

ITOP 1-1-050

DEVELOPMENT OF LABORATORY VIBRATION TEST SCHEDULES

SCOPE

Materiel must be designed to withstand the vibration environment normally encountered during ground vehicle and helicopter transport as secured cargo and / or installed equipment without losing the ability to perform its intended mission. To ensure this, laboratory-simulated vibration tests are used extensively in lieu of more time-consuming and less cost-effective loading / installing equipment in various vehicles and operating them for appropriate distances over test courses.

This ITOP presents the considerations and techniques involved in developing laboratory vibration schedules that simulate the field transportation vibration associated with tactical vehicles. The term "schedule" is used to describe acceleration amplitudes as a function of frequency for stated time periods.