

THE WILLIAM E. BOEING DEPARTMENT OF
AERONAUTICS & ASTRONAUTICS
CHAIR'S DISTINGUISHED SEMINAR SERIES
WELCOMES

STEVEN CHISHOLM
DIRECTOR – STRUCTURES ENGINEERING
BOEING COMMERCIAL AIRPLANES

***“Full Scale Fatigue Testing of Boeing Airplanes
and Smarter Testing”***

ABSTRACT

Boeing has conducted full-scale fatigue tests on all of its major models, ranging from the 707 fuselage pressure hydro-fatigue test nearly sixty years ago to the recently completed full-scale test of the 787. Full-scale fatigue testing has long been a major part of Boeing structural performance data development, for both new models and airplanes retired from service. We will discuss this testing and explore the results from the 787 specifically. We will then discuss Smarter

Testing. How does Boeing ensure that the structure and systems on its aircraft meet regulatory requirements? A rigorous building block approach verifies and validates analysis by tests, from the component to the assembly level. Smart testing through simulation maximizes the benefit of necessary tests, augments understanding of performance within and beyond the envelope of test data and minimizes unplanned tests in attaining certification.



WILLIAM E. BOEING
DEPARTMENT OF AERONAUTICS & ASTRONAUTICS

UNIVERSITY of WASHINGTON

Monday, April 23, 2018
4:00 - 5:00 pm
Guggenheim Hall Rm. 220

THE WILLIAM E. BOEING DEPARTMENT OF AERONAUTICS & ASTRONAUTICS

Chair's Distinguished Seminar Speaker



Steven A. Chisholm Director – Structures Engineering **Boeing Commercial Airplanes**

Biography

Steve Chisholm is the Boeing Commercial Airplanes (BCA) Director of Structures Engineering. In this capacity, Chisholm leads BCA Airplane Structures in support of Airplane Development, Airplane Programs, Product Development and Commercial Aviation Services. He also is responsible for driving functional excellence for all Structures Design and Stress skills across BCA as well as the Structures Engineering process and skill owner for BCA.

Before this assignment, Chisholm was the Chief Structures Engineer for BCA Program Technical Support, and was responsible for providing technical leadership for structural requirements and compliance to Boeing airplane business units while supporting daily program technical activities, continued airworthiness and the in-service fleet. Previously, he was the structures integration leader for the 787 program, where he provided functional

leadership across the various 787 teams. He also provided structures technical leadership for several years for Commercial Airplanes programs in Renton, Washington.

Chisholm is a strong supporter of airplane safety. He was an Authorized Representative for the FAA, he has long been involved in safety and compliance issues, and he was a member of the Boeing Technical Fellowship before entering management. Chisholm has been an active member of several airplane accident investigations and continues to provide leadership to the structures team that supports investigations.

Chisholm joined Boeing in 1986 as a structural stress analyst on the 747 and 767 programs. He holds a Bachelor of Science in mechanical engineering from the University of Washington and a Masters in Business Administration from Seattle University.



WILLIAM E. BOEING
DEPARTMENT OF AERONAUTICS & ASTRONAUTICS
UNIVERSITY of WASHINGTON

Monday, April 23, 2018
Guggenheim Hall Rm. 220
UW Campus, Seattle, WA