
Space systems — Magnetic testing

Systèmes spatiaux — Essais magnétiques

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Published in Switzerland

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Foreword

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This document was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 14, *Space systems and operations*.

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Introduction

The magnetic torque, which is created by the interaction between a geomagnetic field and the remnant magnetic moment of the spacecraft, has considerable disturbance on the flight attitude of the spacecraft. The magnetic field of the spacecraft itself will affect a magnetometer scientific payload sensitive to spacecraft-induced magnetic fields. Thus, magnetic tests on Earth-orbiting or interplanetary spacecraft missions with very stringent requirements on magnetic cleanliness are needed in order to ensure that the spacecraft's inherent magnetic properties meet the design goals.

This document provides magnetic test requirements and methods for measuring and evaluating magnetic properties of the spacecraft. The magnetic test methods outlined in this requirements document are effective enough to verify the compliance of magnetic requirements imposed on the spacecraft and to ensure the success of spacecraft flight missions free of magnetic interference and magnetic contamination due to magnetic materials and induced current-generated magnetic fields of the spacecraft.

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