

| Appendix B  |          |     |       |                         |                       |                     |                 |                                |   |
|---|----------|-----|-------|-------------------------|-----------------------|---------------------|-----------------|--------------------------------|---|
| US Geological Survey PROVISIONAL Data   |          |     |       |                         |                       |                     |                 |                                |   |
| Recorded Natural Avalanches, John F. Stevens Canyon, Montana  |          |     |       |                         |                       |                     |                 |                                |   |
| This data represents most accurate information available at time issued. It is subject to modification as new data arises that confirms, adds to, or contradicts data listed here.                        |          |     |       |                         |                       |                     |                 |                                |   |
| Released June 14, 2006.   |          |     |       |                         |                       |                     |                 |                                |   |
| Date: Date and time as recorded in one or more sources. If sources conflict, most likely date given here, with rationale in Notes/ Comments.  |          |     |       |                         |                       |                     |                 |                                |   |
| Location: Present-day name. Location reported in one or more sources. If other information in source allows more specific location, this location listed here and rationale explained in notes/ comments. |          |     |       |                         |                       |                     |                 |                                |   |
| Extent/ Runout: any information about depth or location of debris from one or more sources.   |          |     |       |                         |                       |                     |                 |                                |   |
| Source: Last name of principal author of source(s) documenting incident.  |          |     |       |                         |                       |                     |                 |                                |   |
| Notes: Quotes from source(s) or summaries of source material, rationale for attributing date or location, etc.  |          |     |       |                         |                       |                     |                 |                                |   |
|   |          |     |       |                         |                       |                     |                 |                                |   |
| Date  |          |     |       | Location                | Extent/ Runout        |                     |                 | Source(s)                      | Notes - Quotes from sources, comments, etc  |
| Year  | Month    | Day | Time  |                         | Debris Depth x Length | Debris on Rail/Shed | Debris on Road? |                                |   |
| 1910  | January  |     |       | Shed 7                  | 50 x 400 ft.          | yes                 | NA              | Beals (Eddy), Jenks/ Kenny Map | Beals quoting Eddy: "along in the middle of January we had a snow slide about one-quarter of a mile east of Highgate, which came down in a draw where no previous slides had been known to occur. This slide was some 400 ft. long and 50 feet deep and originated more than half way to the top of the mountain." Highgate later renamed Singleshot according to Jenks/ Kenny Map & refers to siding between present-day Sheds 8 and 7 & shows approx. center of present-day shed 7 path roughly 1200 feet east of siding.   |
| 1910  | February | 23  | noon  | Shed 7                  | 12 x 200 ft.          | yes                 | NA              | Beals (Eddy), Jenks/ Kenny Map | "Passing Track near Highgate [Place] Feb. 23 [Date], Noon [Time], Delayed traffic [Property loss], Sparsely Timbered [Character of Country] W [Slope] 0 [Number Killed], Clear snow [Debris]; Old snow thawed, then froze, new snow fell and slid easily [Cause] 200 feet long, 12 feet deep on railroad tracks [Remarks], G. T. Van [Reporters]" Possibly Shed 11, or unnamed & presently timbered path just west of Shed 11. Jenks? Kenny Map shows Shed 11 approx. 1.25 mi east of Java siding, w/ some bank slides in .5 mi w mp 164. Beals quotes Eddy, who describes air temperatures rising from -400 on the morning of Feb 22 10 -30 at noon, on Feb 23, it was snowing hard with a temperature of -70 deg rising [illegible] noon with continued hard snowfall. This was the day of the first [illegible] this succession of slides. On the 24th the temperature had risen to 270 at 6:30 a. m., with snow, and it rose to 320 with rain in the afternoon. " Jenks Kenny Map shows passing track starting at west end of original Shed 7a.   |
| 1910  | February | 23  | 15:00 | Java (1 mile east)      | 15 x 500 ft           | yes                 | NA              | Beals (Eddy), Jenks/ Kenny Map | "Java (1 mile east) [Place], Feb. 23 [Date], 3 p. m. [Time], \$50 [Property loss], Sparsely Timbered [Character of Country] W [Slope] 0 [Number Killed], Snow and timber; very little earth and rock [Debris]; Old snow thawed, then froze, new snow fell and sli [Cause], 500 feet long, 15 feet deep [Remarks], G. D. Eddy [Reporters]" Possibly Shed 11, or No Shed path just west of Shed 11. Jenks/ Kenny Map shows Shed 11 approx. 1.25 mi east of Java siding, w/ some bank slides in .5 mi west of mp 164. Beals quotes E who describes weather; see note for slide at Shed 7 same date for details.  |
| 1910  | February | 27  | 0:15  | Shed 8                  | 10-20 x 900 ft        | yes                 | NA              | Beals (Eddy), Jenks/ Kenny Map | "Highgate siding [Place], Feb. 27 [Date] 12:15 a.m. [Time], Partly Timbered [Character of Country], W [Slope] 0 [Number Killed], Snow and trees [Debris], Heavy fall of new snow which slipped over old crusted snow [Cause], 900 feet long, 1/2 mile wide, 10-2 feet deep [Remarks] G. T. Van [Reporters]." Beals quoting Eddy: "The remainder of the month of February and the first day of March were characterized by heavy snowfalls with the temperatures from 4 deg to 6 deg below the freezing point, which was followed by rain, with slightly higher temperatures on the second day of March. The snow practically slid off the whole slide hills. There were 12 different slides between Fielding and Java, 8 miles at one time." Beals' "[Avalanches] were most frequent on February 27 in all localities, and on this day the temperatures were mild and rain was falling during the afternoon at high elevations and had been preceded by a heavy fall of snow; the winds in most places were blustery." Maps show Highgate siding between Sheds 7 & 8. Reported extent of slide debris (1/2 mile wide) suggests both paths may have slid, with debris merging together. 1 map shows siding running from west end of original Shed 7a to east end of Shed 9, a distance of roughly 2900 ft. |
| 1910  | February | 27  | 1:30  | Shed 9                  | 10-25 x 800 ft        | yes                 | NA              | Beals (Eddy), Jenks/ Kenny Map | "Highgate (1/2 mile west) [Place] Feb. 27 [Date] 1:30 a.m. [Time], Timbered [Character of Country], W [Slope] 0 [Number Killed], Snow and trees [Debris], Heavy fall of new snow on top of old snow which was crusted over [Cause], 800 feet long, 1/2 mile wide 10-25 feet deep [Remarks], G. T. Van [Reporters]." See note for slide at Highgate Siding for weather details. Shed 9 is roughly .5 miles west of east end of Highgate siding, or shorter version of siding shown on Jenks/ Kenny Map. Infinity Path is approx. . of west end of siding where shown to extend to Shed 9.  |
| 1910  | February | 27  | Noon  | Elk Fence               | 5 x 1300 ft           | yes                 | NA              | Beals (Eddy), Jenks/ Kenny Map | "Fielding (1 mile west) [Place], Feb 23 [Date] Noon. [Time] Sparsely Timbered [Character of Country] W [Slope] 0 [Number Killed] Delayed traffic [Property loss], Clear snow [Debris], Snow. Not much Timber [Cause], 1300 feet long, 5 feet deep [Remarks] G. D. Eddy [Reporters]" see note for slide at Shed 7 same date for details. Fielding not shown on Jenks/ Kenny Map, which extends to mp 158. Other map shows Fielding in vicinity of curve at mp 158; roughly 1 mile west would be Elk Fence slide area; 1.5 mile would be Shed 4-C/ Burned-out Shed.   |
| 1910  | March    | 3   | 16:00 | Highgate (4 miles east) | 3 x 100 ft            | yes                 | NA              | Beals                          | "Highgate (4 miles east) [Place], Mar. 3 [Date], 4:00 p. m. [Time], Sparsely Timbered [Character of country], W [Slope] 0 [Number Killed], Delayed traffic [Property loss], Snow [Debris], Old snow thawed, then froze, new snow fell and slid easily [Cause], feet long, 3 feet deep [Remarks], G. D. Eddy [Reporters]." See note for Feb. 27 slide at Shed 8 for weather details. Unknown location; 4 miles east of Highgate is lower, west-facing slopes of Elk Mountain. Approx. .55 miles east are steeper but south-sout facing slopes.   |
| 1911  | January  |     |       | Fielding                |                       | yes                 | NA              | Butler/ IW Photo               | "Railroad tracks in the Fielding vicinity"  |
| 1912  | January  | 11  |       | near Java               |                       | yes                 | NA              | Panebaker Atlas, undated       | "Three people were killed when a Great Northern Railroad rotary plow operating in a drift near Java was struck by an avalanche. The railroad was blocked for several days." Jenks/ Kenny map does not show this incident.   |
| 1912  |          |     |       | W of Shed 11            | 6-14 ft; 1-200 ft     | yes                 | NA              | Jenks/ Kenny Map               | Map shows 5 slides west of shed 11 and mp 164 - Slides 100' (4) to 200' (1) long, 6-14' deep, below short, steep slopes, some excavated, and from "small long draw above steep slopes" -- possibly bank slides or No Shed path.   |
| 1912  |          |     |       | Shed 11                 | 8 x 125 ft            | yes                 | NA              | Jenks/ Kenny Map               | "1911-'12. Draw. Long slope. Slide came up adverse grade slide 8' deep small 125' wide"   |
| 1912  |          |     |       | Shed 10.7               | 6-12 x 500 ft         | yes                 | NA              | Jenks/ Kenny Map               | "1911-'12. Slide 6'-12' Deep Small 500' [wide] short steep excavated slope." Map shows slide on west 400 ft of shed 10.7 + 100 ft beyond. Shed constructed 1923.  |
| 1912  |          |     |       | Elk                     | 8 x 100 ft            | yes                 | NA              | Jenks/ Kenny Map               | Map shows slide 500' E of Shed 10.7, 100' long, "1911-'12. Slide 8' Deep. Small. Short steep excavated slope."  |
| 1912  |          |     |       | 1663                    | 4-7 x 380 ft          | yes                 | NA              | Jenks/ Kenny Map               | Map shows 3 slides (from W) 250ft, 30 ft, 100 ft wide "1911-'12. Slides 4'-7' Deep Small Short steep excavated slopes. Long slope above."   |
| 1912  |          |     |       | Second Slide            | 3-7 x 350 ft          | yes                 | NA              | Jenks/ Kenny Map               | Map shows slide 350 ft wide "1911-'12. Slide 3' to 7' Deep. Small. Short Steep Slope [above]" --700' E of Shed 10   |
| 1912  |          |     |       | Jake's                  | 10 x 250 ft           | yes                 | NA              | Jenks/ Kenny Map               | Map shows slide--50 E of mp 162 (Jake's), 250 ft wide, "1911-'12. Slide 10' Deep. Bad. Long steep slope 500' out. Mountain Debris. [above]"   |

|      |          |    |  |                        |                |     |    |                  |  |
|------|----------|----|--|------------------------|----------------|-----|----|------------------|--|
| 1912 |          |    |  | Infinity               | 2-8 x 350 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide @ ~n61.5, W of Shed 9 on curve? 350 ft wide, "1911-'12. Slide 2' to 8' Deep. Medium. Short Steep Slope [above]."   |
| 1912 |          |    |  | Shed 9                 | 10 x 350 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide 350 ft wide at present site of Shed 9 (built 1912), "1911-'12. Trees in Slide. Slide 18' Deep. Bad. Draw - Long slope."  |
| 1912 |          |    |  | Shed 8                 | 30 x 400 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide at present site of Shed 8 + ~50' to west, 400 ft wide, "1911-'12. Slide 30' Deep. Bad. Trees in Slides. Draw - Long slope."  |
| 1912 |          |    |  | Singleshot/Highgate    | 6 x 200 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide 400 ft east of Shed 8 at Singleshot, 200 ft wide, "1911-'12. Slide 6' Deep. Small. Short steep slope."   |
| 1912 |          |    |  | Shed 7                 | 3-20 x 800 ft  | yes | NA | Jenks/ Kenny Map | Map shows 2 adjoining slides at present site of Shed 7A (151' long, built 1920) and Shed 7 (288' long, built 1912-13), 700 ft wide "3' to 10' Deep. Medium. 500' flat slope" and 300 ft wide, "1911-'12. 20' Deep. Trees in Slide. Bad. Draw - long slope"   |
| 1912 |          |    |  | Tunnel 1 1/2           | 8 x 300 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide on 300 ft of tracks just west of Tunnel 1 1/2: 1911-'12. Short, steep slope. 8' Deep. Small. 300'"   |
| 1912 |          |    |  | Shed 6                 | 6-14 x 600 ft  | yes | NA | Jenks/ Kenny Map | Map shows 3 adjoining slides on W end of present Shed 6. From W: 150' long, 10' deep, "1911-'12. Trees in slide. Medium. 500' slope." 200' long, "6' deep. Small. Short slope." 250' long, 14' deep, "Trees in slide. Bad. Long flat slope."   |
| 1912 |          |    |  | Shed 5                 | 16 ft          | yes | NA | Jenks/ Kenny Map | Map shows slide ~175' E of mp n60, on E end of Original Shed 5 + ~100' to E. 150' long. "1911-'12. Slide 16' Deep. Trees in slide. Bad. 500' Steep slope.""  |
| 1912 |          |    |  | Shed 4-D               | 4-8 x 825 ft   | yes | NA | Jenks/ Kenny Map | Map shows 2 adjoining slides on E end of present Shed 4-D from W: 650' long, "1911-'12. 4' to 6' Deep. Short Steep slopes." 175' long, 8' deep. "Small slides."  |
| 1912 |          |    |  | Btwn 4-D & 4-C         | 14 x 100 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide 150' E of present Shed 4-D. 100' long, 14' deep, no notes. "1911-'12"  |
| 1912 |          |    |  | Shed 4-C               | 10-15 x 700 ft | yes | NA | Jenks/ Kenny Map | Map shows slide at present site of Shed 4-C + ~200' to east, 700' wide, "1911-'12. 10' to 15' Deep. 700' Medium. Short steep slopes."  |
| 1912 |          |    |  | Elk Fence              | 4-10 ft        | yes | NA | Jenks/ Kenny Map | Map shows slide at MP 1150 & 800' E. 900' long. "1911-'12. Slide 4' to 10' Deep. Small. Short steep slope."  |
| 1914 | February | 4  |  | Shed 10.7              | 4-6 x 400 ft   | yes | NA | Jenks/ Kenny Map | Map shows 2 adjoining slides on W end of Shed 10.7 & ~50' to W. Each 200' long. "Feb. 4 - 2 slides 4' to 6' Deep. Lots of Timber." Shed constructed 1923.  |
| 1914 | February | 4  |  | Shed 10                | 8 x 200 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide W of W end of Shed 10. "200+" long. "Feb. 4 Slide 8' Deep." Slide may have run out of 1st major feeder path for Shed 10.   |
| 1916 | December | 24 |  | Shed 6                 | 8 x 150 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide on W end of present Shed 6. 150' long. "Dec. 24 - Slide 8' Deep."  |
| 1916 | December | 24 |  | Shed 4-D               | 8 x 350 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide near W center of present Shed 4-D. ~350' long. "Dec. 24 - Slide 8' Deep." Shed constructed 1930.   |
| 1917 |          |    |  | Shed 12                | 20 x 700 ft    | yes | NA | RR Map #2        | Map shows slide At W/N end of Shed 12 w/ note "Snow slide 1917 20' Deep" appears to be ~700' wide  |
| 1917 |          |    |  | Elk                    | 7 x 64 ft      | yes | NA | Jenks/ Kenny Map | Map shows slide just E of 1912 slide. 64' long. "1916-17. Slide 7' Deep"   |
| 1917 |          |    |  | Second Slide           | 12 x 80 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide same location as 1912. "1916-17. Slide 12' Deep - 80' Long." Marked "1916-17" below Feb. 25 slide.   |
| 1917 |          |    |  | Shed 7                 | 5 x 78 ft      | yes | NA | Jenks/ Kenny Map | Map shows slide on E end of Shed 7A. 78' long. "1916-17. Slide 5' Deep." East of original Shed 7. Shed 7A constructed 1920.  |
| 1917 |          |    |  | Shed 7/ Tunnel 1 curve | 4 x 40 ft      | yes | NA | Jenks/ Kenny Map | Map shows 2 slides between E end of Shed 7 and Tunnel 1.5. From W, 1 midway, marked 1916-17. 40' long. "4' Deep." and 30' long, "8' Deep" 100' W of W end of Tunnel 1.5  |
| 1917 |          |    |  | Shed 7/ Tunnel 1 curve | 8x 30 ft       | yes | NA | Jenks/ Kenny Map | Map shows 2 slides between E end of Shed 7 and Tunnel 1.5. From W, 1 midway, marked 1916-17. 40' long. "4' Deep." and 30' long, "8' Deep" 100' W of W end of Tunnel 1.5  |
| 1917 | January  | 5  |  | Shed 8                 | 10 x 160 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide 150' E of Shed 8. 160' long. "Jan. 5 - Slide 10' Deep."  |
| 1917 | January  | 6  |  | Jake's                 | 7 x 185 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide below Mar 23 slide. 185' long. "Jan. 6 - [Slide] 7' [Deep]."   |
| 1917 | February | 25 |  | Second Slide           | 12 x 175 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide same location as 1912. "Feb. 25 Slide 12' Deep" 175' long. Marked "1917" and above 1916-7 slide.   |
| 1917 | March    | 23 |  | Jake's                 | 5 x 314 ft     | yes | NA | Jenks/ Kenny Map | 314' long. "Mar. 23 - Slide 5' Deep."  |
| 1917 | March    | 23 |  | Infinity               | 7 x 181 ft     | yes | NA | Jenks/ Kenny Map | 181' long. "Mar. 23 - Slide 7' Deep."  |
| 1917 | March    | 23 |  | Shed 4-D               | 20 x 100 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide near W end of present Shed 4-D. ~100' long.  |
| 1917 | March    | 27 |  | Shed 4-D               | 10 x 250 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide in center of present Shed 4-D. 250' long. "Mar. 27 - Slide 10' Deep."  |
| 1918 | February | 6  |  | Shed 9                 | 15-20 x 30 ft  | yes | NA | Jenks/ Kenny Map | Map shows slide on E end of Shed 9 - no indication whether it covered more of shed. 30' long. "Feb. 6. Slide 15' to 20' Deep on W. Bd. [westbound]."   |
| 1919 |          |    |  | Shed 12                | 20 x 275 ft    | yes | NA | RR Map #2        | Map shows slide at W/N end of Shed 12 w/ note "Snow slide 1918-1919 275' Lg. - 20' Deep"   |
| 1919 |          |    |  | No Shed                | 10 x 120 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide 120' long. "1918-19. Slide 10' Deep."  |
| 1919 |          |    |  | Shed 10.7              | 20 x 130 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide at W end of Shed 10.7. 130' long. "1918-19. Slide 20' Deep."   |
| 1919 |          |    |  | 1163                   | 20 x 290 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide 400' W of mp 1163. 290' long. "1918-19. Slide 20' Deep."   |
| 1919 |          |    |  | Infinity               | 20 x 290 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide 1500' E of mp 1162. 290' long. "1918-19. Slide 20' Deep."  |
| 1919 |          |    |  | Shed 7                 | 20 x 170 ft    | yes | NA | Jenks/ Kenny Map | Map shows 2 slides over ends of present Shed 7. From W: W end of Shed 7A. 170' long. "1918-19. Slide 20' Deep." and: extending 120 ft E of E end of original Shed 7. 120' long. "1918-19. Slide 25' Deep."   |
| 1919 |          |    |  | Shed 7                 | 20 x 120 ft    | yes | NA | Jenks/ Kenny Map | Map shows 2 slides over ends of present Shed 7. From W: W end of Shed 7A. 170' long. "1918-19. Slide 20' Deep." and: at E End of present Shed 7. 120' long. "1918-19. Slide 25' Deep."   |
| 1920 | March    | 13 |  | Shed 6                 | 20 x 40 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide near W end of extended Shed 6 (1929) & W of original Shed 6 (1912). 40' long. "Mar 13 - Slide 20' Deep. Trees and Timber." unclear whether tree/ timber note belongs with 1920 or 1922 slide.  |
| 1920 | December | 31 |  | Shed 8                 | 8-12 x 300 ft  | yes | NA | Jenks/ Kenny Map | Map shows slide 300' wide over W end of present Shed 8. "1920. Dec. 31 - Slide over of [sic] Shed 8' to 12' Deep. Slide backed into shed for 200'."  |
| 1921 | March    | 18 |  | Shed 10.7              | 30 x 828 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide over both ends of present Shed 10.7 (Built 1923, 652' long). ~25' past W end and 150' past E end. Slide 828' wide. "Mar. 18 - Slide 30' Deep - contained rock and timber."   |
| 1921 | March    | 17 |  | Unspecified            |                | yes | NA | Butler/ IW Photo | "Railroad tracks along Park boundary, location unspecified" Possibly Shed 10.7 - date almost identical to slide noted on Jenks/ Kenny map for that winter. Only other slide noted on map that winter was Shed 8, Dec. 31, 1920.  |
| 1922 |          |    |  | Goat Lick              |                | NA  | ?  | Martinielli 1979 | "Mr. Francis June remembers and has a photograph of a large avalanche that ran down the same gulch in 1922. He says that the debris in the river from the 1922 avalanche was more extensive than from the 1979 event." Not clear whether road constructed at thl date. Even if was constructed, almost certainly not maintained in winter. |
| 1922 | March    | 21 |  | Shed 7                 | ? X 150 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide at Shed 7A/ W end of present Shed 7. Same location as 1919 slide. ~175' wide. "Mar. 21 - Slide over Shed."   |
| 1922 | March    | 21 |  | Shed 6                 | 5 x 60 ft      | yes | NA | Jenks/ Kenny Map | Map shows 2 slides over present Shed 6. From W: near W end "Mar. 21. 5' Deep - 60' long. Trees and Timber." and over original Shed 6. ~250' wide & about at both ends. "Mar. 21. Slide over Shed."   |
| 1922 | March    | 21 |  | Shed 6                 | ? x 250 ft     | yes | NA | Jenks/ Kenny Map | Map shows 2 slides over present Shed 6. From W: near W end "Mar. 21. 5' Deep - 60' long. Trees and Timber." and over original Shed 6. ~250' wide & about at both ends. "Mar. 21. Slide over Shed."   |
| 1922 | March    | 21 |  | Elk Fence              | 5 x 25 ft      | yes | NA | Jenks/ Kenny Map | Map shows 2 slides near E end. "Mar. 21 - 2 slides 5' Deep - 25' Long."  |
| 1922 | April    | 21 |  | Shed 10.7              | 15-24 x 595 ft | yes | NA | Jenks/ Kenny Map | Map shows slide at present Shed 10.7. 595' wide. "Apr. 21 - Slide 24' Deep on W. Bd. [westbound] - 15' Deep on E. Bd. [eastbound]. Some rock and timber."  |

|      |          |    |  |              |                 |     |    |                  |  |
|------|----------|----|--|--------------|-----------------|-----|----|------------------|--|
| 1922 | December | 10 |  | W of Shed 11 | 4.5 x 270 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide ~ 600' E of bridge 115 3/4. 270' wide. "Dec. 10 - Slide 4.5' Deep."  |
| 1922 | December | 10 |  | Second Slide | 3 x 150 ft      | yes | NA | Jenks/ Kenny Map | Map shows slide 150' wide. "Dec. 10. Slide 3' Deep."   |
| 1922 | December | 10 |  | Jake's       | 4 x 10 ft       | yes | NA | Jenks/ Kenny Map | Map shows slide 200' wide. "Dec. 10 - Slide 4' Deep."  |
| 1922 | December | 10 |  | Infinity     | 3 x 120 ft      | yes | NA | Jenks/ Kenny Map | Map shows slide at same location as 1917 slide. 120' wide. "Dec. 10 - Slide 3' Deep."  |
| 1922 | December | 10 |  | Infinity     | 2 x 200 ft      | yes | NA | Jenks/ Kenny Map | Map shows slide at same location as 1912 slide - mp 1161.5, on curve W of Shed 9. 200' wide. "Dec. 10 - Slide 2' E. B. Slough."  |
| 1922 | December | 10 |  | Shed 6       | 3.5 x 235 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide near W end of present Shed 6. 235' wide. "Dec. 10 - Slide 3.5' Deep."  |
| 1922 | December | 18 |  | Jake's       | 3 x 100 ft      | yes | NA | Jenks/ Kenny Map | Map shows slide on W end of slide 1 week earlier. 100' wide. "Dec. 18 - Slide 3' Deep."  |
| 1922 | December | 19 |  | Second Slide | 3-4 x 300 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide ~300' wide & on both tracks at E end. "Dec. 18. Slide 4' Deep on W. Bd. - 3' Deep on E. Bd."   |
| 1922 | December | 19 |  | Infinity     | 2-10 x 683 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide at same location as 1912 slide, ~500' W of Shed 9. Total width 683' w/ ~450 on westbound 2-3' deep; 10' Deep on westbound at E end; 5' deep on eastbound at east end.                                      |
| 1922 | December | 19 |  | Shed 8       | 4-8 x 180 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide at Highgate/ Singleshot siding ~200' E of E end of Shed 8. 180' wide. "Dec. 19 Slide 8' Deep on W. Bd. 4' Deep on E. Bd."  |
| 1922 | December | 20 |  | Shed 4-C     | 6-14 x 100 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide near W end of present Shed 4-C. ~100' wide. "Dec. 20 - 14' Deep on W. Bd. 6' Deep on E. Bd. Light Timber."   |
| 1922 | December | 21 |  | Shed 4-D     | 3-30 x 650 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide near center of present Shed 4-D. ~650' wide. Shallow on W end 3' on W 200'. 10-30' deep on westbound on E450' and 10-20' deep on eastbound same location. "Heavy Timber" marked in this part.              |
| 1923 | February | 14 |  | Second Slide | 8-10 x 120 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide 120' wide, same location as previous 2 slides in season. "Feb. 14 Slide 10' Deep on W. Bd. - 8' Deep on E. Bd."  |
| 1924 | January  | 31 |  | Shed 4-C     | 8-14 x 740 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide at and past E end of present Shed 4-C. ~740' wide. "Jan. 31, Slide 8'-14' deep, considerable tim."   |
| 1924 | December | 29 |  | Shed 8       | 6-8 x 140 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide ~ 100' E of E end of Shed 8. ~140' wide. "Dec. 29 - Slide ( 6' Deep E. Bd. 8' [deep] W. [bd]."   |
| 1925 | January  | 5  |  | 1163         | 3-6 x 650 ft    | yes | NA | Jenks/ Kenny Map | Map slide on W end of 1163. ~650' wide. 450' on W end. "Slide - 3' Deep W. Bd. Jan. 5, 1925 Slide 6' Deep Both Trks." on E 200'.   |
| 1925 | January  | 5  |  | Shed 7       | 10 x 350 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide W of 100' W end of original Shed 7a, at depot for Highgate/ Singleshot siding. 350' wide. "Jan. 5. Slide 10' Deep Both Trks."  |
| 1925 | January  | 5  |  | Shed 6       | 4 x ~630 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide 175' past W end of present Shed 6 and W of original Shed 6. ~630' wide. "Jan 5, Slide 4' Deep Both Trks."  |
| 1925 | January  | 5  |  | Shed 4-D     | 7-9 x ~335 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide near E end of extended Shed 4-D. Same location as Mar. 26 slide. ~335' wide. "Jan. 5, Slide 9' Deep W. Bd. 7' Deep E. Bd."   |
| 1925 | January  | 5  |  | Shed 4-C     | 6 x 125 ft      | yes | NA | Jenks/ Kenny Map | Map shows slide at E end of present Shed 4-C. ~125' wide, 100' past E end of present shed wall. "Jan. 5, Slide 6' Deep on W. Bd. Trk."   |
| 1925 | February | 6  |  | Shed 11      | 7-8 x 250 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide ~250' wide. "Feb. 6. Slide over Shed 7'-8' Deep on each end. Covered 30' Trk. W. end. 40' [Trk] E. [end]."   |
| 1925 | February | 28 |  | Shed 6       | 4 x ~80 ft      | yes | NA | Jenks/ Kenny Map | Map shows slide at W end of original Shed 6. ~80'. "Feb. 28, 1925, Slide 4' Deep W. Bd."   |
| 1925 | March    | 4  |  | Shed 4-D     | 4-20 x 330 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide at W end of present Shed 4-D. ~330' wide. "Mar 4, Slide 4'-20' Deep Both Trks."  |
| 1925 | March    | 26 |  | Shed 4-D     | 15-20 x 300 ft  | yes | NA | Jenks/ Kenny Map | Map shows slide near E end of present Shed 4-D. ~300' wide. "Mar 26, Both Tracks. Slide 15' Deep E.B. 20' Deep W.B. Considerable Tim, Mud & Rock."   |
| 1927 |          |    |  | Shed 4-D     | ? X 50 ft       | yes | NA | Jenks/ Kenny Map | Map shows slide between Jan. 17 & Feb. 18 slides but w/ no date or other notation.   |
| 1927 | January  |    |  | Shed 8       | 10? x ~450 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide at shed and several feet past E end. ~450' wide. "1 slide over S Shed Jan. 1927." Above is notation "Slide 10' Deep" - not clear whether this refers to Jan. slide over shed or Feb. 16 slide E of Shed.   |
| 1927 | January  |    |  | Shed 7       | ? X 325 ft      | yes | NA | Jenks/ Kenny Map | Map shows slide ~325' wide at original Shed 7. "3 Slides over S.S., Jan. 1927."  |
| 1927 | January  |    |  | Shed 6       | ? X ~240 ft     | yes | NA | Jenks/ Kenny Map | Map shows "2 slides over S. Sh. Jan. 1927" above original Shed 6.  |
| 1927 | January  | 17 |  | Elk          | 8 x 210 ft      | yes | NA | Jenks/ Kenny Map | Map shows slide ~530' E of E end of Shed 10.7. ~210' wide. "Slide 8' Deep Jan. 17, 1927."  |
| 1927 | January  | 17 |  | Shed 4-D     | 10 x ~150 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide W of center of original Shed 4-D. ~150' wide. "Jan. 17. Slide 10' Deep." Same location as Feb. 18 slide.   |
| 1927 | January  | 27 |  | 1163         | 5-8 x 300 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide at W side of runoff. 300' wide. "Jan. 27, 1927. 8' on W.B. Tr., 5' on E.B. Tr. Logs in slide."   |
| 1927 | January  | 27 |  | Shed 8       | 8-12 x 663 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide at siding-225' E of Shed 8. 663' wide. "Jan. 27, 1927. Slide 12' Deep on W.B. Trk. Slide 8' [deep on] E.B. Trk. Logs & Rock in slide."   |
| 1927 | January  | 28 |  | Jake's       | 5-10 x 230 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide 230' wide. "Jan. 28, 1927. Slide 10' on W.B. Trk. & 5' Deep on E.B. Trk. Logs in slide."   |
| 1927 | January  | 29 |  | Shed 8 W     | 12 x ~225 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide ~325' W of W end of Shed 8. ~225' wide. "Jan. 29, 1927. Slide 12' deep logs in slide."   |
| 1927 | January  | 31 |  | Infinity     | 15 x ~270 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide ~270' wide. "Jan. 31, 1927. Slide 15' deep logs in slide."   |
| 1927 | February | 1  |  | Elk          | 12 x 250 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide ~250' wide 400' E of E end of Shed 10.7. "Feb. 1, 1927. Slide 12' Deep logs in slide."   |
| 1927 | February | 1  |  | Grizzly      | 8 x ~150 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide ~150' wide 600' W of mp 1162 - mouth of Grizzly "Feb. 1, 1927. Side 8' Deep."  |
| 1927 | February | 1  |  | Shed 9       | ? X ~360 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide ~360' wide w/ possibly some past E end of Shed 9. "Slide over S.S. #9, Feb. 1, 1927." No depth.  |
| 1927 | February | 2  |  | Shed 11      | 20 x ~125 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide at W end of shed and ~75' past. ~125' wide. "Slide 20' deep Feb. 2, 1927. timber in slide."  |
| 1927 | February | 2  |  | Jake's E     | 8 x ~150 ft     | yes | NA | Jenks/ Kenny Map | Map shows slide ~525' E of most slides in Jake's and 250' W of Infinity slides. "Feb. 2, 1927. Slide 8' deep logs & timber."   |
| 1927 | February | 2  |  | Shed 6       | 12 x ~606 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide ~606' wide W of original Shed 6. "Feb. 2, 1927. Slide 12' deep timber in slide."   |
| 1927 | February | 16 |  | Shed 8       | 10? X ~190 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide 150' E of Shed 8. Same location as Jan. 5, 1917 slide. ~190'. Feb. 16, 1927. Notation "Slide 10' Deep." to left of graphic - not clear whether this notation refers to Jan. slide over shed or this slide. |
| 1927 | February | 16 |  | Shed 7       | 15 x ~300 ft    | yes | NA | Jenks/ Kenny Map | Map shows slide at E end of Shed 7A. ~300' wide. "Feb. 16, 1927. Slide 15' Deep."  |
| 1927 | February | 18 |  | Shed 4-D     | 9-15 x ~175 ft  | yes | NA | Jenks/ Kenny Map | Map shows slide near W end of original Shed 4-D. Feb. 18, 1927. Slide 9' Deep E.B. & 15' W.b. Trk." Same location as Jan. 17 slide; ~25 ft. E of Feb. 20 slide.  |
| 1927 | February | 18 |  | Shed 4-D     | 10-15 x ~212 ft | yes | NA | Jenks/ Kenny Map | Map shows slide on W half of 1930 extension to Shed 4-D. ~212' wide. "Feb. 18, 1927. Slide 10' Deep E.B. & 15' Deep W.B. Trk." Un-notated slide ~ 50' W. 60" wide.   |
| 1927 | February | 20 |  | Shed 6       | 4-10 x ~67 ft   | yes | NA | Jenks/ Kenny Map | Map shows slide near W end of present Shed 6. ~67' wide. "Slide Feb. 20, 1927. 10' deep W.B. Trk. 4' deep E.B. Trk." Covers part of tracks also covered by Feb. 2 slide.   |
| 1927 | February | 20 |  | Shed 4-D     | 13-20 x ~205 ft | yes | NA | Jenks/ Kenny Map | Map shows slide at W end of original Shed 4-D (constructed 1929). ~205' wide. "Feb. 20, 1927. Slide 20' Deep. W.B. Trk. 13' Deep E.B. Trk."  |
| 1927 | February | 20 |  | Shed 4-C     | 12-15 x ~685 ft | yes | NA | Jenks/ Kenny Map | Map shows on E end of Shed 4-C (constructed 1930). ~685' wide. "Feb. 20, 1927. Slide 12' Deep. E.B. & 15' Deep W.B. Trk."  |
| 1927 | February | 20 |  | Elk Fence    | 10-15 x ~385 ft | yes | NA | Jenks/ Kenny Map | Map shows 2 slides. From W, 1st ~100' E of mp 1159, ~110' wide. and ~125' E, ~275' wide. "Feb. 20, 1927. Slides 10' deep on E.B. & 15' deep on W.B. Trk."  |

|      |          |    |                           |                 |     |     |   |  |
|------|----------|----|---------------------------|-----------------|-----|-----|---|--|
| 1927 | April    | 25 | Shed 5                    | 2-8 x 65 ft     | yes | NA  | Jenks/ Kenny Map  | Map shows slide just W of original Shed 5. "4-25-27. Slide 2' to 8' deep 65' lg. Snow, gravel, rocks & trees."   |
| 1928 | January  | 3  | Elk                       | 2-6 x ~139 ft   | yes | NA  | Jenks/ Kenny Map  | Map shows slide on E end of curve, similar location as 1927 slides. ~139' wide. "Jan. 3, 6' W.B., 2' E.B. Slough."   |
| 1928 | January  | 3  | Second Slide              | 4 x ~180 ft     | yes | NA  | Jenks/ Kenny Map  | Map shows 2 slides same location as 1912, 1917, 1922, 1923 slides. From W, 1st ~130' wide; and ~50' E, 50' wide. "Jan. 3, 4' on W.B. only. Slough."  |
| 1928 | January  | 3  | Jake's                    | 3-8 x 100 ft    | yes | NA  | Jenks/ Kenny Map  | Map shows slide 100' wide. "Slough, Jan. 3, 8' W.B. 5' E.B."   |
| 1928 | January  | 3  | Infinity                  | 2-6 x 100 ft    | yes | NA  | Jenks/ Kenny Map  | Map shows slide 100' wide. "Jan. 3, 6' W.B. 2' E.B. Slough"  |
| 1928 | January  | 3  | Shed 6                    | 5-8 x ~50 ft    | yes | NA  | Jenks/ Kenny Map  | Map shows slide ~60' wide and ~220' W of W end of present Shed 6. "Slough, Jan. 3, 8' W.B. 5' E.B."  |
| 1928 | January  | 3  | Shed 6                    | 5-8 x ~273 ft   | yes | NA  | Jenks/ Kenny Map  | Map shows slide ~166 ft W of W end of original Shed 6. ~273' wide. "Jan. 3, 8' W.B. 5' E.B. Slough."   |
| 1928 | January  | 3  | Shed 4-D                  | 5-10 x ~350 ft  | yes | NA  | Jenks/ Kenny Map  | Map shows slide on W half of present Shed 4-D. ~350' wide. "Slough, Jan. 3, 10' W.B. - 5' E.B."  |
| 1929 | February | 2  | Shed 4-D                  | 4-8 x 200 ft    | yes | NA  | Jenks/ Kenny Map  | Map shows 2 slides W and E of center of present Shed 4-D. From W, 1st: "Feb. 2, 1929 - 8' Dp. - 140' Lg. on W. Bd. Trk." 2nd: "Feb. 2 - 4' - 5' Dp. 6' Lg. on W. Bd. Tk."  |
| 1929 | March    | 3  | Shed 5                    | 20-28 ft        | yes | NA  | Jenks/ Kenny Map  | Map shows slide extending from ~50' E of original Shed 6 over Shed 5 to W end of present Shed 4-D, overlapping 250 ft of W end of Shed 4-D, and 175 ft of slide of same day. "Mar. 3, 750' Lg. 28' on W.B.-20' on E.B. Heavy Timber."  |
| 1929 | March    | 3  | Shed 4-D                  | 10-22 x ~166 ft | yes | NA  | Jenks/ Kenny Map  | Map shows slide over W end of present Shed 4-D. ~166 ft wide (notation unclear; could be 181 ft) overlapping 175' of E end of Shed 5 slide of same day. "Mar. 3, 10' on E.B. 22' on W.B."  |
| 1929 | March    | 4  | Shed 10-7                 | 8-12 x ~360 ft  | yes | NA  | Jenks/ Kenny Map  | Map shows 2 slides: slough 60 ft wide on tracks at W end of shed - this part labeled "Slough, No Timber." Remaining 300' over shed labeled "Aval., Some Timber." Notation that seems to apply to both parts of graphic: "Mar. 4, 12' on W.B., 8' on E.B."  |
| 1929 | March    | 4  | Elk                       | 10 x 100 ft     | yes | NA  | Jenks/ Kenny Map  | Map shows slide same location as 1916-17, 1927 & 1928 slides. Labeled: "Mar. 4, 100' Lg. 10' on both Tks."   |
| 1929 | March    | 4  | n63                       | 5-10 x ~164 ft  | yes | NA  | Jenks/ Kenny Map  | Map shows slide ~164 ft wide and ~82 ft W of mp n63. "Mar. 4, Slough. 10' on W.B., 5' on E.B. No Timber."  |
| 1929 | March    | 4  | n63                       | 7-10 x ~100 ft  | yes | NA  | Jenks/ Kenny Map  | Map shows slide E of curve E of MP n63. ~100' wide. "Mar. 4, Slough. 10' on W.B., 7' on E.B. No Timber."   |
| 1929 | March    | 4  | Jake's                    | 5-12 x ~185 ft  | yes | NA  | Jenks/ Kenny Map  | Map shows slide ~185 ft wide ~250 ft E of mp n62. "Mar. 4, Avalanche. 12' on W.B., 5' on E.B., Heavy Timber."  |
| 1929 | March    | 4  | Singleshot/Highgate       | 0-8 ft          | yes | NA  | Jenks/ Kenny Map  | Map shows near E end of siding. ~120' wide. "Mar. 4, Slough. 8' on W.B. No Timber."  |
| 1929 | March    | 4  | Shed 7                    |                 | yes | NA  | Jenks/ Kenny Map  | Map shows slide same width as original Shed 7 (328'). "Mar. 4, Avalanche, Heavy Timber. Heavy Slide over S.S. #7."   |
| 1929 | March    | 4  | Shed 6                    | 12-20 ft        | yes | NA  | Butler/ Kalispell Weekly News 7 March 1929/ Panebaker Atlas/Jenks 1/23/33, Jenks/ Kenny Map | "Three men were killed when an avalanche struck a westbound Great Northern mail train at Singleshot." (Panebaker) "The whole slope from Shields Creek to Tunnel 11/2 is a troublesome one and following the accident to Train No. 27 on March 4, 1929, it was the plan to provide practically a continuous shed from Shields Creek to a point a few hundred feet east of the east end of Tunnel 11/2. At the time of the accident to Train No. 27 the only sheds we had in this vicinity were sheds Nos. 5 and 6." "We general number of slides when the weather softens up in February and March. The accident to train No. 27 occurred on March 4, 1929. Generally speaking, it is warm weather or rain which causes the slides -- depending, of course, on the amount of snow in the high hills." Map shows 2 slides over/ adjacent to Shed 6. Small slide ~50' W of W end of original Shed 6; this possibly the small slide the mail train hit before being struck by the larger slide. "Avalanche Mar. 4 No Tim. 100' Lg. 3'-4' Dp." Larger slide over b original Shed 6. "Mar. 4, 600' Lg. 12' to 20' Dp. Both Tks. 6 Cars # 27 Derailed. Aval., No Timber." |
| 1929 | March    | 4  | Shed 4-D                  | 8-15 ft         | yes | NA  | Jenks/ Kenny Map  | Map shows slide center and E of present Shed 4-D. ~410' wide. "Aval. No Tim. Mar. 4 - 15' on W.B. - 8' on E.B."  |
| 1929 | March    | 4  | Shed 4-D, Shed 4-C        | 0-20 ft         | yes | NA  | Jenks/ Kenny Map  | Map shows slide extending from Emost 150' of present Shed 4-D around curve to Wmost 00' of present Shed 4-C. ~550' wide, 3 sections/ slides. From W, ~250' wide, ~150' wide, and ~150' wide. "Avalanche No Timber. Mar. 45'-18' on W.B. 0'-7' on E.B. 8' on W.B."  |
| 1929 | March    | 4  | Shed 4-C                  | 7-11 ft         | yes | NA  | Jenks/ Kenny Map  | Map shows slide ~400' wide on E end of Shed 4-C and ~100' past. "Aval., No Timber. Mar. 4, 7' on E.B. 11' on W.B."   |
| 1930 | February | 1  | Jake's                    | 3-7 ft          | yes | NA  | Jenks/ Kenny Map  | Map shows slide ~210' wide. "Feb. 1, 1930. Slough. 7' on W.B.-3' on E.B.-No Debris."   |
| 1930 | February | 1  | Shed 4-D                  | 4-10 ft         | yes | NA  | Jenks/ Kenny Map  | Map shows slide ~425' wide on E half of present Shed 4-D. "Slough. 10' on W.B.-4' on E.B. Feb. 1. No debris."  |
| 1930 | February | 1  | Elk Fence                 | 4-7 ft          | yes | NA  | Jenks/ Kenny Map  | Map shows slide ~175' wide. "Feb. 1, Slough. 7' on W.B.-4' on E.B.- No debris."  |
| 1931 | January  | 15 | Elk                       | 3-5 ft          | yes | NA  | Jenks/ Kenny Map  | Map shows slide <100' wide near E end of curve E of Shed 10-7. "Jan. 15 - Slide 5' on W.B., 3' on E.B. Some logs. Started at top of Mountain."   |
| 1931 | January  | 15 | Jake's                    | 0-5 ft          | yes |     | Jenks/ Kenny Map  | Map shows slide ~65' wide. "Jan. 15 - On W.B. 5' Dp. Some logs & small rocks. Started 240' above tk."  |
| 1932 | February | 4  | Elk                       | 0-4.5           | yes |     | Jenks/ Kenny Map  | Map shows ~30' wide. "Feb. 4 '32. S.S. 30' Lg. 4 1/2' dp. On W.B. Tk."   |
| 1932 | February | 10 | No Name                   | 6-15 ft         | yes |     | Jenks/ Kenny Map  | Map shows 2 slides. 1 in No Name; 1 on slope to E before Turner's park. No Name Slide ~250' wide. "Feb. 10, 1932. 12' Dp. On W.B., 8' on E.B. Took down signal #n62.4 & 6 line poles." and slide 1250' E ~310' wide. "Feb. 10, 1932. 15' on W.Bd., 6' on E.Bd."  |
| 1932 | February | 10 | Jake's                    | 8 ft            | yes |     | Jenks/ Kenny Map  | Map shows slide ~200' wide. "Feb. 10, 1932. 8' Dp. On both E. & W. Bd. Tks. Contained 1 log. Slough." Map shows following notation below notes for 2 slides near No Name: "4 slides on Feb. 10, 1932 came from 300' to 1000' above trk. Consisted of recent snow"  |
| 1932 | February | 10 | Infinity                  | 8-12 ft         | yes |     | Jenks/ Kenny Map  | Map shows slide ~125' wide. "Feb. 10, '32 12' on W. Bd., 8' on E. Bd." Map shows following notation below notes for 2 slides near No Name: "4 slides on Feb. 10, 1932 came from 300' to 1000' above trk. Consisted of recent snow slipping on hardened snow."  |
| 1932 | February | 26 | Shed 11                   |                 | yes |     | Jenks/ Kenny Map  | Map shows slide ~350' wide extending ~75' past either end of shed. "Feb. 26, 1932. Light slough. No tim or rocks." Map shows several mud slides occurring same day elsewhere on tracks.  |
| 1932 | December | 22 | Shed 7                    | 2 ft            | yes |     | Jenks/ Kenny Map  | Map shows slide at W end of original Shed 7 ~150' wide. "Dec. 22, 1932. S.S. 2' Dp. Over both tks. Al wires down. Stump took out end center post & cable post. Small amt. of snow."  |
| 1933 | January  | 3  | n63                       | 4-6 ft          | yes |     | Jenks/ Kenny Map  | Map shows slide "200' Jan. 3, 1933 - S.S. 6' dp. On W.B. 4' dp. E.B. No Timber. Wires down - 240' W of Culv. n63.07"   |
| 1933 | January  | 4  | Question Mark Gullies 3/4 | 4 ft            | yes | yes | Jenks/ Kenny Map, Jenks ltr 1/12/33   | "S.S. 4' dp with timber & rocks came from south side and splashed over trk. Derailed pony truck on dozer. 7 poles and wires down" map shows 300' long @ west end of Shed 10-7. "This print also shows the location of the two slides...the other west of Shed 10.7 Which came from the south slope of Bear Creek Canyon, crossed the bottom of the valley and came up on our tracks,, taking out seven poles of our telegraph line at one point and nine poles at the other."  |
| 1933 | January  | 5  | Shed 10-7                 | 10? Ft          | yes |     | Jenks/ Kenny Map  | Map difficult to read. Appears to show slide at W end of Shed 10-7 "200' Jan. 5, 1933 [illegible] 10' Dp. [2nd line illegible]"  |
| 1933 | January  | 5  | n63                       | 10 ft           | yes |     | Jenks/ Kenny Map  | Map shows slide at culv. n63.07. "300'. Jan. 5, 1933 - S.S. > 10' D considerable Timber - all wires down. W.Z."  |
| 1933 | January  | 5  | Shed 10                   | 4-5 ft          | yes |     | Jenks/ Kenny Map  | Map shows slide narrower than shed. "Jan. 5, 1933 - S.S. over Shed 10-4' to 5' dp. Took out westerly outside post. No Timber or Rock. C-266."  |
| 1933 | January  | 5  | Mo                        | 3-4 ft          | yes | yes | Jenks/ Kenny Map  | Map shows slide on curve E of No Name. "300'. Jan. 5, 1933. S.S. 3' to 4' - 800' Tel. line out. No Timber or Rock - slide came from south of Bear Cr. C-266"   |
| 1933 | January  | 5  | Shed 9                    | 3 ft            | yes |     | Jenks/ Kenny Map  | Map shows slide at Shed 9. "300' Jan. 5, 1933 - Sluff 3' deep at W. end of Shed #9, No timber or rock. - C.266"  |

|         |          |     |      |                            |       |      |     |  |  |
|---------|----------|-----|------|----------------------------|-------|------|-----|--|--|
| 1933    | January  | 5   |      | Shed 4-C                   | 25 ft | yes  |     | Jenks/ Kenny Map,<br>Jenks ltr 1/12/33                                       | Map shows slide at E end of present Shed 4-C. "25' dp. Over both trks. Jan. 5, 1933. 400' No. 1 Eng. 8c 4 cars ran into S.S. which came from height of 600' C-216." "You will note the easterly section 420 ft long, at the east end of Shed 4-C, covers exact covered by the slide of January 5, 1933, which No. 1 ran into."   |
| 1933    | January  | 6   |      | Shed 12                    |       | yes  |     | Jenks ltr 1/12/33  | "There was another slide not shown on this print, which occurred at the west end of Shed No. 12 near Walton, On January 6."  |
| 1933    |          |     |      | Broken Bridge?             |       |      | yes | Butler/ Yenne/ HH<br>News 12/30/1949   | "The winter of 1932-33 had been a severe one, with heavy snows and the prolonged cold... U.S. Highway 2 was not kept open winter at this time, but had it been, it would have been closed by the hundreds of snowslides along the route. In the Essex, Java (Nimrod) and Fielding area, bridges had been swept from their locations and deposited against the opposite side of the valley. It amazed me that the Great Northern (now Burlington Northern) railroad had been able to keep their tracks open through all of it. All the way through the mountains from Belton (West Glacier) to East Glacier Park there were snow sheds, miles of them, protecting the tracks from these avalanches. Also, in many places were long tunnels." p.124 "near Bear Creek this side of the continent divide where in the mid-1930s a slide moved a whole new concrete bridge more than 100 feet." |
| 1935    | January  |     |      | Shed 10-7                  |       |      |     | Monthly Ranger Report  | From March Lake McDonald Subdistrict Ranger Report: "On the 15th I found the remains of a mule deer buck and doe at snow-shed 10-7 along the railroad about 2 miles above Java. They evidently came down in a snowslide during January. The coyotes had the stomach contents scattered so badly that I couldn't find enough to gather up for samples."   |
| 1936    | January  | 9   |      | various above Java R.S.    |       |      | yes | Walton Monthly Ranger Report   | "Road closed January 9th during night storm 2 small slides across Roosevelt highway above Java R.S. 1 small slide below Huffine."  |
| 1938    | April    | 17  | noon |                            |       | yes  |     | Walton RS Log  | "slide came down around noon and closed road."   |
| 1938    | April    | 18  |      |                            |       | yes  |     | Walton RS Log  | "Road is closed to Belton and Summit river is highest I ever saw it, was up on bear creek to see two slides that came down last night, road is washed out above new bridge." April 19 - "up on bear creek to see road, will be passable by night."   |
| 1938    | April    | 18  |      |                            |       | yes  |     | Walton RS Log  |  |
| 1939    | March    |     |      |                            |       |      | yes | Walton Monthly Ranger Report   | "No. 2 Highway has been open the greater part of the month. (east) as far as Walton R.S. Small snowslides and sluff off closed it for short periods. April the 1st the State Highway Department crew has hopes of having this highway plowed out for through tr  |
| 1942    | March    | 10  |      | Silver Stairs - Shed 9?    |       | yes  |     | Walton RS Log  | "Two large snow slides came down last night and blocked highway No. 2 above and below station...Slide near Silver Stairs is being worked on with heavy equipment." March 11 - "Snow slide passable but not cleaned up." .86 rain at Walton RS March 9th. "Rained all day. Snow very wet. Traveling very tough."  |
| 1942    | March    | 10  |      | below Walton R.S.          |       | yes  |     | Walton RS Log  | "Two large snow slides came down last night and blocked highway No. 2 above and below station. The small slide below station was removed with hiway equipment this morning about 8 o'clock." .86 rain at Walton RS March 9th. "Rained all day. Snow very wet. Traveling very tough."   |
| 1943    | February | 9   |      | 2 miles < Walton RS        |       |      |     | Walton RS Log  | Actual date? Or date observed?   |
| 1943    | April    | 17  |      | Goat Lick                  |       | yes? |     | Walton RS Log  | Actual date? Or date observed? Debris to road?   |
| 1945    | March    | 21  |      | Goat Lick                  |       |      | yes | Walton RS Log/ Butler  | "Snow slide across road at steel bridge 2 mi. above R.S. 20 cars & trucks there when I went up at 7:45 P.M. Slide cleared 8:30 P.M. by road crew." "rain during day." Light rain previous day.   |
| 1946    | December | 15  |      |                            |       | yes  | ?   | Walton RS Log  | "a great many snowslides came down on both sides of Bear Cr yesterday [Dec. 15]. Once across the R.R."   |
| 1946    | December | 15  |      |                            |       | ?    | yes | Walton RS Log  | "a great many snowslides came down on both sides of Bear Cr yesterday [Dec. 15]...one across the highway. Saw a dead deer in one of them."   |
| 1947    | January  | 21  |      | I-Beam                     | 12 ft |      | yes | Walton RS Log  | "A snow slide about 100' long and 12' deep blocked the road a mile beyond the Goat Lick...they will not open it until tomorrow. Quite warm and settling the snow." Jan 22 - "Went up to see how they were coming with the snw slide. Got it open about noon."  |
| 1947    | February | 3   |      | Near Java                  | 10 ft | yes  | yes | Walton RS Log  | Shed 10.5? "It was reported that a snow slide near Java crossed the highway and R.R. 1" new snow .13" precip." 4" new snow 1.57" precip 66" on snow stake with settlement of 6" previous day. From Feb 5: "slide above Java. Found it to be about 150 ft long  |
| 1947    | March    | 4   |      | east of Java               |       |      | yes | Walton RS Log  | "the [plow] from Glacier Park came through about 4 P.M. They spent about 4 hours removing a slide the other side of Java." .2" precip 1 deg. 19" new snow/ .83" precip previous day  |
| 1947    | March    | 7   |      | near singleshot            |       | yes  |     | Walton RS Log  | "Went up to where a snow slide came down to the R.R. tracks near Singleshot. Saw 4 coyotes and investigation showed a bull elk had been caught in the slide. Warmed up some today." 10 deg previous day. Trace new snow and 2" settlement to 65"   |
| 1947    | March    | 14  |      | 1 mile E Goat Lick         |       |      | yes | Walton RS Log  | Hanging Tree main? I-Beam? Found a snow slide had blocked the road about one mile beyond the Goat Lick...Melted quite a lot today." March 15: Traffic resumed shortly after 4 P.M.   |
| 1948    | April    | 17  |      | near Singleshot            |       |      | yes | Walton RS Log  | "drove up to the slide which was blocking the road near Singleshot"  |
| 1948    | February | 16  |      | Elk Fence?                 |       | yes  |     | Walton RS Log  | "we noticed a wreck on the Railway in back of Snowslip Ranch...A snowslide had struck the center of the freight sending three cars clear to the creek, three half way down the embankment, two overturned and a couple of more derailed. A tanker of syrup was punctured. No one was hurt."  |
| 1948    | February | 26  |      | Hidden? Hanging Tree Main? |       |      | yes | Walton RS Log  | "The Bus Driver from Kalispell reported a big slide about 1/2 mile beyond the Goat Lick about 8:30 AM. I contacted the Highway headquarters and Glacier Park. Naturalist Beatty and wife were stopped on this side and forced to cancel a talk at Great Falls. I 7:30 PM before the slide was cleared."  |
| 1948    | March    | 4   |      | near Goat Lick             |       |      | yes | HH News 3/5/1948   | "Highway No. 2 traffic east of Essex was delayed most of Thursday as the result of a snowslide near the Goat Lick." Thursday =Feb. 26?   |
| 1948/ 9 |          |     |      | Goat Lick                  |       | yes  |     | Butler/ Panebaker/ Martinelli  | "Avalanche debris approximately 30 feet deep piled up against the east side of the Goat Lick Bridge" (Panebaker).  |
| 1949    | December | 28? |      | near Bear Creek            |       |      | yes | HH News 12/28/1949   | "Spring-like thaws blocked U.S. highway No. 2 with snow slides this week. Five slides occurred near Bear creek this side of the continental divide where in the mid-1930s a slide moved a whole new concrete bridge more than 100 feet. Report from division   |
| 1949    | February |     |      | various                    |       |      | yes | HH News 2/25/1949  | "The weather has caused big trouble this week. Wednesday our below zero broke and Thursday it rained, and that afternoon the slides began. The highway closed with slides just beyond the goat lick [sic], at the Silver Stairs, and a big one at Devils Creek. date 14 slides have crossed the highway from Essex to the Snow Slip since January. The railroad had a number of slides but was able to keep open by working three snow plows night and day. Highway travelers were stranded at the Walton hotel until Saturday   |
| 1949    | February | 10  |      | various                    |       |      | yes | Walton RS Log, HH News 2/10/1949   | "No 2 blocked by snow slides east of Goat Lick from 1300 to 1630...41 deg. .59 precip." "Slides, and U.S. Highway No. 2 up the Flathead's middle fork usually gets a few, made their appearance in the area Thursday." Note: 3 incidents & 1 fatality on HH Dam construction same day.   |
| 1949    | February | 16  |      | various                    |       |      | yes | Walton RS Log  | "US. No blocked by snow slides from 10:00 am to 4:00 P.M. Rain all day .76 precip. 19(7) deg 38 deg"   |
| 1949    | February | 17  |      | Goat Lick                  |       |      | yes | Walton RS Log/ HH News   | "In all this has been a bad day - U.S. No 2 blocked. Slides at Crystal Creek Slides at the Goat Lick. And a blizzard blowing on top and the drifts up to 8 ft deep...I made two trips [sic] to the Goat Lick to help the men stranded there telephone calls etc. By 4:00   |
| 1949    | February | 21  |      | various                    |       |      | yes | Walton RS Log  | "US No 2 blocked til 4:30 P.M. Snow slide(s?). 38 deg 24 deg .22 precip." 1st day > freezing after cold arctic front.  |
| 1949    | February | 22  |      | Shed 11?                   | 50 ft | yes  | yes | Walton RS Log  | A large snow slide 1 1/2 east of Java. 50 ft deep 150 ft long (22/23)  |
| 1950    | January  | 19? |      |                            |       | yes  | yes | Butler/ USDCOM 1950/ HH News 1/19/1950/ HH News 1/19/1950/ HH News 1/19/1950 | "Highway 2 between Summit and Walton blocked early in month, remained closed at month end; railroad service interrupted for periods of a day or more." "Trouble, trouble. Those are the only words to describe the Middle Fork country this past week. Such a blizzard that even the old timers are stumped to think up a worse one...Thursday had to turn around on account of the trouble on Java hill...the slide came down at the end of a snow shed, lifted the diesel engine off the rails and machinery had to be brou  |
| 1950    | January  | 20  |      | above Java                 |       |      | yes | Butler/ USDCOM 1950/ HH News 1/19/1950/ HH News 1/19/1950                    | "Two Montana Highway Department employees were buried by a slide while working outside their vehicle. Both were recovered alive." "While bull dozing out a slide on the road above Java an unforeseen slide came down and buried Bill Norris and Larry Hart  |
| 1950    | February | 24  | PM   | various                    |       |      | yes | HH News 3/3/1950   | "Our highway was closed Friday night by slough offs caused by the new snow which fell that day. It was opened early Saturday morning by the highway crews and no more slides have come down to date, although it rained Saturday night." "Essex Snowslides Block Autoists... somewhere this side of the Denny's underpass. Last Friday evening...were traveling on Highway No. 2. Suddenly there in front of them was a snowslide. So, they turned around to retrace their tracks and after a few minutes drive there was another. So, caught between two slides they decided that idleness gets nowhere. They started to shovel. Stories on the size of the slides vary. Some say it was 8 feet high and 60 feet across. Others 30 feet high and 60 across. By the time they got through  |
| 1950    | March    | 18  | PM   | Cascadilla Creek           |       |      | yes | HH News 3/18/1950  | The highway was closed Friday afternoon but opened early Saturday. A slide came down at kaskadilla creek and closed that end and the Java hill was continually blowing full at different times all day long."  |
| 1951    | February | 9   |      | East of Goat Lick          | 25 ft |      | yes | HH News 2/16/1951  | "Rains Bring First Essex Snow Slides. Essex - The big rain brought down our annual snowslide just east of the goat lick (25 feet deep) last Friday, but Joe Kamanda from Summit had it clear by noon Saturday."  |

|      |          |     |       |                                     |       |     |                   |  |   |
|------|----------|-----|-------|-------------------------------------|-------|-----|-------------------|--|---|
| 1951 | March    | 9   | PM    | Btwn Goat Lick and java             |       | yes | HH News 3/16/1951 | p. 6: "Spring Snow Slides Start Near Essex. Essex - If snow slides are a sign of spring it must have arrived here. While going through Friday night the tankers were all held up by slides on the stretch of road through the park. The Summit road crew had to most of the night getting the road cleared." Hanging Tree? I-Beam?   |   |
| 1951 | March    | 10  | noon  | Near Caskidilla                     |       | yes | HH News 3/16/1951 | p. 6: "Spring Snow Slides Start Near Essex. Essex - If snow slides are a sign of spring it must have arrived here...Saturday about noon the slides came down near Caskidilla creek towards Nyack. A lot of our folks on their way to Kalispell were held up there almost 5 p. m. Later that evening Mt. and Mrs. Harold Gatsky and Mrs. DeLange had to wait until the road crew removed another smaller slide...Sunday it began to blow and snow and never let up until Friday." |   |
| 1952 | January  | 10  | ##### | 3 miles above Java                  | 20 ft | yes | yes               | HH News 1/18/52  | "Weather, Roads Topics at Essex. Essex - ...The first snow slides of the year came down January 10 and blocked the highway for 24 hours. They were about three miles above Java and were approximately 20 feet deep on the highway. The first slide came down about 11:00 at night out [Jan. 9th?] of the park, and as it went over the top of the snow shed it crushed part of the shed and went on with a big roar and came to a stop on the highway. The inside rails were not blocked by broken timbers so the tracks were for trains. Thursday morning [Jan. 10th] there were any number of trucks and cars lined up waiting for the crews to get the road open when another slide came down between them and Java so they were penned in between the two slides that day. Chet Johnson's B & B crew are very busy this week rebuilding approximately 125 of the snow shed which the snow slide either took out or weakened."  |
| 1952 | January  | ?   |       | Shed 7?                             | 30 ft | yes | yes               | HH News 1/25/1952, HH News 3/16/1952   | p. 6. "...Had two good snow slides just above Java last week, one came from way upstairs and piled up on the highway around 30 feet deep. It took the cat and rotary most of two days to get them out. The rotary found one rock, just the right size to go around with the auger. It put a sort of permanent wave in the auger and delayed the plow for a couple of hours while a new auger was installed." Feb. 1 issue has 2 photos on p. 4, 1 looks like shed 7 east or 10.7. Captions read: "Great Northern Railroad has snows   |
| 1952 | February | 28? | AM    | 3 miles above Java                  |       |     | yes               | HH News 3/7/1952   | p. 6 "Essex has months of Less Snowfall. Essex - Another snow slide blocked No. 2 highway last Thursday [February 28?] morning. The highway crew reported it was just Old Faithful letting loose again' and that is the place where the slides come down every year. It wasn't a very big slide but a tanker came bowling along and stuck itself into the slide before he knew it was there until extra equipment had to be used to pull him out. This delayed getting to work on the slide. IT was opened before noon so the d   |
| 1952 | April    | 6   | noon  | above Java                          |       |     | yes               | HH News 4/11/1952  | "Highway No. 2 Has Spring Snow Slides. Essex - More snow slides. Sunday morning about noon three slides came down and closed the highway above Java. The Summit road crew was on the job immediately with the rotary plow but were unable to have it opened until Monday morning. The slides had very little timber mixed in with the snow, which is always good news for the road crews. There were all kinds of cars held up on both sides of the slide; some turned back and went by way of Missoula, but some waited at neighboring towns until Monday morning when the road opened." On front page of same issue, HH News also reported a slide that blocked McDonald Creek ~2 miles above Avalanche. Photo on front page of following issue.  |
| 1954 | January  | 23  |       | Elk Fence/ Windy Point              | 10 ft | yes |                   | HHNews 1/29/1954   | "Snow Slides Plague Great Northern...Last Sunday, Glen Stewart, signal maintainer for the Great Northern, was caught by a slide, four miles west of Summit near a spot called Windy point [sic] above Bear Creek. The slide, up to 10 feet deep and covering 120 feet of track, caught Stewart and took him about 100 feet. He was shaken up, but apparently recieved no broken bones or serious injuries."   |
| 1954 | January  | 28  |       | 1.5 miles west of Blacktail - 1162? |       | yes |                   | HHNews 1/29/1954   | "Snow Slides Plague Great Northern...Thursday found Great Northern Crews clearing another slide on the mainline just west of the continental divide. Thursday's slide was 350 feet long, and 1 1/2 miles west of Blacktail. These January snow slides are 'sluff' or not the 'roarers' that come from the top of the mountain carrying rocks and trees. The present slides are not true avalanches. Deepest of the recent slides that came from a few hundred feet up the mountains has been 15 to 18 feet. Cause is six to ten feet packed snow." If Blacktail + Shed 7/ Tunnel 1.5 curve, then 1.5 miles west is Jake's/ 1162.  |
| 1954 | April    | 4   |       |                                     |       | yes |                   | Butler/ USDCom 1954  | "West of Marias Pass, producing temporary blockages of Highway 2"   |
| 1956 | February | 28  |       | Singleshot                          |       |     |                   | Walton RS Log  | "Slide on Singleshot today."  |
| 1956 | February | 29  | 2110  | Shed 11                             | 15 ft | yes | yes               | Walton RS Log, HHNews 3/2/1956   | "March 1 Thursday: Road closed all day. Slide came down at Snowshed #11 and onto road about 15 ft. deep 100 yds long. Train stuck in shed." "Avalanche Blocks G. N. and No. 2...Wednesday [Feb. 29] evening at 9:30 an eastbound Great Northern freight moving through the blizzard was in snowshed No. 11. The engine slammed into a snowslide that had taken off the west end of the shed. Snow broke the window of the cab and pinned engineer Marvin W. Kaber. Fellow crewman worked with their hands and boards for an hour, it was reported to free him [sic]. He was not injured. The engine was apparently not derailed. The snowslide covering the tracks also went over the Bear creek [sic] and down across U. S. highway No. 2. The slide across the highway was reported as about 500 feet wide and up to 15 feet deep...It will require some hours to get the buried freight engine out of the snowshed. Much of the effort will be through men using shovels and the track may be blocked until Friday. A cat and rotary plow clearing snow from the avalanche across U. S. highway No. 2 and expected to have a way open about 5 p.m. Thursday. However U.S. No. 2 will remain closed likely into Friday as plows clear the way to East Glacier park. There are blizzard conditions from the Summit east, and heavy snow falling in the mountains including the avalanche |
| 1956 | March    | 1   | a.m.  | Shed 11                             |       |     |                   | HHNews 3/2/1956  | "Avalanche Blocks G. N. and No. 2...The Great Northern was also clearing a second track at the spot [Shed 11] but a small avalanche Thursday morning blocked this again temporarily. The track was to have been opened first about 10 a. m. for through trains."  |
| 1956 | March    |     |       |                                     |       | yes | yes               | Butler/ USDCom 1956, HHNews 3/16/1956  | "Entire Highway 2 region, with repeated closures of both the highway and railroad" Photo caption of east end of Snowslip shows fracture lines all over - 4C, 4D, 5, & 6, running to ridgeline in most cases. Caption reads: "Great northern has protected its ma along the mountain here near the continental divide with snowsheds that show as black line. Avalanches here come off Elk Mountain [sic] and over sheds to the valley." Caption of photo showing plow in debris reads: "Rotary plows cutting through avalanche snow on U. S. No. 2 were a fascinating sight. Causing avalanches was heavy late winter snow following a brief late February thaw and then cold. Heavy mass of new snow skidded right off the frozen crust. These avalanches started low down on the mountains. The high ones are yet to come, and may, if weather turns unusually warm. Other pictures in this series on page 1." 3rd caption, on photo showing dozer cutting through debris, reads: "Saturday afternoon Bill Sands, Summit, was moving through the big cut on S. No. 2, widening it for traffic that would start Sunday morning." See March 4 record. All photos showed clear skies; caption in one noted temp "near zero." Article headlined: "Weather Plagues U. S. Highway 2" "Avalanche conditions of two weeks ago stoppe  |
| 1956 | March    | 1   | a.m.  | Singleshot                          |       | yes |                   | Walton RS Log, HHNews 3/2/1956   | "Another slide near Singleshot block tracks again so no rail traffic since last night. All trains tied up." "Avalanche Blocks G.N. and No. 2...Avalanche conditions - not unusual for this time of year - confront continental divide areas of the Flathead as ste storms continue to pile loose snow in mountain areas. There were slides across the Great northern mainline and U. S. No. 2 Thursday morning stopping traffic.  |
| 1956 | March    | 2   |       | Various                             |       |     | yes               | Walton RS Log  | "Road closed - 7 slides between here and the underpass and report of 4 more up the way. Road will be closed for a couple of days anyway. Heavy warm winds last night...many trees knocked down. Just the latest snow has come down and from not too far up."  |
| 1956 | March    | 3   |       | Shed 11                             | 50    | yes | yes               | Walton RS Log  | "One came down at Snowshed #11 and took out about 60% of it. Went onto highway about 50 ft. deep. Crews quit working due to bad instability and blowing snow." This actually a description of damage from Feb. 29 slide?  |
| 1956 | March    | 3   |       | Various                             |       | yes | yes               | Walton RS Log  | "Crews working on slides which totaled 14 today...Railroad blocked and all communication to the East Side."   |
| 1956 | March    | 4   |       | Near Shed 10.5                      | 60    | yes | yes               | Walton RS Log; HHNews 3/16/1956  | "Made foot patrol from Goat Lick to slide near Snowshed 10 1/2. Lots of snow. New slide about 60 ft. deep and 500 ft. long." 4th caption, on HH News photo of car passing through deep cut in debris. Location hard to determine: "This is the big drift that blocked U. S. highway No. 2. It is up to 60 feet deep and four blocks long. It is one of the 15 snowslides that came down the mountain and shoved across the highway, blocking it from Feb. 29 until March 11. Drifting snow and poor visibility blocked highway again Sunday Eve. Note car."   |
| 1956 | March    | 24  |       | Various                             |       |     | yes               | Walton RS Log  | "Warm and rain today...Slides had road blocked most of the afternoon from 1 to 5 pm."   |
| 1957 | February |     |       |                                     |       | yes | yes               | Butler/ USDCom 1957  | "Railroad closed near Essex, U.S. Highway 2 had repeated closures"  |

|      |          |    |           |                                 |             |      |   |   |
|------|----------|----|-----------|---------------------------------|-------------|------|---|---|
| 1957 | February | 4  |           | "near the construction area"    |             |      | Walton RS Log   | "Snowing very hard during the night and all day. About 14 inches so far...one slide down near the construction area and lots of sloughing in unreadable. Wind blowing in the evening."  |
| 1957 | February | 5  |           | various                         |             | yes  | Walton RS Log   | "Snow last night and again today. Slide about 1/4 mile above here and also one on the railroad."  |
| 1957 | February | 6  |           | various                         |             | yes  | Walton RS Log   | "Road closed all night and most of the day due to slides...Snow all day and hard this pm. NAME spent the night in his plow near Goat Lick. 3 slides the other side of Goat Lick bridge today. Trains ran early this morning from yesterday afternoon."  |
| 1957 | February | 8  |           | various                         |             |      | Walton RS Log   | "Road open about 8 different sloughs between here and Silver Stairs. Biggest one at Silver Stairs. Snow again today."   |
| 1957 | February | 9  |           | btwn Goat lick and Java         |             | yes  | Walton RS Log   | "4 more slides today. 2 between Goat Lick and Java"   |
| 1957 | February | 9  |           | Shed 11                         |             | yes  | Walton RS Log   | "4 more slides today...2 the other side of Java from Snowshed #11 & 10-7 which took part of the snowsheds out to the highway below. One slide about 300 yds long up to 20 ft deep. The other about 30 to 40 ft. deep."  |
| 1957 | February | 9  |           | Shed 11 & 5                     |             | yes  | Walton RS Log   | "4 more slides today...2 the other side of Java from Snowshed #11 & 10-7 which took part of the snowsheds out to the highway below. One slide about 300 yds long up to 20 ft deep. The other about 30 to 40 ft. deep."  |
| 1957 | February | 9  |           | various                         |             |      | Walton RS Log   | "Made foot patrol from Goat Lick to Silver Stairs. 4 slides down. Sun out today."   |
| 1957 | February | 11 |           | various                         |             |      | Walton RS Log   | "More slides down last night. 1 near gravel shed & 4 above by Goat Lick. Crews not working."  |
| 1958 | February | 18 |           | various                         |             |      | Walton RS Log   | "Warm today. Snow slides off Running Rabbit & Snowslip."  |
| 1958 | February | 19 |           | various                         |             | yes  | Walton RS Log   | "Made patrol east in morning. Counted 36 small slides on Running Rabbit & Snowslip. Only one reached the railroad track...Went east again in the afternoon. Few more slides down however none on railroad or highway. Two slides on Scalplock...Clear and warm today."  |
| 1958 | March    | 8  |           | various                         | 60 ft       | yes  | Panebaker Atlas, undated  | "Fifteen avalanches across Highway 2 within a 1.5 mile section between Essex and Summit. Some of the slides were 60 feet deep. Great Northern tracks also blocked."   |
| 1958 | March    | 8  |           | Shed 10?                        |             | yes  | IW Photo/ Butler  |   |
| 1960 | January  | 26 |           | E of Goat Lick                  |             | yes  | Chief Ranger Report   | "On January 26, two accidents occurred on a stretch of road east of the Goat Lick on Highway No. 2, where two snowslides covered the road. One car slide [sic] off the road, and later a truck slide [sic] off at the same location and landed on the car. Both were a total loss." Jan. Chief Ranger Report  |
| 1960 | January  | 27 |           | 2.5 mi E of Walton RS           |             | yes  | Chief Ranger Report   | "U.S. Highway 2 was blocked for about 18 hours on January 27; there were three small snow slides about 2 1/2 miles east of the Walton Ranger Station. The Great Northern Railroad running parallel to the park in some places in this area was also covered by s as a result of the slides and train traffic was detained for several hours." Hidden? Hanging Tree Main? H. Tree N? Java Gauntlet or Shed 11  |
| 1961 | February | 3  |           | 1.5 mi E of Goat Lick           | 20          | yes  | Walton RS Log   | "Well, it has been a long day. We had rain last night and hell this morning...20' by 230' avalanche closed the road 11/2 mi E of Goat Lick." Feb. 4: "51 deg. Today...roadway cleared at slide by 1:30 pm."   |
| 1963 | February | 3  |           | I-Beam? Hanging Tree?           | 20          | yes  | Chief Ranger Report   | "On February 3, an avalanche blocked U.S. Highway No. 2 in the Park, between Walton Ranger Station and the Summit, until the afternoon of the following day. The mass of snow averaged 20 feet deep and 80 feet long." I Beam? Hanging Tree? Same incident as Feb 3 1962?   |
| 1963 | March    | 1  |           |                                 |             | yes  | Monthly Ranger Report   | Two Medicine Monthly Ranger Report, March 1963: "Training: Missed session at Hdq. on 1st due to snowslide blockage of Highway #2."  |
| 1964 | February | 5  |           | various                         |             |      | Walton RS Log   | "Avalanches had come down the north faces."   |
| 1964 | June     | 8  |           | Shed 11                         |             |      | GNRHS Ref Sheet #134  | "Over 50 feet of roadbed east of Snowshed No. 11 washed out - 20 feet deep under both tracks. Sixty feet of the snowshed roof collapsed. East of Snowshed No. 11 were two large washouts - one 600 feet long and 70 feet deep and another 800 feet long with a depth of 40 feet. Most of the snowsheds had heavy flows of water and mud pouring down upon them from the mountainsides." "Photo caption p. 4 reads: 'Collapsed Snowshed no. 11. Water had come down a ravine behind the shed, carrying away the roof support pedestals.' Other photo caption reads 'Stock car in a washout east of Snowshed No. 12 which developed when a 24" culvert failed." |
| 1966 | January  | 5  |           | various                         |             | yes  | Walton RS Log   | "Avalanche on #2 highway. Give whatever aid was necessary...6 avalanches in all...saw mule deer jump out from road bed into powder snow and disappear except for antlers and nose. 1 1/2 inch moisture in last two days."   |
| 1969 | February | 3  |           | E of Nimrod                     |             | yes  | Walton RS Log   | "P. cloudy, calm. 1" snow 6' on grd 35 deg & 19 deg. Road closed east - slide on railroad E of Nimrod. 3 goats killed in slide."  |
| 1971 | January  | 10 |           | Shed 11                         |             | yes  | Walton RS Log   | "Snow slide at mileage marker #186 2 1/2 miles east of Java (Nimrod[sic]) underpass. US # 2 closed. Jan. 11: "Highway plowed thru but not open to public."  |
| 1971 | January  | 15 |           | 1 mile east of Goat Lick bridge |             | yes  | Walton RS Log   | "Two snowslides. 1 mile east of Goat Lick Bridge." Hanging Tree Main? I-Beam? Jan. 15 1974: "This area slid three years ago."   |
| 1972 | January  | 15 |           |                                 |             | yes  | Walton RS Log   | "Road closed- avalanche problem and high winds at Snow Slip Inn. Snow slide on RR tracks across from park." Java West?  |
| 1972 | January  | 17 |           |                                 |             |      | Walton RS Log   | "8 AM 25 deg, low 15 deg, high 42 deg (40" snow) warm wet. Some avalanching."   |
| 1972 | January  | 20 |           | Snowslip Mountain               | 15          | yes  | Walton RS Log   | "Avalanche this evening off of Snowslip Mt. 15 ft deep and 300 yds long...road closed."   |
| 1972 | January  | 20 |           | Silver Stairs                   |             |      | Walton RS Log   | "Two more avalanches tonight south of US #2 at Silver Stairs. Road closed."   |
| 1974 | January  | 13 |           | Snowslip Mountain               |             |      | Walton RS Log   | "8 AM 40 deg, rain, 30" base snow...warm weather and rain starting avalanches on lower half of Snowslip Mountain."  |
| 1974 | January  | 15 |           | 1/2 mile west of Java           | 15          | yes  | Walton RS Log   | "40 deg rain 25" snow base icy road...Snow slide last night 1/2 mile west of Java 15 ft deep and 300 ft long. It ran down gully taking out 5" trees. The debris deposited new sliding snow on top of old sliding snow ie took the snow on the bottom of the slide a pushed it on top. This area slid three years ago. Bill Sands and Don McCloud cleared slide off road with end loader. Worked until 7 PM."  |
| 1974 | January  | 15 |           | Larry, Curly                    |             |      | Walton RS Log   | "40 deg rain 25 snow base icy road...also 3 slides off USFS land south of US #2 between Bear Creek crossing and Silver Stairs. All ran debris to road borrow pit."  |
| 1978 |          |    |           | Shed 4C/ Burnt-out              |             | yes  | IW Photo  |   |
| 1978 | February | 2  | 1030      | In Park                         |             | yes  | MDT East Glacier logs   | "4-6" new snow 2 deg. Am. Snow slide in park at 10:30 hit light green ford pickup cracked grill - miller [?] heavy drifting east side zero visibility" 30 deg next day; 2-4-78: "plowed slush all day."   |
| 1979 | January  | 18 |           | In Park                         |             |      | MDT East Glacier logs   | "1-18-79: Small shuffs coming down in park. +10 deg, clear, sw wind. " 1-20-79: Extreme avalanche conditions. 12" in park, 24" on top."   |
| 1979 | February | 5  |           | Hanging Tree                    | 5 ft        | yes  | MDT East Glacier logs   | "2-5-79: "Four slides at 'Hanging Tree' in park. Took 45 minutes to clear. Traffic stopped slides were approx. 5' deep and out to centerline of roadway" AM 25 deg, strong SW winds w/ heavy drifting. 1st warm day since Jan. 20 - single digit or < 0 deg temps started 2-2-79  |
| 1979 | February | 6  |           | Broken Bridge, Larry            |             | yes  | MDT East Glacier logs   | "2-6-79: "PM 28 deg, light to mod SW wind 1" west side 5" east side...Slides at 'Hanging Tree', Broken Bridge, first chute west of Silver Stairs F.S. side."  |
| 1979 | February | 9  | 1330      | HWY 2 in Park                   | 1-6 ft.     | yes  | MDT East Glacier logs   | "2-9-79: "rotored the park 1 slide down 1' deep low side 6' high side at 1:30 P.M. Emergency Traffic only due to avalanche danger"  |
| 1979 | February | 10 |           | HWY 2 in Park                   |             | yes  | MDT East Glacier logs   | "2-10-79: "N wind started @ 9:00 received 18" new snow on top. 6" on either side. Several small slides in Park. Emergency traffic only due to avalanche danger."  |
| 1979 | February | 12 |           | various                         |             | yes? | MDT East Glacier logs   | "2-12-79 "slides down in many places by evening... more snow 8" on east, 20" on top 5" heavy snow High avalanche danger"  |
| 1979 | February | 13 |           | Broken Bridge                   |             |      | Martinelli 1979a  | "We noted at this time that an avalanche came very close but did not hit the microwave relay tower up near Snowslip."   |
| 1979 | February | 13 |           | MP#81.3                         |             | yes  | Panebaker Atlas, undated; Martinelli 1979b                        | "Coke truck runs into avalanche across Highway 2 at MP#81.3. Total of 4 avalanches across Highway 2 between Walton R.S. and Devils Creek with depths varying between 5 and 40 feet. Total of 14 to 17 avalanches across the Burlington Northern Tracks along the park boundary." (Panebaker); "Panebaker, walked to the north abutment of the bridge with a truck driver who had been stuck in avalanche debris north of the bridge site" (Martinelli)  |
| 1979 | February | 13 | 0715-0915 | Goat Lick                       |             | yes  | Panebaker Atlas, undated; Martinelli 1979b, MDT East Glacier logs | "Total of 4 avalanches across Highway 2 between Walton R.S. and Devils Creek with depths varying between 5 and 40 feet. Total of 14 to 17 avalanches across the Burlington Northern Tracks along the park boundary." (Panebaker) MDT 2-13-79: "Avalanches - Lots of damn avalanches. Large slide down on Goat Lick Bridge & Hanging Tree @ 6 a.m. 9 am we were notified the Goat Lick Bridge collapsed by another slide... rotored - plowed - pushed & pulled snow all day with everything we have."  |
| 1979 | February | 13 | 600       | Hanging Tree                    |             | yes  | MDT East Glacier logs   | "Total of 4 avalanches across Highway 2 between Walton R.S. and Devils Creek with depths varying between 5 and 40 feet. Total of 14 to 17 avalanches across the Burlington Northern Tracks along the park boundary." (Panebaker) MDT 2-13-79: "Avalanches - Lots of damn avalanches. Large slide down on Goat Lick Bridge & Hanging Tree @ 6 a.m.... rotored - plowed - pushed & pulled snow all day with everything we have."  |
| 1979 | February | 13 | 900       | Devil's Creek                   |             | yes  | MDT East Glacier logs   | "Total of 4 avalanches across Highway 2 between Walton R.S. and Devils Creek with depths varying between 5 and 40 feet. Total of 14 to 17 avalanches across the Burlington Northern Tracks along the park boundary." (Panebaker) MDT 2-13-79: "Avalanches - Lots of damn avalanches... Devils Creek had a large slide at 9:00 a.m. which closed the road for 2 hrs. rotored - plowed - pushed & pulled snow all day with everything we have."   |
| 1979 | February | 13 |           | various                         | 5 to 40 ft. | yes  | Panebaker Atlas, Undated  | "Total of 4 avalanches across Highway 2 between Walton R.S. and Devils Creek with depths varying between 5 and 40 feet. Total of 14 to 17 avalanches across the Burlington Northern Tracks along the park boundary." (Panebaker)  |

|      |          |    |       |                   |          |      |       |  |   |
|------|----------|----|-------|-------------------|----------|------|-------|--|---|
| 1979 | February | 14 |       | Silver Stairs     |          |      | yes   | MDT East Glacier logs  | 2-14-79: "a large slide at Silver Stairs stopped the whole show"  |
| 1979 | February | 25 |       | Devil's Creek     |          |      | yes   | MDT East Glacier logs  | 2-25-79: "close road at Devil Creek with snow at 2:00 p.m. Small sluffs"  |
| 1982 | December |    |       | various           |          |      |       | HH News 12/23/1982   | Panebaker reported several avalanches in the high country but all were too far away to cause damage   |
| 1982 | January  | 23 | 2100? | Larry's           | 2-7 ft   |      | yes   | Martinelli 1984, Panebaker Atlas, undated; MDT East Glacier logs | "Other avalanches crossed U.S. Highway 2 and the railroad, stopping traffic on both." (Martinelli) "Highway 2 closed by two avalanches at MP88.3 and MP87. Snow depths on road varied between 2 feet and 7 feet. Pickup truck got stuck when it ran into one of the slides." 1-23-82: " +10 deg in AM. ..warmed up to 32 deg strong SW wind...small slide at 187.5 cleared it up and closed road at 9:30 p.m...closed due to drifting, visibility problems & avalanche danger." 1-27-82: "Brian Kennedy called regarding road closure avalanches of 1/23/82. I gave him very little information - 1 slide down at 9:00 p.m. closed road at 9:30 p.m. due to heavy drifting, 'o' visibility & avalanche danger. 2 more slides down late p.m. 1/23 or early a.m. 1/24 1'4" to 7' deep on road and 1 took  |
| 1982 | January  | 23 | 2100? | Mo                | 2-7 ft   |      | yes   | Martinelli 1984, Panebaker Atlas, undated; MDT East Glacier logs | "Other avalanches crossed U.S. Highway 2 and the railroad, stopping traffic on both." (Martinelli) "Highway 2 closed by two avalanches at MP88.3 and MP87. Snow depths on road varied between 2 feet and 7 feet. Pickup truck got stuck when it ran into one of the slides." 1-23-82: " +10 deg in AM. ..warmed up to 32 deg strong SW wind...small slide at 187.5 cleared it up and closed road at 9:30 p.m...closed due to drifting, visibility problems & avalanche danger." 1-27-82: "Brian Kennedy called regarding road closure   |
| 1982 | January  | 23 |       | Goat Lick         |          |      |       | Martinelli 1984, Panebaker Atlas, undated; MDT East Glacier logs | "a very small wet avalanche ran down Snowslide Gulch and stopped about 150 yards upstream of the new bridge. Visibility was too poor to see where it had started.   |
| 1982 | January  | 23 |       | various           | 6-14 ft  | yes  |       | Martinelli 1984, Panebaker Atlas, undated                        | "Other avalanches crossed U.S. Highway 2 and the railroad, stopping traffic on both." (Martinelli) "Five avalanches across the Burlington Northern tracks along the park boundary with depths varying between 6 to 14 ft." (Panebaker)  |
| 1982 | January  | 24 | 100   | Broken Bridge     |          |      |       | Martinelli 1984, Panebaker Atlas, undated; MDT East Glacier logs | "At 0100 hours January 24, 1982, the microwave tower and building south of U.S. Highway 2 near Mount Furlong were hit. The tower was damaged and the building was moved 90 feet and tipped on end." (Martinelli) "Microwave tower facility located at the base of Mt. Furlong damaged by an avalanche." (Panebaker) 1-27-82: "Brian Kennedy called regarding road closure & avalanches of 1/23/82. I gave him very little information - 1 slide down at 9:00 p.m. closed road at 9:30 p.m. due to heavy drifting, 'o' visibility avalanche danger. 2 more slides down late p.m. 1/23 or early a.m. 1/24 1'4" to 7' deep on road and 1 took out microwave house at 186.9"  |
| 1982 | February | 15 | 1715  | Goat Lick         |          |      | under | Martinelli 1984; MDT East Glacier logs                           | "a moderate -size wet avalanche passed under the new bridge at 1715 hours. It appeared to have started in area 2 of the starting zone. Additional snow came from area 6...photographs and a few quick measurements, however, show considerable debris above and below the bridge, with the terminus extending 20 feet into the river. Clearance was measured at 5.8, 11, and 20 feet under the south, middle, and north part of the bridge. Rain had started falling the day before and was still falling at the time of the avalanche. 82: "raining - 37 deg - 5:30 pm avalanche at snow slide gulch filling area under bridge to within 5 feet -- 97 ft. wide numerous other slides down" 2-16-82: "snow slide came down under goat lick bridge about 6:00 p.m. yesterday. Emergency traffic only due to avalanche danger numerous small slides down...closed road at noon due to slide danger."  |
| 1982 | February | 16 |       | various           |          |      | yes   | MDT East Glacier logs  | 2-16-82: "Emergency traffic only due to high avalanche danger numerous small slides down...closed road at noon due to slide danger."  |
| 1982 | February | 17 |       | various           |          |      | yes   | MDT East Glacier logs  | 2-17-82: "37 deg...about 1/2" of snow on summit raining on west end...emergency traffic only due to high avalanche danger. Numerous slides down. Closed road at 6:30 p.m."  |
| 1982 | February | 20 |       | Goat Lick         | 16-25 ft |      | yes   | Martinelli 1984, Panebaker Atlas, undated; MDT East Glacier logs | "A third wet avalanche ran down Snowslide Gulch at about 1900 hours February 20, 1982. Part of it flowed around and over the south end of the new bridge, leaving 24.2 feet of debris on the south end of the bridge. There was no debris on the north part of the bridge. The bridge was undamaged. The concrete Jersey barrier on the east side of the bridge near the southern abutment was cracked and pushed slightly out of alignment. This avalanche started at an elevation of 7,200-7,300 feet in area 1. The fracture face estimated to be 4 feet tall except for a short distance in the southeast corner of the starting zone where it was 10-12 feet tall in a snow deposition area. Only about 40 acres of the starting zone contributed to the avalanche. Although fresh debris was present in starting zones 3, 7 and 9, none of this entered the main channel." (Martinelli) "Highway 2 closed at new Goat Lick Bridge by avalanche debris covering 1,000 feet of highway with depths varying between 20 to 25 feet." (Panebaker); 2-20-79: "7:15 p.m. received call from Hebert(?) 40 deg heavy rain slide down over goat lick bridge road closed 1000' long 15'-25' high covered whole road & 1/2 bridge." |
| 1982 | March    | 9  |       | Larry ?           |          | NA   | no    | MDT East Glacier logs  | 3-9-82: "10:30-35 deg. Heavy rain and wet wet snow lots of slush one slide down below Silver Stairs - did not hit the road FS side"   |
| 1982 | March    | 10 |       | Shed 7?           |          | yes  | no    | MDT East Glacier logs  | 3-10-82: "1 large slide down 1st chute past Devil's Creek! Park side -- stopped on top of avalanche shed on R.R."   |
| 1982 | April    | 11 |       | Larry, Mo?        |          |      | ?     | MDT East Glacier logs  | 4-11-82: "slides down below Silver Stairs & 187 F.S. side 32 deg, raining throughout, except at Summit where there is 3" new snow"  |
| 1982 | April    | 20 |       | various           |          |      |       | MDT East Glacier logs  | 4-20-82: "4:30 p.m. 31 deg clear - calm 45 deg on west side - lots of small slides coming down all up high."  |
| 1982 | December | 20 |       | various           |          |      |       | MDT East Glacier logs  | 11-20-82: "PM snowing hard - 8" Essex 18" uper west side - 6" shop. Put out night travel not recommended [sic] du [sic] to high slide danger. Lot of little sluffs coming down."  |
| 1982 | December | 21 |       | various           |          |      |       | MDT East Glacier logs  | 11-21-82: "Some snow sluffing at 186 & in Park."  |
| 1983 | January  |    |       | various           |          |      |       | HH News 1/13/1983  | "Avalanches Seen...after nearly a week of wet, warm weather...Panebaker saw evidence of seven wet snow avalanches last week above the railroad and highway. Snow depth at Walton dropped from 35" to 28" after the rain."   |
| 1983 | March    | 30 |       | Bearhole          |          |      |       | MDT East Glacier logs  | "8:30 PM had a small rock and snow slide down in the middle of the Bear Hole at about 6:45 p.m. Pushed it off to the shoulder with the 40 trk."   |
| 1985 | February | 10 |       | Various           |          |      |       | MDT East Glacier logs  | Sun. 2/10/85: "5:00 AM 16 deg snowing, mod SW wind blowing & drifting snow...Picked up about 4" of new snow on top - west. A few new snow sluffs in Park around Goat Lick bridge and rock cut." At start of warming period after week of <0 or single digit temps - "new" implies other sluffs?   |
| 1985 | March    | 18 |       | Question Mark 1/2 |          | ?    | yes   | MDT East Glacier logs  | Mon. 3-18-85: "32 deg - slide down at 185.9 15' high - 50 yds long. Thanks to the railroad we got it all cleared by 11 A.M." Gradually warming temps the previous week - near freezing - light snow at start - 40 deg at 5 AM the previous day. Question mark 1/2?  |
| 1985 | April    | 4  | 1620  | Larry             |          |      | ?     | MDT East Glacier logs  | Thurs. 4-4-85: "9:30 p.m. 30 deg. Strong gusty sw wind. Some blowing and drifting snow on top. New slide just west of Silver Stairs. Happened at 4:20 p.m. on south side." warmed from 19 deg at 5 a.m. 1-4" new, rain previous day.  |
| 1986 | February | 18 |       | Shed 8            |          | yes? | yes   | MDT East Glacier logs  | Tues. 2-18-86: "Small slide at 189 from across the creek & tracks. Cleaned it all up with plows."   |
| 1987 | March    | 5  |       | various           |          |      |       | MDT East Glacier logs  | Thurs. 3-5-87: "Patrolled park area to Silver Stairs. Some slide action. " 45 deg. Clear to partly cloudy. 2+ ft new snow since 3-1.  |
| 1990 | January  | 23 |       | Shed 9            | <1 ft    | yes? | yes   | MDT East Glacier logs  | 1-23-90: "Small slide scattered branches & snowballs at Silver Stairs. Came from N. side of road in Park" 8-10" new @ Summit.   |

|      |          |    |           |                    |          |      |     |  |   |
|------|----------|----|-----------|--------------------|----------|------|-----|--|---|
| 1990 | January  | 26 |           | Shed 8             |          | yes? | yes | MDT East Glacier logs  | "1-26-90: "0500 22 deg snowing mod to heavy. Picked up 10"-12" since yesterday...small slide at 189 from north 4" on road."   |
| 1990 | January  | 30 |           | Various in Park    |          |      |     | MDT East Glacier logs  | "1-30-90: "2100. Snowing hard. Blowing and drifting west side. Drifts crossing roadway in numerous [sic] places. Snow sluffing in Park."  |
| 1990 | January  | 31 |           | Hanging Tree Main  | 4-6 ft   | NA   | yes | MDT East Glacier logs, HH News 2/1/1990                                      | "1-30-90 "5 a.m. -26 deg 8" new 16" in 24 hr mod snow. Slide at 183.2 snow sluffs in Park...Flowed back from Essex to East Glacier. Extreme slide danger. Road drifted but wind letting up. Road still closed." 2-1-90: "-18 deg lt snow 1" new road narrow in s drifting & slide."   |
| 1991 | January  | 12 | 2000      | Hanging Tree Main  |          | NA   | yes | MDT East Glacier logs  | "0500 35 deg mod gusty SW wind. Raining...Still raining snowing above 5000...Road closed 2000 due to snow slide. 183.1" 183.1=Hanging Tree Main?"   |
| 1991 | January  | 12 | 2000      | Curly (?)          |          |      | yes | MDT East Glacier logs  | "0500 35 deg mod gusty SW wind. Raining...Still raining snowing above 5000...Road closed 2000 due to snow slide. 188.1" 188.1=Curly?"   |
| 1992 | January  | 23 |           | Blue Rock Cut      |          | NA   | yes | MDT East Glacier logs  | "Opened [sic] avalanche [sic] warning signs at Walton RS. And Snowlip (1300)" "Slide almost covered road at Blue Rock Cut Nyack section" "32 deg snowing throughout section except raining Devil Creek to Goat Lick 4-6" new snow west end 6-8" on top"   |
| 1995 | February |    |           | Shed 7             |          | no   | no  | Butler notes   | Notes from 2-5-95: "World famous Shed 7. It has run! Note gray balls and levee above, in right channel just above path junction."   |
| 1995 | February |    |           | Jakes? Infinity?   |          | ?    | no  | Butler notes   | Notes from 2-5-95: "Fresh avalanche between sheds 10 & 9"   |
| 1995 | February | 19 | PM        | Silver Stairs      |          | ?    | ?   | MDT East Glacier Logs  | "1-37 deg Rain...6000 44 deg...Silver Stairs - slide in afternoon" Prev. day entry "1:00 AM 39 deg very strong SW wind East Side - raining"   |
| 1996 | January  | 8  |           | Shed 11            |          | ?    | ?   | MDT East Glacier Logs  | From Jan. 9 1996 log - "Fred did some clean up at #11...Ross up w/ avalanche beepers." Weather data supports possible slide event - see Pike Creek data. From MDT logs - -25 deg (Jan 5) 19 deg (Jan 6, AM), 28 deg (Jan 6 3:00), 32 deg (Jan 6 8:30)   |
| 1996 | February | 8  | PM        | Hanging Tree Main  | 12-15 ft | NA   | yes | Butler 1996; Butler Personal Comm. 2004; Butler notes, MDT East Glacier Logs | "During the evening and early-morning hours of February 8-9, 1996, numerous snow avalanches (associated with heavy rains in the Pacific Northwest of the United States) were triggered along the southern boundary of Glacier National Park, Montana. These avalanches buried a portion of U.S. Highway 2 (US2) approximately four miles east of the village of Essex, Montana, as well as the mainline tracks of the Burlington Northern and Santa Fe Railroad (BNRR). US2 is the only east-west link across the Rockies in northern Montana; when closed, a 180-mile detour from East Glacier Park to West Glacier is required. US2 was closed during the evening of February 8 and into the morning of February 9 by snow avalanches blocking traffic. Additionally, approximately 75 yards of track of the BNRR were blocked for about eight hours, shutting down all freight traffic as well as the eastbound Amtrak passenger train from Seattle to Chicago." Notes from 2-21-96: "Goat Lick Channel no avalanche, south-facing slope nearly bare 0 snow...Snow deposit of big balls that oozed slowly onto highway. Ripped out lots of trees. Fresh soil and snow pushed out to side by avalanche deposit, into flanking rampart on right side. Avalanche about 20 m wide, 4-5 m high" MDT East Glacier Log Feb. 8 |
| 1996 | February | 9  | early AM? | Shed 7             |          | yes  | no  | Butler 1996; Butler Personal Comm. 2004; Butler notes                        | "During the evening and early-morning hours of February 8-9, 1996, numerous snow avalanches (associated with heavy rains in the Pacific Northwest of the United States) were triggered along the southern boundary of Glacier National Park, Montana. These avalanches buried a portion of U.S. Highway 2 (US2) approximately four miles east of the village of Essex, Montana, as well as the mainline tracks of the Burlington Northern and Santa Fe Railroad (BNRR). US2 is the only east-west link across the Rockies in northern Montana; when closed, a 180-mile detour from East Glacier Park to West Glacier is required. US2 was closed during the evening of February 8 and into the morning of February 9 by snow avalanches blocking traffic. Additionally, approximately 75 yards of track of the BNRR were blocked for about eight hours, shutting down all freight traffic as well as the eastbound Amtrak passenger train from Seattle to Chicago." From 2-23-96 notes "Talked with BN Roadmaster, said snow ava. put 75 yds of snow under shed 11 on tracks and it took 2 bulldozers working 2 hours to get the BN line open. Both tracks in the snowshed were buried...the avalanche deposit. Very bally, slushy wet-snow avalanche from right hand chute. In fact, it came from a slab fracture,       |
| 1996 | December | 30 |           | Larry's            |          |      | yes | 9/97 Jacobson Interview  | "indicators hit road when run - hit Hwy in 96-7 (Larry's chute = uphill chute)  |
| 1996 | December | 30 |           | Shed 9             |          | ?    |     | 9/97 Jacobson Interview  | "hardly runs over shed - stops on bench above - ran in 96-7"  |
| 1996 | December | 30 |           | Shed 8             |          | yes  |     | 9/97 Jacobson Interview  | "ran over top in 96-7 - not by much"  |
| 1996 | December | 30 | 130       | Shed 4C/ Burnt-out |          | yes  |     | 9/97 Jacobson Interview/ 1997 Bones  | "came over big in 96-7. Filled to top of retaining wall" (Jacobson) "rain began in the area at approx 11:30 that evening. A westbound BNSF freight was hit by a series of wet slab avalanches at approx 1:30 Monday morning. Fracture depth of these slides was approx 12 inches. These slides occurred in the vicinity of a burned-out snow shed near Snowslip. The slides stuck the train in 10-15 feet of debris and destroyed approx 1000 feet of signal fence." (Bones)  |
| 1996 | December | 30 |           | various            |          | yes  | yes | 1997 Bones   | "5 slides that either totally or partially blocked the highway...rail tracks blocked in four other locations"   |
| 1996 | December | 30 |           | Shed 10.7          |          |      |     | 9/97 Jacobson Interview  | "Came down in 96-97. Didn't run to shed - typical"  |
| 1996 | December | 30 |           | 1163               |          |      |     | 9/97 Jacobson Interview  | "ran 96-7 stopped on knoll above tracks"  |
| 1996 | December | 30 |           | Jake's             |          | yes  |     | 9/97 Jacobson Interview  | "runs frequently - hit Main 1 & 2 3x in 96-7 - triggered by elk 1x?"  |
| 1997 | January  | 1  |           | various            |          | yes  | yes | 1997 Bones   | "Tuesday (12-31-96) night and Wednesday (1-1-97) morning another series of wet avalanches fell upon the highway and rail tracks as more rain was received in the area. None of these hit vehicles or trains and after clean up traffic resumed. Traffic by BNSF during this time of instability was confined to the outside Main 2 track until refreezing temperatures occurred (1-3-97)."  |
| 2002 | January  | 25 | 15:00     | Hanging Tree Main  |          | yes  |     | Personal Obs   |   |
| 2002 | January  | 25 |           | 1-Beam             |          |      |     | Personal Obs   |   |
| 2002 | January  | 25 |           | Shed 7 West        |          | yes  |     | Personal Obs   | crown 750-1000 feet across, 2-5 ft high, 6400' elev. Air blast knocked over trees 6" in diameter. Ran over top of shed  |
| 2002 | January  | 25 |           | Goat Lick          |          |      |     | Personal Obs   | Debris 15-30 ft deep in river.  |
| 2002 | January  | 25 |           | Question Mark 5    |          |      |     | Personal Obs   | "Mt. Furlong, unnamed: A slide ran the length of an unnamed, north-facing gully on Mt. Furlong. It stopped immediately above Bear Creek across from Shed 10.7   |
| 2002 | January  | 25 |           | Java Gauntlet      |          |      |     |  |   |
| 2002 | February | 22 |           | Goat Lick          |          |      |     | Personal Obs   |   |
| 2002 | March    | 11 | 17:15     | Shed 4C/ Burnt-out | 3 ft     | yes  |     | GCAC Incidents page  | "An avalanche was reported by Leo Yudysh the daytime Roadmaster for Burlington Northern. Leo reported that a slide buried both main lines at railroad milepost 1160. This occurred at 5:35pm on Monday. The depth of the slide was 3 feet deep and covered approximately 50 yards of the track. The slide was at Shed 4 which was an old burned out snow shed. The slide came down on the west end of the old snow shed area. This was a rain over snow event. The slide was discovered because it tripped the detection wire above the track. Snow removal equipment is now clearing the track."   |
| 2002 | March    |    |           | Hanging Tree N     |          |      | yes | Personal Obs   |   |
| 2003 | January  | 23 |           | Shed 6             | OS       | no   |     | Personal Obs, GCAC Obs page  | Test slopes between Shed 7 East & Shed 6. "Several natural and triggered slides - 10-60 cm thick. Wind slab on NSF or s.hoar from last week. very sensitive - easily triggered w/ body weight on low angle slopes and from adjacent slopes. Largest propagated ~ uphill from trigger point on flat knoll"   |
| 2003 | March    | 10 |           | Essex Shed         |          | ?    |     | Steiner obs.   | "Mid-track [start zone], Runout Zone [Terminus]"  |
| 2003 | March    | 10 |           | 1163               |          | ?    |     | Steiner obs.   | "Mid-track [start zone] Lwr. Trk. [Terminus]. Hang fire in Upper Trks. Active Ridge Wind Loading."  |
| 2003 | March    | 11 |           | Shed 11            |          | No   | No  | Steiner obs.   | "Mid-track [start zone], Lwr. Trk. Above Shed [Terminus]."  |
| 2003 | March    | 11 |           | Shed 10.7          |          | Yes  | No  | Steiner obs.   | "Mid-track [start zone], Lwr. Trk. [Terminus]. Active Ridge Wind Loading. Debris Deposited on Shed."  |

|      |          |        |       |                     |       |     |     |                             |   |
|------|----------|--------|-------|---------------------|-------|-----|-----|-----------------------------|---|
| 2003 | March    | 11     |       | Shed 8              |       | Yes | No  | Steiner obs.                | "3/11(12?)/03. Mid-track [start zone], Runout Zone [Terminus], Active Ridge Wind Loading, Large Snow Pillow Below Cornice, Upper Starting Zones Loaded, Avalanche Crossed Shed 8. Debris Deposited Below Shed. Air Blast Crossed Power Lines. Damaged Trees/ Broken Limbs."   |
| 2003 | March    | 11     |       | Windy Slide Area    |       | ?   | NA  | Steiner obs.                | "Upr. Slope [Start Zone], Runout Zone [Terminus], Low elevation Slab Release. 2'-3' Crown."   |
| 2003 | March    | 12     |       | Goat Lick           |       | NA  |     | Steiner obs.                | "Mid to Upr. Trk. [Start Zone], Lwr. Trk @ Bridge [Terminus], Center Tracks Inactive, Hang Fire in Upper Trks. Active Ridge Wind Loading"   |
| 2003 | March    | 12     |       | H-beam              |       | NA  |     | Steiner obs.                | "Mid to Upr. Trk. [Start Zone], Lwr. Trk above Hwy. [Terminus], Hang Fire in Upper Trks. Active Ridge Wind Loading. Fracture wraps around low angle ridge on viewers R."  |
| 2003 | March    | 12     | 2130  | Shed 10.7           |       | Yes | No  | Steiner obs.                | "Upr.-Trk. [Start Zone], Runout [Terminus], Debris deposited on Shed. Air Blast On Evening of 3/12/03 damaged Mature Trees....[sic] Viewer's Left Flank. Tree Hit passing Locomotive - No Damage to Locomotive."  |
| 2003 | March    | 12     | 930   | u63                 |       |     |     | Steiner obs.                | "South East Aspect. Mid-Trk [Start Zone], Lwr. Trk. [Terminus], Loaded on Cntral Trk...Inactive. Witnessed Aval. SE Aspect."  |
| 2003 | March    | 12     |       | u63                 |       |     |     | Steiner obs.                | "South East Aspect. Upr.-Trk [Start Zone], Lwr. Trk. [Terminus], Numerous Loose Snow Avalanches off Rocks on Viewer's Right."   |
| 2003 | March    | 12     |       | Broken Bridge       |       |     |     | Steiner obs.                | "Lwr. Trk. [Terminus], Hidden behind tree" Av. Type unknown, start zone not visible."   |
| 2003 | March    | 12     |       | Grizzly Slide       |       | NA  | NA  | Steiner obs.                | "Upr. Trk. [Start Zone], Upr. Trk. [Terminus], Numerous small slab releases on low slope angles in upper basin."  |
| 2003 | March    | 12     |       | Infinity            |       |     |     | Steiner obs.                | "Upr. Trk. [Start Zone], Lwr. Trk. [Terminus], Active Ridge Wind Loading."  |
| 2003 | March    | 12     |       | Shed 9              | 6 ft. | Yes | Yes | Steiner obs.                | "Mid. Trk. [Start Zone], Runout Zone [Terminus], Active Ridge Wind Loading, Avalanche Crossed Shed 9, Blocked Hwy. Dammed Bear Creek, Destroyed Guard Rail, Destroyed Power. 6' Debris on Hwy." Actually started upper start zone? Deeper debris on road below."  |
| 2003 | March    | 12     | 600   | Shed 7 West         |       | Yes |     | Steiner obs.                | "Mid-Trk [Start Zone], Runout Zone [Terminus], Active Ridge Wind Loading, East Bowl has not avalanched, Upper West Bowl is Loaded. ALL of East Bowl is Loaded, Large Cornice Above West bowl, Avalanche crossed NE End of Shed. Blocked Railroad."  |
| 2003 | March    | 12     |       | Burnt-out Shed      | 3'    | Yes | NA  | Steiner obs.                | "Mid-Slope [Start Zone], Runout Zone [Terminus], Low elevation Slab Release. Debris carried onto Railroad Tracks, 3' Deposition."   |
| 2003 | March    | 13     |       | u63                 |       |     |     | Steiner obs.                | "Upr. Trk. [Start Zone], Lwr. Trk. [Terminus], Additional Slab Release on SW Aspect...Aprox. 3' crown..."   |
| 2003 | March    | 13     |       | Shed 10             |       |     |     | Steiner obs.                | "Mid-Trk. [Start Zone], Lwr. Trk. [Terminus], Slab Release Viewer's R."   |
| 2003 | March    | 13     |       | Grizzly Slide       |       | NA  | NA  | Steiner obs.                | "Upr. Trk. [Start Zone], Runout [Terminus], Ran to Valley Bottom"   |
| 2003 | March    | 13     |       | Devil's Hump        |       |     |     | Steiner obs.                | "Upr. Trk. [Start Zone], Mid-trk Terminus, No slab activity Betwn. 3/12 & 3/13"   |
| 2003 | March    | 13     |       | Shed 8              |       | Yes |     | Steiner obs.                | "Upr. Trk. [Start Zone], Runout Zone [Terminus], Debris ran to high side of shed."  |
| 2003 | March    | 13     |       | Shed 7 East         |       | Yes |     | Steiner obs.                | "Upr. Trk. [Start Zone], Runout Zone [Terminus], E. Bowl released Large Slab. Lrg. Cornice remains above" Slide took out swath of trees below shed and stopped on access road."   |
| 2003 | March    | 13     |       | Burnt-out Shed      |       |     |     | Steiner obs.                | "3/12/03 or 3/13/03. Left mid/Upr. Slope [Start Zone], Lwr. Trk [Terminus], Debris stopped n aval. Trk."  |
| 2003 | November |        |       | Shed 12             | G     | ?   |     | GCAC Obs page               | "From 11/30/03 obs: "I observed three natural release avalanches while out yesterday. These occurred between Fri 11/28 and the morning of 11/30...The other was above the snow shed across from the Walton Ranger Station. It started as a point release that fan out, the ground was the bed surface. These were wet soft slabs, size 1. The storm brought rain all the way to Marias Pass on sat 11/29. The snow/rain line is about 5400ft."                                |
| 2003 | November |        |       |                     | OS    | no  |     | GCAC Obs page               | "From 11/30/03 obs: "I observed three natural release avalanches while out yesterday. These occurred between Fri 11/28 and the morning of 11/30. Two were on SW aspects of Snowslip Mtn in the Middle Fork of Glacier National Park...These were wet soft slabs, size 1. The storm brought rain all the way to Marias Pass on sat 11/29. The snow/rain line is about 5400ft."   |
| 2003 | December | 11     |       | Shed 7 West         | OS    | no  |     | Personal Obs, GCAC Obs page | "From 12/10/03 obs: "several small slabs of wind-drifted snow that failed immediately with skier weight. These slabs along wind exposed ridge @ top of Shed 7 West bowl. Slides did not propagate or run far."  |
| 2004 | January  | 8      |       | Shed 6              | OS    | no  |     | Personal obs, GCAC Obs page | "From 1/8/04 obs: "Above 5600 ft., able to access test slopes that regularly perform- today produced 6' to 1' soft slabs. Only new wind deposited snow... There is deeper slabs present, but no test slopes that ran stepped down."   |
| 2004 | January  | 12     | 1330  | Shed 7 West         | OS    | no  |     | Personal obs, GCAC Obs page | "Slide was triggered by skier-initiated large cornice drop. Slope immediately below cornice failed, but failure did not propagate, possibly because slope had some small anchors and buttressing...Loading is likely from wind event last Thursday."  |
| 2004 | January  | 28     |       | Shed 11             | OS    | yes |     | GCAC Obs Page, personal obs | "Narrow swath of debris over shed 11 roof through aspen to Highway 2. Debris across both lanes?"  |
| 2004 | January  | 28     | 1400? | Hanging Tree South  | OS    | yes |     | Personal obs, GCAC Obs page | "Slide hit semi (st vehicle through when highway reopened); vehicle stuck briefly. Ran through trees; weak layer likely facets from early January deep freeze."   |
| 2004 | January  | 28     | 1140? | u63                 | OS    | yes |     | Personal obs, GCAC Obs page | "Slide derailed 19-car train of empty grain cars on inside track. Hit train 15 cars from end. Train traveling uphill. Cars not turned over. Debris did not reach Bear Ck. 2nd slide hit front of train (see below). 3rd slide hit same area during initial clean shed 29 below."  |
| 2004 | January  | 28     | 1145  | 2nd Slide           | OS    | yes |     | Personal obs, GCAC Obs page | "Slide hit train stopped by earlier derailment. Derailed more cars."  |
| 2004 | January  | 28     |       | Larry (?) Curly (?) | OS    | no  |     | Personal obs, GCAC Obs page | "Observed on 1730 road survey - not visible on earlier survey. "Middle most slide of Larry Curly & Mo ran from up high triggered slope [slab] just [above] road"  |
| 2004 | January  | 28     |       | Essex Shed          | OS    | ?   |     | Personal obs, GCAC Obs page | "1:30 slab? On N end Essex Path? Cornice? In w/ scattered trees."   |
| 2004 | January  | 28     |       | Infinity West       | OS    | no  |     | Personal obs, GCAC Obs page | "Observed on 1730 road survey - "from just below trees below cornice"   |
| 2004 | January  | 29     | 430   | Shed 6              | OS    | yes |     | Personal obs,               | "Train crew noticed debris @430 AM. "Long running but not huge slide - debris on shed (trees) and slope below airstair cleaned snow out of trees W side. Appears to have started higher, in main starting zone."  |
| 2004 | January  | 29     | 1020  | Shed 5              | OS    | yes |     | Personal obs,               | "10:25 slide across Shed 5 (?) Windy Point main chute - didn't notice on drive east - just occurred?"   |
| 2004 | January  | 29     |       | Shed 10             | OS    | no  | no  | Personal obs                | "From 1/22/04 obs: "natural avalanche activity included... several small (class 1) slabs in steep, SW-facing feeder gullies in Turner's Park Slide area (between sheds 10 & 10.7). These looked to be ~ 30 cm deep and occurred at mid-elevations (~52-5400'). Pos denser recent snow on well-developed facets that formed during the cold snap & possibly triggered by Saturday's rain."   |
| 2004 | January  | 10 (?) |       | u63 Feeders?        | OS    | no  |     | GCAC Obs page               | "Fx line & debris observed 11/04. January cycle? Debris to top of Shed 7; airstair debris below."   |
| 2004 | January  |        |       | Shed 7 Center       | OS    | yes |     | GCAC Obs Page               |   |
| 2004 | January  |        |       | Shed 7 East         | OS    | no  |     | GCAC Obs page               | "From 1/16/04 obs: "Observed fracture line in Shed 7 East from below in the morning. It was in a wind-loaded area, 500 feet below a cornice." 15-30 mm deep, 6 m wide, 15-18 m vertical run"  |
| 2004 | January  |        |       | Shed 12             | OS    | ?   |     | Personal obs, GCAC Obs page | "From 1/12/04 obs: "natural avalanche activity included a large wet loose slide above Essex Shed...Also saw large crown on E-SE facing bowl on south side of Mt. Cameahwait at ~7600' elev. No other crowns visible on surrounding peaks."  |
| 2004 | February | 18     |       | Shed 10             | OS    | no  |     | GCAC Obs Page               | "From 2/18/04 obs: "believe they occurred within 8-10 hours of my observation, due to the heavy wet snow and rain received in the area...the fracture lines were at the rain/snow line of about 5800-6000ft."   |
| 2004 | February | 18     |       | u63                 | OS    | no  |     | GCAC Obs Page               | "From 2/18/04 obs: "believe they occurred within 8-10 hours of my observation, due to the heavy wet snow and rain received in the area...the fracture lines were at the rain/snow line of about 5800-6000ft."   |
| 2004 | February | 18     |       | Infinity            | OS    | no  |     | GCAC Obs Page               | "From 2/18/04 obs: "believe they occurred within 8-10 hours of my observation, due to the heavy wet snow and rain received in the area...the fracture lines were at the rain/snow line of about 5800-6000ft."   |
| 2004 | February | 18     |       | Shed 8              | OS    | no  |     | GCAC Obs Page               | "From 2/18/04 obs: "believe they occurred within 8-10 hours of my observation, due to the heavy wet snow and rain received in the area...the fracture lines were at the rain/snow line of about 5800-6000ft."   |
| 2004 | February | 18     |       | Curly (?)           | OS    | no  |     | GCAC Obs Page               | "From 2/18/04 obs: "Came close to highway"  |
| 2004 | February | 18     |       | Moe (?)             | OS    | no  |     | GCAC Obs Page               | "From 2/18/04 obs: "Came close to highway"  |
| 2004 | March    | 7      |       | Shed 7 West         | OS    | no  |     | GCAC Obs Page               | "3/8/ 04 Obs notes say slides released previous day 9:30-12 AM, but previous day obs from same observer in Shed 7 do not mention slides. Slides on Lee sides of bowls"  |
| 2004 | March    | 7      |       | Shed 6              | OS    | no  |     | GCAC Obs Page               | "3/8/ 04 Obs notes say slides released previous day 9:30-12 AM, but previous day obs from same observer in Shed 7 do not mention slides. Slides on Lee sides of bowls"  |
| 2004 | March    | 7      |       | Shed 8              | OS    | no  |     | GCAC Obs Page               | "3/8/ 04 Obs notes say slides released previous day 9:30-12 AM, but previous day obs from same observer in Shed 7 do not mention slides. Slides on Lee sides of bowls"  |
| 2004 | March    | 7      |       | Shed 7 East         | OS    | no  |     | GCAC Obs Page               | "Fx line & debris observed 3/23/04. Early March cycle? Debris to within 50 yards of Shed 7."  |
| 2005 | January  | 11     |       | Shed 11             | OS    | no  | no  | GCAC Obs Page               | "Crown 20-30 cm deep; 80-100m wide. Debris stopped mid track, though exact point not visible from road. Air temp ~-25C at time of slide; strong crossloading prior to slide - not clear whther from E or W. Road closed ~8:30 pm on 1/11 due to (inaccurate) repo of slide in Shed 11 hitting tracks. Some sluffing from steep banks in vicinity of shed deposited debris up to 3 ft deep on tracks. Several other slabs to size 3 in vicinity (Flathead Range, Mt. Shields)" |
| 2005 | January  | 11     |       | Shed 4-C            | OS    | no  | no  | GCAC Obs Page               | "2 small slabs at steepest convex rollovers in path. Debris did not reach slide fence. Elk tracks in vicinity. Appeared to be ~ 20 cm deep; 10m wide. Could have run early AM 1/12. Several other slabs to size 3 in vicinity (Flathead Range, Mt. Shields)."   |
| 2005 | January  | 17     |       | Jake's              | OS    | no  | no  |                             | "Observed ~8:30 pm from road w/ spotlight."   |
| 2005 | January  | 17     |       | Shed 10.7           | OS    | yes | no  |                             | "Reported ~ 2300 1/17 as "10 ft. debris on shed." Triggered avalanche warning on RR."   |
| 2005 | January  | 28     | 1000  | u63                 | OS    | no  | no  | Ted Steiner                 | "Ran to W.F. cliff"   |
| 2005 | January  | 28     | 1030  | Shed 7 West         | OS    | no  | no  | Ted Steiner                 | "Ran to conf.[luence] of E.[ast] path"  |
| 2005 | January  | 28     | 1020  | Shed 7 East         | OS    | no  | no  | Ted Steiner                 | "Ran to b.[ot][to]m of E.[ast] bowl"  |
| 2005 | January  | 28     | 1025  | Shed 8              | OS    | no  | no  | Ted Steiner                 | "ran into conf.[ined?] path"  |

|      |         |    |      |          |    |    |    |                   |   |
|------|---------|----|------|----------|----|----|----|-------------------|---|
| 2005 | January | 9  |      | Shed 8   | OS | no | no | Ted Steiner       | "Released a size 1.5 - 2 skier triggered soft slab on belay in SZ of Shed 8... All new wind loaded snow since Thurs.. Did not step down as I thought it might... Profile in Shed 8 SZ was dug to ground @ 6,500 ft. a.s.l. on a 35 degree slope. Total snowpack d 440 cm. Shed 8 Profile stability tests: CTE 5-7 Q2 x 2 @ 127 cm. from ground. Released on density change in wind affect snow. CTM 12-15 Q1 x 4 @ 32 cm from ground. Released on 1-1.5 mm facets at the top of a triple crust sandwich- yum...". Also repor "Although very windy today, not much snow left on windward slopes for transport into the start zone of shed 8. Lee [sic] ridge has been dramatically scoured... Shed 7 cornice appears to have grown to near 18'. Shed 9 cornice is also progressing to sizable proportions. Released several slabs on small test slopes up to 24" depth while ascending ridge to Shed 7 west. Test slopes released and with the weight of one skier and a jump." SZ elev ~6300' |
| 2006 | January | 10 | 1415 | Infinity | OS | no | no | personal obs (BR) | Noticed debris in Infinity @1415 - did not see on earlier drive past but visibility had improved slightly. Upper of 2 feeders on west/ lookers left appeared to have run. Debris ran to Y w/ lookers right feeder @ ~5200'. Appeared to be at least 1 small crow possibly 2-3 @ ~5600'. Debris appeared to be 8-10' deep, about as wide. Well-developed cornice on ridge above feeder. had been raining in canyon for several hours. Debris and slide above line where snow still on trees. Strong, cross-slope winds observed i vicinity prior to observing slide. Small debris piles also visible in n63, Jakes, and Shed 9 at about same time. Could not see slides  |
| 2006 | January | 10 | 1345 | Shed 9   | OS | no | no | personal obs (BR) | Noticed debris @1415 - visibility poor. Small debris pile (<10' deep) in main gully from slide off west-facing slope. Debris @ ~4800'; could not see fx/ crown; possibly loose slide. Started 52-5600'  |
|      |         |    |      |          |    |    |    |                   |   |