

# Hardware Limited Warranty

SIGMET, Inc. warrants its IRIS hardware (RVP6, RVP7, RVP8, and RCP02) to function according to the hardware User's Manual documentation for a period of one year following delivery. In the event of a failure during the warranty period, the customer should notify SIGMET to obtain a Return Authorization. Upon receiving the Return Authorization from SIGMET, the customer ships the failed unit to SIGMET by pre-paid freight. SIGMET, at its option, will repair or replace the defective unit within 30 days and return the unit to the customer.

Damage caused by fire, flood, lightning, or other catastrophe, and damage caused by misuse or abuse are not covered by this warranty.

**In no event shall SIGMET, Inc. be liable for any direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use the hardware or documentation provided by SIGMET, Inc. SIGMET, Inc. makes no warranty, either express or implied, with respect to any of the hardware or documentation, as to the quality, performance, merchantability, or fitness for a particular purpose.**

# Preface

This manual provides technical information on the RVP7 signal processor.

## About This Manual

This manual is used primarily by engineers for installation and troubleshooting, or by users interested in understanding the signal processing features, algorithms, and control and data formats.

Chapter 1, *Introduction and Specifications*, describes the major features of the RVP7 signal processor and gives its technical specifications.

Chapter 2, *Hardware Installation*, discusses the electrical issues involved with installing the RVP7/Main processor card and RVP7/IFD receiver module. This includes power supply connections, radar analog and digital signal interfaces, computer interface connections, jumper settings, as well as installation of the optional auxiliary processing boards.

Chapter 3, *TTY Nonvolatile Setups*, continues the installation discussion by describing how to use the local TTY to configure the actual operation of the RVP7. This includes a detailed description of the (approximately one hundred) setup parameters that affect the operation of the RVP7.

Chapter 4, *Plot-Assisted Setups*, completes the installation discussion by using the oscilloscope plotting modes to configure and align the radar receiver, and measure its performance.

Chapter 5, *Processing Algorithms*, gives mathematical descriptions of the processing algorithms implemented in the RVP7 signal processor. This information can be useful to those writing their own interface to the RVP7, or for those who want to learn more about the internal workings of the signal processor.

Chapter 6, *Host Computer Commands*, contains a description of the digital commands that the host computer must use to set up and control the RVP7 processor. The introductory section discusses processor I/O in general, and gives an overview of how to set up the RVP7 for recording data. Each command is then detailed in subsequent sections.

The appendixes give information on clutter filter characteristics, the real time display serial stream, and the 3-board chassis.

## Where to Find More Information

The following manuals are also available from SIGMET, Inc.:

<i>IRIS Installation Manual</i>	Describes the procedures for installing and upgrading IRIS and the specific hardware and software configuration for your facility.
<i>IRIS User's Manual</i>	Describes how to run the IRIS menus, an X-based interface to IRIS.




<i>IRIS Utilities Manual</i>	Describes the utility programs for system alignment, calibration, installation and testing.
<i>IRIS Programmer's Manual</i>	Describes the data formats and library routines used by IRIS. This manual is for programmers who want to access IRIS data or interface to IRIS processes. This manual also describes the User Product Insert feature, which lets programmers define new IRIS product types.
<i>The RCP02 User's Manual</i>	Describes the installation, operation and technical details of the Radar Control Processor. The RCP02 is an interface between the IRIS software and miscellaneous hardware such as the antenna and transmitter.

SIGMET, Inc. encourages you to send your comments and/or corrections to:

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## Documentation Conventions

The following conventions are used throughout this manual:

prompt	Some features of the RVP7 operate by displaying questions and waiting for you to type an answer. The text of prompts is displayed in bold, monospaced type.
	This margin icon indicates a note that may be of interest to the reader.
	This margin icon indicates a note that is important to the reader.
	This margin icon indicates a caution or warning to the reader.