



# Maps Prove Value for KC-46 Strategic Basing Effort

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Groundbreaking for new facilities for the KC-46A Pegasus beddown at McConnell Air Force Base, Kansas, took place June 30. Two years ago, McConnell was one of many possible beddown sites and strategic basing planners were peering at electronic maps to get a real picture of the sites.

"As we made our way around to potential basing sites for KC-46, it was a huge help to see the infrastructure of the installations on a map," said Derek Strunk from the Strategic Plans, Requirements and Programs, Headquarters Air Mobility Command's, Scott Air Force Base, Ill.

Approval of environmental impact statements in April and May allowed McConnell to be officially approved as the active duty location for the KC-46A, Altus AFB, Okla., as the training unit location and Pease Air National Guard Base, N.H., as the first main operating base for the Guard.

The effort began years before with an initial "scrub" of the list of 50-plus potential bases. Answers to a questionnaire sent to all the bases quickly eliminated some airfields that didn't meet the basic criteria, such as having a 7,000-foot runway. Once the list was narrowed down, site survey teams visited bases under the umbrella of Air Force Instruction 10-503, *Strategic Basing*. It was the first time a major weapons system in AMC has been guided by the base selection process.

During detailed, on-the-ground-site surveys of each candidate base, the major commands evaluated the bases against operational and training requirements, potential impacts to existing missions, housing, infrastructure and manpower. The teams also developed beddown cost estimates for each base.

"We did a large part of the pre-site visit planning by looking at the base maps from our desks at AMC," said Rafael Gonzalez, AMC Installations and Mission Support Facilities

Requirement program manager. "We couldn't talk to the bases, so we needed that situational awareness the maps provided."

The AMC Geo Integration Office, which maintains the electronic maps, played an important role. The maps include up-to-date imagery and trusted common installation picture data on base infrastructure on its CAC-enabled "AMC.maps" site. With engineering assistants standing by to measure and test ideas out, the maps served as the perfect visual tool prior to site visits.

"Everything we needed was on those maps or we could get it added," Gonzalez said. "In addition, everything we could see, everyone on the team, regardless of where they were, could see too."

AFI 10-503 made clear the team's mission regarding the aircraft's beddown: "As a minimum, the site survey team shall address costs and benefits of the proposed action and assess potential impacts to existing missions, housing, infrastructure, manpower, and any other applicable base operating support."

Getting to the final selection took a lot of analysis. The challenge of this task was clearly demonstrated through the requirement of how to fit the planes on the existing parking ramp. Gonzales and fellow program manager, Michael Flahive, had the task of determining whether the large aircraft would fit.

McConnell's KC-135s are oriented pointing east or west, according to Gonzalez and Flahive. But, the new aircraft will sit north and south to fit on the parking ramp. (see graphic above.) Because of this, the fuel pits need to be on a particular location on each parking spot to serve other aircraft besides the KC-46. Ultimately, they were able to show on a map how the fuel arrangement would work.

In addition to replacing and relocating the existing fuel pits and portions of fuel lines, new facilities will be built, including six hangars, three simulator training facilities, a new dormitory and a mobility storage addition. Eight facilities are scheduled for renovation.

Preserved and ready for the next round of beddowns, the AMC.maps website hosts a special map view called "KC-46 Beddown Plan." When additional sites are up for evaluations, the site view will be updated. In the meantime, strategic planners can view any airfield on the main map, the "General Purpose Viewer."

Even though AMC civil engineers have been through the basing process once, the KC-46 beddown is just beginning. "The first planes in production now have a home," explained Alex Karibian, chief of the Facility Requirements Program. "Future plans, though, call for up to 10 more bases that will have to be approved and fully vetted through the strategic basing process."

KC-46s will be the Air Force's tanker of choice for years to come, encouraging Air Force planners to use all resources to find the right location for the aircraft to call home. Online mapping will remain a cost and time-saving tool for future beddowns of all aircraft.

"The AMC Geo Integration Office, and perhaps all MAJCOM Geo Integration Offices, stand ready to support the operational mission with their mapping, visualization and analysis needs," said Rich Updike, AMC's Geo Integration program manager. "In 2003 to 2005 it was BRAC that we supported. Today, it's KC-46 beddown planning. Tomorrow ... just call us."

*Author's note: AMC.maps is located at <https://amc.maps.us.af.mil>.*

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## Why McConnell?



The planners selected McConnell as the preferred alternative for the KC-46A main operating base for several reasons. Among them are because it has the lowest military construction costs, it is located in a region of high air refueling receiver demand and it already has more than 40 KC-135 Stratotanker refueling aircraft assigned. Replacing those aircraft with approximately the same number of KC-46As required the lowest manpower adjustments of the candidate installations. Even though the KC-46 doesn't require as long a runway as the Stratotanker, runway length was a consideration in basing.

The Air Force tanker fleet is aging, with KC-135s leading with birthdays around 50 years. The KC-46 is intended to begin replacing the KC-135. The aircraft is a multi-role tanker that can refuel U.S., allied and coalition military aircraft that meet international air refueling requirements. It can also carry passengers, cargo and patients. Its structure is based on a Boeing 767 and it will carry 30 percent more patients, up to twice as many passengers, and triple the cargo of the KC-135. The KC-46 is nearly 30 feet longer and wider, stands 10 feet taller and can weigh 50 tons more on takeoff than its predecessors. All these elements play a part in where the aircraft can call home, without requiring significant modifications and expense to the runway and base infrastructure.