

### Did you know?

The C-141 was the first jet transport from which U.S. Army paratroopers jumped.



# Airlift DISPATCH

Vol. 39, No. 7

Friday, February 25, 2000

Charleston AFB, SC

### Charleston facts

In 1993, The 17<sup>th</sup> Airlift Squadron became the first operational squadron in the Air Force to convert to the C-17 Globemaster.



## C-17s to deliver a brigade in 30 minutes or less

By Danita L. Hunter  
AMC Public Affairs

Air Mobility Command C-17s will soon be able to airdrop a brigade's worth of troops and equipment within 30 minutes, meeting the Army's goal for how long the airdrop should take. The requirement, called Strategic Brigade Airdrop, is currently met by a mix of AMC's C-141 and C-17 fleets, but soon will be accomplished solely by the C-17 fleet as a result of three initiatives: reduce the spacing between aircraft during personnel airdrops, install a dual-row airdrop capability, and install new equipment which will allow the aircraft to fly in tighter formations during inclement weather.

Because the C-141 is retiring from service, another aircraft must be able to meet the Army's SBA requirement. An Army brigade, which contains about 3,250 troops and 3,450 tons of equipment, is airdropped and airlanded in two phases. During the first phase of the SBA, the aircraft must be able to drop roughly 2,500 troops and 1,350 tons of equipment within a limited amount of time. During the second phase of the operation the remaining 750 personnel and 2,100 tons of equipment are delivered to a landing zone. Had none of the initiatives currently underway taken place, it would take a C-17 SBA formation about 25 minutes longer than the Army's requirement for the airdrop portion.

"As soon as we realized that we wouldn't be able to meet the Army's requirement, AMC started working to change that," said Maj. David Kasberg, chief, C-17 tactics. To get to the time requirement, AMC decided on its three-pronged approach to fix the problem.

### Reduced spacing

Only 12,000 feet was required between lead aircraft airdropping personnel with the C-141. How-



Courtesy photo

C-17 Globemasters will soon be able to airdrop a brigade, which contains about 3,250 troops and 3,450 tons of equipment, within the required time of 30 minutes.

ever, because of the vortices created by the C-17 a space of 40,000 feet between element lead aircraft is required currently to ensure jumper safety.

"The C-17 has the same length and wingspan as the C-141 but a much wider cargo compartment and is heavier overall," said Kasberg. "The heavier airplane, especially with the same length wings, causes a lot more wake turbulence. It's a physics problem we're trying to overcome."

Using computer models, the command began investigating 15,000 foot spacing between element leads and increased the spacing to the current 40,000 feet to decrease the number of interactions between the aircraft's vortices and the jumpers.

"I got involved in building the model trying to come up with a better way of predicting where the vortex would be and how it would interact with the jumpers," said Lt. Col. Hans Petry, mobility analyst.

Petry was a student at the Air Force Institute of Technology, Wright-Patterson AFB, Ohio, when he worked on the model.

Using a Wright Lab engineer's static model, Petry and a fellow student made the model move, added wind effects and random variation of the jumpers' trajectories, and snaked the vortices behind the aircraft instead of in a straight line. This created a much more realistic picture of what

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## Congressional staffers learn about Charleston AFB

By Lt. Col. Ed Memi  
437 AW Public Affairs

Five congressional staffers got a behind the scenes tour of Charleston AFB, flew in a C-17, and met many airmen when they visited the base Feb. 16-18.

The purpose of the visit was to give congressional staffers a chance to learn about the area bases and better understand their respective missions.

Staffers included Steve Hartell, military legislative assistant to Sen. Fritz Hollings, Craig Metz, chief of staff for Rep. Floyd Spence, Linda Shealy, legislative assistant to

Spence, Linda White, legislative assistant to Rep. James Clyburn, and Ken Rentiers project director for Sen. Strom Thurmond.

The staffers toured the area installations on Feb. 17 to include the Navy hospital, SPAWARs, the Army Military Traffic Management Command and the Naval Weapons Station in Goose Creek. On Feb. 18, the staffers spent the day touring the Naval Facilities Engineering Command, Southern Division, in North Charleston, and the Charleston Air Force Base.

While at Charleston, the group visited the C-17 simulator, toured North

Field and saw a C-17 capability demonstration. They also toured the new dormitories, new and old dining facilities, the supply warehouse and saw many of the improvements to the Hunley Park housing area.

"This staff delegation has benefited tremendously from this comprehensive tour of our military assets. This is an excellent opportunity to view first hand what members of Congress and senators have been working through legislation and other means to enhance the mission of the base," said Craig Metz, Rep. Floyd Spence's press secretary and chief of staff. "There was a lot of pride evident at

Team Charleston and we are proud to assist." Metz, born and raised in Columbia, S.C., said that this was his first visit to the base.

Brig. Gen. Rod Bishop, Jr., 437<sup>th</sup> Airlift Wing commander, briefed the staffers about the declining Air Force personnel strength yet increasing operations tempo during a luncheon in the Charleston Club with Team Charleston members. He emphasized the importance of North Auxiliary Airfield in the wing's training missions and the need for a new supply warehouse someday. He also thanked the staffers for their support

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