

SnowEx21 Cameron Pass Ground Penetrating Radar Raw, Version 1 Technical Reference

1 INTRODUCTION

1.1 DATA SET OVERVIEW

This data set contains the raw results of 1 GHz ground-penetrating radar surveys conducted at Cameron Pass, Colorado during the SnowEx21 campaign. A [processed version](#) of this data set with corresponding User Guide are also available. The User Guide contains the spatial and temporal information, data acquisition details, and instrumentation applicable to the raw data.

1.2 File Information

1.2.1 Format

The data are available in two zipped folders, each containing a series of comma-separated value (.csv) files, binary files (.dt1), and two types of text files (.hd and .ini).

1.2.2 Naming Convention

The two zipped folders are named SNEX21_COCPMR_GPR_Raw_01132021_05272021.csv and SNEX21_COCPCP_GPR__Raw_01132021_05202021.csv. SNEX21 refers to the SnowEx 2021 Time-Series Campaign. COCPMR refers to the Colorado, Cameron Pass, Michigan River Field site. COCPCP refers to the Colorado, Cameron Pass, Cameron Peak Field site. The numbers are formatted as MMDDYYYY and represent the start and end of the temporal coverage. Individual files are named MMDDYYYY_line# followed by the file extensions: .dt1, .hd, .ini., or .csv. MMDDYYYY represents the date of data collection, and line# identifies the survey line.

1.2.3 File Contents

Descriptions of the contents of each file type are in Table 1.

Table 1. File Contents

Variable	Description
MMDDYYYY_line#.dt1	Ground-penetrating radar binary file containing the radargram
MMDDYYYY_line#.hd	Text file containing the instrument and collection parameters
MMDDYYYY_line#.ini	Text file containing the configuration settings for the radar collection
MMDDYYYY_line#.csv	Comma-separated values for radar traces and corresponding post-processed WGS84 GPS latitude, longitude, and elevation

Each .csv file contains 4 columns with the parameters listed in Table 2.

Table 2. CSV Parameters

Variable	Unit	Description
Latitude	°	Post-processed WGS84 PGS latitude
Longitude	°	Post-processed WGS84 PGS longitude
Altitude	m	Meters above ellipsoid
Trace number	-	Radar trace

2 RELATED DATA SETS

[SnowEx at NSIDC | Data Sets](#)

[SnowEx20 Cameron Pass Ground Penetrating Radar](#)

[SnowEx20 Cameron Pass Ground Penetrating Radar Raw](#)

[SnowEx21 Cameron Pass Ground Penetrating Radar](#)