Barrow Storm, Nov. 16, 1966. After moving northeast over the Chukotsk Peninsula, a storm turned eastward well offshore from Barrow. Peak winds were post-frontal westerlies of 50 to 70 knots. There was minor flood damage and moderate wind damage.

Barrow Storm, Sept. 22, 1968. See figure 4. Moving eastward on a track about 200 miles north of Barrow, a storm caused westerly post-frontal winds of 30 to 45 knots. The ice edge was unusually far to the north of Barrow -- about 160 miles -- giving a total length of ice-free fetch of about 250 miles to the northwest of Barrow. The lowest sea-level pressure in Barrow during the storm was about 1004 mb. Seas just offshore were as much as 15 feet. Damage caused by the storm was minor: the road that runs from the village of Barrow to Point Barrow was washed out.

Shishmaref Storm, Sept. 10, 1973. A storm in the Chukchi Sea washed out about 30 feet of beach and caused minor flood damage at Shishmaref. Peak winds were 45 knots or more. The storm occurred about 2 days before maximum monthly tides.

Shishmaref Storm, Nov. 10, 1973. See figure 5. A rapidly moving Bering Sea storm moved northeast just off the Siberian coast as a second center moved into the Chukchi Sea out of Siberia. Post-frontal northwest winds were 40 to 70 knots. The southerly fetch ahead of the front was about 500 miles. The northwest fetch behind the front was about 250 miles in Norton Sound and over 500 miles in the Chukchi Sea. The duration in each case was 12 to 24 hours. Norton Sound was ice-free. Most of the Chukchi Sea, including Kotzebue Sound, was ice-covered. Maximum monthly tides occurred at the time of the storm. Lowest sea-level pressure over the western Seward Peninsula was about 978 mb. The water rose 6 to 8 feet above fast ice at Kotzebue. There were seas up to 15 feet in Norton Sound and in Bering Strait. There was minor flood damage in Norton Sound and moderate damage in Kotzebue Sound, principally at Shishmaref.

The Great Bering Sea Storm of Nov. 12, 1974. See figure 6. An intense storm moved north-northeast from the central Aleutians up through Bering Strait. Winds of 50 to 75 knots occurred within 12 hours of frontal passage. The southerly fetch in the Bering was about 1000 miles long, and persisted for about 36 hours. Aside from some new ice in eastern Norton Sound, the Bering was ice-free. Kotzebue Sound and most of the Chukchi Sea were ice-covered. Maximum monthly tides occurred at the time of the storm. The lowest sea-level pressure at Nome during the storm was about 970 mb. Rises in water level ranged from 12 feet at Nome to 6 feet at Kotzebue and 5 feet at Naknek. The rise in water level at Nome was the greatest on record. Combined seas in the Bering were as much as 20 feet. Moderate to major flood damage occurred all the way from Bristol Bay to Kotzebue Sound. As far north as Barrow, the ice was lifted a foot or two by rising water. The most severe damage was at Nome, where an estimated $12 million of property damage was sustained. The storm was the most severe in the recorded history of Nome, which goes back to 1898. The area was declared a Federal disaster area by President Ford. Floating blocks of sea ice aggravated the flood damage to communities in eastern Norton Sound.
Figure 6. Sea-level pressure analyses for the Great Bering Sea Storm and coastal flood of Nov. 12, 1974. Nome is marked with a square (■).