or the engines that propel them. The crews of these aircraft were out to publicly prove just how long an aircraft receiving aerial refuelings could be kept aloft. The flight played a crucial role in the beginning days of aerial refueling efforts and the development of U.S. Army Air Corps.

The widely recognized crew of the receiver aircraft "Question Mark," emblazoned with a large "?" on its fuselage, endured 150 hours and 40 minutes aloft, flying back and forth on a 110-mile racetrack course between Los Angeles and San Diego, California. The silent partners in this historic event were the two tankers, known as Refueling Plane #1 and Refueling Plane #2, the often overlooked backbone to this historic flight. The crew of Refueling Plane #1 consisted of the pilot, Capt Ross G. Hoyt, along with two fuel system operators, 1Lt Auby C. Strickland and 2Lt Erwin A. Woodring. Refueling Plane #2 was crewed by 1Lt Odas Moon, as the pilot, and 2Lt Joseph G. Hopkins and 2Lt Andrew F. Salter as the fuel system operators.

The "Question Mark" was a high-winged monoplane with two 96-gallon wing tanks supplemented by two 150-gallon tanks installed in the cabin. The refueling aircraft were single-engine bi-planes equipped with two 150-gallon tanks for fuel offloading. Together, the tankers made 43 refueling contacts, transferring 5,660+ gallons of fuel and 202 gallons of oil. This required uncanny air jockeying. Flying only 15-20 feet directly above the "Question Mark," fuel was transferred at a rate of 75 gallons per minute from a thin dangled rubber hose which passed through hatches cut in the floors of the C-1 tankers. The tanker pilots and crews were responsible for the formations' safety of flight while refueling at a speed of 80 miles an hour.

One example of the fortitude and skill demonstrated by the tanker crews occurred one night over the Southern California Imperial Valley. The two planes were in the middle of one of their 12 night refueling missions when Capt Hoyt, piloting Refueling Plane #1, noticed they were on a collision course with a hill called Gray Cliff. Unfortunately, radio communication was not used between any of the participants due to the simple fact that aircraft radios in 1929 were big, heavy and unreliable. However, at night, two different flashlight signals were used to let the tanker know when to separate from the "Question Mark:" a single flash meaning the main fuel valve on the receiver valve was closed; and, two flashes meaning the fuel hose had swung free from the receiver aircraft. The "Question Mark" had not sent either signal as the form of Gray Cliff loomed in the darkness. Capt Hoyt had to make a rapid decision to avert the impending disaster. He immediately made an accelerated climbing turn, away from the hazard area, as a warning to the "Question Mark" that danger was ahead. The "Question Mark" followed his lead and soon the two aircraft maneuvered to make another contact.

The conditions that the tanker crews operated in were extreme. The tankers were required to take off and land a total of 43 times on runways that were little more than cleared strips of land. The fields were not conditioned for the added weight of the fuel that was to be passed once airborne. In fact, Capt Hoyt remarked that the modified Douglas C-1 tanker could not taxi with a fuel load with which it was capable of flying. Additionally, the weather conditions and visibility hazards at Rockwell Field made recovery extremely difficult. Aircraft instrumentation at the time was not adequate for actual instrument flying, and the available navigational aids were limited to a magnetic compass and a rudimentary radio direction finder. Often times, the lights of San Diego and the airfield shining dimly up through the fog were the only landing aids.

In addition to providing the precious fuel and oil that the "Question Mark" needed to sustain flight, the tankers provided other critical items. On one occasion early in the operation, Major Carl Spatz (later Spaatz), the mission commander, was burned by spilled fuel onboard the "Question Mark." Acting as an airborne ambulance, one of the tankers passed zinc oxide to the "Question Mark" via a swinging rope. Other ropes were also swung, providing telegrams, mail, water, clothing and even a turkey dinner cooked by women of a church in Van Nuys.

The Right Stuff in the Days Before Rockets

In the early days of aviation, before Tom Wolfe, the author of the famous book about U.S. post-World War II experiments with rocket-powered, high-speed aircraft ,"The Right Stuff," was born, there were U.S. aviators who possessed the "right stuff" – an ethos of bravery and machismo that compelled them to reach for the sky and dare to proven the unproven. Among their number were the courageous airmen who served on the crews of 1923 and 1929 air refueling missions that garnered them the honor of being named, as a group, the 2009

inductee into the Airlift/Tanker Hall of Fame: –

The Crewmembers for the 1923 Refueling Flights:

First Lieutenant Virgil Hine

1Lt Virgil Hine was a U.S. Army Air Service pilot stationed at Rockwell Field, California in the 1920s. He was born in Siloam Springs, Arkansas and retired as a Captain. He was posthumously awarded the Distinguished Flying Cross (DFC) on 30 April 1940 for his role in the 1923 flights proving the viability of military aerial refueling.

First Lieutenant Frank W. Seifert

1Lt Frank W. Seifert enlisted in the U.S. Army in 1917, soon becoming an Army Air Service pilot. Based in France during World War I, he flew combat missions. During the 1920s, he flew Border Patrol flights along the Mexican Border. During both of those assignments he complained about having to constantly land to refuel, and became the impetus for the 1923 flights. He mustered out in 1938 and rejoined in 1942 to fly combat missions against the Japanese during World War II. He retired as a Colonel in 1956. He was inducted into the Air Force Aviation Hall of Fame and awarded the DFC on 30 April 1940 for the 1923 flights.

Captain Robert G. Erwin

Capt Robert G. Erwin was a U.S. Army Air Service pilot stationed at Rockwell Field. While there he flew Forestry and Border Patrols and administrative flights. Beyond his participation in the 1923 flights, little else is recorded of his military career.

First Lieutenant Oliver R. McNeel

1Lt Oliver R. McNeel was a U.S. Army Air Service pilot stationed at Rockwell Field. While there he flew Forestry and Border Patrols and administrative flights. Beyond his participation in the 1923 flights, little else is recorded of his military career.

Captain Lowell H. Smith

Capt Lowell H. Smith, a U.S. Army Air Service pilot, had the most notable military career of the six crewmembers of the 1923 flights. He was born in Santa Barbara, California, on 8 October 1892, and graduated from the Military School of Aeronautics at the University of California in 1917. Following graduation, he enlisted in the Aviation Section of Signal Corps, qualified as a pilot in October and was commissioned as a 1Lt in December. He served in England during World War I. Following the success of the 1923 flights, he commanded the Around-the-World Flight in 1924, for which he was awarded the Mackay Trophy. He held 16 world records in military aircraft for speed and endurance. He went on to develop the procedure for massed airborne troop landings, and piloted the first plane to participate in mass parachuting. During World War II, he trained heavy bombardment crews at Davis-Monthan Field, Arizona. Ironically, after all of his aviation exploits, Colonel Lowell Smith died on 4 November 1945, at the age of 53, from injuries suffered falling from a horse just outside Tucson, Arizona.

First Lieutenant John Paul Richter

1Lt John Paul Richter was a U.S. Army Air Service pilot stationed at Rockwell Field, California, in the 1920s. He is most famous for handling the hoses on all four of the 1923 missions. He later participated as a crewmember of the air refueling flights immediately following the 1929 flight of the "Question Mark," to test in-depth operational applicability.

The Tanker Aircraft Crewmembers for the 1929 flight of the "Question Mark"

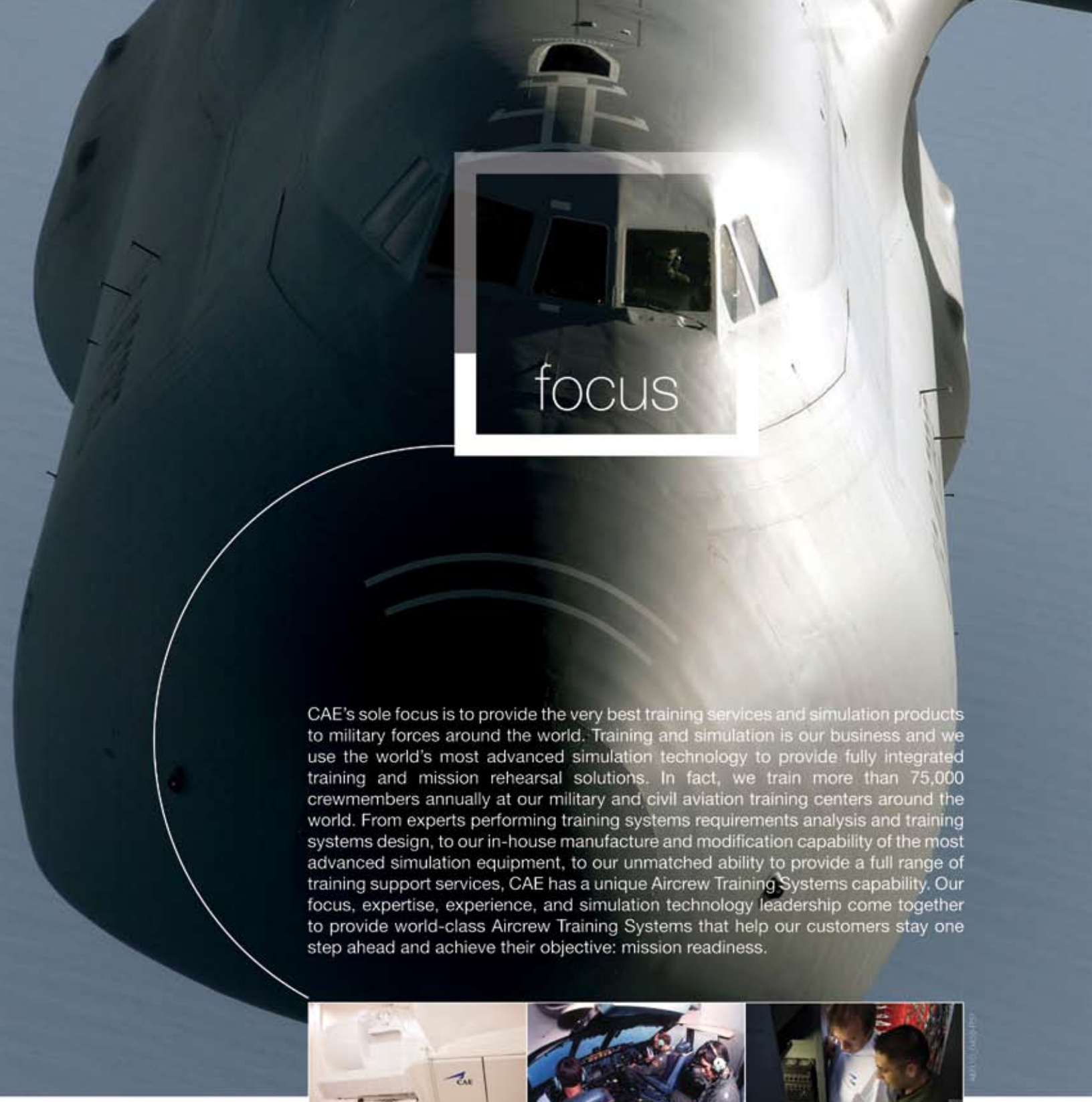
Captain Ross G. Hoyt

Capt Ross G. Hoyt began is military career by enlisting in the Coast Artillery Corps, Regular Army, on 9 September 1914. On 7 August 1917 he was appointed a 2Lt at Fort Monroe, Virginia. He was then detailed with the Aviation Section of the Signal Corps and assigned to the Army Balloon School, Fort Omaha, Nebraska. Following service with several Balloon Companies, from New Jersey to Hawaii, he became Professor for Military Science and Tactics, Kamehameha Schools, Hawaii. He then attended Ground School and flying instruction before being assigned to the Office of the Chief of Air Service, Washington, D.C. In January 1929 he was the pilot for Tanker Crew #1 during the flight of "Question Mark." Following the historic flight, he went on to serve with distinction as a Pursuit Group commander, base commander, Fighter Wing commander. He retired as a Brigadier General (temporary) in 1944.

First Lieutenant Auby C. Strickland

1Lt Auby C. Strickland was born in Braggs, Alabama, in 1895. He was commissioned a first lieutenant in the Infantry Reserve on 27 November 1917, and was assigned to the 322nd Infantry at Camp Jackson, South Carolina. He served in the Meuse-Argonne engagement in France before being assigned to the American Forces in Germany. On 1 July 1920, he received his regular commission as a second lieutenant and was promoted that very day to first lieutenant. He entered primary flying school at Carlstrom Field, Florida, in July of 1921, and graduated from advanced flying school in January 1923 as a rated pilot. He was named commandant of cadets and a flying instructor. He transferred to the Air Corps in April 1924. Following an assignment as the executive office of the Organized Reserve Air Units at Muskogee, Oklahoma, he was assigned to Rockwell Field, California, where he participated as a tanker pilot for the flight of the "Question Mark." He went on to named to positions as a Squadron, Group and Fighter Command commander, including serving as the commander of the IX Fighter Command,

Continues on page 31 >



CAE's sole focus is to provide the very best training services and simulation products to military forces around the world. Training and simulation is our business and we use the world's most advanced simulation technology to provide fully integrated training and mission rehearsal solutions. In fact, we train more than 75,000 crewmembers annually at our military and civil aviation training centers around the world. From experts performing training systems requirements analysis and training systems design, to our in-house manufacture and modification capability of the most advanced simulation equipment, to our unmatched ability to provide a full range of training support services, CAE has a unique Aircrew Training Systems capability. Our focus, expertise, experience, and simulation technology leadership come together to provide world-class Aircrew Training Systems that help our customers stay one step ahead and achieve their objective: mission readiness.

CAE is a world-class Aircrew Training System provider, offering expert instructors, high-fidelity maintenance and aircrew training devices, and comprehensive support services.

CAE

one step ahead

cae.com

Visit us at Airlift/Tanker Booth 203

Above All...

Missions Need The Best Communications

In battlefield conditions, effective, reliable communications are essential to the survival of aircraft and crew. Telephonics' Communication Open System Architecture (COSA) provides advanced audio management for aircraft - vital to mission success. Our systems are fully digital, fully secure, and based on open architecture designs and adaptable to special mission and Internet Protocol communications. Telephonics currently supplies the C-17 COSA Integrated Radio Management System, providing intercommunications and communications/navigational control.

COSA

TruLink® is a hands-free voice intercom system that provides full-duplex conversation among multiple users. This digital, wireless system can extend the communications of wired intercom systems within and around aircraft. TruLink has been selected by the Air Force as their Wireless Intercom for aeromedical evacuation, airdrop, cargo handling and ground operations. TruLink can be used for all ground operations and can be outfitted on all current Air Force aircraft.

TruLink®

Telephonics' Secure Digital Intercommunication (SDI) systems provide the Air Force with high quality audio and secure communications capability. SDI is specifically designed to meet the requirements of a wide range of Air Force platforms including the C-130 AMP and the VC-25A VIP aircraft. SDI is currently used on some 40 military programs and platforms. The SDI is compatible with network-centric communications and has advanced spatial audio processing.

SDI

For Further Information contact us at (631) 755-7372
E-Mail: CommunicationSystems@telephonics.com
www.telephonics.com

TELEPHONICS®
A Griffon Company

35367

and commanding general of the Desert Air Task Force, American, the advanced headquarters of the Western Desert Air Force, in the North African Theater of Operations, for which he would be later awarded the Distinguished Service Medal. He became military governor of Pantelleria in 1943, and was then named deputy air staff officer of the U.S. component of the Allied Expeditionary Air Forces in England. In 1949, he was appointed deputy commander of the 61st Troop Carrier Wing at Rhein-Main AB, Germany, and in 1951 became commander of the 60th Troop Carrier Wing there. In July 1952, he was appointed chief of staff of the 18th Air Force. He retired as a Brigadier General in July of 1953.

Second Lieutenant Irwin A. Woodring

2Lt Irwin A. Woodring lived a daring, exciting and short life. He was born in Enid, Oklahoma, on 1 February 1902, and spent most of his short career in the Air Corps on the razor's edge as a test and fighter pilot. In 1929 he participated in flight of "Question Mark" as a fuel system operator. He was a member of the famous "Three Musketeers of the Air" flying team, and was the last of them to die tragically. He succumbed to his penchant for pushing the envelope on 20 January 1933, while testing a new-type super-charged fighter aircraft at Wright Field, Ohio. He is buried at Arlington National Cemetery.

First Lieutenant Odas D. Moon

1Lt Odas D. Moon enlisted in the U.S. Army on 14 December 1917, and earned his pilot wings in May 1918 at Love Field, Dallas, Texas, where he served as an Instructor, training and preparing young pilots for duty in World War I. Other assignments included service in the Philippines, Panama, Kelly Field, Langley AFB and Maxwell AFB at the Air Corps Tactical School. He is considered a pivotal character in the development of Air Warfare doctrine and the establishment of an independent United States Air Force. An organizer and Charter Member of the Order of the Daedalians, he was the first elected Wing First Vice Commander of the organization. He held the rank of Major when he retired in 1937.

Second Lieutenant Joseph G. Hopkins

2Lt Joseph G. Hopkins was born in New York, New York, in 1900. He enlisted in the New York National Guard on 18 June 1916, and served until 20 March 1917. In July 1917 he enlisted in the regular Army as a corporal, and served with 106th Machine Gun Battalion until discharged on 2 April 1919. He then attended Columbia University for three years. In March 1925 he was appointed a flying cadet, attended primary and advanced flying school, and was commissioned a second lieutenant in the Air Reserve. He received his regular commission as a second lieutenant of the Air Corps on 30 June 1927. Assignments with Pursuit Squadrons at Selfridge Field, Michigan, Rockwell Field, California, and Mather Field, California, from 1928 to 1933, followed. While with the 95th Pursuit Squadron at Rockwell Field in 1929, he participated in the flight of the "Question Mark." Following several staff assignments, in February 1944 he went overseas to become assistant chief of staff for operations of the 10th Air Force in India. In October of that year he was appointed chief of staff of the Army Air Force Training Command in the China-Burma-India Theater. Following various assignments at home and abroad, he was appointed commander of the South Sector of the Atlantic Division of Air Transport Command. In 1950 he assumed the duties of deputy chief of staff for transport operations of the Pacific Division of Military Transport Service, Hickam AFB, Hawaii. In this capacity he was in charge of the Korean airlift. From 1951 to 1955 he served as deputy commander and commander of the Atlantic Division of the Military Air Transport Service, Westover AFB, Massachusetts, moving with division to McGuire AFB, New Jersey in 1955. His decorations include the Bronze Star and Brazilian Military Order of the Southern Cross. He held the rank of Brigadier General when he died on 1 March 1978.

Second Lieutenant Andrew F. Salter

2Lt Andrew F. Salter participated in the flight of the "Question Mark," as an Army Air Corp member. Unfortunately, this is the only information an exhaustive search uncovered about Lieutenant Salter.

An Enduring Legacy

The courage, commitment, dedication and professionalism of the intrepid aviators who participated in these two historic missions paved the way for a capability that has grown into the backbone of the ability of the United States to rapidly project power. Their distinctive accomplishments resulted in a legacy of achievement which fundamentally changed the status quo, enhancing Air Mobility's mission, culture, and history. They were the impetus for the tanker mission evolving from transferring fuel to another airplane 75 gallons at a time to enabling our nation to deliver the clenched fist of U.S. power to our adversaries, as well as the open hand of assistance to people in need. ***America's tanker force has evolved into one of the most important elements of the nation's Air Mobility force – the linchpin to our nation's global power and influence.*** ■

Aerial refueling tanker aircraft have evolved into a key enabler of air power and of joint force operations. Tankers afford U.S. forces the ability to project global power on a moment's notice by increasing the range and effectiveness of fighters, bombers, and cargo aircraft – allowing them to fly farther, longer, faster, and more efficiently. Tankers allow for aircraft to take off with less fuel, and consequently, with more weapons, cargo, or personnel. Whether conducting a strategic strike mission or delivering humanitarian relief supplies, tankers make the difference in countless missions. Joint operations depend on tankers for range and endurance.

Recent conflicts only underscore the critical importance of aerial refueling. Tankers completed over 16,000 missions during Operation Desert Storm and have conducted even more missions in the Global War on Terrorism, providing heavy support to strike fighters operating deep in enemy territory and providing medical evacuation for wounded warriors. The demand for aerial refueling is only expected to increase in the future with the increase of the ground component and increased reliance on CONUS basing. The advanced age and demanding combat operations have created challenges and unforeseen problems for the Air Force's KC-135 fleet which was procured during the Eisenhower and Kennedy Administrations. The average age of the KC-135 is over 45 years old. The tanker fleet is experiencing severe heat-induced corrosion, fatigue, and other aging problems that have drastically increased the costs of maintenance over the life of these airframes. An unforeseen problem with even one airframe in the KC-135 fleet would likely mean that the entire fleet would be required to stand down, grounding the vast majority of our refueling assets and leaving our military with very few alternatives available. If left without a dependable fleet of tankers, the military will be forced to field forward air bases near combat areas to enable sufficient ground-based refueling capability. Such a scenario would force the joint forces commander to expend significant resources to maintain secure airfields supplied with sufficient quantities of fuel to refuel combat aircraft.

The Air Force must begin replacing the current cost prohibitive and rapidly aging KC-135 with the KC-X as soon as feasibly possible. The KC-X tanker will ensure aircraft availability and will provide greater capability than the current KC-135s. The KC-X is also expected to be capable of not just dispensing fuel in flight but also receiving fuel from other tankers, greatly enhancing its ability to provide fuel in the most efficient manner possible and providing maximum flexibility and reliability to the tanker fleet. The process for the procurement of the KC-X continues, and the replacement of the KC-135 fleet remains the most important defense acquisitions issue for the foreseeable future. ■

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 and boom operator who have displayed outstanding proficiency & performance of flight duties, significant accomplishments, adaptability to unusual job assignments or difficult circumstance; acceptance of responsibility; and, self-improvement efforts.

2009 A/TA Huyser Awards

The actions of the men and women who are awarded the highly prized annual A/TA Huyser Awards, Young Leader Awards, Halvorsen Award, Specialized Mission Award, Fogleman ASAM Award and P. K. Carlton Award for Valor, all have exemplary military records detailing numerous instances of their outstanding proficiency and performance – 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 United States Air Force and to our nation –

Pilot

Captain Mason E. MacGarvey

Captain Mason E. MacGarvey is a C-130E/H Pilot assigned to the 2nd Airlift Squadron, Pope AFB, NC, where is the chief of Standardization and Evaluations.

Capt MacGarvey has a BS degree in Architectural Engineering from Kansas State University and is completing a MBA degree from Colorado State University for which he has been identified for Beta Gamma Sigma honors.

Capt MacGarvey is 30 years old. He was born in Berlin, West Germany on 13 June 1978. He attended Manhattan High School in Manhattan, Kansas. After graduating high school, he attended Kansas State University where he enrolled in the Air Force ROTC program. In May, 2001 he was commissioned into the Air Force. Upon completing Undergraduate Pilot Training in Corpus Christi, Texas, he was selected for assignment to Dyess AFB, Texas, where he served as a C-130E/H Instructor Pilot and Chief of Training. In 2007, Captain MacGarvey was reassigned to Pope AFB, NC.

As a C-130 Pilot, he has proudly served his country in support of Operation IRAQI FREEDOM, Operation ENDURING FREEDOM, and Combined Joint Task Force HORN OF AFRICA.

Capt MacGarvey's wife, Nancy, is a Pulmonary/Critical Care Physician and research Fellow at Duke University Hospital. They have one daughter named Fiona.

His military awards and achievements include a 2008 USAF Aviation Valor Award; 2008 USAF Chief of Safety Aircrew of Distinction; 2008 AMC Daedalian Exceptional Pilot Award; 2008 2 AS Flight Commander of the Year; 2008 2 AS Company Grade Officer of the Quarter (First Quarter); and he is a recipient of the Air Medal (6 OLC). He is also the recipient of the A/TA 2009 Gen P. K. Carlton Award for Valor [page 50].

Navigator

Captain James "Patrick" P. Owen

Capt Owen is the Commander's Executive Officer and a Flt/CC, MC-l30H Instructor Navigator at RAF Mildenhall, UK.

Capt Owen holds a BS in Chemistry from the University of New Mexico and a Master of Biology from the Illinois Institute of Technology.

Captain Owen completed Joint Undergraduate Navigator Training, Randolph AFB, TX, in February 2001, graduating in the top third of his class. He received his C-130 specific training at Little Rock AFB, AR, where he garnered Distinguished Graduate honors. He was then assigned to the 2nd Airlift Squadron, Pope AFB, NC, where he earned Adverse Weather Aerial Delivery System (AWADS), formation lead, and instructor qualifications. During his tenure at Pope AFB, Captain Owen flew in support of Operations ENDURING FREEDOM, IRAQI FREEDOM, and NOBLE EAGLE, including multiple missions executed in Central and South America.

In 2004, Capt Owen volunteered for an Air Force Special Operations assignment and was selected to attend MC-130H training at Kirtland AFB, NM, with a follow-on assignment to the 7th Special Operations Squadron (SOS), RAF Mildenhall, UK. At the 7 SOS, he received his instructor certification and deployed in support of Operations ENDURING FREEDOM, ENDURING FREEDOM-TRANS SAHARA and multiple joint/NATO exercises. Captain Owen is a senior navigator with more than 2,900 hours in the C-130E & MC-130H aircraft.

Capt Owen's prior awards and achievements include a 2008 AFSOC Commando Safety "Distinguished Aircrew" Award and a 2004 43rd Airlift Wing Instructor of the Year Award.

Flight Engineer

Staff Sergeant Mark J. Pfeiler

SSgt Mark J. Pfeiler is a C-130H2 Evaluator Flight Engineer assigned to the 2nd Airlift Squadron, Pope AFB, NC.

SSgt Pfeiler is currently pursuing a CCAF degree in Aviation Operations and Bachelors of Science degree in Criminal Justice from American Military University.

SSgt Pfeiler is 28 years old, he was born at Charleston Naval Station, SC. Shortly thereafter his family moved to a large cattle ranch near Holton Kansas where he attended Jackson Heights High School. After High School Sergeant Pfeiler attended Highland Community College where he pursued an Associate's degree in Criminal Justice.

In November of 2000, he enlisted in United States Air Force. After Basic Military Training, he attended technical training at Wichita Falls, TX, where he was trained to be an Aerospace Maintenance Apprentice and earned Distinguished Graduate honors. In July of 2001 Sergeant Pfeiler was assigned to the 62nd Airlift Squadron, Little Rock AFB, AR. In 2005, he and his wife Karoline welcomed their Daughter Keira Leian Pfeiler.

In June of 2005, Sergeant Pfeiler began retraining to become a C-130 Flight Engineer. He attended Flight Engineer Initial Qualification course in January of 2006, where he was again recognized as Distinguished Graduate. In June of 2006, he arrived at Pope AFB, NC, where he serves as a C-130 Flight Engineer, proudly supporting Operations ENDURING FREEDOM, lRAQ[FREEDOM, and Joint Task Force HORN OF AFRICA.

SSgt Pfeiler military awards and achievements include: a 2008 AMC Cheney Award; a 2008 MacKay Trophy; the Air Force Achievement Medal; the Air Medal (5 OLC); and, the 100 Combat Mission Award.

Loadmaster

Senior Master Sergeant John B. Gallo

SMSgt John B. Gallo is the 517th Airlift Squadron Operations Superintendent at Elmendorf AFB, AK.

SMSgt Gallo has earned CCAF degrees in Aircrew Operations and Avionic Systems Technology. He is currently working towards his Bachelor's degree in Professional Aeronautics through Embry-Riddle Aeronautical University.

Sergeant Gallo was born in Evergreen Park, Illinois on the 4th of January 1969. He graduated from Park Center High School, Brooklyn Park, Minnesota in June of 1987. He entered the United States Air Force in January of 1987 under the delayed enlistment program. His call to active duty came shortly after high school graduation and he was off to Lackland AFB on 27 July.

Upon completion of Basic Military Training, SMSgt Gallo began technical training at Keesler AFB as an aircraft Communications/Navigation Systems Specialist. Once qualified, he was assigned to George AFB, CA, to serve as a flight line maintenance apprentice on F-4E Phantoms.

In March of 1992, Sergeant Gallo made the move from working on aircraft to a career as an enlisted aviator by becoming a C-130 loadmaster. In late 1994 Sergeant Gallo was selected for assignment to Charleston AFB to become one of the first operational loadmasters in the C-17 program. As a C-17 loadmaster, Sergeant Gallo has been assigned to squadrons at Altus, Charleston and Elmendorf Air Force Bases.

He has been placed in leadership roles in the stand-up of three operational flying squadrons. In his current position as Operations Superintendent, he assists the Director of Operations in executing the squadron's $120M, 10K flying hour program. He also manages long-range programming and upgrade plans to further the professional development of 45 loadmasters.

Sergeant Gallo is married to the former Joei Mezei of Clarksville, Tennessee. They have three children, Lindsay, Sidney and Jacob. His military awards and achievements include being the Pope AFB, 23 WG, 1994 Enlisted Aircrew Instructor of the Year; the Charleston AFB, 437 AW, 2004 Red Irwin and Lance P. Sijan nominee; the Elmendorf AFB, 3 WG, 2008 Lance P. Sijan nominee; and, the 2008 11 AF SNCO of the Year.

Boom Operator

Master Sergeant Craig S. Eyre

MSgt Craig S. Eyre is Superintendent, Wing Training at Edwards AFB, CA. He holds a CCAF degree in Aircrew Operations.

MSgt Eyre joined the Air Force in 1988. His first assignment was to Fairchild AFB in 1988 as a Boom Operator where he upgraded to Instructor in 1992. Also in 1992, he was reassigned to Kadena AB, Japan. During his time there, he fulfilled duties as Instructor Boom Operator, Assistant Cargo Loading Manager, Aircrew Scheduler and Evaluator Boom Operator.

In mid-1996, he was requested by name, and selected for, reassignment to AETC duties at Altus AFB, OK. While at Altus AFB, SSgt Eyre was upgraded to Combat Crew Training Squadron (CCTS) Instructor and Evaluator. He was then upgraded to Central Flight Instructor Course (CFIC) Instructor, Evaluator and finally NCOIC of CCTS/CFIC Training Flight.

In 1996, he was selected for, and reassigned to depot duties at DCMA Pemco, Birmingham, AL. During this assignment, he performed duties as an Instructor/Evaluator Functional/Operational/Acceptance Check Flight Boom Operator, NCOIC of Training Flight and Standardization/Evaluation as well as Assistant Aviation Maintenance Manager. In 2000, TSgt Eyre was selected for, and reassigned to, Kadena.

During his tenure at Kadena, MSgt Eyre performed duties as an instructor Boom Operator, Wing Tanker Planner, Superintendent of Wing Training, Wing EET and KC-135 Tactician after graduating Combat Aircrew Tactics School in 2005. In 2006, MSgt Eyre was selected for, and reassigned to Edwards AFB. After arrival at Edwards, he was soon upgraded to Instructor/Evaluator Flight Test Boom Operator.

His nearly three years at Edwards have been as Superintendent of Wing Training. He graduated Additional Duty First Sergeant training in 2007 and has since filled in as OG/CCF and OG/CEM. He has been designated primary Flight Test Boom Operator for Automated Aerial Refueling and KC·X programs and taken part in many other tests involving the DoD, NASA, and civilian counterparts.

"Wars may be fought with weapons, but they are won by men. It is the spirit of the men who follow and of the man who leads that gains the victory."

–General George S. Patton

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.

2009 A/TA Young Leadership Awards

Captain Brian J. Boseman

Captain Brian J. Boseman is a Logistics Readiness Officer assigned to Headquarters Air Combat Command (ACC), Office of the Inspector General (IG), Langley Air Force Base Virginia. He was born in Queens, New York and graduated from Fort Pierce Central High School in Fort Pierce, Florida. In September 1991, he enlisted in the Air Force as an Air Transportation Specialist and held various assignments in Aerial Port functions. In April 2002, he was accepted to Officer Training School and graduated in April 2003 and was assigned to Kadena Air Base, Japan. Taking full advantage of the operational tempo, he rounded-out his practical knowledge base working all aspects of logistics to include air mobility, fuels and installation deployments which groomed him for his current assignment at Langley.

Presently, he is responsible to the Commander, Air Combat Command (COMACC) for the inspection of 314 ACC active duty, guard and reserve units with over 170,000 assigned personnel. He coordinates and executes operational, compliance and nuclear surety inspections and provides functional expertise and crosstell to all ACC units. Additionally, he formulates ACC IG techniques, tactics and procedures for inspection of logistics readiness squadrons and is the command authority in determining a wing's ability to deploy and employ logistics readiness agile combat support. He was recently nominated as ACC's choice to compete at Air Force level for the Lieutenant Colonel Charles A. Park Logistics Readiness Staff Company Grade Officer of the Year Award.

Captain Boseman is regularly involved with the local community where he serves as class trip chaperone and guest reader for the local elementary school and assistant coach for a junior girl's softball team. He is married to the former Anita Marie Rivera of Queens, New York and has two children, Celeste and Brian Jr.

"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

Staff Sergeant William R. Cosenza

Staff Sergeant William R. Cosenza is an Instrument and Flight Control Systems (IFCS) Craftsman assigned to the IFCS section as a shift leader, 1 SOMXS, Eglin Air Force Base, Florida. Sergeant Cosenza was born in Bisbee, Arizona, on 24 June 1978 and is 30 years old. He attended Bangor Area High School in Pennsylvania, lettering in basketball and baseball before graduating in June 1996. After graduating, Sergeant Cosenza attended East Stroudsburg University for 3 years majoring in Special Education.

Sergeant Cosenza subsequently enlisted in the Air Force in 2000 and arrived at Lackland AFB, Texas, in February 2000 for Military Basic Training. He was recognized as the top flight graduate for the 321st Basic Training Squadron. Upon graduation, SSgt Cosenza attended Guidance and Control technical training at Keesler AFB, Mississippi. Sergeant Cosenza was subsequently assigned to RAF Mildenhall, England from August 2001 until October 2003.

During this time he worked as a backshop Guidance and Control apprentice on the KC-135. His next assignment was as an IFCS Journeyman on the C-5 Galaxy and the C-17 Globemaster at Yokota AB, Japan. In October 2005 Sergeant Cosenza began his current assignment at Eglin AFB as IFCS shift leader and assistant shop chief. He has also performed deployed expediter duties in support of Operation IRAQI FREEDOM. His military awards include the Air Force 2008 Lt General Leo Marquez Award, 1 SOW 2008 NCO of the Year, two Air Force Commendation Medals, one Air Force Achievement Medal, and Airman Leadership School Distinguished Graduate.

Technical Sergeant Daniel Halverstadt

Technical Sergeant Daniel Halverstadt is the Chief Career Enlisted Aviator Evaluator assigned to the 412th Operations Group, Edwards Air Force Base, California; he is 34 years old. Sergeant Halverstadt was born in Lawrence, Kansas on 31 July 1974. He attended Lawrence High School and was very involved with extracurricular activities. As a leader in the Boy Scouts, he became an Eagle Scout in 1990, completing all requirements while only 14 years old and putting the rank on at the age of 15- one of the youngest ever. He was also the President of the Distributive Education Clubs of America (DECA), winning awards at state, regional and national levels. After graduating High School, Sergeant Halverstadt volunteered at a local scout camp teaching water skiing and wind surfing. Before returning home, he joined the Air Force in 1992.

Upon completion of Basic Training at Lackland Air Force Base, Texas in 1993, Sergeant Halverstadt began technical training as a Bombing

Navigational Systems Specialist at Lowry Air Force Base, Colorado. He was then assigned to the 99th Consolidated Aircraft Maintenance Squadron, 99th Wing, Ellsworth Air Force Base, South Dakota.

Sergeant Halverstadt chose to retrain and become an Aircraft Loadmaster in 1996 and completed his training at Little Rock Air Force Base, Arkansas. He was then stationed at the 41st Airlift Squadron, Pope Air Force Base, North Carolina. While stationed at the 41st Airlift Squadron, Sergeant Halverstadt deployed to Operations SOUTHERN WATCH, JOINT ENDEAVOR and JOINT FORGE. He attended Instructor School in 1999 and was further selected to the Pope Air Force Base Rodeo Crew, winning Best Airdrop Wing and Best C-130/C-160 Wing Awards. In 2000 Sergeant Halverstadt attended the Joint Airdrop Inspector School at Fort Lewis, Washington and was assigned to the 3rd Aerial Port Squadron, Pope Air Force Base.

Sergeant Halverstadt then received orders to the 53rd Airlift Squadron, Little Rock Air Force Base in 2001 and became an Air Education and Training Command Instructor. While at Little Rock, Sergeant Halverstadt quickly upgraded to become Evaluator and won the Robert "Dutch" Huyser award at command level. Sergeant Halverstadt then received orders back to the 41st Airlift Squadron where he deployed three times to Operation IRAQI FREEDOM. While at Pope Air Force Base Sergeant Halverstadt won NCO of the Quarter 4 times in two years, was Instructor of the Year two years in a row and was the base nominee for the Henry "Red" Erwin Award.

Sergeant Halverstadt oversaw the realignment of the 41st Airlift Squadron and moved to the 2nd Airlift Squadron and once again became Chief Loadmaster Evaluator. Sergeant Halverstadt was then called upon to move to the 43rd Operations Group and became the Operations Group Chief Loadmaster Evaluator for Pope Air Force Base. He is currently assigned to the 412th Operations Group, Edwards Air Force Base, California and is the Chief Career Enlisted Aviator Evaluator for five AFSCs performing flight test on various test aircraft. Sergeant Halverstadt was the command winner of the General Robert "Dutch" Huyser award at command level and is this year's winner of the 412th Operations Group and 412th Test Wing Noncommissioned Officer of the Year.

Sergeant Halverstadt is married to the former Jill Blydenburgh from East Quogue, New York and they have two daughters Laura and Carrie. He is currently the President of the Flight Test Chapter of the Airlift/Tanker Association and the Communications Trustee of the Space Way Chapter of the Air Force Sergeants Association. Sergeant Halverstadt has been selected to the grade of Master Sergeant. He is the recipient of seven Air Medals, the Aerial Achievement Medal, two Air Force Commendation medals, four Achievement Medals and the Combat Action Medal.

Technical Sergeant Manuel J. Herrera

Technical Sergeant Manuel J. Herrera is the NCOIC of the 375th Explosive Ordnance Disposal (EOD) Flight assigned to the 375th Civil Engineering Squadron, Scott Air Force Base, Illinois. In this capacity, he manages and integrates all activities of the EOD Flight in support of base and local community emergency responses to explosive, chemical, biological and nuclear accident and incidents. Additionally, he provides quality assurance oversight of the EOD flight and manages their training, administration, and operations section encompassing over $3 million of specialized equipment and the largest munitions account at Scott AFB.

TSgt Herrera was born in Tucson, Arizona, on 11 Nov 1973. He attended Rawlins High School, Wyoming, graduating in June 1992. He lettered each year in Wrestling and was team Captain his senior year. Sgt Herrera enlisted in the Air Force in December 1996. Upon graduation from Explosive Ordnance Disposal School, Sgt Herrera proceeded to his first duty assignment at Moody AFB, Georgia. During a deployment to Saudi Arabia, he was awarded the 363rd Expeditionary Support Group Superior Performer award for exceptional duty. In 2001 Sgt Herrera was assigned to Kunsan AB, Korea where he served as the NCOIC of EOD Training. Sgt Herrera was in charge of training over 50 augmentee personnel and 18 EOD flight members. During a HQ PACAF ORI the recovery team, trained by Sgt Herrera, earned a superior grade and was called by the EOD IG team chief, as "the best he had ever seen."

As an ambassador to the local community, Sgt Herrera volunteered to teach English and mentor the children of the Kae Chong Orphanage. Sgt Herrera was reassigned to MacDill AFB, Florida when he returned from his overseas assignment. During Sgt Herrera's tenure at MacDill, he was the NCOIC of three different sections, Equipment, Operations and Training. Sgt Herrera volunteered numerous hours to the Muscular Dystrophy program and other charities around the Bay Area. In 2008 Sgt Herrera was named the AMC General Lupia Technician of the Year and awarded the USO Salute to Heroes Multiservice Award. During his assignment at Scott AFB Sgt Herrera has earned his Community College of the Air Force Associate degree in Explosive Ordnance Disposal in Applied Science and was awarded the Pitsenbarger award for outstanding academic achievement.

During Sgt Herrera's career he has been deployed to various bases in Saudi Arabia, Kuwait, Qatar, Kyrgyzstan, Oman, Pakistan and Iraq. His military awards include the Bronze Star, Air Force Commendation Medal, Air Force Achievement Medal, Air Force Combat Action Medal, 5 IG superior performer awards, 3 IG Outstanding Team awards, ALS Distinguished Graduate and ALS Leadership Award. Additionally, he has been awarded 3 Squadron NCO of the Year, a Wing NCO of the Quarter and Scott AFB NCO of the Quarter Award. Sgt Herrera currently attends McKendree University, and is working toward an undergraduate degree in Computer Science.

Sgt Herrera is married to the former Angela Ryan of St. John, MI. Together they have 1 child, Ava Grace Herrera, who is 18 months old.

Captain Christopher T. Higgins

Captain Christopher T. Higgins, is a weather officer assigned to the 12th Operational Weather Flight, Scott Air Force Base, Illinois. He is 39 years old. Captain Higgins was born in St. Louis, Missouri, on 2 November 1969. He attended De Smet Jesuit High School and excelled across the entire spectrum of school activities. As a result of his accomplishments, Captain Higgins was named one of the "Twelve Men of the Year" for his senior class.

After graduating from high school in 1988, Captain Higgins attended Saint Louis University where he completed his degree in Atmospheric Sciences in 1992. Captain Higgins accepted the position of Chief Meteorologist at KODE-TV in Joplin, Missouri, following his graduation. Two years later he moved home to St. Louis and his current job as a meteorologist with KTVI-TV.

Captain Higgins entered military service with the Missouri Air National Guard following the terrorist attacks of 2001. He was commissioned through the Academy of Military Science in June 2003 and was honored as a distinguished graduate of the Air Force Weather Officer Course, Keesler Air Force Base, Mississippi in 2004. While with the Missouri Air National Guard, he served first as a staff weather officer, then as Commander, 110th Weather Flight.

In early 2005, Captain Higgins transferred to the Air Force Reserves and the 12th Operational Weather Flight, Scott Air Force Base, Illinois. He has been selected as the 932nd Airlift Wing Company Grade Officer of the Quarter three times and Company Grade Officer of the Year twice. In 2006 the Air Force recognized Captain Higgins as

Young Leadership Awards Continue >

Weather Officer of the Year for the Reserve Component.

During the summer of 2008, Captain Higgins deployed to the Combined Air and Space Operations Center at Al Udeid Air Base, Qatar, where he served as the Deputy Chief of the Weather Specialty Team. In addition to his weather forecasting duties, Captain Higgins is deeply involved with the local community. He is a frequent guest speaker at local schools and civic organizations where he covers topics ranging from science to leadership and core values. Captain Higgins, his wife Debbie and their son John, live in Chesterfield, Missouri.

Captain Robert L. Johnston

Captain Robert L. Johnston is an MC-130H Evaluator Pilot and Chief of Squadron Standardization and Evaluation assigned to the 7th Special Operations Squadron, Royal Air Force Mildenhall, United Kingdom. He was born in Ft. Hood, Texas, on 29 May 1978 and attended Copperas Cove High School, graduating in the top 3 percent of his class in 1996. He served as the Senior Class President, as well as captain of the football and soccer teams.

After graduating from high school, Captain Johnston received an Air Force ROTC scholarship at Texas A&M University. There, he was a member of the Corps of Cadets serving in numerous student leadership positions, and finally being selected to go to Air Force pilot training at Vance Air Force Base, Oklahoma.

Prior to going to pilot training, Capt Johnston served as an Airfield Operations Officer with the 72 OSS in Tinker Air Force Base, Oklahoma, where he distinguished himself as Company Grade Officer of the Quarter.

After completing initial flight training at Vance Air Force Base, Captain Johnston went on to Corpus Christi Naval Air Station, Texas to finish training in the T-44. He graduated in February 2004 and was named to the Commodore's list. After training stops in Little Rock Air Force Base and Kirtland Air Force Base, Captain Johnston arrived at Kadena, Air Base, Japan in April 2004 for his first assignment at the 1st Special Operations Squadron. He immediately joined in the squadron's mission supporting Overseas Contingency Operations and numerous missions in support of Operation ENDURING FREEDOM-PHILIPPINES.

Captain Johnston was also honored to help in Operation UNIFIED ASSISTANCE, providing aid to tsunami-ravaged Thailand and Indonesia. In this effort, Captain Johnston served on the crew of HOBO 11 and was thus the Air Force Special Operations Command nomination for the 2008 Tunner Award. Captain Johnston's military awards include Squadron Company Grade Officer of the Quarter on two separate occasions, Air Force Achievement Medal, Humanitarian Service Medal, and Global War on Terror Service Medal.

Captain Charles Langhoff

Captain Charles Langhoff is an acquisition program manager assigned to the 716th Aeronautical Systems Group (C-5), Wright-Patterson Air Force Base, Ohio. He is 39 years old. Captain Langhoff was born in Atlanta, Georgia, on 1 August 1969. He attended North Clayton High School earning varsity letters in baseball, golf, and tennis. After graduating, he was employed at two local car dealership parts departments before accepting a position as Parts Manager at Ed Voyles Mitsubishi in Marietta, Georgia, in 1990. Captain Langhoff then enlisted into the United States Air Force on 26 February 1991.

Captain Langhoff graduated from Basic Military Training School at Lackland Air Force Base, Texas on 10 April 1991. He then attended technical training at Chanute Air Force Base, Illinois where he received training as a jet engine mechanic. Captain Langhoff served in various positions and assignments at Misawa Air Base, Japan, Castle Air Force Base, California, McChord Air Force Base, Washington, Kunsan Air Base, Korea, and finally to Eglin Air Force Base, Florida. It was during his tour at Eglin Air Force Base that Captain Langhoff was awarded a bachelor of science in professional aeronautics from Embry Riddle Aeronautical University and subsequently selected for Officer Training School. He was commissioned in November of 2002.

As an Aircraft Maintenance Officer, Captain Langhoff was assigned to the 60th Component Maintenance Squadron as Flight Commander of the Accessories Flight and also held positions as Assistant Flight Commander for both Red and Blue Flights in the 660th Aircraft Maintenance Squadron at Travis Air Force Base, California. In August of 2005, Captain Langhoff was selected into the Acquisitions and Logistics Experience Exchange Tour and was reassigned to Wright-Patterson Air Force Base, Ohio. He first served as the 716th Aeronautical Systems Group Executive Office and Commander's Action Group Chief, before transitioning to his current position of C-5 Large Aircraft Infrared Countermeasure Program Manager.

Captain Langhoff is married to the former Marjori Urich of Garner, Iowa and they reside in Beavercreek, Ohio with their 9-year-old daughter, Megan. Captain Langhoff is a recent graduate of Embry Riddle Aeronautical University, with a Master of Science in Aeronautics.

Captain Langhoff graduated as a Distinguished Graduate from both Airman Leadership School in 1996 and Officer Training School in 2002. He has received the Air Force Commendation Medal, Air Force Achievement Medal, Korean Defense Service Medal, Armed Forces Expeditionary Medal, and both the Global War on Terrorism Expeditionary and Service Medals.

Captain Breanna K. Lankford

Captain Breanna K. Lankford is the Director of Operations for Air Mobility Command Test and Evaluation Squadron (AMCTES), Detachment 3, Edwards Air Force Base, California in support of Operational Test and Evaluation on the C-130 Avionics Modernization Program (AMP). She is 32, born in Nashville, Tennessee on December 25, 1976. She attended Hillsboro High School, graduating 3rd in her class in 1995. Captain Lankford then entered Vanderbilt University graduating cum laude with a Bachelor of Engineering degree in December 1999. She earned the Distinguished Graduate award from AFROTC Det 790, Tennessee State University, and was commissioned as a 2nd Lieutenant in January 2000.

Captain Lankford's first assignment was as adjutant to the 48th Operations Support Squadron, Royal Air Force Lakenheath, United Kingdom. In January 2001, she attended Undergraduate Pilot Training in the T-37 at Vance Air Force Base, Oklahoma, followed by T-44 training at Naval Air Station Corpus Christi, Texas. Captain Lankford graduated Commodore's List with Distinction from pilot training, and was assigned to Little Rock Air Force Base, Arkansas, as a copilot for the 61st Airlift Squadron. She served her first deployment at Minhad Air Base, United Arab Emirates, in support of Operation IRAQI FREEDOM in February 2003.

From 2003 - 2005, Captain Lankford served in three additional deployments, totaling over 360 days, in support of OIF, OEF, and OEF-Horn of Africa. She upgraded to Aircraft Commander in January 2005 with Distinguished Graduate honors. Capt Lankford led her crew to win the prestigious 463rd Airlift Group Aircrew of the Quarter Award, as well as the 463rd AG nominee for the

Young Leadership Awards Continue >

Powering savings.

It's a fact that clean aircraft engines run more efficiently, stay on-wing longer and cut operating costs. And it's a fact that IATA's Go Teams recommend engine water wash as a fuel conservation method. Pratt & Whitney's eco-friendly EcoPower® engine wash service lowers turbine temperatures by up to 15°C in exhaust gas temperature (EGT) and improves fuel burn by as much as 1.2%. If used across the industry, engine washing could save 1 billion pounds of fuel and reduce CO_2 emissions by 3.2 billion pounds annually. With over 5,000 engine washes completed in its five years of operation, you can trust EcoPower engine wash to help lower your operating costs and deliver bottom-line results. **And now, EcoPower engine wash is available for military applications.** To go green visit www.pw.utc.com/ecopower.

It's in our power.™

Pratt & Whitney
A United Technologies Company

www.pw.utc.com

MISSION-PROVEN

For Critical Airlift Communications, Count on David Clark.

David Clark military headsets provide clear, dependable strategic airlift communications for the U.S. Armed Forces, NATO and most airborne command centers.

Our standard noise-attenuating and Electronic Noise-Canceling headsets are equipped with advanced comfort features and rugged construction provides mission-proven dependability for refueling, medical evacuation, disaster assistance and transport.

Contact us at **800-298-6235** for more information.

Proud Recipient of
THE VENDOR EXCELLENCE AWARD
Presented by
DEFENSE LOGISTICS AGENCY

www.davidclark.com

Cheney Award for their efforts in the Hurricane Katrina relief operation of 2005.

While occupying her current position she upgraded to instructor in the C-130 AMP, and project lead for the Air Force Operational Test and Evaluation Center's (AFOTEC) initial Operational Assessment, creating operational test scenarios critical to evaluating C-130 AMP capabilities during early-development. For her efforts, she earned the AMC/TE headquarters level Lance Sijan & Katherine Stinson award nominations. In 2008, she deployed with the Army to Baghdad, Iraq as a Joint Counter Radio Controlled Improvised Explosive Device (CREW) Composite Squadron-1 Electronic Warfare Officer in support of CREW convoy operations. Captain Lankford is married to Major Thomas Lankford. She is a 1st degree black belt instructor of the Youn Wha Ryu system of Tae Kwon Do, and is active in her local church.

Her major awards include the Air Medal with three oak leaf clusters, Aerial Achievement Medal with three oak leaf clusters, Air Force Commendation Medal, Army Commendation Medal, Air Force Achievement Medal, GWOT-E, GWOT-S, National Defense Service Medal, Afghanistan Campaign Medal with one star, Iraq Campaign Medal with one star, and the Humanitarian Service Medal.

Technical Sergeant Scott Mills

Technical Sergeant Scott Mills is an Evaluator Loadmaster assigned to the 58th Airlift Squadron, Altus Air Force Base, Oklahoma. He is

35 years old. Sergeant Mills was born in Eureka, California on 18 Nov 1973. Scott Mills started off his career in the U. S. Air Force as a Distinguished Graduate of the Basic Loadmaster School in 1997. In 1999 he was handpicked to join the elite McChord AFB Honor guard; providing the utmost military honors for America's war heroes. His attention to detail ensured the 4th Airlift Squadron's selection as the 15th AF Squadron of the Year 1999. His own achievements were acknowledged by his superiors when he was awarded Loadmaster of the Quarter in 1999. Scott received High Praise from a HQ AMC Examiner (Chief) for his knowledge and professionalism resulting in the 62 AW receiving an Excellent during an Aircrew Stan/Eval Visit and Nuclear Surety Inspection 2002.

His extraordinary accomplishment for load planning Presidential Nuclear Non-Proliferation missions, eliminating Libya's weapons of mass destruction program, resulted in the 4th AS winning the Gen James H. Doolittle Trophy 2004. He helped instill US nuclear weapons airlift policies and planned Presidential-directed Nuclear Airlift missions helping contribute to the 4th AS winning the Gen Joseph P. Smith Trophy 2004. His dedication to duty, loadmaster expertise and NCO leadership earned the 58th Airlift Squadron-AETC's Top Ops Squadron for 2006, 2007 and Top Mobility/Special Ops Squadron for 2008. His outstanding accomplishments have garnered him three NCO of the Quarter and five volunteer of the quarter awards. His passion for serving earned him Volunteer of the Year at both squadron and group levels two years in a row and at the wing level.

He has completed the Air Warfare stage managers course to help his unit prepare for deployments. Also Scott has undertaken over 154 hours of Microsoft Systems Engineer training as well as the Altus AFB Workgroup Managers Course, ultimately becoming certified through Microsoft as a Desktop Support Technician. He has earned Associates degrees in Aviation Operations and Instructor of Technology and Military Sciences from the Community College of the Air Force. Scott also recently completed his Bachelor's degree from Embry Riddle Aeronautical University with a 3.7 GPA. Scott is one of six NCOs working in the only C-17 FTU Standardizations and Evaluations (Stan/Eval) office. The Stan/Eval office is comprised of the most qualified, proficient, and knowledgeable C-17 loadmasters throughout the AF.

Scott Mills has an unsurpassed passion for Habitat for Humanity (HFH). He has been volunteering for HFH since 1999. Since his arrival in Altus in 2005, he has taken a leading role in HFH with over 140 hours of volunteer time. Currently he is the chairman of the construction committee. As such, he is in charge of all construction and leads a nine-member committee. His duties involve helping develop short- and long-term goals for the organization, determining local family candidates, construction timelines, volunteer recruiting, material donations and setting mission and vision statements.

Scott has directly impacted the lives of five families by providing them with a new or remodeled home. Scott is always first in line to organize or assist with squadron and community fundraisers. He has volunteered to help setup and tear down Special Olympic events on several occasions. As the squadron booster club vice president he planned and led squadron picnic and squadron Christmas party, managing over $7,000 dollars and supervising 30 people during the projects. He was recently elected Vice President of the Professional Loadmaster Association for the Altus chapter.

Captain Eric J. Rivero

Captain Eric J. Rivero is the second of two sons born to CMSgt (Ret.) Juan and Maria Rivero. His brother, TSgt Ray Rivero, is assigned

to Mountain Home AFB, Idaho. Eric was born in Anchorage, Alaska in 1979 and lived in many locations throughout the world including Mountain Home, ID, Bitburgh AB, Germany, Loring AFB, ME, RAF Lakenheath, England and Luke AFB, AZ. In high school, he was a three year letter-men, participating in wrestling and football. He was also actively involved with student leadership and served as the National Honor Society president and the Student Council vice president.

Eric graduated with honors from Westview High School in May, 1997. He joined the Air Force in the summer of 1997 as a cadet at the US Air Force Academy and served in many leadership positions including First Sergeant, Operations Officer, Wing Staff and vice president of the American Society of Civil Engineers. Eric graduated from the Air Force Academy in 2001 with an Environmental Engineering degree. He attended Joint Specialized Undergraduate Pilot Training at Vance Air Force Base, OK.

His next assignment was as a KC-135 pilot at MacDill AFB, FL, Eric excelled in the KC-135 and upgraded to Aircraft Commander as a First Lieutenant. One year later he upgraded to Instructor Pilot. Shortly thereafter he moved to Kadena AB, Japan and became an evaluator. He has served in many leadership positions within the squadron, group and wing. Eric has over 570 combat and combat support flight hours. He is the recipient of three Air Medals, an Aerial Achievement Medal and an Air Force Commendation Medal.

Additionally, he has garnered several individual awards including multiple Company Grade Officer of the Quarter and an Evaluator of the Year award. Eric is happily married to Airion Rivero. They have two children, Ellena and Emile Rivero.

"The real leader has no need to lead – he is content to point the way."

–Henry Miller

Young Leadership Awards Continue >

Photos courtesy of U.S. Air Force.

A new era of air mobility has begun.

NORTHROP GRUMMAN

www.northropgrumman.com/airmobility

AIR MOBILITY

Northrop Grumman is a premier provider of Air Mobility solutions. Our proposed KC-10 CLS solution is part of many other Northrop Grumman Air Mobility capabilities: LAIRCM, APN-241, and Data Link Integration, just to name a few. Also taking into account that Northrop Grumman won the initial KC-X tanker competition makes it clear that there's a new player in Air Mobility.

Technical Sergeant Joshua R. Tidwell

Technical Sergeant Joshua R. Tidwell is currently assigned as the Headquarters Ninth Air Force and United States Air Forces Central (USAFCENT), Logistics Directorate, Airlift Operations Noncommissioned Officer in Charge. He was born in Birmingham, Alabama, on 5 October 1979 and attended Pell City High school, graduating in May 1998. He entered the Air Force 25 February 1999, completing the Air Transportation Apprentice Course at Lackland AFB. While attending technical training, Sergeant Tidwell was handpicked by Military Training Leaders as a student leader.

Following technical training, Sergeant Tidwell went on to Dover AFB where he honed his aircraft loading skills and deployed to Prince Sultan AB, Saudi Arabia. As a member of the Dover Honor Guard, Sergeant Tidwell was 1 of 17 Air Force Personnel hand-selected to perform with the Air Force Honor Guard at the 2001 Presidential Inauguration. Moving to Ramstein AB in June 2001, he was quickly promoted to Senior Airman below-the-zone. While working in Ramstein's Passenger Terminal, he processed troops in support of Operation ENDURING FREEDOM as well as NATO operations in Bosnia and Macedonia.

In February 2003, Sergeant Tidwell and his team provided surge capability to Rhein-Main Passenger terminal, processing the first 22K troops deploying in support of Operation IRAQI FREEDOM. Upon return from Rhein-Main, he attended Airman Leadership School, earning the coveted John L. Levitow award for excellence and leadership. In June 2003, he PCS'd to the 20th Logistics Readiness Squadron (LRS) at Shaw AFB. As Combat Readiness Flight supervisor, Sergeant Tidwell managed the wing mobility and readiness training program; training and supervising of over 113 mobility augmentees through wing exercises and deployments.

While assigned to LRS, he deployed to Manas Air Base, Kyrgyzstan, and Al Asad Air Base, Iraq. Upon completion of his tour in Iraq, Sergeant Tidwell moved to USAFCENT, Logistics Directorate, where he serves as the NCOIC of Airlift Operations. In this capacity, he levies his extensive deployment experience by advising the USAFCENT staff on issues related to employment of airlift assets and provides policy, guidance, and direction to transporters at over 27 deployed Aerial Ports. Spending 160 days annually serving in the USCENTCOM AOR, his expertise has been instrumental supporting issues ranging from scheduled staff assistance to the stand up of the first ever Expeditionary Aerial Port Squadron.

Since his arrival in 2005, Sergeant Tidwell has been recognized for his outstanding contributions to 9th Air Force, USAFCENT, and the Air Force. Specifically, he was selected as Air Combat Command's 2006 Halvorsen Award winner, Logistics Directorate NCO of the Quarter 2007/2008, and Distinguished Graduate at Gunter Noncommissioned Officer Academy. His military awards include the Air Force Commendation Medal with one oak leaf cluster, Air Force Achievement Medal with 3 oak leaf clusters, Armed Forces Expeditionary Medal, Afghanistan Campaign Medal, Iraqi Campaign Medal, Humanitarian Service Medal, Air and Space Campaign Medal, and NATO Medal.

Sergeant Tidwell has earned his Associates Degree in Business Management from the Community College of the Air Force and is working on his Bachelor's in Business Administration from Saint Leo University.

Technical Sergeant Christopher Trevino

Technical Sergeant Christopher Trevino is currently assigned as Security Forces Standardization and Evaluations NCOIC for the 92nd Security Forces Squadron, Fairchild Air Force Base, Washington. Sergeant Trevino was born on August 5, 1976 at Hanford, California. He graduated from North Idaho College, Coeur d'Alene, Idaho in 1996.

Sergeant Trevino leads and executes the 92nd Security Forces Squadron's Standardization & Evaluations program to validate unit commanders training requirements. He authors, maintains, analyzes and schedules duty position evaluations of 215 assigned personnel. He evaluates and monitors security and ground operation's effectiveness during base-wide and local exercises. He further more conducts annual Stan-Eval Inspection Evaluations on all aspects of security programs for standards compliance.

Sergeant Trevino began his military career by enlisting in the Air Force in March of 1996 and has experience with numerous assignments in both the security forces and aircraft maintenance career fields. Sergeant Trevino arrived at his current assignment in January, 2007. Sergeant Trevino is married to the former Jeana Marie Kane of Klamath Falls, Oregon and they have six wonderful children, Corina, Sabrinna, Arron, Michael, Kallie, and Arianna.

"The secret of a leader lies in the tests he has faced over the whole course of his life and the habit of action he develops in meeting those tests."

–Gail Sheehy

YOU CAN HAVE IT ALL...

...CNS/ATM AND BROADBAND!

Today, Thrane & Thrane's highly acclaimed Aero-HSD+ voice and data solution enables you to securely communicate and move data at broadband speeds while your aircraft enjoys efficient routing and handling benefits of CNS/ATM.

Tomorrow's Aero-SB+ was designed for getting you there on time and ready to conduct your mission.

With speeds up to 432 kbps, and a unique built in router, the mission crew can stream video, exchange data and securely talk over encrypted phones while the flight deck efficiently gets you to your destination. All in an extremely compact and lightweight system. We call it Aero-SB+, you'll call it AWESOME!

Thrane & Thrane A/S • info@thrane.com • www.thrane.com

Thrane & Thrane

A new era begins…

JBT AeroTech

Built on the knowledge and experience gained from the highly successful Halvorsen 25K Loader program, JBT AeroTech proudly introduces the Halvorsen 44K Loader to our line of high-quality military products.

Innovative. Tough. Tested.

Halvorsen 44K


Halvorsen 25K Loader


30-Ton TMAC Unit


30-Ton HP AC Unit


110-Ton AC Unit


400Hz Power Unit


B-450 Tow Tractor


B-600 Tow Tractor


B-1200 Tow Tractor

JBT AeroTech
military.sales@jbtc.com
http://www.jbtaerotech.com

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

2009 A/TA Halvorsen Award

Technical Sergeant Kevin Lee Brown

Technical Sergeant Kevin Lee Brown is the NCOIC, Special Handling with the 732nd Air Mobility Squadron, Elmendorf AFB, Alaska. He was born June to, 1979, in Winchester, Tennessee where he grew up and graduated from Franklin County High School in May of 1997. He reported to Lackland AFB, Texas for basic military training in August 1997.

TSgt Brown's background includes various key aerial port functions at the unit, wing, and even DoD joint command levels. In addition, Sergeant Brown has also been assigned numerous additional duties outside of his normal career field including positions as a First Term Airman Center (FTAC) Team Leader, author for Installation Deployment Plan and two-time base exercise evaluation team leader. He holds a CCAF degree in Transportation Management. TSgt Brown is also a 2002 graduate of Airman Leadership School, Scott AFB, Illinois, and a 2008 graduate of the NCO Academy, Elmendorf AFB, Alaska.

Sergeant Brown's sharp eye and quick response during emergency situations has helped the Air Force avoid embarrassment and has saved the Air Force funds. He identified an illegal explosive shipment from Japan, prompting the Tanker Airlift Control Center to cancel the mission, which in turn safeguarded the PACAF area of responsibility and avoided an international mishap. By stepping up to fill a Squadron Training Manager position and sponsoring the Management Aerial Port Operations Crisis Mobility Training Team he saved the Air Force more the $24,000 in TDY costs.

Sergeant Brown has served two remote overseas tours in Lajes and Kuwait respectively. During his career in Air Force he has deployed in support of Operation ENDURING FREEDOM and IRAQI FREEDOM, and his been assigned to Presidential taskings and Missile Defense Agency movements.

Sergeant Brown, who serves as President of his Squadron Booster Club, has a history of superior performance which has led to his selection as a quarterly award winner on seven different occurrences, annual award winner on five distinct occasions, outstanding academic achiever for six individual courses and outstanding performer during three separate evaluations, including being named the 2004 NCO of Year, 375th Logistics Readiness Squadron; the 2008 Air Transportation NCO of the Year, 715th Air Mobility Operations Group; the 2008 NCO of Year, 732nd Air Mobility Squadron; the 2008 NCO of the Year, 715th Air Mobility Operations Group; and, the 2008 NCO of Year, 515th Air Mobility Operations Wing. Among is decorations are the Air Force Commendation Medal (1 OLC) and the Air Force Achievement Medal (1 OLC).

"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"

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.

2009 A/TA Specialized Mission Award

Technical Sergeant Steven A. Guillen

Technical Sergeant Steven A. Guillen is an Aeromedical Evacuation Technician Flight Evaluator with the 43rd Aeromedical Evacuation Squadron, Pope AFB, North Carolina. He entered the Air Force in September 1994 and has served in a variety of Air Force Medical Service positions to include Emergency Department, Cardiac Intensive Care Unit and Education and Training. TSgt Guillen is a non-rated aircrew member with more than 700 flying hours in the C-130, KC-135, C-17, C-21, and HH-60 aircraft.

As a member of the largest active-duty aeromedical evacuation squadron in the Air Force, his mission is to deploy a combat-ready theater aeromedical evacuation system to a forward battle area and facilitate movement of sick or wounded service members via C-130 Hercules or any other opportune or retrograde aircraft. As an evaluator, TSgt Guillen provides guidance in the implementation and support of regulations, directives, and policies to all crew members at the 43 AES.

Today, members of the unit are deployed worldwide as they provide the vital link in aeromedical evacuation supporting the armed forces fight in the Global War on Terrorism. TSgt Guillen has also deployed as 1 of only 23 Air Force medics to serve in a rotary wing medical evacuation unit in support of Operations Enduring Freedom; flying 104 combat sorties under fire.

TSgt Guillen has an extensive educational history including graduating from Medical Service Technical School, Sheppard AFB, Texas in 1994; the Emergency Medical Dispatchers Course, Yuba City College, California in 1995; the Pre-Hosptial Trauma Life Support-Instructor Course, San Antonio, Texas, in 1997; Certified Nurse's Assistant Course, San Antonio College, Texas, in 1999; Airmen Leadership School, Lackland AFB, Texas, in 2001; the Texas Paramedic Course, San Antonio College, San Antonio, Texas, in 2001; the Aeromedical Evacuation Technician Course, Brooks AFB, San Antonio, Texas, in 2005; the Survival, Evasion, Resistance, and Escape Course, Fairchild AFB, Washington, in 2008; and, the Parachute Water Survival Training, Pensacola Naval Air Station, Florida, also in 2008.

TSgt Guillen was awarded the 200 I Outstanding Community Volunteer of the Year Award for work on local projects while assigned to the San Antonio Search and Rescue Unit, San Antonio, Texas.

TSgt Guillen's prior awards and achievements include being named the 2000 Outstanding Medical Technician of the Quarter, Wilford Hall Medical Center, Lackland AFB, Texas and the 2002 NCO of the Quarter, 435th Medical Squadron, Landstuhl Regional Medical Center, Germany. He also received the 2007 NCO Aircrew of the Quarter Award, 86th Aeromedical Evacuation Squadron, Ramstein Germany, the 2007 NCO Aircrew of the Quarter Award, 86th Operations Group, Ramstein Germany and the 2008 Sikorsky Aircraft Rescue Award.

"…any citizen should be willing to give all that he has to give his country in work or sacrifice in times of crises."

–Eleanor Roosevelt

aerial refueling

on your mind?

find fresh perspectives

ARSAG INTERNATIONAL

The Aerial Refueling Systems Advisory Group

Dedicated to aerial refueling operational requirements, improvements, long range solutions, interoperability since 1978

ARSAG '10

30 MARCH - 1 APRIL
ROSEN PLAZA HOTEL
ORLANDO FL

ARSAG International has been chartered by OSD as the

DOD JOINT STANDARDIZATION BOARD (JSB) FOR AERIAL REFUELING SYSTEMS

ARSAG '10 Conference Theme: Operational Flexibility Through Aerial Refueling Research & Development

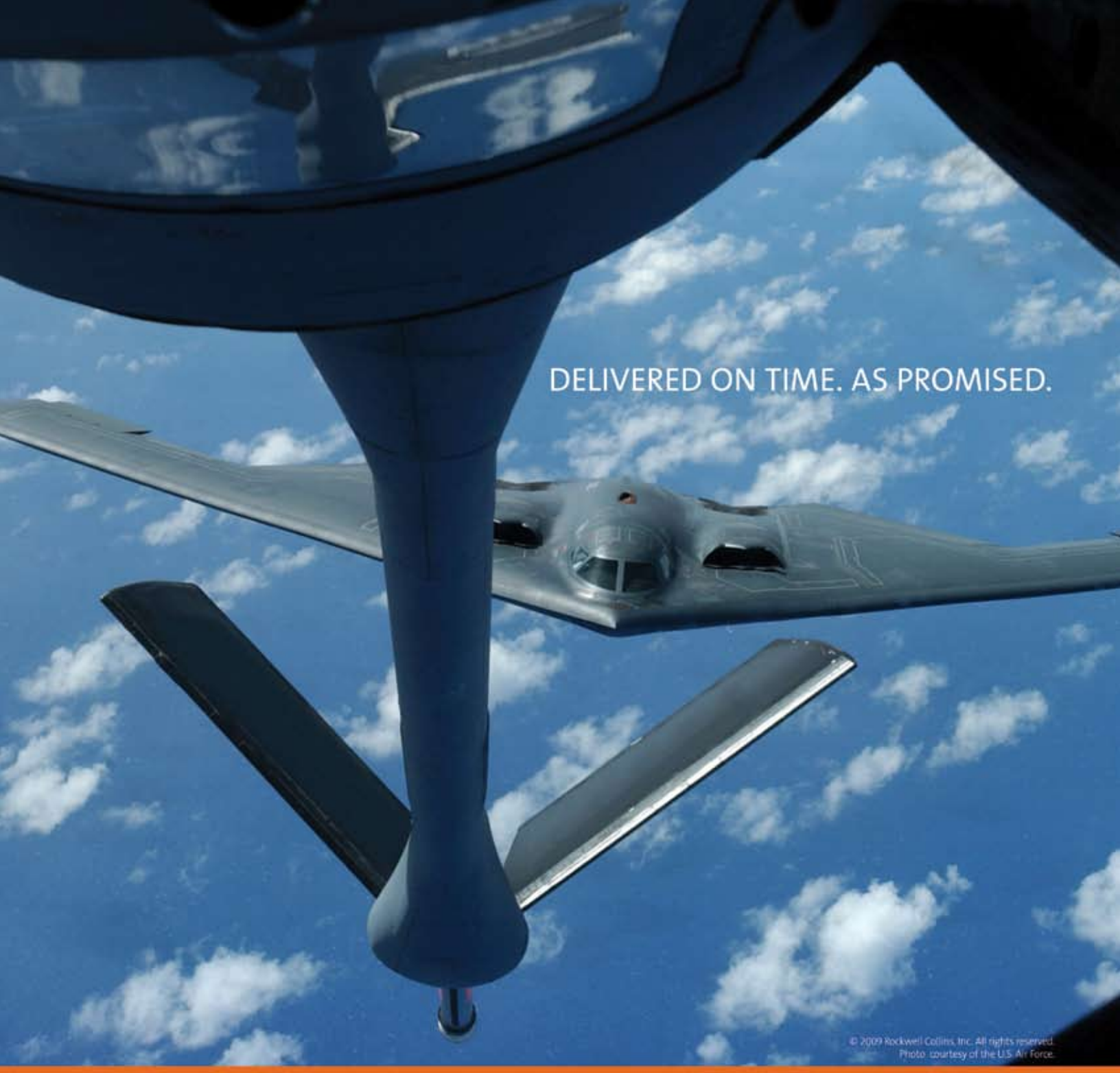
Participating Organizations

United States: Air Force, Air National Guard, AF Reserves, Army, Marine Corps, Navy
Air Forces & Ministries of Defense of 18 Nations NATO AAR Panel
Aerial Refueling Industry: Boeing, Airbus, Lockheed Martin, EADS, Northrop Grumman
GE Aviation, Cobham, Omega Air, Pratt & Whitney, Parker Aerospace, Eaton Aerospace, many more

Contact ARSAG at: arsaginc@earthlink.net
Co-Founder, Executive Director: Dexter H. Kalt
Chairman, Board of Directors: Martin L. Vukich
Chief Operating Officer: John B. Sams, Jr., Lieutenant General, USAF (Ret)

www.arsaginc.com

Distinguished Guest Speakers, Briefings, Exhibits
Aerial Refueling Panels: Advanced Concepts, Industry
Interoperability, System Design, Lighting, Studies & Analysis
Operations, Training, Safety, Test & Evaluation, R & M. Focus Topic Sessions



With more than 360,000 "combat tested" flight hours, the KC-135 GATM upgrade is the proven solution for enhanced situational awareness and airspace interoperability. From communications, navigation and surveillance systems to advanced display technology and comprehensive service and support, we provide the critical solutions that allow tanker pilots to successfully complete their missions. Learn more at www.rockwellcollins.com/gs

75 years of innovation

Rockwell Collins

Building trust every day

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.

2009 A/TA Fogleman ASAM Award

Major Christopher M. Lanier

Major Christopher M. Lanier is a C-17 instructor pilot assigned to the 618th Tanker Airlift Control Center, Scott Air Force Base, Illinois. Major Lanier was born in Castleberry, Alabama, on 7 January 1974. He attended Hillcrest High School and excelled in both academics and extracurricular activities, earning recognition as an Eagle Scout. After graduating from high school, Major Lanier attended the United States Air Force Academy. He graduated with a Bachelor of Science degree in Behavioral Science in 1996 with a specialization in Human Factors Engineering.

Upon graduation, Major Lanier served briefly in the Financial Management section at the United States Air Force Academy before attending Specialized Undergraduate Pilot Training at Vance Air Force Base, Oklahoma. His first flying assignment was to McConnell Air Force Base, Kansas, flying the KC-135R Stratotanker. At McConnell, Major Lanier upgraded to instructor while serving in various positions including Chief of Squadron Scheduling and Group Executive Officer. He was certified in the Special Operations Air Refueling program and recognized as the 349th Air Refueling Squadron Pilot of the Year for 2001. The tour at McConnell also included a three month deployment in 2003 as operations officer for the 376th Expeditionary Air Refueling Squadron at Manas Air Base, Kyrgystan, where he oversaw the successful execution of 120 tanker sorties offloading 4.5M pounds of fuel to 731 coalition receivers.

In 2003, he was reassigned to Altus Air Force Base, Oklahoma, as an instructor at the Formal Training Unit. While a member of the 55th Air Refueling Squadron, Major Lanier served as the Central Flight Instructor Course Flight Commander and Chief of Squadron Standardization and Evaluation earning honors as the Company Grade Officer of the Year for 2004. He was also a deputy director for the 97th Air Mobility Wing's 2004 air show. In 2005, Major Lanier was selected for the Phoenix Reach program and cross-flowed to the C-17. He finished the C-17 Aircraft Commander Initial Qualification Course in November 2005 as a distinguished graduate and joined the 17th Airlift Squadron at Charleston Air Force Base, South Carolina.

While at Charleston, he continued his outstanding performance as an Assistant Operations Officer in the 437th Operations Support Squadron and also served at the Deputy Director of the Special Operations Low Level II Division. In 2008, Major Lanier was reassigned as a student of the Advanced Studies of Air Mobility, an Air Force intermediate developmental education program at the United States Air Force Expeditionary Center, Fort Dix, New Jersey.

Once again rising to the top, Major Lanier was recognized as a distinguished graduate and winner of the General Ronald R. Fogleman, Brigadier General Mervin E. Gross, and Colonel Jerome G. Peppers awards. Upon graduation, he was assigned to Scott Air Force Base, Illinois, where he currently resides.

Major Lanier is married to the former Jennifer Black of High Point, North Carolina. The couple has two children: Michael, age 5 and Cal, age 3. Major Lanier is the recipient of multiple decorations including the Meritorious Service Medal, Air Medal, Aerial Achievement Medal, and Air Force Commendation Medal.

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

–John F. Kennedy

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.

2009 A/TA General P. K. Carlton Award for Valor

Captain Mason E. MacGarvey

Captain Mason MacGarvey, [see biography on page 30] an instructor pilot with the 2nd Airlift Squadron based at Pope AFB, NC, displayed exceptional valor in handling a nightmare multi-engine failure during takeoff from Baghdad International Airport.

On 27 June 2008, he commanded Glide 51 on its 3rd leg of an OIF combat mission. His C-130 aircraft carried 6 crew and 32 passengers bound for Al Udeid, UAE. He was flying in a challenging desert environment, with 120+ degree F mid-day temperatures and operating at near maximum gross weight. Coupled with the threat of enemy fire, he bravely faced a difficult challenge demanding determination and skill.

In preparation for departure he analyzed the situation and developed a plan to mitigate the risks from hot weather, heavy cargo load, and credible Intel reports on hostile forces. He ensured all personnel onboard were wearing Personal Protective Equipment and briefed his plan to the crew before executing the takeoff. Suddenly, a mere 10 seconds into the flight, at only 300' AGL, his Missile Warning System indicated an infrared threat.

Capt MacGarvey reacted immediately by performing a textbook defensive maneuver to avoid being hit. His crew confirmed "all clear" however another critical situation had just developed. Capt MacGarvey noticed that the aircraft engines had inexplicably lost thrust, and informed the crew that #1, #3, and #4 were operating at only 60% power. With only the #2 engine producing 100% thrust the heavyweight aircraft was severely underpowered, losing airspeed and altitude, putting them in a critical situation. Recognizing the need for quick action Capt MacGarvey immediately coordinated emergency actions and initiated the Multiple Engine Power Loss checklist.

Although the crew expertly performed the required actions, power could not be restored. His options running out rapidly, Capt MacGarvey made the instantaneous decision to save the aircraft, lowering the nose to maintain airspeed to prevent a deadly stall. At 130 knots with the ground looming he quickly identified a small open field as the best available landing site, though crowded between a canal and high tension power lines. Fearlessly, he turned towards the location and immediately informed the crew of his decision.

In the final 200', he called for 100% flaps to simultaneously increase lift and slow the aircraft to the lowest controllable airspeed. In the final 50', he expertly aligned the aircraft with the field while avoiding the obstacle hazards. Cool and courageous under fire, he calmly prepared the passengers for impending impact, and utilized the crew to help monitor altitude and airspeed.

Fighting fierce crosswinds compounded by the asymmetric engine thrust he skillfully brought the aircraft down in a perfect landing attitude. The total time from takeoff to landing was only 57 seconds. By maintaining wings-level and touching down smoothly, he avoided a catastrophic cartwheel, fuselage failure, fuel leak and fire. Impacting the sandy soil, the aircraft landing gear crumpled, the seat stanchions collapsed and the floor buckled allowing sand and dust to pour into the plane.

Although nearly blinded by dust and deafened by the scrape of metal along the ground Captain MacGarvey fought to maintain control and situational awareness as the they skidded abruptly to a stop in only 700'. He immediately commanded engine shutdown, preventing battered and panicked passengers from being injured or killed by spinning propellers as they hurriedly escaped from the aircraft.

He continued to exhibit exemplary leadership conducting a crew roll call and directing an emergency egress. He ordered the Loadmaster to organize the passengers into 5 columns to perform a headcount, while directing the Flight Engineer and Navigator to sweep the aircraft for injured or trapped personnel. He coordinated with the Army members present to establish a defensive perimeter against any enemy attack.

In short order, friendly forces were able to secure the site and extract all of the passengers and crew. Capt MacGarvey's demonstrated superior aviation skills, personal courage, determination, bravery, and fearlessness in the face of impending disaster epitomized the highest caliber of leadership and saved the lives of 38 US servicemen! Captain MacGarvey's actions clearly warrant selection for the General P. K. Carlton Award for Valor.

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

–Patrick Henry

BETWEEN WORLDWIDE NEED AND WORLDWIDE RESPONSE,
THERE IS ONE IMPORTANT WORD: HOW.

In a remote area, supplies are desperately needed. Increased range and proven performance lead the C-130J Super Hercules. Supporting troops and disaster victims worldwide is all a question of how. And it is the how that makes all the difference.

lockheedmartin.com/how

LOCKHEED MARTIN
We never forget who we're working for®

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.

A/TA 2009
LtGen James E. Sherrard III Award

349th Air Mobility Wing

The 349th Air Mobility Wing (AMW) is the recipient of the 2009 Airlift Tanker Association's Lt Gen James E. Sherrard III Award. This award recognizes an Air Force Reserve Command wing having the most significant impact on the success of our Mobility Air Force. A proud member of Team Travis, the 349th AMW, is the first ever recipient of the Gen Sherrard Award. Led by Brig Gen Maryanne Miller, the 349th AMW set themselves apart by leading the command in effective manning, readiness, inspections, deployments, and operational mission support.

The largest associate wing in the United States Air Force Reserve, the 349th AMW is the embodiment of a well oiled, organized and effective wing. Home to four flying squadrons, aeromedical evacuation, logistical readiness, EOD, mortuary affairs, just to name a few, the 349th AMW excelled at all levels. Travis reservists were recognized for outstanding performance in every aspect of their mission. Whether placing first at the Fire Fighter's "World Combat Challenge," garnering the Lew Allen Award for aircraft generation, or receiving the Command's Outstanding MPF of the Year Award, the 349th AMW excelled at every endeavor.

The 349th AMW led the command in all eight categories considered for this award, which include ancillary training, mission readiness, and operational participation. Garnering an outstanding score on their most recent inspection; the 349th AMW again demonstrates superior readiness and its ability to execute all facets of the mobility mission. During the past year they performed a total of 218,891 days away from station; an average of over 72 days TDY per airman. AFSO-21 leading initiatives saved over 1,400 maintenance man-hours, and over $500,000 annually through improved fleet configuration and identified operational efficiencies.

As citizen airmen, 349th AMW personnel are actively engaged in their community. With one of two U.S. Air Force port mortuary teams, they ensured 315 of our fallen heroes were honored distinctively. This was in addition to providing honor guard support for 720 funerals and 260 ceremonies honoring our brothers and sisters in arms. A role model for others, the wing recently distributed over 35,000 school supplies to underprivileged children at five local schools. Furthermore, 349th airmen provided over 100 meals per week to local veterans. Their sustained positive impact to the community is evident daily and lauded by civic leaders.

The 349th AMW is the only associate reserve wing with three major weapon systems – the KC-10, C-17 and C-5 aircraft. Over the past year they set the standard for all wings regardless of mission set. The airmen of the 349th AMW greatly deserve this recognition for their contribution to our nation's security and the sacrifices they have made. Without question, the 349th AMW exemplifies the Air Force Reserve Command's Unrivaled Wingman concept. Congratulations to all 349th Air Mobility Wing personnel.

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

–LtGen 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 is awards are the Distinguished Service Medal, Legion of Merit, Meritorious Service Medal (3 OLC) and the Armed Forces Reserve Medal with hourglass.

The Airlift/Tanker Association's MajGen Stanley F.H. Newman Air National Guard Award recognizes the most outstanding Air National Guard Outstanding 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.

A/TA 2009
MajGen Stanley F. H. Newman Award

The 157th Air Refueling Wing

The 157th Air Refueling Wing (ARW) is the recipient of the 2009 A/TA ANG Outstanding Unit Award. A proud member of the New Hampshire's National Guard, the 157th ARW is the first-ever recipient of this award. Led by their Wing Commander, Colonel Richard P. Martell, the Granite State's Citizen Airmen succeeded in building one of the nation's most respected ANG units – serving America, New Hampshire, and community…in partnership with families and employers.

The 157th ARW is assigned 8 KC-135R Stratotanker air refuelers and over 900 Airmen, providing Global aerial refueling of US and coalition aircraft engaged in strategic and expeditionary combat endeavors. Additionally, as part of the Total Force Initiative, the 157th ARW was selected to host an Active Duty Associate unit.

The 157th ARW was selected for this award based upon setting impressive benchmarks such as: 220 combat sorties in support of the Southwest Asian Area of Operation; 20 counter-drug operations refueling missions; seven combat Aeromedical Evacuation missions; a 98.6% average in 28 different measurements of readiness; 16,197 days of cumulative TDY; impressive scores on ASEV, NORI, HSI, and ESOCHAMP inspections; three daily alert tanker lines; and flying more hours than any peer KC-135 unit in the ANG.

As defenders of New Hampshire, the 157th ARW trained to protect life and property and to preserve peace, order, and public safety. Their role as Citizen Airmen is reflected by their supporting the local community with a Children's Winter Carnival, by responding with support to recover from the massive ice storm of 2008, by hosting two Make-A-Wish program visit days, and other far-reaching events, such as their support for United Way and the New Hampshire Special Olympics.

Along with garnering the sole charter membership for this A/TA award, the 157th ARW was recently given a 9th Air Force Outstanding Unit Award and the Major General John J. Pesch Flight Safety Trophy. The award of this 2009 A/TA ANG Outstanding Unit Award recognizes the contributions of New Hampshire's own 157th ARW and sets the standard for all future competitors. Congratulations to all 157th ARW personnel and to their communities, which both provide and benefit from their support.

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

–President George Washington

MajGen Stanley F. H. Newman was born in Chicago, Ill., 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.

34 WORLD GOVERNMENTS
ONE CHOSEN LEADER

G550® LARGE CABIN, ULTRA-LONG RANGE

G450® LARGE CABIN, LONG RANGE

G250® LARGE CABIN, MID RANGE

G150® WIDE CABIN, HIGH SPEED

With more than 50 years of proven experience, Gulfstream aircraft are known for delivering world-record altitude, speed and range performance, as well as award-winning reliability and product support. World leaders have made Gulfstream aircraft the preferred choice for special missions since the 1960s.

To learn more, call Buddy Sams, Senior Vice President, Government Programs and Sales at 703-276-9500 or visit us at www.gulfstream.com.

Gulfstream®
A GENERAL DYNAMICS COMPANY


NORTHROP GRUMMAN
Might as well shoot for the moon.
www.northropgrumman.com/laircm
LAIRCM
A C-17 on approach in dangerous territory. The threat of a ground-launched infrared missile is real. But this aircraft is protected by the USAF's LAIRCM system produced by Northrop Grumman. It's the only multiband IRCM in production today. It defeats the threat by directing a high-intensity modulated laser beam into the missile's seeker. The system provides 360-degree protection and automatically counters advanced IR missiles with no action required by the crew. This aircraft will land safely. The moon? Probably safe, too.
©2009 Northrop Grumman Corporation
Photo courtesy of Department of Defense

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. The Airlift/Tanker Association extends its sincere thanks to all its Industry Partners for their continued support!

(Industry Partners as of 20 September 2009)

A Salute to the A/TA's Industry Partners

AAI Services Corporation

AAI Services Corporation, a wholly-owned subsidiary of AAI Corporation, an operating unit of Textron Systems, a Textron Inc. company, provides world wide operations, maintenance and logistics, training and simulation, and depot support services for government and commercial customers. The company provides support for some of the US Air Force's preeminent aircraft platforms including the C-17, F-35, and F-22.

AAI congratulates the 2009 Air Mobility Rodeo winners!

"Some regard private enterprise as if it were a predatory tiger to be shot. Others look upon it as a cow that they can milk…Only a handful see it for what it really is – the strong horse that pulls the whole cart."

–Winston Churchill

AAR Corp

AAR Mobility Systems designs and manufactures seat pallets, 463L air cargo pallets, and rapid deployment equipment consisting of: specialized air transport containers and, tactical shelters. We serve military customers and defense systems OEM's with mission-tailored air transportable systems.

Palletized Systems: Certified seat pallets for C-17, C-130, plus other aircraft; custom communication modules and VIP modules; operator platforms and test equipment platforms; and custom pallets for high-value equipment and non-standard load configurations.·

- ISU® Containers: Lightweight, 1-pallet-position air-mobile shipping and storage containers; available in standard and custom configurations.
- Tactical Shelter Systems: Custom and standard air-mobile shelters requiring 1- and 2-pallet-position; 20-foot ISO shelters with proprietary features. ·
- System Design and Integration: C4I systems; TOCs/command posts; data management and distribution; power distribution and environmental control systems; equipment racks and workstations.

AAR Aircraft Services is a full service facility that features seven hangers supporting "nose-to-tail" narrow-body aircraft maintenance lines that provide services for 727, 737, DC-9, MD-80/90 and regional aircraft.

Adacel

Adacel is a leading developer of simulation and control systems for aviation and defense. Adacel operates in the Global Aerospace Systems market including Air Traffic Management, Airport and Air Traffic Control (ATC) Training, and Airborne Vehicle Systems. Adacel is the premier supplier of ATC simulation solutions for training air traffic controllers in both civil and defense environments and for research, planning and modeling of air traffic procedures. Adacel is also a world leader in real-time, mission critical, satellite-based air traffic systems for remote airspace management. Adacel has key positions in the emerging markets of intelligent speech-driven systems for cockpit and simulator automation. Applications include the full spectrum of aircraft from the Joint Strike Fighter speech-driven cockpit to Transport aircraft and Un-manned Aerial Vehicles. Adacel's newest product, ATC in a Box (ATCiB), allows pilots to train in a flight simulator with a fully realistic voice driven ATC environment. Visit www.adacel.com.

"Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity."

–General George S. Patton

Aerowing, Inc.

Aerowing provides technology to RAPIDLY repair aircraft fuel leaks. We manufacture Leak Detection Kits, Rapid De-Sealing Systems, Rapid Curing Devices, and Tank Pressurization Systems (to quickly verify a leak repair… before refueling).

AirGator, Inc.

AirGator is the maker of the popular NAVPad family of electronic flight bags (EFBs) and NAVAir, the award winning real-time weather and navigation solution. First to integrate real-time XMWX satellite weather into a moving map, AirGator has a long history of innovation in the aviation industry. The rugged NAVPad family offers the widest range of form factors in aviation-grade, touchscreen EFBs with high-performance CPUs, Solid-state storage, industrial low-gloss, low-glare displays for superb sunlight readability and DO-160F decompression testing to 45,000 feet. NAVPad EFBs run all Windows compatible programs, including NAVAirEFB, Approaches3D, FalconView and FliteDeck.

NAVPads are in service in corporate, charter, freight operations and some airliners in the US, Europe, the Middle East, Africa and Australia. They are also used by the USAF, Navy, CBP and NASA as well as in diverse jet and turboprop aircraft with specialized missions such as air-refueling, ISR, VIP transport, special mission, vertical replenishment and cargo operations.

NAVAirEFB and Approaches3D software suite is compatible with DoD DAFIF and mission datasets.

ARINC

ARINC was formed nearly eight decades ago to provide reliable communications to the airlines. Today, we're a solutions driven company with end-to-end capabilities in the commercial, defense, and government industries alike. We provide communications, engineering, and integration services to deliver mission-critical solutions around the globe. We have supported the U.S. Military for over fifty years. From aircraft modernization to innovative avionics systems to advanced logistics support, ARINC provides mission-critical communications and engineering solutions for aircraft and the crews that fly and maintain them. Our proven experience and disciplined pursuit of excellence gives our customers the results they need – when they need them. ARINC Incorporated, a portfolio company of The Carlyle Group, provides communications, engineering and integration solutions for commercial, defense and government customers worldwide. Headquartered in Annapolis, Maryland with regional headquarters in London and Singapore, ARINC is ISO 9901 certified.

Armed Services Mutual Benefit Association

The Armed Services Mutual Benefit Association (ASMBA) is a nonprofit fraternal military benefit association founded by Airlifters in 1963 to provide comprehensive, affordable life insurance coverage, security and peace of mind for members of the Armed Services and their families. ASMBA is run by its members through an elected Board of Governors and an appointed Board of Advisors, all of whom serve without pay. ASMBA has no stockholders or sales agents to pay, and can therefore offer high value protection at a very low cost. The goal of ASMBA remains the same today as it was in 1963: to provide affordable family protection, financial security and unmatched service to those who serve our country so well. Visit our web-site at: www.asmba.com, or call us at: 1-800-251-8434.

ARSAG

The Aerial Refueling Systems Advisory Group International (ARSAG International) is an independent, non-profit technical professional organization dealing with aerial refueling issues. It is formed to provide a single inter-service and international agency to advise on aerial refueling system matters. It will serve 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. The efforts are to assist engineering, development, testing, support and operating systems. ARSAG International currently performs the role of being the only Joint Standardization Board on Aerial Refueling for the DoD.

ATK

ATK is a world leader in defense capabilities. It is the largest provider of ammunition to US armed forces and allied nations around the world. The company is a leading provider of advanced, affordable precision munitions and strike weapons. The company is expanding its armaments business by developing lightweight integrated weapon systems and advanced propellants. ATK's solid rocket motor propulsion systems form the backbone of tactical, strategic, and missile defense weapons systems, and it is developing next-generation target missiles and hypersonic propulsion systems. The company is a leading provider of missile warning systems that deliver survivability solutions for aircrews and their aircraft. It is also a key provider of advanced flares and decoys. ATK is a key systems integrator of special mission aircraft for border protection and Intelligence, Surveillance and Reconnaissance (ISR) missions and it manufactures essential composite structures for the nation's next-generation military aircraft.

"Service is the rent that you pay for room on this earth."

–Shirley Chisholm

Atlas Air Worldwide Holdings

AAWW is the parent company of Atlas Air, Inc. (Atlas Air) and Titan Aviation Leasing Limited (Titan), and is the majority shareholder of Polar Air Cargo Worldwide, Inc. (Polar). Through Atlas Air and Polar, AAWW operates the world's largest fleet of Boeing 747 freighter aircraft. Atlas Air, Titan and Polar offer a range of air cargo services that include ACMI aircraft leasing – in which customers receive a dedicated aircraft, crew, maintenance and insurance on a long-term lease basis – express network and scheduled air cargo service, military charters, commercial cargo charters, and dry leasing of aircraft. In addition, Atlas Air is the sole provider of Pilot and Flight engineer Boeing 747-200 training for USAF crews flying Air Force One and the E-4B National Airborne Operations Center. Further information may be accessed through the Company's home page, www.atlasair.com.

Avalex Technologies

Avalex Technologies is the leading supplier of rugged landscape/portrait displays, digital mapping systems, and digital video recorders for the airborne surveillance and military markets. Avalex boasts more than 15 years of successful experience in every aspect of manufacturing rugged and reliable aircraft display systems, digital recorders and digital mapping systems to include hardware and software integration, development and modification. We stand behind all of our products with a one year warranty and have a trained sales/technical staff which can support all your needs. All engineering, design, manufacturing, sales, and repair support are performed at our Pensacola, FL facility. Visit us at www.avalex.com.

BAE Systems

BAE Systems provides aerospace and defense end users, and prime contractors with capabilities and products that improve operational safety and enhance mission effectiveness for Air Mobility. Capabilities include 5th generation electronic warfare, vehicle management, human-machine interface, airborne networking, and situational awareness. BAE Systems also provides integrated subsystems for all-weather operation, power management, real-time information to the cockpit, defensive systems, Heads Up Displays and prognostics and health management. BAE Systems is a global enterprise, with more than 90,000 employees performing design, development, and production operations in a number of home markets worldwide.This structure offers wide-ranging capabilities to home markets in the U.S. and U.K. and a broad base for access to European and other world markets.

Bell Helicopter Textron Inc.

Founded in 1935 as Bell Aircraft Corporation, Bell continues to set the pace for the industry and expand the scope of vertical lift. Now an industry leader with unmatched name recognition, Bell Helicopter was the first to obtain certification for a commercial helicopter. Over its rich history, Bell has delivered more than 35,000 aircraft to our customers around the world. With forward thinking in advanced concepts, Bell Helicopter invented tilt rotor aircraft. These unique aircraft lift like a helicopter, then fly like an airplane with twice the speed, three times the payload and five times the range of traditional helicopters. Aerospace and aircraft will never be the same. Headquartered in Fort Worth, Texas, Bell Helicopter has additional plants in Amarillo, Texas and Mirabel, Canada.

The Boeing Company

The Boeing Company manufactures a wide variety of airlift and tanker aircraft for the U.S. Air Force including the C-17 Globemaster III, the most versatile airlifter ever built. Boeing built both the KC-135 and KC-10 tankers currently in use by the Air Force, the KDC-10 for international sales and is developing future tanker versions of the C-17 and 767. Four modified 757s are used as VIP transports (military C-32A) by the 89th Airlift Wing at Andrews AFB, MD. The 89th also flies Air Force One, specially configured 747s. Modified 737 aircraft (military C-40) are replacing the C-9 for the U.S. Navy and U.S. Air Force missions. Boeing is on contract to deliver 205 C-17s to the Air Force and has sold C -17s to the Royal Air Force, the Royal Australian Air Force, Canada, NATO/SAC and Qatar. Boeing is working to develop other international military sales.

Bombardier Aerospace

Bombardier Specialized and Amphibious Aircraft. For over forty years, Bombardier has provided governments and governmental agencies around the world with over 300 modified aircraft that meet the most demanding mission requirements. Whether it's a C4ISR aircraft, Maritime Patrol Aircraft, Airway Calibration or VIP Platform from design to delivery, Bombardier is dedicated to meeting the needs of its customers through its comprehensive range of aircraft, including the Learjet*, Challenger* and Global* family of jets as well as its superior turboprop aircraft. It also markets the Bombardier 415* aircraft, the most advanced purpose-designed amphibious firefighting aircraft. This aircraft has also proven ideal for maritime missions, which include search and rescue, coastal patrol, disaster response and utility transport.

Booz Allen Hamilton

Booz Allen Hamilton has been at the forefront of management consulting for businesses and governments for more than 90 years. Providing consulting services in strategy, operations, organization and change, and information technology, Booz Allen is the one firm that helps clients solve their toughest problems, working by their side to help them achieve their missions. Booz Allen is committed to delivering results that endure. With 19,000 employees on six continents, the firm generates annual sales of $4 billion. Along with our steadfast commitment to client success, our dedicated team of experienced former military and corporate professionals stands ready to provide objective, high-impact solutions to a wide array of complex problems. We work with government agencies, institutions, and infrastructure organizations worldwide, providing a broad range of management consulting, engineering, information technology, and systems development/integration services, enhancing the national security, economic well being, and health and safety of countries around the world. To learn more about the firm, visit www.boozallen.com.

Bose Corporation

Bose Corporation manufactures high-performance Acoustic Noise Cancelling® technology products for military and commercial markets worldwide. Our Aviation Headset X, with exclusive AdaptiSense™ headset technology, provides superb noise reduction, comfort, and communications intelligibility for Military Aviation customers.

C-27J Spartan JCA Team

The C-27J Team, led by L-3 Integrated Systems with Alenia North America as a teammate was selected as the Joint Cargo Aircraft. JCA, a Joint Service program, fills a critical gap in intra-theater airlift support for U.S. ground troops. C-27J is a multi-mission cargo aircraft, able to transport critical cargo and personnel, self-deploy over strategic distances, land in austere locations, operate autonomously, and provide routine and combat aerial sustainment to the joint force.

CAE

CAE is a world leader in providing simulation and modeling technologies and integrated training solutions for the civil aviation industry and defense forces around the globe. With annual revenues exceeding US $1 billion, CAE employs approximately 7,000 people at more than 75 sites and training locations in 20 countries. The company has the largest installed base of civil and military full-flight simulators and training devices. Through CAE's global network of 27 civil aviation and military training centres, CAE trains more than 75,000 crewmembers yearly. CAE also offers modeling and simulation software to various market segments and, through CAE's professional services division, the company assists customers with a wide range of simulation-based needs. 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.

"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)

Capewell

Capewell Components Company is the premier global Life Support and Aerial Delivery manufacturer & supplier to U.S. & worldwide military forces. Capewell's newest addition to its family of products is the Tactical Aerial Delivery System (TADS). TADS provide a user-friendly solution to deliver a wide variety of small tactical vehicles and cargo to remote locations.

Capewell's Advanced Logistics Cargo System is designed to meet the increasing demand within military and civilian air transport markets. The system features the Advanced Logistics Cargo Pallet and the Advanced Logistics Cargo Net featuring a one-piece cruciform design available in either polyester or lightweight, high strength materials.

Capewell designs and manufactures Aerial Delivery/Air Drop Platforms & Containers, cargo handling equipment for military & humanitarian operations, Tow-plates, CDS, Buffer Stop Assemblies, CVRS, C-17 Dual Row Airdrop Systems (DRAS), Type-V Platforms & Outrigger Assemblies, Parachute Releases & Hardware, Helicopter Slings, Ripcords, Cable Assemblies & Emergency Descent Devices.

Capewell provides the "total package" of design, manufacture, technical support and training, and is an ISO 9001-2000 Registered Company.

Visit us on the web at: www.capewell.com

Capewell is the leading global provider of innovative Life Support and Aerial Delivery solutions.

Cessna Aircraft Company

Cessna Aircraft Company is general aviation's leading manufacturer offering the industry's broadest product line of business jets, single engine piston aircraft and turbo utility aircraft. Cessna Aircraft Company also offers special mission variants of these aircraft.

Cobham

Cobham is the market leader for air to air refueling, providing innovative fourth generation solutions to defense customers around the world. With a heritage in air refueling spanning 70 years and over 1,000 systems delivered to date, Cobham provides a nose to tail refueling capability, comprising state of the art refueling systems and integration. Specializing in wingtip to wingtip solutions, Cobham offers weapon systems integration encompassing safety critical interface electronics, pneumatic technologies and weapons carriage and release systems including multi-store advanced lightweight designs for air to air and air to ground weapons. A specialist provider of aviation oxygen, Cobham also has a niche position in cryostatic cooling for land and aviation markets. Cobham designs and manufactures high technology pneumatic equipment for fin actuation in missiles. In the personal survival market, products are developed for naval and land applications, including aircrew and vehicle restraints, parachute release mechanisms and flotation gear.

Coherent Technical Services, Inc.

CTSi provides the US government agencies access to outstanding technical support services. Our exponential growth reflects the demand customers have for our unique approach and capabilities. CTSi specializes in maturing the customer's evolving requirements in fast-moving environments. Our strength in architecture development ensures that the promise of spiral development - critical mission capability deployed earlier and at lower total cost of ownership. Our skill set in specialty engineering disciplines such as modeling and simulation help ensure that requirements can be met prior to the customer commitments at key schedule/cost milestones. CTSi works seamlessly within a number of program Integrated Product Teams, helping to maximize the customer's earned value across multiple solution providers. We collaborate well and bring to your project a team of world-class engineers who are motivated, self-starting, and customer-focused. Located in Patuxent River, MD, CTSi serves the Washington DC and Virginia areas, but through the use of web-based technologies, we have the capability to support projects throughout the US and abroad.

CSC

CSC is a leading global information technology (IT) services company. CSC's mission is to provide customers in industry and government with solutions crafted to meet their specific challenges and enable them to profit from the advanced use of technology.

CSC has helped its clients manage and profit from every major wave of change in IT since its formation in 1959. CSC provides innovative solutions for customers around the world by applying leading technologies and CSC's own advanced capabilities. These include systems design and integration, IT and business process outsourcing (BPO), applications software development, Web and application hosting, and management and technology consulting. CSC's 91,000 employees deliver Best Total Solutions™ by combining globally standardized, best-in-class components with industry-, process- and client-specific components. Our clients experience consistent efficiency, effectiveness and positive business impact—results that help them achieve their goals.

Consolidated Air Support Systems (CASS), LLC

Consolidated Air Support Systems (CASS), LLC is the premier commercial source of air mobility expertise. CASS companies offer the full range consulting and training services that span the spectrum of mobility operations from forward deployed locations; combat operations in air refueling, strategic and tactical airlift and aeromedical evacuation; tactics, air base defense, flight/ground crew training; logistics; flight test; legal; ITAR; to aircraft engineering and certification. We have an unmatched experience base that ranges from the front offices of USTRANSCOM, AMC, AETC, DSCA and AFMC to deployed locations around the globe in every mobility platform operating today…and then some. CASS companies offer total cradle to grave support from initial problem analysis and solution design through to physical execution. The CASS partners are dedicated to helping the Nation and its Allies find solutions to today's tough challenges, especially in the mobility arena. For more information, please visit our website: www.cass.aero.

David Clark Company

David Clark Company Incorporated is a small business dedicated to the development and manufacture of quality communication products. It provides the military with a variety of communication headsets, intercom systems and components needed for complete communications systems. In 1975 David Clark Company introduced the first headset specifically designed to provide hearing protection and clear communication for pilots in noisy aircraft. Now as the headset industry leader, we are dedicated to maintaining the high standards that aircrew members and maintainers have come to expect.

"The way to be patriotic in America is not only to love America, but to love the duty that lies nearest to our hand, and to know that in performing it we are serving our country."

–Woodrow Wilson

DRS C3 Systems

DRS C3 Systems, Inc. designs and manufactures sophisticated Cargo Handling and Aerial Delivery Systems for fixed wing aircraft airdrop supply operations, fixed and rotary wing aircraft air cargo transport, shipboard cargo handling, and time-critical sensor and weapon system deployment. DRS C3 System's Cargo Handling and Aerial Delivery Systems are compatible with a wide variety of standard and specialized cargo pallets, platforms, containers and rolling stock. These systems are noted for high-strength, low weight with quick change configurations. DRS C3 Systems also provides safe and reliable Formation Flying Systems to the USAF and allied air forces for their C-130, C-141, C-1 and C-17 aircraft. Our latest technology has been proven to support AMC's requirement to meet the US Army's Strategic Brigade Airdrop (SBA) mission, while retaining compatibility with nearly 1,000 fielded systems.

DRS Technologies Sustainment Systems

DRS Sustainment Systems provides defense products and integrated solutions for the sustainment and security of our military forces. The company's electronic systems secure vital installations and perimeters via industry-leading ground surveillance radars, and the safety and mission effectiveness of aircrews through our various radars and avionics test equipment suites. Expert at battlefield systems integration, DRS has played a leading role in combat platform systems integration on target acquisition platforms and the Chemical Biological Protected Shelter Systems used as battlefield hospitals in any environment or threat condition. Expeditionary fuel and water conditioning, storage, distribution and packaging technologies, along with comprehensive food preparation and field sanitation systems, allow the services to meet the needs of warfighters and their equipment. Various mobility systems, including state-of-the-art tactical trailers and material handling equipment, ensure an unbroken logistics chain on the battlefield. Finally, our armor solutions ensure the survivability of fielded forces against today's warzone threats.

Dynamics Research Corporation (DRC)

"DRC® is a leading provider of mission-critical technology management services and solutions for government programs. DRC's position as a growing government services company allows us to bring to bear the personnel, technology resources and industry standard practices of a large company with the responsiveness of a small company. Rather than force a pre-packaged solution, we listen to our customers, and develop a tailored solution based on proven industry practices and lessons learned in hundreds of successful engagements. DRC offers forward-thinking solutions backed by a history of excellence and customer satisfaction. For more than 50 years DRC has helped customers meet their challenges, solve their problems, and perform their missions.

For more information, please visit www.drc.com.
Resources. Responsiveness. Reliability."

DynCorp International

DynCorp International is a world leader in providing global platform support solutions for aviation and land systems and integrated training and mentoring, security, and infrastructure solutions supporting international stabilization and development. Our core competencies support U.S. national security and foreign policy objectives with the operation of major sustainment and contingency programs in aviation services, base operations, infrastructure development, security services, law enforcement training, professional mentoring, linguistic services, and logistics support. We operate with a relentless commitment to performance in any environment from modern CONUS sites to remote, dangerous and austere locations around the world.

EADS North America

EADS North America is the North American operation of EADS, the second largest aerospace and defense company in the world. As a leader in all sectors of defense and homeland security, EADS North America and its parent company, EADS, contribute over $11 billion to the U.S. economy annually and support more than 200,000 American jobs through its network of suppliers and services. Operating in 17 states, EADS North America offers a broad array of advanced solutions to its customers in the commercial, homeland security, aerospace and defense markets.

Elbit Systems of America

Elbit Systems of America is a leading provider of high performance products and system solutions focusing on the defense, homeland security, commercial aviation and medical instrumentation markets. 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. URL: www.elbitsystems-us.com.

EMTEQ

EMTEQ - enhanced products, services, support and expertise. Products include: ARINC and non-standard equipment trays; RF/Specialty cables & assemblies (databus, Ethernet, multi-conductor); wire harnesses; cockpit/interior LED lighting; exterior lighting; integrated aircraft/avionics system engineering and installation kits; structural/mechanical upgrades; metal fabrication; design and consulting services; Advanced Connectivity & Productivity with SkyPro™. EMTEQ has partnered with Cable Technology, a certified HUBZone and industry leader. Cable Technology provides Electrical/Mechanical Integrated Assemblies; Coaxial & High Performance Cable; Fiber Optic Cable; IPC and J-STD Training & Certification. We offer comprehensive program management and coordinate all aspects of projects. Worldwide locations: US, Switzerland, Brazil and Canada.

Engineered Arresting Systems Corporation (ESCO -- Zodiac Aerospace)

Engineered Arresting Systems Corporation (ESCO - Zodiac Aerospace) has been developing and providing arresting systems for military applications for over 50 years. In the early 1990s, the FAA approached ESCO to help develop a soft-ground arresting system for commercial airports and transport category aircraft. Working under a Cooperative Research and Development Agreement (CRDA) with the FAA, PANYNJ and others, ESCO developed a new type of predictable and reliable soft-ground arresting system. ESCO's Engineered Materials Arresting System, EMASMAX®, has the distinction of being the first, and currently only, engineered aircraft arresting system certified for airport runway safety areas and satisfying Part 139 requirements. ESCO sets the standard for providing quality and reliable products and services. We offer a full range of services including design, production, installation and technical support.

Esterline CMC Electronics

Esterline CMC Electronics is a major supplier to the aerospace and high-technology industries, airlines, military agencies and government customers around the world. CMC's leading-edge military and commercial avionics include navigation and flight management systems (FMS); global positioning system (GPS) receivers; satellite communications antenna systems; electronic flight bags (EFB); enhanced vision system (EVS) sensors; head-up and multi-function displays (HUD and MFD); mission computers and portable mission displays. Its product portfolio also features a wide range of custom avionics components and microelectronics. CMC's breadth of experience extends to military, fixed and rotary wing aircraft such as the C-130 air transport, P-3 patrol aircraft, UH-60M, HH-60M and HH-60L Black Hawk helicopter, and a variety of trainer aircraft. The company has world leading expertise in upgrading the cockpits of air transport aircraft such as the B-747, DC-10 and MD-80 fleets with GPS, FMS, display systems and sensors. Principal Locations: Montreal, Ottawa and Chicago.

"To understand the place of humans in the universe is to solve a complex problem. Therefore I find it impossible to believe that an understanding based entirely on science or one based entirely on religion can be correct."

–Wilton Robert Abbott, aerospace engineer

Esterline Defense Technologies

Esterline Defense Technologies (EDT), comprised of Armtec Defense Products, Armtec Countermeasures and Wallop Defence Systems, is the leading developer and manufacturer of infrared (IR), kinematic and spectrally matched decoy flares and radar countermeasure chaff used to protect aircraft from the most advanced heat seeking and radar guided missiles. EDT is also a premier developer and manufacturer of combustible ordnance products incorporated into tank, mortar and artillery ammunition. With facilities in five locations between the U.S and U.K., EDT is dedicated to serving the expendable countermeasures and combustible ordnance needs of its customers worldwide and is proud of their role in contributing to the preparedness of the US and allied armed forces.

Evans Composites, Inc.

Evans Composites, Inc. is a privately owned small business founded in 2001 and centrally located in Mansfield, Texas. Specialized services includes repair, overhaul, and fabrication of aircraft structural and non-structural components made using metal bond, composite bond, and conventional sheet-metal assembly techniques. Primary concentration is on flaps, slats, leading edges, spoilers, trim tabs, elevators, rudders, nacelles, cowlings, doors, access panels, and fairing assemblies. Repairs can be custom crafted beyond those available in the OEM maintenance manuals. In addition, Evans Composites has capability to fabricate composite and sheetmetal parts to replace BER units or to replenish stock. Evans Composites is an FAA and EASA Certified Repair Station, and ISO9001:2000 and AS9100B Registered.

For more information about Evans Composites, Inc. capabilities and preferential services please visit our website: www.evanscomposites.com.

FedEx

FedEx Express is the world's largest express transportation company, providing fast and reliable delivery to every U.S. address and to more than 220 countries and territories. FedEx Express uses a global air-and-ground network to speed delivery of time-sensitive shipments, usually in one to two business days with delivery time guaranteed. FedEx Express and its employees handle over 3.4 million packages every day. FedEx aircraft, which comprise the world's largest all-cargo fleet, have a combined lift capacity of more than 26.5 million pounds daily. In a 24-hour period, FedEx planes travel nearly one-half million miles. FedEx couriers log 2.5 million miles a day, the equivalent of 100 trips around the earth. FedEx is one of the world's great success stories; in the past 38 years, the company that revolutionized the delivery of packages has grown into a diverse family of companies – a FedEx that's better than ever. Visit FedEx at http://www.fedex.com.

Federated Software Group, a division of Tapestry Solutions, Inc

Federated Software Group provides innovative software solutions . Our diverse DOD portfolio includes: Global Decision Support System (GDSS), Single Mobility System (SMS), Events Logbook (ELB), Joint Air Logistics Information System-Next Generation (JALIS-NG), Coalition Mobility System (CMS), Integrated Management Tool (IMT), and MAF/CAF Interoperability.

Flightcom Corporation

Flightcom Corporation founded in 1983 and headquartered in Portland, Oregon, manufactures a full line of communication headsets for general and corporate aviation, ground support, fire & emergency services and military applications. Flightcom's military products fully support airlift operations on a wide variety of airframes. Designed for both aircrews and maintainers, Flightcom's durable, field supported headsets withstand rugged environments and are USAF approved. Our outstanding Active Noise Reduction (ANR) technology enhances communication and prevents noise fatigue, while also providing SAT/cell phone capability and auxiliary audio input functionality. In addition, Flightcom's passive headsets offer superior noise protection and are durable enough to maintain high performance in harsh environments. Additional capabilities include wireless headset / intercom system for vehicular and ground based applications. With twenty-six years experience in cockpit and ground communications, Flightcom's military division offers a broad range of communication products suitable to most military applications.

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 aircraft simulators are designed and built by its Simulator Systems near Tulsa. Company training encompasses all facets of aviation – commercial, corporate, private and military. Included in its military programs, FlightSafety operates and maintains the C-5, KC-135, AND KC-10 Aircrew Training Systems for the United States Air Force. It also operates the Contractor Logistics Support (CLS) program for the T-38 and T-6A programs. The company has developed and deployed the Joint Primary Aircrew Training System (JPATS) ground based training system for the USAF and the Navy and provides logistics support for its continued operation. Since its founding, the company has always championed that: "The best safety device in any aircraft is a well-trained crewmember."

Gander International Airport

Gander International Airport (CYQX) has served as a strategic military staging point and technical stop since 1939. In its role as a joint civilian/military airport, CYQX hosts over 2,000 military aircraft annually ranging from F-18s to C-17s 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, an operating unit of General Electric Company, is one of the world's leading manufacturers of jet engines, integrated digital systems, electrical power and mechanical systems for civil and military aircraft. GE Aviation has a global presence and is proud to deliver world-class maintenance and support services for all of its customers. Visit GE - Aviation at www.ge.com/aviation. CFM International is a joint company of General Electric Company, U.S.A and Snecma Moteurs, France. For more information visit CFM International at www.cfm56.com.

Global Aviation Holdings

Global Aviation Holdings (Global), through its wholly-owned subsidiaries World Airways (World) and North American Airlines (North American), is the largest commercial provider of charter air transportation for the U.S. military, and a major provider of worldwide commercial global passenger and cargo air transportation services. Global offers a combined fleet of more than 30 cargo and passenger aircraft and we take pride in being the leader in customized air transportation with our fleet of B747, MD11, DC10, B767 and B757 aircraft. With a reputation for first-class customer service, technical and operational performance, and excellence in safety, Global sets the standard for Customized Air Transport including charter flight services and air cargo transport.

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

–Abraham Lincoln

Global Ground Support

Global Ground Support offers an array of systems that can be built for the military. Global currently builds two deicer models for the United States Air Force. The GL-1800 and the ER-2875. The ER-2875 is designed for the C5 and C17 aircraft.

Global also offers a Family of Decontamination systems that are equipped with aerial devices. The Global Tow vehicle or bobtail, is equipped to tow loaded cargo carts and trailers.

Goodrich Sensors and integrated Systems

Goodrich Corporation is a global supplier of products, systems and aftermarket services to the aerospace, defense and homeland security markets. With annual revenues of $6.4 billion, Goodrich is headquartered in Charlotte, North Carolina, and employs more than 24,000 people worldwide in over 90 facilities across 16 countries.

Goodrich's customers include aircraft and engine manufacturers, airlines and defense forces around the world. The company's transformation into one of the world's largest aerospace companies has been driven by strategic acquisitions and internal growth fueled by innovation and quality. From aerostructures and actuation systems to landing gears, engine control systems, sensors and safety systems, Goodrich products are on almost every aircraft in the world.

Some products include SmartProbe™ air data systems, electronic flight bag systems, security and surveillance systems, fuel measurement and management systems, vehicle health management systems, ice detection and protection systems, and rescue hoists and cargo winches.

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 some 1,800 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 wide-cabin, high-speed Gulfstream G150®; the large-cabin, mid-range Gulfstream G200®; the new large-cabin, mid-range Gulfstream G250®; the large-cabin, mid-range Gulfstream G350®; the large-cabin, long-range G450®; the large-cabin, ultra-long-range Gulfstream G500®; the large-cabin, ultra-long-range Gulfstream G550® and the ultra-large-cabin, ultra-long-range G650®. Gulfstream also offers aircraft ownership services via Gulfstream Financial Services Division and Gulfstream Pre-Owned Aircraft Sales®. The company employs more than 9,700 people at seven major locations. We invite you to visit our Web site for more information and photos of Gulfstream aircraft at www.gulfstream.com.

General Dynamics, headquartered in Falls Church, Va., employs approximately 92,300 people worldwide. The company is a market leader in business aviation; land and expeditionary combat systems, armaments and munitions; shipbuilding and marine systems; and information systems and technologies. More information about General Dynamics is available online at www.gd.com.

Hamilton Sundstrand

Hamilton Sundstrand, a United Technologies Company.

One Hamilton RoadWindsor Locks, CT, 06096 USA
Tel: 860-654-6000
Fax: 860-654-2399
www.hamiltonsundstrand.com

Hamilton Sundstrand is a subsidiary of United Technologies Corporation (NYSE: UTX) and is headquartered in Windsor Locks, Connecticut. Among the world's largest suppliers of technologically advanced aerospace and industrial products, the company designs, manufactures and services aerospace systems and provides integrated systems solutions for commercial, regional, corporate and military aircraft. It is also a major supplier for global space programs.

Honeywell International

Honeywell International is a $38 billion diversified technology and manufacturing leader, serving customers worldwide with aerospace products and services; control technologies for buildings, homes and industry; automotive products; turbochargers; and specialty materials. Honeywell's shares are traded on the New York, London and Chicago Stock Exchanges.

Honeywell's aerospace business is a leading global provider of integrated avionics, engines, systems and service solutions for aircraft manufacturers, airlines, business and general aviation, military, space and airport operations.

Honeywell's Defense and Space business resides within its $12 billion aerospace business and provides the division with about 40 percent of the total aerospace sales. Honeywell Defense and Space designs, manufactures, markets and supports control, display and test systems for military aircraft and surface vehicles for the U.S. Department of Defense and its prime contractors. It provides similar systems for allied nations under licensed export agreements. Honeywell is ranked in the top 15 percent in Defense News magazine's top 100 Defense Industry Companies for 2007.

IBM

Rated consistently in the top 5 global supply chains by AMR Research, IBM's world class supply chain knowledge and thought leadership in technology makes it an ideal partner for the military's need for transformation. IBM integrates a powerful suite of global "sense and respond" capabilities, asset management, inventory optimization applications and processes to deliver 2 hour, 4 hour, and 24 hour time definite delivery of parts and maintenance to customers around the world. Through its vision and development of "Smart" technologies, IBM enables Military Commanders to instrument and interconnect an increasing number of intelligent devices to generate new levels of awareness, insight, and decision capabilities both at home station and in Expeditionary environments. Mission effectiveness and security are increased while infrastructure and energy costs are controlled more effectively. For more information about IBM Global Business Services, contact your IBM sales representative or Bob St Thomas at trst@us.ibm.com, or visit:: ibm.com/government.

ICG (International Communications Group)

International Communications Group, Inc. (ICG) of Newport News, Va. is a recognized leader within the aerospace industry, in the development and manufacture of aeronautical communications systems and solutions for the General Aviation and Air Transport industries. ICG's products provide satellite-based global voice and data telecommunications services for both cabin requirements and flight deck operations. Implementation of ICG avionics provides a comprehensive communications solution that can be customized for any size airframe or application. Products include: CTU systems, corded and cordless handsets, single- and multi-channel Iridium systems and data management devices. Markets for ICG products are the aerospace, military and maritime industries. ICG, a major Iridium value-added manufacturer (VAM) and value-added reseller (VAR), has developed a wide range of Iridium-based solutions and products for mobile satellite communications applications. ICG is an approved FAA manufacturing facility and many products carry FAA Parts Manufacturing Authorization (PMA).

ITT Electronic Systems

ITT's Electronic Systems business is one of the world's leading suppliers of electronic warfare technology enabling mission success and survivability. Key technologies include integrated systems for self-protection, reconnaissance and surveillance, force protection, mine defense, naval command/sonar applications, and submarine communication and tracking. Electronic Systems also produces aircraft armament suspension/release equipment; electronic weapons interface systems, advanced composite structures/subsystems, ceramic components and subsystems, and Gilfillan precision landing and air traffic systems.

JBT AeroTech (formerly FMC Technologies)

John Bean Technologies Corporation (JBTC) is a leading global technology solution provider to high-value segments of the air transportation industry. JBT AeroTech is a business unit of JBTC and markets its solutions and services to domestic and international airport authorities, passenger airlines, air freight and ground handling companies, and the United States military. JBT AeroTech designs and manufactures cargo loaders, tow tractors, air conditioning units, deicers, passenger boarding bridges, automated guided vehicle systems, and other technologically sophisticated aviation ground support systems, products, and services for customers worldwide. JBT AeroTech currently supplies the U.S. Air Force with the Halvorsen 25K Aircraft Loader, Halvorsen 44K Loader (Canadian Forces), conventional MB-2 Tow Tractors (U-30, B-600, B-450), Diesel and Electric Air Conditioners (DAC/EAC), and the Trailer Mounted Air Conditioner (TMAC). Backing these world class designs, JBT AeroTech provides superior logistical support that services over 10,000 pieces of equipment at over 800 locations, in over 100 countries. With business centers worldwide, JBT AeroTech has grown into what industry experts call "the leading supplier of aircraft ground support equipment in the world."

Jeppesen

Jeppesen is a proud industry leading provider of aeronautical data and mission planning solutions to the global airlift and tanker market. Whether it is MilPlanner calculating your flight plan, NavData® running on your FMC, or our dispatchers supporting your flight operations, Jeppesen enables your worldwide mission. Jeppesen offers a complete suite of mission support products and services called the "Total Mission Solution." This comprehensive software suite, enables long range planning, mission tasking, mission execution and operations management, including the only cross-platform, operationally-approved Electronic Flight Bag in the industry. Many of these solutions are integrated into our Air Operations Center, a suite of applications that enable operations, reduce fuel costs, and expedite the tasking process. Leveraging the data that has made Jeppesen a leader in the industry for over 70 years, the Total Mission Solution empowers our customers to increase mission effectiveness and efficiency in today's complex global environment.

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.

L-3 Communications Integrated Systems

L-3 Communications Integrated Systems develops and integrates defense and commercial technology for U.S. and allied customers worldwide. Headquartered in Greenville, Texas, L-3 IS has more than five decades of experience in the development of complex intelligence, surveillance and reconnaissance systems; command and control; and secure communications. It is recognized internationally as a systems integration organization specializing in the modernization and maintenance of aircraft of all sizes. It is a leader in advanced technologies for signal processing, electronic countermeasures, sensor development and aircraft self-protection. Systems provided or maintained by L-3 IS help protect military and civilian personnel, bases, assets and national borders throughout the world.

"The miracle, or the power, that elevates the few is to be found in their industry, application, and perseverance under the prompting of a brave, determined spirit."

–Mark Twain

Little Giant Ladder Systems

Little Giant Ladder Systems® is the manufacturer of the popular *As Seen on TV* "Classic" ladder, Little Giant Safety Step, Aircraft Support, Tactical, Assault Ramp and our newest creation Revolution XE and Synergy ladders. Our ladders are used by all branches of the Armed Services, governmental agencies and police departments around the Nation. Available in aluminum and fiberglass, the Little Giant is a multi-functional telescoping ladder system made 100% in the US. Our ladders are made from heavy wall 6005 T-5 aluminum and are the safest, versatile and most durable in the world. Special reduced government pricing is available for government agencies and employees. Contact Mark Anderton for special pricing at govsales@ladders.com or 801-806-9364. Available direct, GSA Schedule or DOD-E-mall.

Lockheed Martin Aeronautics Company

Lockheed Martin Aeronautics Company is known for building the finest military aircraft in the world. This recognition was earned through relentless research and development of high-performance aircraft and by continuously seeking innovative and low-cost design and manufacturing strategies. At Lockheed Martin Aeronautics Company, our products play an important role in the defense of the United States and many other countries, and they help ensure peace and stability around the world. Our long list of dependable and highly regarded aircraft includes the proven and affordable fighter, the **F-16 Fighting Falcon**; the versatile airlifter, the **C-130J Super Hercules**; the first operational stealth fighter, the **F-117 Nighthawk**; and the next-generation fighter, the **F-22 Raptor**. The company has been awarded the contract to build the multi-service, multi-mission **F-35 Joint Strike Fighter** of the future. The company conducts aircraft through-life sustainment as well as upgrade and modernization programs for legacy platforms such as the C-5 and the P-3.

McLane Advanced Technologies, LLC

McLane Advanced Technologies, LLC (MAT) provides on-time, on-budget, value-added logistics, security, and information technology services. This values-based corporate culture has allowed MAT to grow into a recognized leader in the government, military, and commercial technology industries. MAT excels in providing custom software solutions. In addition, MAT specializes in distribution systems, enterprise solutions, systems integration, operational logistics, training, testing, and consulting services. Contact us today to learn more at 254-770-6165 or visit our website at: www.mclaneat.com.

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 currently delivers general aviation services through a chain of separate franchises strategically located across the United States, Canada and the Caribbean.

Freeman Holdings, L.L.C. owns Million Air FBO franchises in Alexandria, LA; Lake Charles, LA; Rome, NY; Moses Lake, WA; Topeka, KS and Victorville, CA. Each one of these locations has the DoD fuel contract. Freeman Holdings 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 are the MilAir in Million Air. We offer the best barbeque and Po Boy sandwiches at our Jet-A-Way Cafés. Freeman Holdings FBOs are the only FBOs in the country that can serve 100 passenger meals at quick turn speeds.

National Air Cargo

National Air Cargo is a customer oriented, technically advanced air freight forwarder to the world. Our global reach is maintained via strategically situated offices in Bahrain, Germany, Japan, Korea, Malaysia, Qatar, the UAE, Tokyo and our US HQ in New York. National Air Cargo provides door-to-door charter, next flight out, overnight and second day air cargo services worldwide 24/7/365. We specialize in oversized and heavy-weight cargo requiring a high service level and time-critical delivery. Visit us on the web at www.nationalaircargo.com/home.asp.

Northrop Grumman Corporation

Northrop Grumman Corporation is a global defense company headquartered in Los Angeles, California. Northrop Grumman provides technologically advanced innovative products, services, and solutions in systems integration, defense electronics, information technology, advanced aircraft, shipbuilding, and space technology. With more than 120,000 employees, and operations in all 50 states and 25 countries, Northrop Grumman serves U.S. and international military, government, and commercial customers.

Omega Aerial Refueling Services, Inc. (OARS)

Omega Aerial Refueling Services specializes in providing fee for service in-flight-refueling for US Navy and other "probe and drogue" combat aircraft.

Oregon Aero, Inc

Oregon Aero, Inc. designs and manufactures 500+ products that represent engineered solutions to eliminate pain, improve impact protection and reduce noise. We generate continuous research and innovation within a context of sound experience and proven product performance. Our Seat Cushion and **High-G®** Seat designs and materials work together to create pain-free, durable, low-maintenance seating that improves aircrew endurance by eliminating distractions caused by seat pain. Other products include **Painless, Quieter™** Aviation Headset and Helmet Upgrades, Ballistic Helmet Liner Pads and Retention Systems, Painless Portable Seat Cushion Systems, Impact-Absorbing ShockBlockers ® Insole Inserts, Aviation Accessories, Specialty Tools, Knee and Elbow Pads, Kneeling Pads, Helmet and Headset Gear and Hand Sewn Aviation and other Equipment Bags. Free catalog. www.OregonAero.com. 800-888-6910.

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

–Charles F. Kettering

Parker Aerospace

Parker Aerospace is an operating segment of Parker Hannifin Corporation and designs, manufactures, and services hydraulic, fuel, flight control, and pneumatic components, systems, and related electronic controls for aerospace and other high-technology markets. Its products are on aircraft manufactured throughout the world, including commercial transports, military fixed-wing planes, regional and business aircraft, helicopters, missiles, and UAVs. Parker Aerospace operates over 39 facilities in the Americas, Europe, and Asia. Phone: (949) 833-3000; Website: www.parker.com.

Pratt & Whitney

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 80 year association and support of the United States Air Force as it powers key airlift and fighter aircraft applications worldwide. Our military engines power the Air Force's front line fighters today – the F-15 and F-16 – and our F119 and F135 engines will power the front line fighters of the future – the F/A-22 Raptor and F-35 Joint Strike Fighter. Our rocket engines send payloads into orbit at 20,000 miles per hour. Four F117 engines power the Boeing C-17 Globemaster III, the U.S. Air Force's premier airlifter. The F117 is a derivative of the PW2000 commercial airline engine that powers the Boeing 757 aircraft. Pratt & Whitney's unmatched record in customer-focused customized maintenance, material, and fleet management programs ensures flight readiness to our partners around the world.

Raytheon Company

Raytheon Company, with 2008 sales of $23.2 billion, is a technology and innovation leader specializing in defense, homeland security and other government markets throughout the world. With a history of innovation spanning 87 years, Raytheon provides state-of-the-art electronics, mission systems integration and other capabilities in the areas of sensing; effects; and command, control, communications and intelligence systems, as well as a broad range of mission support services. With headquarters in Waltham, Mass., Raytheon employs 73,000 people worldwide.

"The prudent see only the difficulties, the bold only the advantages, of a great enterprise; the hero sees both; diminishes the former and makes the latter preponderate, and so conquers."

–Johann Kaspar Lavater

Rockwell Collins

At Rockwell Collins, our goal is to provide the right solutions at the right time to enable our customers' mission success. Our airborne and surface solutions have been selected by the U.S. Department of Defense, ministries of defense throughout the world as well as domestic and international military platforms manufacturers. Rockwell Collins' communication, navigation and display products, as well as integrated systems and services are enhancing airborne, ground and shipboard applications.

A prime example of our integration capabilities is the United States Air Force C/KC-135 Global Air Traffic Management (GATM) program. As the flight deck systems integrator, we are providing technology through an open systems approach that upgrades the aircraft for changing Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) requirements, enabling operability in both commercial and military airspace. As of May 2009, Rockwell Collins has delivered over 290 GATM modified KC-135 aircraft, on time and on budget.

In addition, our avionics and display systems are providing CNS/ATM cockpit upgrades for more than 100 international C-130 aircraft operating around the globe. And we are applying technology developed across our government and commercial businesses on an important new global tanker refueling program - the Boeing KC-767 - that has already been selected by the Japanese and Italian governments.

Rolls-Royce North America

Rolls-Royce plc operates in four global markets - civil and defense aerospace, marine and energy. Its investment in technology and capability in each of these sectors has produced a competitive range of products. The success of these products is demonstrated by the company's rapid and substantial gains in market share over recent years. As a result, the company now has a total of 54,000 gas turbines in service worldwide.

Rolls-Royce has a broad customer base comprising more than 500 airlines, 4,000 corporate and utility aircraft and helicopter operators, 160 armed forces and more than 2,000 marine customers, including 50 navies.

SAFRAN

SAFRAN is an international high-technology group with three core businesses: Aerospace Propulsion, Aircraft Equipment and Defense Security. It has 54,500 employees in over 30 countries, and annual revenues exceeding 10 billion euros. The SAFRAN Group comprises a number of companies with prestigious brand names, and holds, alone or in partnership top-tier positions in the following businesses: propulsion technology, engine equipment, nacelles, landing systems, electrical systems and composite materials. The group's customer list includes major prime contractors, more than 500 airlines, 1,200 helicopter operators and 48 armed forces around the world.

Science Applications International Corporation (SAIC)

SAIC is a FORTUNE 500(R) scientific, engineering, and technology applications company that uses its deep domain knowledge to solve problems of vital importance to the nation and the world, in national security, energy and the environment, critical infrastructure, and health. The company's approximately 45,000 employees serve customers in the U.S. Department of Defense, the intelligence community, the U.S. Department of Homeland Security, other U.S. Government civil agencies and selected commercial markets. SAIC had annual revenues of $10.1 billion for its fiscal year ended January 31, 2009. For more information, visit www.saic.com.

Sanmina-SCI Corporation

Sanmina-SCI Corporation is a leading electronics contract manufacturer serving the fastest-growing segments of the global Electronics Manufacturing Services (EMS) market. Recognized as a technology leader, Sanmina-SCI provides end-to-end manufacturing solutions, delivering unsurpassed quality, and support to OEMs primarily in the communications, defense and aerospace, industrial and medical instrumentation, multimedia, computer and server, and automotive technology sectors. Sanmina-SCI has facilities strategically located in key regions throughout the world.

Sanmina-SCI Defense and Aerospace Systems offers a wide range of design, development and manufacturing services to the U.S. Government and to major aerospace prime contractors, including all of the major U.S. armed services, Boeing, Northrop Grumman, Lockheed Martin, Raytheon, and many others. DAS is a leader in the design of communications and data processing equipment, utilizing all of the major processing and data bus architectures. DAS maintains this leadership through long-standing, ongoing Internal Research and Development (IR&D) projects.

Satcom Direct Communications, Inc.

Satcom Direct is the leading innovator of satellite voice, fax and broadband data service solutions for Military, Government and Heads of State aircraft that demand secure and reliable global communications. Our extensive product portfolio includes: Inmarsat's SwiftBroadband, Swift 64 and Classic Voice; Iridium Aero Services; and ViaSat's Yonder Ku-band Mobile Broadband. In addition our primary product, Global One Number, is an advanced connection service for aeronautical, maritime, and land mobile applications that make satellite communications as reliable and simple to use as ground-based telephones. Satcom Direct's innovative technologies also include Aero V, Aero X, FlightDeck Freedom, OneView, Plane Simple, and Satcom OnSite.

"Carry on any enterprise as if all future success depended on it."

–Cardinal Richelieu

Spokane Industries

Spokane Industries is a leading supplier of aviation fuel servicing equipment to the DoD. We are located in Spokane Valley, Washington. Our Legacy fuel bowsers number in the thousands and are on military flightlines worldwide. The SealVac Vacuum Defuel System is our signature product. Units around the globe are discovering the benefits of depuddling faster, safer, and cleaner with this groundbreaking maintenance system. The recent introduction of the SealVac Plus variant allows units to filter reclaimed fuel for immediate reuse. Our HandiFueler AGE Service Cart is proving to be a hit with AGE units throughout the Air Force, enabling AGE servicing to occur on the ramp, not just at the AGE yard. All of these products are available with GSA pricing. Please visit: www.spokanemetalproducts.com.

Standard Aero

StandardAero, a Dubai Aerospace Enterprise (DAE) company with $1.4 billion in annual revenue, specializes in engine maintenance, repair and overhaul, and nose-to-tail services that include airframe, interior refurbishments and paint for business and general aviation, air transport, and military aircraft. The company, part of the DAE Engineering division, forms a global services network of 12 primary facilities in the U.S., Canada, Europe, Singapore and Australia, with an additional 14 regionally located service and support locations. StandardAero services engines used on corporate/business aircraft, commercial airliners, helicopters and government/military aircraft, including the PW100/600, PT6A, TFE731, Model 250, T56/501D, AE3007, AE2100, and CF34®.

Telephonics Corporation

Telephonics is organized into two operating units, each with a different product/technology focus: Communication Systems, specializing in communication management systems, wireless intercommunications and communication system integrations; Command Systems, specializing in maritime surveillance radar, identification friend or foe, and air traffic management and control systems

Telephonics provides the entire radio management and control system for the C-17 Program as well as the C-130 AMP Program. Telephonics is now engaged in a modernization program to incorporate an open system architecture solution into the C-17 aircraft. The Communication Open System Architecture (COSA) program will provide a full digital solution with software configured growth capability.

Telephonics' TruLink® Wireless Intercom has been successfully utilized on USAF platforms including the C-17, C-5, KC-10 and C-130 variants. TruLink® provides safety enhancement and operational efficiency with clear, unteathered voice communication.

Thales

Thales, an international company with staff based in the United Kingdom, United States, France and Australia, has been designing and integrating simulation and training systems for over fifty years, and is recognized as a world leader in the simulation and training industry. Our products and services cover Simulators and Training Devices for military and civil aircraft, helicopters, military vehicles and land based systems, Training Services for military customers and Modeling & Simulation and Synthetic Environments for studies of advances and complex systems. Thales' support of the Airlift and Tanker community includes training systems and training system upgrades for key aircraft such as the KC-10, KC-135, C-5, C-141, C-130, VC10, and L-1011, and we look forward to acting as an industry partner on the upcoming USAF KC-45A program.

TYBRIN Corporation

TYBRIN Corporation is a privately owned company founded in 1972. TYBRIN is a premier provider of process-based systems and software engineering products and services. TYBRIN embraces disciplined CMMI® and ISO® processes. A vast majority of our employees are degreed professionals, with many holding advanced degrees in the engineering and scientific disciplines. We focus on innovative solutions for our customers at the Department of Defense (DoD) and other Government organizations through: aircraft mission planning; systems engineering; logistics; range operations; space systems; aircraft compatibility; information systems; environmental engineering; combat environment simulation; engineering and test; range safety, and special operations.

With our corporate headquarters in Fort Walton Beach, Florida, TYBRIN supports over 230 global locations with superior service. Our customers include: Air Combat Command; Air Education & Training Command; Air Mobility Command; Air Force Materiel Command; Air Force Space Command; Pacific Air Forces; United States Central Command Air Forces; Air National Guard; Air Force Reserve Command; Special Operations Command; Army Aviation & Missile Command; US Army Space and Missile Defense Command; Army Fort Irwin Range; System Program Offices; Naval Air Systems Command; NASA; Defense Finance and Accounting Service; Defense Information Systems Agency; the State of Florida; and others, including many foreign countries.

USAA We know what it means to serve.®
INSURANCE · BANKING · INVESTMENTS · MEMBER SERVICES

USAA (United Services Automobile Association)

For over 85 years, USAA has proudly served the financial needs of the military and their families. For insurance, banking, investments, and financial advice, you can trust USAA to provide the convenience you need, savings you want, and service you deserve. Because with USAA, you're more than a member, you're part of the family we serve. Learn more at USAA.COM or call 800.531.USAA.

VOLGA-DNEPR AIRLINES
Волга Днепр

Volga-Dnepr Unique Air Cargo

Volga-Dnepr Airlines is the world's leading commercial carrier of outsized and super heavy cargo. It operates the world's largest fleet of An-124-100s possessing 10 stage III compliant An-124-100 freighters, 6 IL-76TDs . Since its founding in 1990, Volga-Dnepr has supported peace-keeping and relief operations from locations in Europe, Asia, Africa, Middle East. Volga-Dnepr is very involved with commercial sales in the United States supporting aerospace and oil and gas exploration industries.

As the first airline certified by the U.S. DoD to operate the An-124-100, Volga-Dnepr has been, and is, very involved in support of America's Global War on Terror providing to date over 3,500 missions transporting everything from helicopters, Mark V - SEAL boats, Patriot missile batteries and MRAPs. Volga-Dnepr also provides support to allied peacekeeping forces into the Middle East. Volga-Dnepr has a proven track record of reliable, on-time delivery of commercial and military cargo to all corners of the world.

"Government can't create wealth, but it can create the conditions for private enterprise to flourish."

–Bill Owens

Vought® Aircraft Industries, Inc.

Vought Aircraft Industries, Inc.

Vought Aircraft Industries, Inc. (www.voughtaircraft.com) is one of the world's largest independent suppliers of aerostructures. Headquartered in Dallas, the company designs and manufactures major airframe structures, such as wings, fuselage subassemblies, empennages, nacelles and other components for prime manufacturers of aircraft. Vought has annual sales of approximately $1.6 billion and about 6,700 employees in nine U.S. locations: Brea, Calif.; Dallas and Grand Prairie, Texas; Everett, Wash.; Hawthorne, Calif.; Milledgeville, Ga.; Nashville, Tenn.; North Charleston, S.C.; and Stuart, Fla.

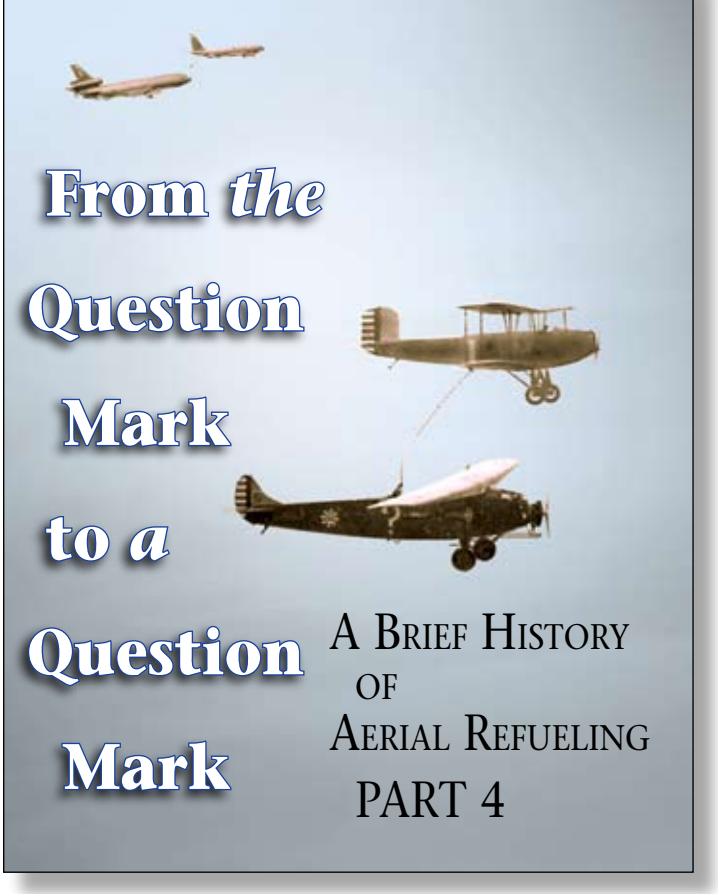
In support of airlift, Vought produces:

- Horizontal stabilizer, universal aerial refueling receptacle installation and provides engine buildup on the C-17
- Flight control surfaces for the C-5
- Empennage, ramp and ramp door, side skin assemblies, sponson, and main landing gear panels for the V-22
- Empennage for the C-130J

As America continues the worldwide fight against terrorism, we can rest assured that our Aerospace Industry is striving to provide America's warriors with the best weapon systems available. The active participation and sponsorship provided by our Industry Partners is important to the continued success of the Airlift/Tanker Association, and the application of new technological developments in their products and services is critical to the continued success of America's Air Mobility mission.

The members of the Airlift/Tanker Association understand and appreciate the importance of our Industry Partners to the Association's success, and we –

Thank You All for Your Generous and Continuing Support!



Air Refueling and Special Operations
Jeff Michalke

Within the Air Mobility Command community, when aerial refueling is discussed in modern times, the majority think of the KC-135 and KC-10 tankers. However, another facet of refueling involves the less familiar C-130 tankers and the special operations helicopters and tilt-rotor aircraft they support.

The Sikorsky R-4, first flown in January 1942 and the first operational helicopter of the US military, was a fascinating piece of machinery, but only had an operating radius of 60 miles. Nonetheless, military aviators viewed the helicopter as an instrument to rescue individuals from predicaments in difficult-to-reach areas.

As the Air Force matured, planners determined the helicopter would

A Sikorsky HH-3 receiving fuel from a C-130 somewhere over southeast Asia during the Vietnam war. (USAF File Photo).

be better utilized if its range could be extended. In 1964, the Air Rescue Service submitted a requirement for air refueling of helicopters. At first, engineers assumed helicopter air refueling would be extremely dangerous due to the helo's whirling and delicate blades and the downwash from the refueling tanker. Their initial recommendations had the helicopter trailing a drogue which a tanker would plug into and pump its fuel to the helicopter. A few others, however, thought differently.

Since the Air Force lacked probe-and-drogue tankers, an appeal was made to the Marines for use of one of their Lockheed KC-130 tankers. The Marines used these aircraft to refuel their A-4 Skyhawk jet fighters. On 17 December 1965—the 62nd anniversary of the Wright brothers' first powered flights at Kitty Hawk—a US Air Force CH-3 helicopter flew behind the KC-130. The KC-130 reeled out a drogue, and the CH-3 plugged in, proving the concept of helicopter inflight refueling. The date of 17 December now would also mark the Kitty Hawk of helicopter air refueling (HAR). That moment changed the general scope of helicopter operations forever.

Initially, HAR assisted the Air Rescue Service in plucking downed airmen from the jungles of Vietnam. The refueling extended the rescue helicopter's range and endurance necessary for successful operations. However, others envisioned the use of helicopters in covert operations.

In mid-May 1970, intelligence indicated US prisoners of war (POW) had been located in a camp on the outskirts of the city of Son Tay, 23 miles northwest of Hanoi, North Vietnam. The intelligence included reconnaissance photographs from SR-71 Blackbirds and Buffalo Hunter drones showing US POWs had hung their laundry out

An HH-60G Pave Hawk with the 55th Rescue Squadron maneuvers into position to refuel from an HC-130P/N with the 79th Rescue Squadron over Arizona. (U.S. Air Force photo by Airman 1st Class Veronica Pierce)

to dry in a pattern suggesting search and rescue. This intelligence led to Operation Kingpin, the raid into North Vietnam on 20 November 1970 to rescue the American POWs.

The combination of aircraft used for Operation Kingpin included A-1E strike aircraft, HH-3 and HH-53 helicopters, and C-130E cargo aircraft. Also included in this mix were two US Air Force HC-130P tankers. The plan called for the C-130Es to perform pathfinder duties and lead the flight of helicopters to the target location. However, before the aircraft could reach their final target, the HC-130Ps refueled the helicopters over Laos, prior to their entering North Vietnamese airspace. Although a small part of the operation, without air refueling, this rescue mission would have never happened. Despite intense planning and preparation, the operation failed in the sense that the POW camp was empty. Later intelligence revealed the POWs had been moved approximately four months prior to the raid.

Using C-130 aircraft for HAR proved useful throughout the Vietnam War. However, 10 years after the Son Tay raid, planners opted for ground refueling during the Iranian hostage rescue attempt in order to minimize the rescue force footprint. Conversely, this mode of refueling proved fatal. After the decision was made to abort the mission due to mechanical issues and morning twilight approaching, the helicopters began ground refueling for the flight out of Iran.

During this time, a Navy helicopter collided with an Air Force C-130, killing five Air Force crewmembers and three Marines. One can only speculate if the rescue attempt may have been a success had HAR been the means of refueling. Since then, US Air Force and Army special operations missions have depended greatly on air refueling as part of mission planning.

The CV-22 Osprey tilt-rotor aircraft can receive fuel from the MC-130H Combat Talon II, taking special operations inflight refueling to the next level. (USAF File Photo).

Operations Enduring Freedom and Iraqi Freedom have been special operations centric vice conventional air operations. As such, US special operation missions rely heavily on helicopter support. To ensure these aircraft successfully complete the mission, MC-130E Combat Talon (prior to their retirement), MC-130H Combat Talon II, and MC-130P Combat Shadow aircrews provide the tanker support. Although their missions are not as glamorous as their gunship counterparts, they do play a very important role in a mission's success.

The future of Air Force Special Operations Command helicopter and tilt-rotor refueling operations is the MC-130H Air Refueling System. The MC-130H Combat Talon II has been equipped with a state-of-the-art, digital, refueling pod which has a variable-speed drag drogue. This variable-speed drogue not only permits refueling of slower-moving US Army helicopters, but also the newly fielded high-speed CV-22 Osprey tilt-rotor. With this system, special operations inflight refueling has been taken to the next level.

Operation El Dorado Canyon
By Lillian E. Nolan

April 2009 marked the 23rd anniversary of Operation El Dorado Canyon. Numerous terrorist-related incidents led to the retaliatory strikes against Libya by United States Air Forces in Europe (USAFE) and the United States Navy (USN) on 14 and 15 April 1986. This complex joint operation pulled in US Air Force aircraft from Royal Air Force (RAF) bases in England as well as aircraft based in the United States and those aboard the USN carriers in the Mediterranean.

The year 1986 began with President Ronald W. Reagan proclaiming economic sanctions against Libya by invoking the International Emergency Economic Powers Act in early January. By March, the United States Sixth Fleet had sent two Navy carriers, the USS Coral Sea and the USS America, to the Mediterranean.

The arrival of the carriers did not put an end to terrorist attacks as just a couple of weeks later, on 2 April 1986, a bomb detonated on board Trans World Airways (TWA) Flight 840 en route from Rome, Italy, to Athens, Greece. There were approximately 115 people on the TWA flight that day. The explosion, which occurred in midair over Argos, Greece, sucked four US civilians through a hole in the fuselage to their deaths, including a baby. While five others were injured, the remaining passengers survived the blast, and the aircraft was able to land safely at the Hellinikon International Airport in Athens.

That act of violence was followed just a few days later by another bombing, this one at the "La Belle" discotheque in West Berlin, a club known to be frequented by United States military men and women. On the evening of 5 April, more than 200 people were injured, and a service member and a civilian were killed when the explosion destroyed the disco.

Just five days later, on 10 April, President Reagan ordered retaliation when intelligence sources intercepted message traffic that placed responsibility for these terrorist activities on Colonel Muammar Qadhadfi, president of Libya, and supporters loyal to his cause. Thus began Operation El Dorado Canyon, which culminated in the bombing of multiple suspected terrorist targets in Tripoli and Benghazi, Libya. At the outset, Admiral William J. Crowe, Jr, the Chairman of the Joint Chiefs of Staff, advised the President this operation should be conducted jointly with the US Air Force and the US Navy. Several possible plans had been put together, and when the time came for implementation, the decision was made to have Air Force fighters hit targets in Tripoli and Navy fighters hit targets in Benghazi simultaneously.

Strategic Air Command KC-10 Extenders were flown from the United States and were joined by KC-135 Stratotankers to support this operation. Most of the tankers came from over a dozen stateside wings as well as from bases in Europe. The tankers, USAFE F-111s, and US Navy A-6 Intruders and A-7 Corsairs teamed up to become primary players participating in this joint effort that spanned two continents, with the Navy operating from the Mediterranean and the Air Force from the United Kingdom.

A Vought A-7K Corsair II of the 162nd Fighter Wing, Air Education and Training Command, based at Tucson International Airport (Arizona, USA), is being refueled in flight by a McDonnell Douglas KC-10A Extender aircraft over Edwards Air Force Base (California, USA) on 21 Apr 1982. These types of aircraft participated in Operation El Dorado Canyon in 1986. (USAF Photo, Harrison).

From the beginning, this operation faced major obstacles. The political climate at that time was one of trepidation among the European nations, particularly concerned that retaliation would lead to an increased level of terrorism. Therefore, the US was denied overflight rights by France and Spain, forcing the aircraft to fly around the Iberian Peninsula and through the Strait of Gibraltar to get to their targets. This detour added approximately 1,300 nautical miles to the trip each way, making the round trip over 5,000 nautical miles and adding 6 to 7 hours of flying time.

Approximately 28 tankers departed from RAF Mildenhall and RAF Fairford at 1713 Greenwich Mean Time (GMT) on 14 April and arrived at their fighter drop-off location at midnight GMT to begin the

F-111F aircraft and an EF-111A Raven aircraft, rear, fly in formation over the desert during Operation Desert Shield. The aircraft are assigned to the 48th Tactical Fighter Wing. Aircraft of these types participated in Operation El Dorado Canyon in 1986. (USAF File Photo).

attacks. Twenty-four F-111s left the British base at Lakenheath, while 5 EF-111s, along with 5 tankers, came from RAF Fairford a short time later. After departing the United Kingdom, the tankers refueled the F-111 strike force four times under complete radio silence on the way to the targets, with the first of those refuelings taking place near Land's End, England. That was not as easy a task as it might sound when you

"Self defense is not only our right, it is our duty. It is the purpose behind the mission...a mission fully consistent with Article 51 of the U.N. Charter...I warned that there should be no place on earth where terrorists can rest and train and practice their deadly skills. I meant it. I said that we should act with others, if possible, and alone, if necessary, to insure that terrorists have no sanctuary anywhere. Tonight we have...When our citizens are abused or attacked anywhere in the world, we will respond in self-defense.

If necessary, we will do it again."

—President Ronald Reagan

consider that at that time the KC-10 was a rare sight in Europe, as they were quite new to the inventory, and there were none stationed in Europe. This meant that few of the F-111 pilots had ever taken fuel from a KC-10, and one pilot had never even seen that aircraft prior to this operation. Now, here they were, not only taking fuel from them but doing so at night and in complete radio silence!

Land's End was also about the point where the KC-135s began their refueling of the KC-10s. The focus of the KC-135s was to keep the KC-10s fueled so the KC-10s would then have the range necessary to enable the attack aircraft to make it to their destination, deliver weapons on target, and return safely to the United Kingdom. This operation was planned utilizing the strengths of each type of aircraft, taking into consideration that the KC-135s, by refueling the KC-10s, were providing the extended range the KC-10s would need in order to conduct their part of this complex mission effectively and also realizing that the KC-135s were not capable of being air refueled. The KC-135 could deliver 127,700 pounds of fuel, while the KC-10 could only deliver 98,500. However, the KC-10 had a range of 3,000 nautical miles, compared to the 1,500 nautical miles of the KC-135. This demanded a team approach, optimizing the extra fuel capacity of the KC-135s to keep KC-10 fuel tanks full. When the Stratotanker crewmembers reached the Strait of Gibraltar, having accomplished their segment of the mission as planned, they returned to England feeling confident that the KC-10s were now able to get the F-111s safely to their targets and back.

The Navy and Air Force aircraft reached Benghazi and Tripoli and began the bombings. The elapsed time of the attack totaled less than 12 minutes, but it sent a strong message. With Air Force and Navy forces working together, operating over 100 aircraft, the mission was a resounding success, and for a time after this operation, Libyan-sponsored terrorism declined.

Operation El Dorado Canyon required the use of both KC-135 and KC-10 aircraft. The KC-135 could deliver 127,700 pounds of fuel, while the KC-10 could only deliver 98,500. However, the KC-10 had a range of 3,000 nautical miles, compared to the 1,500 nautical miles of the KC-135. The focus of the KC-135s was to keep the KC-10s fueled so that they, in turn, could enable the attack aircraft to make it to the target and back. (USAF File Photo).

The mission's long duration was tough on the F-111 and KC-10 crews. Having to add all those miles by going around the Strait of Gibraltar made what would have been a seven-hour-long mission almost twice that! There were two casualties when what was most likely a Libyan surface-to-air missile shot down an F-111 and its two-man crew over the Gulf of Sidra.

Once again, tankers proved their worth by adding the global reach that was invaluable in this operation and in those soon to follow in the Middle East. ■

***To be continued in Winter 2010 edition of* A/TQ.**

Visit us at Booth #737

AAR
Mobility Systems
www.aarmobilitysystems.com

Introducing the AAR HESAMS

- Single Pallet Position
- Hard-sided
- Air Mobile
- Climate Controlled
- Flexible Mission Configurations

C-17 & C-130 SEAT PALLETS

ISU® CONTAINERS

Rapid Deployment Equipment • Expeditionary Systems
Sustainment, Integration & RESET Services

AT AAI, TRAINING AND SIMULATION SOLUTIONS ARE REALITY.

AAI's training and simulation capabilities are the real deal.

We design and develop total training solutions, featuring computer-based, interactive multimedia instruction (IMI) and high-fidelity, full-scale hardware devices effectively delivering practical and knowledge-based training.

Learn more by contacting us at 410-667-7170 or AAI-Services-Sales@aaicorp.com.

AAI

TEXTRON Systems

INNOVATION THAT WORKS.

aaicorp.com

By Major Douglas Kaupa,
Tanker Test Director, AFOTEC Detachment 5 Mobility Test Division, Edwards Air Force Base, Calif.

Ever wonder who determines the suitability of a new or modified weapon system? Who evaluates a system's effectiveness and reports how system modifications affect the warfighter? The Air Force Operational Test and Evaluation Center (AFOTEC) teams with the Air Mobility Command and other test communities to answer these questions daily, providing the warfighter with the most capable, reliable system before fielding. AFOTEC is charged with determining the effectiveness and suitability of a new or modified weapon system, whether the system is an aircraft, satellite, munitions, or communications and intelligence.

The Air Force's single operational test center, reports directly to the Air Force Chief of Staff regarding operational test results of all major weapon system acquisitions within the Air Force. AFOTEC is a Direct Reporting Unit (DRU) with five detachments located across the United States. AFOTEC's mission is to test and evaluate new weapon systems in realistic battlespace environments to provide fact-based, decision-quality data to inform decision-makers on a range of accurate, balanced, and complete assessments of effectiveness, suitability, and mission capability. Effectiveness is defined as the degree of mission accomplishment by the new system; can the system do its job? Suitability is characterized by the reliability and maintainability of a system; how well does the system conduct its mission? Operational testers stress the system to understand its capabilities, such as how a C-17 will respond from alert status in a hot, humid environment? Questions like these lead to AFOTEC's vision statement.

Personnel assigned to Detachment 5, AFOTEC, Edwards AFB, CA, performing tests aboard a C-130 aircraft. (Photo courtesy AFOTEC).

The AFOTEC vision ensures that from concept development to system fielding, AFOTEC maintains an operational focus ensuring our Airmen, and often Joint and Coalition partners, receive the capabilities required to complete their missions more effectively and with less risk. Warfighters need to understand what their system can or cannot do for them before they rely on the system in battle. It is AFOTEC who operationally tests new or modified systems. AFOTEC aids warfighters by helping define their system capabilities early in the acquisition process to avoid costly retrofits once the system arrives in the field. The capabilities definition review is conducted through integrated and high performance team meetings before the system is purchased or built.

A hypothetical example of concept refinement would be where Air Mobility Command plans to purchase a commercial, off-the-shelf aircraft already in passenger airline service, hauling cargo worldwide. The goal is to avoid building an aircraft from scratch to save time and field the aircraft soonest. However, if the aircraft is tasked to haul cargo pallets where airline passengers normally sit, there may be a weight issue on a floor originally designed for passenger use only. It is better to discuss floor strengthening decisions or other options before purchase, because once the aircraft is bought, a costly grounding period to upgrade the floor may likely occur. The warfighter may be without the airlift capability.

The initial phase of testing which occurs in a program's life cycle is called developmental testing (DT). DT's primary purpose is to assist in the engineering design and development of a system and is used to verify that critical technical parameters and contractual specifications have been met. For example, devel-

opmental test pilots and engineers would use DT to determine if a new aircraft can fly at the speed, altitude, and range specified in the contract. During the DT period, AFOTEC is actively engaged with the program's progress and may be required, per the program's acquisition plan, to report its findings in an operational assessment (OA). An OA can identify problems early in a program's lifecycle and may eventually reduce program slips and expensive fixes before a design has been finalized. Throughout the developmental phase, communication is imperative and AFOTEC personnel are busy reviewing capability and development documents while attending program meetings to ensure system effectiveness and suitability requirements are being addressed.

DT will eventually lead to and support certification of a system's readiness to enter operational testing (OT). Dedicated initial operational test and evaluation (IOT&E) is conducted on a final production-representative system. IOT&E is similar to test driving a full-sized prototype truck on muddy roads, paved highways, and sandy conditions before making a decision to purchase the final design. The warfighter's represented command will loan personnel to conduct the test-driving and AFOTEC evaluation teams will record the effectiveness and suitability by recording actual results or surveying crews. The results are reported to the system decision makers – the Office of the Secretary of Defense, Secretary of the Air Force acquisition officials, the Air Force Chief of Staff, the using command, and Air Force Material Command. Further, the AFOTEC test teams identify and prioritize system deficiencies while assessing the system. The list of prioritized deficiencies gives decision makers a chance to understand how well the system conducted its mission in a realistic environment, what issues warfighters might face in the field if the system is purchased as is, and what subsystems may require modification to avoid costly retrofits. As simple as the process sounds, acquisition has not always been conducted within these guidelines.

In an effort to speed up the acquisition process during the late 1960s, the Department of Defense (DoD) adopted a policy of "total package procurement." The total package procurement method tied development and production contracts together into one high-risk, fixed-priced contract to minimize fielding time. Contractors tested their system in a benign environment to prove a system worked, once. The end results were often devastating as costs soared, schedules slipped, and many systems were plagued by performance, reliability, and maintenance issues, which were only discovered after initial deployment. According to DoD reports, 21 of 22 major weapon systems used during Vietnam suffered severe operational deficiencies. The M-16 is a prime example, continuously jamming in the wet jungle environment of Southeast Asia. These severe deficiencies led to legislative action.

Congress established a mandate in Title X, United States Code, stating independent system operational test and evaluations are required in operationally realistic environments prior to a full rate of production decision. Within the mandate, interoperability became key for the multiple services. For instance, during C-5 development, both Navy vessels and Army vehicles were required to fit inside the new heavy lifter. Additionally, contractors involved in the system development cannot be involved during operational testing to ensure an independent review of the new or modified system. To ensure the Air Force complies with Title X, AFOTEC was established in 1974 as the Air Force's independent operational test agency representing the warfighter's interest by evaluating a system's effectiveness and suitability before purchase.

Checking progress of the Avionics Modernization Program (AMP) upgrade on a C-5. (Photo courtesy AFOTEC).

AFOTEC's primary focus is on programs that are either acquisition category (ACAT) I or II, which means their total program costs exceed certain values. AFOTEC also tests all programs that are on the Director, Operational Test and Evaluation (DOT&E) oversight list. With rare exceptions, programs that do not meet these parameters are tested by the using commands. Further defining the AFOTEC scope, two tenets are highlighted – operational effectiveness and suitability. Operational effectiveness is the degree of mission accomplishment when used by warfighters in the planned environment considering the system's organization, doctrine, tactics, survivability, and vulnerability. AFOTEC also evaluates operational suitability – the degree to which a system is placed in the field focusing on system reliability, maintainability, availability, human factors interactions, safety issues, and manpower requirements. The essential issue is – can the warfighter sustain the mission with the new or modified system? A new system might perform its mission effectively though a warfighter may not wish to purchase the system if it continuously breaks and requires numerous man-hours to repair. AFOTEC evaluates new systems for decision makers before they purchase, i.e., test before you buy. The test results are provided directly to the decision makers to assess system capability and provide valuable insight into how well the system performs in the field.

AFOTEC's approach to testing requires four main conditions before the start of dedicated IOT&E: production representative system, stabilized performance, trained warfighters, and defined operational environment. A production representative system requires the contractor's and warfighter's agreement on the final design. AFOTEC provides results on how the final representation operated. An intermediate solution is undesirable as later system modifications can alter system performance. Stabilized performance is when the system development has led to a repeated capability. For instance, can an aircraft navigation system define its location within a certain amount of time without software glitches? The warfighter takes center stage during IOT&E in the form of trained operational maintenance and crewmembers who operate the new or modified system. AFOTEC human factor engineers evaluate how well both experienced and new technical operators control a system based on their crucial feedback. Finally, the system is stressed in environments where it will be used by the warfighter. Arctic conditions, desert heat with blowing sand, and humid jungle situations are reviewed while the system conducts its missions. AFOTEC's Early Influence activities help define these approaches.

Early Influence is when operational test concerns are injected into a system's maturing acquisition process to achieve cost and schedule savings, avoid program delays and eliminate test redundancy. Some examples of AFOTEC early acquisition influence can be viewed as aiding the warfighter's system training plan, capability development document, concept of employment and integrating developmental and operational test events to minimize the overall test footprint. Beginning with the system's training plan, AFOTEC representatives will meet with the lead command to develop a training plan for the initial cadre through sustained system operations during its life cycle. AFOTEC uses its vast test experience to highlight concerns in the training plan and offer potential solutions early enough to avoid program setbacks.

"Early Influence is AFOTEC's formalized approach to refine capability requirements

and acquisition strategies, and then develop early integrated test and evaluation strategies and plans," said Maj. Gen. Stephen T. Sargeant, AFOTEC Commander. "We don't define requirements, but we can help refine them. If we get involved early, even before Milestone A, we can ensure requirements are testable, measurable and operationally relevant."

AFOTEC coordinates the system's capabilities with the lead command, reviewing and refining system requirements. The focus is on operationally realistic, testable criteria such as, can a new cargo aircraft carry five Humvees and travel 2,000 miles without fuel stops? An example of poor requirements, which would be difficult to test, might be "a new system must be twice as good as the legacy." "Twice as good" as compared to range, altitude or maintenance requirements? AFOTEC ensures the new or modified system can be objectively reviewed prior to IOT&E. Concept of employment (or operations) documents describe how a typical mission transpires. Will the system require special aircraft generation equipment to launch? If so, where will the special equipment be located to complete a mission and who will maintain the equipment?

According to General Sargeant, "Early Influence provides AFOTEC the greatest opportunity to affect emerging capabilities and is based upon the premise that issues discovered early, before we have a formal program, are more easily resolved and often less costly. It costs far less to identify and fix problems while acquisition strategies are still in the planning stage and designs are still in development. The warfighting, acquisition, and T&E communities working together early and throughout a program can enable the Early Influence approach."

Finally, AFOTEC develops a test event matrix breaking down suitability and effectiveness questions into separate missions. The test event matrix may also be combined with developmental test events. For instance, AFOTEC test members can conduct the takeoff and recovery of a test mission analyzing the suitability of a new aircraft while on the same mission developmental test pilots may analyze the aircraft's defensive system capabilities on a test range. Early Influence activities may cover several months to years before the actual IOT&E begins.

Once Early Influence, test planning, and combined DT/OT are completed, dedicated IOT&E begins. Using fully trained aircrew and maintenance personnel from the lead warfighter command, AFOTEC will deploy, for instance, an aircraft worldwide to test system suitability and effectiveness. Once the last test event occurs, IOT&E results are reported no later than 45 days prior to an acquisition decision, usually the full-rate production decision. The 45-day period allows decision-makers adequate time to review system performance. Did the new aircraft exceed warfighter requirements, meet requirements, have minor deviations with no significant impact, or fail to meet requirements with significant impact on mission accomplishment? AFOTEC's approach to testing is conducted by its headquarters, five detachments, and several operating locations across the United States.

AFOTEC oversees the testing of systems upgrades on the CV-22 Osprey, the Air Force's only tilt-wing aircraft. (Photo courtesy AFOTEC).

AFOTEC headquarters is located at Kirtland AFB, N.M., with more than 600 officers, enlisted, and civilian members representing aircrew, maintenance, communications, data analysts, human factor engineers, and technicians. These members come from all Major Commands with the majority of operational testers from Air Mobility, Air Combat, and Special Operations Commands. Currently there are five detachments and associated operating locations overseeing test missions.

AFOTEC Detachment 2 is located at Eglin AFB, Fla., and co-located with the Air Armament Center, is responsible for testing munitions and electronic warfare. Example test programs include Laser Joint Direct Attack Munitions and Joint Warning and Planning System.

Co-located with AFOTEC headquarters at Kirtland AFB, N.M., Detachment 3 focuses on communication, command, control, intelligence, surveillance, and reconnaissance systems. Key test programs include Net Enabled Command Capacity and Single Integrated Air Picture.

Situated at Peterson AFB, Colo., AFOTEC Detachment 4 evaluates space and ballistic missile defense systems covering program such as Space Based Infrared and Global Positioning Systems.

AFOTEC Detachment 5 is located at Edwards AFB, Calif., testing bomber, tanker, airlift, rotary-winged, and unmanned aircraft in conjunction with the Air Force Flight Test Center. Major programs include C-130J and avionic modernization programs (AMP), C-5 AMP and re-engine programs, CV-22, KC-X, RQ-4 Global Hawk upgrades, B-1 FAAD (Forward Area Air Defense) Instrument Data Link (FIDL), B-2 Radar Modernization Program (RMP), and B-52 Combat Network Communications Technology (CONECT) program.

Finally, AFOTEC Detachment 6 calls Nellis AFB, Nev., home and performs operational testing on fighter aircraft such as A-10C Precision Engagement, F-15E RMP, F-22, and Joint Strike Fighter.

AFOTEC detachments are focusing on developing early partnerships with the warfighting and acquisition communities.

"We capitalize upon our detachment test teams' expertise to further enhance our ability to positively affect programs early. The need for Early Influence is even greater now because of the long war we are engaged in," said General Sargeant. "Increased communication and coordination leading to greater team work and fewer surprises is what AFOTEC is striving to achieve, and we are increasing our efforts to work more closely with the acquisition and warfighting communities. AFOTEC's vector is clear. We intend to have a positive influence through early activities, and to that end we will get involved early with clear priorities. Our personnel will make timely involvement determinations and apply appropriate rigor to requirements development and test design. Our test designs will seek our opportunities for combined DT and OT testing whenever possible."

"Creating active involvement and institutionalizing Early Influence provides better and more capable systems to the acquisition decision makers and the warfighters sooner. The need for Early Influence is even greater now because of the long war we are engaged in. The bottom line is – these efforts will help the acquisition community to provide better, more capable systems to the warfighter…sooner…to accomplish their mission more effectively, with less risk to our Airmen and Joint and Coalition Partners," said General Sargeant.

In summary, AFOTEC tests and evaluates new weapon system capabilities in operationally realistic battlespace environments. AFOTEC's purpose for testing is to provide fact-based, decision quality data to inform acquisition decision makers on the system's effectiveness, suitability, and mission capability. The Center conducts testing and provides information from an independent, operational viewpoint. AFOTEC is the connection between the developer and the warfighter, ensuring the warfighter receives the most capable and reliable system in battle. ■

Editor's Note: All articles appearing in Air Mobility News & Views, unless otherwise indicated, are from the news services of the U.S. Air Force and Air Mobility Command.

War Hero Brought Home, Laid to Rest After 40 Years MIA

by Senior Airman Kenny Holston, 509th Bomb Wing Public Affairs

As three rifle vollies rang throughout Chapel Hill Memorial Cemetery, Kansas City, Kansas, on 27 July , the sounds meant a Vietnam War veteran who had been missing in action for more than 40 years was finally home to rest.

Active-duty members, retirees and their families gathered at Chief Master Sgt. Quincy Adam's final resting place to pay their respects. Among them was Staff Sgt. Adam Blankenship, cousin of Chief Adam.

"It's been a long road for our family waiting for this type of closure," said Sergeant Blankenship, assigned to the 436th Security Forces Squadron at Dover Air Force Base, Del. "I received the news while deployed to Afghanistan, and it really redefined the pride that I have in serving our country."

In keeping with tradition, the Whiteman AFB honor guard gathered its entire fleet to ensure a proper and honorable military funeral was carried out for the late Chief Adam and his family.

"Today is a good day," said Tech. Sgt. Dave Giberson, Whiteman AFB honor guard NCO in charge. "One of our own has been brought home; we've practiced long and hard for this day, so let's go out there and do what we do best."

As the funeral commenced and respects were paid, a Vietnam-era C-130 Hercules flyover was performed by an aircrew from the 62nd Airlift Squadron at Little Rock AFB, Ark. However, in homage to Chief Adam and his tie to the 41st Tactical Airlift Squadron, all of the crewmembers were former members of the 41st AS and volunteered for the opportunity to honor Chief Adam.

After the rifle vollies had been fired, Master Sgt. Gregory Giles of the honor guard detail presented Kenneth Adam, father of Chief Adam with a folded American flag on behalf of the United States for all his son sacrificed for his country.

Airmen from the Whiteman Air Force Base Honor guard fold a flag July 27 to honor Chief Master Sgt. Quincy Adam at Chapel Hill Memorial Cemetery, Kansas City, Kansas. Chief Adam is a Vietnam War veteran who was missing in action for more than 40 years. (U.S. Air Force photo/Senior Airman Kenny Holston)

"The feeling of handing over that folded flag was like nothing I've experienced in my 21 years of performing in the honor guard," Sergeant Giles said. "The fact that his son passed away before him while serving his country made my feelings that much more overwhelming. I was honored to perform such a service to say the least, and proud to have been a part of a very important funeral."

Chief Adam served in the Air Force during the Vietnam War as a C-130 loadmaster. Growing up, Chief Adam wanted nothing more than to fly, so joining the Air Force was only natural for him.

As the United States moved forward with efforts in Vietnam, Chief Adam and the rest of his crew got the call letting them know they were needed in Asia. Without hesitation, they set off to war in their C-130, call sign "Blind Bat 01."

Chief Adam and his crew carried out a regularly scheduled night flare drop mission over eastern Laos, adjacent to the northern most provinces of South Vietnam near the infamous Ho Chi Minh Trail. The trail, a crucial target for U.S. forces, was used by the Communists to transport weapons, supplies and troops from North Vietnam into South Vietnam.

As Chief Adam and his crew continued their routine mission, orbiting the target area, "Blind Bat 01" made its last radio contact with the airborne mission command and control center at 8:30 p.m., May 22, 1968. At 9:15 p.m., however, "Blind Bat 01" could not be reached and another C-130, "Blind Bat 02," was dispatched to search for the missing aircraft.

While searching, the aircrew of "Blind Bat 02" saw a large fire on the battlefield below. This was later deemed to be the wreckage of "Blind Bat 01." The entire crew was listed as MIA.

After 40 years, Chief Adam's remains were discovered in Southeast Asia and he was brought home to Kansas City, KS., to rest.

"It's such a relief to finally have this closure," said Kenneth Adam. "I've waited and prayed for this moment to come every day for the past 30 years, and now that's its finally here I can rejoice and rest easy knowing that my son is home." ■

Secretary Gates Returns Tanker Selection Authority to Air Force

by Samantha L. Quigley, American Forces Press Service

On 16 September, Defense Secretary Robert M. Gates announced that he has returned selection authority for the Air Force's next aerial-refueling tanker to Air Force officials.

The Air Force had awarded the contract for what's known as the KC-X to a Northrop-Grumman/EADS/Airbus consortium, which prompted a protest from rival bidder Boeing. The General Accountability Office found irregularities in the awarding of the contract, and Secretary Gates re-opened the bidding process on July 9, 2008, appointing the undersecretary of defense for acquisition, technology and logistics as source-selection authority.

Secretary Gates shelved the process two months later, however, telling Congress that rather than handing the next presidential administration "an incomplete and possibly contested process," he had decided to defer the procurement decision to the administration that would be elected in November.

In a speech at the Air Force Association's Air and Space Conference in Washington, D.C., Secretary Gates said he's confident that Air Force Secretary Michael B. Donley and Air Force Chief of Staff Norton A. Schwartz will handle the source selection well.

"I don't need to belabor the importance of getting this done soon and done right," he said, "and my office will continue to have a robust oversight role. We are committed to the integrity of the selection process…"

A draft request for proposals for the new tanker will follow, the secretary said. ■

WASP Awarded Congressional Gold Medal for Service

A dedicated group of patriotic female pilots were recognized by President Barack Obama July 1 at the White House for their invaluable service to the nation more than 60 years ago.

Women's Airforce Service Pilots Elaine Danforth Harmon, Bernice Falk Haydu and Lorraine H. Rodgers were joined by five female current Air Force pilots in the White House Oval Office to witness the president sign into law a bill to award the Congressional Gold Medal to the WASP.

"The Women Airforce Service Pilots courageously answered their country's call in a time of need while blazing a trail for the brave women who have given and continue to give so much in service to this nation since," President Obama said. "Every American should be grateful for their service, and I am honored to sign this bill to finally give them some of the hard-earned recognition they deserve."

The WASP was established during World War II with the primary mission of flying noncombat military missions in the United States, thus freeing their male counterparts for combat missions overseas. They were the first women ever to fly American military aircraft and they flew almost every type of aircraft operated by the Army Air Force during World War II, logging more than 60 million miles.

Being in the Oval Office while the president signed the bill awarding the Congressional Gold Medal to the WASP was exciting and "an honor," Ms. Harmon said. "It's really nice that all these women will be honored for their service."

"We didn't join the WASP looking for recognition, but were just doing what was needed during the war," she said. "Most everyone else in the country worked hard too and did their part to contribute to the war effort."

When young female pilots thank Ms. Harmon or call her a pioneer, she admitted to feeling slightly embarrassed and thoroughly impressed with today's military women aviators.

President Barack Obama signs S.614 in the Oval Office July 1 at the White House. The bill awards a Congressional Gold Medal to Women Airforce Service Pilots. The WASP program was established during World War II, and from 1942 to 1943, more than 1,000 women joined, flying 60 million miles of noncombat military missions. Of the women who received their wings as Women Airforce Service Pilots, approximately 300 are living today. (Official White House photo/Pete Souza)

"The women pilots in uniform today are truly exceptional," she said. "They are so competent, educated and knowledgeable about things far beyond what we ever dreamed of learning in home economics. They should know that all of the WASP are very proud of what they are accomplishing today."

More than 1,000 women joined the WASP and 38 of them were killed during duty. Following World War II, these women were released from duty and returned home. During their time in the WASP, they held civilian status and were not members of the military. Their contributions went largely unrecognized and the women weren't afforded veteran status until 1977.

The groundbreaking steps taken by the WASP paved the way for today's generation of military female aircrew currently engaged in conflicts around the world.

WASP Nancy Harkness Love was inducted into the A/TA Hall of Fame in 1996. 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 during World War II, the WASP moved 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.

The Congressional Gold Medal is the highest and most distinguished award Congress can award to a civilian. Since the American Revolution; Congress has commissioned gold medals as its highest expression of national appreciation for distinguished achievements and contributions. In 2000 and 2006, Congress awarded the Gold Medal to the Navajo Code Talkers and the Tuskegee Airmen, respectively. ■

Why Are We Here?

A commentary posted on the Air Mobility Command website on 9/11 2009 by Col. John M. Quinn, the 319th Air Refueling Wing vice commander, Grand Forks AFB, North Dakota, raises and answers a question often heard these days. His commentary follows:

"I would like for each of you, on September 11 and the days that follow, to consider three questions or more appropriately one question three times. Why are we here?

"Why are we here? We are here to remember those who lost their lives eight years ago today on September 11, 2001, and those who continue to do so today combating terrorism around the world. We remember those who made the ultimate sacrifice, willingly or not. We mourn the loss of innocence in the world due to the terrorist attacks of September 11, and which continue today.

"Why are we here? We are here to prosecute the Global War on Terror, attempt to bring those who committed and supported attacks on the World Trade Center, the Pentagon and in a field in Pennsylvania to justice, and free those chained by despotic rulers. Each of us, no matter whether officer, enlisted, civilian has a small responsibility in holding accountable those responsible for the tragic events.

"Why are we here? Eight years ago on September 11, a line was carved in the landscape of New York, Pennsylvania and Washington, D.C. Its ink was the blood of innocents. From wherever we came, this is why we are here now. It will be irrevocably linked to all those in history who follow us. And like those men and women who came before us, our legacy is to stand as a united front against darkness, against lawlessness and terrorism, against injustice and anarchy.

"We are blessed with freedoms and opportunities in a diverse nation that is unimaginable by most of the rest of the world. With this good fortune comes great responsibility. If we do not stand in the face of the whirlwind brought by evil men, they win, we lose. To lose is not an option.

"The people whose lives were taken away from them on September 11, 2001, all the way up to today, mattered. Their lives were cut short by people who do not respect the inherent value of life (even their own).

"Today, and every day we wear the uniform, we honor the sacrifice of civilized citizens of the world who can no longer laugh and complain, smile or dream. For these people we must do better, fight harder, and never falter...and always remember those who gave their all." ■

Association & Chapter CONTACTS

As of 23 September 2009.

Board of Officers & Staff

Chairman Board of Officers
Gen Walter Kross USAF Ret
Chairman@atalink.org

President
CMSgt Mark A Smith USAF Ret
President@atalink.org

Sr Vice President
Maj Gen Richard C Marr USAF Ret
SrVP@atalink.org

VP Programs
Col Dennis L Murphy USAF Ret
ProgramsVP@atalink.org

Secretary
Ms. Carol Mauchline
Secretary@atalink.org

Treasurer
Col John J Murphy Jr USAF Ret
Treasurer@atalink.org

VP Industry Affairs
Col Robert E Dawson USAF Ret
IndustryVP@atalink.org

Legal Advisor
Maj Gen Richard D Roth USAF Ret
Legal@atalink.org

Parliamentarian
Maj Wesley L Marsh Jr
wesley.marsh@afrc.af.mil

Historian
Lillian E Nolan
lillian.nolan@scott.af.mil

Membership/Convention Registrar
Dennis W (Bud) Traynor III
ata@atalink.org
mis@budtraynor.com

Board of Advisors

Chairman Board of Advisors
Maj Gen James I Baginski USAF Ret
jibagger@aol.com

Board

CMSgt William M Cannon USAF Ret
bcloader@aol.com

Lt Col Ted E Carter Jr
GeneC17@aol.com

Gen Duane H Cassidy USAF Ret
dhcassidy@nc.rr.com

Col George E Dockery USAF Ret
george130@comcast.net

Col Robert F Ellington USAF Ret
RElling900@aol.com

CMSgt Regina L Hoctor
regina.hoctor@wpafb.af.mil

Col Phillip A Iannuzzi Jr USAF Ret
philip.a.iannuzzi-jr@boeing.com

Col Walter L Isenhour
walter.isenhour@us.af.mil

CMSgt Michael R Kerver USAF Ret
kerver_michael@bah.com

CW4 Richard J Langstraat USA Ret
(417) 235-0250

Col Chester H Mauchline USAF Ret
corky.mauchline@ae.ge.com

Col Paul E McVickar USAF Ret
Paul.McVickar.ctr@ustranscom.mil

Gen William G Moore USAF Ret
(615) 790-3999

Col Ronald E Owens USAF Ret
ron.owens1976@sbcglobal.net

Col Jack D Patterson USAF Ret
castlebridgekeep1@me.com

Maj Gen Robert B Patterson Sr USAF Ret
sasbob@att.net

CMSgt David M Pelletier II USAF Ret
eagle141@comcast.net

SMSgt Edward E Renneckar
edward.renneckar@us.af.mil

MSgt Eric E J Riker USAF Ret
ark2riker@aol.com

Gen Charles T Robertson Jr USAF Ret
charles.t.robertson@boeing.com

LtGen John B Sams Jr USAF Ret
jbsj11@gmail.com

BGen James W Swanson USAF Ret
jims@moaa.org

CMSgt James W Wilton USAF Ret
jim.wilton@comcast.net

Convention & Symposium

Convention Chairman
Col Jack D Patterson USAF Ret
castlebridgekeep1@me.com

Symposiums Chairman
LTC Jeffrey Bigelow, USAF
Seminars@atalink.org

Program Committee
Col Miles C Wiley III USAF Ret
atarooms@cox.net

Golf
Golf@atalink.org

Master of Ceremonies
Col Barry F Creighton USAF Ret
barry.creighton@lmco.com

Heritage Committee
Col Ronald E Owens USAF Ret
ron.owens1976@sbcglobal.net

Nominating Committee
Gen Ronald R Fogleman USAF Ret
rfbuzzard1@aol.com

Airlift/Tanker Quarterly

Editor A/TQ
Collin R Bakse
ATQ@atalink.org

Business Manager A/TQ
Doug Lynch
Advertising@atalink.org

Public Affairs A/TQ
Col Gregory P Cook USAF Ret
Greg@GregoryPCook.com

Command Liaison Representatives

Liaison AETC
Maj Manuel R Gomez Jr
manuel.r.gomez@dcma.mil

Liaison AFRC
MajGen Charles E Reed Jr USAF
Charles.reed@us.af.mil

Liaison AMC
BrigGen Brooks L Bash USAF
brooks.bash@scott.af.mil

Liaison AMC (alternate)
Maj Timothy M Gonyea USAF
timgonyea@mac.com

Liaison AMC (CCX POC)
Ms Darcy Lilley
darcy.lilley@scott.af.mil

Liaison ANG
BrigGen Thomas Haynes USAF
Thomas.Haynes-02@scott.af.mil

Liaison USAFE
Col David M Callis
david.callis@pentagon.af.mil

Young Leader Representative
MSgt Richard T Martin
Peppieandmister@hotmail.com

Young Leader Representative
Maj Aaron J Larose
aaron.larose@dover.af.mil

Chapter Contacts

Alamo
Maj Manuel R Gomez Jr
manuel.gomez@dcma.mil

Big Country
TSgt William B Ghent
william.ghent@dyess.af.mil

Capital
Col John C Millander
john.milander@pentagon.af.mil

Cheyenne
1Lt Ryan Walker
ryan.walker@us.af.mil

Denali
TSgt Donald E Kusky Sr
donald.kusky@elmendorf.af.mil

Diamond Head
Capt Timothy M Ryan
timothy.ryan@hickam.af.mil

Eagle
Lt Col Craig M Harmon
craig.harmon@dover.af.mil

East Anglia
Col Creg D Paulk
creg.paulk@mildenhall.af.mil

Flight Test
MSgt Thomas H Ireland
thomas.ireland@edwards.af.mil

Golden Bear
Lt Col Brian W Lindsey
Brian.Lindsey-02@travis.af.mil

Goldwater
Maj Patrick Donaldson
patrick.donalson@azphoe.ang.af.mil

Great Lakes
CMSgt Juan Ubinas Jr
juan.ubinas@ang.af.mil

Hafa Adai
MSgt Scott MacKeller
scott.mackeller@andersen.af.mil

Halvorsen
MSgt Anthony Bickerton
anthony.bickerton@spangdahlem.af.mil

Huyser
Lt Col Vincent G McCrave, USAF ret
tnkrplt7@charter.net

Inland Northwest
Maj Ryan L Ransom
ryan.ransom@fairchild.af.mil

Keeper of the Plains
Capt Johari Hemphill
johari.hemphill@mcconnell.af.mil

Kitty Hawk
Capt Jessica Guarini
Jessica.Guarini@seymourjohnson.af.mil

Low Country
Lt Col Leigh E Method
leigh.method@charleston.af.mil

Lt Gen Tunner/Berlin Airlift
CMSgt Severino Di Cocco USAF Ret
disevann@aol.com

Maxwell
Col Stephen M Fisher
stephen.fisher@maxwell.af.mil

Pacific Northwest
Capt Patrick L Brady-Lee
patrick.brady-lee@mcchord.af.mil

Peachtree
Col Jon A Hawley USAF Ret
jon.a.hawley@lmco.com

Pikes Peak
Maj Kenneth R Picha
kenneth.picha@usafa.af.mil

Razorback
TSgt Brian S Castillo
brian.castillo@littlerock.af.mil

Red River
LtCol James A Durbin
james.durbin@altus.af.mil

Rheinland-Pfalz
LtCol Bryan K Huntsman
Bryan.Huntsman@us.af.mil

Rheinland-Pfalz-Papa
MSgt Rachel Czmyr
rachel.czmyr@lajes.af.mil

Ryukyu
Capt Joseph W Carr Jr
joseph.carr@kadena.af.mil

Sam Fox
Maj Ian B Laughrey
ian.laughrey@afncr.af.mil

See Seventeen
CMSgt Michael M Welch USAF Ret
michael.m.welch@boeing.com

Space Coast
CMSgt Larry N Cayabyab USAF ret
mschiefc@earthlink.com

Special Operations
SMSgt Cory M Olson
cory.olson@hurlburt.af.mil

Tarheel
TSgt Jeremy Hook
jeremy.hook@pope.af.mil

Team Robins
Col Bruce Bowers Jr
bruce.bowers@us.af.mil

The Shogun
Maj Johm M Schutte
hohn.schutte@yokota.af.mil

Tidewater
Lt Col Brian D Joos
brian.joos@jfcom.mil

Tip of the Sword
Capt Jerry W Yarrington
jerry.yarrington@incirlik.af.mil

Tommy B. McGuire
Maj Peter M Mastroianni
peter.mastroianni@mcguire.af.mil

Tony Jannus
Lt Col Jon E Incerpi
jon.inserpi@us.af.mil

Warriors of the North
Lt Col James L Warnke
james.warnke@grandforks.af.mil

Wright
Capt Richard L VanSlyke
richard.vanslyke@wpafb.af.mil

Contacts listed are the most current available. Please contact Bud Traynor and Collin Bakse to make corrections and/or changes, or to suggest additional contact information for this page.

FlightSafety
SERVICES CORPORATION

TRAINING
IS OUR ONLY BUSINESS

An Equal Opportunity Employer

10770 E. Briarwood Ave. Suite 100 · Centennial, CO 80112-3807 · (303) 783-1023 · www.FlightSafety.com

C-5 photo courtesy (U.S. Air Force photo/Senior Airman Brian Ferguson) · KC-10 photo courtesy (DOD photo/Navy Lt. Peter Scheu)
KC-135 photo courtesy (U.S. Air Force photo) · T-6A photo courtesy (U.S. Air Force photo by Master Sgt. David Richards)
T-38 photo courtesy (U.S. Air Force photo by Staff Sgt. Steve Thurow)

UNLIKE ANYTHING. READY FOR EVERYTHING.

Bell Helicopter
A Textron Company

The CV-22 revolutionizes the art of insertion and extraction. It supplies an unmatched combination of speed, range, altitude and payload in a vertical lift aircraft. Giving you the flexibility to deliver forces anywhere. Even the middle of nowhere.

BOEING