

TELEMETRY STANDARDS

ABERDEEN TEST CENTER
DUGWAY PROVING GROUND
ELECTRONIC PROVING GROUND
REAGAN TEST SITE
REDSTONE TEST CENTER
WHITE SANDS TEST CENTER
YUMA PROVING GROUND

NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION PATUXENT RIVER NAVAL AIR WARFARE CENTER WEAPONS DIVISION CHINA LAKE NAVAL AIR WARFARE CENTER WEAPONS DIVISION POINT MUGU NAVAL SURFACE WARFARE CENTER DAHLGREN DIVISION NAVAL UNDERSEA WARFARE CENTER DIVISION KEYPORT NAVAL UNDERSEA WARFARE CENTER DIVISION NEWPORT PACIFIC MISSILE RANGE FACILITY

30TH SPACE WING
45TH SPACE WING
96TH TEST WING
412TH TEST WING
ARNOLD ENGINEERING DEVELOPMENT COMPLEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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TELEMETRY STANDARDS

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TELEMETRY GROUP

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Changes in This Edition

This document is an updated version of and replaces Range Commanders Council (RCC) Document 106-17. The RCC Telemetry Group (TG) made an extensive effort to produce a well-coordinated and useful document. The following is a summary of these efforts.

- a. Task TG-151: Update to IRIG 106, Standard Telemetry Channel Models.
 - OBJECTIVE/SCOPE: This is a stand-alone task to define two standard telemetry channel models, one for over the land and one for over the water. The models will be based upon empirical data collected over the last 10 years during channel sounding experiments at land and sea ranges.
- b. Task TG-161: IRIG 106 and 118 document corrections.
 - OBJECTIVE/SCOPE: Several users of IRIG 106 Chapter 2 and the test methods described in IRIG 118 have identified several inconsistencies within the documents. This task will update and correct those inconsistencies.

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Preface

The TG of the RCC has prepared this document to foster the compatibility of telemetry transmitting, receiving, and signal processing equipment at the member ranges under the cognizance of the RCC. The range commanders highly recommend that telemetry equipment operated by the ranges and telemetry equipment used in programs that require range support conform to these standards.

These standards do not necessarily define the existing capability of any test range, but constitute a guide for the orderly implementation of telemetry systems for both ranges and range users. The scope of capabilities attainable with the utilization of these standards requires the careful consideration of tradeoffs. Guidance concerning these tradeoffs is provided in the text. The standards provide the necessary criteria on which to base equipment design and modification. The ultimate purpose is to ensure efficient spectrum utilization, interference-free operation, interoperability between ranges, and compatibility of range user equipment with the ranges.

This standard is complemented by a companion series: RCC Document 118, Test Methods for Telemetry Systems and Subsystems; RCC Document 119, Telemetry Applications Handbook; RCC Document 123, IRIG 106 Chapter 10 Programmers Handbook; and RCC Document 124, Telemetry Attributes Transfer Standard (TMATS) Handbook.

The policy of the TG is to update the telemetry standards and test methods documents as required to be consistent with advances in technology.

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