Paper ID: 28611
poster

MATERIALS AND STRUCTURES SYMPOSIUM (C2)
Interactive Presentations (IP)

Author: Mr. zhang qian
China Academy of Aerospace Aerodynamics (CAAA), China

ON THE DEVELOPMENT OF ARC TUNNEL TEST TECHNOLOGY FOR CONTROL SURFACE SEAL EVALUATIONS

Abstract

CAAA has developed test technology for control surface seal evaluations and flap designs under simulated heating conditions in CAAA's arc tunnel test facilities. This technology is capable of testing a variety of seal designs with a variety of control surface materials and designs. The flap angle and cabin angle can be varied during testing, using by two independent pneumatic drive apparatuses, allowing modification of the seal environment while testing is in progress. Tests were carried out on one model at three different test conditions, test data of model and temperature are acquired, which can be used to evaluate control surface seal design.