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**Q: Could we start with the basics on the size and organization of AMC? Do you expect any growth in either manpower or fleet size in the near term?**

A: Air Mobility Command is composed of more than 132,000 active duty, Air National Guard and Air Force Reserve airmen who work together with our civilian and commercial counterparts to support the joint warfighter.

AMC makes up the air force component of U.S. Transportation Command and provides airlift, aerial refueling and aeromedical evacuation for U.S. and coalition troops.

I can tell you that on any typical day, Air Mobility Command flies approximately 900 sorties and moves nearly 2,000 tons of cargo and more than 6,000 passengers worldwide. These flights include contracted commercial airlift, but it shows you we are one of the busiest commands in the Air Force.

Our numbered air force, the 18th Air Force, fulfills Air Mobility Command's war fighting component by tasking and executing all air mobility missions. It's the largest numbered air force in the Air Force. We are very happy that 18th Air Force is now commanded by a three-star, Lieutenant General Bob Allardice. Eighteenth Air Force units include all of AMC's wings and groups based in the continental United States as well as two Expeditionary Mobility Task Forces—the 15th Expeditionary Task Force and the 21st Expeditionary Mobility Task Force. These expeditionary mobility task forces are the lead agencies conducting mobility operations worldwide and critical to the war fighting execution phase by providing worldwide expeditionary support.

The 618th Tanker Airlift Control Center, located at Scott Air Force Base, also reports to 18th Air Force and serves as the global mobility air operations hub, planning and directing tanker and transport aircraft operations around the world. AMC also has one major direct reporting unit, the U.S. Air Force Expeditionary Center, which serves as the Air Force's premier organization for expeditionary and mobility air forces education, training and exercises.

Concerning our growth, AMC is awaiting results from OSD's quadrennial defense review and the Mobility Capabilities and Requirements Study. These studies will determine our overall future force structure requirements. However, this past June, the Air Force in its 2010 Force Structure Announcement confirmed that AMC will gain an additional 1,029 personnel authorizations and take delivery of 14 additional C-17s and three additional C-130s.

The additional people will better balance skill sets and apply manpower to new and emerging missions in need of greater focus. Gaining the additional aircraft is also great for AMC, but it's the people who make this mission happen, and AMC airmen are among the best.

**Q: Let's hit one of the hot topics right away—the tanker program. With the solicitation under way I know you may be limited as to what you can say, but what do you need a tanker to do for air mobility? How important is it that a tanker also be an airlifter?**

A: Today's tanker fleet continues to play a vital role in all facets of our military operations. It underwrites our ability to project power and, as such, is an integral part of our nation's military strategy. From an air mobility standpoint, the tanker plays a crucial role enabling the rapid deployment of forces globally for either combat or humanitarian operations. We can't respond quickly without them, period. Additionally, the tankers make possible the critical movement of our wounded warriors non-stop from the battlefield to the U.S. for the lifesaving care they need.

Take for example our operations in Afghanistan. Tankers not only enable the fighter and bomber aircraft to provide the continuous umbrella of protection for our ground forces, but they refuel our airlift aircraft going to and from theater. The in-flight refueling of our airlift aircraft by the tankers, who are based outside of Afghanistan, not only speeds up the logistics, but also, just as importantly, reduces our fuel demand in country, all of which has to be trucked in. I use this to show how the tanker can, and does, play a part in the whole logistics chain.

You ask about the tanker being a heavy lifter. What I can tell you is that the KC-135 is a tanker first and the KC-X will be a tanker first. While the KC-X will provide expanded capabilities for airlift and many other secondary missions compared to the KC-135, we are procuring the KC-X to replace our aging refueling fleet. If we encounter periods of low demand as a tanker, the KC-X will augment the airlift fleet as dictated by mission requirements.

As a nation, we're overdue on building new tankers. I don't like sending our men and women into combat in a 50-year-old airplane. We must make delivery of this capability a high priority for our nation. We simply must get on with it. We're working hard to ensure Air Mobility Command is ready when the effort begins to choose the industry partner to build our next-generation tanker.

**Q: Between now and then what is it going to take to keep the KC-135 fleet flying at a reliable rate and meet operational tempo?**

A: To keep the KC-135 fleet flying at our current rate of operations, we have to continue doing extraordinary maintenance efforts. That means increased inspections and vigilance for an airframe that is more than 50 years old. Your question though, underscores why AMC and the Air Force continue to place the tanker as our top acquisition priority.

First, our KC-135 maintainers are the best in the world, but they can't stop the wear and tear on our aging fleet. Every year approximately 72 KC-135s go through programmed depot maintenance. As part of that, a number of aging aircraft issues are addressed to include a deep overhaul of flight controls, final phases of electrical rewire, new wheels, brakes and fuel bladders. Days in depot are taking longer, and we don't always know what we'll find when one goes through. The older they get, the more resources in time, manpower and money it takes.

Secondly, every time a KC-135 completes a mission, a crew chief and two assistants inspect the plane for anything that needs repairs. If something needs to be fixed, a specialist is called who in turn gets the job done. To keep the KC-135s flying at the mobility air force's standard mission capable rate of 85 percent, these maintainers are doing exceptional work. It takes somewhere between 7 to 10 hours of work on the ground for every hour in flight.

Lastly, it's just like an old car—you can start it up and hope that it'll make it. If that car breaks down, you'll need spare parts to fix it but the problem is ... can you find them? That's the problem our maintainers face.

Sometimes we have to go and manufacture new parts because there are no more left on the shelves. When we need a part in a hurry, it may mean we have to cannibalize one from a good jet to work until a replacement can be sourced. As you can see, the KC-135s aren't the sleek new planes of the 1950s and '60s—they require a lot of special care.

**Q: Is there a “magic” date after the age of the current tanker fleet, the expected OPTEMPO, the reliability of the fleet and the lack of a new tanker become the “perfect storm?”**

A: There is no “magic date.” However, you’ve hit at one of the risks associated with flying an older air frame, especially since the entire KC-135 fleet was built during the late 1950s to mid- 1960s— meaning if there’s a significant structural or mechanical problem it is likely to be fleetwide.

With all of the KC-135s in service, including active duty, Guard and Reserve, AMC is using fleet management practices to carefully spread out flying hours to maximize efficiency of the fleet. Even with that in place, I don’t know what these aircraft will be like in 10 years, let alone 30 years from now. That’s a concern I have about operating an aircraft this old. Again, that is why AMC and the Air Force continue to place the tanker at the top of our priorities.

If the tanker replacement takes another year or more, we’ll be flying some of the current KC-135 fleet past 2040. By that time, those planes would be at least 80 years old. Is that a magic date? I don’t know, but those are the facts as we have them. As the KC-135 gets older, it takes more man-hours to keep them maintained. That, in turn, makes it harder to meet our goals, but our maintainers will continue to keep the fleet flying—but at a significant cost in manpower and dollars.

**Q: The C-17 is your reliable workhorse for inter-theater transport. How comfortable are you with the current fleet size and the future production schedule for new C-17s considering the rate you are going through cycles and hours on the main system components and the airframe itself?**

A: Our C-17 fleet, which will reach a total of 213 aircraft when you include additional planes awarded in current and pending authorizations, is performing to the level we need in the deployed theater and around the world. In fact, they are performing magnificently.

For now, I am comfortable with the rate we’re flying them, and once the U.S. Transportation Command and the Office of the Secretary of Defense Program Analysis and Evaluation complete their mobility capabilities and requirements study [MCRS-16], assessing fleet size requirements this December, I think we’ll know more. We have initial findings now, and we’re reviewing them. I expect that once we receive the MCRS-16 final report, we’ll be able to better detail the C-17 fleet roadmap.

Regarding the cycles and hours on components and the airframe, we are seeing strain on some of our older aircraft; however, we are taking actions to mitigate that stress.

For instance, our training aircraft in Air Education and Training Command are aging at a faster rate than our line C-17s due to the flight profile they fly in the training environment. Multiple low levels, aerial refueling, and touch-and-go’s needed to train and season our newest aircrew members take their toll on the airframe. So, we have plans to rotate aircraft out of Altus AFB, Okla., every two years to reduce the time aircraft spend doing that difficult type of flight profile day after day.

From the deployed mission side of the house, there has also been some very minor damage to C-17s due to continued operations into semi-prepared runways. Fixes are in place to keep pace with the C-17’s operational tempo via time compliance tech orders. These orders were put in place to protect the underside of the aircraft from this damage. An example includes having leading edge high impact tape put on the planes to help protect antennas.

The C-17s are incredible planes being asked to complete a highly robust mission. I expect they’ll continue their current pace. With the monitoring we have in place on the maintenance side, I’m confident they’ll continue to be among the best airlifters in the world.

**Q: Turning to another one of your platforms, the C-5. Tell me a little bit about the C-5M program as far as the major component changes, what it will mean to the service life and reliability of the aircraft, and how many aircraft will be affected by the program?**

A: The Air Force's C-5M program centers around reliability, maintainability, availability, improved performance and reduced cost to operate. Lockheed Martin, the primary contractor, worked with the Air Force to develop and test the reliability enhancement and re-engining modifications to the C-5. These modifications resulted in a new Model Designation Series, or MDS, creating the C-5M Super Galaxy—a C-5 with enhanced performance capability.

The developmental testing of the C-5M concluded in December 2008. The testing and analysis verified that the C-5M will meet all the Air Force's critical requirements. That's an important factor to take into account before we move into full rate production. The C-5M program is anticipated to reduce the Air Force's total ownership cost by \$8.9 billion based on fiscal 2000 dollars, and is on track to improve C-5 fleet availability and aircraft performance.

In this program, we are replacing the engines with better high performance ones along with more than 70 components from major aircraft systems, including: hydraulic, fuel system, flight controls, environmental/pneumatic, electrical and the landing gear.

All told, these add up to increase the mission capable rate of the aircraft to at least 75 percent. The engines are those used in the commercial airline fleet and have proved to be very reliable and will also give the C-5M added performance in both cargo load carrying capacity and fuel efficiency. The increased engine performance allows takeoffs from shorter runways and a climb to altitude quicker with heavier loads, saving fuel. This should help to increase our logistical throughput to the warfighter in both increased aircraft cycle time from improved reliability and the higher payloads.

Currently, three C-5Ms have already been delivered to the Air Force. In August 2009, the first C-5 will enter low rate production. The production program is for the reliability enhancement and re-engining modification to the 47 C-5Bs and 2 C-5Cs.

Eventually, the C-5M fleet size will total 52 aircraft by November 2016. Of those 52 aircraft, three are complete: one A-, and two B-models. In all, 49 B-models, one A-model and two C-models are scheduled to be modified.

As far as the C-5M service life goes, we should be able to easily fly the aircraft until 2040, and the RERP will make it easier for us to accomplish that, making the aircraft easier to maintain and more productive.

I flew the first C-5M into Dover back in February this year, and I like what we are seeing with the C-5M program. The results are very promising, and it will certainly aid AMC in continuing its global reach capabilities more reliably.

**Q: The advanced composite cargo aircraft [ACCA] is up and test flying. What are AMC's hopes coming from this program? Is the testbed platform the size aircraft being considered or is it simply a proof-of-concept?**

A: As a result of this program, AMC hopes to encourage industry to pursue composite design and manufacturing to help repair current air mobility aircraft and help them in their longevity of service. This encouragement is also in the acquisition of future air mobility aircraft such as the Joint Future Theater Lifter—a future global airlifter that's a replacement to the C-5M or C-17.

As a leader in the mobility air forces business, I know AMC hopes use of composite technology on future mobility aircraft will have a significant effect on performance, weight, design and cost. However, we are not considering the development of an aircraft the size of the ACCA at this time.

Recently, the Air Force Research Laboratory contracted Lockheed Martin's Advanced Systems Development to assemble and test a "proof-of-concept" technology demonstrator for composite manufacturing in a full-scale, certified aircraft—similar to the ACCA. For the contract, Lockheed Martin

modified a Dornier 328J aircraft by replacing the fuselage and vertical tail with new structures made of advanced composite materials.

The first test flight of the ACCA was on June, 2, 2009, in Palmdale, Calif. ACCA is the capstone test of industry and government laboratories collaborating in the AFRL-led Composites Affordability Initiative from conceptual design through certification and flight. These efforts are all great milestones in determining where we want to go in improving the mobility business many, many years down the road.

**Q: So much of the operations being conducted around the world, supporting the war on terror, could be described as supporting irregular warfare. Is that a fair description of some of AMC's work?**

A: It's a fair description that not only some, but a large part of AMC's work supports irregular warfare. This fits in with the direction we're going as a nation in our approach to combating extremism around the world. Air mobility's role in this mission is about building partnerships with other nations or simply providing humanitarian aid when needed. Our mobility assets are tailor-made for these types of operations in support of the "non-kinetic" approach to diplomacy.

We have the unique ability to provide support to any place on the globe, rapidly. In many instances where this nation is conducting irregular warfare, the locations lack a robust infrastructure and/or are landlocked, making overland travel difficult. We can send in our contingency response groups to set up a logistics receiving point and then fly our aircraft in right behind them. We have proved this time and time again in support of this mission. Take Darfur for example. AMC sent in a contingency response element earlier this year and then our C-17 aircraft flew in continuous heavy equipment and supplies to support United Nations operations there. Or, sometimes, it can be a one-time delivery of a goodwill gesture, which we accomplished recently by delivering a 26,000-pound magnetic resonance imaging machine to South America.

Part of this mission also demands we help our partner nations become self-sufficient, and we're working that too. AMC is involved in developing airlift capabilities tailored to what a specific nation would need for their particular security. In doing so, we can help them with an end-to-end solution providing assistance with the type of aircraft, logistical expertise, maintenance, etc. However, until these nations are capable of taking on these missions themselves, AMC will be there to help. In addition, our Rodeo completion, held this July at McChord Air Force Base, fielded 7 foreign teams competing and 17 countries observing the various events. It was a great opportunity to further build partnerships as we share our tactics, techniques and lessons learned.

I'd like to point out that wherever an AMC aircraft lands, worldwide, with its visible, prominent American flag on the tail, it sends a signal to these countries of our nation's commitment to them not only on a daily basis but in a time of a crisis as well.

**Q: Much different from decades ago when airdropping supplies meant kicking things out the door, how has the airdrop mission changed how you do your job? What is the precision it entails?**

A: Airdrop continues to evolve as we leverage new technologies to enhance our precision and velocity of this important mission. We constantly look at how we can do this better. This mission is vital to our warfighter, especially in Afghanistan. As the surge there continues, we're seeing the amount of airdrops we conduct in that country increase at a steady pace. In Afghanistan, we use several airdrop methods based on the type of mission in support of the Army and Marines who are forward deployed.

First, conventional airdrop missions use a Container Delivery System [CDS] consisting of "bundles" of cargo and non-steerable parachutes. However, we also use other methods of airdrop there to include the Improved Container Delivery System [ICDS] and the Joint Precision Airdrop System [JPADS]. ICDS and JPADS allow us to deliver supplies to the most challenging drop zones with precision and

velocity. The lack of infrastructure and the threat of IEDs in Afghanistan places a high emphasis on the fact that we need to get this right.

The ICDS takes precision airdrop to the next level by using onboard computers in the aircraft with integrating mission planning software that analyzes wind conditions to calculate the aircraft's most accurate release point for the airdrop. JPADS is a highaltitude, adverse-weather capable, GPS-guided, precision airdrop system using steerable mechanisms that provide increased control of the bundles upon release from the aircraft.

Another advantage of ICDS and JPADS is aircrews can avoid threats from the ground by dropping the same amount of cargo at a higher altitude. With every improvement airmen make to precision airdrop, warfighters on the ground are more likely to receive the supplies when and where they need them. Also, forces on the ground don't have to go outside of secured drop zones to gather equipment, thereby reducing their exposure to enemy fire.

Through these airdrops, our military men and women spend less time traveling in convoys, while AMC provides the warfighter the flexibility to place forces where they are needed knowing we can complete the logistical supply chain for them. That transitions to saving lives and shows that air mobility is directly aiding the warfighters on the front lines.

**Q: AMC provides the critical bridge in the medical stream with the movement of patients to higher echelons of care out of theater and ultimately back to the States. What factors make that happen?**

A: When you're talking about aeromedical evacuation, you're talking about a system that saves lives every day. There are many factors we have to consider when executing our aeromedical evacuation mission.

When a doctor determines a patient needs a higher echelon of medical care than can be provided at their field location they request Patient Movement Requirement through the Joint Patient Movement Requirements Center [for CENTCOM] or the Theater Patient Movement Requirements Center [all other AORs] to determine whether that patient can be safely moved using the AE system.

Upon that determination, the urgency of the patient's medical condition is then classified on the priority of movement. Intratheater aircraft tasked with an AE mission are coordinated through the Aeromedical Evacuation Control Team [AECT] working with the Air Mobility Division within the Combined Air and Space Operations Center [CAOC]. Missions requiring aircraft outside the theater of operations are handled by the Global Patient Movement Requirements Center, AE branch of the 618 TACC to plan, task and execute the patient movement mission.

The patient's criticality [urgent, priority or routine] drives the timeline of movement as well as the resources tasked. For urgent and priority patients we can re-task and reassign aircraft and aircrew for the patient movement mission. This whole process happens extremely fast, with the aircraft being identified in approximately 20 minutes. In the last six months we've averaged 6 1/2 hours from validating the movement to takeoff. However, in the case of routine patients we run regularly scheduled AE missions throughout the theaters to provide our patients the care they need.

Our aircrews that fly AE missions come from any flying unit available at the time of the patient movement request. Additionally, we have equipment to convert all air mobility aircraft into flying hospitals. Our aeromedical evacuation specialists at the 618th TACC match the patient movement medical needs with the appropriate aircraft and level of en route medical care. Our AE medical crews augmented by critical care air transport teams allow us to move even the most critically ill and wounded giving the patient the right level of care at the right place and the right time anywhere on the globe.

Because of this AMC capability, once a soldier, sailor, airman or Marine reaches our AE system they have a greater than 95 percent chance of survival, a survival rate unheard of in previous conflicts, [which] provides a tremendous morale factor for our fighting forces. Our agreement with our warfighters and coalition partners' forces is that we will do everything possible to save life, limb or eyesight. If that means flying a wounded Marine direct from Balad, Iraq, to Walter Reed Medical Center in under 20 hours or a wounded coalition partner from Afghanistan to Germany, we will do it as part of our commitment to meet their medical movement needs.

**Q: How would you characterize the contracts and partnerships with commercial air carriers to provide additional lift for military movements? Is the use of commercial services up or down from last year, and where will that percentage be a year from now?**

A: Our commercial partnerships are integral to accomplishing our mission. There is no question they are airlift partners for all of our missions around the world. We always consider the balance between commercial and organic airlift transportation solutions to ensure we select the right aircraft for the mission. Given our operations tempo, we rely on our commercial partners to meet the insatiable demand for airlift as we support the warfighter's needs.

Commercially contracted aircraft have averaged 30 percent of our global strategic airlift missions flown since September 11, 2001. During this time, AMC has moved nearly 13 million passengers with our commercial partners moving about 65 percent of those—more than 8.5 million. Also in this same time period, AMC transported more than 4.7 million tons of cargo globally with our commercial partners moving about 32 percent—more than 1.5 million tons.

At a little more than halfway into 2009, we are on track to exceed 2008's volume of cargo and passenger airlift commercially. Additionally, through the first six months of this year, global strategic airlift thus far already totals nearly 1.2 million passengers with our commercial partners moving 64 percent—about 778,000 people. So far this year, we've also moved about 405,000 tons of cargo, with commercial partners moving about 150,000 tons, or 37 percent.

Our commercial partners are our just that—our partners. Without them, our successes in meeting global mobility needs would not be the same.

**Q: The AMC Rodeo was recently held in July. What were the takeaways of this year's event?**

A: To be ready for today's mobility air force business, we have to train like we fight. The Rodeo competition becomes part of our training package. This training package is even better than at local bases because you have everyone together to include the international teams. We all come together. We compare notes in a very competitive environment.

In the Rodeo competition, everyone takes it very, very seriously. They all want to be the best. When you have a bunch of teams from Air Mobility Command—active, Guard and Reserve and all the international teams, they are all vying to be number one. It means we are getting the best out of all of our crews.

Any time we practice our combat skills and flying operations, especially with our international partners, we are honing our techniques, procedures and interoperability. Competitions like Rodeo allow us to further build mobility partnerships while refining our mobility operations and those of our partner nations.

Rodeo is very, very worthwhile for a number of different reasons. First of all, we get tremendous lessons from the people who are out there, to include our international partners. And quite frankly, we get the lessons when we see when they perform well, and we get lessons when we see if they've made a mistake. Because, as you know, we've been at war for a number of years going all the way back to 1990 when we had the first Gulf War. Over the course of time, it's easy to develop bad habits.

So, not only will we see the bad habits, but we will also see the things they are doing that are even better than we've done before.

From my point of view, holding Rodeo 2009 was extremely beneficial because we saw lessons learned across the board that we can directly apply to all our mobility air force's airmen who are flying into harm's way every day. The competition is also extremely beneficial from the standpoint of building relationships with our international partners and the learning that goes on with them as well. This is a key component of Rodeo.

**Q: For mission planning, what is done to ensure—as much as possible—that the aircraft capacity is best utilized on both legs of a round trip and reduce the amount of empty bellies being flown?**

A: It starts when we plan the mission at Scott Air Force Base. The 618th Tanker Airlift Control Center has dedicated planners who build the missions to ensure optimization where possible to maximize cargo loads on the aircraft, to include round trips. The planning goes through several stages, and at each stage we look to combine cargo and even entire missions where possible, to include using sophisticated databases that all the planners have access to. We look across the enterprise for efficiency all the way down the specific unit we task to fly the mission. This planning is also tied into the bigger picture of military logistics. In moving cargo in to the CENTCOM AOR, for example, we work closely with the U.S. Transportation Command and the theater to identify cargo on both legs of the round-trip mission. This continuous flow of information makes the difference to ensure we maximize the cargo space utilized on our airlift missions.

However, there are times when the majority of the cargo is only going one way, like during the buildup period of any campaign. In those instances, we don't always have cargo for the legs home, but as the theater matures, the ability to "backhaul" cargo becomes much greater. We often say it's a balance between effectiveness with efficiency in order to meet the warfighter's needs.

In another effort, we've also found new ways to improve our efficiency. The 618th Tanker Airlift Control Center started a new program to "link" missions together to avoid costly pre-positioning and de-positioning legs from home station. In this effort, we'll fly aircrews commercially to where the aircraft is when we need to change them out. In the past, we would fly an aircraft home and then generate another. With this concept, we'll keep the aircraft out in the "system" for longer periods of time. This gives us greater flexibility by increasing aircraft cycle times, will save fuel and allow us to maximize cargo opportunities. ♦