



Input Formats and Specifications of the National Geodetic Survey Data Base

Volume I. Horizontal Control Data

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PREFACE

"Input Formats and Specifications of the National Geodetic Survey (NGS) Data Base," commonly called the "Blue Book," is a user's guide for preparing and submitting geodetic data for incorporation into NGS' data base. Survey data that are entered into NGS' data base become part of the National Spatial Reference System (NSRS), formerly the National Geodetic Reference System. The guide is distributed on the Internet at <http://www.ngs.noaa.gov/FGCS/BlueBook>. It comprises three volumes and several Annexes. Volume I covers classical horizontal geodetic and Global Positioning System (GPS) data, volume II covers vertical geodetic data, and volume III covers gravity data.

The formats and specifications are consistent with the aims of the Executive Office of the President, Office of Management and Budget's (OMB) Circular A-16, as revised in 1990. A major goal of the circular, which is titled "Coordination of Surveying, Mapping, and Related Spatial Data Activities," is to develop a national spatial data infrastructure with the involvement of Federal, state, and local governments, and the private sector. This multilevel national information resource, united by standards and criteria established by the Federal Geodetic Control Subcommittee (FGCS) of the Federal Geographic Data Committee (FGDC), will enable the sharing and efficient transfer of geospatial data between producers and users.

Survey data that are submitted to NGS for incorporation into NSRS should be properly formatted and supply minimum accuracies of:

First-order horizontal accuracy standards for GPS and conventional horizontal surveys;

Second-order, class II vertical accuracy standards for conventional leveling;

Third-order gravity standards for gravity surveys.

Effective September 1, 1995, survey project data must meet the above minimum accuracy standards to be accepted for inclusion into the NGS data base. Surveys that are of lower order than given above will be accepted only in exceptional cases approved by the Director, NGS.

In addition, these data standards and accuracies must be verified and the survey data contributed for inclusion into the NGS data base must be processed and adjusted by the provider, using currently available NGS software, before submitting the survey project to NGS.

At this time, NGS provides review, archiving, and distribution functions free of charge for survey data submitted in the proper format. These surveys must contain connections to NSRS in accordance with FGCS Standards and Specifications and they must contribute to the public good.

Chapter 1 - HORIZONTAL CONTROL (HZTL) DATA
Chapter 2 - HORIZONTAL OBSERVATION (HZTL OBS) DATA
Chapter 3 - superseded by Annex P
Chapter 4 - not to be published

THE FOLLOWING ANNEXES ARE AVAILABLE AS LINKS FROM THE WEBSITE
<http://www.ngs.noaa.gov/FGCS/BlueBook/>:

ANNEX A - NGS STATE AND COUNTRY CODES
ANNEX B - STATE PLANE COORDINATES (SPC) ZONE CODES
ANNEX C - CONTRIBUTORS OF GEODETIC CONTROL DATA
ANNEX D - GUIDELINES FOR GEODETIC CONTROL POINT DESIGNATIONS
ANNEX E - STATION ORDER-AND-TYPE (OT) CODES
ANNEX F - NGS SURVEY EQUIPMENT CODES
ANNEX G - ELLIPSOID HEIGHT ORDER-AND-CLASS (OC) CODES
ANNEX H - STANDARD TIME ZONES
ANNEX K - PROJECT REPORT INSTRUCTIONS
ANNEX L - GUIDELINES FOR SUBMITTING GPS RELATIVE POSITIONING DATA
ANNEX M - NGS GPS ANTENNA CODES
ANNEX N - GLOBAL POSITIONING SYSTEM DATA TRANSFER FORMAT
ANNEX P - GEODETIC CONTROL DESCRIPTIVE DATA (D-FILE)

Chapter 1 - HORIZONTAL CONTROL (HZTL) DATA 1-1

 INTRODUCTION 1-1

 JOB CODE AND SURVEY POINT NUMBERING 1-1

 MEDIA FOR SUBMITTING DATA 1-3

 FIGURE 1-1 - Station serial numbers assigned
 to control points 1-4

 FIGURE 1-2 - Station serial numbers assigned to control
 points and to peripheral points 1-5

 CODING, KEYING, AND DATA VERIFICATION 1-6

 SPECIAL CHARACTERS 1-6

 SEQUENTIAL RECORD NUMBERING 1-7

Chapter 2 - HORIZONTAL OBSERVATION (HZTL OBS) DATA 2-1

 INTRODUCTION 2-1

 HZTL OBS DATA SET RECORDS 2-1

 TABLE 2-1 - Horizontal Observation Data Set Records 2-2

 STRUCTURE OF THE HZTL OBS DATA SET 2-3

 TABLE 2-2 - HZTL OBS Structure 2-3

 PROJECT DATA (*10*-*13*) RECORDS 2-5

 Project Title 2-5

 Survey Method. 2-6

 Order and Class of Survey 2-6

 DATE AND TIME 2-7

 Date 2-7

 Time 2-7

 Time Zone 2-7

 TABLE 2-3 - U.S. Navy Time Zone Designations 2-8

 OBSERVATION DATA (*20*-*60*-series) RECORDS OVERVIEW 2-8

 Standpoint and Forepoint 2-9

 Station Serial Number 2-9

 Weather Code 2-10

 TABLE 2-4 - Weather Code 2-10

 Job-Specific Instrument Number 2-10

 Job-Specific GPS Antenna Number 2-11

 Height of Instrument and Height of Target 2-11

 Height of GPS Antenna 2-11

 Visibility Code 2-11

 ASSIGNMENT OF STATION SERIAL NUMBERS 2-12

 Control Points 2-12

 Peripheral Points 2-13

TREATMENT OF ECCENTRIC OBSERVATIONS	2-14
Method A	2-14
Method B	2-14
ACCURACY OF THE OBSERVATIONS	2-15
Number of Replications	2-16
Rejection Limit	2-16
Internal Consistency Sigma	2-17
External Consistency Sigma	2-17
HORIZONTAL DIRECTION (*20*-*22*) DATA RECORDS	2-17
Set Number	2-18
Number of Objects Sighted in This Set	2-18
Date and Time	2-18
GLOBAL POSITIONING SYSTEM (*25*-*29*) DATA RECORDS	2-18
Job-Specific Data Media Identifier	2-19
HORIZONTAL ANGLE (*30*-*32*) DATA RECORDS	2-19
Set Number	2-20
Number of Angles Observed in This Set	2-20
Date and Time	2-20
VERTICAL ANGLE/ZENITH DISTANCE (*40*-*42*) DATA RECORDS	2-21
Set Number	2-22
Number of VAs or ZDs Observed in This Set	2-22
Date and Time	2-22
Angle Code	2-22
DIFFERENCE OF ELEVATION (LEVEL) (*45*-*47*) DATA RECORDS	2-23
Number of Replications	2-23
Date and Time	2-24
DISTANCE DATA (*50*-*55*) RECORDS	2-24
Date and Time	2-25
Distance Code	2-26
AZIMUTH DATA (*60*, *61*) RECORDS	2-26
Date and Time	2-27
Origin of Azimuth	2-27
SURVEY EQUIPMENT DATA (*70*-*72*) RECORDS	2-28
NGS Survey Equipment Code	2-28
Resolution of the Instrument and Units	2-28
NGS Antenna Code	2-28a
Antenna Phase Pattern File	2-28a
Source Organization	2-28a

SURVEY POINT DATA (*80*-*86*) RECORDS	2-29
Station Name	2-30
Name or Designation of RM or AZ MK	2-32
Name or Designation of Bench Mark	2-33
Geodetic Position	2-34
Elevation and Elevation Code	2-34
Station Order and Type	2-35
TABLE 2-5 - Allowable Order Codes	2-37
TABLE 2-6 - Allowable Type Codes	2-38
Geoid Height	2-38
Deflection of Vertical	2-39
RECORD FORMATS	2-41
Required Data	2-41
Characteristics of the several data types/fields	2-41
Data Set Identification (*aa*) Record	2-42
Project Data (*10*-Series) Records	2-43
Horizontal Direction Data (*20*-Series) Records	2-46
Global Positioning System Data Records	2-50
Horizontal Angle Data (*30*-Series) Records	2-54
Vert Angle/Diff of Elevation (Level) Data(*40*-Series) Records	2-59
Distance Data (*50*-Series) Records	2-64
Azimuth Data (*60*-Series) Records	2-73
Survey Equipment Data (*70*) Record	2-76
GPS Antenna Data (*71*) Record (superseded)	2-76a
GPS Antenna Data (*72*) Record	2-76b
Survey Point Data (*80*-Series) Records	2-77
Data Set (*aa*) Termination Record	2-86