

## Weatherwise

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Snow? What Snow?: The 2011-2012 Snow Report
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The 2011-2012 SNOW REP(OR''
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he 2011-2012 snow season across the lower 48 states was seen by most snow lovers as, simply stated, a dud. Despite some notable, even rather remarkable snow events, seasonal snowfall totals were below average from coast to coast. Snow lovers in Alaska were not disappointed, however, as some prodigious accumulations occurred. As reported in Weatherwise each year since 1955, here is a month-by-month summary of noteworthy snow events, totals, and oddities from this past season.


The snow cover on Mount Rainier in Washington state disappeared by the end of August.

## July 2011

The snow season began with the previous winter's snowpack still holding on at Rainier Paradise, Washington, to the tune of 144 inches on the ground on July 1. Cool conditions resulted in 66 inches remaining at month's end. Crater Lake, Oregon, saw its 51 -inch July 1 snow cover disappear by the 25 th. Barrow, Alaska, kicked off the season with a snowfall of 0.4 of an inch on July 1. No other report of measurable snowfall was received throughout the United States in July.

## August 2011

The snow cover finally disappeared at Rainier Paradise on August 25. There were no reports of measurable snowfall across the United States during the month.

## September 2011

The general snow-sparse theme for this season included a September that even by early-season standards was a meek one. Black Forest, Colorado, picked up 0.3 of an inch on September 3, and atop Mount Washington, New Hampshire, 0.9 of an inch fell on September 1516. Trace amounts were noted in La Sal, Utah, on September 9 and at Ogden Beach, Utah, on September 17. September 14 brought Duluth, Minnesota, and Rhinelander, Wisconsin, a trace. The latter location eclipsed its record for earliest snow by one day. Later in the month, snow dusted some higher elevations of the Rockies and Appalachians, but totals were meager.

In Alaska, Barrow received 4.8 inches during the month, including the first measurable snowfall ( 0.1 of an inch) since July 1 on September 9. This northern-most U.S. town established a snow cover of an inch on September 27. On that day, Colville Village had a 2.5 -inch snowfall, ending the month with two inches on the ground. Chandalar Shelf was whitened with 3.0 inches on September 29-30, while McKinley Park received 2.6 inches on September 29.

## October 2011

The central and southern Appalachians were whitened on October 2-3, with as much as 9.0 inches and 8.3 inches at, respectively, Snowshoe and Davis, West Virginia. Big Meadows, Virginia, was dusted with 0.2 of an inch, and the 0.5 of an inch at Beech Mountain, North Carolina, was a record for the earliest measurable snow in the Tar Heel state. The first widespread western snow of the season accompanied the season's first cold blast into the area from October 5-8. Totals included 3.0 inches in Truckee, California; 2.6 inches at Ely, Nevada; 7.8 inches in Beaver, Utah; and 15.0 inches at Bedford, Wyoming. The 6.0 inches in Cheyenne, Wyoming, on October 8 was a daily record.

All was then quiet across the nation until the last week of the month, when a historic storm began its trek across the country. It first dropped heavy snow in the central and southern Rockies out onto the High Plains on October 25-26. Then it was the northern mid-Atlantic and New England's turn on October 29-30. The first shot brought 16.4 inches to Estes Park, Colorado; 9.3 inches to Cheyenne, Wyoming; 8.5 inches to Denver, Colorado; and 3.1 inches to Amarillo, Texas. The weight of the snow damaged many trees that were still in leaf. Some light snow accompanied the first cold air of the season into the East on October 27, ahead of the primary storm. This brought Binghamton, New York, 1.9 inches; North Foster, Rhode Island, 1.0 inch; Blue Hill, Massachusetts, 2.5 inches; and Fitzwilliam, New Hampshire, 5.0 inches. The main event wreaked havoc on the region. Heavy wet snow felled trees still in leaf, resulting in significant property damage and the loss of power to millions of customers, with some outages exceeding a week.

Progressing northward, some of the larger state totals included Wilmington, Delaware, with 1.3 inches; Catoctin Mountain Park, Maryland, with 15.0 inches; Springtown, Pennsylvania, with 16.0 inches; Barry Lakes, New Jersey, with 19.1 inches; Bloomingburg, New York, with 17.7
inches; West Wardsboro, Vermont, with 11.5 inches; Hartford, Connecticut, with 20.3 inches; West Otis, Massachusetts, with 25.9 inches; Jaffrey, New Hampshire, with 31.4 inches; and Gray, Maine, with 12.9 inches. Hartford's snowiest October day had been 1.7 inches, while this storm brought 12.3 inches on October 29 and 8.0 inches on October 30. Many other daily and monthly October snowfall records were obliterated. Newark, New Jersey's 5.2 inches on October 29 far surpassed the previous October daily record of 0.3 of an inch on October 22, 1952. Harrisburg, Pennsylvania's 5.5 inches and New York City Central Park's 2.9 inches were monthly records. The Barry Lakes total was New Jersey's largest early season snowstorm since the 20.5 inches that fell at Paterson on December 11-12, 1960. Little did Northeast residents know on Halloween that most of them had already experienced (by far) the largest snowstorm of the winter season!
The Alaskan snow season ramped up slowly through the month. Nome finally saw its first measurable snow of 2.4 inches from October $16-19$. Relative warmth in the north was accompanied by 9.0 inches at Barrow during the week of October 16. Barrow's monthly total of 22.8 inches was close to the monthly record of 23.2 in 2008. Measurable snow of 0.1-2.5 inches fell on 27 days at Barrow, while three days received a trace, and one day was snow free. The 12.5 inches at Kotzebue on October 25-26 was
an October two-day record, and 7.9 inches on October 25 was a daily record. Fairbanks' first measurable snow of the season ( 0.1 inches) was on October 14, and was followed by 3.5 inches on October 15-16. Chandalar Shelf ended the month with 17 inches on the ground.

## November 2011

Snows of a light to moderate nature were scattered around the lower 48 during November, quite unlike the heavy snow experienced in portions of Alaska. Daily snowfall records of 4.0 inches were established at Ely, Nevada, on November 4 and Billings, Montana, on November 5 . November 5-8 brought moderate accumulations to Southwest higher elevations. Flagstaff, Arizona, received 5.7 inches on November 5 and 6.8 inches on November 7. Other totals included 11.5 inches in Bellemont, Arizona, and 19.0 inches in Eagle Nest, New Mexico. This storm made its way into the Midwest on November 8-9, bringing 6.0 inches to Creston, Iowa; 1.4 inches to Dixon, Illinois; and a daily record 8.9 inches to Rhinelander, Wisconsin, on November 9. Big Sky, Montana, received 6.8 inches on November 12, with Alta, Utah, measuring 10.0 inches. Rapid City, South Dakota, was buried under 13.8 inches on November 18-19, while Pierre, South Dakota, experienced its snowiest November day on record with 9.5 inches on November 19. Sartell, Minnesota, saw 11.0 inches.


Central Bridge NY, N.Y., Jan. 12, 2012 — Hector Gomez, FEMA Contractor, of Sidell L.A. builds decks and stairs during a snow storm for temporary housing units that were placed in a commercial site for survivors of Hurricane Irene.

Snow fell in northern New England on November 22-23, with 5.0 inches at Burlington, Vermont; 11.1 inches in Alexandria, New Hampshire; and 8.6 inches, a daily record, in Bangor, Maine. A storm over the last three days of the month dropped 2.5 inches on Jonesboro, Arkansas; 2.3 inches at Valley Head, Alabama; 2.0 inches at Jackson, Tennessee; 3.5 inches in Clinton, Kentucky; 5.0 inches at Kokomo, Indiana; and 8.1 inches in Lansing, Michigan.
Snowfall at Bethel, Alaska, amounted to 9.8 inches on November 2-5, with Juneau receiving 6.0 inches from November 4-5. A powerful storm brought 7.9 inches and 6.4 inches of windblown snow to Kotzebue and Nome, respectively, on November 8-9. Valdez received 27.7 inches and Cannery Creek 18.5 inches from the event. The southeastern region was buried under heavy snow during the middle to end of the month. From November 13-16, Haines received 34.9 inches, Yakutat 23.5 inches, and Juneau 15.9 inches. The state capital received another 13.9 inches on November 23, while totals from November 20-26 included 45.5 inches at Annex Creek and 31.8 inches in Port San Juan. Valdez received a daily record 17.5 inches on November 30, bringing its monthly total to 66.4 inches. Haines took top snowfall honors for the month with 126.3 inches, including six days that had totals between 10.3 inches and 21.5 inches.


Meager extent of snow cover across the U.S. on January 10, 2012 as depicted on an Interactive Multisensor Snow and Ice Mapping System map. The map has been enhanced at the Rutgers University Global Snow Lab to show four categories: 1) green: snow free land that should be snow free on this date based on average conditions on this date over the 1999-2012 interval; 2) white: snow covers areas that normally are snow covered; 3) yellow: snow covers areas that normally are snow free; 4) grey: ground is snow free when it normally is covered on January 10.

## December 2011

The Southwest and High Plains came out "best" in the snow department over the lower 48, while portions of Alaska received a December pummeling. December $1-4$ saw 13.1 inches fall on Flagstaff, Arizona, and 18.0 inches at Angel Fire, New Mexico. Daily records of 6.5 inches and 5.1 inches fell on December 3 in Goodland, Kansas, and Hastings, Nebraska, respectively. In Maine, Caribou received 9.0 inches and Bridgewater 6.5 inches on December 7 and 8. Chicago, Illinois's 0.5 inches on December 9 was the Windy City's fifth-latest first measurable snow; the record remains at December 16, 1965.

Snow returned to the Southwest on December 12-14, when Flagstaff was hit with 17.6 inches and Albuquerque, New Mexico, received 2.4 inches. The central and southern Plains were again whitened on December 19-20, with blizzard conditions in some areas bringing 18.0 inches to Walsh, Colorado; 17.0 inches to Clayton, New Mexico; 7.0 inches to Dalhart, Texas; 15.0 inches to Boise City, Oklahoma; and 13.0 inches to Healy, Kansas. A second storm struck farther north on December 21-22, depositing 9.4 inches in Tensleep, Wyoming; 4.3 inches at Harrison, Nebraska; and 15.3 inches in Boulder, Colorado (Boulder's total included some snow from the first storm). The final event in this round of storms brought Roswell, New Mexico, 6.4 inches on December 22-24, while 14.0 inches fell at Cubero, New Mexico, and 5.0 inches at both Seminole and Clarendon, Texas.

Christmas morning saw eight inches of snow cover in Roswell and Clayton, New Mexico, and Pueblo, Colorado, while much of the United States east of the Rockies was snow-free. In fact, seasonal snowfall up to the holiday was the least on record in Buffalo ( 3.0 inches) and Rochester (2.2 inches), New York.

The first 10 days of the month in Alaska saw Kotzebue receive 28.2 inches and Nome 23.1 inches. Barrow received 6.5 inches on December 4 -one of 23 days with measurable snowfall, with eight days receiving a trace. Valdez received 18.9 inches from December 7-9, followed by 20.3 inches on December 11 and 20.0 inches on December 17. By month's end, this south coastal community had 28 days with measurable snowfall totaling 152.2 inches. This eclipsed its former December record by 15.1 inches. Haines had a snow depth of 87 inches at month's end. On the North Slope, Barrow received a December record 15.8 inches- 3.5 inches above the previous record established in 2005.


Lincoln, Nebraska, on February 5, 2012, following an 11.1-inch snowfall the previous day.

## January 2012

Snowflakes flew across many areas of the nation in January, with generally only the southeast quadrant failing to join in. Still, totals were generally on the light to moderate side, making for a geographically broad mid-winter snow drought.
Some light to moderate Great Lakes enhanced snows fell during the first days of 2012. They included Twin Lakes, Michigan, receiving 19.0 inches from January 1-3; Little Valley, New York, 12.0 inches on January 2-3; Confluence, Pennsylvania, 2.1 inches on January 3; and Chippewa Lake, Ohio, 5.0 inches on January 4. Another in a month-long series of storms impacted portions of the Southwest on January 8-9, with Denver City, Texas, picking up 10.0 inches on January 8. Midland, Texas, with 10.6 inches on January 9 , experienced its snowiest day on record. This storm provided the last accumulating snow of the season and put this Southwest Texas city over the top for its greatest seasonal total on record. At 19.5 inches, this exceeded the 13.9 inches in the winter of 1946-1947.
From January 12-14, moderate snow accumulated along the path of a low pressure system tracking near the Canadian border. Totals included Waterloo, Iowa, with 4.8 inches; Jump River, Wisconsin, with 5.0 inches; Elizabeth, Illinois, with 6.0 inches; South Bend, Indiana, with 8.0 inches; Erie, Pennsylvania, with 9.1 inches; Buffalo, New York, with 6.3 inches; and Little Valley, New York, with 9.0 inches. Behind the storm, lake-effect snow on January 14 accumulated to 14.9 inches in Muskegon, Michigan. More Midwestern snow arrived on January 17,
with 4.5 inches in Syracuse, Nebraska, and 7.4 inches at Houghton Lake, Michigan. Another event brought daily records of 7.1 inches in Waterloo, Iowa, and 5.1 inches at Rockford, Illinois, on January 20.
A strong storm moved into the Northwest on January 17-19. LaCrosse, Washington, with 12.0 inches, experienced its snowiest day on record. Olympia and Seattle, Washington, saw 11.0 inches and 6.8 inches, respectively. Spokane, Washington, picked up 5.8 inches, and Rainier Paradise, Washington received a whopping 54.0 inches. As the storm moved east into Montana, Missoula, measured 15.7 inches, Helena measured 10.0 inches, and Billings measured 9.6 inches.

By mid-month, the higher elevation Sierra Nevada snow pack stood at an average water equivalent of two inches, which was just 11 percent of average. January 22-23 brought 18.0 inches to Chester, California, and 14.0 inches to Dagget Pass, Nevada. This storm helped to improve conditions, such that by January 24, six inches of water was in the Sierra pack, which was 40 percent of average.
An Alberta Clipper sped across the Midwest and Northeast on January 21. Park Forest, Illinois, saw 8.0 inches and Crown Point, Indiana, saw 7.5 inches, with daily records in Williamsport, Pennsylvania, with 4.1 inches; Bridgeport, Connecticut, with 6.2 inches; and Providence, Rhode Island, with 7.6 inches. January 27-28 brought 8.4 inches and 9.0 inches to Caribou and Jackman, Maine, respectively.

January was yet another snowy month along the South Alaska coast. Haines saw 42.0 inches on January 2. Valdez was smothered under 19.2



Picturesque winter scenes in Lincoln, Nebraska following a February storm.
inches on January 5, 19.3 inches on January 6, and 31.6 inches from January 10-12. Anchorage received 13.9 inches from January 8-13, bringing its season-to-date total to a record 89.3 inches. Moderate snow made it inland on January 10, with 8.5 inches at McGrath and 4.2 inches in King Salmon. Little Port Walter received 34.0 inches on January 20-21. Main Bay was inundated with 148.0 inches falling during the month, with a maximum depth of just over 10 feet.

## February 2012

The first storm of the month came out of the central Rockies onto the Plains from February 2-4. It brought blizzard conditions that stressed livestock and disrupted travel, while providing beneficial moisture. Snowfall reached three to four feet in the mountains, and in the Front Range, Boulder, Colorado, received 22.7 inches and Denver got 15.9 inches, including the capital's snowiest February day on record ( 12.5 inches on February 3). Out on the Plains, 11.0 inches fell in Hastings, Nebraska; 11.1 inches in Lincoln, Nebraska; 10.0 inches at Norlton, Kansas; and 4.6 inches in Des Moines, Iowa.

While meager, some mid-Atlantic locations experienced their largest event of the season on February 11-12. Damascus, Maryland, received 2.9 inches; Wilmington, Delaware, 2.0 inches; Atlantic City, New Jersey, 1.7 inches; and Norfolk, Virginia, 0.5 inches. A southern Plains storm on February 12-13 brought Lubbock, Texas, 2.8 inches and Willow, Oklahoma, 5.0 inches. From February 12-15, Ely and Elko, Nevada, were blanketed with 8.1 inches and 4.5 inches, respectively. Just to the west, the Sierra Nevada water equivalent of the snow pack was 7 inches, just 33 percent of average.

Richmond, Virginia's 4.0 -inch snowfall on February $19-20$ was this city's first measurable snow of the season. Elsewhere, Jackson, Kentucky, received 3.1 inches; Jamestown, Tennessee, 5.7 inches; Bluefield, West Virginia, 6.9 inches; and Greensboro, North Carolina, 1.6 inches. The action turned back to the west on February 21-22 when two to three feet of snow buried higher elevations in Western Wyoming. At lower elevations, Moose, Wyoming, received 11.5 inches, and Cooke City, Montana, received 16.0 inches. This system next moved into the Midwest, where February 23-24 snows totaled 4.1 inches in Waterloo, Iowa; 5.0 inches at Waskish, Minnesota; 6.7 inches in Lake Mills, Wisconsin; and 8.2 inches at Mundelein, Illinois.

Higher elevations of Vermont received their heaviest snow of the season on February 25-26, with 30.0 inches falling atop Jay Peak and 18.0 inches on Mount Mansfield. This was followed
by a storm that moved along the northern tier and into the Northeast from February 26-29. Fargo, North Dakota, was covered with 8.6 inches of fresh snow; McClusky, North Dakota, 12.0 inches; Summit, South Dakota, 12.0 inches; Hinckley, Minnesota, 20.0 inches; Duluth, Minnesota, 9.7 inches; Medford, Wisconsin, 17.0 inches; Alpena, Michigan, 6.4 inches; Albany, New York, 4.0 inches; and Hartford, Connecticut, 4.4 inches. This was Minnesota's largest storm of the winter, during a season that ranked as the second-least snowy on record at a number of stations.

The first week of February saw Seward, Alaska, collect 17.0 inches, Skagway 16.0 inches, Nome 13.7 inches, Cooper Landing 10.0 inches, and Anchorage 9.1 inches. After a four-week break, Valdez was once again under the snow gun, receiving 27.4 inches from February 12-18, while Kodiak saw 11.4 inches. Snowfall totaled 7.4 inches in McGrath and 6.8 inches at Bethel from February 24-26. Main Bay was buried under 22.1 inches on February 26-27, and McGrath got 8.4 inches, while Valdez collected an additional 26.1 inches. The depth of snow on the ground at Valdez reached a February record 97 inches on February 27. The monthly total of 114.9 inches in Main Bay helped to bring the snow depth to 133 inches. There were not any significant events in the interior of the state or on the North Slope, with monthly totals of 7.5 inches in Fairbanks and 6.0 inches in Barrow.

## March 2012

Welcome snow for replenishing water resources and for satisfying skiers began in the western mountains on Leap Day and extended to the 2nd of March. Two to three feet fell from the Pacific Northwest into the Intermountain region. Santiam Pass, Oregon, was clobbered with 36.0 inches and Alta, Utah, saw 24.0 inches. Meanwhile, March 1 brought the western Great Lakes region 10.5 inches at Madeline Island, Wisconsin, and 15.0 inches in Daggett, Michigan. Next, a band of moderate snow through the central Appalachians deposited 6.5 inches in Cave Run Lake, Kentucky; 6.0 inches in Oak Hill, West Virginia; and 7.2 inches at Louisa, Virginia.

An active period of western snows brought out weather observers' rulers from March 11-22. To kick things off, Angel Fire, New Mexico, received 7.0 inches on March 11. In the Washington Cascades, Holden Village was buried under 15.0 inches on March 12-13, with 14.0 inches more on March 14-15. To the south, Squaw Valley, California, picked up 70.0 inches during the week ending on March 17, while Flagstaff, Arizona,
received 26.4 inches and the nearby Arizona Snowbowl got 53.0 inches from March 17-19. Havre, Montana recorded 11.9 inches on March 19, bringing this community's seasonal total to just 17.4 inches, or 54 percent of average. The western onslaught ended with Eugene, Oregon, shoveling out from a record-breaking, late-season 7.5 inches on March 20-21 and Easton, Washington, receiving 18.5 inches. Over the course of March, the average water content in the high Sierra Nevada snowpack doubled to 16 inches at month's end. While a welcome improvement, this was still only 55 percent of average at the time of year when totals most often peak.

The Aleutian Islands experienced a snowy March. Cold Bay, Alaska, received 6.7 inches on March 13 and 21.0 inches during the last


The NWS La Crosse, Wisconsin observing site on March 4, 2012. Note the light coating of snow atop the snow measuring board to the right of the two precipitation gauges.
week of a month that delivered a total of 43.3 inches. Fairbanks received 9.6 inches on March $6-7$, when 23.6 inches was measured at Keystone Ridge. On the southwest mainland, Bethel and King Salmon received 6.8 inches and 12.0 inches, respectively, from March 21-23. On March 5-6, Valdez added another 17.3 inches, bringing the depth of snow on the ground to an all-time record 100 inches. Only 0.4 of an inch fell during the month at Barrow and 1.3 inches in the North Slope village of Kuparuk.

## April 2012

Snow was deposited in the southern Rockies on April 3, with as much as 20.0 inches at Ocate, New Mexico, and 15.7 inches at Rye, Colorado. In the Northwest, 6.5 inches fell in Joseph, Oregon, 5.5 inches in Great Falls, Montana, and 12.0 inches in Virginia City, Montana, on April 3-6. The higher elevations of the Southwest were next visited by as much as 12.0 inches in Springerville, Arizona; 10.0 inches at Flagstaff, Arizona; and 9.5 inches at Red River, New Mexico on April 14-16.
A late-season snowstorm whitened the ground from the central Appalachians into Western New York on April 23-24. Terra Alta, West Virginia, received 9.1 inches and Laurel Summit, Pennsylvania, received 23.7 inches, while in New York, Little Albion received 12.8 inches, Ithaca 6.0 inches, and Rochester 2.8 inches.
For only the fourth time in 55 years, there was no snow on the ground at the Mud Creek, Utah, snow observation site at month's end. The average depth for April 30 at this location is 23 inches with a water content of 8.8 inches.


Southwestern Alaska snowfall on April 5 amounted to 3.2 inches in King Salmon and 2.5 inches at Cold Bay. This brought the seasonal total at the latter location to 117.4 inches, eclipsing its previous record of 115.9 inches established in 1983-1984. The final seasonal total at Cold Bay was 132.9 inches. Mild April temperatures resulted in Fairbanks' cover of 22 inches at the onset of the month to melt to a trace by April 20, and Anchorage's 25 inches dropped to a trace by April 25. The 5.5 inches of snowfall in Barrow kept its snow cover at 12-13 inches throughout the month.

## May 2012

As expected, snowflakes were difficult to find in May. A storm on May $5-6$ brought 15.0 inches to Rainier Paradise, Washington. A Montana storm from May 25-28 deposited 19.4 inches on Power, with Great Falls and Billing each receiving 3.5 inches. It was Billings' second-latest measurable snow on record. Atop Mount Mansfield, Vermont, the 27 inches on the ground on May 1 faded to a trace on May 15.

In the 49th state, King Salmon received 3.7 inches from May $3-5$ and 1.1 inches on May 12 13. McCarthy took top monthly honors with 8.4 inches. Valdez received its last measurable snowfall of the season on May 14 ( 0.4 of an inch), bringing this port town's annual total to a record 438.3 inches. Snow cover melted to a trace there on May 17, while Nome went to a trace on May 11. Main Bay's cover shrank from 76 inches to 30 inches during the month. Barrow retained a three-inch cover on May 31 following a monthly snowfall of 5.5 inches, although no snow fell over the North Slope following Barrow's 0.2 of an inch on May 14.

## June 2012

Crater Lake, Oregon, received 13.3 inches of fresh snow for the month, including a late 3.5 inches on June 26. The snow cover at the observation site within the National Park went from 48 inches on June 1 to 2 inches on June 30. Rainier Paradise, Washington, received 6.5 inches for the month, with 5.0 inches of that falling from June $8-10$. The massive snowpack there decreased from 148 inches on June 1 to 105 inches on June 30.

Barrow's snow cover melted to a trace on June 3. A dusting ( 0.1 inch ) on June 7 brought Barrow's annual total to 76.0 inches. This is just short of the record 77.4 inches in 2008-2009, making this season the second-largest since observations began in 1920 .

Table 1. 2011-2012 Snowfall for Select United States Communities

| City | Snowfall total (inches) | Average snowfall (inches) |
| :---: | :---: | :---: |
| Marquette, Michigan | 152.8 | 203.3 |
| Anchorage, Alaska | 134.5 | 74.5 |
| Barrow, Alaska | 76.1 | 37.7 |
| Rochester, New York | 59.9 | 99.5 |
| Fairbanks, Alaska | 57.4 | 65.0 |
| Cheyenne, Wyoming | 51.7 | 60.3 |
| Denver, Colorado | 49.9 | 53.8 |
| Duluth, Minnesota | 49.1 | 86.1 |
| Portland, Maine | 43.9 | 61.8 |
| Cleveland, Ohio | 38.9 | 68.1 |
| Billings, Montana | 38.6 | 55.0 |
| Burlington, Vermont | 37.7 | 81.2 |
| Spokane, Washington | 36.8 | 44.9 |
| Buffalo, New York | 36.7 | 94.7 |
| Milwaukee, Wisconsin | 29.6 | 46.9 |
| Detroit, Michigan | 26.0 | 42.7 |
| Salt Lake City, Utah | 24.8 | 56.2 |
| Rapid City, South Dakota | 24.7 | 41.1 |
| Minneapolis, Minnesota | 22.3 | 54.0 |
| Des Moines, Iowa | 20.9 | 34.9 |
| Chicago, Illinois (O’Hare) | 19.8 | 36.7 |
| Lincoln, Nebraska | 18.8 | 25.9 |
| Sioux Falls, South Dakota | 15.9 | 44.5 |
| Bismarck, North Dakota | 13.6 | 51.2 |
| Amarillo, Texas | 12.5 | 17.8 |
| Charleston, West Virginia | 11.7 | 36.4 |
| Indianapolis, Indiana | 9.8 | 25.9 |
| Boise, Idaho | 8.6 | 19.2 |
| Reno, Nevada | 8.2 | 21.8 |
| New York City (Central Park) | 7.4 | 24.6 |
| Saint Louis, Missouri | 6.3 | 17.7 |
| Richmond, Virginia | 4.5 | 10.3 |
| Philadelphia, Pennsylvania | 4.0 | 22.4 |
| Kansas City, Missouri | 3.9 | 18.8 |
| Washington, D.C. (Reagan) | 2.0 | 14.5 |
| Raleigh-Durham, North Carolina | 0.9 | 5.9 |

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Surface conditions at the Mud Creek, Utah, snow survey site on April 25, 2012. For only the 4 th time in 55 years there was no measurable snow on the ground at this location at the end of April. The average depth for April 30 at this location is 23 inches with a water content of 8.8 inches.

## Seasonal Snowfall

Totals for the 2011-2012 snow season are reported for 36 communities across the nation in Table 1. Snowfall was consistently sparse across the coterminous United States, with all 33 stations receiving below-average seasonal totals. In Alaska, Anchorage and Barrow totals were above average, with Fairbanks below its mean mark. Negative seasonal snowfall departures exceeding 10 inches were observed in 26 communities. Buffalo, New York, took "low" honors with a 58.0 -inch deficit. This was 39 percent of average, making this the most snow-deprived city of those that annually average more than 50 inches of the white stuff. Of those locations that regularly accumulate $20-50$ inches, Philadelphia, Pennsylvania, at 18 percent ( -18.4 inches) received the lowest percentage of average. Of the locations that normally receive less than 20 inches, Washington, D.C., with only 2.0 inches ( -12.5 inches), saw 14 percent of average snowfall. Despite the general snow drought, no location with a lengthy record, and on average several inches or more of snowfall a season, was known to have recorded a record minimum for the 2011-2012 season. On the abundantly snowy side of the ledger, Anchorage received 60.0 inches more than normal ( 181 percent)-a record for Alaska's largest city, surpassing the 132.6 inches falling in 1954-1955. Barrow was 38.4 inches above average, or 202 percent of average.

## Seasonal Snow Cover

The snow cover season across the coterminous states got off to an average start in October. Only extent, not depth, is considered in these satel-lite-derived analyses. The cover increased to the 17th most extensive for November, dating back 46 years. From there on out, the winter snow extent was well below average. Unlike the previous winter, where November 2010 through April 2011 ranked between the fourth and ninth most extensive, December 2011 through April 2012 ranked from third (January and April) to 13th (February) least extensive.
Alaskan extent was close to average in October. Then a cold and snowy November blanketed the entire state earlier than usual, resulting in the third most extensive cover. From December until March, the vast majority of the state, as usual, remained covered. April and May cover ranked 16th and 20th most extensive of the past 46 years, respectively, but June fell to the sixth least extensive.

[^1]
[^0]:    Note: Averages are based on the 1981-2010 period.

[^1]:    DAVID A. ROBINSON is a professor in the Department of Geography at Rutgers University, and he is also the New Jersey State Climatologist. He would like to thank colleagues in a number of state climate offices, the National Climatic Data Center, National Weather Service offices, and especially Mathieu Gerbush, Christina Speciale, Daniel Manzo, and Tom Estilow at Rutgers University for assisting with information gathering.

