

# It's "Going Down in History": The Blizzards of 1949

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Plains people exemplify an unusual combination of individualism, helpfulness, cooperation, and a high sense of community. Northern plains residents are used to coping with extremes of weather; only occasionally are situations too much for them to handle. The winter of 1948-1949 would be such an event, testing the mettle of the state. Cooperation among individuals, political agencies, relief organizations, and different levels of government would be critical when "Operation Snowbound," the huge intergovernmental relief effort, was organized to counter the effects of continual blizzards and storms.

The beginning of the 1948-1949 fall-winter season did not seem atypical. The first half of November showed nature's positive side: a mild autumn gave South Dakota farmers a record harvest. Although the northern Black Hills had heavy snows early, this fact did not indicate a particularly harsh winter ahead. In fact, people were caught unawares when the scattered snow flurries predicted for 18 November turned into a major snowstorm, causing disruptions in travel and communications in the southeastern part of the state. The area soon recovered, however, and a moderate late November and unex-

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ceptional December gave little cause to expect more major trouble. Few, if any, anticipated the ongoing crisis the rest of the winter would bring.<sup>1</sup>

New Year's Eve saw moderate temperatures across the state, and the prediction for Saturday, New Year's Day, called for more of the same. The long-range forecast through Wednesday, 5 January, predicted seasonable temperatures along with the possibility of "precipitation amounting to one-tenth inch from snow flurries Sunday and again about Wednesday."<sup>2</sup> Indeed, New Year's Day was mild. Temperatures reached the mid-twenties to lower thirties in the east, climbing to fifty-three degrees at Long Valley in Washabaugh (now Jackson) County and fifty at Deadwood.<sup>3</sup>

Plains residents might have noticed their barometers register a sharp decline as a low-pressure system crept east from Rapid City.<sup>4</sup> By Sunday morning, 2 January, the state forecast was calling for "brief snow flurries and squalls, accompanied by north-west winds of 15-25 mile[s] per hour. . . . Light to occasionally moderate snow, . . . clearing Monday."<sup>5</sup> The prediction contained nothing particularly threatening.

At 8:30 Sunday morning, Rapid City (later Ellsworth) Air Force Base reported clear skies and a visibility of fifteen miles. Arsene Martin, a teacher at the Slim Butte community on the Pine Ridge Indian Reservation, was about to drive his children back to school in the northern Black Hills. An eastward glance might have led him to believe the pleasant weather would continue, yet something boded ill. "The sun rose colorfully on the morning of January 2," he recalled later, "but the air had a pe-

1. U.S., Department of Commerce, Weather Bureau, *Climatological Data: South Dakota* 53 (Nov. 1948): 96, 98, 103, 105-7, 112, 114, 119; *Sioux Falls Daily Argus-Leader*, 15, 18-21, 24 Nov., 28 Dec. 1948; *Deadwood Pioneer-Times*, 5, 9, 10, 18-21, 30 Nov. 1948; *Armour Chronicle*, 26 Nov., 10 Dec. 1948; *Platte Enterprise*, 25 Nov. 1948; *Tyndall Tribune and Register*, 25 Nov. 1948; *Springfield Times*, 25 Nov., 9, 30 Dec. 1948; *Wagner Post*, 18 Nov. 1948.

2. *Sioux Falls Daily Argus-Leader*, 31 Dec. 1948.

3. *Climatological Data: South Dakota* 53 (Dec. 1948): 120-22, 54 (Jan. 1949): 10-12; *Rapid City Daily Journal*, 31 Dec. 1948; Mrs. Herbert W. (Johanna) Pates Diary, 1 Jan. 1949, courtesy of the late John L. Pates and his wife Eileen Pates, Brookings, S.Dak., and Rose Pates Kiel, Quinn, S.Dak.; *Sunshine and Sagebrush: A Comprehensive History of the Oral-Smitthwick South Dakota Communities* (Oral, S.Dak.: Northeast Fall River County Historical Society, 1976), p. 415.

4. *Rapid City Daily Journal*, 10 Jan. 1949.

5. *Sioux Falls Daily Argus-Leader*, 2 Jan. 1949.

cular quality that made me restive and anxious to go and get back as soon as possible. A cloud bank over the Black Hills loomed ominously."<sup>6</sup> What Martin saw Sunday morning was part of a major weather pattern evolving over western North America. A low-pressure system was consolidating over the Southwest, enabling moist air from the Gulf of Mexico to move northward while an Arctic high-pressure system pushed southward through the Canadian prairies toward Montana.<sup>7</sup>

At 5:06 A.M., the United States Weather Bureau at Billings, Montana, warned the Rapid City weather office of an impending blizzard.<sup>8</sup> Trouble was close at hand: by 8:00 A.M. Spearfish, on the northern edge of the Black Hills, had received measurable precipitation. South of the hills, at Hay Canyon, rancher Helen Sides observed, "Sunday, January 2, started out like many stormy days, windy and some snow but looking out of the north kitchen window the sky looked foreboding and different than anything I had ever seen before or since."<sup>9</sup> At the Herbert Pates ranch some ninety miles to the northeast in Haakon County, Johanna Pates noted in her diary that it was "trying to snow."<sup>10</sup> At Philip, the county seat, heavy snowfall began that morning. Throughout the day, the weather in western South Dakota worsened, and in the afternoon storm warnings were broadcast from Rapid City. The great blizzard of 1949, the first in a series of storms, had begun.<sup>11</sup>

By afternoon, many motorists west of the Missouri River were driving into danger, particularly on United States Highways 14 and 16, the state's principal east-west routes. Stranded,

6. C. H. Powers, comp., "Report of 'The Blizzard of 1949' on the Pine Ridge Indian Reservation, Pine Ridge, South Dakota," [1949], p. 61, Pine Ridge Indian Reservation, Pine Ridge, S.Dak., Records of the Bureau of Indian Affairs, Record Group (RG) 75, National Archives and Records Administration, Central Plains Region, Kansas City, Mo. (hereafter cited NARA-KC). See also Mrs. J. H. Chamberlain, comp. and ed., *The Blizzard of '49* (Rapid City, S.Dak.: By the Compiler, 1949), p. 14, for a similar recollection of the weather on 2 January.

7. Interview with Dean Constantinou, National Weather Service, Valley, Nebr., 11 May 1994; U.S., Department of Commerce, Weather Bureau, North American Surface Charts (WB 1542), 0030Z, 0630Z, 1230Z, 2 Jan. 1949, National Climatic Data Center (NCDC), Asheville, N.C. These charts show surface weather data at six-hour intervals expressed in Greenwich Mean Time, which necessitates a seven-hour adjustment for Mountain Standard Time.

8. *Rapid City Daily Journal*, 10 Jan. 1949.

9. *Sunshine and Sagebrush*, p. 415.

10. Pates Diary, 2 Jan. 1949.

11. *Martin Messenger*, 6 Jan. 1949; *Philip Pioneer-Review*, 6 Jan. 1949; *Climatological Data: South Dakota* 54 (Jan. 1949): 6.



*Across western South Dakota, homes and hotels like this establishment in Wall filled up with stranded travelers during the great blizzard of January 1949.*

some travelers would take refuge in homes of area residents. Twenty persons stayed at the Gordon Bartells home in New Underwood, twenty-one miles east of Rapid City. Farther east, Wicksville, population thirteen, sheltered more than seventy stranded motorists in houses, gas stations, and a store. The L. R. Whitsett home alone took in thirty-two people. At Wall, almost four hundred people stopped to wait out the storm.<sup>12</sup> South Dakotans had begun to help each other, and the cooperation that seemed so simple and basic on 2 January 1949 would become essential and complicated as conditions approached disaster proportions later that month.

As Arctic high pressure spread deeper into the region and low pressure moved over the Texas-Oklahoma Panhandles, the pressure difference produced high winds, while the Gulf moisture brought snow. The storm blew full force across the west-river area. "The wind kept getting stronger and the snow heavier as the day went on," Helen Sides reported, "and by evening

12. *Rapid City Daily Journal*, 8 Jan. 1949; *Sioux Falls Daily Argus-Leader*, 10 Jan. 1949; *Hot Springs Star*, 13 Jan. 1949.

the blizzard had started with all its fury."<sup>13</sup> The storm's intensification brought winds of more than sixty miles per hour, and visibility approached zero.<sup>14</sup>

Travel difficulties intensified as well. A car carrying the Houslaux family from Rapid City had ignition problems and became stuck on the highway about midnight just east of Philip. A passing motorist tried to get to Philip for help, but his vehicle also

13. *Sunshine and Sagebrush*, p. 415.

14. North American Surface Charts, 1830Z, 2 Jan., 0030Z, 3 Jan. 1949, NCDC; interview with Costantinou; *Rapid City Daily Journal*, 3 Jan. 1949. See also U.S., Department of Commerce, Weather Bureau, Monthly Climatological Summary with Comparative Data (WB 1030), Rapid City Municipal Airport, Jan. 1949, p. 1, NCDC.

*Days of snow and wind packed drifts to the eaves at this Sturgis residence. Those who waited out the storm at home found themselves virtual prisoners when the blizzard stopped.*



stalled. He managed to reach town on foot, but the rescue party he organized also went into the ditch, endangering five more people. Later, State Highway Department employees sent out to search for missing people found the group and took everyone back to Philip, where they were treated for frostbite. All together, Philip found space for some one hundred travelers on the night of 2 January. After the Senechal Hotel's rooms filled up, people bedded down in the lobby. At Kennebec, both the local hotel and private homes opened their doors to motorists. In the Mission area, near the state's south-central border, schoolchildren could not reach the Rosebud Boarding School. Townspeople housed and fed them in the Indian agency jail.<sup>15</sup>

By Monday, most west-river travel had come to a stop. Local schools closed, and Rapid City Air Force Base personnel who lived in town were told to stay home. The storm stranded the weather bureau staff of six plus five others at the Rapid City airport where, fortunately, they had a small emergency food supply. In Philip, a troublesome water system gave out on Monday. On Tuesday, six youths made careful preparations and walked three miles through the continuing storm to the pumping station to restore water service. Livestock as well as people needed assistance. Cattle drifted southward into Philip to Elmer Hohn's residence. He fed the animals and then after the blizzard lured them out of town with a sack of cotton cake.<sup>16</sup>

Telephone switchboard operators probably worked longer hours during the blizzard than anyone else. In Rapid City, the telephone company used its own construction trucks to get the operators to work. When off duty, the "telephone girls" stayed downtown, and when on duty, male staff members prepared their meals.<sup>17</sup> At Philip, only two operators covered the switchboard for much of the storm. Only occasionally did some electrical or telephone lines have problems, and often amateur radio operators stepped in to fill the communication gaps.<sup>18</sup>

15. *Philip Pioneer-Review*, 6 Jan. 1949; *Kennebec Advocate-Leader*, 6 Jan. 1949; *Todd County Tribune* (Mission, S.Dak.), 6 Jan. 1949; Chester E. Lambert, Chief of Police, Weekly Report, 19, 20 Jan. 1949, Rosebud Indian Agency, General Correspondence File Decimal 1930-1950, Box 563, Folder 052.10 (Extension Reports), RG 75, NARA-KC.

16. *Rapid City Daily Journal*, 3, 10 Jan. 1949; *Philip Pioneer-Review*, 6, 13 Jan. 1949.

17. *Rapid City Daily Journal*, 6 Jan. 1949.

18. *Lemmon Leader*, 6 Jan. 1949; *Philip Pioneer-Review*, 6, 13 Jan., 17 Feb. 1949; *Newell Valley Irrigator*, 13 Jan. 1949; Frances Miller, "Blizzard of '49 on the Circle C Ranch," *Dakota Farmer* 69 (5 Mar. 1949): 5; *Sunshine and Sagebrush*, p. 143.

Huge atmospheric forces over the western interior of the continent were producing the blizzard. From midday Sunday to Monday morning, low pressure remained in the Panhandle-Southern Plains region where it had previously consolidated, while high pressure stalled in western Canada. The steep pressure difference explained the continuing powerful winds, which roared across western South Dakota. An upper-air low-pressure system over the Rocky Mountains probably accounted for the minimal movement of the two systems. By Monday night, the surface low covered northeastern Nebraska, and about midnight on 3 January, the winds stopped briefly at Rapid City, as the center of the surface low passed over. Another phase of the blizzard began on Tuesday when the winds raged anew, peaking at seventy-three miles per hour at Rapid City.<sup>19</sup>

As the storm continued, snow crippled the Burlington Railroad line through the Black Hills, disrupting the coal supply to the Homestake Mining Company at Lead and interfering with production. When a southbound bus foundered in the snow outside of Buffalo, passengers endured a few hours in the cold and then walked to town. Winds continued to roar: at Philip, the airport weather station recorded a wind speed of seventy-eight miles per hour at 6:30 A.M. Tuesday. At the state capitol in Pierre, the South Dakota Legislature convened that afternoon with members snowbound at various points.<sup>20</sup> Representative Herman G. Pietz of Douglas County recalled wading through waist-deep snow from the Pierre depot to his hotel, which he found packed with stranded travelers. Pietz ended up sharing a room with a South Dakota labor union official whom he described as a "restless and gymnastic sleeper."<sup>21</sup>

Heavy snowfall blanketed other towns in the state as well. Winner received nine inches; Armour, fifteen; and Wagner, twenty. Sixteen inches fell at Hot Springs, creating drifts of up to twenty feet in height. Philip had about fifteen inches with

19. North American Surface Charts, 1830Z, 2 Jan., 0030Z, 0630Z, 1230Z, 1830Z, 3 Jan., 0030Z, 0630Z, 1230Z, 4 Jan. 1949; interview with Costantinou; *Rapid City Daily Journal*, 10 Jan. 1949; Monthly Climatological Summary, p. 1; interview with Arthur C. Strong, Meteorologist-in-Charge, National Weather Service, Omaha, Nebr., 11 May 1990. Strong stated that an upper-atmosphere low-pressure area was probably also important in the weather pattern that produced this blizzard.

20. *Deadwood Pioneer-Times*, 5, 11, 17 Jan. 1949; *Buffalo Times-Herald*, 6 Jan. 1949; *Philip Pioneer-Review*, 6 Jan. 1949; *Sioux Falls Daily Argus-Leader*, 4 Jan. 1949.

21. *Armour Chronicle*, 21 Jan. 1949.

heavy drifting.<sup>22</sup> At Martin, the measuring gauge was buried beneath a fifteen-foot drift, but observers placed the actual snowfall at forty or more inches. Police Chief Levi Westman reported drifts on Martin's Main Street of "not less than twenty feet high" on the north side, but "the strange part of it was the wind whipped so hard that the sidewalks on the south side were almost clean."<sup>23</sup>

On Wednesday, 5 January, Johanna Pates wrote, "Blinding Blizzard worse than yesterday. . . . the men watered the cattle for the first time since Sunday. Its just terrible out yet—you can't see any place and this is the 4th day of this. Its going down in History—we can hear news over the Radio again today for the first time since Sunday."<sup>24</sup> By this time, too, the end of the storm was actually near. The weakening surface low pressure was limping into northeastern South Dakota and western Minnesota. Snowfall had ended at Deadwood and Lead, and skies had cleared over Edgemont in the southwestern corner of the state.<sup>25</sup> At Rapid City Air Force Base, a ceiling of one hundred to two hundred feet rose to twenty thousand feet by 11:30 A.M., and the snow ended that afternoon. The Rapid City Municipal Airport recorded a total snowfall of 14.3 inches, but local residents faced drifts of up to fifteen feet.

The storm had dumped the most snow on the northern Black Hills: from nearly three and one half feet in Deadwood to almost twice that amount in Trojan, a mining hamlet west of Lead. Sioux Falls, at the opposite end of the state, escaped the blizzard, but a combination of rain, sleet, and snow created icy streets and disrupted telegraph and long-distance telephone service.<sup>26</sup> Although residents may have felt relieved as the storm ended, in truth, their troubles were only beginning.

22. *Ibid.*; *Winner Advocate*, 6 Jan. 1949; *Wagner Post*, 6 Jan. 1949; *Hot Springs Star*, 6 Jan. 1949; *Philip Pioneer-Review*, 6 Jan. 1949.

23. Chamberlain, *Blizzard of '49*, p. 23.

24. Pates Diary, 5 Jan. 1949.

25. North American Surface Charts, 0030Z, 0630Z, 1230Z, 5 Jan. 1949; interview with Costantinou; *Deadwood Pioneer-Times*, 5, 6 Jan. 1949; *Edgemont Tribune*, 5 Jan. 1949; *Climatological Data: South Dakota* 54 (Jan. 1949): 4.

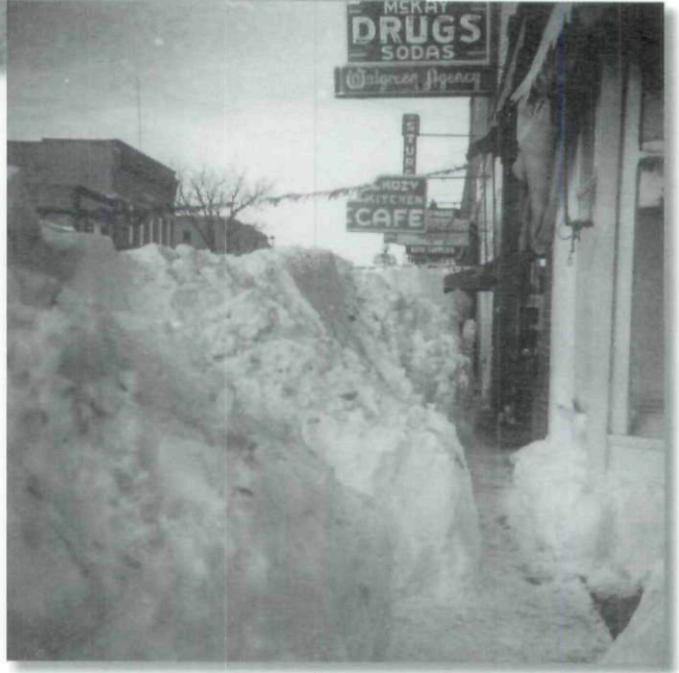
26. Monthly Climatological Summary, p. 1; North American Surface Chart, 1830Z, 5 Jan. 1949; interview with Costantinou; *Deadwood Pioneer-Times*, 5, 6 Jan. 1949; *Rapid City Daily Journal*, 12 Jan. 1949; *Sioux Falls Daily Argus-Leader*, 4, 5 Jan. 1949.

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*In Sturgis and other towns, snouplows piled up the street-side drifts, leaving pedestrians to wriggle through narrow cuts to reach stores (bottom). Christmas decorations tattered by the blizzard's fierce winds hang above Main Street even after several days of digging out (top).*



In the immediate aftermath, everyone was busy digging out. For some householders, this task included shoveling out attics. The fierce winds had filled these spaces with snow, which had to be removed before it melted and ruined plaster and insulation.<sup>27</sup> Johanna Pates wrote that she had "carried down many buckets of snow," adding: "The men have shoveled snow all day[.] [T]he snow bank by the barn is half way up on the upstairs door."<sup>28</sup>

Cities and towns had streets to dig out, a difficult and expensive task. A week after the blizzard, Tyndall had only one open lane of traffic, and because of limited funds, proprietors who wanted their storefronts cleared had to bear some of the expense. Similarly, Martin business owners contributed to a fund to clear snow from the main streets.<sup>29</sup> In Deadwood, five hundred volunteers joined city workers to help clear the business district until the city council approved the purchase of a snow-loading machine. In neighboring Lead, the local paper criticized city commissioners for the slow pace of snow removal. Workers had opened only a few streets for physicians' cars, emergency vehicles, and the coal truck for the school. Fortunately, the Homestake Mining Company received a powerful rotary plow on 9 January, which they immediately put into service. Hot Springs enlisted the aid of construction companies building the Angostura Dam south of town. Peter Kiewit and Sons worked on city streets, and the Utah Construction Company opened the airport as well as streets in Oral, east of Hot Springs. Rapid City's street crews worked around the clock, winning praise for their efficiency. The city was also fortunate to have three South Dakota National Guard bulldozers on call.<sup>30</sup>

27. Miller, "Blizzard of '49 on the Circle C Ranch," p. 5; Chamberlain, *Blizzard of '49*, pp. 49, 56; Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," p. 11. The task of digging out is well documented in newspapers across western South Dakota. See *Rapid City Daily Journal*, 6 Jan. 1949; *Buffalo Times-Herald*, 6 Jan. 1949; *Philip Pioneer-Review*, 13, 20 Jan. 1949; *Martin Messenger*, 6 Jan. 1949; *Deadwood Pioneer-Times*, 16 Jan. 1949.

28. Pates Diary, 6 Jan. 1949.

29. *Tyndall Tribune and Register*, [13 Jan.] 1949; *Martin Messenger*, 20 Jan. 1949.

30. *Deadwood Pioneer-Times*, 9-11 Jan. 1949; *Rapid City Daily Journal*, 6, 12 Jan. 1949; *Hot Springs Star*, 13, 20 Jan. 1949; *Sunshine and Sagebrush*, p. 143; South Dakota, Office of the Adjutant General, *Biennial Report of the Adjutant General, 1 July 1948 to 30 June 1950*, p. 11. For the Angostura project, see *Edgemont Tribune*, 13 Apr. 1949.

Amazingly, blizzard-related fatalities were few. Allen MacKrell, a sheepherder, was the only South Dakotan to die from exposure. When his employer discovered him missing after the blizzard, he immediately organized rescue parties. Not until 24 February did searchers find his body near Kyle on the Pine Ridge Indian Reservation. A Pine Ridge reservation man died when he could not get critical medicine because of the clogged roads. The Fort Meade Veterans Administration hospital flew in the medication, but it arrived too late.<sup>31</sup>

Moderate weather following the blizzard aided cleanup efforts. By Friday, 7 January, temperatures warmed to almost sixty degrees in the Rapid City area. As John Pates and his father dug away at the great snowbank on their ranch northwest of Philip, the thermometer reached fifty-five degrees. With mild conditions, plows made progress in opening roads to isolated communities. That same day, eastbound snowplows reaching Wicksville and Wall freed the people holed up there so they could head west to Rapid City. In Philip, a rotary plow opened United States Highway 16 to the east, but arriving westbound cars found that they could go no further on Friday, and Philip hosted more people that night than it had during the storm. By noon the next day, however, the road west was clear, although motorists would encounter one-lane traffic and drifts higher than the top of a bus.<sup>32</sup>

Off the main highways, aircraft would add a new dimension to coping with the storm emergency as private aviators took on a host of relief activities. Even before the highways were clear and, indeed, as soon as winds subsided, small planes carried ranchers to check on their herds. Marshall Flying Service of Rapid City alone transported over sixty ranchers to track the large numbers of dead and drifted cattle. Preliminary estimates of the loss ranged from 3 to 10 percent. Well-packed drifts had covered fences, permitting many cattle to escape enclosed pastures.<sup>33</sup> On the Pine Ridge reservation, some cattle reportedly

31. *Rapid City Daily Journal*, 10, 12 Jan. 1949; *Sioux Falls Daily Argus-Leader*, 25 Feb. 1949; Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," p. 23.

32. Pates Diary, 7 Jan. 1949; *Rapid City Daily Journal*, 7, 8 Jan. 1949; *Sioux Falls Daily Argus-Leader*, 10 Jan. 1949; *Philip Pioneer-Review*, 13 Jan. 1949.

33. *75 Years in Mellette County* (White River, S.Dak.: Mellette County Historical Society, 1986), pp. 265-66; *Rapid City Daily Journal*, 7, 8 Jan. 1949.



*Sunny skies and warmer temperatures helped crews clear roads like this one near Rapid City in the storm's aftermath.*

drifted as far as thirty miles—powerful evidence of the storm's force. Airplane reconnaissance also showed that protected areas had created deathtraps for livestock. "The badland canyons and timbered areas, normally good places for winter shelter, became traps imprisoning cattle with huge drifts of snow," noted R. B. McKee, agricultural extension agent on the Pine Ridge reservation.<sup>34</sup> Harry Marshall Flying Service pilots also made emergency medical flights right after the storm, carried feed to Black Hills deer, and dropped yeast parcels to Black Hills towns running low on bread as storm cleanup continued.<sup>35</sup>

While highways and air services were important transportation conduits and their opening eased the situation, South Dakotans in 1949 still relied heavily upon rail service, whether they lived in Rapid City or in small communities such as Du-

34. Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," pp. 24-25.

35. *Rapid City Daily Journal*, 6, 8, 12 Jan. 1949.

pre or Faith. Even towns some miles from a railroad were dependent on a rail line, as was Martin, for example. The Pine Ridge Indian Reservation relied heavily on the Chicago & North Western route through northern Nebraska, while the Milwaukee Road's line to Rapid City served the more northerly communities on the reservation. Thus, clearing west-river rail lines was critical. By Thursday, 6 January, the Chicago & North Western tracks were open as far west as Pierre, but the line beyond the capital, as well as the Milwaukee line west of Chamberlain, remained blocked with hard-packed drifts as high as twenty-five and thirty-five feet. These stretches would prove particularly daunting to clear.<sup>36</sup>

The first man to tackle the job of clearing the Milwaukee Road west was R. C. Dodds, superintendent of the Mason City division. When he collapsed under the burden, Mitchell division trainmaster Robert J. Dimmitt took over, supervising a hundred-man crew. Each man worked eight hours and rested eight hours in round-the-clock shifts. Some drifts towered above the reach of the steam engines' rotary-plow blades and had to be manually cut down before the plows could advance.<sup>37</sup> The task took about three weeks, and living conditions were harsh. "We had our own bunk cars and eating cars with us, and we bought food along the way. We were well supplied but we couldn't get fresh eggs or milk," Dimmitt recounted. "The men had trouble keeping warm. They slept when and where they could."<sup>38</sup> The lives of track workers in other areas were difficult as well. The rural correspondent for the *Hot Springs Star* described the section men working near Oral as "blocks of ice, staying out all day scooping the snow from the rails where the plows could not reach, eating cold lunches with hands so cold they cannot feel anything."<sup>39</sup>

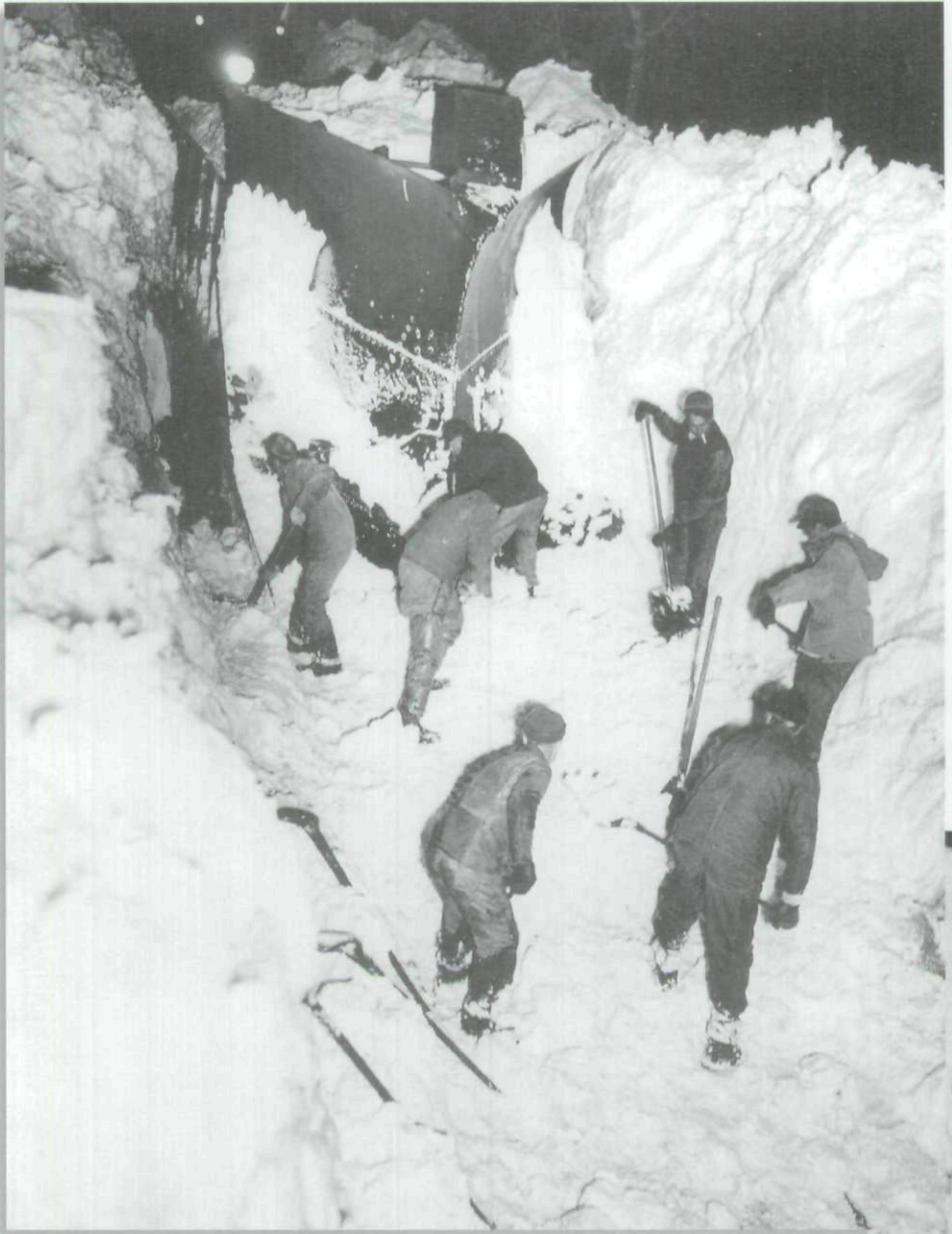
Although Rapid City regained air and bus service the first weekend following the blizzard, most of the west-river country remained cut off from the outside world as snowplows and crews painstakingly dug their way to them. To aid the ranch-

36. *Ibid.*, 6, 8 Jan. 1949; *Pierre Daily Capital Journal*, 6, 11, 26 Jan. 1949.

37. *Rapid City Daily Journal*, 7 Feb. 1949; *Kennebec Advocate-Leader*, 10 Feb. 1949.

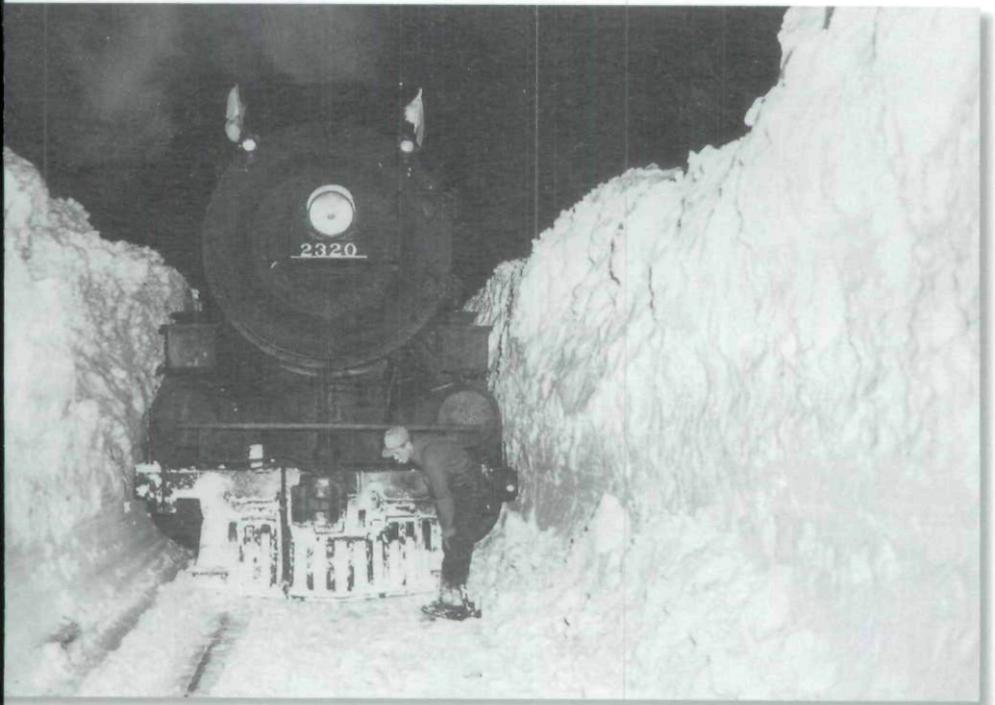
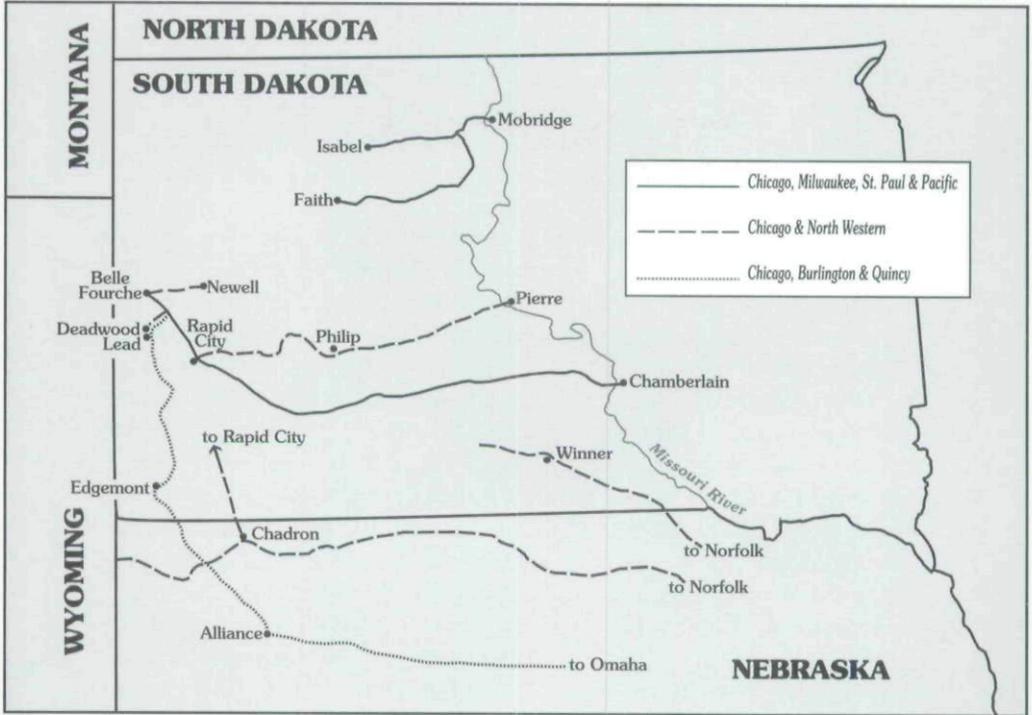
38. Quoted in *Rapid City Daily Journal*, 7 Feb. 1949.

39. *Hot Springs Star*, 27 Jan. 1949.



*Tackling wind-packed and ice-encrusted drifts, railroad workers in northern Nebraska struggled to clear vital lifelines that also served neighboring areas in South Dakota and Wyoming. As in South Dakota, crews repeatedly worked around the clock to dig out trapped engines and plows.*

# Principal Blizzard-Blocked Rail Lines, 1949



ers and livestock, Representative Francis H. Case of South Dakota arranged for the United States Air Force to drop feed to endangered cattle in South Dakota and Nebraska. The federal Farmers Home Administration (FHA) made emergency loans for feed purchases, and Pennington County extension agent Kirk Mears worked with a committee of agricultural leaders to implement the program known as "Operation Haylift." The South Dakota phase of the operation—"Operation Hay"—began at noon on 11 January, when a C-47 military plane flew eastward from Rapid City Air Force Base, dropping feed to stranded cattle. Radio broadcasts on Rapid City's KOTA advised ranchers who could not contact the emergency committee directly to make large "fox-and-geese" symbols in the snow. A circle with an additional spoke meant they needed feed for over one hundred cattle. The ranchers would pay for the feed later.<sup>40</sup>

Dropping the hay was no easy task. R. F. Mauser of the FHA worked aboard a flight that carried one and a half tons of hay and twelve hundred pounds of cube feed. The C-47's cargo door had been removed, and the men who were to eject the hay were tethered to the aircraft's interior. "We loosened about four bales at a time and shoved them in front of the door," Mauser recounted. "The door was just large enough to let one bale out at a time, and we didn't dare stack them for fear that one . . . might hit the tail." He compared the operation to dropping paratroops into a battle zone. When the plane passed over the target at about two hundred feet, "a green light would go on next to the door, then we would start heaving the bales . . . until a red light indicated the target was passed. Then the pilot would again gain altitude, make a big circle, and make the run again." Traveling at an airspeed of one hundred fifty miles per hour, the plane passed the target area quickly and had to make some ten passes to drop all the hay.<sup>41</sup>

Meanwhile, railroads were still struggling to open their main lines. Chicago & North Western and Milwaukee Road crews attacked the ice-encrusted drifts east of Rapid City, using dyna-

40. *Rapid City Daily Journal*, 10, 12, 15 Jan. 1949; *Pierre Daily Capital Journal*, 10 Jan. 1949; *Kadoka Press*, 27 Jan. 1949; U.S., Congress, House, *Congressional Record*, 81st Cong., 1st sess., 1949, 95, pt. 12: A308-9; *Sioux Falls Daily Argus-Leader*, 31 Jan. 1949.

41. *Congressional Record*, 81st Cong., 1st sess., 1949, 95, pt. 12: A309. See also *Through the Years-Before 1966* (N.p.: Lakeside Old Settlers Association, 1966), p. 322.

mite on both lines. Late on 12 January, workers finally freed up the North Western line from Pierre into Rapid City. On the Milwaukee Road, a rotary plow breakdown hindered efforts near Scenic, forty-two miles from Rapid City. During this period, several communities sent trucks to meet blocked trains and pick up mail and supplies.<sup>42</sup>

More than a week after the storm, many rural highways also remained clogged, and even "cleared" roads often contained narrow cuts through great drifts that made meeting or passing other vehicles difficult.<sup>43</sup> Officials sometimes had to ignore normal routes or procedures to open some areas. The Haakon County plow crew opened the road from Philip to Grindstone "by making many detours,"<sup>44</sup> and many rural people in the county joined in digging trails to get to Philip. Frank Roth, a new Bennett County commissioner who had not even officially taken office, helped run a snowplow on South Dakota Highway 73 out of Martin. This north-south artery linking Martin to Merriman, Nebraska, was important for mail transfer and for access to the Martin hospital. When Roth and his fellow workers reached the Nebraska boundary, they simply kept going until they encountered a group of men literally shoveling their way toward the South Dakota border.<sup>45</sup>

Another warm-up from 12 to 14 January aided the digging-out efforts. As the Pates family had lunch on Friday, 14 January, they saw a snowplow pass by their Philip-area ranch. That evening, they caught up on their first mail in two weeks.<sup>46</sup> This respite, however, was to be short-lived, for the state forecast predicted the imminent return of "local blizzard conditions" and much colder temperatures.<sup>47</sup> The moderate weather that had helped snowplows reach the Pates family and others also settled the drifts, and the return of cold weather on 15 January would form a layer of ice on top of the compacted snow, complicating subsequent efforts to dig out.<sup>48</sup>

42. *Rapid City Daily Journal*, 11, 12, 14 Jan. 1949; *Kadoka Press*, 13, 20 Jan. 1949.

43. *Deadwood Pioneer-Times*, 12 Jan. 1949; *Sioux Falls Daily Argus-Leader*, 11 Jan. 1949; *Philip Pioneer-Review*, 13, 20 Jan. 1949; *Dupree West River Progress*, 13 Jan. 1949.

44. *Philip Pioneer-Review*, 13 Jan. 1949.

45. *Ibid.*; *Martin Messenger*, 13 Jan. 1949.

46. *Climatological Data: South Dakota* 54 (Jan. 1949): 10-12; Pates Diary, 14 Jan. 1949.

47. *Rapid City Daily Journal*, 15 Jan. 1949.

48. *Pierre Daily Capital Journal*, 11, 14 Jan. 1949; *Tyndall Tribune and Register*, [13 Jan.] 1949; *Philip Pioneer-Review*, 13 Jan. 1949; *Rapid City Daily Journal*, 12 Jan. 1949.

The morning of 15 January began "cold but nice" at the Pates ranch. After noon, Herbert Pates took his daughter Rose to Philip, but snow began to fall, and the weather quickly worsened. "The blizzard is here and its terrible. We can't even see the clothes line from the house," wrote Johanna Pates.<sup>49</sup> The roads soon drifted closed again, and Herbert Pates would not make it home until five days later. The new storm, which lasted from twelve to fifteen hours, trapped many people who were in town for the first time in two weeks.<sup>50</sup>

The digging-out phase had just begun again when the weather bureau warned of impending "blizzard conditions."<sup>51</sup> As on the fifteenth, a storm on 17-18 January brought only light snow, but strong winds filled the road cuts through old drifts and disabled the newly reestablished rail service. Temperatures fell to well below zero, and in the next five days, the cold intensified. Temperatures dipped to thirty-five degrees below zero Fahrenheit at Philip and forty-two below at Ralph in northeastern Harding County. Even with the cold, plows made some progress on west-river highways, although maintaining routes was still a problem.<sup>52</sup> In mid-January, the newspaper report from White River read, "Again this week White River is snowbound from the rest of the world."<sup>53</sup>

Rural mail service suffered in the storm area. Around Springfield, those who could make it to town picked up mail for their neighbors, often using unusual means to complete the delivery. Carrier Ed Smith took the mail to Paxton, south of Dallas, where it "was picked up and delivered by horseback to the people on the southern part of Route 3."<sup>54</sup> Even when rural postmen could make their rounds, they might face formidable obstacles. According to the *Hot Springs Star*, carrier Albert Kosbau "had to dig paths and tunnels through 4 or 5 snow drifts

49. Pates Diary, 15 Jan. 1949.

50. Ibid., 20 Jan. 1949; *Dupree West River Progress*, 20 Jan. 1949; *Newell Valley Irrigator*, 20 Jan. 1949; *Tyndall Tribune and Register*, 20 Jan. 1949; *Deadwood Pioneer-Times*, 16 Jan. 1949; *Murdo Coyote*, 20 Jan. 1949.

51. *Sioux Falls Daily Argus-Leader*, 17 Jan. 1949.

52. Ibid., 19-21 Jan. 1949; *Rapid City Daily Journal*, 17-21 Jan. 1949; *Todd County Tribune*, 20 Jan. 1949; *Martin Messenger*, 20 Jan. 1949; *Climatological Data: South Dakota* 54 (Jan. 1949): 2, 10, 11; *Newell Valley Irrigator*, 27 Jan. 1949.

53. *Murdo Coyote*, 20 Jan. 1949.

54. *Winner Advocate*, 3 Feb. 1949.



*Although west-river South Dakota bore the brunt of the January storms, the south-central part of the state was hit hard as well. In Douglas County, spectators watched the slow progress of a plow near the Everett Menning farm.*

... to reach the mailboxes, but with the aid of his helper, Mrs. Kosbau, he has been able to deliver our mail nearly every day.<sup>55</sup> Mail carriers and other travelers relied on the helpfulness and hospitality of the ranch and farm families along their routes.<sup>56</sup>

The recurring bad weather also meant sporadic operation of rural schools and significant absenteeism. Coal shortages as well as blocked roads closed some schools. The Beaver Creek school southwest of Winner shut its doors from the Christmas holidays until 1 February because of filled roads and a sick teacher. Near Philip, teacher Myrtle Fleming was stranded at her schoolhouse and decided to walk the twenty-two miles home. She left on Thursday afternoon, 6 January, and finally arrived at her house at 2:00 A.M. the next day. It would be forty-five days before she reconvened class. To continue elementary

55. *Hot Springs Star*, 24 Feb. 1949.

56. *Springfield Times*, 27 Jan. 1949; *Winner Advocate*, 10, 17 Feb. 1949.

instruction during this period, people used creative methods. In some cases, parents home-schooled their children. If the teacher lived at the school, the students sometimes stayed with her to ensure no lost school days. If a rural teacher lived in town, she might arrange for lodging for her students and teach them at her home.<sup>57</sup>

Communication was important to rural people, and the telephone offered a measure of security to snowbound families. At this time, about two-thirds of rural South Dakotans had telephones, and they often shared this lifeline to the outside world with their neighbors. Most telephone lines withstood the rough winter storms, but in areas with no service, such as heavily snowbound Moenville near Philip, people relied on Pierre radio broadcaster Ida McNeil from station KGFX for messages. KOTA in Rapid City and WNAX in Yankton were also important voices in snow-blocked areas.<sup>58</sup>

Within the towns, large and small, people suffered as well. Martin faced fuel-oil and grocery shortages. Rail blockages threatened the coal supply for the Newell school. When Winner, population 2,426, went without freight service for ten days, fuel began to run short. Finally, on 19 January, a snowplow driven by two engines cleared the track for three locomotives pulling forty cars of freight. The branch line of the Milwaukee Road running southwest from Mobridge to Faith and the Isabel branch to the north were also trouble-prone. In the month after the first blizzard, only three trains made it to Faith, and towns along the line ran short of coal and livestock feed.<sup>59</sup>

The hardest hit of all South Dakotans, however, were American Indians, both on and off the reservations. On the Pine Ridge reservation, which had a population of just over ten thousand, daily life rarely offered a substantial margin of material

57. *Buffalo Times-Herald*, 10 Feb., 17 Mar. 1949; *Sioux Falls Daily Argus-Leader*, 10 Feb. 1949; *Winner Advocate*, 20 Jan., 17 Feb. 1949; *Philip Pioneer-Review*, 3, 17 Feb., 10 Mar. 1949; Chamberlain, *Blizzard of '49*, pp. 21-23; *Hot Springs Star*, 17 Feb. 1949; *Faith Country Heritage, 1910-1985* (Faith, S.Dak.: Faith Historical Committee, 1985), pp. 117, 762; *Lemmon Leader*, 10 Feb., 10 Mar. 1949.

58. *Wagner Post*, 7 Apr. 1949; *Philip Pioneer-Review*, 10, 17, 24 Feb. 1949; Chamberlain, *Blizzard of '49*, pp. 47-48; *Todd County Tribune*, 3 Feb. 1949.

59. *Martin Messenger*, 20 Jan. 1949; *Newell Valley Irrigator*, 27 Jan. 1949; *Winner Advocate*, 13, 20 Jan. 1949; *Dupree West River Progress*, 3, 10, 17, 24 Feb. 1949; *Rapid City Daily Journal*, 15 Feb. 1949; *Sioux Falls Daily Argus-Leader*, 24 Feb. 1949.



*Wind and snow continually refilled deep cuts like these on the Chicago & North Western line east of Rapid City, hampering the delivery of much-needed supplies to dozens of towns.*

security.<sup>60</sup> There, crews would work for nearly six weeks to open and reopen roads, hampered by continual drifting and aging equipment. As Superintendent C. H. Powers said near the end of this long winter, "The stock of supplies in most of the homes is extremely limited, almost on a day to day basis; likewise stocks of fuel and livestock feed are only maintained in minimum quantities. Thus to be snowbound for such a long period of time was an extreme hardship beyond our ability to describe."<sup>61</sup> Paul L. Fickinger, regional director of the Bureau of Indian Affairs (BIA) in Billings, Montana, also saw that the winter's difficulties magnified the long-term problems of American Indians on the Northern Plains. "Conditions such as these . . . are spectacular," he told a representative of the American Friends Service Committee, "[but] the disaster under which Indians habit-

60. *Lincoln (Nebr.) Sunday Journal and Star*, 16 Jan. 1949.

61. Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," p. 3.

ually suffer each winter—that of reservation living with little access to employment and resulting privation, has so far aroused less public concern than it deserves.”<sup>62</sup>

When the blizzard of 2-5 January blocked reservation roads and connecting highways and railroads, food and fuel supplies dwindled quickly. On 10 January, Superintendent Powers informed officials in Washington, D.C., that “a state of emergency here exists.” He noted that reservation relief funds could not cover the costs of the winter emergency.<sup>63</sup> A meeting of personnel from various governmental and relief agencies produced an agreement directing the Air Force to drop Red Cross provisions to locations on the reservation using a C-47 and a C-82 transferred from Denver to Rapid City Air Force Base.<sup>64</sup>

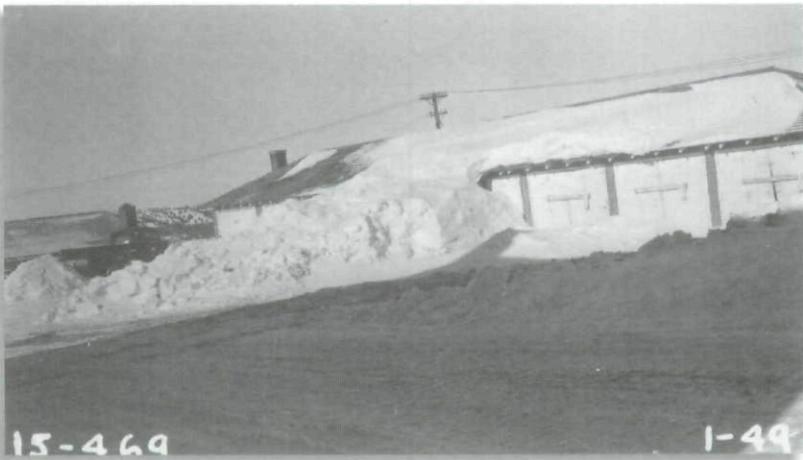
At Potato Creek, northwest of Martin, the name of the community was emblazoned in huge red letters on the day-school roof to guide aircraft. On the afternoon of 13 January, a C-47

62. Paul L. Fickinger to Charles L. McEvers, 3 Feb. 1949, Box A-604, File 720, Rosebud, RG 75, NARA-KC.

63. Quoted in *Rapid City Daily Journal*, 10 Jan. 1949.

64. *Ibid.*, 12, 13 Jan. 1949; Powers, “Report of ‘The Blizzard of 1949’ on the Pine Ridge,” pp. 2, 67.

*On the Pine Ridge Indian Reservation, many buildings like this one lost their distinguishing features under thick blankets of snow.*



dropped three cases of evaporated milk and one ton of flour in forty sacks, a delivery that local teacher Will Spindler called "a real 'life saver.'"<sup>65</sup> Other air drops of flour also assisted Pine Ridge residents, as did the arrival of a flight surgeon via helicopter from the 251st Air Rescue unit at Denver's Lowry Field to visit persons in need of medical attention near Allen, north of Martin.<sup>66</sup>

Besides seeking outside aid, Superintendent Powers quickly gave telephone approval to local schoolteachers and other agency personnel to make emergency relief expenditures for food and fuel. Local people formed disaster committees, and reservation schools became pivotal points in organizing relief work. Teachers led the relief activity and served as the community's links to the reservation's administration, helping ascertain who should receive aid. When word came that a person was ill, teachers, reservation field staff, or the local committees investigated before determining whether they should call for Red Cross or Air Force help. Schools became distribution centers for Red Cross assistance and made their own significant food reserves available to people in need. They were also places for road crews and relief workers to eat and rest.<sup>67</sup> As teacher Norman Gregory recalled, "From January 12 until February 14, there was hardly a day when some man working on road clearance did not stop at the school for some kind of assistance."<sup>68</sup> D. Bruce Doyle, principal of the Allen Day School, put it well when he said, "The school, because of its communication and transportation facilities and also because it has plenty of room with heat and food thrown in, was to become the center of all activities for the duration of the emergency."<sup>69</sup>

While some Pine Ridge reservation roads had finally been opened by late January, many were still impassable, and Superintendent Powers relayed the need for adequate snow-clearing machinery in an urgent cable to the suburban Washington home of Assistant Indian Commissioner John H. Provinse at 4:55 A.M. on 28 January. Following the dispatch of a rotary

65. Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," p. 48.

66. *Philip Pioneer-Review*, 27 Jan. 1949; *Rapid City Daily Journal*, 13, 14 Jan. 1949.

67. Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," pp. 2, 14, 39.

68. *Ibid.*, p. 55.

69. *Ibid.*, p. 43.

plow and crew from Minnesota to the Wanblee district, some fuel oil and coal arrived from Hot Springs, Chadron, Nebraska, and points in Wyoming. However, the key supply link—the road from Pine Ridge to Rushville, Nebraska, on the Chicago & North Western line—remained blocked for thirteen days as the reservation road crew struggled to open it. Eventually, caravans following snowplows delivered coal from Rushville to Pine Ridge, but without proper equipment at Rushville, they had had to shovel the coal manually into the reservation-bound trucks. Bad weather in Wyoming prevented deliveries of fuel oil until late February. The reservation ultimately got through its shortage by conserving fuel and persistently searching on the telephone for new supplies.<sup>70</sup>

During this same time period, the Pine Ridge Hospital faced a heavy patient load of people suffering from gastrointestinal and respiratory problems. With just thirty-five beds for forty patients, the hospital was underequipped and understaffed. In early February, the Air Force loaned the facility another physician, and later in the month the Red Cross sent four nurses. A few times, the hospital came close to losing its heat during below-zero weather, but supplies always arrived in the nick of time.<sup>71</sup>

East of Pine Ridge, on the Rosebud Indian Reservation, over eight thousand persons endured blizzard-related hardships only slightly less severe. While the maximum snow depth was later reported to be some "12 inches on the level," eighteen-foot drifts were common.<sup>72</sup> On 10 January, when Pine Ridge superintendent Powers had initially sought emergency federal aid, Rosebud superintendent C. R. Whitlock made a similar plea. Whitlock's request brought an immediate allocation of three thousand dollars.<sup>73</sup>

70. *Ibid.*, pp. 3, 4, 6, 17, 67; Powers to Provinse, 28 Jan. 1949, Blizzard Correspondence, Pine Ridge, RG 75, NARA-KC.

71. *Ibid.*; Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," pp. 4, 15; Powers to Commissioner of Indian Affairs, Attention Health Division, 15 Feb. 1949, Blizzard Correspondence, Pine Ridge, RG 75, NARA-KC.

72. C. R. Whitlock to Fred H. Daiker, 2 May 1949, General Decimal Correspondence File, Box A-604, Folder 720, Relief Miscellaneous 1949, Rosebud, RG 75, NARA-KC.

73. Whitlock to Indian Office, 10, 12 Jan. 1949, Box 571, Telegrams Outgoing 1949, and John H. Provinse to Whitlock, 13 Jan. 1949, Box 578, Folder 210, Rosebud, RG 75, NARA-KC.

Opinions differed as to the extent of the hardship on the Rosebud. On 15 January, Whitlock was quoted in a press report as saying, "The situation here was nothing like that at Pine Ridge.' . . . 'We always have a few people who are up against it, but the storm didn't cause any more distress than usual.'" He went on to add that primary roads were generally open, but back roads would stay closed as long as the snow remained.<sup>74</sup> L. E. Jones, a Mission businessman, challenged Whitlock's assessment. In a letter to the superintendent, published in a local paper, Jones stated: "The people of this community disagree with you[.] I happen to know that there are a number of your Indians that are in distress for want of food and fu[e] and they [are] unable to get where food can be got[ten] on account of the roads having been blocked."<sup>75</sup> By 4 February, Whitlock would reverse his position, saying that January's weather "caused a great deal of hardship" for the people of the reservation and that he would continue to take steps to minimize problems.<sup>76</sup> When he learned that the Rosebud Agency could obtain woolen blankets from Idaho and deer and elk meat from Colorado through the BIA, he ordered those supplies immediately.<sup>77</sup>

The Rosebud hospital was not as busy during January 1949 as it had been the previous year, probably due to travel problems. The severe conditions also cut into class work at reservation boarding and day schools, whose students lost a combined total of 2,850 attendance days. Even so, the school staff logged some twelve hundred hours in unpaid overtime, an indication that the Rosebud schools were playing a critical role, similar to the Pine Ridge schools, in blizzard recovery.<sup>78</sup>

American Indians living off the reservations suffered weather-related hardships as well. After the 2 January blizzard, two hundred forty individuals, or about fifty families, were subsisting with meager shelter and provisions in or near Gordon,

74. Quoted in *Mitchell Daily Republic*, 15 Jan. 1949.

75. *Todd County Tribune*, 27 Jan. 1949.

76. Whitlock to Joseph J. Woodburn, 4 Feb. 1949, Box A-604, File 720, Rosebud, RG 75, NARA-KC.

77. F. M. Haverland to Whitlock, 19 Jan. 1949, and Whitlock to Indian Office, 21 Jan. 1949, Box 571, Telegrams Outgoing 1949, Rosebud, RG 75, NARA-KC.

78. Whitlock to Daiker, 2 May 1949.

Nebraska, a town in Sheridan County near the Pine Ridge reservation. Some people resided in tents, burning old tires, railroad ties, and donated coal and eating blizzard-killed beef.<sup>79</sup> In mid-January, Nebraska state assistance supervisor Herbert Eby counted approximately three hundred Indians in the Gordon area, including one hundred twenty children. About half had homes on either Rosebud or Pine Ridge reservation, he reported, while another one hundred twenty-five lived permanently at Gordon or had "worked around Gordon on odd jobs for several years."<sup>80</sup>

A mayor's relief committee, local residents, and the Red Cross quickly came to the Indians' aid, but local leaders still sought outside assistance. Relations between Gordon and Pine Ridge reservation officials got off to a bad start when the town's relief organization chairman, Fay C. Hill, telephoned the reservation office on 10 January. According to a reservation office memorandum, once Hill learned that no funds were available to aid off-reservation Indians, any hope for a fruitful conversation vanished.<sup>81</sup>

The Red Cross representative in Chadron, Nebraska, also notified Pine Ridge headquarters that Indians in and around that community were in dire straits. In Alliance, Nebraska, two hundred twenty-five to two hundred fifty individuals were getting help from the Box Butte County Red Cross, the *Alliance Times-Herald*, a grocery store, other local people, Lincoln residents, and Methodist churchwomen in Polo City, Illinois. In January, Box Butte County provided a rather paltry \$179.80 in relief to 114 transient Indians in 19 families. This sum typified the general policy of Nebraska's county governments, which, as Herbert Eby observed, were not inclined to give assistance to Indians.<sup>82</sup> A slip of paper in the Pine Ridge reservation records starkly demonstrates the minimal nature of Indian relief. A list-

79. Memorandum [Gordon problem], Blizzard Correspondence, Pine Ridge, RG 75, NARA-KC; *Nebraska State Journal* (Lincoln), 12 Jan. 1949; *Gordon Journal*, 20 Jan. 1949.

80. Herbert Eby, Report on Indians, 17 Jan. 1949, RG 1, Box 60, Folder 627, Papers of Governor Val Peterson, Nebraska State Historical Society, Lincoln, Nebr. (hereafter cited as Peterson Papers).

81. Memorandum, Blizzard Correspondence, Pine Ridge, RG 75, NARA-KC.

82. Memorandum [summary of reports], 10 Jan. 1949, *ibid.*; *Alliance Times and Herald*, 4, 21, 25 Jan., 1, 4, 8 Feb. 1949; *Nebraska State Journal*, 28 Jan., 1 Feb. 1949; Eby, Report on Indians.

ing of expenditures at Gordon for part of January contained the notation: "There are 24 tents in Gordon. . . . Each family was given a bushel of coal and a [railroad] tie."<sup>83</sup>

In the meantime, Mayor L. M. Morgan of Gordon pleaded for federal aid, stating that the cost of feeding some three hundred persons totaled "\$600 to \$700 per week," a burden the Red Cross had agreed to handle "for [the] emergency period only." The Indians, he said, would need help indefinitely, and the town could not meet such a challenge.<sup>84</sup> Nebraska's Sheridan and Box Butte counties also requested external aid for Indian relief.<sup>85</sup>

The serious plight of the Indians living in Rapid City transcended the winter emergency as well. According to a 1948 report of an American Medical Association committee, some twenty-five hundred Indians in the community lived in squalor. The situation was well publicized, and the *Rapid City Daily Journal* candidly admitted the magnitude of the problem, which reflected the lack of public assistance for needy off-reservation Indians. Before the hardships of winter eased, more assistance would go to Rapid City Indians than to any others off-reservation.<sup>86</sup>

Following the 2 January blizzard, several individuals, both Indian and white, went east of the city to butcher storm-killed cattle, despite the possibility that the meat might be toxic. As the hardships of the winter became evident, the Red Cross and later Pine Ridge reservation provided food, fuel, and other aid to Rapid City's needy Indians. A key figure in channeling this aid was Frank McConnell, a former president of the Black Hills Council of American Indians who was well acquainted with the people he was serving.<sup>87</sup>

83. Slip of paper, Blizzard Correspondence, Pine Ridge, RG 75, NARA-KC.

84. L. M. Morgan to Peterson, 12 Jan. 1949 (wire), Peterson Papers. See also Morgan to Peterson, 18 Jan. 1949 (wire), Peterson Papers, and Provinse to Morgan, 18 Jan. 1949, Blizzard Correspondence, Pine Ridge, RG 75, NARA-KC.

85. Lloyd C. Tiensvold, Ross D. Rash, and Theodore B. Dorshorst to Peterson, 18 Jan. 1949 (wire), and H. R. Partridge to Peterson, 23 Jan. 1949 (wire), Peterson Papers.

86. *Sioux Falls Daily Argus-Leader*, 26, 30 Nov., 15, 17 Dec. 1948; *Rapid City Daily Journal*, 27, 30 Nov., 6 Dec. 1948; "Report of Relief Emergency Met by Pine Ridge Agency, So. Dak., January-February, 1949," Blizzard Correspondence, Pine Ridge, RG 75, NARA-KC.

87. *Rapid City Daily Journal*, 12, 14, 24 Jan. 1949; Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," p. 22; Powers to A. B. Levy, 18 Feb. 1949, Blizzard Correspondence, Pine Ridge, RG 75, NARA-KC.



*While they awaited aid in the form of food, fuel, and snowplows, these men on the Pine Ridge reservation worked to clear a road by hand.*

As the plight of American Indians throughout the storm region became critical, South Dakota governor George T. Mickelson proclaimed an emergency on every Indian reservation in the state except Standing Rock. Citing "catastrophic conditions," Mickelson telegraphed Major General Philip B. Fleming, administrator of the Federal Works Agency (FWA) on 19 January, seeking aid from a disaster relief fund for both reservation and nonreservation Indians.<sup>88</sup> That same day, the FWA announced that it would provide fifty thousand dollars in aid for Indians in Nebraska and South Dakota.<sup>89</sup>

It would take some time to settle the details of aid distribution, however. Superintendent Powers would not learn until 25 January that twenty-eight thousand dollars of these federal emergency funds had been allocated for Indians in the Pine Ridge area. As late as 28 January, Governor Val Peterson of Nebraska

88. Quoted in *Sioux Falls Daily Argus-Leader*, 20 Jan. 1949.

89. *Rapid City Daily Journal*, 20 Jan. 1949; *Nebraska State Journal*, 20 Jan. 1949.

complained to Powers that although he had heard rumors of federal aid for Indians in Alliance, Gordon, and elsewhere, he had yet to receive official confirmation. By the next day, Pine Ridge delivered \$1,795 in purchase orders to Gordon, and other Nebraska points were also sending in orders. County or local assistance officials disbursed these emergency funds. Of the twenty-eight thousand dollars earmarked for the Pine Ridge area, the off-reservation populations of Nebraska and South Dakota each received twenty-five hundred dollars. In addition, the Rosebud reservation provided some off-reservation relief for these areas.<sup>90</sup>

Although Governor Peterson would describe Washington's emergency aid as "simply stinky,"<sup>91</sup> federal authorities worked to be more flexible in meeting Indian relief needs as they became aware of the magnitude of the western blizzards. In addition to channeling aid to Indians in Gordon, Chadron, and Alliance, the Pine Ridge reservation channeled aid to persons in Crawford, Scottsbluff, and Imperial, Nebraska, and in Martin and Hot Springs, South Dakota.<sup>92</sup>

Meanwhile, the Red Cross continued to provide emergency medical assistance and other aid in the Pine Ridge area, relying heavily on local chapters. The Bennett County chapter worked with the Red Cross field director in Rapid City, Superintendent Powers, and Martin-area pilots, among others, to handle twenty-seven blizzard-related cases in eleven days after the 2 January storm. In one of his many storm-related trips, Hot Springs pilot Max Anderson flew to the remote country upstream from Rocky Ford on the White River to aid a rancher. During the process, he discovered William Eagle Bird setting

90. Provinse to Powers, 25 Jan. 1949 (wire), including hand-written notations, Peterson to Powers, 28 Jan. 1949 (wire), Powers to Peterson, 29 Jan. 1949 (wire), Powers to Commissioner of Indian Affairs, 30 Jan. 1949 (wire), and Neil C. Vandemoer to Powers, 4 Feb. 1949, enclosing memo, Frank M. Woods to County Assistance Directors and Field Supervisors [Nebraska], 2 Feb. 1949, all in Blizzard Correspondence, Pine Ridge, RG 75, NARA-KC; Carl B. Aamodt to Zeola Barnes, 31 Jan. 1949, Whitlock to A. H. Kourt, 3 Mar. 1949, and Whitlock to Ruth K. Heinemann, 1 Apr. 1949, all in Box A-604, Folder 720, Rosebud, RG 75, NARA-KC; Whitlock to Peterson, 25 Jan. 1949, General Correspondence File Decimal, 1930-1950, File 143.1 Telegrams Outgoing, 1949, Box 571, Rosebud, RG 75, NARA-KC.

91. Quoted in *Lincoln Sunday Journal and Star*, 6 Feb. 1949.

92. Daiker to Powers, 31 Jan. 1949 (wire), and Acting Commissioner Zimmerman to Powers, 31 Jan. 1949 (wire), Blizzard Correspondence, Pine Ridge, RG 75, NARA-KC; "Report of Relief Emergency."

out by wagon to obtain provisions. Anderson offered to help, and after the Hot Springs Red Cross chapter put together a food supply, he dropped it for the Eagle Bird family and their neighbors. Kadoka's Red Cross chapter sent food to Hisle and Wanblee area families. Dr. N. J. Sundet of Kadoka, who was also a pilot, kept busy flying to isolated patients, including Wanblee residents.<sup>93</sup>

Across much of the American West, January brought exceptional winter hardships, and by the third week of the month the magnitude of the storm-relief problem began to come into sharper focus across the country. The imminent threat to some humans and to a vast number of snowbound livestock extended over a large area, including not only parts of Nebraska and the Dakotas but also Wyoming, Utah, Nevada, and the Navajo Indian Reservation in Arizona. The enormity of the problem and the air-borne relief flights attracted press coverage from the *Times* of London and daily reports in the *New York Times*.<sup>94</sup>

In ten west-river counties in South Dakota, cattle and sheep losses were estimated at over one million dollars. On the morning of 21 January, a group of Philip-area ranchers told Red Cross official Richard S. Hanson that forty percent of their stock would die if not quickly fed. Hanson noted that this crisis also prevailed in Bennett, Jackson, and Washabaugh counties, where heavy drifts still prevented cattle from reaching the grass on the ranges. With state and county equipment tied up in the seemingly endless task of maintaining highways, federal assistance seemed vital.<sup>95</sup>

And more snow was on its way. On 23 January, rancher Johanna Pates observed, "10 below zero and a blizzard out."<sup>96</sup> A resident of the Grindstone area referred to that night as "probably one of the worst in local history. [Possibly] worse than those of the four day blizzard that started this hellish month."<sup>97</sup> The next day, Pates noted: "Blinding blizzard again[,] 20 below zero [with wind] from the northwest[.]"<sup>98</sup>

93. *Rapid City Daily Journal*, 17, 21 Jan. 1949; *Martin Messenger*, 20 Jan. 1949; *Hot Springs Star*, 20 Jan. 1949; *Kadoka Press*, 3 Feb. 1949.

94. *Times* (London), 13 Jan. 1949, p. 4. For the *New York Times*, see 25, 27, 28 Jan. 1949.

95. *Rapid City Daily Journal*, 20, 21 Jan. 1949.

96. Pates Diary, 23 Jan. 1949.

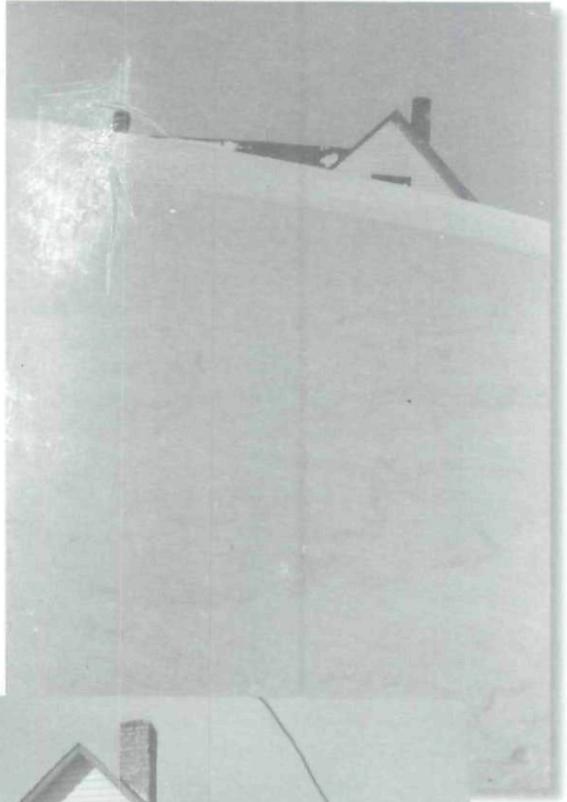
97. *Philip Pioneer-Review*, 3 Feb. 1949.

98. Pates Diary, 24 Jan. 1949.

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*Family members enjoyed a balmy fall day in the front yard of the William Lee home north of Ottumwa (bottom) in October 1948. In a photograph taken three months later (top), a monstrous drift obscures all but the peak of the Lees' one-and-one-half-story house.*



Statistical data would later confirm observers' fears. In January alone, 77.4 inches of snow fell in the Lead-Deadwood area, "a record monthly snowfall for locations at which observers were stationed."<sup>99</sup> While the Black Hills typically receive more snow than the rest of the state, precipitation for January 1949 averaged about three times the normal percentage since 1890, when officials began compiling weather data. Historically, South Dakota's average January snowfall was about 6 inches, but the statewide average for January 1949 was 19.9 inches.<sup>100</sup>

Preparedness for winter was, and is, a hallmark of experienced rural residents on the Northern Great Plains. Stories of the ability of people to cope with blizzards or high winds or extreme heat are an essential part of the heritage of the region. The severe winters in the 1880s had taught stockmen the hard lesson that provision of adequate winter feed was fundamental to survival of their animals.<sup>101</sup> Over time, the relationship of humans to the plains environment evolved, however, and the winter of 1949 highlighted the fact that mid-twentieth-century rural people were ultimately dependent on towns for goods and services. They may actually have been more vulnerable to ice and snowstorms than were their forebears. Preparedness could reduce the number of trips to town, but a host of necessities from produce marketing to high-school education to medical services reflected this dependency.

When such interdependence is severely disrupted for an extended time, residents must find unusual methods to restore normal patterns of life. Even though ruggedness and independence were, and still are, considered virtues on the plains, a simplistic view of survival ignores the fact that, at times, outside help might truly be needed to preserve both lives and livelihoods. As people had scrambled to deal with the mounting problems posed by the January storms, first individuals, then aid organizations, local, state, tribal, and federal governments had become involved. By late January, it was increas-

99. *Climatological Data: South Dakota* 54 (Jan. 1949): 2.

100. *Ibid.*, (Feb. 1949): 2, (Annual Summary, 1949): 172; *Deadwood Pioneer-Times*, 1 Feb. 1949.

101. Terry G. Jordan, *North American Cattle-Ranching Frontiers: Origins, Diffusion, and Differentiation* (Albuquerque: University of New Mexico Press, 1993), pp. 236-39, 272, 311.

ingly evident that an even greater infusion of equipment and manpower would be essential to recovery.<sup>102</sup>

When Red Cross official Richard Hanson met with Philip-area ranchers on 21 January, he concluded that they needed outside help. Accordingly, he requested the Fifth Army to provide bulldozers and tracked military vehicles known as "weasels" to aid ranchers and their stock. In the next few weeks, residents throughout the blizzard area welcomed the two-and-one-half-ton canvas-topped weasels with their two-member crews.<sup>103</sup> Officials on the Pine Ridge reservation put them right to work. "We received two weasels on [February 1]," Superintendent Powers noted. "They are being used on various locations on the reservation . . . to pick up the sick [and] distribute supplies for residents and livestock."<sup>104</sup>

In other action, a group of west-river agricultural leaders formed an "emergency feed committee" and met with Kirk Mears, Pennington County extension agent on 22 January. The group immediately telegraphed Governor Mickelson requesting at least one hundred thousand dollars to hire local bulldozers to do essential plowing. Charles Tittle, chairman of the Pennington County Board of Commissioners, sent the governor a similar wire. Mickelson acted swiftly, and that day, two South Dakota National Guard bulldozers and crews arrived in Philip. Operating under the auspices of the Red Cross, they immediately started opening country roads and clearing paths to haystacks. More bulldozers were on the way, and the Red Cross announced that other essential military equipment was coming as well.<sup>105</sup>

The continued bad weather had impaired relief efforts, blocking United States Highways 14 and 16 in places and cripp-

102. Letters published in the *Buffalo Times-Herald*, 24 Mar., 7, 28 Apr. 1949, show conflicting views on individualism and outside aid. For a broad overview of the winter and its effects throughout the region, see Wesley Calef, "The Winter of 1948-49 in the Great Plains," *Annals of the Association of American Geographers* 40 (Dec. 1950): 267-92.

103. *Rapid City Daily Journal*, 21 Jan. 1949; *Buffalo Times-Herald*, 27 Jan. 1949; *Kadoka Press*, 3 Feb. 1949.

104. Powers to J. Maughs Brown, 4 Feb. 1949, Blizzard Correspondence, RG 75, NARA-KC.

105. *Rapid City Daily Journal*, 22 Jan. 1949; Roy V. Alleman, *Blizzard 1949* (St. Louis, Mo.: Patrice Press, 1991), pp. 123-24; *Sioux Falls Daily Argus-Leader*, 23 Jan. 1949; *Philip Pioneer-Review*, 27 Jan. 1949.



*Army weasels crawled through deep snow with ease, bringing supplies, mail, and medicine to isolated ranches. Pictured here northwest of Philip are (from left) Reuben Herman, Barbara Herman, Sergeant Albert Cratch, and Corporal Otis Burnett.*

pling rail service yet again. In the Mission-Winner area, road crews toiled to reopen United States Highway 18. Authorities also wanted a reliable north-south link, as non-Indian residents of Todd County normally drove to Valentine, Nebraska, for medical care. United States Highway 83 from Mission to the Nebraska border remained closed from the storm of 2-5 January, and travelers between Mission and Valentine had to use an indirect route cleared by Rosebud Agency workers.<sup>106</sup>

After frequent breakdowns and an arduous struggle against unending ice and drifts, a west-bound Milwaukee Road rotary

106. *Rapid City Daily Journal*, 24 Jan. 1949; *Philip Pioneer-Review*, 27 Jan. 1949; *Todd County Tribune*, 27 Jan. 1949; "Annual Report of Joy A. Paine" (Bennett, Haakon, Jackson, Jones, Mellette, and Todd counties), p. 3, reel 16, *Cooperative Extension Reports*, microfilm copy, Hilton M. Briggs Library, South Dakota State University, Brookings, S.Dak.

plow at last entered Rapid City on 24 January, but it still had to contend with new drifting to the east. Early on 27 January, a Milwaukee passenger train pulled into Rapid City for the first time in twenty-five days. Soon after, a freight train arrived carrying livestock feed and hay. The North Western was also getting back into operation following setbacks from the most recent storm. By 26 January, South Dakota's main highways were reopened, except around Faith and some other northwestern areas.<sup>107</sup>

How much aid plains residents would need to clear roads and feed livestock was unclear. Emmet Horgan, president of the South Dakota Livestock Growers Association, had asked the legislature for five hundred thousand dollars "for a starter."<sup>108</sup> Responding to aid requests, Governor Mickelson also asked President Harry S. Truman for additional relief aid. Along with the fifty thousand dollars earmarked earlier for Indian assistance on the plains, the president allocated another fifty thousand dollars for the overall blizzard emergency in the West. Within a few days, Truman dipped further into the federal disaster relief fund (which was approaching exhaustion) and asked Congress for an additional one million dollars for the region. South Dakota representative Francis Case and other members of Congress from the vast snowbound region needed no prompting. The Federal Works Agency sent division engineer C. W. Anderson to Rapid City to assess the need. Anderson met with over a hundred ranchers who pressed for the immediate delivery of bulldozers and other equipment to help them feed their livestock. Anderson concluded that more assistance was essential, and his recommendation was instrumental in moving the federal government toward mobilizing a large-scale relief effort.<sup>109</sup>

Meanwhile, the South Dakota Legislature had sidetracked its other business to pass a one-hundred-thousand-dollar disaster-relief bill on 25 January. Governor Mickelson quickly approved the measure and chief highway engineer Harvard C. Rempfer

107. *Rapid City Daily Journal*, 25-27 Jan., 7 Feb. 1949.

108. *Ibid.*, 25 Jan. 1949.

109. *Ibid.*, 26, 27 Jan.; *Pierre Daily Capital Journal*, 24-26 Jan. 1949; *Dupree West River Progress*, 3 Feb. 1949.

immediately went into action to speed the opening of roads to ranches. The Nebraska legislature also moved a blizzard relief measure forward, and Governor Peterson declared much of the northern part of that state a blizzard-emergency area.<sup>110</sup>

Merely opening and reopening the highways was proving costly. In the three weeks following the 2 January blizzard, the South Dakota Highway Department kept over three hundred fifty men and more than one hundred pieces of equipment on the job. The department was obliged to use bulldozers, some of them rented, to "peel" the frozen surface from the gigantic, hard-packed drifts in order for the standard and rotary plows

110. *Rapid City Daily Journal*, 24, 25 Jan. 1949; *Pierre Daily Capital Journal*, 26 Jan. 1949; *Nebraska State Journal*, 26 Jan. 1949.

*This Caterpillar diesel D-7 tractor near Pierre was one of more than one hundred machines working to clear routes for feed and supplies to reach stranded livestock.*



to function. By 27 January, Governor Mickelson reported huge estimates of storm-related expenditures by local, county, and state governments and ranchers. In one instance, Mickelson noted that it had taken two full days for one machine, operating at a cost of fifteen dollars per hour, to open three miles in Haakon County.

As the last week of January began, the National Guard was putting bulldozers and a weasel transferred from Lowry Field to work in the Philip area. By 28 January, approximately one hundred ten bulldozers hired by the State Highway Department were opening west-river back roads. When they broke trails and trucked hay across the prairies, desperately hungry cattle would catch scent of the feed and charge through ice-covered drifts and barbed wire fences to reach it.<sup>111</sup>

Air aid shifted briefly away from hay and cattle cake drops when forty-nine families near Bridger on the Cheyenne River Indian Reservation received three thousand pounds of groceries dropped from a C-82 military cargo plane. Private aviators continued to make relief flights, as well. Pilot Georgia M. Jipp of Philip completed one hundred fifty flights by mid-February. In western Perkins County, another female pilot, Claire John, flew mail and groceries to area ranchers in what they dubbed the "Clairplane."<sup>112</sup>

Shared hardships brought out the best human traits, and as Ottumwa's news correspondent wrote, "The south country folk have done a lot of worrying about the north country folk in this community."<sup>113</sup> Neighbors traded and borrowed crucial supplies. When Murdo area resident Knute Boe got stuck on his tractor in nearly thirty-degree-below-zero weather, one of his feet froze. Several neighbors took him to the hospital and pitched in with the ranch work. A Norwegian-born rancher in eastern Haakon County named John Ostlein had both a neighborly outlook and an innovative approach to travel. He crafted

111. *Rapid City Daily Journal*, 25-29 Jan. 1949.

112. *Ibid.*, 25 Jan. 1949; *Deadwood Pioneer-Times*, 27 Jan., 17 Feb. 1949; *Philip Pioneer-Review*, 10 Feb. 1949; *Newell Valley Irrigator*, 17 Feb. 1949. On the role of private aviators in the emergency, see *Rapid City Daily Journal*, 1, 3 Feb. 1949; Chamberlain, *Blizzard of '49*, pp. 28-33; Alleman, *Blizzard 1949*, passim.

113. *Philip Pioneer-Review*, 3 Feb. 1949.

skis from barrel staves and made an eight-mile journey to check on another family. After they provided him with regular skis, Ostlein traveled about the area visiting, swapping coffee and sugar, and looking after a neighbor's cattle. He also made heavy use of his Jeep until it broke down from the strain of the rough winter driving. Jeeps proved to be an important mode of transportation throughout the snow-bound region. These four-wheel-drive vehicles could travel off-road, allowing drivers to follow high ridges where snow was minimal.<sup>114</sup> One person recalled that "a parade of neighborhood jeeps" often followed caterpillars clearing the road to Wicksville.<sup>115</sup>

On 28 January, Governor Mickelson informed the headquarters of the Fifth Army in Chicago that conditions in South Dakota's blizzard area were desperate enough to warrant full-scale assistance. Massive federal aid was forthcoming, for on 28 January, President Truman signed the first of two five-hundred-thousand-dollar disaster-aid bills. The next day, the president directed the Defense Department to use the national military in blizzard relief and placed the effort under the Fifth Army. Command of "Operation Snowbound" went to Major General Lewis A. Pick, chief of the Missouri River division of the Army Corps of Engineers. General Pick located the command center for blizzard relief at his division headquarters in Omaha. Well-suited to command Operation Snowbound, Pick had administered construction of the Ledo Road in China and Burma during World War II. Since then, he had been responsible for the massive program of dam construction on the Missouri River, an assignment that put workers and equipment at his disposal for Operation Snowbound. By 4 February, Pick would also be in charge of overseeing 136 pieces of privately owned clearing equipment, organizing flights from Lowry Field, and coordinating the work of all blizzard-relief agencies. Operation Snowbound located its South Dakota headquarters at Rapid City under Lieutenant Colonel James Lewis and at Pierre under Lieutenant Colonel H. A. Morris. County extension agents proved

114. *Ibid.*, 27 Jan., 17 Feb., 3 Mar. 1949; *Murdo Coyote*, 3 Feb. 1949; *Deadwood Pioneer-Times*, 2 Feb. 1949; *Faith Country Heritage*, p. 117; *Edgemont Tribune*, 12 Jan. 1949; Margaret M. Woster to the authors, 10 May 1994.

115. *Through the Years-Before 1966*, p. 90.

invaluable for their local knowledge, and they and the Red Cross maintained liaison with army officials.<sup>116</sup>

According to Duane McDowell, Pierre correspondent for the *Rapid City Daily Journal*, some ranchers believed that Governor Mickelson had not mobilized blizzard relief or sought federal aid as quickly as other governors. McDowell echoed the ranchers' opinion that Mickelson had been slow to perceive the crisis, but he also pointed out that the governor had pushed the state relief bill through the legislature "in record time" and that federal authorities, for their part, had been slow to move funds to the affected region.<sup>117</sup> In fact, Mickelson had asked President Truman for one hundred thousand dollars for livestock feed on 24 January, the same day Governor Peterson called upon the Corps of Engineers and the Fifth Army for help in Nebraska. The need for massive federal aid had not been immediately apparent in either state but emerged slowly in the two and one half weeks after the 2 January blizzard.<sup>118</sup> Seen within this context, Mickelson's response to the impact of the storm is easier to understand.

As January ended and Operation Snowbound began, more military equipment poured into the state to aid the private contractors who were still working around the clock in the severe weather. J. L. Materi of the Northwestern Engineering Company, which had six bulldozers working on the Pine Ridge, underscored the difficulty of their task, noting that his equipment had been designed for road work, not snow removal. "Our tractors do not have cabs and heaters installed," he remarked, "and this fact makes it that much harder for the operator." When his men encountered impassable drifts "just like packed ice," they used dynamite to blast passages through the snow.<sup>119</sup>

As long as subfreezing temperatures and strong winds prevailed, redrifted bedeviled efforts to open the countryside. The Grindstone-area correspondent for the Philip newspaper wrote:

116. *Rapid City Daily Journal*, 28, 29, 31 Jan. 1949; *Sioux Falls Daily Argus-Leader*, 30 Jan. 1949; *Deadwood Pioneer-Times*, 2 Feb. 1949; *Pierre Daily Capital Journal*, 31 Jan. 1949; *Sunshine and Sagebrush*, p. 143.

117. *Rapid City Daily Journal*, 2 Feb. 1949.

118. *Pierre Daily Capital Journal*, 24 Apr. 1949; *Nebraska State Journal*, 25 Jan. 1949.

119. *Rapid City Daily Journal*, 31 Jan. 1949.

"Opening roads doesn't do much good. . . . They blow shut about as fast as they can be opened. It is comfortable to know that the army and equipment are in the country to help, but the whole army and the angel Gabriel couldn't keep hay roads open as long as it snows or blows or both every day."<sup>120</sup>

Many equipment operators were not familiar with their work areas, so local guides were essential. The Todd County Emergency Committee advised rural people, "The dozer crews are strangers and must have this help 24 hours a day to do their job well."<sup>121</sup> In the Potato Creek area, mail carrier Alva Riley accompanied weasel driver Private First Class Thomas O'Dea from Camp Carson, Colorado, on relief missions. In Haakon County, insurance businessman Basil Henderson chaired the local Red Cross committee and coordinated relief work. To snowplow in the distant countryside, people organized convoys that included fuel trucks to supply equipment, trucks carrying fuel and groceries to rural families, and radio equipment for ground-to-air communication. Philip car dealer and aviator Earl Dorothy flew repair parts and equipment operators to where they were needed.<sup>122</sup>

In Winner, the Chamber of Commerce took calls from rural residents who needed livestock feed or fuel. The sheriff, a state highway patrol officer, and two game wardens provided essential local information to state and county relief agencies. On 4 February, Major M. E. Harris arrived in Winner from Fort Riley, Kansas, to administer Operation Snowbound in Tripp, Gregory, and Mellette counties. Local help remained vital, however. Harris, along with four army engineers reassigned from Fort Randall dam, immediately met with county commissioners, who designated one person to oversee snowplowing in each township. These township "directors" each received three assistants to accompany bulldozers through the countryside.<sup>123</sup>

County extension agents were indispensable to relief work both before and after Operation Snowbound began. In Sully

120. *Philip Pioneer-Review*, 3 Feb. 1949.

121. *Todd County Tribune*, 10 Feb. 1949.

122. *Rapid City Daily Journal*, 31 Jan., 2 Feb. 1949; *Martin Messenger*, 3 Feb. 1949; *Kadoka Press*, 3, 17 Feb. 1949.

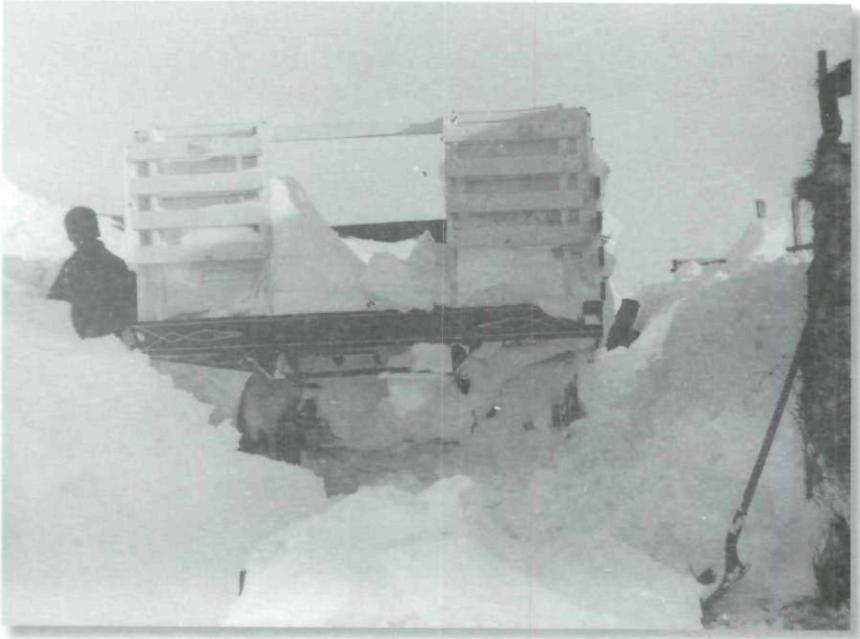
123. *Winner Advocate*, 3, 10, 17 Feb. 1949.

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*Snowplows like the one approaching this ranch on the Pine Ridge reservation (top) were a welcome sight to people who had been isolated since the first storm of January 1949. Before they could even attempt to use their vehicles, however, ranchers like William Lee near Ottumwa (bottom) spent hours digging them out.*



County, Extension Agent John F. Neu worked with local people and highway officials to establish plowing priorities. In Fall River County, agent F. A. Haley took the initiative in forming a disaster committee. Haley worked with district highway engineer Everett Seger to help organize snow-clearing work until 3 February when Operation Snowbound took over. After that, Haley and other county agents served as liaisons between military officials and people who needed help. Haley recorded that his office received five hundred forty phone calls and obtained hay for seventy-eight individuals. In Butte County, the extension office under Dan Wiersma served as a clearing house for information on feed sources, fielding up to sixty-five calls per day. Wiersma coordinated his work with county and state highway clearing efforts and aerial relief led by the Belle Fourche Chamber of Commerce.<sup>124</sup>

In the Saint Onge area, Lawrence County agent T. H. Young directed the work of an Operation Snowbound bulldozer, while telephone operator Sarena Hankins advised rural dwellers when to expect its arrival. Gregory County agent Craig E. Lerud coordinated a grass-roots relief organization that secured guides to assist work crews. Charles Mix County commissioners named extension agent Laurel Howe of Lake Andes to head a four-member disaster committee. Through mid-February, Howe and Red Cross chairman Henry Stedronsky took more than two hundred calls for help, primarily for clearing access to hay. Howe marked the locations on maps and forwarded the details to Operation Snowbound personnel at Pickstown. He also helped arrange feed purchases and livestock transportation. In Haakon County, agent Elbert Bentley kept time records of snow-plowing activity, aided in routing equipment, and helped the Corps of Engineers contact the private operators who had been doing clearing work.<sup>125</sup>

124. "Annual Report of John F. Neu and Margaret Laughrey" (Sully County), p. 30, reel 18, "Annual Report of F. A. Haley and Vivian Kelsey" (Fall River County), pp. 4, 31-32, reel 17, and "Annual Report of Dan Wiersma and Lucille M. Shaffer" (Butte County), p. 25, reel 16, all in *Cooperative Extension Reports*.

125. *Deadwood Pioneer-Times*, 6 Feb. 1949; *Wagner Post*, 10 Feb. 1949; *Platte Enterprise*, 17 Feb. 1949; "Annual Report of Craig E. Lerud" (Gregory County), p. 65, reel 17, "Annual Report of Laurel Howe and Ernel C. Larson" (Charles Mix County), p. 3, reel 16, and "Annual Report of Elbert Bentley" (Haakon County), p. 8, reel 17, all in *Cooperative Extension Reports*.

All in all, the work went ahead smoothly, although some complained that plowing had not been done quickly enough. In his annual report, Dewey County agent Carl Little observed, "Things were not always so rosy in connection with this go-between business . . . but we did everything possible to satisfy everyone and get the job completed in the best possible manner."<sup>126</sup>

By 1 February, the Red Cross had added Bon Homme and Charles Mix counties in southeast South Dakota and Custer County in the Black Hills to the list of areas needing assistance. The severe winter disrupted Custer County mining and lumbering activity, and the resulting unemployment presented a potential need for aid. Some isolated Bon Homme and Charles Mix county families also needed help. At Springfield, local equipment was ineffective in dealing with the sixty-one inches of snow and ice that had accumulated since November.<sup>127</sup>

Light snow and ground blizzards that hit on 31 January halted Operation Snowbound for four hours in the Philip area, but otherwise the work moved ahead rapidly. Two weasels near Buffalo traveled a combined distance of 170 miles to bring supplies to twenty-one families. They transported a physician to a ranch to attend a patient and took another person to Buffalo for medical treatment. Weasels also carried mail, and Johanna Pates reported one of them bringing "a whole sack full[]" to her ranch.<sup>128</sup> To increase load capacity, the machines sometimes dragged home-made sleds. Overall, weasels covered impressive distances, bringing supplies and livestock feed to snow-bound farms and ranches.

The bulldozers made good progress, and farms and ranches welcomed their crews with meals, rest, relief from the cold, and lodging. To their hosts, a plowed road meant freedom. From Philip, Park Irvine of the *Rapid City Daily Journal* reported, "It is a thrilling sight to see the farmers start cranking up their trucks and cars and head for town."<sup>129</sup> Philip stores re-

126. "Annual Report of Carl Little" (Dewey County), p. 24, reel 16, *Cooperative Extension Reports*.

127. *Rapid City Daily Journal*, 1 Feb. 1949; *Tyndall Tribune and Register*, 3 Feb. 1949; *Springfield Times*, 27 Jan., 3 Feb. 1949; Powers to Brown, 4 Feb. 1949.

128. Pates Diary, 30 Jan. 1949.

129. *Rapid City Daily Journal*, 1 Feb. 1949.

mained open at night to accommodate those who had been snowbound. Indeed, as plows opened the roads, prudent rural residents made quick trips to town, worrying that they would soon be blocked in again.<sup>130</sup>

From command headquarters in Omaha, General Pick described the twenty-four-hour-a-day work of Operation Snowbound in South Dakota, Nebraska, and Wyoming as “the greatest bulldozer operation ever organized.”<sup>131</sup> The evidence was

130. *Philip Pioneer-Review*, 24 Feb., 3 Mar. 1949; *Winner Advocate*, 17, 24 Feb. 1949; *Buffalo Times-Herald*, 3 Feb. 1949; *Hot Springs Star*, 10 Feb. 1949. Apparently, hospitality to bulldozer crews was not universal. See *Lemmon Leader*, 24 Feb. 1949.

131. *Pierre Daily Capital Journal*, 3 Feb. 1949.

*Between blizzards, people cranked up their cars and beaded into town for supplies and news. This vehicle is traveling north on Highway 79 into Sturgis.*



impressive: during the first week of February, the project opened hundreds of miles of country roads and trails and freed thousands of head of snowbound livestock. On 2 February alone, 946 miles were plowed in South Dakota.<sup>132</sup> "The snow plow pulled into the yard . . . at 1:30 this morning," Johanna Pates wrote that day, "[and] scared us all out of bed."<sup>133</sup> One bulldozer in the Philip area, where ten were now at work, ran continuously for at least five days. Haakon County Red Cross chairman Basil Henderson reported that operators often worked "for 17 and 18 hours at a stretch," with one driver doing a twenty-one-hour stint.<sup>134</sup> The Grindstone correspondent for the *Philip Pioneer-Review* commended the bulldozer brigades: "They pushed enough piles of snow out of the road and away from hay stacks to make another Badlands monument. Everybody had a trail out to the road, and those who asked got hay stacks plowed out."<sup>135</sup> In the Hermosa area, bulldozer operators won praise for opening watering places. From Pedro in northeastern Pennington County, Mrs. Harry L. Paulsen later recalled that cattle had suffered from not being able to drink for almost one and one half months because of the heavy snow cover on stock dams and streams.<sup>136</sup>

Operation Snowbound's Pierre headquarters made daily reports on weasel operations and the number of families released from isolation. On 2 February, at least thirty weasels were being used in and around Mission, Kadoka, Faith, and Buffalo to haul supplies and even remove the bodies of deceased persons from isolated areas. Although temperatures continued to fall to below zero, a respite from the winds offered a boon to the digging-out process. By the end of the first week in February, 90 percent of Haakon County roads were open. The numbers varied from day to day, but as of 5 February, Operation Snowbound had 1,088 persons and 221 pieces of equipment in its South Dakota command. The snow-moving mission extended to the east-river counties of Bon Homme, Charles Mix, Hughes, Sully, Potter, and eventually part of Douglas. Operation Snow-

132. *Rapid City Daily Journal*, 2, 3 Feb. 1949.

133. Pates Diary, 2 Feb. 1949.

134. *Philip Pioneer-Review*, 3 Feb. 1949.

135. *Ibid.*, 17 Feb. 1949.

136. *Rapid City Daily Journal*, 2, 4 Feb. 1949; Chamberlain, *Blizzard of '49*, p. 62.

bound's Rapid City command also covered the Sundance area of eastern Wyoming.<sup>137</sup>

Air relief also continued as C-82 and C-47 cargo planes dropped feed and fuel. Small private aircraft remained crucial to handling transportation problems. Red Cross relief flights authorized for Perkins County originated in the Dupree area. From Lake Andes and Wagner to the southeast, planes fitted with skis brought provisions and medical help to snowbound people. Dewey County extension agent Carl Little and local Red Cross chairman F. Bellum flew to remote ranches to inquire directly about conditions of people and livestock. While they discovered no dire problems, they did discover that ranchers were running out of fuel and that local roads clogged with forty-six inches of snow would have to be opened quickly. Little and Bellum also arranged for flights every three days over selected ranches that served as contact points for their immediate neighbors. Bismarck and Yankton radio stations broadcast the details of this arrangement in order to reach as many needy persons as possible.<sup>138</sup>

As late as 9 February, four private aviators were flying groceries to isolated families around Presho. In some snowbound areas, the coming and going of private aircraft became a routine, but highly welcome, occurrence.<sup>139</sup> John Hofer near Athboy in southwestern Corson County aptly described the service of private pilots like the Kolb Brothers of Lemmon: "We were snowbound out here from Jan. 2 until Febr. 1. The Kolbs and their faithful Aeroncas [aircraft] were the only bright spots. . . . They brought us groceries, medicine, our mail and fuel. They flew out people who were snowbound while visiting here. They took sick people to the doctor, [and] brought us hired help. Yes[,] they even took bales of hay to cattle that were starving in isolated spots."<sup>140</sup>

In the meantime, highway crews were still working in the northwestern part of the state where South Dakota Highway 79

137. *Sioux Falls Daily Argus-Leader*, 2, 3 Feb. 1949; *Rapid City Daily Journal*, 2, 3, 5, 8, 11 Feb. 1949; *Deadwood Pioneer-Times*, 2 Feb. 1949; *Philip Pioneer-Review*, 10 Feb. 1949; *Armour Chronicle*, 11 Mar. 1949; *Wagner Post*, 3 Feb. 1949.

138. *Rapid City Daily Journal*, 5, 7 Feb. 1949; *Dupree West River Progress*, 3 Feb. 1949; *Lemmon Leader*, 19 Feb. 1949; *Wagner Post*, 3 Feb. 1949; Annual Report of Carl Little, pp. 24-25.

139. *Sioux Falls Daily Argus-Leader*, 9 Feb. 1949.

140. *Lemmon Leader*, 10 Feb. 1949.

north of Newell and United States Highway 212 were particularly hard to clear. By 5 February, only a portion of South Dakota Highway 73 north of Usta in Perkins County remained blocked. Days earlier, Minnesota had loaned the state four rotary plows, which were dispatched to work around Dupree and Faith. On the Pine Ridge, workers used equipment from Idaho's Fort Hall Agency, machinery loaned from Rosebud, and the rotary plow Superintendent Powers had earlier requested from the Minnesota Consolidated Chippewa Indian Agency.<sup>141</sup>

In early February, a few Rosebud residents complained of continuing shortages and inadequate assistance.<sup>142</sup> Superintendent Whitlock received word that blocked roads were preventing nine families from replenishing their fuel and food supplies near Dixon in northwestern Gregory County. Another person wrote that the fuel shortage had nearly doubled the regular price. On 2 February, an Okreek woman complained that her elderly parents had to pay \$27.20 a ton for coal. The price does seem unduly high, for only eight days later a large advertisement in the county paper announced that a carload of coal would arrive at Witten the following week for \$15.25 per ton.<sup>143</sup> Desperate people used furniture for fuel as they waited for supplies. Superintendent Whitlock spoke of "a few reports where some of the Indians burned fences and corral posts. The reason for this was that the first storm lasted 72 hours and some of the families had not provided sufficient [fuel] to carry them any great length of time."<sup>144</sup>

On 8 February, Superintendent Whitlock stressed the importance of cooperation among county, state, and federal authorities, noting that all the main highways had been cleared and only one Indian community remained isolated. In recording the use of reservation snow-moving equipment, Whitlock captured

141. *Sioux Falls Daily Argus-Leader*, 3 Feb. 1949; *Rapid City Daily Journal*, 4, 5 Feb. 1949; *Dupree West River Progress*, 10 Feb. 1949; Powers to Brown, 4 Feb. 1949; Powers to Regional Director, 18 Feb. 1949, in "Report of 'The Blizzard of 1949' on the Pine Ridge," p. 4.

142. Handwritten statements by Edward Ross, n.d., Edward Wright, 2 Feb. 1949, and John Price, 2 Feb. 1949, Box A-604, Folder 720, Rosebud, RG 75, NARA-KC. The similarity among these letters suggests an organized effort to secure more aid.

143. George Firecloud to Whitlock, 10 Feb. 1949, General Correspondence File Decimal 1930-1950, 124.0-139.14, Box 568, and handwritten statements by Evelyn Bordeaux, n.d., and Victoria M. Price, 2 Feb. 1949, Box A-604, Folder 720, all in Rosebud, RG 75, NARA-KC; Whitlock to Daiker, 2 May 1949; *Todd County Tribune*, 10 Feb. 1949.

144. Whitlock to Daiker, 2 May 1949.

the harsh reality of the previous five weeks. "We have opened 96 miles of road," he reported: "52 miles of this road we have opened 6 times. Some of the roads have been opened 3 times and others twice." Three days later, Indian Service regional director Paul Fickinger directed Whitlock to "report a mile opened for each time any mile of road is cleared."<sup>145</sup> Consequently, Whitlock estimated that through 12 February Interior Department equipment had opened 608 miles on the Rosebud reservation, benefiting some twenty-two hundred people, and 188 miles on the Yankton subagency, serving another nine hundred ninety. The reservation's American Indian residents were not the only parties who benefited from this road clearing. Of the estimated eight thousand head of rescued livestock, non-Indians owned forty-two hundred.<sup>146</sup>

The thirty-six hundred residents of the vast Cheyenne River Indian Reservation in north-central South Dakota were feeling the effects of the blizzard as well. According to agency superintendent G. Warren Spaulding, many people had not been able to get to the commissary to purchase food or reach river bottom land to cut timber for fuel. Residents in the Bridger and Cherry Creek hamlets were out of fuel, and supplies at Red Scaffold were seriously low. Here also, some persons burned fence posts and the lumber from outbuildings and corrals to stay warm. Full-scale Red Cross and Operation Snowbound efforts soon brought relief. A C-47 flying out of Rapid City dropped coal to Bridger and Cherry Creek, among other places. Spaulding praised the reservation people for sharing their meager supplies among themselves and commended the tribal leaders for working effectively with agency personnel. Tribal council chair Albert Lebeau, Sr., however, criticized the effort, contending the relief spending had strained the council's financial resources in part because the federal government had not provided sufficient matching funds for the work.<sup>147</sup>

145. Whitlock to Fickinger, 8 Feb. 1949, Fickinger to Whitlock, 11 Feb. 1949, Box A-604, Folder 720, Rosebud Agency, RG 75, NARA-KC.

146. Whitlock to Fickinger, 15 Feb. 1949, *ibid.*; *Todd County Tribune*, 3 Feb. 1949. Although entirely on the reservation, Todd County had its own emergency committee for liaison with the military and other relief work.

147. *Rapid City Daily Journal*, 29 Jan., 7 Feb. 1949; *Deadwood Pioneer-Times*, 2-4 Feb. 1949.



*Some stretches of road on the Rosebud Indian Reservation were cleared up to six times in the aftermath of the January blizzard. A similar situation existed on the Pine Ridge reservation, pictured here.*

Minor storms blew snow in again on 5 and 7 February, re-blocking some west-river highways and roads. Despite these brief delays, Operation Snowbound forged ahead, opening vast distances daily. Another storm on 9 February—as Johanna Pates put it, “blizzard no[.] 3 in one week”<sup>148</sup>—spelled familiar trouble, especially for those who needed to travel United States Highways 14 and 16 in the Wicksville area. After a two-day setback reclearing some twenty-four hundred miles of roads, relief workers got a break as winds dropped and a warming trend pushed temperatures to well above freezing at many west-river locations.<sup>149</sup>

In the meantime, Governor Mickelson and other officials had made an inspection flight over western South Dakota on 7 Feb-

148. Pates Diary, 9 Feb. 1949.

149. *Rapid City Daily Journal*, 5, 7, 8-11 Feb. 1949; *Philip Pioneer-Review*, 10 Feb. 1949; *Sioux Falls Daily Argus-Leader*, 11 Feb. 1949; *Buffalo Times-Herald*, 10 Feb. 1949; Pates Diary, 5, 7 Feb. 1949; *Climatological Data: South Dakota* 54 (Feb. 1949): 22-24.

ruary, observing that snow clearing was well advanced in the south but that much remained to be done from the Badlands through the northwest. As a result, Lieutenant Colonel Morris announced on 10 February that Operation Snowbound's emphasis was shifting to the north of the Cheyenne River. Following in the wake of snow-clearing machines, two convoys of vehicles began carrying tons of livestock feed to Harding County, while weasels delivered food, feed, and bottled gas in Butte, Harding, and Perkins counties. The Homestake Mining Company provided its new rotary plow and crew, which took six days to open 616 miles of road in northwestern South Dakota. When the town of Newell ran out of milk, this plow cut a path to a dairy.<sup>150</sup>

Friday, 11 February, brought the most pleasant weather west-river residents had seen in five weeks. With the temperature on the way to forty-eight degrees, Johanna Pates tended chickens and looked after calves, later remarking, "It's fun to be out."<sup>151</sup> It was fortunate she took advantage of the break because the weather bureau warned that a new blizzard would hit later that day. In Rapid City, schools closed early, shoppers swamped grocery stores, and some people replenished their liquor supplies.

That afternoon, the wind at the Pates ranch reached sixty miles per hour and the mercury plummeted to two degrees. Snowfall across western South Dakota was generally scant, but drifting again stopped travel, reblocking an estimated three thousand miles of roads. When the weather broke the next day, bulldozer crews resumed their rapid progress. In northern Haakon County, Basil Henderson reported that some roads were being opened for the sixth time. An unfortunate casualty of Operation Snowbound occurred at this time when a farmer named Fred Petersen was accidentally killed by an army caterpillar ten miles southwest of Gregory.<sup>152</sup>

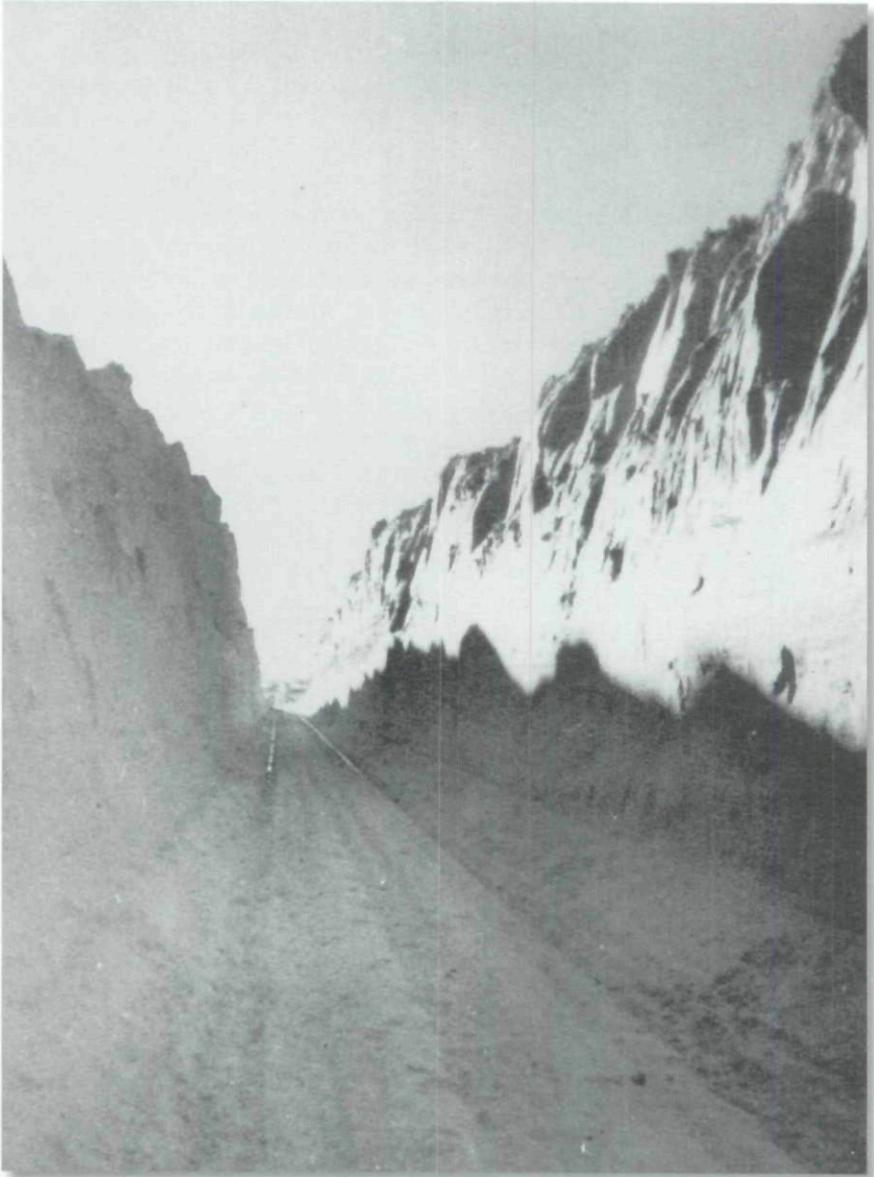
150. *Rapid City Daily Journal*, 8, 12 Feb. 1949; *Sioux Falls Daily Argus-Leader*, 9-11 Feb. 1949; *Tyndall Tribune and Register*, 10 Feb. 1949; *Deadwood Pioneer-Times*, 4, 8, 14 Feb. 1949.

151. Pates Diary, 11 Feb. 1949.

152. *Ibid.*, 12 Feb.; *Rapid City Daily Journal*, 11, 12, 14 Feb. 1949; *Philip Pioneer-Review*, 17 Feb. 1949.

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*Snow-clearing machines, whether they worked on highways or railroads, left deep cuts that made travel eerie and sometimes dangerous.*

On 13 February, a group including Governor Mickelson and Lieutenant Colonel Morris made another inspection flight, this time following the Bad River to Philip and then flying south and east over United States Highway 18. In these areas, the need for relief work appeared to be about over. The next day in a communication to Governor Mickelson, General Pick recommended ending the program in Bennett, Gregory, Jackson, Mellette, Todd, Tripp, and Washabaugh counties. Operation Snowbound officially shut down in these areas on 15 February. Attention now concentrated on the northwestern counties, which were again plagued by light snow and redrafting. Bulldozers struggled with blowing snow in Butte, Harding, Meade, and Perkins counties, while twenty weasels remained at work in western South Dakota. A warming trend sent temperatures into the forties and fifties over much of the west-river country. In Philip and Rapid City, the Christmas street decorations could finally be taken down.<sup>153</sup>

On 17 February, Governor Mickelson made another inspection flight, observing that the heaviest remaining snow extended north from the Belle Fourche River in Meade County to the Moreau and Grand rivers in Perkins County. As the weasel and plow operators continued working in the northwestern counties, Operation Snowbound assisted in widening highway cuts in other areas. The narrow passages had obstructed drivers' vision, causing accidents, serious injuries, and some fatalities. Over the next few days, officials further reduced the scope of Operation Snowbound, and on 21 February they terminated work in Haakon, Jones, Lawrence, Lyman, Pennington, and Stanley counties. Operation Snowbound was now complete in eighteen of its original twenty-six South Dakota counties.<sup>154</sup>

As the relatively mild weather shrank snow depths and laid bare extensive areas of range, men and machines continued to focus their efforts on Butte, Harding, Meade, and Perkins counties. Operation Snowbound ended in South Dakota on 26 Feb-

153. *Rapid City Daily Journal*, 14-18 Feb. 1949; *Deadwood Pioneer-Times*, 14 Feb. 1949; *Sioux Falls Daily Argus-Leader*, 14-16 Feb. 1949; *Buffalo Times-Herald*, 17 Feb. 1949; *Philip Pioneer-Review*, 17 Feb. 1949; *Climatological Data: South Dakota* 54 (Feb. 1949): 22-24.

154. *Pierre Daily Capital Journal*, 14, 18 Feb. 1949; *Deadwood Pioneer-Times*, 18, 21 Feb. 1949; *Rapid City Daily Journal*, 18, 19, 21 Feb. 1949; *Armour Chronicle*, 18 Feb. 1949; *Kadoka Press*, 10 Feb. 1949; *Sioux Falls Daily Argus-Leader*, 19, 21 Feb. 1949; *Springfield Times*, 24 Feb. 1949.

ruary and demobilized over the next two days. Never at a loss for operational statistics, the army announced that its relief effort had opened 35,606 miles of road in South Dakota. Its crews had made contact with 13,050 families, freed 734,700 head of cattle and 299,000 sheep, transported 15,300 pounds of food, and delivered 484 tons of livestock feed and 86 tons of fuel. One hundred twenty army personnel and sixty government employees had been assigned to Operation Snowbound in South Dakota. At its peak on 12-13 February, the effort directed the labor of 1,200 men and 283 pieces of equipment. In addition, four South Dakota National Guard bulldozers, eighteen enlisted men, and seven guard officers took part in the relief activities. They completed approximately nine hundred fifty miles of clearing, freed about two hundred seventy-five snowbound families, and made more than one hundred relief flights. Five hundred forty-two volunteers had come forward to help with Red Cross relief activities.<sup>155</sup>

Extension agents generally gave Operation Snowbound strong commendations. Fall River County agent F. A. Haley credited the relief program with preventing even higher livestock losses.<sup>156</sup> However, T. H. Young, Lawrence County agent, concluded that local operators and machines hired by the government had been more effective than the army crews, whom he found "inexperienced" and possessing "no particular interest" in the work or familiarity with the area.<sup>157</sup> Near Oglala on the Pine Ridge reservation, agricultural aide Willis J. Adams commented that he had spent much time directing bulldozer crews from Minnesota who did not know the local terrain. However, he did "feel safe in saying that had it not been for the opening of roads by the army, the Indian cattle losses would have been two or three times greater than they were."<sup>158</sup>

155. *Rapid City Daily Journal*, 22 Feb. 1949; *Sioux Falls Daily Argus-Leader*, 23, 26, 28 Feb. 1949; *Lemmon Leader*, 24 Feb. 1949; *Wagner Post*, 10 Mar. 1949; Memorandum, Robert C. Edson, American Red Cross, St. Louis, to Gordon Stone, National Headquarters, 15 Mar. 1949, DR 386.08, [Box 1681], Records of the American Red Cross, RG 200, NARA, College Park, Md.; *Biennial Report of the Adjutant General, 1 July 1948 to 30 June 1950*, p. 11. For summary data on weasel operations and Red Cross work in Jackson and Washabaugh counties, see *Kadoka Press*, 3 Mar. 1949.

156. "Annual Report of F. A. Haley and Vivian Kelsey," p. 32.

157. "Annual Report of T. H. Young and Ina B. Hanson" (Lawrence County), pp. 1, 11, 13, reel 17, *Cooperative Extension Reports*.

158. Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," pp. 28-29.

Just after the end of the clearing work in northwestern South Dakota, a *Buffalo Times-Herald* editorial remarked that grievances about Operation Snowbound were bound to arise. "Perhaps some needed aid and did not get it; also some perhaps got aid they did not need." Calling this situation inevitable considering the number of people and organizations involved, the paper concluded, "Much good was done . . . and no one can truthfully deny that the work of opening the roads was little short of heroic."<sup>159</sup>

Easy times did not begin with the end of Operation Snowbound. As the snow melted, rural roads became muddy trails that often could only be traveled at night or when temperatures were below freezing. "Cars are taking a fearful beating," complained one driver near Grindstone. "Springs hit with a crack, clutches slip in the mud, and fenders get all battered up on the cuts through drifts."<sup>160</sup> The alternating cold and warm periods and below-freezing night temperatures diminished the threat of flooding, but ice jams did damage the Little Missouri River bridge at Camp Crook in Harding County. Around Springfield and other areas, however, the heavy snow cover had kept the ground from freezing and allowed the soil to absorb moisture, reducing runoff and flooding.<sup>161</sup>

Winter landed its final blows on 30-31 March with a storm that hit south-central and southeastern South Dakota. About a foot of new wet snow damaged telephone lines and disrupted electric service. On 13 April, Springfield received four more inches of snow, bringing its total for the winter to ninety-three inches. The extra moisture further saturated the fields and delayed farm work in southeastern areas, but the approach of spring brought forth renewed optimism. To the west it was drier, and by early May, area farmers had their small grains planted. With their spirits bolstered by recent rain, they could devote their attention to fixing fences as they waited to plant corn and cane.<sup>162</sup>

159. *Buffalo Times-Herald*, 3 Mar. 1949.

160. *Philip Pioneer-Review*, 3 Mar. 1949.

161. *Buffalo Times-Herald*, 31 Mar., 21 Apr. 1949; *Springfield Times*, 10 Mar. 1949; *Climatological Data: South Dakota* 54 (Mar. 1949): 28, 30, 35-37.

162. *Sioux Falls Daily Argus-Leader*, 31 Mar., 1 Apr. 1949; *Wagner Post*, 31 Mar., 7 Apr. 1949; *Tyndall Tribune and Register*, 31 Mar. 1949; *Springfield Times*, 31 Mar., 14 Apr. 1949; *Climatological Data: South Dakota* 54 (Apr. 1949): 40; *Armour Chronicle*, 22 Apr. 1949; *Plate Enterprise*, 14, 21 Apr. 1949; *Philip Pioneer-Review*, 5 May 1949.

The blizzards and entire winter of 1949 evoke comparisons with other blizzards and other winters. The 2-5 January 1949 blizzard stands out as lasting longer than any in South Dakota's recorded history. Many residents likened it to the blizzard of 12 January 1888, but the two storms were dissimilar. The 1888 blizzard hit suddenly and blew for about twelve to fifteen hours, while the 1949 storm came on with at least a few hours warning and lasted seventy-two hours. The 1888 storm hit the east-river area the hardest and took 175 lives, a grim tally unrivalled by any other South Dakota winter storm. The sudden blizzard had caught the rural schools in session, contributing to fatalities. Taken as a whole, however, the winter of 1948-1949 ranks among the most severe on record in South Dakota, although in length it fell short of the famed winter of 1880-1881.<sup>163</sup>

The drama of severe weather phenomena is not only recorded in official statistics but also in people's memories. Personal recollections, often found in county and local history books, add color and detail to official accounts, and everyone had an opinion on how the winter of 1948-1949 ranked.<sup>164</sup> In early February, Philip area resident Grace Fairchild wrote: "For pure cussedness I think this period from Jan. 3 to Feb. 6 is the worst I ever saw in the 47 years I've lived out here."<sup>165</sup> In mid-February, E. L. Schetnan, the crusty editor of the *West River Progress*, admitted, "It has been a long hard stretch of a winter since . . . January 3rd," but he concluded that the winters of 1914 and 1919 were worse. Schetnan declared that the "blab" of radio broadcasters had exaggerated the impact of the current winter. "These fellows," he said, "thrive on telling the sensational."<sup>166</sup>

Ward Zimmerman, a soil conservation technician who helped with the Haakon County relief effort, took a long-term view of the winter: "I've lived out here all my life and I've seen

163. *Kadoka Press*, 6 Jan. 1949; "Blizzards," *Wi-Iyobi* 19 (1 Aug. 1965): 4-6; W. H. O'Gara, comp., *In All Its Fury: A History of the Blizzard of January 12, 1888* (1947; reprint ed., Lincoln, Nebr.: J & L Lee Books, 1988), p. 29; "The Big Blizzard of 1888," *South Dakota Magazine* 3 (Jan./Feb. 1988): 20-23.

164. *Sioux Falls Daily Argus-Leader*, 11, 17, 21, 22, 27 Feb. 1949; *Springfield Times*, 10 Feb. 1949; *Newell Valley Irrigator*, 6 Jan. 1949; "Blizzards," *Wi-Iyobi*, pp. 2-3, 7-9. See also Ethel L. Hellman, comp., *Blizzards of South Dakota* (Millboro, S.Dak.: By the Author, 1970).

165. *Philip Pioneer-Review*, 10 Feb. 1949.

166. *Dupree West River Progress*, 17 Feb. 1949.

10 or 15 winters just as bad as this. . . . Old timers were ready for it. But some newcomers had been spoiled by good weather the last few winters. . . . One old time rancher told me his dignity was sort of hurt by all the fuss being made over him. . . . He was insulted that Congress and the U.S. army figured he needed any help."<sup>167</sup> The Grindstone correspondent for the Philip paper captured the reality of the situation saying, "We were strictly up against it, as unable to help ourselves as a fly on sticky flypaper."<sup>168</sup>

Even as it stretched human resources and the human spirit, the winter of 1948-1949 took its toll in economic costs in many different areas, the most obvious being the cost of the relief effort itself. The Pine Ridge Indian Reservation reported total spending of \$205,324.69, including snow clearing, direct relief, and replacing worn-out equipment. Livestock losses were calculated at \$150,000, and individual emergency borrowing added to the economic drain. The Cheyenne River reservation total for relief spending came to \$78,000, and the Indian Service spent \$20,837.24 for snow clearing on the Rosebud.<sup>169</sup>

In early February, an Operation Snowbound report estimated a 25-percent sheep loss and disclosed that workers had discovered thirty-two hundred head of dead cattle, giving rise to fears of even higher mortality. Cattlemen in eastern Pennington County told County Agent Kirk Mears that winter-stressed cows were giving birth to dead calves and that they would have to destroy animals suffering from badly frozen hooves and udders. The State-Federal Crop and Livestock Reporting Service estimated west-river storm-related cattle mortality for January at fifteen thousand to sixteen thousand head and sheep losses at thirteen thousand.<sup>170</sup>

As it turned out, South Dakota's biggest economic cost was in livestock, with over two million dollars in total losses. This figure represented approximately 2 to 3 percent of livestock numbers, but the estimates varied significantly from area to

167. Quoted in *Deadwood Pioneer-Times*, 3 Feb. 1949.

168. *Philip Pioneer-Review*, 17 Feb. 1949.

169. Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," p. 18; Whitlock to Daiker, 2 May 1949; *Deadwood Pioneer-Times*, 31 Mar. 1949. This press report estimated total storm-related expenditures of the Pine Ridge Agency at \$259,586.

170. *Rapid City Daily Journal*, 3, 4, 12, 17 Feb. 1949; *Philip Pioneer-Review*, 24 Feb. 1949.



*In South Dakota, the value of livestock lost during the winter of 1949, such as this steer found mired in a drift, totaled over two million dollars.*

area and individual to individual. Losses totaled 7 percent in Fall River and Pennington counties, 8 percent in Perkins County, and 4 percent in Meade County. Although authorities disagreed about the exact numbers, Haakon County agent Elbert Bentley summed it up neatly: "Nearly everybody had lost some livestock, from a few to half their herd."<sup>171</sup> Indeed, for those who suffered heavy losses, favorable overall statistics offered little comfort. The hard winter would also take its toll on livestock weight and the calf crop.<sup>172</sup>

American Indians on the Pine Ridge reservation lost between 4 and 5 percent of their 30,294 head of cattle, and a few stockmen had losses of up to 40 percent. The Pine Ridge tribal bull herd sustained heavy losses and one reservation family

171. "Annual Report of Elbert Bentley," p. 7.

172. *Deadwood Pioneer-Times*, 14, 31 Mar. 1949; "Annual Report of Kirk T. Mears and Grace Simons" (Pennington County), p. 10, reel 17, "Annual Report of Donald Klebsch and Maureen Patterson (Meade County), n.p., reel 17, *Cooperative Extension Reports*; "Annual Report of F. A. Haley and Vivian Kelsey," p. 32. See also *Sioux Falls Daily Argus-Leader*, 8, 14, 18 Mar. 1949.

lost two hundred head of cattle, or about 35 percent of its herd, when the animals wandered into the White River.<sup>173</sup> On the Rosebud, loss estimates in the spring were low, but a bleak year-end report noted that "livestock losses . . . were more than double what they were in 1948."<sup>174</sup>

A strong element of circumstance figured in livestock losses, but good ranching practices helped minimize them. A series of relatively easy and open winters may have led some stockmen

173. R. B. McKee to C. H. Powers, 16 Feb. 1949, Blizzard Correspondence, Pine Ridge, RG 75, NARA-KC; Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," pp. 1, 5, 25-26, 28, 30, 36; Whitlock to Daiker, 2 May 1949.

174. Annual Report, Division of Extension and Industry, Rosebud Jurisdiction and Yankton Sub-Agency, to Director of Extension and Industry, Billings, Mont., 1 Jan. 1949-31 Dec. 1949, General Correspondence File Decimal 1930-1950, 052-5-052.7, Box 560, Rosebud, NARA-KC.

*This pheasant was another victim of the harsh winter of 1949, which killed thousands of birds and impacted the state's recreation and tourism industries.*



to be less than vigilant. Windrowing, or leaving hay in rows as cut rather than stacking it, was a time-saving and cost-cutting measure that worked as long as livestock could get to the feed. However, the heavy snow and ice cover of 1949 made that impossible. Some ranchers learned the hard way the consequences of not having haystacks close to their livestock and not having enough feed reserves.<sup>175</sup>

Wildlife also suffered. The winterkill of pheasants, which were vital to South Dakota's tourism and recreation industries, was significant, primarily in the west-river area where cover was sparse. The state's Department of Game, Fish and Parks had opposed a full-scale program of feeding the birds, claiming the process was too expensive and contradicted natural laws of survival. Still, many individuals and local groups fed them. The department noted that more groves of trees and shelter belts would offer protection to help the birds survive severe winter weather in future. The next winter also brought heavy pheasant mortality in central South Dakota, but by then the department was active in an ongoing program to improve winter cover. By 1951, pheasant numbers had recovered to their 1949 level.<sup>176</sup>

Property damage during the winter of 1948-1949 was also significant; the burden of snow and ice wreaked havoc with buildings, fences, shelter belts, and other trees. Agent Mears concluded that the cost of property damage exceeded that of livestock loss in Pennington County, and Meade County agent Donald Klebsch estimated that fence repair alone would cost thousands of dollars. The severe winter likewise affected business activity. South Dakota's bank debits, indicating the amount of money withdrawn to pay for goods and services were down 18 percent in January 1949 as compared with January of 1948. Department and general store receipts in western South Dako-

175. "Annual Report of Raymond Eilers" (Tripp County), p. 11, reel 18; "Annual Report of Konrad Stummeier" (Corson County), p. 15, reel 16, *Cooperative Extension Reports*; Powers, "Report of 'The Blizzard of 1949' on the Pine Ridge," p. 26; interview with John Pates, Brookings, S.Dak., 13 May 1993; *Armour Chronicle*, 28 Jan. 1949; *Dupree West River Progress*, 27 Jan. [1949].

176. *Philip Pioneer-Review*, 3 Feb. 1949; *Pierre Daily Capital Journal*, 7 Apr., 30 Sept. 1949; South Dakota, Department of Game, Fish and Parks, *Fortieth Annual Report of the Department of Game, Fish and Parks, 1948-1949*, p. 5; *Forty-first Annual Report, 1949-1950*, p.5; *Forty-second Annual Report, 1950-1951*, p. 5.

ta were down 29 percent in January 1949, although there were significant variations; reopening local roads was an obvious boon to town businesses. The railroads also suffered economically from the hard winter, sustaining earnings losses as well as additional business expenses. The Chicago & North Western spent \$351,000 and the Milwaukee Road at least \$192,000 for clearing their South Dakota lines.<sup>177</sup>

The recurring storms emphasized the vulnerability of the state's transportation network, but especially its highways and rural roads. The county governments simply could not open and keep open the thousands of miles of roads to farms and ranches. This inability led to the emergency state road-clearing program and shortly thereafter to Operation Snowbound. Snow clearance problems in the west-river region were closely tied to the physical realities of the landscape. Roads, highways, and railroads had made many cuts in rolling country that regularly filled with snow. East-west routes were especially vulnerable to northwesterly winds. Because these vertical or almost vertical passages filled so often, Operation Snowbound authorities suggested in their final report that road cuts be graded to conform to normal wind patterns. They also noted that trees, brush, tall weeds, or other significant windward obstacles along a road caused serious drifting, which in turn produced more drifts. In clearing roads, plow operators had to be careful to slope the windrows left in their wake so as not to cause further drifting.<sup>178</sup>

With roads, highways, and rail networks so vulnerable to drifting, the value of alternative modes of transportation became apparent. Horses, airplanes, tractors, and Jeeps—the traditional and the modern conveyances of the plains experience—were effective alternatives to standard automobiles, trucks, and trains simply because they were not limited to using standard ground routes. Aircraft were vital for both relief work and non-emergency trips to maintain routine activities. Although a

177. *Philip Pioneer-Review*, 31 Mar., 21 Apr. 1949; "Annual Report of Kirk T. Mears and Grace Simons," p. 10; "Annual Report of Donald Klebsch and Maureen Patterson" (Meade County), n.p., reel 17, *Cooperative Extension Reports*; *Deadwood Pioneer-Times*, 18, 21 Feb., 4, 31 Mar. 1949. January 1949 had one less business day than did January 1948.

178. "Fifth Army, Disaster Operation Snowbound, Nebraska, Wyoming, South Dakota and North Dakota, 29 January-March 1949," pp. 16, 20-21, U.S. Army Corps of Engineers, Omaha District, Omaha, Nebr.

horse-drawn sled had none of the drama of a low-flying plane dropping food or medicine, contemporary accounts abound with matter-of-fact details of how people used horses during the crisis. Many other ranchers undoubtedly had experiences similar to Ed Duennermann's in Fall River County. "The cattle were in a lot near a well on a place a little over a quarter of a mile from home," Duennermann reported. "Every mouthful of feed had to be hauled to them. It was an advantage to have horses for the hauling. They could lunge through where motor vehicles couldn't even start."<sup>179</sup>

Horses, tractors, and aircraft all played important roles in the story of Carl and Anna Humphrey, who were expecting their first child as the great January blizzard abated. As roads were impassable on 5 January, Carl used a tractor and his brother's horse, Smokey, to bring the physician nine miles from New Underwood to the Humphrey home. After the baby was born, an airplane flew the doctor back to town. Seventeen years later, another Humphrey family member would use Smokey in checking on cattle during the blizzard of March 1966.<sup>180</sup>

Other residents adapted new technology to the old problem of moving around in the snow. Martin area farmer Paul Guiser built a V-shaped snowplow, which he used to clear the way to rural families. Buffalo area rancher David Baird bolted two-foot lengths of four-by-four lumber to the tracks of his Oliver tractor. Although this innovation cut down on normal operating efficiency, the extra traction meant Baird could really travel, which he demonstrated by running his tractor up a steep snowbank on Buffalo's Main Street. In the years to come, further advances in power equipment would prove ever more helpful to farmers and ranchers.<sup>181</sup> One Opal area resident later compared the hard winters of 1949 and 1978. "I think we had as much snow in 1978," he recalled, "but we had a four-wheel drive Case tractor with a dozer, and other good equipment to feed with, instead of a team of horses and a pitchfork."<sup>182</sup>

179. *Sunshine and Sagebrush*, p. 143.

180. *Through the Years-Before 1966*, pp. 486-88.

181. *70 Years of Pioneer Life in Bennett County, South Dakota, 1911-1981*, (Martin, S.Dak.: Bennett County Historical Society, 1981), p. 183; *Buffalo Times-Herald*, 10 Feb., 24 Mar. 1949.

182. *Faith Country Heritage*, p. 753.

While the winter of 1948-1949 uncovered vulnerabilities, the emergency situation also revealed strengths, such as the effective local and county leadership structures across the blizzard area. Operation Snowbound and the Red Cross could not have functioned without the initiative, organizational skills, detailed knowledge, and enthusiasm of small-town businessmen, county extension agents, pilots, and local guides for the bulldozers and weasels. The local relief organizations also handled individual aid requests, freeing up army officers for other tasks. In the Tripp County area, where Operation Snowbound cleared one thousand miles of road and responded to five hundred calls,<sup>183</sup> Major M. E. Harris particularly thanked the Winner Chamber of Commerce, its secretary, T. C. Rutherford, and "the ladies in the telephone office."<sup>184</sup>

Counties were useful administrative units in relief work, and county commissioners were important for their familiarity with local conditions. For example, residents of Surprise Valley Township appreciated the role of Mellette County commissioner Glen Collins in dispatching a snowplow and bulldozer to their area. In the three-county Winner subcommand of Operation Snowbound, key township people were crucial in clearing roads and paths to haystacks.<sup>185</sup> County officials who used private aircraft in relief work were also well organized. "Each flight was to a specific place and we were given a detailed map and directions," recalled Kadoka pilot W. D. Priebe. "The ones who organized these missions were very efficient."<sup>186</sup>

On the Pine Ridge reservation, teachers and other administrative personnel worked with grassroots committees to implement relief measures, using schools as important community centers. Indians living away from the Pine Ridge and Rosebud reservations, however, were caught in a jurisdictional no-man's land involving the United States government, two states, and several counties.<sup>187</sup>

At the state level, the emergency revealed another fundamental problem in Great Plains life: small population meant a

183. "Fifth Army, Disaster Operation Snowbound," pp. 18-19.

184. *Winner Advocate*, 17 Feb. 1949.

185. *Murdo Coyote*, 10 Feb. 1949.

186. W. D. Priebe to the authors, 16 May 1994.

187. "Report of Relief Emergency."

small tax base, resulting in a lack of resources to cope with a wide-area, high-cost problem. In addition, the relief efforts during the winter of 1949 were conducted more or less on an *ad hoc* basis without any state-level master plan. With these factors in mind, in May 1949 Governor Mickelson announced a Disaster Operation Understanding—South Dakota's first full-scale plan for major emergencies. In the event of a disaster, local governments and Red Cross chapters would work together to handle relief; if these local resources proved inadequate, twelve state agencies would provide help in cooperation with local and federal authorities and the Red Cross.<sup>188</sup> It was a plan gleaned from recent experience.

Of course, the hard winter offered a few situations that did not reveal the best in human nature. Some persons hired busy private aviators for frivolous purposes, and a few people questioned the propriety of federal aid and how it was administered. One resident of the Pine Ridge reservation reportedly solicited private relief and, when many parcels of clothing and other goods arrived, gave away the less desirable items and tried to sell the superior goods. Not surprisingly, this misdirected entrepreneurialism brought a hostile response.<sup>189</sup>

In contrast to the few examples of selfish conduct was the overwhelming evidence of individual generosity and volunteerism, not only throughout the snow-clearing and relief work but in the usual pursuits of communities as well. Even though attendance was low and the orchestra did not make it to Todd County's February polio benefit dance, the county paper noted that "a nice sum was taken in for the good cause."<sup>190</sup> Likewise, the Todd County Red Cross chapter spent a significant amount on the Rosebud reservation, and Todd County residents generously contributed more than double their quota to the annual Red Cross Drive.<sup>191</sup>

In the end, individual kindness, the strength and cooperative spirit of local leadership, and timely external aid proved effective in meeting one of the most serious natural challenges in

188. *Newell Valley Irrigator*, 26 May 1949.

189. Chamberlain, *Blizzard of '49*, pp. 31-32; handwritten note appended to draft of local report on Pine Ridge blizzard relief, *Blizzard Correspondence*, Pine Ridge, RG 75, NARA-KC.

190. *Todd County Tribune*, 17 Feb. 1949.

191. *Ibid.*, 12 May 1949.

South Dakota's history. The winter of 1948-1949 generally brought out the best in human conduct—at all levels. “It was quite a winter to remember,” Gary D. McGinnis of the Faith area summed up. “Not only for the extremes in length and severity, but for the way the community united in time of need.”<sup>192</sup>

192. *Faith Country Heritage*, p. 117.

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