

Seeded and Natural Orographic Wintertime clouds—the Idaho Experiment (SNOWIE)  
National Center for Atmospheric Research and Idaho Power Company SNOWIE Precipitation  
Gauges

Updated 27 March 2018

1. **Dataset Title**

Hydrology/Land Based: Precipitation – Idaho Power Company and NCAR SNOWIE  
Precipitation Gauges

2. **Dataset Author(s)**

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3. **Time of Interest**

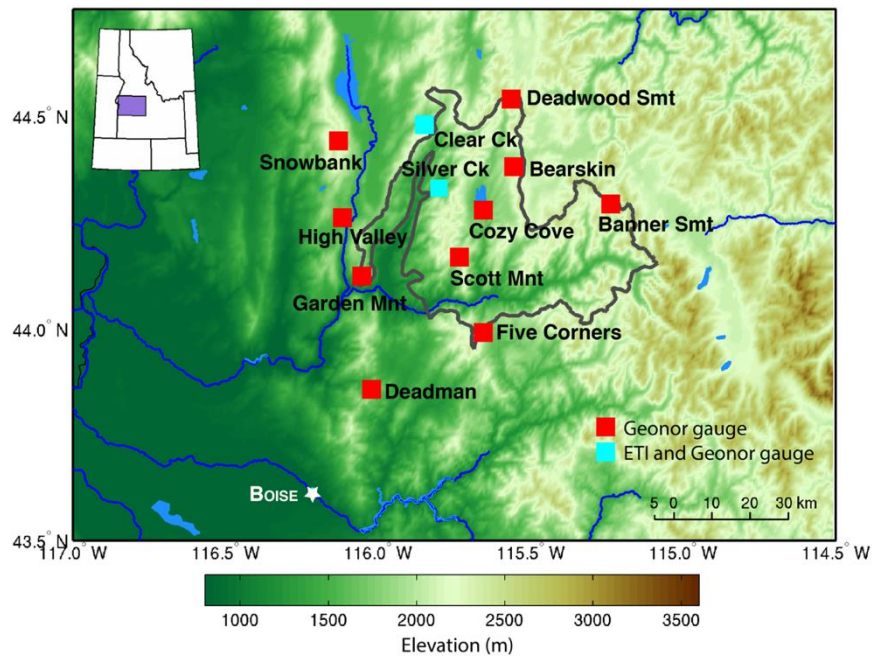
When gauge data are available, precipitation time series for the following dates are  
provided for each gauge site. All IOP time periods are included.

2017/01/07 00:00 2017/01/07 23:59  
2017/01/08 00:00 2017/01/08 23:59  
2017/01/09 00:00 2017/01/09 23:59  
2017/01/10 00:00 2017/01/10 23:59  
2017/01/11 00:00 2017/01/11 23:59  
2017/01/18 00:00 2017/01/18 23:59  
2017/01/19 00:00 2017/01/19 23:59  
2017/01/20 00:00 2017/01/20 23:59  
2017/01/21 00:00 2017/01/21 23:59  
2017/01/22 00:00 2017/01/22 23:59  
2017/01/23 00:00 2017/01/23 23:59  
2017/01/31 00:00 2017/01/31 23:59  
2017/02/03 00:00 2017/02/03 23:59  
2017/02/04 00:00 2017/02/04 23:59  
2017/02/05 00:00 2017/02/05 23:59  
2017/02/07 00:00 2017/02/07 23:59  
2017/02/16 00:00 2017/02/16 23:59  
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2017/02/19 00:00 2017/02/19 23:59  
2017/02/20 00:00 2017/02/20 23:59  
2017/02/21 00:00 2017/02/21 23:59  
2017/02/22 00:00 2017/02/22 23:59  
2017/03/04 00:00 2017/03/04 23:59  
2017/03/05 00:00 2017/03/05 23:59  
2017/03/07 00:00 2017/03/07 23:59  
2017/03/09 00:00 2017/03/09 23:59

#### 4. Area of Interest

- Approximately, 43.5 – 44.75 deg N. and 117.0 – 114.5 deg W.
- Ten sites in the SNOWIE domain were installed by IPC and equipped with Geonor gauges and two sites installed by NCAR had both ETI and Geonor gauges (total of 12 gauge sites in the SNOWIE domain).
- Site photos are available upon request.

| Site Name ID     | Location            | Equipment       | Latitude (deg) | Longitude (deg) | Elevation |
|------------------|---------------------|-----------------|----------------|-----------------|-----------|
| BannerSmt        | Banner Summit       | IPC Geonor      | 44.3038        | -115.2342       | -9999     |
| CozyCove         | Cozy Cove           | IPC Geonor      | 44.2878        | -115.6553       | -9999     |
| Deadman          | Deadman             | IPC Geonor      | 43.8657        | -116.0240       | -9999     |
| DeadwoodSmt      | Deadwood Summit     | IPC Geonor      | 44.5450        | -115.5630       | -9999     |
| GardenMtn        | Garden Mountain     | IPC Geonor      | 44.1344        | -116.0559       | -9999     |
| HighValley       | High Valley         | IPC Geonor      | 44.2662        | -116.1168       | -9999     |
| ScottMtn         | Scott Mountain      | IPC Geonor      | 44.1758        | -115.7267       | -9999     |
| SnowbankMountain | Snowbank Mtn Site A | IPC Geonor      | 44.4402        | -116.1261       | -9999     |
| 5Corners         | Five Corners        | IPC Geonor      | 43.9960        | -115.6582       | -9999     |
| ClearCreek       | Clear Creek         | NCAR ETI-Geonor | 44.4832        | -115.8483       | -9999     |
| SilverCreek      | Silver Creek Plunge | NCAR ETI-Geonor | 44.3358        | -115.7988       | -9999     |





average precipitation accumulation (in mm) from good vibrating wires. If data from the previous day is available, the last data record from the previous day is the initial time of accumulation; otherwise, the accumulation starts from the first record of the day. If all vibrating wires misbehaved at a site, -999 was assigned to indicate bad values.

- b) Diurnal temperature variations affect the ETI measurement. Thus, temperature-based corrections have been performed to the raw data. This involves applying a correction factor (which varies with time and is not the same for all gauges), which is determined from the air temperature and depth indicator on clear days, to each day of interest. More detailed description of this technique is available upon request. No data smoothing has been performed for level 1 data.
- c) Each ETI data file also starts from the last record from the previous day if available; otherwise, the accumulation starts from the first record of the day. -999 indicates unusable data.
- d) For level 1 data, the time series contain all available data. However, there are signs of **capping** (when snow adheres/accumulates around the gauge orifice excessively and causes an under-accumulation until a sudden precipitation increase when the adhered snow falls into the gauge) and **dumping** (when the capped snow dumps into the gauge, often occurs due to warming in the morning) noted during the visual inspection. Users of the data should carefully inspect the data for these features when using the data initially.
- e) Large negative data were identified as bad data as best possible. However, small oscillations from vibrating wires can produce small negative accumulation. These negative accumulations are left in the data.
- f) If the gauge was not working during the entire day, then the data file was not generated.
- g) Level 2 data (will be released at a later time) will filter capping and dumping.

Raw precipitation data that includes measurements from all vibrating wires are available upon request.

## 8. Notes about the data published in September 2017 and March 2018 (current version)

- The data published to the EOL data portal in September 2017 had wrong time definition in the IPC Geonor data files. Times were indicated as UTC but they were in Mountain Prevailing Time. This updated version of data has time stamps in UTC.
- Only coarse time resolution data were available from IPC gauges in the previous version (5-15 minute per instantaneous measurement). The current version contains IPC gauges with 1 minute output. If 1-min data were missing/not available, the coarser time resolution data were provided. See Section 5.

## 9. File Names

General format : PG\_Geonor\_1min\_SITENAME\_YYYYMMDD\_lv1.txt for 1-min Geonor data from IPC gauge sites. PG\_Geonor\_SITENAME\_YYYYMMDD\_lv1.txt for IPC's Geonor with coarser time resolution (data point every 5-15 min). PG\_Geonor\_SITENAME\_YYYYMMDD\_lv1.txt and PG\_ETI\_SITENAME\_YYYYMMDD\_lv1.txt for Silver Creek and Spring Creek sites for



NCAR ETI-Geonor gauges at Clear Creek and Silver Creek sites: ETI and Geonor data are stored separately.

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PG_ETI_ClearCreek_20170107_lv1.txt PG_Geonor_ClearCreek_20170107_lv1.txt
PG_ETI_ClearCreek_20170108_lv1.txt PG_Geonor_ClearCreek_20170108_lv1.txt
PG_ETI_ClearCreek_20170109_lv1.txt PG_Geonor_ClearCreek_20170109_lv1.txt
PG_ETI_ClearCreek_20170110_lv1.txt PG_Geonor_ClearCreek_20170110_lv1.txt
PG_ETI_ClearCreek_20170111_lv1.txt PG_Geonor_ClearCreek_20170111_lv1.txt
PG_ETI_ClearCreek_20170118_lv1.txt PG_Geonor_ClearCreek_20170118_lv1.txt
PG_ETI_ClearCreek_20170120_lv1.txt PG_Geonor_ClearCreek_20170120_lv1.txt
PG_ETI_ClearCreek_20170121_lv1.txt PG_Geonor_ClearCreek_20170121_lv1.txt
PG_ETI_ClearCreek_20170122_lv1.txt PG_Geonor_ClearCreek_20170122_lv1.txt
PG_ETI_ClearCreek_20170123_lv1.txt PG_Geonor_ClearCreek_20170123_lv1.txt
PG_ETI_ClearCreek_20170131_lv1.txt PG_Geonor_ClearCreek_20170131_lv1.txt
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PG_ETI_SilverCreek_20170307_lv1.txt PG_Geonor_SilverCreek_20170307_lv1.txt
PG_ETI_SilverCreek_20170309_lv1.txt PG_Geonor_SilverCreek_20170309_lv1.txt
PG_ETI_SilverCreek_20170316_lv1.txt PG_Geonor_SilverCreek_20170316_lv1.txt
```

## 10. Data restrictions

No data restriction

## 11. Digital Object Identifier (DOI)

No DOI available, please generate DOI

## 12. GCMD Keywords

Earth science, atmosphere, precipitation, precipitation amount, precipitation rate

See also

[http://gcmdservices.gsfc.nasa.gov/static/kms/sciencekeywords/sciencekeywords.csv?ed\\_wiki\\_keywords\\_page](http://gcmdservices.gsfc.nasa.gov/static/kms/sciencekeywords/sciencekeywords.csv?ed_wiki_keywords_page)

### 13. **Publications** –

None as of March 2018.