National Center for Advanced Materials Performance

Document Number: NSP 110

Operating Procedures and Bylaws for NCAMP

Acronyms

MAB Manufacturers Advisory Board.

PRT Performance Review Team

RGB Regulatory Governing Board

SAB Suppliers Advisory Board

CMH-17 Composite Materials Handbook 17 (formerly MIL-HDBK-17)

Preface

The National Center for Advanced Materials Performance (NCAMP) develops and maintains an aerospace industry-shared composite material property database along with their material and process specifications. The NCAMP shared material property database contains material property data of common usefulness to a wide range of aerospace projects. The intent of NCAMP is to promote the publication of data for advanced composite materials which may be used in the design and certification of aircraft structure. However, it is not anticipated that the data provided will fulfill all the design needs of every project. Each user will need to assess the data available against the specific properties, environments, laminate architecture, and loading situations of their individual projects. In most structural applications, additional testing will be required.

The composites industry is guided by Composite Materials Handbook 17 or CMH-17 (formerly known as MIL-HDBK-17). While some users regard CMH-17 as the equivalent of the metals industry standards organization, MMPDS (formerly known as MIL-HDBK-5), MMPDS remains the only U.S. government-recognized public source of published design-allowable properties for commercial and military aircraft structures and mechanically fastened joints. The composite material allowables published in revision F and earlier CMH-17 generally are not accepted by the FAA, NASA, or the U.S. Department of Defense (DoD) for aircraft certification and airworthiness without additional substantiating evidence. NCAMP, in partnership with the FAA and CMH-17, began the effort of changing this in 2005. As a result, NCAMP developed its Standard Operating Procedures (document: NSP 100) to describe procedures for material property data acquisition, material qualification, material allowable generation, and material equivalency processes. The procedures described in NSP 100 are intended to generate data and specifications for advanced composite materials which may be used in the design and certification of aircraft structure. In addition, Complete Documentation sections have been created in CMH-17 revision G for datasets designed to meet the rigors of U.S. government certification requirements. The NCAMP's material property data acquisition process is designed to generate basic material property data with sufficient pedigree and control for submission to the Complete Documentation sections.

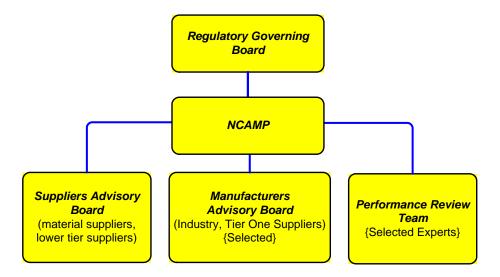


Figure 1. NCAMP Organizational Structure

The Regulatory Governing Board consists of individuals from the U.S. Air Force, Army, FAA, NASA, and Navy. RGB's primary role is to oversee the NCAMP procedures such as NSP 100 to ensure design data generated meet regulatory requirements. RGB also oversees NCAMP activities to ensure competence and performance in meeting industry needs. When necessary, RGB may establish guidelines for specific one-time only NCAMP activities; such material selection process for a specific need or application.

This document represents the first attempt to define formal operating procedures and bylaws for the RGB. It is a working document that will be revised as more effective procedures are created. Although RGB is currently an NCAMP board, it is envisioned that this board will be merged with CMH-17 leadership in the future as part of the ongoing CMH-17/NCAMP harmonization process.

ARTICLE I NAME, PURPOSE AND GOALS

Section 1. Name

The name of this organization shall be **Regulatory Governing Board (RGB)**.

Section 2. Purpose

The purpose of the document is to provide consistent approach and procedures for the **Regulatory Governing Board (RGB)**.

Section 3. Scope of Activities

- 1. Provide a means for interaction, discussion of common issues, and problem solving among participating government agencies.
- 2. Consolidate the common interests of participating government agencies related to advanced composite material allowables and specifications.

 $\mbox{\ensuremath{\mathfrak{R}}}\mbox{iil}$ be taken for any proposed modifications - 7 othe By-Laws. $\ 7$