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Keep the fuel flowing

IDS' Support Systems keeps tankers in service for generations to come

By KATHERINE SOPRANOS

Doyle Somers personally can attest that a Boeing tanker is built for longevity.

"The last person to fly the KC-135 hasn't even been born yet," said Somers, who has more than 30 years' experience with the KC-135 Stratotanker, including 22 years in the U.S. Air Force.

Somers is among the many Support Systems employees in Integrated Defense Systems who are proud to be a part of Boeing's tanker program, which includes the KC-135, KC-10 and the KC-767. Recent program milestones, including the KC-135's

50th anniversary and the KC-10's 25th anniversary, reinforce Boeing's unrivaled position in the tanker market, as well as the critical role Support Systems plays in keeping tanker aircraft flying and relevant.

"I get emotional when I see this airplane."

—Doyle Somers of KC-135 Support Systems

"Boeing is the tanker company. We're very proud that our predecessors were responsible for developing the KC-135 and KC-10 and turning them into the potent force-extension capabilities that they are today," said Tony Robertson, vice president of Support Systems Maintenance, Modifications and Upgrades. "Our focus is on

The world's military forces mainly use Boeing's KC-135 (foreground) and KC-10 tankers. Boeing offers tanker customers a full spectrum of cost-effective support services for mission readiness and aircraft sustainment.

moving forward with the advanced technologies required to make tomorrow's tankers even more relevant and ready for the network-centric integrated military environment. This reduces risk for the customer and gives them significantly increased air-power advantage."

Tanker aircraft require maintenance, repairs, upgrades and testing for mission readiness and aircraft sustainment. Amid shrinking defense budgets, air force customers worldwide are seeking more economical ways to keep their tankers performing missions successfully and safely.

Support Systems, one of IDS' three



During a recent flight test, a Boeing KC-767 Tanker extends its fifth-generation, fly-by-wire boom telescoping tube as an F-15 follows in near-receiver position.

BUZZ SHADY PHOTO

business centers, supplies those solutions. Boeing offers a full spectrum of cost-effective services that help drive down support and maintenance costs while extending a fleet's life span and delivering higher performance reliability. These range from maintenance, emergency repairs, upgrades and avionics modifications to integrated performance-based logistics, supply-chain management and air-crew training.

KC-10: SUPPORTING A NETWORK-CENTRIC FUTURE

The world's military air forces mainly use Boeing's KC-135 and KC-10 tankers, with Boeing responsible for nearly 2,000 new tankers or tanker conversions over the years. Boeing has delivered more than 99 percent of the boom-equipped tankers ever made.

The KC-10 Extender continues to be a key component to militaries' operations.

"It's a testament to the design of our original KC-10s that 25 years later these aircraft are still supporting our warfighters in the field today," said Mike Wright, Boeing's KC-10 program manager.

Boeing's KC-10 support services include depot maintenance, modifications, air crew training and inventory management. Boeing provides contractor-operated main base supply support for McGuire Air Force Base, N.J., and Travis Air Force Base, Calif. This includes issuing parts to the users and depot facilities and maintaining all ground support equipment. Another customer is the Royal Netherlands Air Force, for the KDC-10. Boeing also maintains supply locations in

Germany, Japan and the Netherlands.

Ongoing modifications include communications, navigation and surveillance equipment to meet future civil air-traffic-control needs. The next major upgrade will be the KC-10A Aircraft Modernization Program, with initial production slated to begin in 2011. Updates will position the KC-10A Extender for global network-centric operations and enhanced survivability.

KC-135: FUELING THE FUTURE

Although it turned 50 in August, the KC-135 still has its eye on the future. A total of 820 KC-135s and its variants were produced between 1956 and 1966. Of the 530 in service today, many are expected to be flying for another 35 years through modernization and upgrades.

"Boeing employees can be proud of their accomplishments in keeping this aircraft ready, sustainable and modern," said Ben Robinson, KC-135 program director. "We're evaluating challenges and developing solutions on how to keep this aircraft healthy for another 35-plus years."

After five decades, the KC-135 fleet still supports most of the U.S. Air Force's and U.S. Navy's air-refueling needs. The Air Force today has KC-135 tankers assigned to

Doyle Somers (left) of KC-135 Support Systems works with Pat Donahay, Functional Systems Integrity Program co-chair of the U.S. Air Force — 135 Program Office, at Tinker Air Force Base, Okla.



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BOB FERGUSON PHOTO

KC-10 support gets Lean

Mike Wright, KC-10 program director, explains to *Boeing Frontiers* recent and planned Support Systems improvements on the KC-10 and how they benefit the customer.

Q: What are some Lean practices and achievements on the KC-10?

A: We have begun our Lean journey on the KC-10. Our first success was on the KC-10 Thrust Reverser modification, which garnered \$3.4 million in additional savings to the program while sustaining a 100 percent on-time delivery rate and zero customer-reported major defects. We also increased the annual aircraft modification rate from nine aircraft per year to the customer's request of 39 per year. Through employee involvement and Lean initiatives, the modification team accomplished this monumental task.

Q: What's the next goal?

A: Our next goal is to apply Lean to our "C" check program—the depot maintenance work on the KC-10—which will cut flow days by 25 percent and provide the customer with a lower cost and increased aircraft availability. Our plan is to reduce the cycle time still further through additional Lean manufacturing improvements. We're also deploying Lean across the program to become more paperless, reduce cost and customer price, improve customer fleet-performance visibility and increase customer aircraft availability.

Q: How do you address the challenge of rising maintenance costs on an aging tanker fleet?

A: We have product support specialists who focus on key cost and mission capability drivers and then work across Boeing and the supplier base to provide innovative solutions. In addition, we are applying Lean+ [one of four Boeing companywide growth and productivity initiatives] to eliminate waste and reduce costs while increasing quality and aircraft availability. We also are deploying a common information system across the program to more quickly identify opportunities for improvement.

—Katherine Sopranos

KC-767: UNMATCHED TANKER EXPERIENCE

Boeing, along with its supplier-partners, is revolutionizing aerial refueling with the KC-767, the world's most advanced tanker. Built on proven technologies from the KC-10, the KC-767 will transform aerial refueling operations from manual to fly-by-wire with new, state-of-the-art capabilities, upgraded capabilities and network-centric operations. Boeing currently is under contract for four KC-767s for the Italian Air Force and four tankers for the Japan Air Self Defense Force. The first tanker for Italy currently is in flight test in Wichita.

"Our focus is to achieve the optimal blend of mission readiness and affordability," said Jeff Homsher, head of IDS Life Cycle Customer Support. "We achieve this goal by leveraging the experience and tools of our Boeing Commercial Airplanes teammates and airline partners as well as the vast experience supporting U.S. Air Force mobility aircraft for more than 50 years."

How will Boeing's deep history in the tanker business translate to world-class support for the KC-767?

"We have the benefit of building upon our KC-135 and KC-10 support experience, as well as our experience in supporting commercial 767 airplanes," said Mark Fruits, deputy for 767 Tanker Integrated Support Systems. Currently, Boeing's airline partners achieve a dispatch rate exceeding 98 percent on more than 900 commercial 767 airplanes, he said.

"When combined with our commitment and experience in depot partnering, Boeing is truly uniquely qualified to provide the optimal support solution," Fruits said.

Across all Boeing tanker programs, Support Systems collaborates with one primary focus in mind—mission readiness for the customer. For Somers, it's not only about work, it's also personal. "The KC-135 is a national asset," he said. "I get emotional when I see this airplane." Built to last, the airplane may evoke this feeling from people for decades to come. ■

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