

## NASA Told To Pay Boeing \$28.3M In Patent Case

By **Ryan Davis**

Law360 (April 20, 2009, 12:00 AM EDT) -- A federal judge has ordered NASA to pay the Boeing Co. a total of \$28.3 million, including \$11.3 million in interest, after concluding that techniques used in constructing the space shuttle infringed a single Boeing patent for a process to reduce aircraft weight.

Judge Francis M. Allegra of the U.S. Court of Federal Claims ruled against NASA in March and ordered the space agency to pay Boeing \$16.9 million in royalties. He also ordered the two parties to submit a proposed judgment calculating the amount of prejudgment interest due on the royalties.

NASA and Boeing jointly filed a proposed judgment on Friday, stipulating that the total interest should be \$11.4 million, bringing the total award to Boeing to \$28.3 million. For each day after Friday that the judgment is not paid, the interest will increase by \$2,540, the parties stipulated. Judge Allegra entered that judgment later in the day on Friday.

Boeing sued NASA in 2000, alleging that a technique used by the space agency to manufacture parts of the shuttle infringed a Boeing patent for creating aluminum lithium alloys, according to the ruling.

In December 2005, Judge Allegra found that the patent was valid and that NASA had infringed it by using Boeing's technology in manufacturing the large brownish-orange fuel tank connected to the orbiter during launch.

A trial was held in 2008, concluding in May, to calculate damages. Judge Allegra found that the total royalties due to Boeing should be \$16.9 million.

According to the judge's ruling, Boeing began experimenting with ways to reduce the weight of its airplanes in the 1970s and '80s, a move spurred by high jet fuel prices. The company's experiments focused on aluminum-lithium alloys, which had previously been shunned by the industry because they were thought to fracture easily.

Boeing eventually developed a composition that could be heat-treated with a process called low-temperature underaging to create an alloy suitable for airplane manufacturing, the opinion said. The company patented the underaging process in 1989 and licensed the patent to three aluminum manufacturers.

Around the same time, NASA began working on ways to reduce the weight of the space shuttle's external tank, in part because of weight restrictions related to construction of the International Space Station, according to the opinion.

The space agency contracted with Lockheed Martin Space Systems Co. to design a new external tank, the ruling said. In 1994, a team of NASA and Lockheed employees began using low-temperature underaging to strengthen the alloy used in the tank. The new super-lightweight tank first flew in a shuttle mission in 1998 and is still used today.

In 1998, Boeing came to believe that Lockheed was using its patented technique to develop the new tank and offered to license the patent to Lockheed, according to the opinion. Lockheed did not acknowledge the offer and told Boeing to take up any allegations of infringement with NASA.

According to the ruling, Boeing then sued the space agency in 2000.

NASA unsuccessfully argued that the alloy used in the shuttle had a different chemical composition and used a different type of heat treatment than alloys made according to Boeing's patent, the ruling said.

The patent-in-suit is U.S. Patent Number 4,840,682, issued in 1989 and titled "Low temperature underaging process for lithium bearing alloys."

Boeing is represented by Ganfer & Shore LLP and Carter Ledyard & Milburn LLP.

The case is *The Boeing Co. v. U.S.*, case number 00-cv-00705, in the U.S. Court of Federal Claims.