

TEAMS AT BOEING: MILITARY AIRCRAFT PRODUCTION AT THE ST. LOUIS PLANT

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The Boeing Company

Long a leader in the aviation industry, the Boeing Company was formed in 1916 as the Pacific Aero Products Company in Seattle; the name was changed to Boeing a year later. The company was created by William Boeing. Originally from Detroit, Boeing moved to the Pacific Northwest where he made a fortune in timber lands. He soon developed a fascination with the just emerging field of aviation, and began building seaplanes. World War I created a demand for planes and by 1918, Boeing employed more than 300 people. During the post War years, demand for planes dropped, but Boeing was kept in business in part by military contracts, and in part, by venturing into new markets, such as mail delivery. In the latter case, Boeing not only built the planes but also flew them. A 1934 antitrust decision outlawed airplane manufacturers from owning mail-carrying airplanes, and Boeing divested itself into the Boeing Airplane Company, and what became United Airlines and United Technologies. World War II cemented Boeing's leadership in the manufacture of planes for both military and commercial purposes ("A brief history"). Boeing merged with North American and McDonnell Douglas in the 1990s.

Teams and the C-17 Globemaster III

The C-17 Globemaster III is a major workhorse for the U.S. military in moving men and materials. These planes are huge: at 174 long, they are more than half the length of a football field. Through its rear-loading ramp, the C-17 can carry 102 paratroopers and their equipment, or three Bradley fighting vehicles, or one of the Army's Abrams main battle tanks. Eventually, the U.S. military will have 120 such planes. Final assembly is completed at the Long Beach, California plant. C-17 teams at the St. Louis plant produce various components, including:

- Canted bulkheads (2)
- Cargo doors (3) (4)
- Cargo ramps (3) (4)
- The nose (3) (4)
- Longerons (6)
- Pylons (7)

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As of 2001, there were 28 HPWO teams involved in various aspects of the C-17 program.

The operational importance of the HPWO team structure to the C-17 program can be illustrated in the following examples:

- The C-17 Canted Bulkhead team of eight drills about 8,000 holes in each bulkhead. The team also uses a Statistical Process Control process to keep real-time records of their work-in-progress, recording defects as soon as they happen which in turn prompts immediate corrective action. As a result of following this rigorous procedure, Boeing has "certified" this team and its process. This means that rather than waiting for quality