Notebook No. 2.
1880.

In charge Schr. Yukon.

Sunday Aug. 22nd,

4 A.M. 30.17  48.5  48.5  49  49  Calm
8   .18    49  50  50  49
12 M. .19  51  57.5  52  58.5
4 P.M. .19  53  53  53.5  57
8   .15  57  52  53  57
12   .10  48.5  57  50.5  50  NE

Day half clear, more cloudy toward evening. Wind light or none. Being becalm'd about ten miles to the NE. From our anchorage at Cape Lisburne, we anchor temporarily about two miles off shore, waiting a wind. In the afternoon put to sea again. While at anchor the vessel tailed to the W.S. but the current appeared to be very moderate.

Monday Aug. 23rd

4 A.M. 30.07  47  48  48.5  48  NE
8   .29.96  48.5  48  48.5
12 M. .90  46  47.5  47.5  47.5 NNE.
Tuesday Aug. 24/80

4 P.M. 29.75 44 45.5 45.5 46.5 NNE
8 1.75 46 46.5 47.0 46.0 **
12 M. 1.99 47.5 49.5 49.5 47.5 E
4 P.M. 1.81 50 52 52 46.0 ESE
8 1.87 49 49.5 50 46.5 ENE
12 1.89 47 49.0 48.5 46.0 NE

Weather overcast, wind light. The land as seen from the ship appears absolutely flat with no signs of the hills indicated on the chart and no landmarks of any description. The offshore spit reaches ten or twelve feet above high water mark with occasional grassy sand dunes six to ten feet high, and of small extent. Sticks of drift wood or whale ribs have been set up in many places by the natives, probably to serve as landmarks in their travels along the coast. The marks of their camps and abandoned houses are not in frequent.

Wednesday Aug. 25/80

4 A.M. 29.91 44 48.5 48.5 46 NNE
8 1.96 45 46.5 46.5 44.5 **
12 M. 1.98 45 48.0 47.5 44.5 **
4 P.M. 1.98 57 53.5 53.0 45 **
8 30.00 45 46.0 46.5 45 **
12 1.02 45 45.0 45.0 45 **

Weather mostly cloudy in early A.M.; later more than half clear. Wind moderate steady. Stand in to the coast and send a boat ashore for observations as the weather is propitious. Anchor a mile and a half offshore about 10 A.M. Observations for time, latitude, declination, dip and intensity. About 4 P.M. observations ended, weigh anchor and stand to the northward.

A whale carcase, passed by us, about 7 A.M. about ten miles to the southward of our anchorage had drifted up to us by the time we weighed anchor. Early in A.M. spoke bark Snow, Hicknott, with 2 whales who had seen the cutter (to the westward probably) about a week previous. The whales are all doing well this season. They thought we could hardly get beyond Pt. Belcher in account of the pack ice.
Thursday, Aug. 26, 1880.

4 A.M. 30.06 43.5 44 44 44.5 NE
8  0.08 46 46 46.5 45
12 A.M. 10 45 46 46.5 45
4 P.M.  0.00 46 47 47.5 45.5
8  0.08 45 46.5 47 45
12 10 45 49 48.5 44.5

Weather mostly overcast, wind moderate ebb.
Came upon the S.E. edge of the pack, about 2 A.M. While beating to the northward, several whales in sight. Pass several carcasses
of whales stripped of their blubber and some small pieces of drift ice. About 3 P.M.
spoke and boarded bark Hunter, Capt. Fisher
of New Bedford with eleven whales one of which
was cutting. A twelfth was being pursued as we
left her, and was afterward taken. A little
later spoke the U.S. Corwin from Pt. Barrow
where she succeeded in getting, but reports
only a quarter of a mile between the ice &
the shore at the Deadhorse Islands. The captn.
of the Hunter reported the ice in our vicinity
as having moved inshore 15 and miles within
24 hours. Capt. Hooper got within within a few
miles of Herald Island but had no news to re-
port.

In view of the movements of the ice I decide to anchor and await further developments. Anchor about a mile
offshore a little to the Northward and
eastward of Pt. Belcher. Native canoes
come alongside and we purchase a
little fresh meat.

Friday Aug. 27th, 1880.

4 A.M. 30.09 42 45.0 45 44.5 NE
8 0.08 41.5 44.5 44.5 45
12 A.M. 0.4 41 42.5 42.5 45
4 P.M. 29.98 41 42.5 43 44.5
8 0.93 40 40.5 41 44.5
12 1.85 39 42.5 43 43.5

Weather overcast. One glimpse of sun in P.M.
but mostly foggy. Wind fresh & raw from
the ice to the northward. Observations for dip
intensity and magnetic azimuth. Astro-
metrical observations fail from want of
sunshine. There is much fragmentary
coal on the beach, apparently pushed
up by the pack ice from the bottom of the
sea. Draw the seine but get only one or
two small sculpins. In P.M. speak the
steam whaler Mary Helen, Capt. Owen.
of New Bedford, with 22 whales. He reports that the ice moved in three miles last night. Most of the fleet have come inshore and are in sight, all apparently doing well. Evening, wind lighter, foggy. Got two obs. for time from the ship in P. U. The current is strong here to the northward and eastward especially with the tide flowing.

---

Saturday Aug. 28/30

<table>
<thead>
<tr>
<th>Time</th>
<th>A.U.</th>
<th>N.D.</th>
<th>A.D.</th>
<th>M.D.</th>
<th>N.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fine. Bare, set, the. Drift. West. Water. Wind.

Morning overcast, sun out at times during the day. Wind fresh sometimes squally. At 11 A.U. passed Cape Lisburne where it wooleys heavily inshore. At 3 P. U. pass Pt. Hope off which is a rip, due to tide current. The Coffee and an unknown schooner (Loleta, Dexter S. Ds) are laying under the lee of Pt. Hope. Both are tailing with the wind, showing that the current in there is not very strong at times. Keep on toward Channisso Harbor. Work over records. Late in evening the wind begins to die away.

---

Sunday Aug. 29/30

<table>
<thead>
<tr>
<th>Time</th>
<th>A.U.</th>
<th>N.D.</th>
<th>A.D.</th>
<th>M.D.</th>
<th>N.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Sail at 9 A.U. Pass Icy Cape about 5 P. U. Work over records.
Monday Aug 30/80

Fine. Barom. 29.68. Wet b. W. Water. Wind W N.

4 A.M. 29.64. 46.5. 47.5. 48. 57.5 Calm.

8 . .61. 47. 47. 47. 57.0 N E.

12 A.M. .59. 47. 49.5. 49.5. 57.5 Calm.

4 P.M. .52. 50. 53. 53. 52.5 WNW.

8 . .57. 46. 49.5. 49.5. 57.0.

12 . .52. 46. 48.5. 48.5. 57.5.

Morning nearly calm, later fresh airs.

Weather half clear. At noon, near Cape Krusenstern. Later in the day set observations for time while in the meridian of the Cape. Wind freshens at night Cape low with a gray bluff behind it.

Tuesday Aug. 31st

4 A.M. 29.50. 43.5. 46. 46. 57. WNW.

8 . .48. 44.0. 46. 46. 48.5.

12 A.M. .48. 45.5. 48.5. 48.5. 49.

4 P.M. .46. 49.5. 49.5. 49.5. 48.5. WSW.

8 . .46. 46.5. 48. 48. 49.5.

12 . .46. 44.5. 47. 46. 48.

Weather overcast with glimpses of sunlight especially in the afternoon. Wind fresh to moderate. About 6 P.M. anchor in Chamous Harbor, Eschscholtz Bay Hotzebri Sound. Got obs. for time latitude declination dip & intensity and to ice station. In the spit of Chamous Pd. The highest point of the island is marked by a iron driftwood stick, bearing the following inscriptions. "H. B. M. S. Blossom, Sept 1826. H. B. M. S. Neale, 1848; H. B. M. S. Plover, July 1849; H. S. S. Corwin 1860," to which was added "H. S. S. Yukon 1880." On another shorter stick was engraved T.A.N. ЭКСПЕДИЦИЯ 1838 in 29 06 2. 10.00. or "Russian American Company's (Kashevaroff) expedition, from Aug 29 to Sept 10, 1838." A board had been attached to this marked "H. M. S. Plover, Aug. 1831, a bottle 10 ft Mag. North; other parties had recorded on this board, "Victoria" 1845 and "Bark" Oliver Crocker 1865; the wood which seems to have stood here fifty four years was in good preservation. The bottle had probably contained information, if any Franklin survivors should find it for their finding buried stores. The island is of mica schist and gneiss with some quartz dykes, Blueberries, Rubus chamaemorus, service berries etc. were ripe, cranberries not quite ripe. Dwarf birch alder and willow were noticed growing on the island.
Wednesday Sept. 12th 80

4 A.M. 29.46 43.5 45 45 47.5 W
12 M. .97 45.0 48 48 48 S
8 P.M. .64 44.5 45 45 47.5 W

Weather cloudy with glimpses of sun.
Wind fresh making choppy sea, to avoid which we weigh anchor at 9.30 A.M. and stand across under the lee of Choisis Peninsula, where it is not much better. Anchor there about 10.30 A.M. Work on Monthly Reports & journals. Send the boat ashore for water but it proves not good. Wind too high for field work. Rain in P.M.

Thursday Sept 13th

4 A.M. 29.68 44 44 44.5 47.5 W
12 M. .75 44 46 45.5 49 5 SW
8 P.M. .76 44.5 47 47 49.0

Weather cloudy with showers in A.M. Half clear in P.M. Wind puffy, fresh to moderate. Tide low at 10 A.M. High at 4 P.M. Rise & fall between three and four feet. Take the vessel over toward the main shore and anchor there before breakfast. About 10.15 start in the large cutter for the shore with the intention of viewing the celebrated ice cliffs just described by Rotgeule.

Land on a small low point near some old huts and proceed along the beach about a mile, the banks or bluffs being chiefly of volcanic breccia or a slaty rock of greisoid texture. They were from fifty to fifteen feet in height above the sea, rising into low hilly slopes behind, nowhere rising into peaks, and probably no where over 200 feet in height. A change then took place in the character of the banks. From reddish volcanic rock they changed into a grayish clay largely intermixed with vegetable matter; in places intermixed, in other places forming a stratum in the clay. Near the beginning of these clay banks, where they were quite low, i.e. not rising to a brow of over 20 feet, one layer of sphagnum containing sand of freshwater shells (among which were Pisidium and Calvata) was noticed. This layer was some six inches thick.

The clay was of a very tough consistency, and though wet did not yield much, under the feet. The breaking of the
sea against the foot of these banks and the undermining that follows, causes them to fall down and the rough irregular talus that results, is mingled with turf and bushes from the surface above. A little further on a surface of ice was noticed. It appeared to be solid and free from mixture of soil except on the outside further on the same phenomenon was encountered again on a larger scale and this continued about two miles and a half to Elephant Pt. and then the high land turns to the S W W and we followed it no further. For a considerable distance the "cliffs" were double. That is there was an ice face exposed near the beach, with a small talus in front of it, and covered with a coating of soil two or three feet thick on which a luxuriant vegetation was growing. All this might be thirty feet in height, and on climbing to the brow of the bank the rise from that brow proves to be broken, hummocky, and full of crevices and holes, in fact a second talus on a larger scale, ascending to the foot of a second ice face above which

was a thin (1-2½ feet) layer of soil covered with herbage. The brow of the second bluff might be eighty feet or more above the sea. Thence the land rose slowly and gradually to a rounded ridge, reaching a height of three or four hundred feet only at a distance of several miles from the sea and with no mountains or other high land about it whatever. At the highest part of this ridge within a quarter to a half a mile from the sea perhaps 250 feet above the sea, at a depth of a foot we came to a solidly frozen stratum, consisting chiefly of sphagnum and vegetable mould but containing food sized lumps of clear ice. There seemed no reason to doubt that the extension of the digging would have brought us to the solid ice such as was visible at the face of the bluff below. That is that the ridge itself was chiefly composed of solid ice overlaid with clay and vegetable mould. It was noticeable that there was much less clay over the top of the upper ice face than was
visible over the lower one, or over the
single face when the land and bluff were
low, near the beach. There was also less
vegetable matter, apparently. Near
the beach six or eight feet of clay was
observed in some places, without counting
what might be considered as talus mat-
ter from farther up the hillside. Only
in one place did we notice some fine
reddish gravel, and nowhere in the
talus or strata any stones. The ice face
near the beach was not uniform. In
many places it was covered with clay
by the water's edge. In others, where the
bank was less than ten feet high, the
turf had bent, without breaking, when
undermined and curving over, present-
ed a mossy and herbaceous front quite
to high water mark.

The ice in general had a semi stratifi-
cation appearance as if it still retained
the horizontal phase in which it origi-
nally congealed. The surface was al-
ways dulled from dirty water from the
soil above it. The dirt was however
merely superficial. The outer inch

or two of the ice seemed granular or
like compacted hail and was sometimes
whitish. The inside was solid and trans-
parent or slightly yellow tinged (like
peat water) but never greenish or bluish
like glacier ice. But in many places
the ice presented the appearance of immense
cakes or fragments irregularly disposed,
over which it appears as if the clay &c
had been deposited. Small pinnacles
of ice ran up into the clay in some pla-
ces and, above, holes were seen in the
face of the clay bank, where it looked
as if a detached fragment of ice had
been and had been melted out leaving
its mold in the clay quite perfect. In
other places the ice was penetrated with
deep holes into which the clay and veget-
able matter had been deposited in layers
and which (the ice melting away from
around them) appeared as clay & mud
cylinders on the ice face. Large rounded
holes or excavations of irregular form
had evidently existed on the top of the
ice before the clay &c had been deposit-
ed. These were usually filled with a
fine-grained deposit of clay with less vegetable matter and the layers were waved as if the deposit had been affected by current action while going on. In these places especially, was noticed the most unexpected fact connected with the whole formation (which was however by no means confined to these spots), namely a strong peculiar smell as of rotting animal matter, burnt leather and stable manure combined. This odor was not quite the same at all places but had the same general character. On the other hand there was a large part of the clay which had no such smell. At the points where the smell was strongest it was observed to emanate particularly from darker pasty spots in the clay though permeating the whole, leading to the supposition that these might be remain of the soft parts of the mammoth and other animals whose bones are daily washed out by the sea from the clay talus. In those places or near them where the smell was strongest a rusty red soft lichen or lichenlike fungus grew on the wet clay of the talus in extensive patches. Some of these and some of the bad smelling deposit was secured, also as many bones of the fossil elephant, fossil buffalo &c as we could carry including a mammoth tusk five and a half feet long, six inches in diameter but with both ends gone. Dwarf birches, alders seven or eight feet high with stems three inches in diameter, and a luxuriant herbage, producing among other things numerous very toothed some berries, grew with the roots less than a foot from perpetual solid ice. The formation of the surrounding country showed no rocky hills from which a glacier might have been derived and then covered with debris from their sides. The continuity of the mossy surface showed that the ice must be quite destitute of any motion and the circumstances all appeared to point to one conclusion, that there was a ridge of solid ice, rising several hundred feet above the sea, and higher than any of the land about it, the ice in this instance taking the function of a regular stratified rock upon itself.
On our return to the vessel about 6.30 P.M. we found that four large canoes with about forty natives had arrived from the eastward, supposing us to be traders.

**Friday Sept. 3rd 1880**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.78</td>
<td>43</td>
<td>44</td>
<td>44.5</td>
<td>49</td>
<td>SSW</td>
</tr>
<tr>
<td>8</td>
<td>.78</td>
<td>44</td>
<td>44.5</td>
<td>44.5</td>
<td>49</td>
<td>S</td>
</tr>
<tr>
<td>12 M.</td>
<td>.71</td>
<td>43</td>
<td>49.5</td>
<td>50</td>
<td>49.5</td>
<td></td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.67</td>
<td>43.5</td>
<td>44</td>
<td>44</td>
<td>49</td>
<td>SW</td>
</tr>
<tr>
<td>8</td>
<td>.70</td>
<td>41.5</td>
<td>43.5</td>
<td>44</td>
<td>49</td>
<td>WwN</td>
</tr>
<tr>
<td>12</td>
<td>.71</td>
<td>43</td>
<td>44</td>
<td>44</td>
<td>48.5</td>
<td></td>
</tr>
</tbody>
</table>

Weather cloudy with fresh wind and frequent heavy showers. At 6 A.M. sail from Eschscholz Bay for Bering Strait. Work over records and computations. Late nearly calm.

**Saturday Sept. 4th**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.68</td>
<td>41.5</td>
<td>43</td>
<td>43</td>
<td>47</td>
<td>SE</td>
</tr>
<tr>
<td>8</td>
<td>.70</td>
<td>41.5</td>
<td>43</td>
<td>43</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>12 M.</td>
<td>.45</td>
<td>44</td>
<td>45.5</td>
<td>45.5</td>
<td>48</td>
<td>SW</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.46</td>
<td>41</td>
<td>43</td>
<td>42.5</td>
<td>48</td>
<td>W</td>
</tr>
<tr>
<td>8</td>
<td>.46</td>
<td>40</td>
<td>43</td>
<td>43</td>
<td>48.5</td>
<td>WwW</td>
</tr>
<tr>
<td>12</td>
<td>.46</td>
<td>41</td>
<td>44.5</td>
<td>44</td>
<td>45</td>
<td></td>
</tr>
</tbody>
</table>

A.M. Overcast & cloudy. P.M. cloudy, sun out for a few minutes Wind variable strong. Work on records.

---

**Sunday Sept. 5th**

**Time, Barom. Ther. B.T. W.T. W.T. W.T.**

<table>
<thead>
<tr>
<th>Time</th>
<th>A.M.</th>
<th>B.T.</th>
<th>W.T.</th>
<th>W.T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.46</td>
<td>43</td>
<td>43</td>
<td>49</td>
</tr>
<tr>
<td>8</td>
<td>.46</td>
<td>43</td>
<td>38.5</td>
<td>38.5</td>
</tr>
<tr>
<td>12 M.</td>
<td>.44</td>
<td>41</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.40</td>
<td>42</td>
<td>44.5</td>
<td>44.5</td>
</tr>
<tr>
<td>8</td>
<td>.36</td>
<td>39.5</td>
<td>41.5</td>
<td>41.5</td>
</tr>
<tr>
<td>12</td>
<td>.36</td>
<td>39</td>
<td>43</td>
<td>42</td>
</tr>
</tbody>
</table>

Day cloudy with showers, fog at times and occasional sunshine. Wind fresh increasing to a tolerable gale in P.M. and against the tide or current forming a heavy sea. Morning about 7 o'clock, within about 4 miles of East Cape surrounded with floating fragments of ice, with more ice forming a barrier between us and the land. The bright SW. of East Cape is full of ice. Begin our soundings and aerial temperatures on a line across the Strait and complete it just as it becomes impracticable from the heavy sea to continue. Run for Port Clarence for shelter, finding the sea smoother under the land, and anchor off the mouth of the port in seven fathoms about 8 P.M. Weather squally and nasty, sundown at night.
Monday September 6th 1870
4 A.M. 29.37 38 40.5 40 46 % NW, SW.
8 . 39 .40 41 41 46 .
12 M. .40 .41 43.5 43 47.5 .
4 P.M. .41 .41 43.5 48.5 48 NNW
8 . .41 .41 42 42 48 .
12 . .40 .43 44 43.5 48 .

Morning about 4 A.M. got under way and run into Port Clarence, passing Pt. Spencer in the fog and getting nearly to Grantley Harbor before perceiving it. Run back and anchor near Pt. Spencer at 8 A.M.,
Day partly cloudy and foggy with rainsquall and sunny at times. Snow on the hills which fell last night. Wind keen and fresh nearly all day. Rain in the evening. Observations on the eastern shore of Pt. Spencer on the north side of a small inlet on the spit; for declination, dip, time and latitude, with angles for giving station. The point is very low with some small fresh water lagoons between the beaches. No village but some old deserted mining houses and ten or fifteen natives camping in temporary summer tents. Plenty of drift wood on the beach. The northern shores of Port Clarence are high barren and though near the shore with a little low land near the beach which is largely rocky. Parhelia at noon.

Tuesday Sept. 7th 80
4 A.M. 29.39 44 44 43.5 48 NW
8 . .45 .40.5 42.5 42 47 NNW
12 M. .47 .42.5 44 43.5 48 .
4 P.M. .54 .42.5 47 48.5 48 .
8 . .60 .41 .44 42.5 47 2 .
12 . .65 .41 .43 42 47 .

Stiff gale all day preventing any work.
Sky partly cleed but haze and fog overhanging the high land where the snow of the night of the 5th has mostly gone. Work over records and Bering Strait section.

Wednesday Sept 8
4 A.M. 29.66 40.5 42.6 41.5 46.5 NNW
8 . .69 .41.5 41.5 41.0 47.5 .
12 M. .72 .40.5 49 48.5 48 WNW
4 P.M. .70 .42 45 44.5 48 W
8 . .72 .42 .44 43.5 47 NW
12 . .74 .41.5 44 43 47 .

Weather variable. Squalls of rain alternating
with showers and intervals of sunshine. Wind light to fresh. Observations for time, latitude, declination and intensity. Several canoes of King's Island people came off to us.

Thursday Sept 9, 1880

4 A.M. 29.74 41 43 43.0 46.5 NW
8 ... .74 40 42 41.5 47.5 NE
12 M. .76 44 45 44.5 48.0 E
4 P.M. .72 43.5 47 46.5 48.5 NNW
8 ... .74 39.5 42.5 41.5 44
12 ... .76 37 41.5 41.0 45

Weather cloudy, late a little sunshine. Wind at first very light, afterward moderate to fresh. Sail from Port Clarence at 10.45 A.M. for the Diomede. See King's Island clearly from the entrance. It is rounded and highest toward the NW. end, thence it slopes gently toward the SE. The extreme SE. end being a little higher than the intervening land. The shores mostly bluff.

Friday Sept 10 80

Morning sky with broken clouds. Afternoon cloudy. Wind early fresh, late strong gales. About 7 P.M. come to anchor off the SE. end of the Big Diomede. Baker & Moses go ashore at the snow-filled mouth of a steep gulley, the only place where a landing could be had on this side. Obs. for time, latitude, azimuth, dip and intensity. From the ship obs. of currents surface and subsurface temperatures and bearings on adjacent land. The Diomede are granite mounds with sides worn to cliffs by the action of the sea, without beaches, the shores fringed with enormous water worn boulders. A few gullies convey the melting snow from their irregular but nearly uniformly high tops. Here are the only landing places, and partly on the accumulated talus in the largest gulley and partly by digging away behind this, a settlement of hardy Eskimo has established itself on each island. That on the little Diomede is said to be the largest, it is on the south end of the island. About thirty natives came off to us in three canoes from there. There is
also a settlement on the S.W. side of the
Big Diomede which we did not see. There
was a cache and had been a hut on a small
level spot at the side of the gully where ob-
servations were made, some sixty feet above
the water. By going over the top of the island
the inhabitants could communicate
with the village on the S.W. side. Those
who came off to us gave us the following
names for the islands, e., Little Diomede
Ing-ah-khuk'; Big diot, Im-ah-khuk'; Fair
way Rock, Wei-yuh; East Cape Nw-wûch';
People on Little Diomede, Ing-uh-klee-mut'; on
the big one, Imah-klee-mut'; on East Cape
No-ghwâh-mut'; Reindeer people Kâgh-uhk-
tug-ü-mut'. The islands are frequented by
millions of small aukus and divers, which
afford a very good article of food to the na-
tives who also get seal and walrus, but the
land has no other inhabitants in the way
of animals. The chief support of these people
is derived from their position as traffickers
between the natives of the two continents.
On leaving Port Oldendorf last evening we
obtained a very good view of the coast be-
tween it and Cape York. It appeared to
consist entirely of stratified rocks, which
near the shore formed a high bench
with beaches here and there, but mostly
cliffy, interrupted by a few grassy val-
ties. The bench, and the frost-rounded
peaks a little further inland behind it,
seemed to be almost wholly destitute
of vegetation, and parts of it were cov-
ered with patches of old and a thin layer
of new fallen snow. At 3 P.M, ob-
servers came aboard, and we sail
for Plover Bay, the wind freshening to
tolerable gale. From the appearance
of the sky and the reports of the natives
it seemed that the ice extended out in-
to the Strait a considerable distance
from East Cape and filled the bight
to the south west from it.

Saturday, Sept. 11/50

<table>
<thead>
<tr>
<th>Time</th>
<th>True</th>
<th>Bear</th>
<th>Thd.</th>
<th>Dryb.</th>
<th>Wetb.</th>
<th>Watch</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.80</td>
<td>35.5</td>
<td>39.0</td>
<td>38.5</td>
<td>36</td>
<td>NNE</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>.83</td>
<td>36.5</td>
<td>38.5</td>
<td>38.5</td>
<td>38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 M.</td>
<td>.89</td>
<td>38.5</td>
<td>41</td>
<td>40.5</td>
<td>37.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.87</td>
<td>40</td>
<td>42</td>
<td>42.0</td>
<td>37.5</td>
<td>NWlyS</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>.87</td>
<td>39</td>
<td>40</td>
<td>40.5</td>
<td>37</td>
<td>Calm</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>.88</td>
<td>37</td>
<td>39</td>
<td>39.5</td>
<td>36.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Kept on a straight course for Plover Bay (Indian Point) taking half hourly surface temperatures. About 1.30 A.M. came up with large fragments of green pack ice and came to until daylight. Weather cloudy with short intervals of sunshine. Late in the afternoon nearly clear. A light fall of snow in the night. Wind strong gradually dying away, at sunset calm. Speak Bark Progress, Lapham, 17 whales. Work over letters and records. Late at night come to off the entrance to Plover Bay. Bark Sea Breeze trying out oil near by.

Sunday Sept 12/80

4 A.M.  29.83  35.5  38.0  38.5  34  Calm
8     .  80  37  36.5  36.0  38
12    .  75  42.5  43.0  42.5  39  
4 P.M.  .  70  40  41.5  41.5  40  E.
8     .  66  38  38.5  39  39
12    .  62  34.5  39.5  39  39


Cornelius, a native, who speaks English very well, tells me the Reindeer men call themselves Isawjat and that the Eskimos have only a commercial intercourse with them. The languages he says are entirely different. A party of natives from East Cape, including old Notokin's son last season established themselves on the S. head of Archangel Gabriel Bay. Other at a point further north and more are likely to follow urged by the growing scarcity of seal and walrus about the strait. There seems to be a doubt if the death of so many people on St. Lawrence I'd, winter before last was due to starvation or to some disease. Cornelius says when all the natives of one village were found dead in their beds, they were not emaciated and their was blubber in the blubber rooms and plenty of walrus hide, which they would not have left if they were starving.
Monday Sept. 13, 1880


4 A.M. 29.57 32.5° 39 38.5° 39° 8°
8 " 31.5° 39.5° 39.5° 39° 8°
12 Ill. 41.49 41.40 39.5° 39° 8°
4 P.M. 42.46 42.43 42.5° 39° Calm
8 " 41.52 39.5° 41.0° 39.5° N
12 " 39.5° 42.5° 42.5° 39.5°

Weather with some sunshine early in the morning, late cloudy, nearly calm.

Obs. for time and magnetic azimuth.

Capt. Lapham & Owen come aboard. Capt. Owen & Cunningham confirm the experience we have had this year of finding warmer water north of the Strait than south of it, going north early. There are three sets, or currents in the Arctic. One running North from Cape Lisburne along the coast to Pt. Barrow. Another running in the same trend as the land east from Pt. Hope over toward Herald Shoal, offering an opportunity of getting to the westward where there is still ice to the southward extending east of the meridian of the Strait. The last runs along the coast from East Cape north and west.

There is often a grounded pack around Pt. Herald Shoal with water about it. Capt. Owen reached Pt. Barrow and returned in two hours, narrowly escaping being shut in by the ice which was only six miles off the point and shut in just after he came back around it. The schi. Alaska was the only sailing vessel to get round to the point and she was shut in there (ground) several days. He (Owen) had never been around Pt. Barrow without being shut in several times during his stay. The shoal on Rodgers chart north of St. Matthew he felt sure had no existence, having cruised there a good deal. In going north in the Irish Perry, in 1879, he had had a temperature south of the Strait 37° but on getting north of Cape Lisburne he found it 42°. All agreed that no two seasons were alike in the Arctic, or rather, that no one could form any probable idea of what one season would be from the character of that which preceded it.

This relates to the character and more
ments of the ice, the weather and the 
movements of whales. The currents are 
largely affected by the wind and tides 
chiefly by the latter. The motion of the 
ice depends more on the winds, but 
not wholly.

---

**Tuesday Sept. 14/60**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.58</td>
<td>33.5</td>
<td>42</td>
<td>41.5</td>
<td>89</td>
<td>N</td>
</tr>
<tr>
<td>8</td>
<td>.64</td>
<td>35.0</td>
<td>38</td>
<td>38.5</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>12 M.</td>
<td>.66</td>
<td>41.5</td>
<td>41</td>
<td>40.5</td>
<td>40</td>
<td>S</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.64</td>
<td>41.5</td>
<td>42.5</td>
<td>42.5</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>.64</td>
<td>39.0</td>
<td>41.5</td>
<td>41.5</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>.53</td>
<td>40.0</td>
<td>43.5</td>
<td>43.0</td>
<td>38</td>
<td>SE</td>
</tr>
</tbody>
</table>

Morning half clear, later cloudy, bad weather breas-
ing apparently. Wind fresh, in the evening squally.
Obs. for determination of station on the spit.
A boat arrives from St. Lawrence Id., bring-
ing the revenue officer Mr. Wykoff and sev-
eral men of the Sch. Soleta which they re-
port lost on St. Lawrence Id. three or four days 
ago in the bright fifteen or more miles east-
ward from the NW point of the island. A con-
sultation is held by the masters in port and it 
is decided that the Sch. Long and the steam 
whaler Mary + Helen will go over, the men to 
go to the Sandwich Ids in the Long. We

---

**Wednesday Sept. 15/60**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.41</td>
<td>40.5</td>
<td>53</td>
<td>53.5</td>
<td>88.5</td>
<td>SE</td>
</tr>
<tr>
<td>8</td>
<td>.38</td>
<td>42.5</td>
<td>44</td>
<td>44.0</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>12 M.</td>
<td>.37</td>
<td>44.5</td>
<td>46.5</td>
<td>46.5</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.39</td>
<td>45.0</td>
<td>41</td>
<td>41.5</td>
<td>41</td>
<td>SSE</td>
</tr>
<tr>
<td>8</td>
<td>.41</td>
<td>41.0</td>
<td>45</td>
<td>45.5</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>.44</td>
<td>41.0</td>
<td>43</td>
<td>44.0</td>
<td>40</td>
<td>NNE</td>
</tr>
</tbody>
</table>

Morning cloudy, later sun out at times. 
Wind fresh and fog rolling in. Nals in P.M.
Work over records, Letters + accounts pre-
pared to go down by the Mary + Helen.

---

**Thursday Sept. 16**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.46</td>
<td>40.0</td>
<td>42.5</td>
<td>43</td>
<td>39.5</td>
<td>NNE</td>
</tr>
<tr>
<td>8</td>
<td>.35</td>
<td>34.5</td>
<td>36</td>
<td>36.5</td>
<td>38.5</td>
<td></td>
</tr>
<tr>
<td>12 M.</td>
<td>.62</td>
<td>34.5</td>
<td>36</td>
<td>36.5</td>
<td>38.0</td>
<td></td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.69</td>
<td>34.5</td>
<td>40</td>
<td>39.5</td>
<td>38.5</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>.80</td>
<td>32.0</td>
<td>35</td>
<td>34.5</td>
<td>37.5</td>
<td>NW</td>
</tr>
<tr>
<td>12</td>
<td>.89</td>
<td>30.0</td>
<td>-</td>
<td>-</td>
<td>36.5</td>
<td></td>
</tr>
</tbody>
</table>

Morning blowing hard, with snow. Sun out.

---

*Hygrometer in cabin to avoid freezing*
at times, but a stiff breeze prevents leaving port or any field work. Obtain from Capt. Owen several of his old logs to extract temperature observations. The scho. Long sails for the wreck on St. Lawrence Island.

**Friday Sept. 17, 1980**

<table>
<thead>
<tr>
<th>Time</th>
<th>Temp</th>
<th>Humidity</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.90</td>
<td>30.5</td>
<td>37</td>
</tr>
<tr>
<td>8</td>
<td>34.5</td>
<td>35.5</td>
<td>35</td>
</tr>
<tr>
<td>12 M</td>
<td>35.5</td>
<td>36</td>
<td>35.5</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>37.5</td>
<td>37</td>
<td>38</td>
</tr>
<tr>
<td>8</td>
<td>33</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>12 M</td>
<td>35</td>
<td></td>
<td>44</td>
</tr>
</tbody>
</table>

Morning nearly calm, clear, later cloudy with fresh wind. By the kindness of Capt. Owen, after weighing anchor about 0.10 A.M., we are to sail out of Hove Bay, toward Marcus Bay where the wind freshens and we make sail along the northern coast of St. Lawrence Isd. The scho. Long comes out of Marcus Bay and with the Mary Helen stands off toward the island to rescue the crew of the Loleta.

---

**Saturday Sept. 18, 1980**

<table>
<thead>
<tr>
<th>Time</th>
<th>Temp</th>
<th>Humidity</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.70</td>
<td>41.5</td>
<td>44.5</td>
</tr>
<tr>
<td>8</td>
<td>.65</td>
<td>43</td>
<td>43.5</td>
</tr>
<tr>
<td>12 M</td>
<td>.60</td>
<td>48</td>
<td>44.5</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.52</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>8</td>
<td>.45</td>
<td>44.5</td>
<td>44</td>
</tr>
<tr>
<td>12 M</td>
<td>.33</td>
<td>43</td>
<td>45</td>
</tr>
</tbody>
</table>

Morning cloudy later foggy. Wind fresh. Round the east end of St. Laurence, meeting very heavy swell. Found in 17 fms., the N. edge of the S.E. pt. N.1/2 W.; S. edge do. N.W. by W.; heard land N.W. by N. 1/4 N. It is evident we cannot make a landing even if the wind subsides, at least for several days, so we...
keep away for St. Mathew. The land at
the point is rather high and bluff with
flat or low lands between the high and the
beach. Shore rocky. According to Capt. Owen
there is a small E. W. spit at the NW.
point on which the village is and where
a lee can be made from N. and NE. winds.

### Monday Sept. 20, 1880

<table>
<thead>
<tr>
<th>Time</th>
<th>Bar.</th>
<th>Bar.</th>
<th>W.</th>
<th>W.</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.38</td>
<td>42</td>
<td>43.5</td>
<td>43</td>
<td>45</td>
</tr>
<tr>
<td>8</td>
<td>.72</td>
<td>45</td>
<td>43.5</td>
<td>43</td>
<td>44</td>
</tr>
<tr>
<td>12 M.</td>
<td>.43</td>
<td>39.5</td>
<td>42.0</td>
<td>42</td>
<td>44</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.60</td>
<td>39.5</td>
<td>39.5</td>
<td>39</td>
<td>44.7</td>
</tr>
<tr>
<td>8</td>
<td>.68</td>
<td>38.5</td>
<td>40.0</td>
<td>41</td>
<td>42.5</td>
</tr>
<tr>
<td>12 M.</td>
<td>.72</td>
<td>37.0</td>
<td>38.5</td>
<td>38</td>
<td>43</td>
</tr>
</tbody>
</table>

Day cloudy with snow squalls and a brisk
 Gale and heavy sea. We were obliged to
lay to under a double reefed foresail, until
midnight with a heavy bbd confined to running.

### Tuesday Sept. 21st

<table>
<thead>
<tr>
<th>Time</th>
<th>Bar.</th>
<th>Bar.</th>
<th>W.</th>
<th>W.</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.75</td>
<td>36</td>
<td>39.5</td>
<td>38.5</td>
<td>42.5</td>
</tr>
<tr>
<td>8</td>
<td>.75</td>
<td>43</td>
<td>40.0</td>
<td>41.5</td>
<td>44.0</td>
</tr>
<tr>
<td>12 M.</td>
<td>.72</td>
<td>37</td>
<td>40.0</td>
<td>39.5</td>
<td>43.5</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.64</td>
<td>38</td>
<td>40.5</td>
<td>40.0</td>
<td>44</td>
</tr>
<tr>
<td>8</td>
<td>.59</td>
<td>37</td>
<td>40.5</td>
<td>39.5</td>
<td>43</td>
</tr>
<tr>
<td>12 M.</td>
<td>.58</td>
<td>36.5</td>
<td>39.0</td>
<td>38.5</td>
<td>43</td>
</tr>
</tbody>
</table>

Morning cloudy cold; sun out at times
later in the day. Wind somewhat moderate
Sea a little eddier. Put her under reefed
foresail, jib and trie reefed mainsail.
Later give her the flying jib and shake
a reef out of the mainsail. Too rough
for dry clerical work.

### Wednesday Sept. 22, 1880

<table>
<thead>
<tr>
<th>Time</th>
<th>Bar.</th>
<th>Bar.</th>
<th>W.</th>
<th>W.</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.32</td>
<td>37</td>
<td>38.5</td>
<td>38.0</td>
<td>43.5</td>
</tr>
<tr>
<td>8</td>
<td>.72</td>
<td>39</td>
<td>41</td>
<td>40.5</td>
<td>44</td>
</tr>
<tr>
<td>12 M.</td>
<td>.75</td>
<td>44</td>
<td>47</td>
<td>47.0</td>
<td>42</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.78</td>
<td>39.5</td>
<td>42</td>
<td>41.5</td>
<td>42.5</td>
</tr>
<tr>
<td>8</td>
<td>.78</td>
<td>38</td>
<td>41.5</td>
<td>41.0</td>
<td>43</td>
</tr>
<tr>
<td>12 M.</td>
<td>.79</td>
<td>38</td>
<td>42</td>
<td>41.5</td>
<td>45</td>
</tr>
</tbody>
</table>

Day with snatches of sunlight and high
squally wind, fresher later in the day.
Morning make the NW. end of St. Mathew
and run along the Northern shore vainly
seeking a lee until we reach Cape
Upright. Get obs. for time just off the
Cape, from the vessel and determine to
try landing in a small bay in the
Cape. Although attended with some risk
Come to anchor under the Cape about
10 A.M. The party succeed in getting
ashore, with a drenching, get some obs. for latitude and bearings on adjacent land. The wind increased and the boat gets safely back to my great relief, after which a few more obs. for time are taken and we weigh anchor and proceed under shortened sail toward Unalaska. Wind very fresh, puffy, with bad sea.

**Thursday Sept. 23/80**

**Fine. Barion. Thr. Env. Wet. Water Wind.**

<table>
<thead>
<tr>
<th>Time</th>
<th>4 A.M.</th>
<th>8 A.M.</th>
<th>12 A.M.</th>
<th>4 P.M.</th>
<th>8 P.M.</th>
<th>12 P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.48</td>
<td>38.5</td>
<td>40.5</td>
<td>40.0</td>
<td>44.5</td>
<td>NW by N</td>
</tr>
<tr>
<td>8 A.M.</td>
<td>38.0</td>
<td>43.0</td>
<td>43.0</td>
<td>45.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 A.M.</td>
<td>39.5</td>
<td>41.5</td>
<td>41.5</td>
<td>45.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 P.M.</td>
<td>43.0</td>
<td>43.0</td>
<td>43.0</td>
<td>45.0</td>
<td>NW by N</td>
<td></td>
</tr>
<tr>
<td>8 P.M.</td>
<td>40.0</td>
<td>42.5</td>
<td>42.0</td>
<td>45.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 P.M.</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Day cloudy, sun out at rare intervals. Wind strong, squally, sea heavy. Vessel winged out and making good progress but nothing so as to prevent work.

**Friday Sept. 24th**

<table>
<thead>
<tr>
<th>Time</th>
<th>4 A.M.</th>
<th>8 A.M.</th>
<th>12 A.M.</th>
<th>4 P.M.</th>
<th>8 P.M.</th>
<th>12 P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.88</td>
<td>39</td>
<td>41</td>
<td>41.0</td>
<td>46.0</td>
<td>NW by N</td>
</tr>
<tr>
<td>8 A.M.</td>
<td>39.5</td>
<td>42.5</td>
<td>42.5</td>
<td>47.5</td>
<td>SW</td>
<td></td>
</tr>
<tr>
<td>12 A.M.</td>
<td>41</td>
<td>39</td>
<td>38.5</td>
<td>47.5</td>
<td>S SSW</td>
<td></td>
</tr>
<tr>
<td>4 P.M.</td>
<td>42</td>
<td>44</td>
<td>44</td>
<td>47.5</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>8 P.M.</td>
<td>41.5</td>
<td>44</td>
<td>44</td>
<td>47.0</td>
<td>SSE</td>
<td></td>
</tr>
<tr>
<td>12 P.M.</td>
<td>42.5</td>
<td>42.5</td>
<td>46</td>
<td></td>
<td>SSW</td>
<td></td>
</tr>
</tbody>
</table>

Day cloudy, rainy with heavy sea and continuation of severe gale, no work done or practicable.

Morning cloudy, wind lighter and less favorable, shifting ahead. Later wind veers to the southward and in the evening rises to a smart gale, obliging us to shorten sail and attended with so much pitching that all work is suspended.

**Saturday Sept. 25/80**

**Fine. Barion. Thr. Env. Wet. Water Wind.**

<table>
<thead>
<tr>
<th>Time</th>
<th>4 A.M.</th>
<th>8 A.M.</th>
<th>12 A.M.</th>
<th>4 P.M.</th>
<th>8 P.M.</th>
<th>12 P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.12</td>
<td>45.5</td>
<td>43</td>
<td>43</td>
<td>47</td>
<td>SSW</td>
</tr>
<tr>
<td>8 A.M.</td>
<td>45.0</td>
<td>43.5</td>
<td>43</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 A.M.</td>
<td>47</td>
<td>47</td>
<td>47</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 P.M.</td>
<td>47.5</td>
<td>47.0</td>
<td>46.5</td>
<td>47.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 P.M.</td>
<td>46.0</td>
<td>45.4</td>
<td>44</td>
<td>46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 P.M.</td>
<td>45.0</td>
<td>48</td>
<td>47.5</td>
<td>46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Day cloudy with rain, thail and so stiff a gale as to interrupt all work.

**Sunday Sept. 26**

<table>
<thead>
<tr>
<th>Time</th>
<th>4 A.M.</th>
<th>8 A.M.</th>
<th>12 A.M.</th>
<th>4 P.M.</th>
<th>8 P.M.</th>
<th>12 P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.32</td>
<td>43.5</td>
<td>47</td>
<td>46.5</td>
<td>46.0</td>
<td>SSW</td>
</tr>
<tr>
<td>8 A.M.</td>
<td>44</td>
<td>46.5</td>
<td>46.5</td>
<td>46.5</td>
<td></td>
<td>SSW</td>
</tr>
<tr>
<td>12 A.M.</td>
<td>46</td>
<td>49.0</td>
<td>47.0</td>
<td>47.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 P.M.</td>
<td>48</td>
<td>47.5</td>
<td>46.7</td>
<td>46.7</td>
<td>S SW</td>
<td></td>
</tr>
<tr>
<td>8 P.M.</td>
<td>44.5</td>
<td>46.0</td>
<td>45.5</td>
<td>46.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 P.M.</td>
<td>45</td>
<td>46</td>
<td>46.0</td>
<td>46.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Monday Sept. 27/80

4 A.M. 29.22 44.5 46 46 46 WSW
8 " 34 44 45.5 45 46 "
12 M. 48 44 46 46 46.5 "
4 P.M. 54 44 46 46 46 "
8 " 54 42 44 43.5 46 "
12 " 47 43.5 45 44.5 45,5 SSW
Day cloudy with rain & glimpses of sun.
Fog continues but wind shifts and the sea goes down a little. Work impracticable.

Tuesday Sept. 28th

4 A.M. 29.16 44 42 41.5 45.5 ESE
8 " 28.84 43 43.5 44.0 45.5 "
12 M. 28.31 42 41 40.5 40.5 "
4 P.M. 28.28 43.5 44 44.5 44.5 NE
8 " 28.48 41 44 44 43.5 NNE
12 " 28.70 40 42.5 42 43.0 N.
Day cloudy with rain and the heaviest fog we have experienced. Barometer reaches 28.25, the lowest recorded in this region (=28.50 per mercurial standard barometer reduced to 32°F). In the morning see the Western end of Akutan, run over for Captains Bay in very heavy squalls & fog owing to which we miss the entrance and are carried by the current off Cape.
Cheerful near to the fishing station and retreat being impossible are obliged to put to sea, a most severe gale raging.
This continues all night and surpasses anything ever experienced by any one on board. During the night some of the squalls were excessively violent almost equal to a hurricane.

Wednesday Sept 29/80

4 A.M. 28.90 43 45 44.5 43 N
8 " 29.15 42.5 44.5 44.0 42.5 NW
12 M. .30 43.5 43.5 45.5 44.7 "
4 P.M. .32 42.5 44.5 44.5 44.7 "

The wind continued to rage with great fury and the sea was extremely heavy. The day owing to the shifting of the wind around to the westward was partly clear with flying scud. Early in the morning saw Bogoslof under our lee. Though the vessel behaves nobly it is evident we cannot ride out 24 hours longer without going on a lee shore and we therefore determined to run for Chernoffske Harbor, fairly.
To find which we shall have the chance of escape through the Um- 
nak Pass. Run down past the NE 
end of Unmack, which is high and 
rounded with a low bluff and 
short spit making out to the north 
ward, over which most terrific 
breakers are rolling to the height of 
forty or fifty feet; and, Providentially 
succeed in finding the entrance to 
Chernoffskey Harbor where we anchor 
at 2.15 P.M. to the unspeakable relief 
of all hands. There is no doubt 
that our position was extremely 
perilous, before entering the harbor 
and the chances of getting out by 
the Pass of Unmack not favorable. 
Toward night the sky became clear 
but the gale continued to rage.

Thursday Sept. 30th 1880

6 A.M. 29.82 39 40.5 40.5 44.7 SE
12 M. 29.62 40 41 41.5 44.2
6 P.M. 28.69 43 44 44.5 44.5

Day stormy, rainy and blowing hard. Work 
over monthly reports and journals and quark 
by reports.

There are about a dozen native houses here 
two trading stations of the A. C. Co. W. F. & 
E. Co. respectively; in charge of Messrs Wagner 
and Adolph Reinken. There are about 
94 inhabitants, not counting the whites.

Friday Oct 1st 1880

6 A.M. 28.66 41.5 44 44 43.5 Baffling
12 M. 28.54 46 45 47.5 47 SSW
6 P.M. 28.54 44.5 45 44.5 46 SE

Day partly clear with flying scud, rainsquall 
and very low barometer.

Obs. for time, latitude, magnetic and astronomical azimuth and angles for determination of 
station. Draw seine with poor success and fill water.

Make some comparisons of barometers with 
the mercurial standard, to determine if the 
aneroids are to be relied on, on account of 
the very low figures; as follows.

Nure. stand. corr. to 32 F. 28.809 28.736
Standard aneroid 28.68 (-12) 28.58 (-12)
Casella aneroid 28.81 28.72 (-12)
K. V. E. aneroid 28.98 (+17) 28.88 (+14)

The entrance to Chernoffskey Bay is well 
marked; first, by Aspindoe (Close) Point about
2½ miles to the eastward (high black and peaked), second, by a prominent small rocky lump a quarter of a mile or more east of the east head and lastly by the narrow rocky promontories which form the heads. The harbor is excellent but the water rather deep. The land about is lower than at Hinlicky and covered by rich black soil and a luxuriant growth of grass. They have been gardens here. The chief support of the people is the sea-otters, about 100 taken annually. Fourteen bidarkas hunt from this place. There is a shoal at Cove Pt. the turning point of the harbor extending WSW an eighth of a mile which is not on the chart and which we shall sound out. Our station is on the end of Cape point about ¾ of a mile from the village. Kashega village is to the eastward is situated on a small spit in a bay opening to the N. and W. It is not a good anchorage because the water behind the spit is too shoal for any thing but boats. At Makushin village a good anchorage is reported and some others unsurveyed between it and Chernoffsky.

---

**Saturday Oct. 2/80**

Fine, Barn. They. Dry. Wet. Water. Wind
6 A.M. 28.62 40 41.5 42 44.5 E
12 M. 32 48 50.5 49.5 46.5 NW
6 P.M. 38 43.5 44.0 44 45.0
Day half clear. Wind moderate to fresh with occasional showers.
Observations for time, latitude, declination, dip, and intensity. Work over records.

**Sunday Oct. 3rd**

6 A.M. 29.45 42 44.5 44.5 45 WNW
12 M. 34.50 50 53 52 46.5
6 P.M. 38 46 46 46 46 N
Morning half rainy, later cloudy with showers. Wind light.
Sound on the shoal off (Observation) Cove Pt. The shoal extends broad off the point WSW regularly increasing in depth from the shore in 50 fathoms from the beach where the depth is three fathoms, while at 70 fathoms distance the depth is 5 fathoms. It is readily recognizable by the discolored water the bottom being white and shelly. It extends from the extreme of the point in a WSW direction and is about three cables wide and does not reach to easterd of the extreme point.
Monday Oct 4th 80

6 A.M. 30.02 41 41.5 41.5 47 N
12 M. .09 49 49 48.5 47.5 Calm
8 P.M. .08 48 47 47 47.5 NW

Day nearly clear till 10 A.M. then cloudy with heavy fog in evening. Wind light or none. Not under way early in the A.M. and work our toward the entrance against a very light wind which failing we return a short distance and anchor in the entrance of the inner bay.

Tuesday Oct 5th

4 A.M. 3.00 41 42.5 42 47 SE
8 a.m. 29.95 42 43 43 46 ESE
12 M. .92 42.5 45 45 45 SSW
4 P.M. .82 42 43 43 45 W
8 .75 41 43.5 43.5 45 SE
12 .68 41 43.5 43.5 45 .

Day cloudy with showers. Wind light to fresh, looking the compass
At 5.30 A.M. sail from Chernoffsky.
At 9.00 P.M. anchor in the outer roadstead of Captains Bay, the weather being very dark and nasty. Saw the Sora going through Akutan Pass. The Convoy sailed hence for San Francisco on the 2nd instant.

Wednesday Oct 6th 80

4 A.M. 29.60 40.5 43 42.5 42 SE
6 P.M. .68 45.5 48 47.5 45.5 Calm

Receive our first and only mail of the season. Day spent in its examination and in preparing letters and accounts to go down by the Collins.

Thursday Oct 7th

6 A.M. 29.44 45.5 48.5 48.5 46 SW
12 M. .52 46.0 49.5 50.0 47
6 P.M. .46 45.0 45.5 45.5 46 Calm

Day more than half clear. Wind moderate S.E. Sch. Pauline Collins sails for San Francisco with our mail.
Observations for time dip and intensity completing the season’s field work as far as planned.
Repair & paint storehouse at this place and erect a fence around it and a breakwater to keep the bank in front safe.
Friday Oct 8th 1880

6 A.M. 29.24 70.0 42.5 42.0 44.5 SW
12 M. 24 47.5 5.0 50.0 46.0
6 P.M. 18 44.0 44.5 44.5 45.0
Morning cloudy. Later occasional rains. Wind fresh to cold but puffy. Continue repairs etc. in storehouse. Send boat out for salmon and obtain sixty seven. Work over records and preparations for sea.

Saturday Oct 9th

6 A.M. 29.16 40 41.0 41.0 44 SW
12 M. 27 45 48.5 47.5 45.5
6 P.M. 18 41.5 42.5 42.5 45 W
Day rainy and squally. Snow falling on the uplands. More snow at night. Work over records and computations.

Sunday Oct 10th

6 A.M. 29.69 38.0 40 40.5 42.5 SW
12 M. 18 42.5 45 44.5 44.5 NW
6 P.M. 16 41.5 44 43.5 44.5
Day cloudy with rainsqualls. Much snow on the higher hills. Wind moderate to fresh.

Monday Oct 11th

6 A.M. 30.11 37.5 46.5 40.5 44.5 NNE
12 M. 18 43.5 46.5 46.0 45.5
6 P.M. 16 40.5 42.5 42.0 45.0

Day half clear. Wind light and cold. Fill water; get coal from Mr. F. M. Smith. Deputy, coll. of customs to the amount of a ton and a half from the government coal pile. Work over records and charts.

Tuesday Oct 12th

6 A.M. 30.20 38 37.5 37 42 Calm
12 M. 18 39 43.5 43 45 SE
6 P.M. 10 39.5 42.5 42 44.5
Morning cloudy, wind light. Later rainy. Some snow fell on deck about noon. Send the boat out for cod fish but the day is unfavorable, get only 20 and one halibut. Sch. Matthew Turner Andersen arrives from Michael's Redoubt, Muchofak with 500 lbs. salted salmon from the latter place. Yet from Capt. Andersen the following observations made at St. Michael's by the officers of the Rush and the Jeannette in 1879. The variation was determined with an azimuth compass, the time and latitude by sextant and artificial horizon. The station was within the old Russian Redoubt near the site of the old bathouse
Mr. Danenhower of the Jeannette, June 19th 1879:

Lat. N. 63° 28'.17''
Lon. W. 162° 04'.45''
Var. E. 24° 40''

Lieut. Haardt of U.S. S. Rush

Lat. N. 63° 29'.60''
Lon. W. 162° 05'.45''
Var. E. 22° 37''

The position by bearings on Kyska etc., for the shoal near Kyska was determined by Capt. Andersen to be about

Lat. N. 52° 07''
Lon. E. 177° 54''

It is also mentioned in Capt. Bailey's report on the cruise of the Rush.

The priest of Ilulissat from a small patch near Ilulissat head, has raised two crops of turnips gradades and one of good-sized potatoes (just harvested). There were 300 lbs of potatoes from two pecks of seed.

The first crop of turnips was large & fine the second rather small sized, i.e. the turnips themselves. The bishop talked of residing and having a mission school here.

Wednesday Oct 13, 1879

6 A. M. 29.88 40.5° 42 42 44 NE
12 M. 39 43.5° 45 44° 45°
6 P. M. 74 42.5° 44 44 45°

Day rainy & stormy. Wind fresh with heavy squalls at night. Work over computations and records.

Thursday Oct 14th

6 A. M. 29.61 40.5° 42 42 45° N
12 M. 48 39.5° 40 40.5° 44.5°
6 P. M. 84 39.5° 40.5° 41.0 44.5° E


Friday Oct 15th

6 A. M. 29.20 42.5° 44.0 44.5° 44.5° SE
12 M. 18 48.0 46.5 46.5 45.0° E
6 P. M. 16 43.5° 44.0 44.5° 44.5° SW

Day rainy, glimpses of sun once or twice. Wind moderate. Work over records & clerical work. Send boat out codfishing. A good deal of snow on hill tops.

Saturday Oct 16

6 A. M. 29.31 44.5° 44.0 44.5° 44.5° S
12 M. 39 53.5° 48.0 48.0° 46° NE
6 P. M. 38 44.0 44 44.5° 44.5° SSW
Weather partly clear at times with drifting snow and fog. Rainy in P.M. Winds fresh to moderate.

---

**Sunday Oct. 17th 1880**

Fine Bar. The 5g. Dry b. Wet b. Water wind.

<table>
<thead>
<tr>
<th>Time</th>
<th>Bar.</th>
<th>The</th>
<th>Dry b.</th>
<th>Wet b.</th>
<th>Water</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 A.M.</td>
<td>27.34</td>
<td>37.5</td>
<td>38</td>
<td>38.5</td>
<td>43</td>
<td>SW</td>
</tr>
<tr>
<td>12 U.</td>
<td>.35</td>
<td>39.5</td>
<td>41</td>
<td>41</td>
<td>44</td>
<td>S</td>
</tr>
<tr>
<td>6 P.M.</td>
<td>.40</td>
<td>38.5</td>
<td>40</td>
<td>40</td>
<td>43</td>
<td>S</td>
</tr>
</tbody>
</table>

Cloudy with showers; about sunset it clears off, promising fair for tomorrow. Wind variable to light. During the night a heavy snowfall coming down 12,000 feet on the hill. A little snow falls on deck in the early A.M. The schooner Matthew Turner sails for the westward.

---

**Monday Oct. 18th**

<table>
<thead>
<tr>
<th>Time</th>
<th>Bar.</th>
<th>The</th>
<th>Dry b.</th>
<th>Wet b.</th>
<th>Water</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 A.M.</td>
<td>27.64</td>
<td>38.5</td>
<td>41</td>
<td>41</td>
<td>44</td>
<td>SSW</td>
</tr>
<tr>
<td>8 &quot;</td>
<td>.74</td>
<td>40</td>
<td>42</td>
<td>42</td>
<td>44</td>
<td>&quot;</td>
</tr>
<tr>
<td>12 M.</td>
<td>.78</td>
<td>40.5</td>
<td>42</td>
<td>42</td>
<td>45</td>
<td>&quot;</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.80</td>
<td>40.5</td>
<td>42.5</td>
<td>42.5</td>
<td>46</td>
<td>N</td>
</tr>
<tr>
<td>8 &quot;</td>
<td>.82</td>
<td>38.5</td>
<td>41.5</td>
<td>41</td>
<td>46.5</td>
<td>&quot;</td>
</tr>
<tr>
<td>12 &quot;</td>
<td>.86</td>
<td>40</td>
<td>42</td>
<td>42.5</td>
<td>46.5</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

Day cloudy with a few rainsqualls & fresh to moderate wind. Slip moorings about 6 A.M. and beat out of Captain's Bay, and just succeed in squeaking through the Unalga Pass against the tide. Take our departure at 1:30 P.M. from Egg Isd. en route for San Francisco.

---

**Tuesday Oct. 19th 1880**

Fine Bar. The 5g. Dry b. Wet b. Water wind.

<table>
<thead>
<tr>
<th>Time</th>
<th>Bar.</th>
<th>The</th>
<th>Dry b.</th>
<th>Wet b.</th>
<th>Water</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.70</td>
<td>38.5</td>
<td>42</td>
<td>41</td>
<td>46</td>
<td>N</td>
</tr>
<tr>
<td>8 &quot;</td>
<td>.68</td>
<td>34</td>
<td>42</td>
<td>42</td>
<td>47</td>
<td>NE</td>
</tr>
<tr>
<td>12 M.</td>
<td>.64</td>
<td>40.5</td>
<td>42</td>
<td>42</td>
<td>47</td>
<td>&quot;</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>.69</td>
<td>41.5</td>
<td>42.5</td>
<td>42</td>
<td>46</td>
<td>&quot;</td>
</tr>
<tr>
<td>8 &quot;</td>
<td>.73</td>
<td>41</td>
<td>42</td>
<td>41</td>
<td>46</td>
<td>&quot;</td>
</tr>
<tr>
<td>12 &quot;</td>
<td>.84</td>
<td>42</td>
<td>44</td>
<td>43.5</td>
<td>47</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

Day cloudy with rain. Wind fresh with irregular choppy sea. Which increase and oblige us to heave to about 3 P.M. in which condition we pass the rest of the day.

---

**Wednesday Oct. 20th**

<table>
<thead>
<tr>
<th>Time</th>
<th>Bar.</th>
<th>The</th>
<th>Dry b.</th>
<th>Wet b.</th>
<th>Water</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 A.M.</td>
<td>29.91</td>
<td>42</td>
<td>43</td>
<td>42.5</td>
<td>45</td>
<td>NE</td>
</tr>
<tr>
<td>8 &quot;</td>
<td>30.11</td>
<td>41</td>
<td>44</td>
<td>44</td>
<td>48.5</td>
<td>&quot;</td>
</tr>
<tr>
<td>12 M.</td>
<td>30.03</td>
<td>41</td>
<td>44</td>
<td>44</td>
<td>50</td>
<td>&quot;</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>29.99</td>
<td>41</td>
<td>44</td>
<td>44</td>
<td>48</td>
<td>&quot;</td>
</tr>
<tr>
<td>8 &quot;</td>
<td>.96</td>
<td>40.5</td>
<td>43.5</td>
<td>43</td>
<td>48.5</td>
<td>NE</td>
</tr>
<tr>
<td>12 &quot;</td>
<td>.89</td>
<td>42</td>
<td>42</td>
<td>42</td>
<td>50</td>
<td>N</td>
</tr>
</tbody>
</table>

Thursday Oct 21st 1880
Fine, Bar. Thu. Dry, Wet6, Water, Wind
4 A.M. 28.80 435 48 46.5 50 N.
8 " " .64 43 48 47 50.5 N.W.
12 " " .50 44 46.5 46.5 51 N.
4 P.M. .26 44 45 44.5 50.5 W.N.W.
8 " " .06 45 45 44 55 "
12 " 28.88 475 53 49 52 N.
Cloudy, rainy with bad sea and stiff breeze.
P.M. Wind shifts and increases obliging us to heave to again.
Blows very hard with shifting wind and low bar.

Friday Oct 22, 1880
4 A.M. 28.84 49 52.5 49 52 N.
8 " " .92 49 50.5 50 52 S.W.
12 " " 29.02 49.5 52.5 52 18.5 S.
4 P.M. .12 48.5 50.5 50.5 52 8.
8 " " .25 49.5 51.5 51 52 8.
12 " " .38 49 52 51 53 S.S.E.

Morning cloudy with showers and stiff breeze.
About 11 P.M. get under way again, under close reefs to remain.

Saturday Oct 23
4 A.M. 29.34 48.5 50 495 52 S.E.
8 " " .26 50 53.5 52.5 S.E.
12 " " .10 51 52.5 52.5 E.E. I.

Fine, Bar. Thu. Dry6, Wet6, Water, Wind
4 P.M. 28.80 52 53 52.5 53 S.E.
8 " " .60 52 53 52.5 53 E.E.
12 " " .55 57 53 53.5 52.5 N.E.

Stormy. The wind which has been light in the early A.M. increases, shifts to the eastward and blows very hard in squalls.
Towards evening a stiff gale blowing and barometer down to 28.72.
In the afternoon wear round on the port tack and heave to.
The continued rough and adverse weather is very wearing on all hands.

Sunday Oct 24th
4 A.M. 28.64 52 53 53 54 N.W.
8 " " .88 50 51.5 51.5 52 "
12 " " 29.09 51 51 51 52 "
4 P.M. .22 49 51 51 53.5 "
8 " " .34 49 52 53 54 "
12 " " .34 49 51 52 54 "

Day rainy clearing a little towards the latter part with one or two glimpses of sun. Wind shifts and becomes more moderate.
About 11 P.M. get under way again under close reefed foresail and selfed jib.
Monday Oct. 25th 1880


4 A.M. 29.18 48.5 51 51 53 N.E.
8 " 28.99 45 52 52 51 N.
12 M. 29.22 45 51.5 51.5 53.5 N.W.
4 P.M. .60 47 54 53.5 56 N.W.
8 " .36 45 53.5 53 56 N.W.
12 " 30.04 45 49 49.5 56 N.W.

Day mostly cloudy with some sunshine in P.M. Wind moderate with a heavy sea, several hail squalls.

Tuesday Oct. 26th

4 A.M. 30.11 45 49 49.5 59 N.W.
8 " .28 44 50 49 59 "
12 M. .33 49 50 51 58 "
4 P.M. .33 51.5 53 51 58 "
8 " .38 48 51.5 51 58 "
12 " .39 48 52 51 57.5 "

Day nearly half clear, wind light. Swell subsiding somewhat. Pack the fore peak halyards link at the mast head in the morning but make a shift with a chain to repair it. All sail set for the first time since we left the Pass.

Wednesday Oct 27/80


4 A.M. 30.38 49 53.5 51 59 N.N.W.
8 " .40 49 56 57 61 "
12 M. .40 51.5 56 53.5 61.5 "
4 P.M. .38 55 56 55 61.5 "
8 " .40 51 56 55 62 "
12 " .38 52.5 56.5 54.5 61.5 "

Day fine, half cloudy, wind moderate to light, dying away in evening. The quiet weather affords us a much needed relief after our previous storms.

Thursday Oct 28th

4 A.M. 30.34 53.5 54 53.5 62 N.W.
8 " .34 57 56 55 62 "
12 M. .30 55 59 57 65 E.S.E.
4 P.M. .22 55 59 59 62 "
8 " .15 57 61 59 62 "
12 " .01 56 59 58.5 62 "

Weather cloudy, quiet. Wind light & shifts to the eastward. In the morning carry away the end of the fore gaff in the eyes of the downhaul, but this is easily repaired. Work over records for the first time since we left as the rough weather has not permitted it before.
Friday Oct. 29, 1880

Fine. Bar. Flat. Dry & Wet, Water Wind
4 A.M. 29.92 56.5 59 57.5 62 ESE.
8 " 72 57 60 61 66 E.
12 " .58 60 63 63.5 63 E.
4 P.M. .45 63 65 65 67 W.
8 " .45 63 65 65 67 W.
12 " .45 59.5 61.5 61 63.5 W.


Saturday Oct 30th

4 A.M. 29.48 59 62 61.5 64 NW.
8 " .62 58 62 61.5 66 "
12 " .70 64 59 58.5 66 NW.
4 P.M. .8 64 57.5 56.5 64.5 "
8 " .98 52.5 57 58.5 65 NW.
12 " .30.03 54 56 55.5 65.5 "

Weather cloudy. Fresh to strong wind and rather heavy swell.

Sunday Oct 31st

4 A.M. .30.08 52.5 57.5 56 64.5 NW.
8 " .11 53 57 56.5 66 "
12 " .08 55.5 61 60 65 SW.
4 P.M. .08 53 60 56 64 S.
8 " .08 53.5 60 56.5 64 S.
12 " .08 58.5 63 60.5 65 S.

Foggy with light wind. Lates fresh wind.

Monday Nov. 1, 1880

Fine. Bar. Flat. Dry & Wet, Water Wind
4 A.M. 30.05 59 63 63 66 S.
8 " .06 60.5 64 61.5 65 W. 88.N.
12 " .06 64 66 65 66 "
4 P.M. .06 64 67.5 65 66.5 "
8 " .10 63.5 67 66 66 "
12 " .12 64 67 66 66 "

Weather 7/3 cloudy with fresh breeze and rather choppy sea. Work over records.

Tuesday Nov. 2

4 A.M. 30.47 64.5 67 66 66 88.W.
8 " .18 64 67 66 66 W.
12 " .24 66.5 69 68 66 "
4 P.M. .24 64 68 68 66 "
8 " .26 64 65.5 65.5 65.5 "
12 " .32 64 67 66.5 66 "

Foggy with light wind & occasional rains.

Wednesday Nov. 3

4 A.M. .30.32 64 67 66 66 SW.
8 " .34 63 58 56 65 66 NW.
12 " .35 64 66 66 NW.
4 P.M. .35 64.5 66.5 66 S.W.
8 " .36 62 63.5 63.5 66 N.E.
12 " .35 61 63 63 66 N.E.

Foggy with light airs. Work over records.
**Thursday Nov. 4, 1880**

<table>
<thead>
<tr>
<th>Time</th>
<th>4 A.M.</th>
<th>8 A.M.</th>
<th>12 M.</th>
<th>4 P.M.</th>
<th>8 P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar</td>
<td>30.35</td>
<td>60.5</td>
<td>62.5</td>
<td>62</td>
<td>64.5</td>
</tr>
<tr>
<td>Temp</td>
<td>38</td>
<td>62</td>
<td>61</td>
<td>60</td>
<td>65</td>
</tr>
<tr>
<td>Wind</td>
<td>39</td>
<td>61.5</td>
<td>61.5</td>
<td>62</td>
<td>63</td>
</tr>
<tr>
<td>Pressure</td>
<td>.28</td>
<td>.61</td>
<td>.61</td>
<td>.62.5</td>
<td>N</td>
</tr>
</tbody>
</table>

Foggy with fresh breeze, stronger in P.M., when it clears away.

**Friday Nov. 5th**

<table>
<thead>
<tr>
<th>Time</th>
<th>4 A.M.</th>
<th>8 A.M.</th>
<th>12 M.</th>
<th>4 P.M.</th>
<th>8 P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar</td>
<td>30.18</td>
<td>62</td>
<td>61</td>
<td>60</td>
<td>61.5</td>
</tr>
<tr>
<td>Temp</td>
<td>.18</td>
<td>55.5</td>
<td>58.5</td>
<td>58.5</td>
<td>58</td>
</tr>
<tr>
<td>Wind</td>
<td>.16</td>
<td>.57</td>
<td>.57</td>
<td>.57</td>
<td>.56</td>
</tr>
<tr>
<td>Pressure</td>
<td>.12</td>
<td>.61</td>
<td>.60.5</td>
<td>.61</td>
<td>58.5</td>
</tr>
</tbody>
</table>

Clear all day with moderate breeze.

**Saturday Nov. 6th**

<table>
<thead>
<tr>
<th>Time</th>
<th>4 A.M.</th>
<th>8 A.M.</th>
<th>12 M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar</td>
<td>30.10</td>
<td>55</td>
<td>57</td>
</tr>
<tr>
<td>Temp</td>
<td>.11</td>
<td>.55</td>
<td>.57</td>
</tr>
<tr>
<td>Wind</td>
<td>.10</td>
<td>.67</td>
<td>.62</td>
</tr>
</tbody>
</table>

Wind light; water foggy. Clears and wind freshens at noon. At 4:25 anchor off Meiggs Wharf, San Francisco.
Friday Nov. 12th 1880

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6 A.M.</td>
<td>30.20</td>
<td>52</td>
<td>57</td>
<td>56</td>
<td>53</td>
<td>S.</td>
</tr>
<tr>
<td>12 M.</td>
<td>32</td>
<td>57</td>
<td>57</td>
<td>58.5</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>6 P.M.</td>
<td>20</td>
<td>58</td>
<td>55</td>
<td>54</td>
<td>57.5</td>
<td></td>
</tr>
</tbody>
</table>

Weather fine; wind moderate.

Saturday Nov. 13th

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6 A.M.</td>
<td>30.19</td>
<td>53</td>
<td>55</td>
<td>54</td>
<td>57</td>
<td>NE.</td>
</tr>
<tr>
<td>12 M.</td>
<td>20</td>
<td>59.5</td>
<td>60</td>
<td>59.5</td>
<td>56.5</td>
<td>E.</td>
</tr>
<tr>
<td>6 P.M.</td>
<td>18</td>
<td>62.5</td>
<td>63</td>
<td>64.5</td>
<td>57</td>
<td>calm</td>
</tr>
</tbody>
</table>

Weather hazy; wind light.

Sunday Nov. 14th

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6 A.M.</td>
<td>30.30</td>
<td>55</td>
<td>55</td>
<td>54</td>
<td>55</td>
<td>E.</td>
</tr>
<tr>
<td>12 M.</td>
<td>42</td>
<td>58</td>
<td>55</td>
<td>52</td>
<td>56</td>
<td>NW.</td>
</tr>
<tr>
<td>6 P.M.</td>
<td>39</td>
<td>57</td>
<td>51</td>
<td>50</td>
<td>55</td>
<td>NW.</td>
</tr>
</tbody>
</table>

Weather fine; wind moderate.

Monday Nov. 15th

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6 A.M.</td>
<td>30.38</td>
<td>54</td>
<td>54</td>
<td>53</td>
<td>56</td>
<td>E.</td>
</tr>
<tr>
<td>12 M.</td>
<td>28</td>
<td>59</td>
<td>59</td>
<td>57.5</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>6 P.M.</td>
<td>15</td>
<td>56</td>
<td>56.5</td>
<td>56</td>
<td>57</td>
<td></td>
</tr>
</tbody>
</table>

Morning fine; wind fresh.
Station: Cape Lisburne Arctic Ocean, 24 mile off shore.
Date: 1880, August 21, 9:30 AM.
Wind: Light N. S. Sky overcast. Temp. of air 46.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>48 1/2</td>
</tr>
<tr>
<td>5</td>
<td>48 1/2</td>
</tr>
<tr>
<td>4</td>
<td>48 3/4</td>
</tr>
<tr>
<td>Top</td>
<td>49 1/2</td>
</tr>
</tbody>
</table>

Station: Anchorage off Point Belcher, Arctic Ocean
Date: 1880, August 28, 5:44 AM.
Wind fresh W. S. Sky overcast. Temp. of air 46.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>41 3/4</td>
</tr>
<tr>
<td>Top</td>
<td>42 1/4</td>
</tr>
</tbody>
</table>

Note: All temperatures are expressed in Fahrenheit degrees and all depths in fathoms.
<table>
<thead>
<tr>
<th>Depth</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 ft</td>
<td>35</td>
</tr>
<tr>
<td>5 ft</td>
<td>35 1/2</td>
</tr>
</tbody>
</table>

Sounding and Temperature in Being Strait
Date 1880, September 5th Tuesday.

Depth | Temperature | Remarks
------|-------------|-------------
Botto 28 | 37 1/2 | at 7:05 A.M. Sign of S. Cape
20 | 37 1/2 | of Cape Horn
20 | 36 3/4 |
15 | 31/2 | Vessel very near S. jet
10 | 37/2 | Strong W. W. wind, sea rough
5 | 37/2 | Small and large sea in water
Top | 37/2 | a little further in closer pack

Botto 35 | at 7:30 Fig set on zero; course
20 | 31 | E. Magnetic (of anything the
15 | 37 | more to weather of the course)
10 | 37 | 7:40
5 | 31/2 | 7:45 Big Diomede N. cable broken

36 1/2 | 20 | 7:50 - Air 37 1/2
Botto 26 | 36 3/4 | 8:00 Come to. Big seaward
20 | 37 | Temp. of air 38
15 | 37 1/2 |
10 | 37 1/2 |
5 | 37 1/2 |
<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Temperature °F</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>39.74</td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>39.60</td>
<td>Left off, Air 39°</td>
</tr>
<tr>
<td>2.00</td>
<td>39.20</td>
<td></td>
</tr>
<tr>
<td>3.00</td>
<td>39.12</td>
<td></td>
</tr>
<tr>
<td>4.00</td>
<td>39.74</td>
<td></td>
</tr>
<tr>
<td>5.00</td>
<td>43.12</td>
<td></td>
</tr>
<tr>
<td>6.00</td>
<td>43.12</td>
<td>10 A.M. Keep off.</td>
</tr>
<tr>
<td>7.00</td>
<td>44.12</td>
<td></td>
</tr>
<tr>
<td>8.00</td>
<td>45.12</td>
<td></td>
</tr>
<tr>
<td>9.00</td>
<td>45.12</td>
<td>10.30</td>
</tr>
<tr>
<td>10.00</td>
<td>45.12</td>
<td>10.40</td>
</tr>
<tr>
<td>11.00</td>
<td>45.12</td>
<td></td>
</tr>
<tr>
<td>12.00</td>
<td>45.12</td>
<td></td>
</tr>
<tr>
<td>13.00</td>
<td>46.12</td>
<td></td>
</tr>
<tr>
<td>14.00</td>
<td>46.12</td>
<td></td>
</tr>
<tr>
<td>15.00</td>
<td>46.12</td>
<td>10.50</td>
</tr>
<tr>
<td>16.00</td>
<td>46.12</td>
<td></td>
</tr>
<tr>
<td>17.00</td>
<td>46.12</td>
<td></td>
</tr>
<tr>
<td>18.00</td>
<td>46.12</td>
<td></td>
</tr>
<tr>
<td>19.00</td>
<td>46.12</td>
<td>11 A.M. Keep her off. O by S.</td>
</tr>
</tbody>
</table>

Note: The remainder of the page contains additional handwritten text and entries that are not clearly legible in this image.
<table>
<thead>
<tr>
<th>Depth</th>
<th>Temperature</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>46.31°</td>
<td>11:58 A.M. Segued 2.5 miles</td>
</tr>
<tr>
<td>20</td>
<td>46.34°</td>
<td>Temp of air 4.1°, Barom 29.44</td>
</tr>
<tr>
<td>15</td>
<td>46.44°</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>46.46°</td>
<td>Cape Prince of Wales, 6S. 34°45'N</td>
</tr>
<tr>
<td>5</td>
<td>46.64°</td>
<td>Starboard little Almanac, 6S. 44°</td>
</tr>
<tr>
<td>Top</td>
<td>47°</td>
<td>Headway, Sky Rock, 6S. 44°30'N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depth</th>
<th>Temperature</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>46.78°</td>
<td>11:25 A.M. Segued 41 miles</td>
</tr>
<tr>
<td>15</td>
<td>46.46°</td>
<td>Temp of air 46.4°, Barom 29.40</td>
</tr>
<tr>
<td>10</td>
<td>46.72°</td>
<td>Get 05 35 25</td>
</tr>
<tr>
<td>5</td>
<td>46.78°</td>
<td>Temp 168 09 19</td>
</tr>
<tr>
<td>Top</td>
<td>46.78°</td>
<td>Fairway Rock, W by S by S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cape Prince of Wales, 6S. 34°45'</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Starboard little Almanac, 6S. 44°</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mountains, 6S. 34°45'</td>
</tr>
</tbody>
</table>

1:04 P.M., Kept off S.S. O.
Station Anchorage off Big Diomede W. Nalice 60° 39'. Depth Temperature Time Remark
Rate 1830, Sept 16 Friday
Wind fresh 71. 7N. 45 H. (Wag) Temp fair 38° 14.7°

Bearings from Anchorage

Fairway Rock 8. S. E. 18 B

Little Diomede 8. W. N. 14 N W. 18 W

Big Diomede 8. W. 4 N. W. 14 N


Depth Adjustment Time

<table>
<thead>
<tr>
<th>Rep</th>
<th>Feasibility</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>160</td>
<td>14 1/2</td>
<td>7:00</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>8:30</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>9:00</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>9:30</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>10:00</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>10:30</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>11:00</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>11:30</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>12:00</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>12:30</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>13:00</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>14:00</td>
</tr>
<tr>
<td></td>
<td>14 1/2</td>
<td>15:00</td>
</tr>
</tbody>
</table>

Remark

Made sail direct course for Indian Pt.

Surface current 1 ft. per pamph. N. by S.

Bearings after swinging

Sedge Eg. Cape W. by N 1/2 W.

Big Diomede W. by N. 1/2 W.

Obs. W. S. E. (Astronomical Station) 1/2 47/10

H. edge Big Diomede W. E. by S.

N. edge " Big Diomede W. E. by S.

E. edge " Big Diomede W. E. by S.

Fairway Rock S. S. E.

Latitude of value 8. B. S.

* 8 79 1/4 N

+ 8 80 6 by S 1/2 S. Oct. 15th

C. Oct. 16th
<table>
<thead>
<tr>
<th>Time</th>
<th>Temperature</th>
<th>Remarks</th>
<th>Time</th>
<th>Temperature</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:30</td>
<td>34</td>
<td></td>
<td>4:00</td>
<td>36</td>
<td>Made buy - Course St. 5 am.</td>
</tr>
<tr>
<td>4:00</td>
<td>41</td>
<td>Air 40%</td>
<td>4:30</td>
<td>36</td>
<td>Air 35%</td>
</tr>
<tr>
<td>4:30</td>
<td>36</td>
<td></td>
<td>5:00</td>
<td>36</td>
<td>Course SE 8%</td>
</tr>
<tr>
<td>5:00</td>
<td>37</td>
<td></td>
<td>5:30</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>5:30</td>
<td>40</td>
<td></td>
<td>6:00</td>
<td>38</td>
<td>Air 36 1/2</td>
</tr>
<tr>
<td>6:30</td>
<td>39 1/2</td>
<td></td>
<td>6:30</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>7:00</td>
<td>37 1/2</td>
<td>Air 36 1/2</td>
<td>7:30</td>
<td>39 1/2</td>
<td>Air 36 1/2</td>
</tr>
<tr>
<td>7:30</td>
<td>36 1/4</td>
<td></td>
<td>8:30</td>
<td>37 1/2</td>
<td></td>
</tr>
<tr>
<td>8:30</td>
<td>36 1/4</td>
<td></td>
<td>9:00</td>
<td>37 1/2</td>
<td></td>
</tr>
<tr>
<td>9:00</td>
<td>36 1/2</td>
<td></td>
<td>10:00</td>
<td>37 1/2</td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>36 1/2</td>
<td></td>
<td>10:30</td>
<td>37 1/2</td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td>36 1/2</td>
<td></td>
<td>11:30</td>
<td>36 3/4</td>
<td>Indian Har land beyond on course 76 1/4</td>
</tr>
<tr>
<td>11:30</td>
<td>36 1/2</td>
<td></td>
<td>12:00</td>
<td>36 1/2</td>
<td></td>
</tr>
<tr>
<td>12:00</td>
<td>36</td>
<td>Sept 1 4th 1880</td>
<td>12:15 P.M</td>
<td>36 1/2</td>
<td>Air 38 1/2</td>
</tr>
<tr>
<td>12:15 P.M</td>
<td>36</td>
<td></td>
<td>12:30 P.M</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>12:30 P.M</td>
<td>36 1/2</td>
<td></td>
<td>1 P.M.</td>
<td>36 1/2</td>
<td></td>
</tr>
<tr>
<td>1 P.M.</td>
<td>36 1/2</td>
<td></td>
<td>2</td>
<td>36 1/2</td>
<td>Air 4 1/2</td>
</tr>
<tr>
<td>2</td>
<td>36 1/2</td>
<td></td>
<td>3</td>
<td>36 1/2</td>
<td>Air 4 1/2</td>
</tr>
<tr>
<td>3</td>
<td>36</td>
<td>Came to - air 41/2</td>
<td>4</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>36</td>
<td></td>
<td>5</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>36</td>
<td></td>
<td>6</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>36</td>
<td></td>
<td>7</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Remarks</td>
<td>Temperature</td>
<td>Surface Water Taken Hourly on Voyage from Bloom Bay, Siberia to Kamchatka Is.</td>
<td>N.S. 'Ulyanov' - Friday Sept. 12th 1850</td>
</tr>
<tr>
<td>----------</td>
<td>------</td>
<td>---------------</td>
<td>-------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>12th</td>
<td>17</td>
<td>&quot;</td>
<td>37°F</td>
<td>42°F, 4 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>42°F 12 PM</td>
</tr>
<tr>
<td>13th</td>
<td>12</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>14th</td>
<td>1</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>15th</td>
<td>12</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>16th</td>
<td>1</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>17th</td>
<td>12</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>18th</td>
<td>1</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>19th</td>
<td>12</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>20th</td>
<td>1</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>21st</td>
<td>12</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>22nd</td>
<td>1</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>23rd</td>
<td>12</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>24th</td>
<td>1</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>25th</td>
<td>12</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>26th</td>
<td>1</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>27th</td>
<td>12</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>28th</td>
<td>1</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>29th</td>
<td>12</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>30th</td>
<td>1</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
<tr>
<td>31st</td>
<td>12</td>
<td>&quot;</td>
<td>37°F</td>
<td>45°F, 1 PM. Surface taken between 42°F and 45°F. C. 1850</td>
<td>45°F 12 PM</td>
</tr>
</tbody>
</table>

*Temperature in °F, Surface Water taken hourly on voyage from Bloom Bay, Siberia to Kamchatka Is.*
<table>
<thead>
<tr>
<th>Sept 1st 1850</th>
<th>Sept 2nd 1850</th>
<th>Sept 22nd 1850</th>
<th>Sept 23rd 1850</th>
<th>Sept 24th 1850</th>
<th>Sept 25th 1850</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Depth</td>
<td>Time</td>
<td>Depth</td>
<td>Time</td>
<td>Depth</td>
</tr>
<tr>
<td>44</td>
<td>1 a.m.</td>
<td>44</td>
<td>1 a.m.</td>
<td>44</td>
<td>1 a.m.</td>
</tr>
<tr>
<td>45</td>
<td>2</td>
<td>45</td>
<td>2</td>
<td>45</td>
<td>2</td>
</tr>
<tr>
<td>44 1/2</td>
<td>3</td>
<td>44 1/2</td>
<td>3</td>
<td>44 1/2</td>
<td>3</td>
</tr>
<tr>
<td>45</td>
<td>4</td>
<td>45</td>
<td>4</td>
<td>45</td>
<td>4</td>
</tr>
<tr>
<td>44 1/2</td>
<td>5</td>
<td>44 1/2</td>
<td>5</td>
<td>44 1/2</td>
<td>5</td>
</tr>
<tr>
<td>43 1/2</td>
<td>6</td>
<td>43 1/2</td>
<td>6</td>
<td>43 1/2</td>
<td>6</td>
</tr>
<tr>
<td>43 1/2</td>
<td>7</td>
<td>43 1/2</td>
<td>7</td>
<td>43 1/2</td>
<td>7</td>
</tr>
<tr>
<td>44 1/2</td>
<td>8</td>
<td>44 1/2</td>
<td>8</td>
<td>44 1/2</td>
<td>8</td>
</tr>
<tr>
<td>44 1/2</td>
<td>9</td>
<td>44 1/2</td>
<td>9</td>
<td>44 1/2</td>
<td>9</td>
</tr>
<tr>
<td>44 1/2</td>
<td>10</td>
<td>44 1/2</td>
<td>10</td>
<td>44 1/2</td>
<td>10</td>
</tr>
<tr>
<td>45 1/2</td>
<td>11</td>
<td>45 1/2</td>
<td>11</td>
<td>45 1/2</td>
<td>11</td>
</tr>
<tr>
<td>44 1/2</td>
<td>12 Noon</td>
<td>44 1/2</td>
<td>12 Noon</td>
<td>44 1/2</td>
<td>12 Noon</td>
</tr>
<tr>
<td>43 1/2</td>
<td>1 P.M.</td>
<td>43 1/2</td>
<td>1 P.M.</td>
<td>43 1/2</td>
<td>1 P.M.</td>
</tr>
<tr>
<td>43 1/2</td>
<td>2</td>
<td>43 1/2</td>
<td>2</td>
<td>43 1/2</td>
<td>2</td>
</tr>
<tr>
<td>43 1/2</td>
<td>3</td>
<td>43 1/2</td>
<td>3</td>
<td>43 1/2</td>
<td>3</td>
</tr>
<tr>
<td>43 1/2</td>
<td>4</td>
<td>43 1/2</td>
<td>4</td>
<td>43 1/2</td>
<td>4</td>
</tr>
<tr>
<td>43 1/2</td>
<td>5</td>
<td>43 1/2</td>
<td>5</td>
<td>43 1/2</td>
<td>5</td>
</tr>
<tr>
<td>43 1/2</td>
<td>6</td>
<td>43 1/2</td>
<td>6</td>
<td>43 1/2</td>
<td>6</td>
</tr>
<tr>
<td>43 1/2</td>
<td>7</td>
<td>43 1/2</td>
<td>7</td>
<td>43 1/2</td>
<td>7</td>
</tr>
<tr>
<td>43 1/2</td>
<td>8</td>
<td>43 1/2</td>
<td>8</td>
<td>43 1/2</td>
<td>8</td>
</tr>
<tr>
<td>43 1/2</td>
<td>9</td>
<td>43 1/2</td>
<td>9</td>
<td>43 1/2</td>
<td>9</td>
</tr>
<tr>
<td>43 1/2</td>
<td>10</td>
<td>43 1/2</td>
<td>10</td>
<td>43 1/2</td>
<td>10</td>
</tr>
<tr>
<td>43 1/2</td>
<td>11</td>
<td>43 1/2</td>
<td>11</td>
<td>43 1/2</td>
<td>11</td>
</tr>
<tr>
<td>43 1/2</td>
<td>12</td>
<td>43 1/2</td>
<td>12</td>
<td>43 1/2</td>
<td>12</td>
</tr>
<tr>
<td>43</td>
<td>1</td>
<td>43</td>
<td>1</td>
<td>43</td>
<td>1</td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Temperature</td>
<td>Time</td>
<td>Temperature</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>------</td>
<td>-------------</td>
<td>------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>Sept 26th 1890</td>
<td>4:16</td>
<td>10:00</td>
<td>4:16</td>
<td>10:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:16</td>
<td>2:00</td>
<td>4:16</td>
<td>2:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:16</td>
<td>3:00</td>
<td>4:16</td>
<td>3:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:16</td>
<td>4:00</td>
<td>4:16</td>
<td>4:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:16</td>
<td>5:00</td>
<td>4:16</td>
<td>5:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:16</td>
<td>6:00</td>
<td>4:16</td>
<td>6:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:16</td>
<td>7:00</td>
<td>4:16</td>
<td>7:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:16</td>
<td>8:00</td>
<td>4:16</td>
<td>8:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:16</td>
<td>9:00</td>
<td>4:16</td>
<td>9:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:16</td>
<td>10:00</td>
<td>4:16</td>
<td>10:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:16</td>
<td>11:00</td>
<td>4:16</td>
<td>11:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:16</td>
<td>12:00</td>
<td>4:16</td>
<td>12:30</td>
<td></td>
</tr>
<tr>
<td>Sept 27th 1890</td>
<td>4:43</td>
<td>1:00</td>
<td>4:43</td>
<td>2:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:43</td>
<td>3:00</td>
<td>4:43</td>
<td>4:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:43</td>
<td>4:00</td>
<td>4:43</td>
<td>5:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:43</td>
<td>5:00</td>
<td>4:43</td>
<td>6:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:43</td>
<td>6:00</td>
<td>4:43</td>
<td>7:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:43</td>
<td>7:00</td>
<td>4:43</td>
<td>8:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:43</td>
<td>8:00</td>
<td>4:43</td>
<td>9:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:43</td>
<td>9:00</td>
<td>4:43</td>
<td>10:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:43</td>
<td>10:00</td>
<td>4:43</td>
<td>11:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:43</td>
<td>11:00</td>
<td>4:43</td>
<td>12:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4:43</td>
<td>12:00</td>
<td>4:43</td>
<td>12:30</td>
<td></td>
</tr>
</tbody>
</table>
Native Names - Sept 10th, 1880

Ing-ah-khile' - Litte Riomeke
Inah-khile' - Biz
Nee-yuk - Fairway Rock
Nee-luk' - East Cape

People on
Ing-ah-khile'mut - Little Riomeke
Inah-khile'mut - Biz
No-qhvak-mut - Esk Cape
Nee-luk' - Eder duck

Sept 12th, 1880
Comeli says Reindeer men call themselves
Sanukiat.
Native says Clover Bay people call
themselves Etayuk.
Native Names - Sept 10th 1850
Ing-ah-haluk' - Little Niomeke
Thak-haluk' - Big
Nee-yick
Vii-Tuulik' - East Cape

People on
Ing-ah-haluk'-mut - Little Niomeke
Thak-haluk'-mut - Big
Wo-zhawh'-mut - East Cape
Kighik'-tiug'-au-mut - Chuck-chi
Nigpin

Sept 12th 1850
Comeli says Reindeer men call themselves Tamiyitak.
Native says Roar Bay people call themselves E'yick.
24 15 50.06

18
7
12 8
35
16 1
26
18 7
2.9
22
SSW \( \frac{1}{4} \) W, 21

10
Index

Akutan 38 44
Alaska, Schr 29
Anderson Capt. 47, 48
Archangel (Gabriel) Bay 27
Aepiktooi (Elate) Point 41
Bailey Capt. 48
Baker, Mr. 23
Barometer Compared 41
Barrow Point 4, 6, 28, 29.
Belcher Point 3, 5, 6.
Bering Strait 18, 21, 24, 28.
Big Deomede 23, 24,
Blossom H. B. M. D. 9
Captains Bay 38, 44, 50
Chamisso Harbor 7, 8
Chamisso Island 9
Chester Cape 39
Chernozyzky Bay 41, 42, 44
Chernozyzky Harbor 39, 40
Choris Peninsula 10
Clarance Point 19, 20, 21, 22, 24
Cove Point 42, 43
Corwin U.S. 4, 7, 9, 44
Currents in the Arctic 28
Danehower, Mr. 48
Dawn, Bark. 3  
Dexter, Capt. 7  
Diomede, Wh. 22, 23  
East, Cape. 19, 24, 25, 27, 28  
Egg Island 51  
Elephant Point 12  
Eychelsloot Bay 8, 18  
Fjord Bay, Rock 24.  
Gansey 9.  
Gish, Capt. 4  
Grantley Harbor 20  
Hand, Szent. 48  
Herman H. 13. M. 2. 9  
Herald Island 4, 28  
Herald Shoal 29  
Hickmot, Capt. 3  
Hooper, Capt. 4  
Hope Point. 7, 28  
Hunter, Bark. 4  
Ice, Cape 7  
Icy Cape, Choris Peninsula 11  
Ilulissat 42  
Ilulissat Harbor 45  
Indian Point 26  
Indian Vocabulary 24  
Jeanette Wh. 47  
Jerseingham, Capt. 27, 28  
Jesch Berry 29  
Julia A. Long, Schr. 27  
Kachegga Village 42  
Kings Island 22  
Kotzebue Sound 8  
Kraemer, Cape 8  
Kuska 48  
Lapham, Capt. 26, 28  
Latawie Cape. 1, 7, 28, 29  
Little Diomede 23, 24  
Loleta Schr. 7, 30  
Long Schr. 30, 32  
Mikuschin Village 42  
Marcus Bay 32  
Mary and Helen Ship. 5, 27, 30, 31, 32  
Matthias James, Schr. 47, 56  
Michael Redout 47  
Nogos 23  
Nashagoon 47  
Oliver Crocker 9  
Owen, Capt. 5, 27, 28, 29, 32, 34  
Pauline Collins, Schr. 45  
Plover K.B.M.D. 9
Clover Bay 25 26
Progress, Beak 26 27 31
Confidence, Pet. 26
Rennlen, Mr. Adolph 41
Rysk, Thr. 47 48
St. Lawrence Island 27 30 31 33
St. Matthew Island 29 34 35
St. Michael 47
Sandwich Islands 30
San Francisco 31 44 45 51 58
Sea Breeze, Bark 26
Sea Horse Islands 4
Sea Temp. Point Belcher 63
" " Bering Strait 65
" " Cape Lisburne 63
" " Clover Bay 76
Unalaska Island 76
At Sea
" Slats Point 41
" Swift, Mr. J. M. 47
" Science Point 20
" Tropic Bird, Brig. 27 31
" Valga Pass 51
" Unalaska Pass 40
" Unalaska, Schr. 46
" Unalaska 36
" Wright Cape 35
Victoria 9
Wagner, Mr. 41
Wright, Mr. 30
York, U.S. 9
York Cape 24