Boeing Rolls Out First 787 Vertical Fin

Today Boeing [NYSE: BA] celebrated roll out of the first vertical fin for the company's all-new commercial airplane, the 787 Dreamliner. Manufactured and assembled at the Composite Manufacturing Center in Frederickson, Wash., the vertical fin is the largest primary structure of the 787 airframe built by an internal Boeing supplier. The delivery meets a key program milestone as the airplane begins final assembly in Everett, Wash., in preparation for its initial roll out in July.

CMC's milestone achievement for the 787 Dreamliner continues its proven 15-year track record in the application of structural composite materials and manufacturing process technologies used to produce the empennage for the Boeing 777. The 777's vertical fin and horizontal stabilizers together boast an unblemished record of in-service quality performance over nearly 13 years of airline flight operations.

To create additional production capacity to build the 787 vertical fin, the Boeing factory implemented significant Lean improvements, including a pulse moving line featuring right-sized tooling, determinant assembly and advanced technology drilling techniques. Lean manufacturing techniques are used to enhance the quality and efficiency of its production system.

CMC's Lean manufacturing journey, which began in 1996, enabled the business unit to compete and win the role as a tier-one supplier to the 787 Program. Applying Lean also enabled CMC to produce the composite 787 vertical fin without adding brick and mortar to its original factory built to produce the empennage for the Boeing 777.

In addition to reducing total cost, Lean tactics such as moving assembly lines create flexibility, shorten flow times and create more ergonomic environments in which it's safer for employees to do their jobs.

After full implementation of Lean tactics for production of the 787 vertical fin, the Boeing CMC anticipates near-term reductions in factory cycle time; inventory, stores, work-in-process and inventory turn rate by another 20 to 30 percent.

In addition to designing the new Lean flow, Boeing CMC employees designed the entire structure of the vertical fin, including composite and metal subcomponents. The unit is also responsible for fabrication of the vertical fin's main box, or center section; working together on supplier selection and co-management; major assembly, including integration of supplier-provided structures, hydraulics, electronic actuators, signal lights and wires; functional test; and post-delivery support.

The Composite Manufacturing Center is Commercial Airplanes' area of excellence for the development of advanced composite manufacturing process technologies applied to empennage structures. The vertical fin assembly is an elliptical airfoil comprised of the leading edge, center box, trailing edge and rudder which, together, function as flight control surfaces that maintain yaw, or side-to-side horizontal movement of an airplane in flight.

###

For further information:
Deborah Dustman
Boeing Communications
253-931-3779
253-670-2281