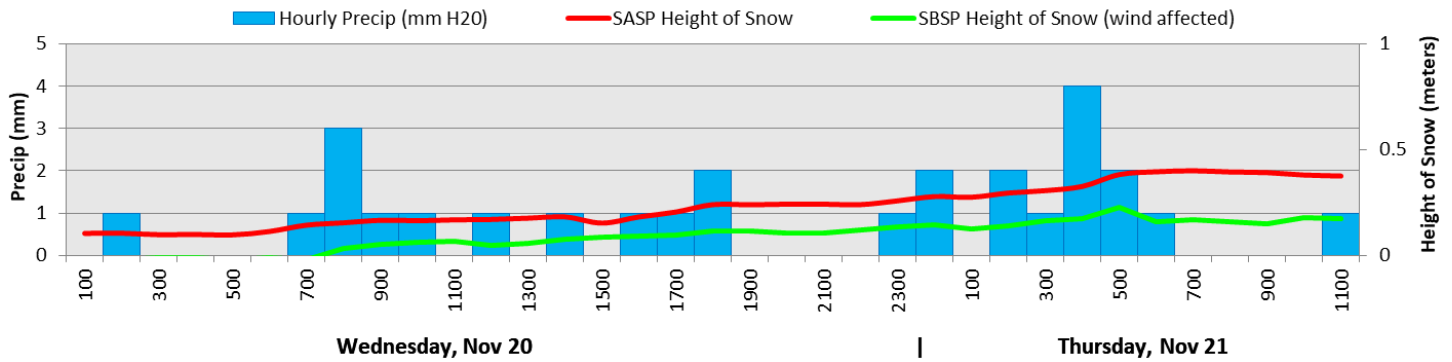


2019/2020 WINTER STORM #1

2019-20 Winter Storm #1: Nov 20-21, 2019

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 100 – 200 hrs MST Wednesday, November 20, 2019 (DOY 324)

Storm precipitation ended: 1100 hrs MST Thursday, November 21, 2019 (DOY 325)

Storm duration = 35 hrs

Storm total water content at SASP = 27 mm (1.1 inches)

Mean precip intensity: 0.77 mm/hr

Max precip intensity: 4 mm/hour

Max gain in snow depth at SASP = 27.1 cm (10.7 inches)

Max gain in snow depth at SBSP (wind affected) = 18.8 cm (7.4 inches)

Peak gust at PTSP at: 2158 hrs MST Wednesday, November 20, 2019 (DOY 324)

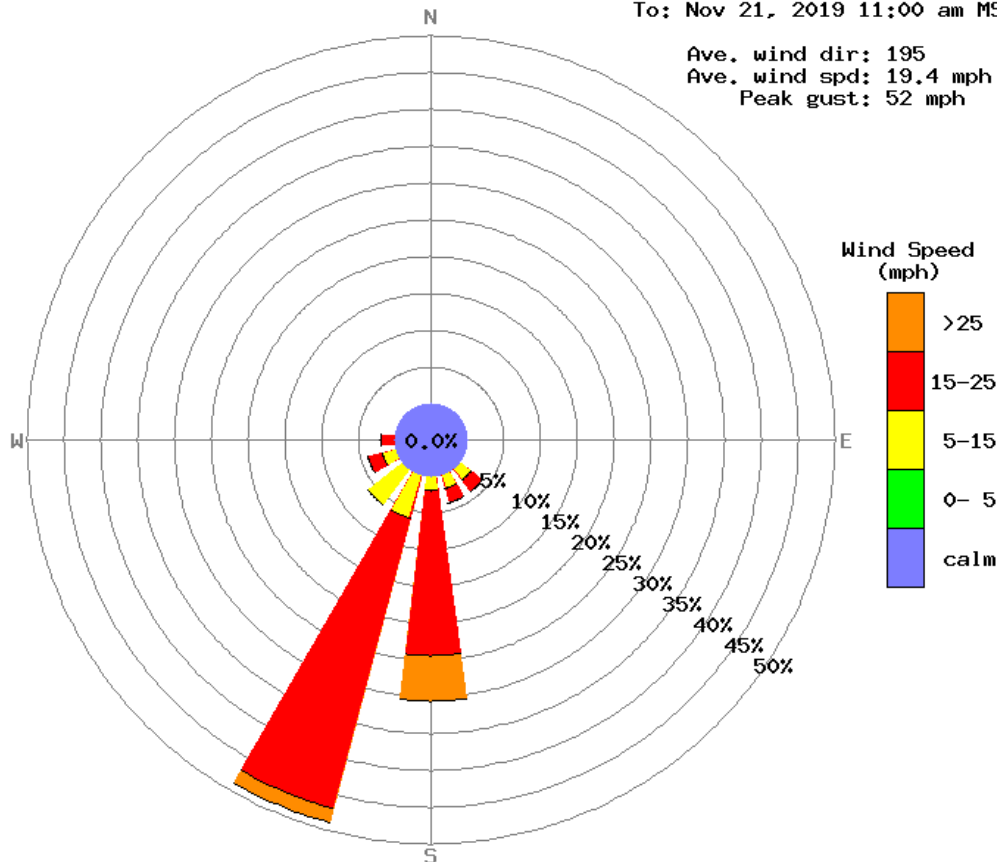
Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

From: Nov 19, 2019 11:00 am MST
To: Nov 21, 2019 11:00 am MST

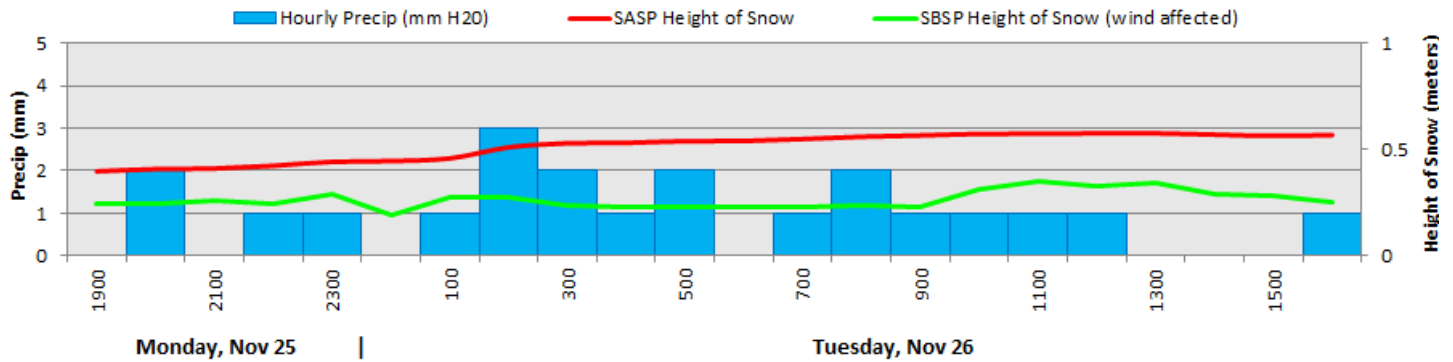
Ave. wind dir: 195
Ave. wind spd: 19.4 mph
Peak gust: 52 mph



2019/2020 WINTER STORM #2

2019-20 Winter Storm #2: Nov 25-26, 2019

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 1900 – 2000 hrs MST Monday, November 25, 2019 (DOY 329)

Storm precipitation ended: 1600 hrs MST Tuesday, November 26, 2019 (DOY 330)

Storm duration = 22 hrs

Storm total water content at SASP = 21 mm (0.8 inches)

Mean precip intensity: 0.95 mm/hr

Max precip intensity: 3 mm/hour

Max gain in snow depth at SASP = 17.1 cm (6.7 inches)

Max gain in snow depth at SBSP (wind affected) = 0.4 cm (0.2 inches)

Peak gust at PTSP at: 615 hrs MST Tuesday, November 26, 2019 (DOY 330)

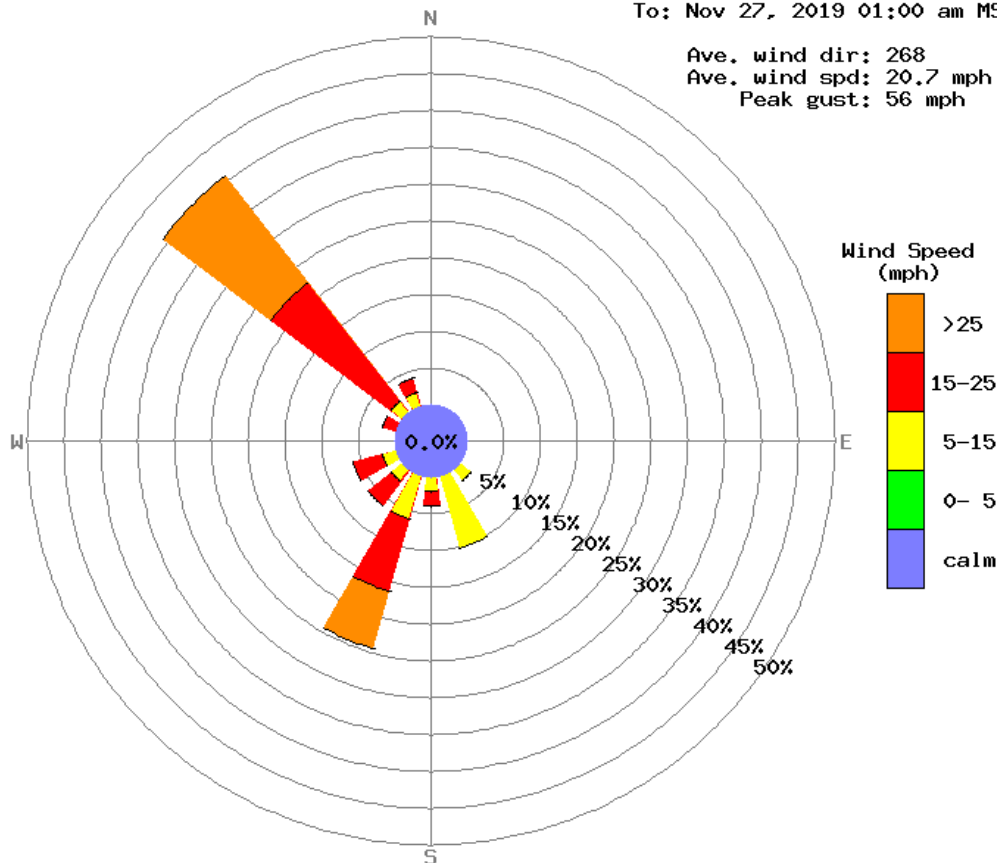
Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

From: Nov 25, 2019 01:00 am MST
To: Nov 27, 2019 01:00 am MST

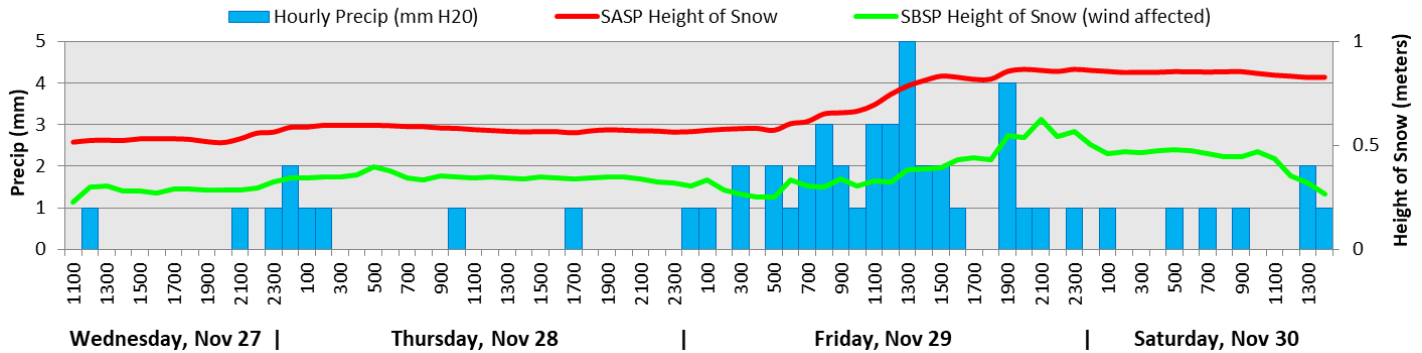
Ave. wind dir: 268
Ave. wind spd: 20.7 mph
Peak gust: 56 mph



2019/2020 WINTER STORM #3

2019-20 Winter Storm #3: Nov 27-30, 2019

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 300 – 400 hrs MST Wednesday, November 27, 2019 (DOY 333)

Storm precipitation ended: 1400 hrs MST Tuesday, November 30, 2019 (DOY 334)

Storm duration = 76 hrs

Storm total water content at SASP = 54 mm (2.1 inches)

Mean precip intensity: 0.71 mm/hr

Max precip intensity: 5 mm/hour

Max gain in snow depth at SASP = 31.2 cm (12.3 inches)

Max gain in snow depth at SBSP (wind affected) = 4 cm (1.6 inches)

Peak gust at PTSP at: 1535 hrs MST Tuesday, November 27, 2019 (DOY 333)

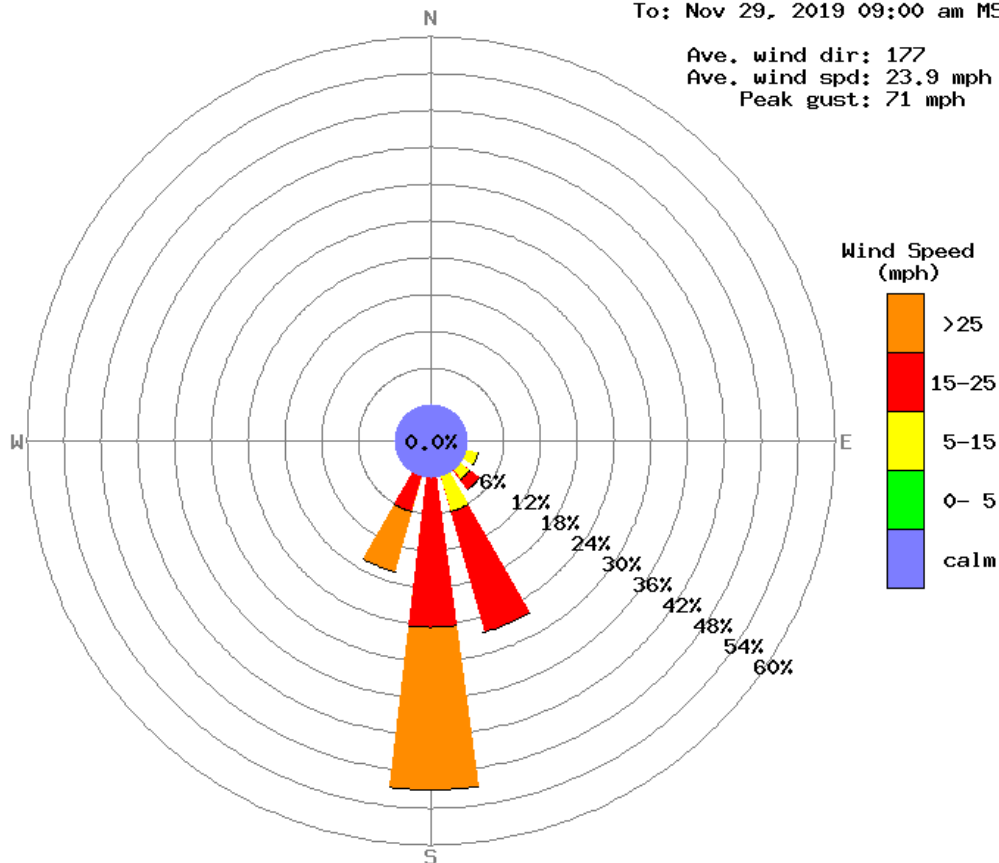
Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

From: Nov 27, 2019 09:00 am MST
To: Nov 29, 2019 09:00 am MST

Ave. wind dir: 177
Ave. wind spd: 23.9 mph
Peak gust: 71 mph

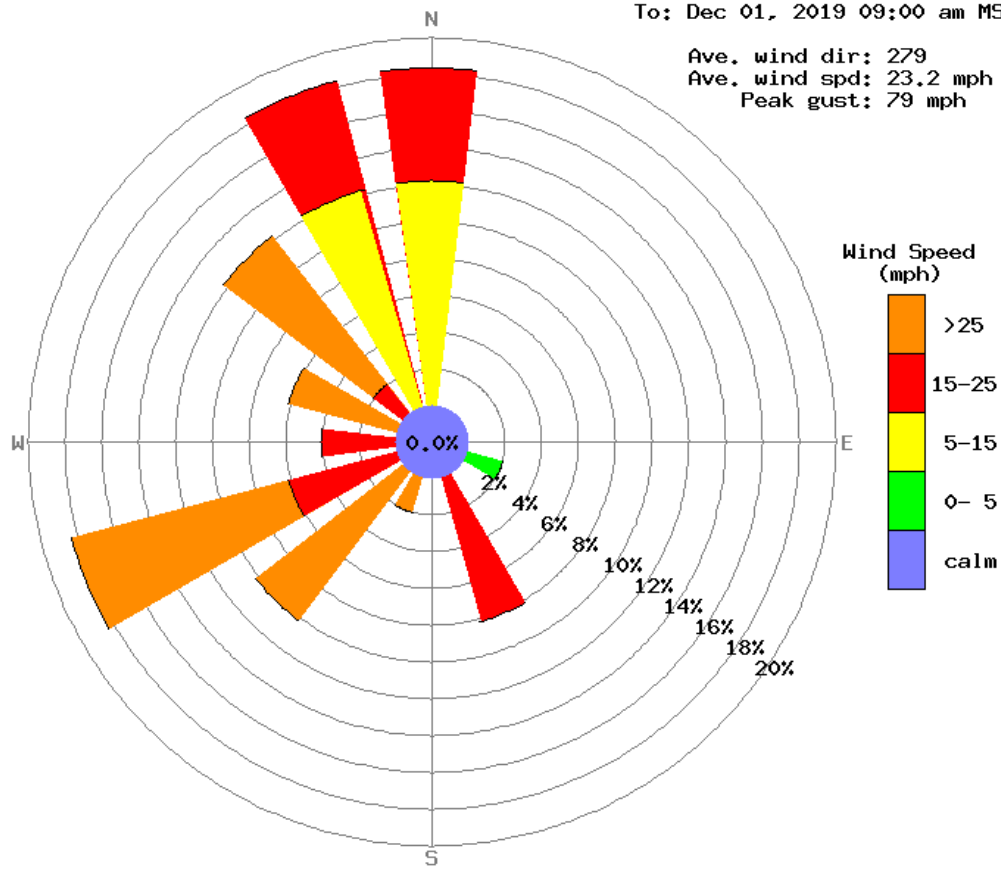


Putney (CSAS) 12327 ft

No. of observations: 49

From: Nov 29, 2019 09:00 am MST
To: Dec 01, 2019 09:00 am MST

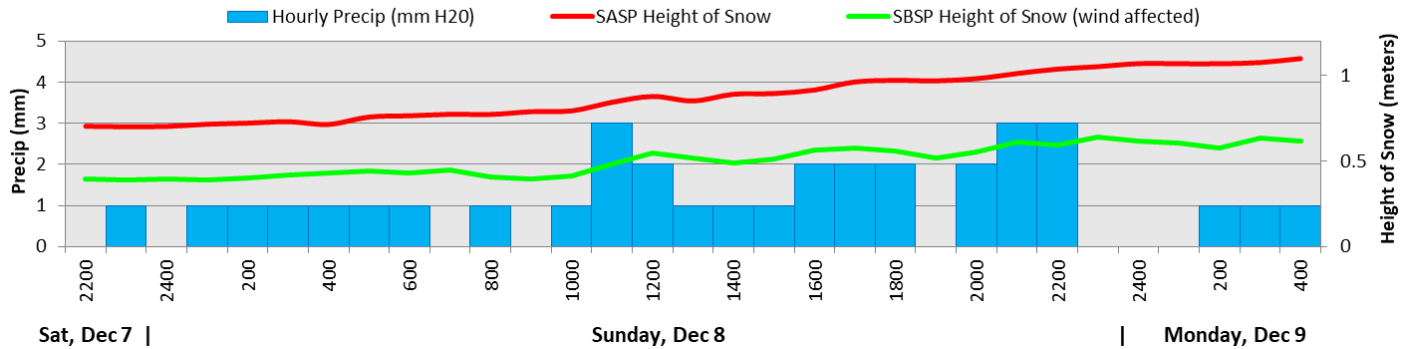
Ave. wind dir: 279
Ave. wind spd: 23.2 mph
Peak gust: 79 mph



2019/2020 WINTER STORM #4

2019-20 Winter Storm #4: Dec 7-9, 2019

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 2200 – 2300 hrs MST Saturday, December 7, 2019 (DOY 341)

Storm precipitation ended: 400 hrs MST Tuesday, December 9, 2019 (DOY 343)

Storm duration = 31 hrs

Storm total water content at SASP = 34 mm (1.3 inches)

Mean precip intensity: 1.10 mm/hr

Max precip intensity: 3 mm/hour

Max gain in snow depth at SASP = 39.5 cm (15.6 inches)

Max gain in snow depth at SBSP (wind affected) = 22 cm (8.7 inches)

Peak gust at PTSP at: 1733 hrs MST Tuesday, December 9, 2019 (DOY 342)

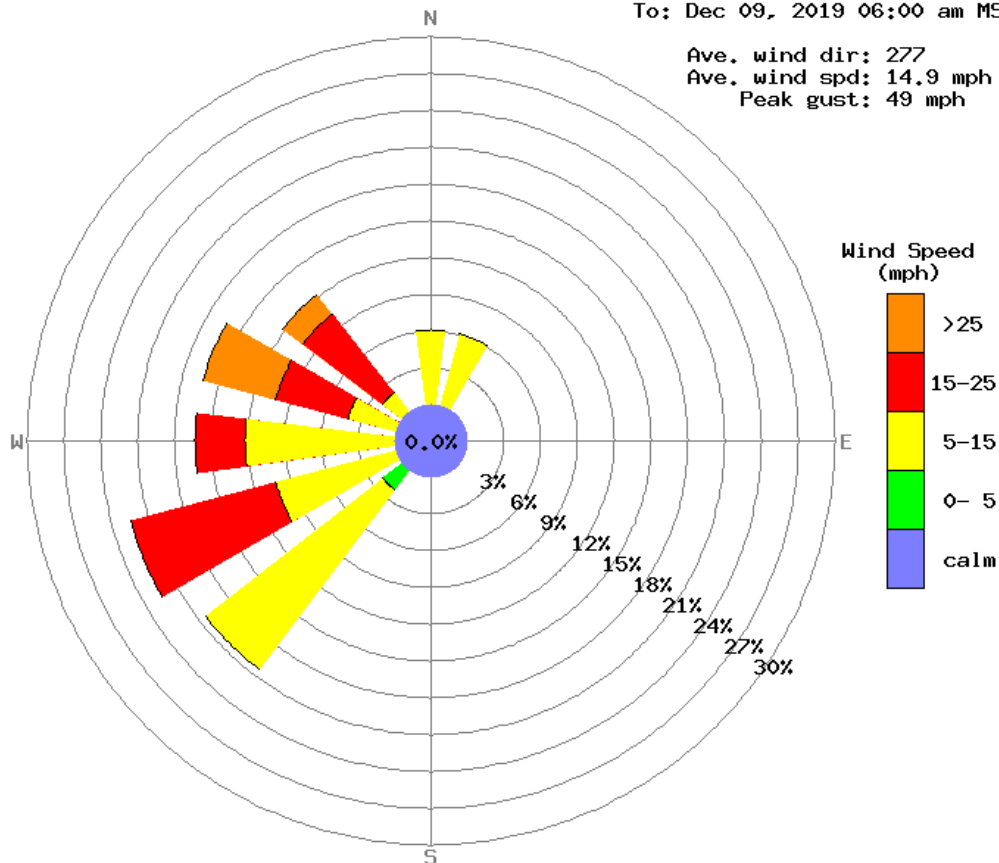
Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

From: Dec 07, 2019 06:00 am MST
To: Dec 09, 2019 06:00 am MST

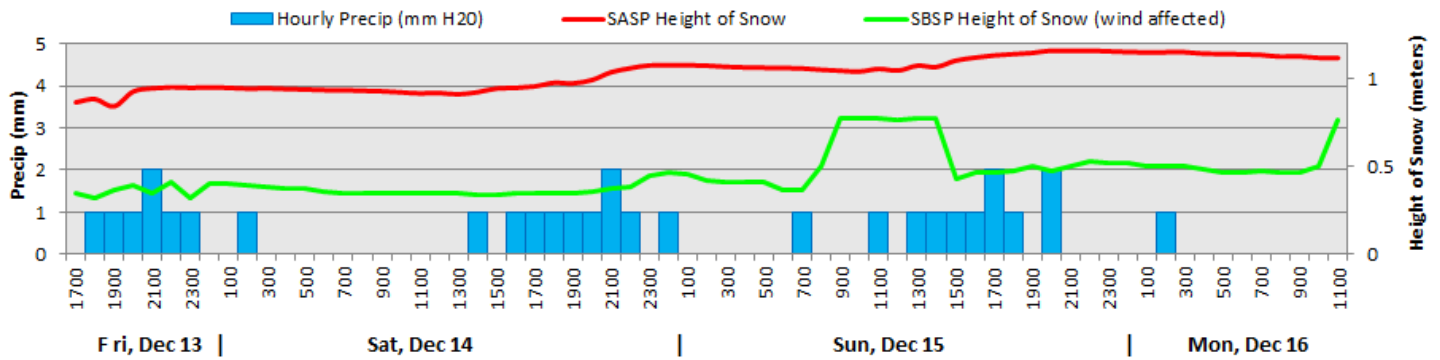
Ave. wind dir: 277
Ave. wind spd: 14.9 mph
Peak gust: 49 mph



2019/2020 WINTER STORM #5

2019-20 Winter Storm #5: Dec 13-16, 2019

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 1700 – 1800 hrs MST Friday, December 13, 2019 (DOY 347)

Storm precipitation ended: 200 hrs MST Monday, December 16, 2019 (DOY 350)

Storm duration = 58 hrs

Storm total water content at SASP = 30 mm (1.2 inches)

Mean precip intensity: 0.52 mm/hr

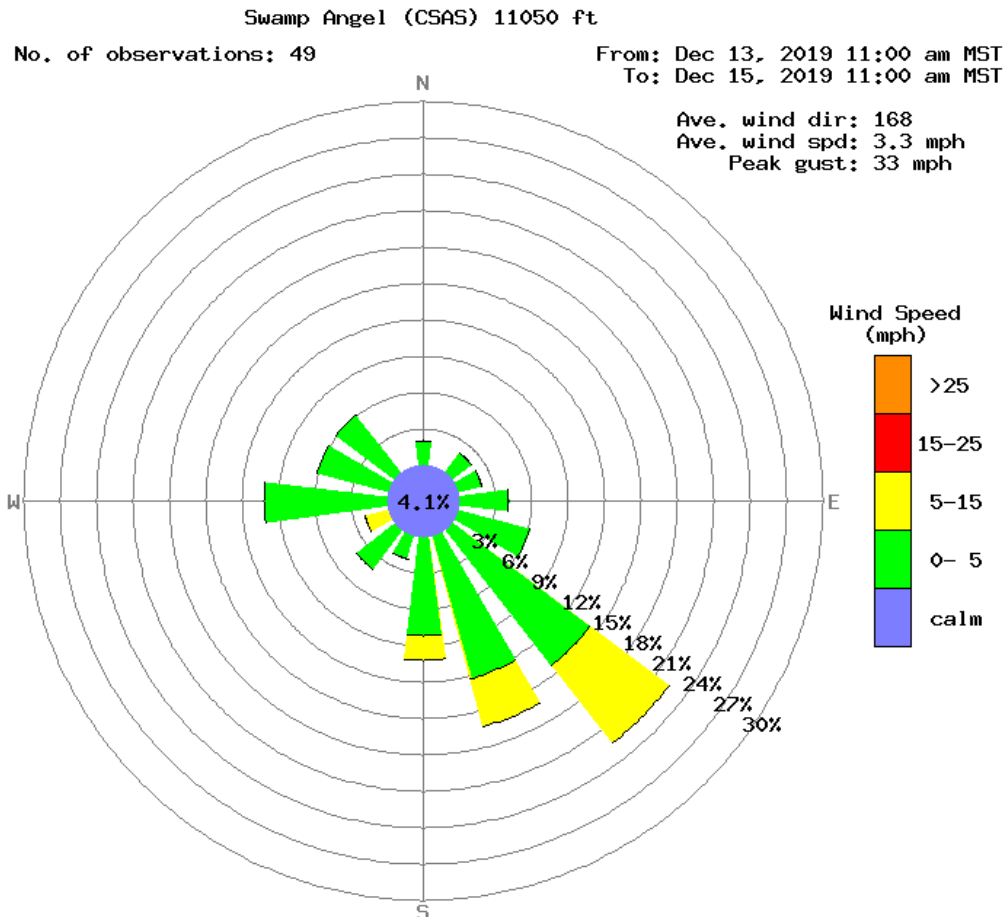
Max precip intensity: 2 mm/hour

Max gain in snow depth at SASP = 28.6 cm (11.3 inches)

Max gain in snow depth at SBSP (wind affected) = 12.1 cm (4.8 inches)

Peak gust at PTSP at: 0646 hrs MST Saturday, December 14, 2019 (DOY 348)

Storm Wind Rose (Putney Study Plot data)

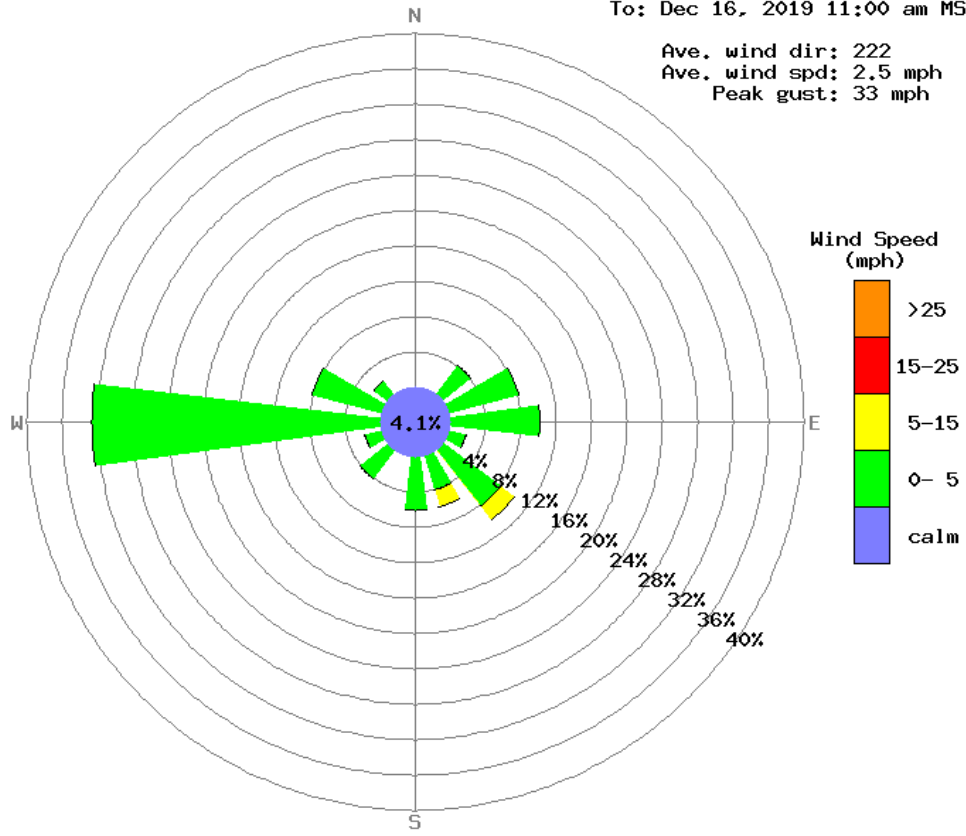


Swamp Angel (CSAS) 11050 ft

No. of observations: 49

From: Dec 14, 2019 11:00 am MST
To: Dec 16, 2019 11:00 am MST

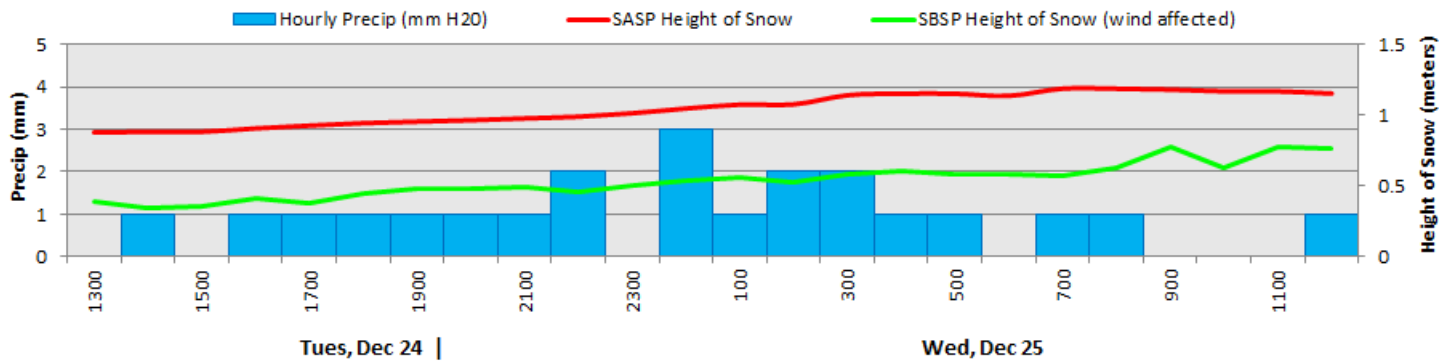
Ave. wind dir: 222
Ave. wind spd: 2.5 mph
Peak gust: 33 mph



2019/2020 WINTER STORM #6

2019-20 Winter Storm #6: Dec 24-25, 2019

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 1300 – 1400 hrs MST Tuesday, December 24, 2019 (DOY 358)

Storm precipitation ended: 1200 hrs MST Wednesday, December 25, 2019 (DOY 359)

Storm duration = 24 hrs

Storm total water content at SASP = 22 mm (0.9 inches)

Mean precip intensity: 0.92 mm/hr

Max precip intensity: 3 mm/hour, on Tuesday, December 24 at 2400

Max gain in snow depth at SASP = 27.5 cm (10.8 inches)

Max gain in snow depth at SBSP (wind affected) = 38.1 cm (15.0 inches)

Peak gust at PTSP at: 2240 hrs MST Tuesday, December 24, 2019 (DOY 358)

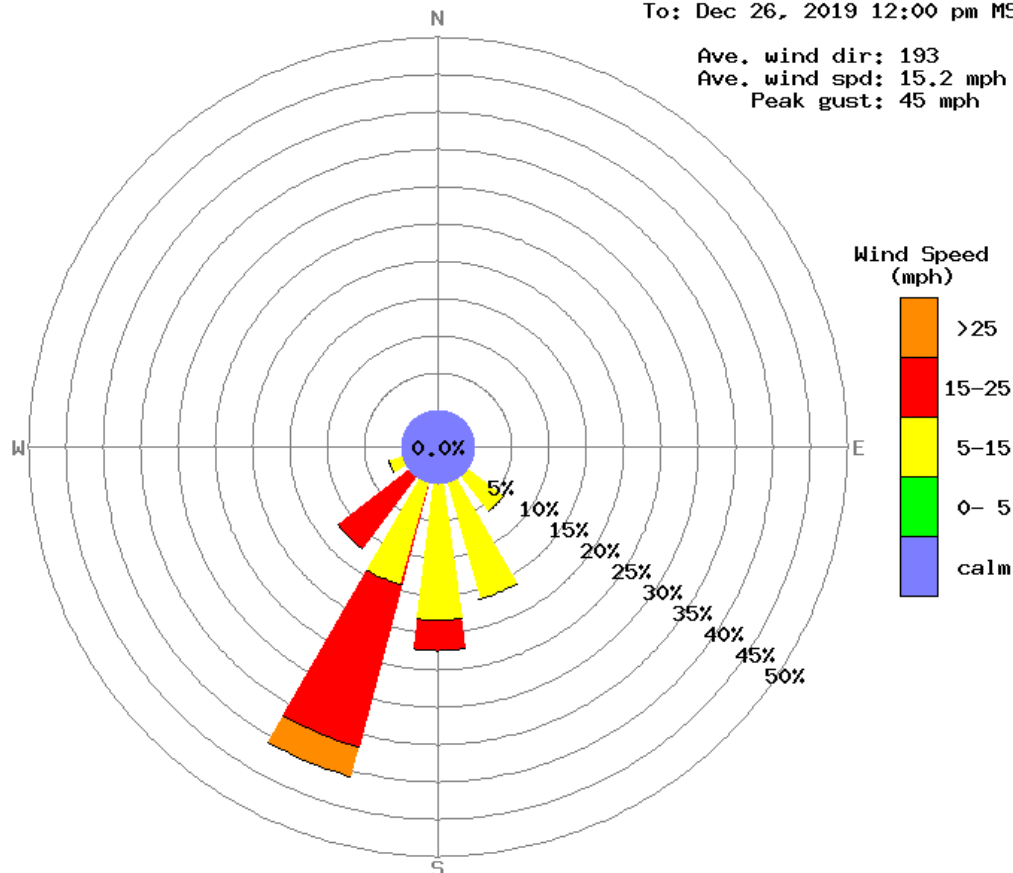
Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

From: Dec 24, 2019 12:00 pm MST
To: Dec 26, 2019 12:00 pm MST

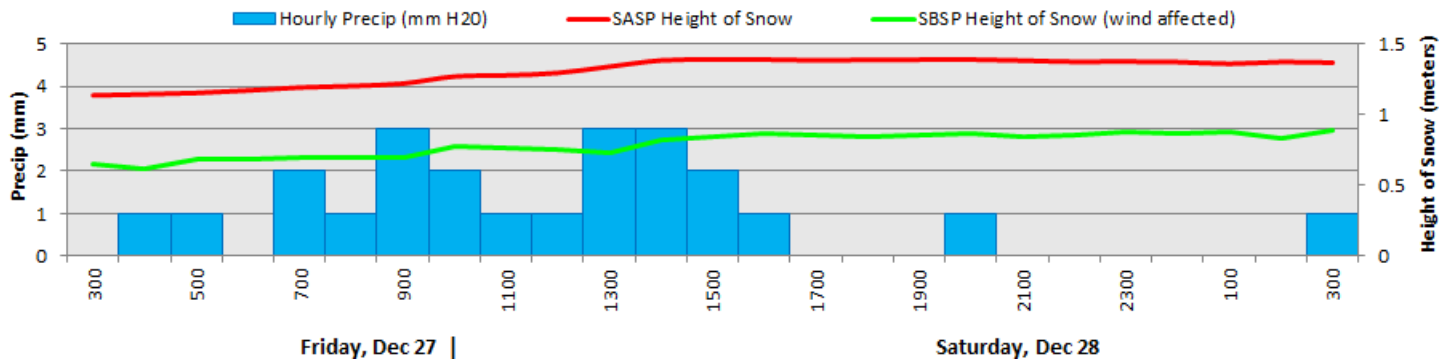
Ave. wind dir: 193
Ave. wind spd: 15.2 mph
Peak gust: 45 mph



2019/2020 WINTER STORM #7

2019-20 Winter Storm #7: Dec 27-28, 2019

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 0300 – 0400 hrs MST Friday, December 27, 2019 (DOY 361)

Storm precipitation ended: 1200 hrs MST Saturday, December 28, 2019 (DOY 362)

Storm duration = 24 hrs

Storm total water content at SASP = 22 mm (0.9 inches)

Mean precip intensity: 0.90 mm/hr

Max precip intensity: 3 mm/hour, on multiple occasions

Max gain in snow depth at SASP = 23.2 cm (9.1 inches)

Max gain in snow depth at SBSP (wind affected) = 24.3 cm (9.6 inches)

Peak gust at PTSP at: 1405 hrs MST Tuesday, December 27, 2019 (DOY 361)

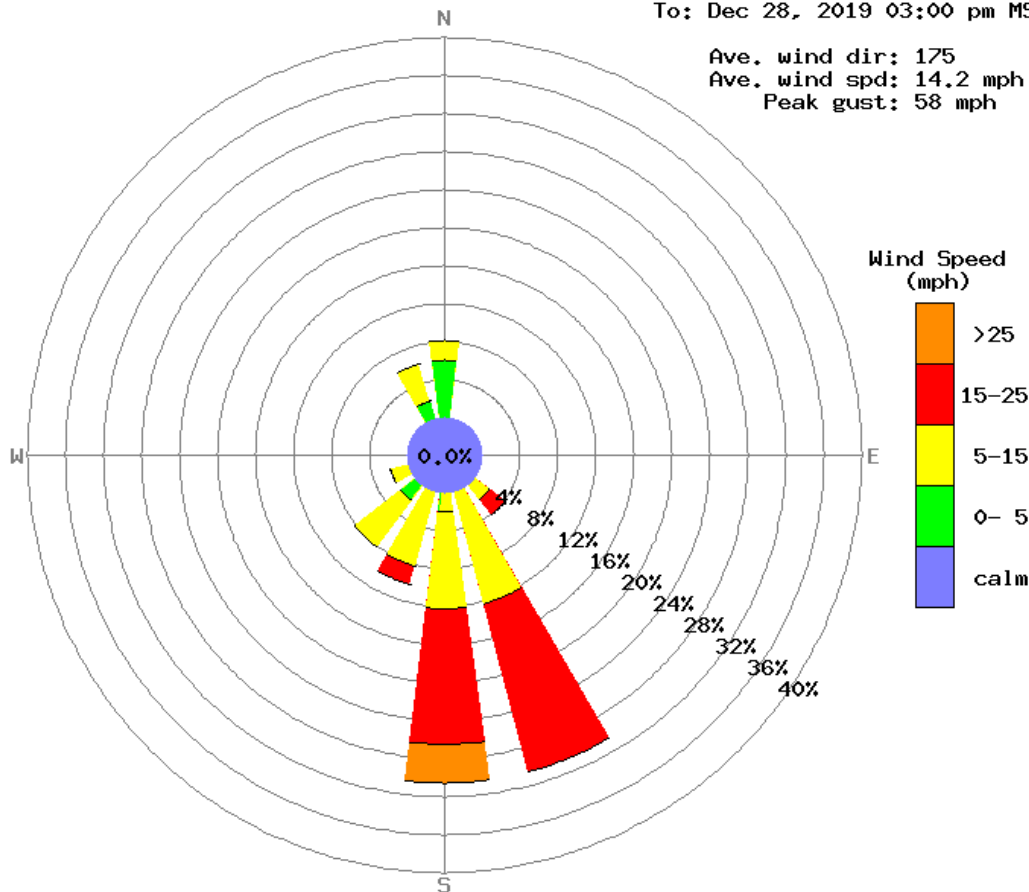
Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

From: Dec 26, 2019 03:00 pm MST
To: Dec 28, 2019 03:00 pm MST

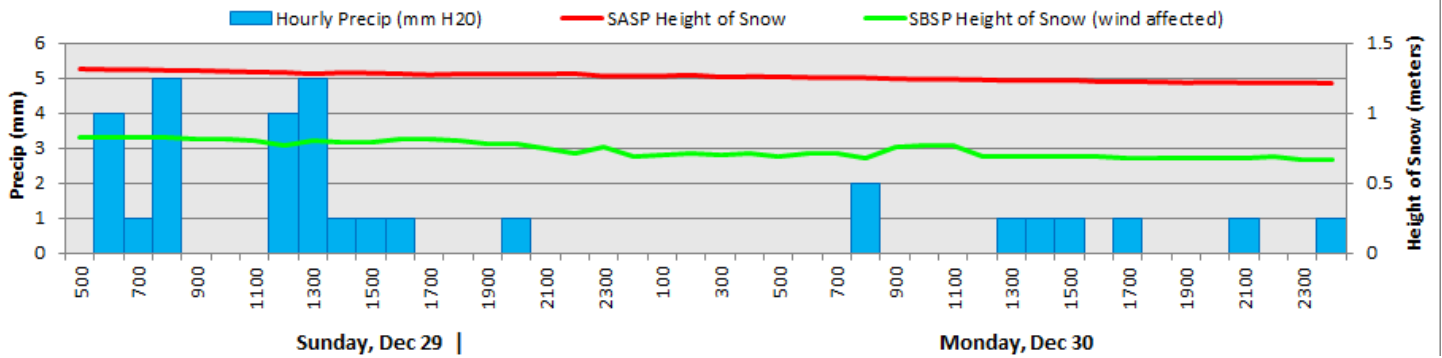
Ave. wind dir: 175
Ave. wind spd: 14.2 mph
Peak gust: 58 mph



2019/2020 WINTER STORM #8

2019-20 Winter Storm #8: Dec 29-30, 2019

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 0500 – 0600 hrs MST Sunday, December 29, 2019 (DOY 363)

Storm precipitation ended: 2400 hrs MST Monday, December 30, 2019 (DOY 364)

Storm duration = 44 hrs

Storm total water content at SASP = 31 mm (1.2 inches)

Mean precip intensity: 0.70 mm/hr

Max precip intensity: 5 mm/hour, on multiple occasions

Max gain in snow depth at SASP = -10.2 cm (-4.0 inches)

Max gain in snow depth at SBSP (wind affected) = -16 cm (-6.3 inches)

Peak gust at PTSP at: 42.9 mph at 2038 hrs MST Sunday, December 29, 2019 (DOY 363)

Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

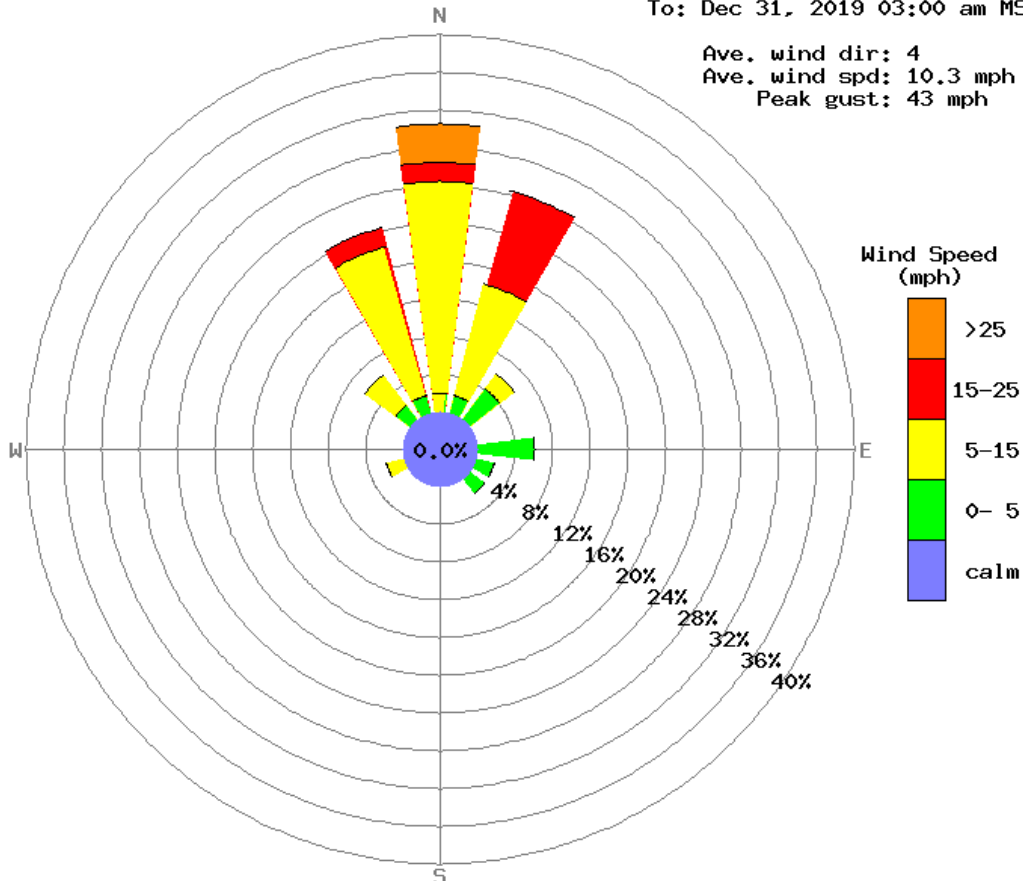
From: Dec 29, 2019 03:00 am MST

To: Dec 31, 2019 03:00 am MST

Ave. wind dir: 4

Ave. wind spd: 10.3 mph

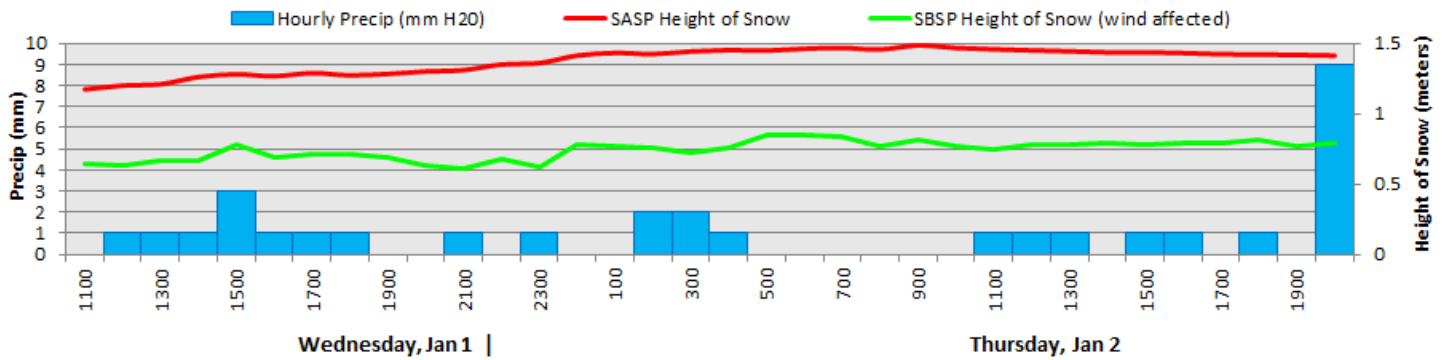
Peak gust: 43 mph



2019/2020 WINTER STORM #9

2019-20 Winter Storm #9: Jan 1-2, 2019

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 1100 – 1200 hrs MST Wednesday, January 1, 2020 (DOY 1)

Storm precipitation ended: 2000 hrs MST Thursday, January 2, 2020 (DOY 2)

Storm duration = 34 hrs

Storm total water content at SASP = 31 mm (1.2 inches)

Mean precip intensity: 0.91 mm/hr

Max precip intensity: 9 mm/hour, on Thursday, January 2 at 2000

Max gain in snow depth at SASP = 24 cm (9.4 inches)

Max gain in snow depth at SBSP (wind affected) = 14.5 cm (5.7 inches)

Peak gust at PTSP at: 41.8 mph at 1953 hrs MST Wednesday, January 1, 2020 (DOY 1)

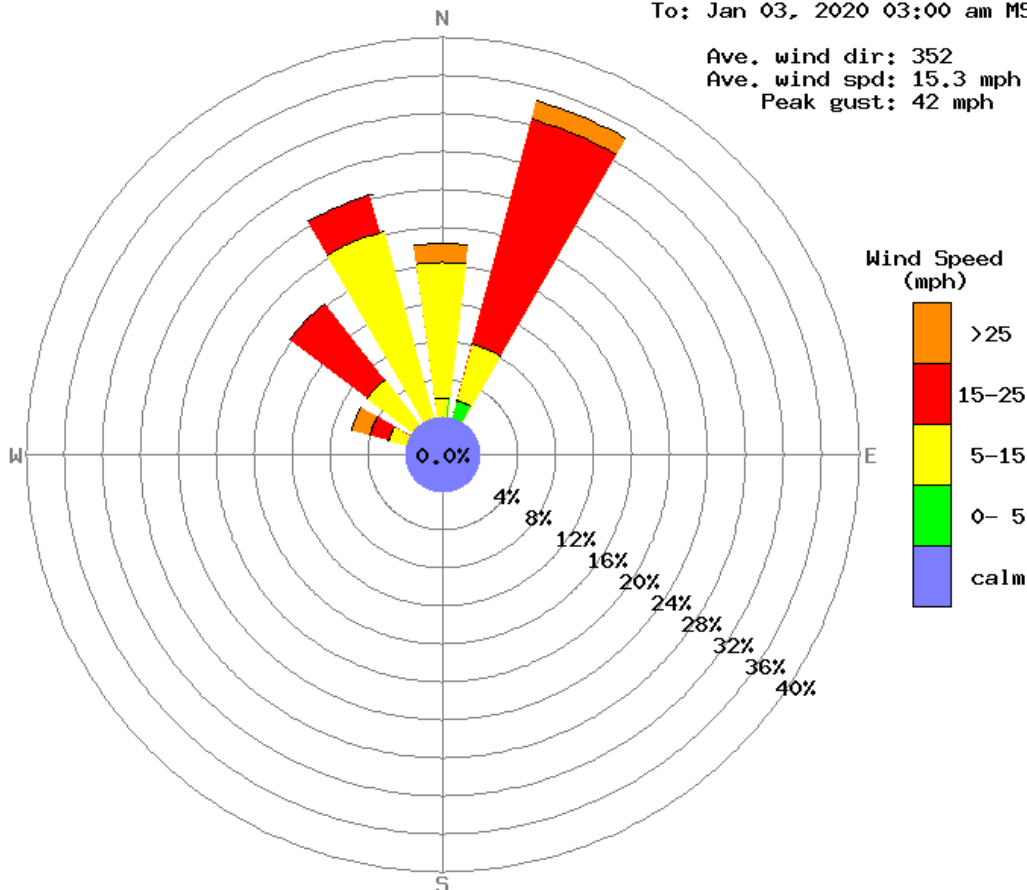
Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

From: Jan 01, 2020 03:00 am MST
To: Jan 03, 2020 03:00 am MST

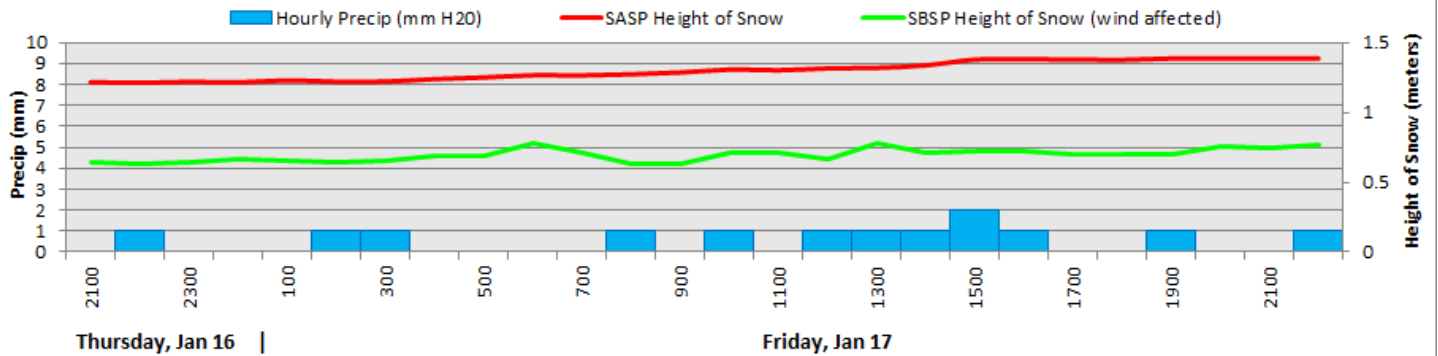
Ave. wind dir: 352
Ave. wind spd: 15.3 mph
Peak gust: 42 mph



2019/2020 WINTER STORM #10

2019-20 Winter Storm #10: Jan 16-17, 2020

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 2000 – 2100 hrs MST Thursday, January 16, 2020 (DOY 16)

Storm precipitation ended: 2200 hrs MST Friday, January 17, 2020 (DOY 17)

Storm duration = 26 hrs

Storm total water content at SASP = 13 mm (0.5 inches)

Mean precip intensity: 0.50 mm/hr

Max precip intensity: 2 mm/hour, on Friday, January 17 at 2000

Max gain in snow depth at SASP = 17 cm (6.7 inches)

Max gain in snow depth at SBSP (wind affected) = 12.1 cm (4.8 inches)

Peak gust at PTSP at: 73 mph at 1151 hrs MST Friday, January 17, 2020 (DOY 17)

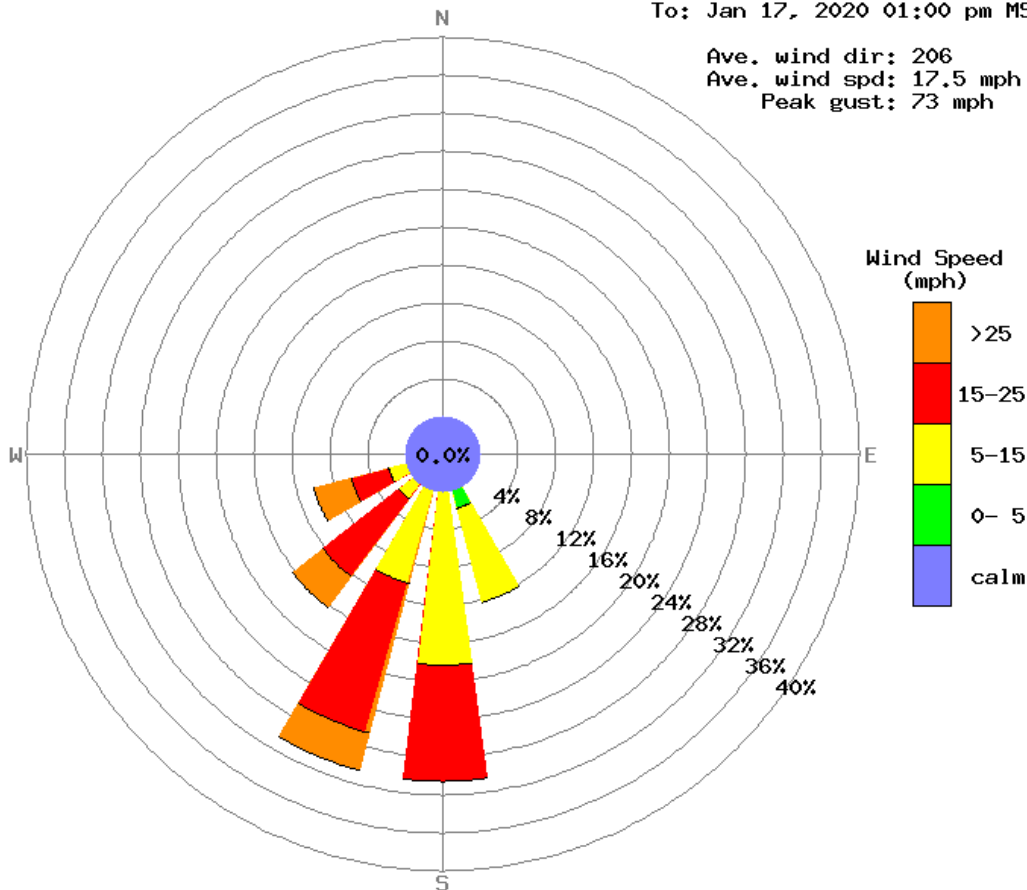
Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

From: Jan 15, 2020 01:00 pm MST
To: Jan 17, 2020 01:00 pm MST

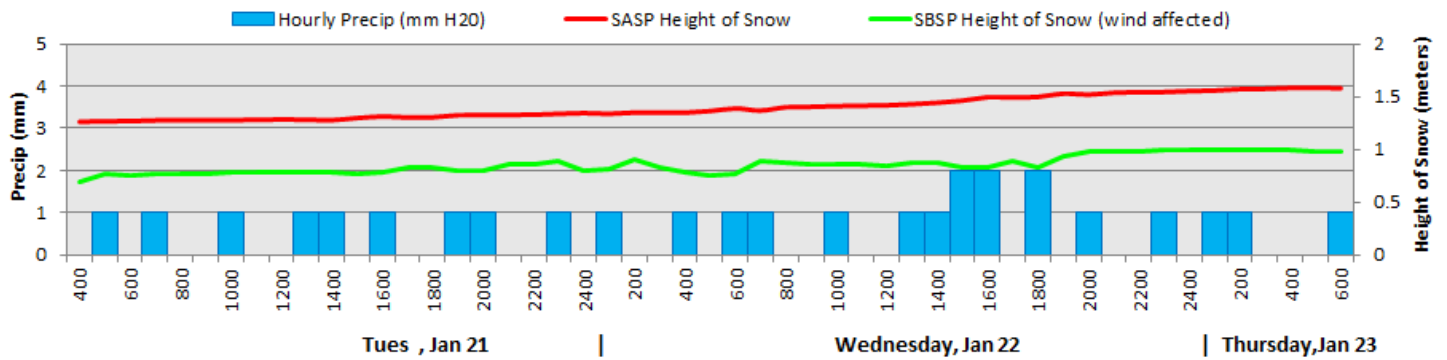
Ave. wind dir: 206
Ave. wind spd: 17.5 mph
Peak gust: 73 mph



2019/2020 WINTER STORM #11

2019-20 Winter Storm #11: Jan 21-22, 2019

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 400 – 500 hrs MST Tuesday, January 21, 2020 (DOY 21)

Storm precipitation ended: 600 hrs MST Thursday, January 23, 2020 (DOY 23)

Storm duration = 51 hrs

Storm total water content at SASP = 27 mm (1.1 inches)

Mean precip intensity: 0.53 mm/hr

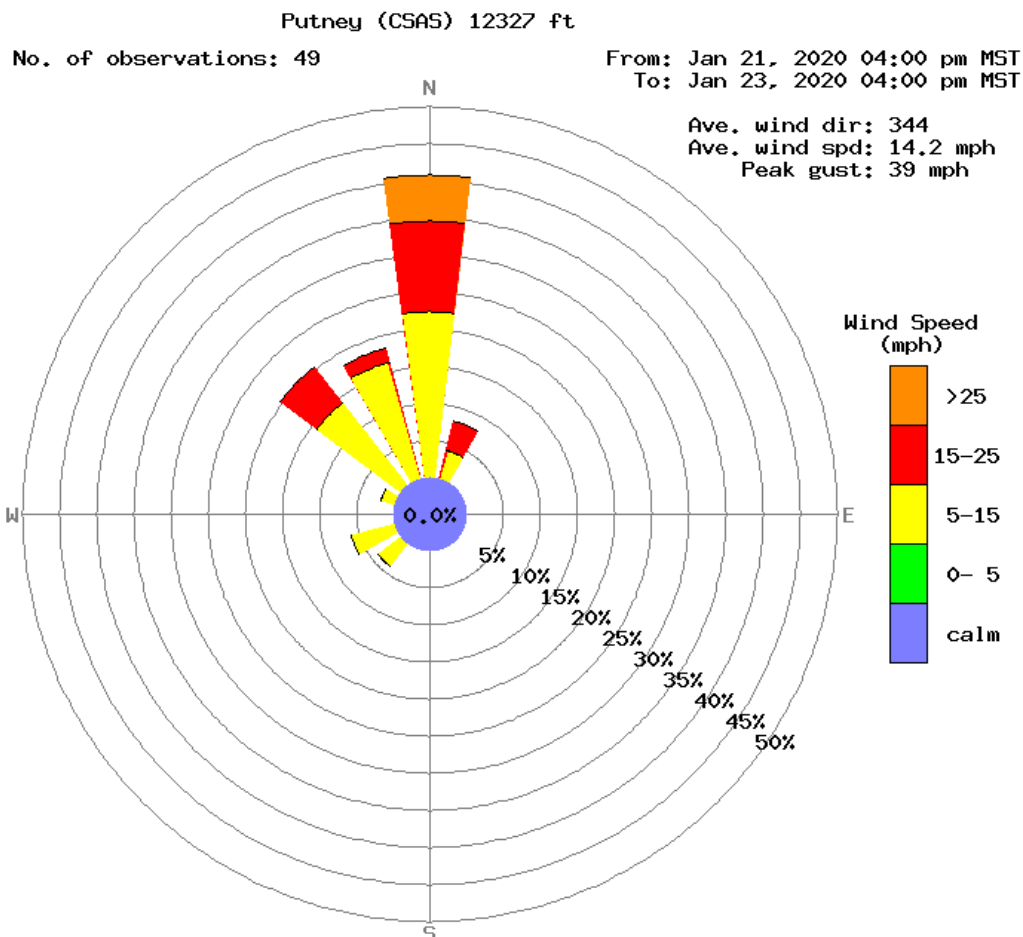
Max precip intensity: 2 mm/hour, on multiple occasions

Max gain in snow depth at SASP = 31.8 cm (12.5 inches)

Max gain in snow depth at SBSP (wind affected) = 29 cm (11.4 inches)

Peak gust at PTSP at: 33.9 mph at 2100 hrs MST Tuesday, January 21, 2020 (DOY 21)

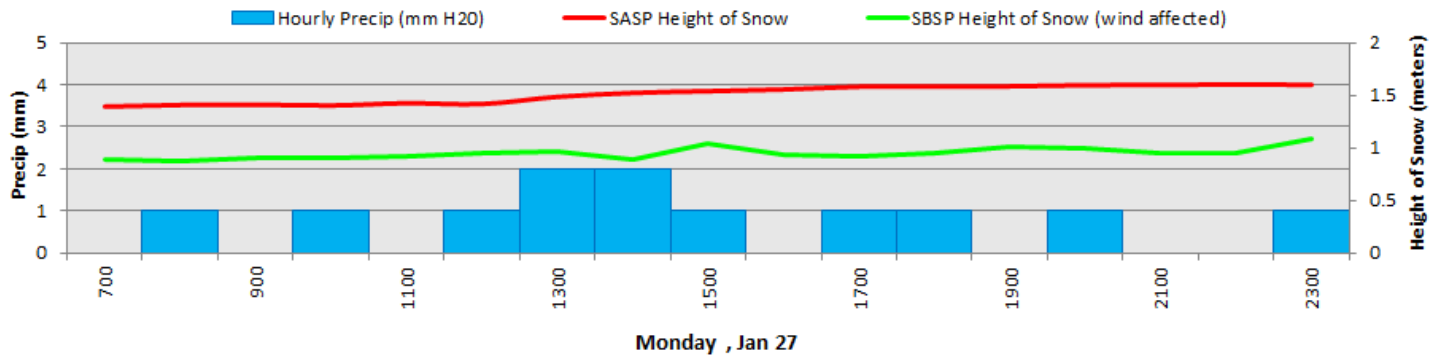
Storm Wind Rose (Putney Study Plot data)



2019/2020 WINTER STORM #12

2019-20 Winter Storm #12: Jan 27, 2020

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 700 – 800 hrs MST Monday, January 27, 2020 (DOY 27)

Storm precipitation ended: 2300 hrs MST Monday, January 27, 2020 (DOY 27)

Storm duration = 17 hrs

Storm total water content at SASP = 12 mm (0.5 inches)

Mean precip intensity: 0.71 mm/hr

Max precip intensity: 2 mm/hour, on multiple occasions

Max gain in snow depth at SASP = 20.7 cm (8.1 inches)

Max gain in snow depth at SBSP (wind affected) = 19.3 cm (7.6 inches)

Peak gust at PTSP at: 50.5 mph at 2100 hrs MST Monday, January 27, 2020 (DOY 27)

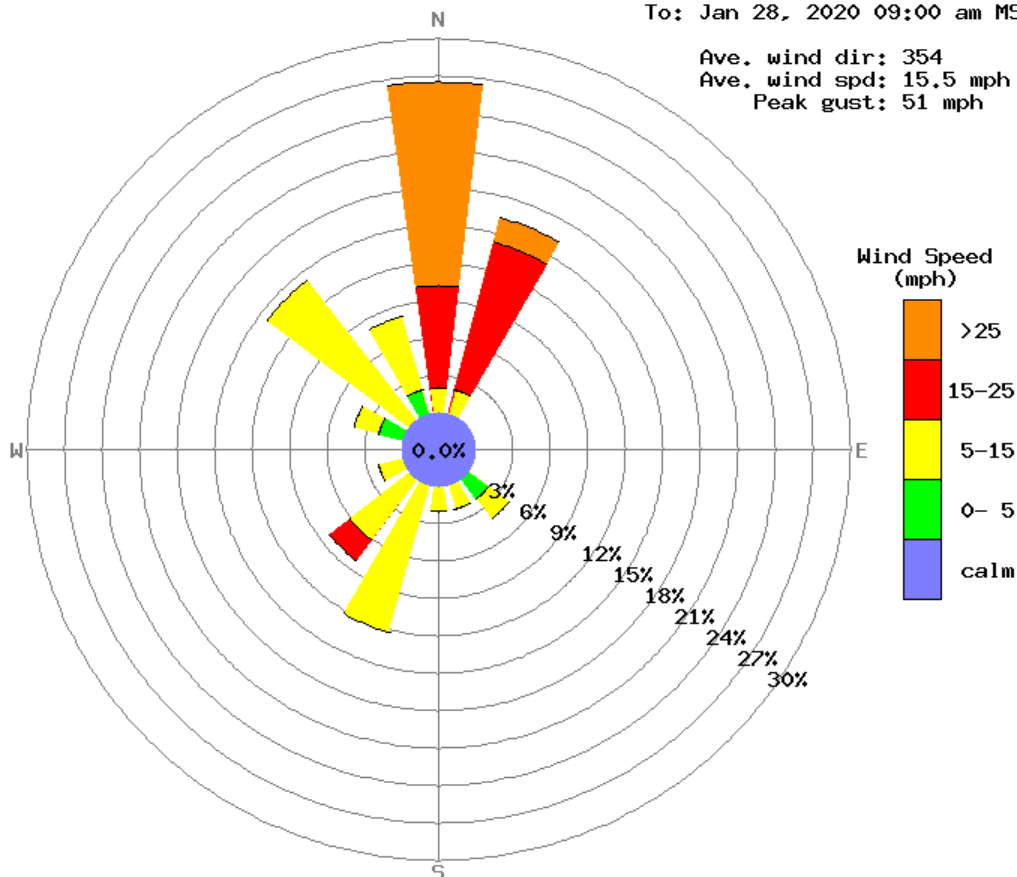
Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

From: Jan 26, 2020 09:00 am MST
To: Jan 28, 2020 09:00 am MST

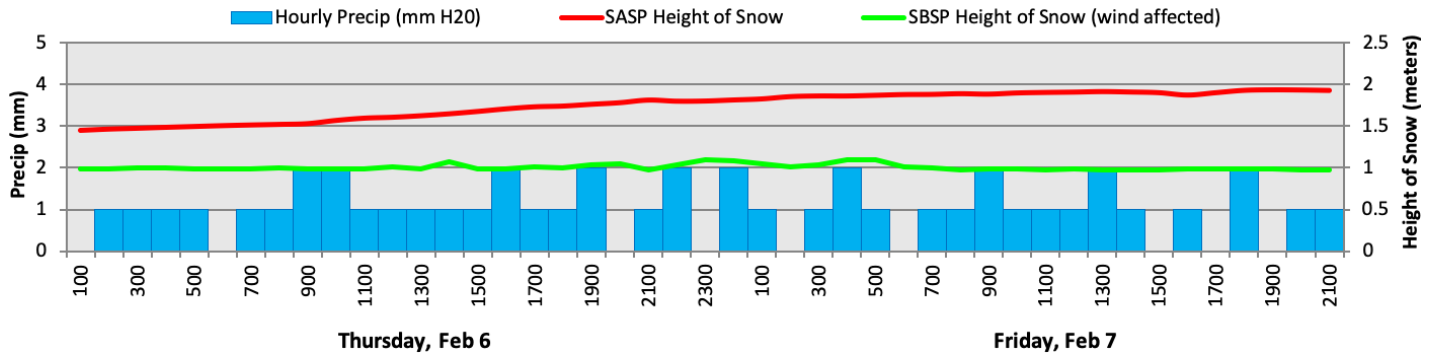
Ave. wind dir: 354
Ave. wind spd: 15.5 mph
Peak gust: 51 mph



2019/2020 WINTER STORM #13

2019-20 Winter Storm #13: Feb 6-7, 2020

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 1200 – 100 hrs MST Thursday, February 6, 2020 (DOY 37)

Storm precipitation ended: 2100 hrs MST Friday, February 7, 2020 (DOY 38)

Storm duration = 45 hrs

Storm total water content at SASP = 46 mm (1.8 inches)

Mean precip intensity: 1.02 mm/hr

Max precip intensity: 2 mm/hour, on multiple occasions

Max gain in snow depth at SASP = 47.5 cm (18.7 inches)

Max gain in snow depth at SBSP (wind affected) = -1.5 cm (-0.6 inches)

Peak gust at PTSP at: 69.7 mph at 1600 hrs MST Thursday, February 6, 2020 (DOY 37)

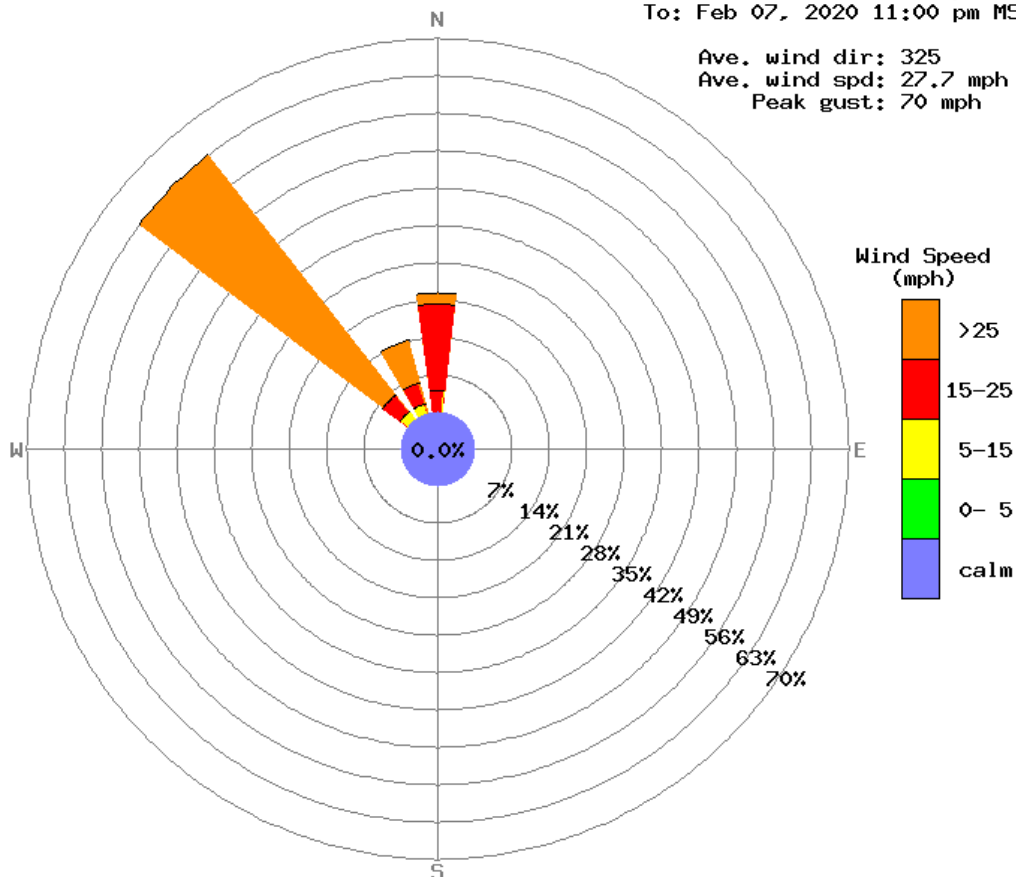
Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

From: Feb 05, 2020 11:00 pm MST
To: Feb 07, 2020 11:00 pm MST

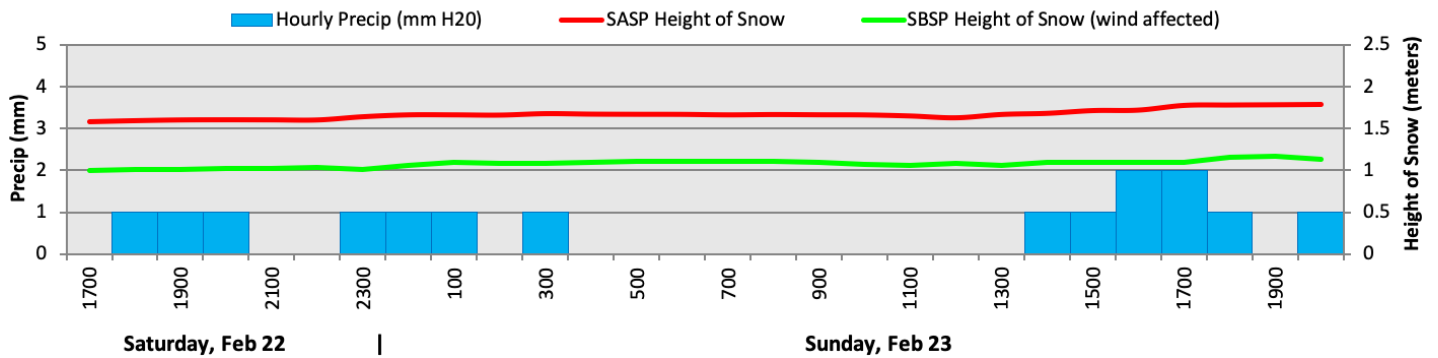
Ave. wind dir: 325
Ave. wind spd: 27.7 mph
Peak gust: 70 mph



2019/2020 WINTER STORM #14

2019-20 Winter Storm #14: Feb 22-23, 2020

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 1700 – 1800 hrs MST Saturday, February 22, 2020 (DOY 53)

Storm precipitation ended: 2000 hrs MST Sunday, February 23, 2020 (DOY 54)

Storm duration = 28 hrs

Storm total water content at SASP = 15 mm (0.6 inches)

Mean precip intensity: 0.54 mm/hr

Max precip intensity: 2 mm/hour, on Saturday, February 23 from 1600 to 1800

Max gain in snow depth at SASP = 21.4 cm (8.4 inches)

Max gain in snow depth at SBSP (wind affected) = 13.2 cm (5.2 inches)

Peak gust at PTSP at: 41.7 mph at 100 hrs MST Sunday, February 23, 2020 (DOY 54)

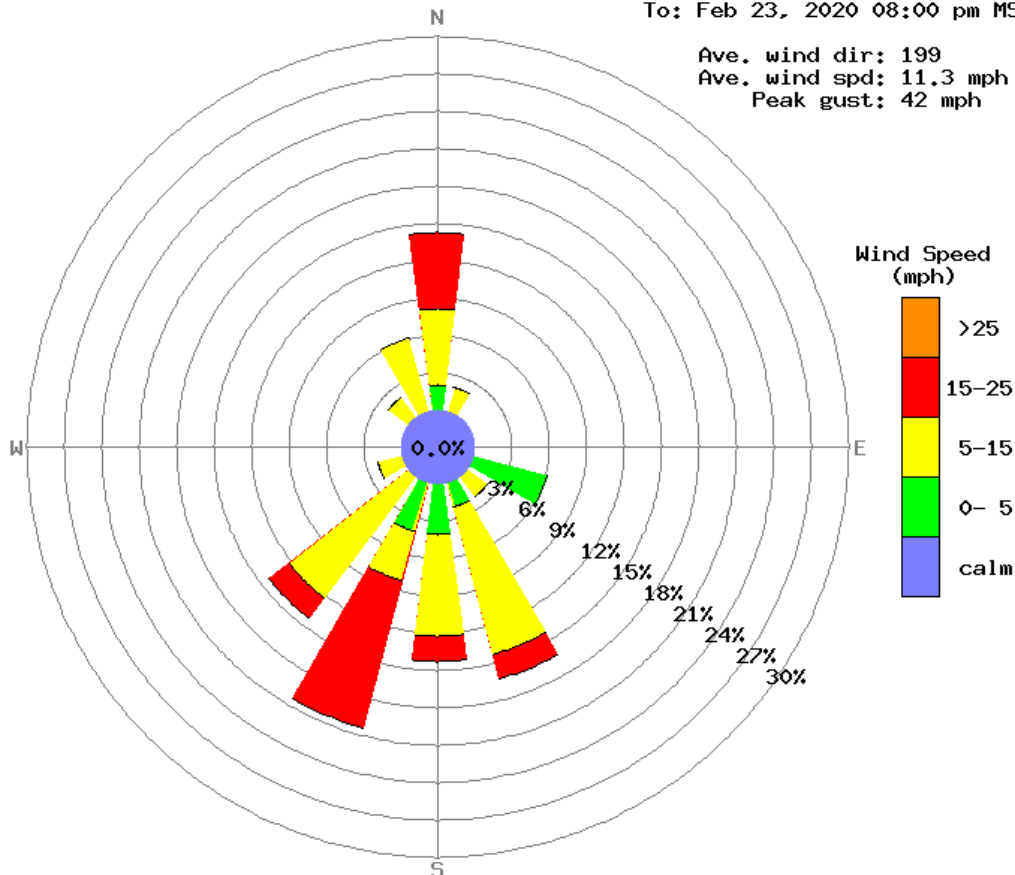
Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 49

From: Feb 21, 2020 08:00 pm MST
To: Feb 23, 2020 08:00 pm MST

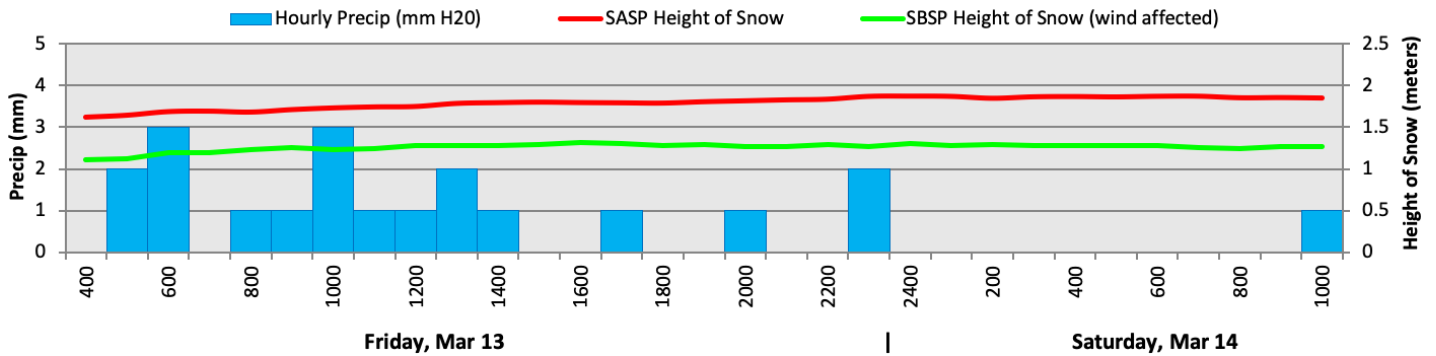
Ave. wind dir: 199
Ave. wind spd: 11.3 mph
Peak gust: 42 mph



2019/2020 WINTER STORM #15

2019-20 Winter Storm #15: Mar 13-14, 2020

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 400 – 500 hrs MST Friday, March 13, 2020 (DOY 73)

Storm precipitation ended: 1000 hrs MST Saturday, March 14, 2020 (DOY 74)

Storm duration = 31 hrs

Storm total water content at SASP = 20 mm (0.8 inches)

Mean precip intensity: 0.65 mm/hr

Max precip intensity: 3 mm/hour, on multiple occasions

Max gain in snow depth at SASP = 22.6 cm (8.9 inches)

Max gain in snow depth at SBSP (wind affected) = 15.2 cm (6.0 inches)

Peak gust at PTSP at: 69.3 mph at 1000 hrs MST Friday, March 13, 2020 (DOY 73)

Storm Wind Rose (Putney Study Plot data)

Putney (CSAS) 12327 ft

No. of observations: 47

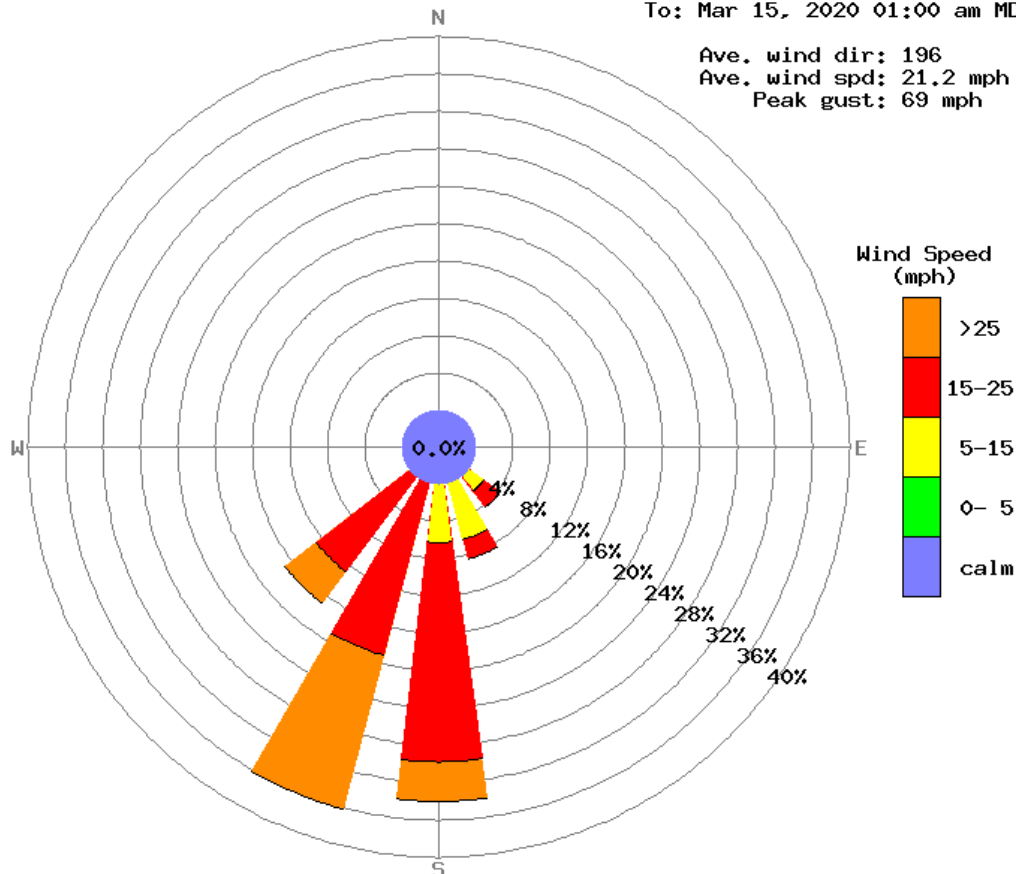
From: Mar 13, 2020 01:00 am MDT

To: Mar 15, 2020 01:00 am MDT

Ave. wind dir: 196

Ave. wind spd: 21.2 mph

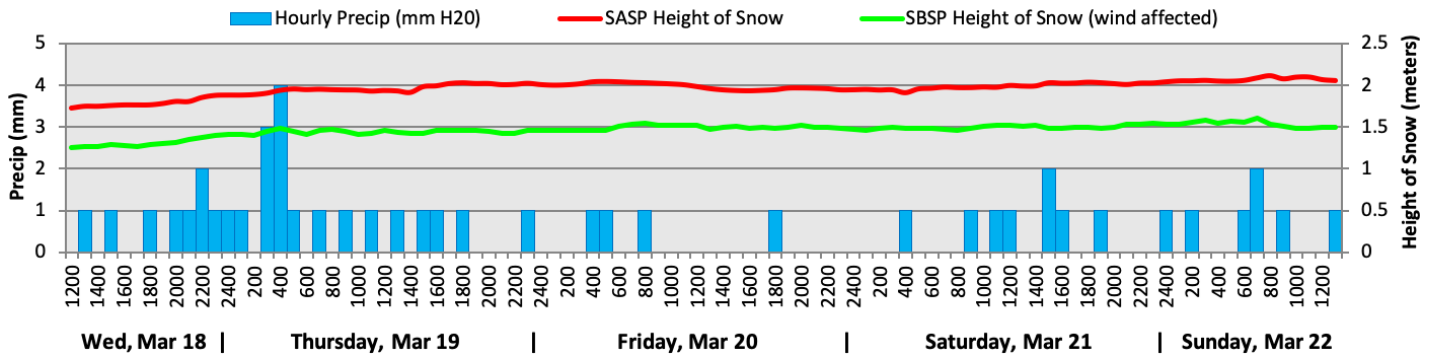
Peak gust: 69 mph



2019/2020 WINTER STORM #16

2019-20 Winter Storm #16: Mar 18-22, 2020

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 1200 – 1300 hrs MST Wednesday, March 18, 2020 (DOY 78)

Storm precipitation ended: 1300 hrs MST Sunday, March 22, 2020 (DOY 82)

Storm duration = 98 hrs

Storm total water content at SASP = 45.0 mm (1.8 inches)

Mean precip intensity: 0.46 mm/hr

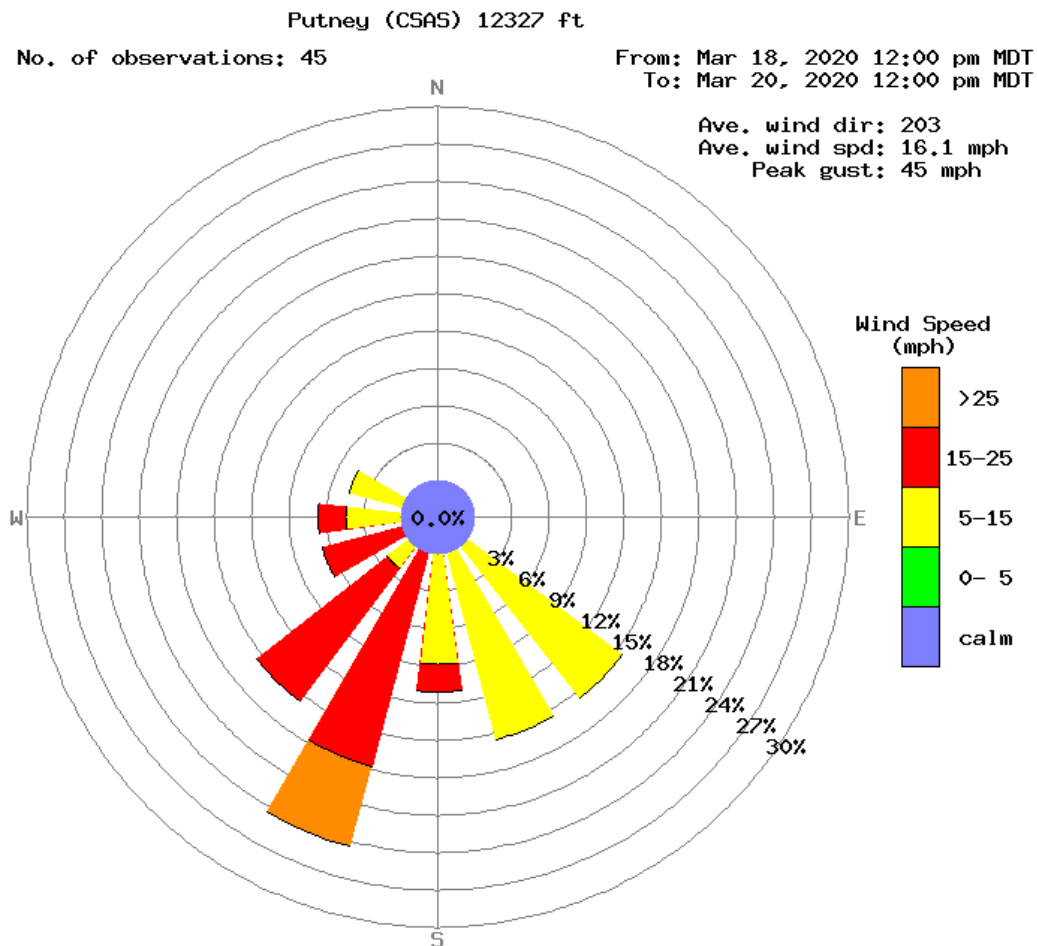
Max precip intensity: 4 mm/hour, 400 hrs MST Thursday, March 19, 2020 (DOY 79)

Max gain in snow depth at SASP = 32.9 cm (13.0 inches)

Max gain in snow depth at SBSP (wind affected) = 23.9 cm (9.4 inches)

Peak gust at PTSP at: 43.8 mph at 800 hrs MST Sunday, Mar 22, 2020 (DOY 82)

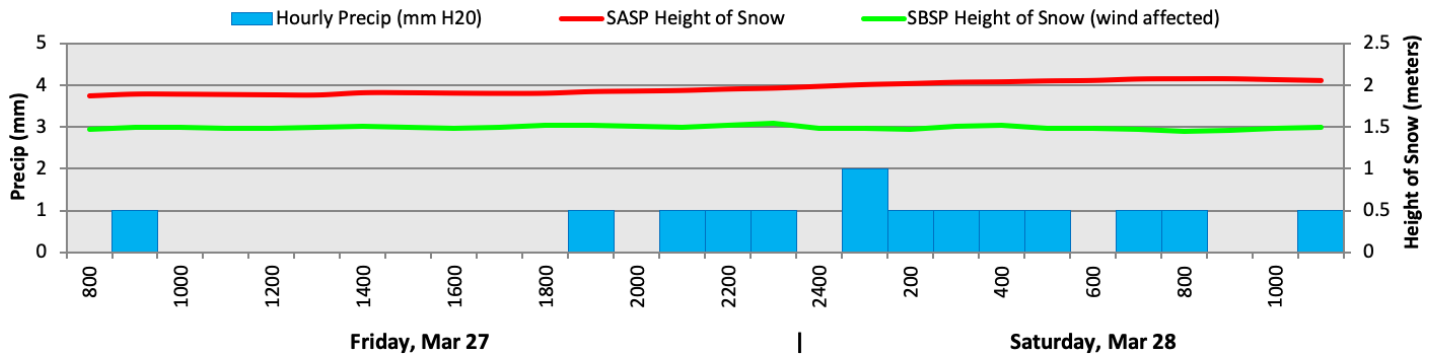
Storm Wind Rose (Putney Study Plot data):



2019/2020 WINTER STORM #17

2019-20 Winter Storm #17: Mar 27-28, 2020

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 800 – 900 hrs MST Friday, March 27, 2020 (DOY 87)

Storm precipitation ended: 1100 hrs MST Saturday, March 28, 2020 (DOY 88)

Storm duration = 28 hrs

Storm total water content at SASP = 14 mm (0.6 inches)

Mean precip intensity: 0.50 mm/hr

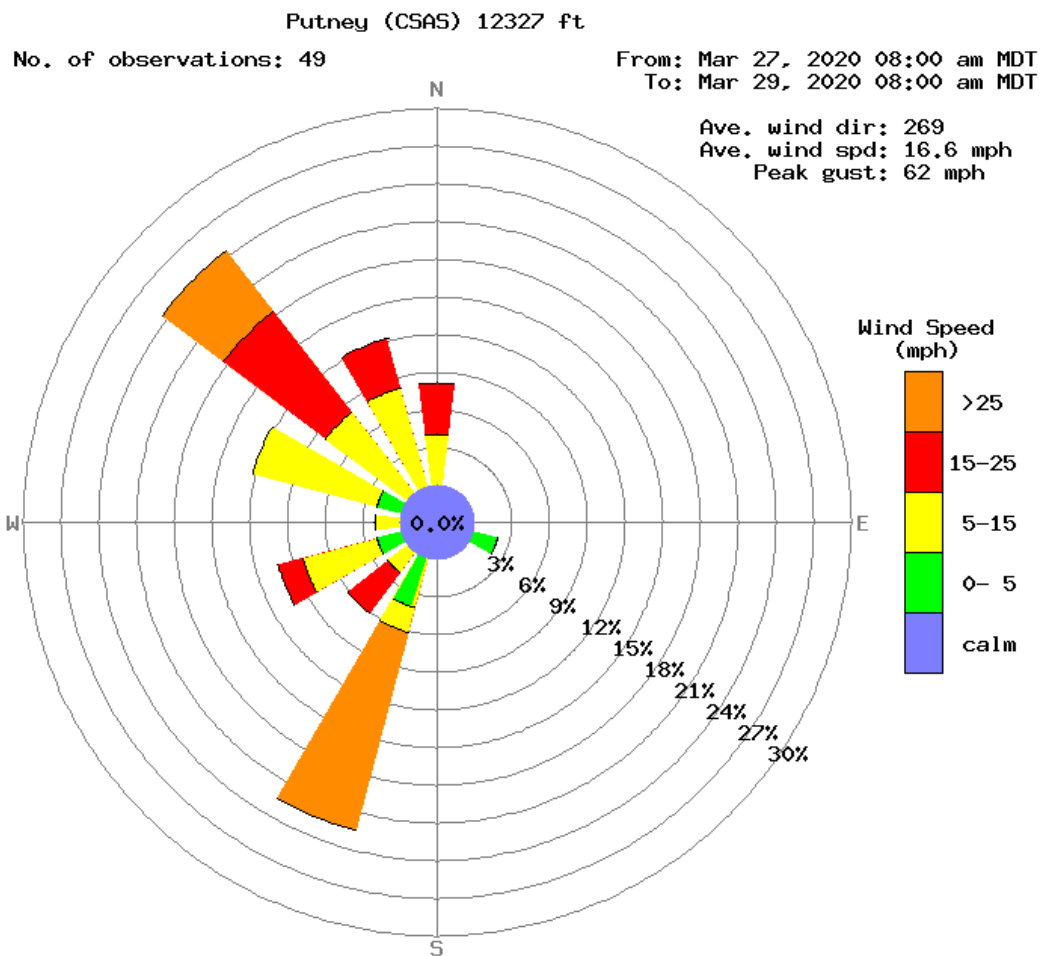
Max precip intensity: 2 mm/hour, 1000 hrs MST Saturday, March 28, 2020 (DOY 88)

Max gain in snow depth at SASP = 19.2 cm (7.6 inches)

Max gain in snow depth at SBSP (wind affected) = 2.75 cm (1.1 inches)

Peak gust at PTSP at: 61.8 mph at 1200 hrs MST Friday, March 27, 2020 (DOY 87)

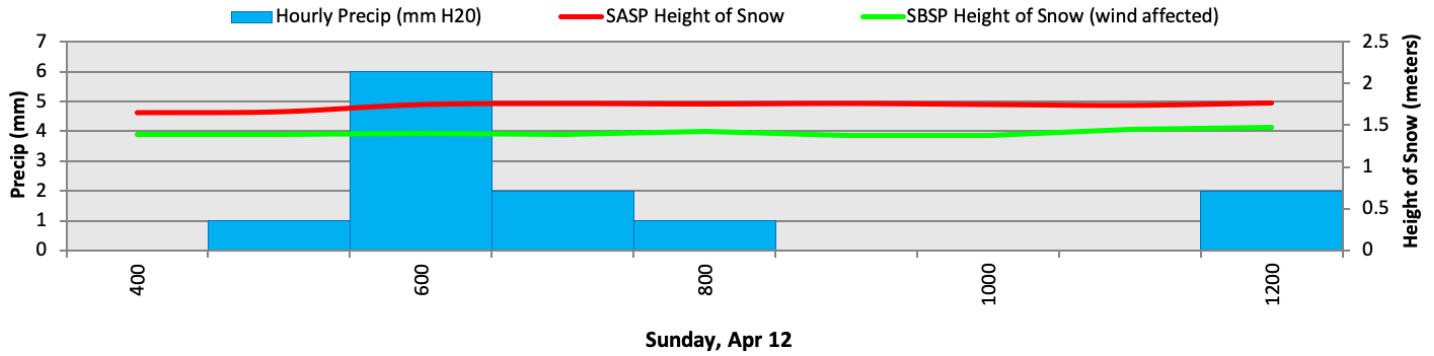
Storm Wind Rose (Putney Study Plot data):



2019/2020 WINTER STORM #18

2019-20 Winter Storm #18: Apr 12, 2020

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 400 – 500 hrs MST Sunday, April 12, 2020 (DOY 103)

Storm precipitation ended: 1200 hrs MST Sunday, April 12, 2020 (DOY 103)

Storm duration = 9 hrs

Storm total water content at SASP = 12 mm (0.5 inches)

Mean precip intensity: 1.33 mm/hr

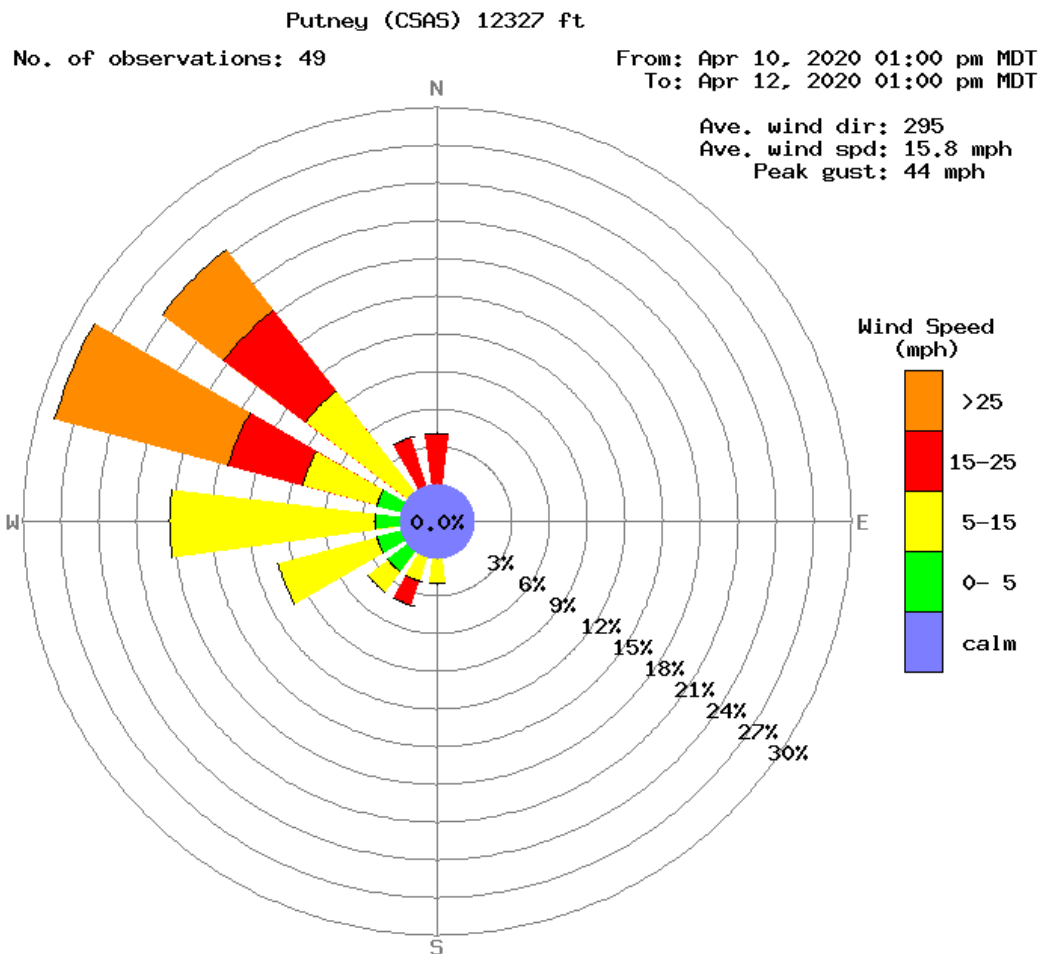
Max precip intensity: 6 mm/hour, at 600 MST Sunday, April 12, 2020 (DOY 103)

Max gain in snow depth at SASP = 11.6 cm (4.6 inches)

Max gain in snow depth at SBSP (wind affected) = 8.6 cm (3.4 inches)

Peak gust at PTSP at: 42.4 mph at 600 hrs MST Sunday, April 12, 2020 (DOY 103)

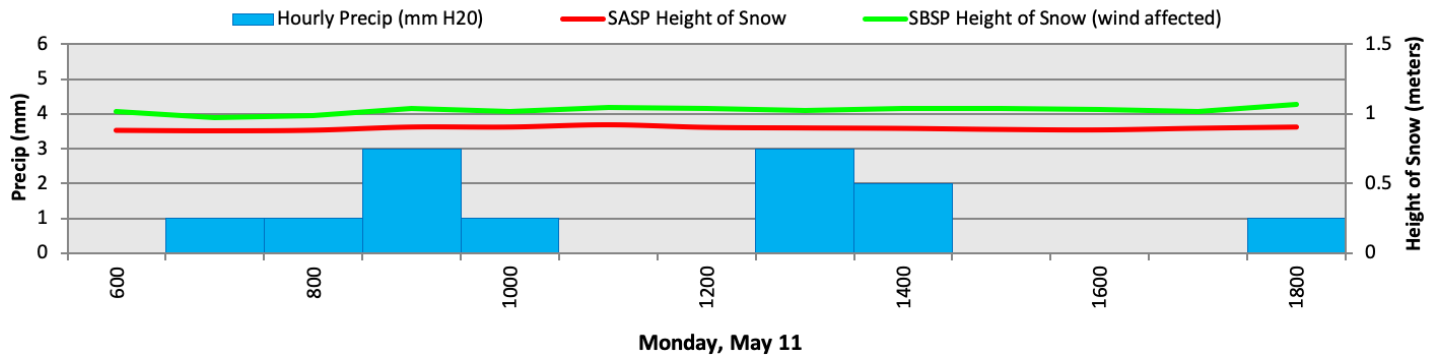
Storm Wind Rose (Putney Study Plot data):



2019/2020 WINTER STORM #19

2019-20 Winter Storm #19: May 11, 2020

Senator Beck Basin Study Area, at Red Mountain Pass, CO



Storm Summary Statistics:

Storm precip began between 600 – 700 hrs MST Monday, May 11, 2020 (DOY 132)

Storm precipitation ended: 1800 hrs MST Monday, May 11, 2020 (DOY 132)

Storm duration = 13 hrs

Storm total water content at SASP = 12 mm (0.5 inches)

Mean precip intensity: 0.92 mm/hr

Max precip intensity: 3 mm/hour, on multiple occasions

Max gain in snow depth at SASP = 1.3 cm (0.5 inches)

Max gain in snow depth at SBSP (wind affected) = 1.9 cm (0.7 inches)

Peak gust at PTSP at: 53.8 mph at 1400 hrs MST Monday, May 11, 2020 (DOY 132)

Storm Wind Rose (Putney Study Plot data):