Near-Real Time Weather Data Transmission

https://datagarrison.com/users/300234011204340/300234011204340/plots.php
Repeat Aerial Photography and DGPS Surveys
Unmanned Airborne Vehicles

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>4.5 ft</td>
</tr>
<tr>
<td>Air Vehicle Weight</td>
<td>4 lbs</td>
</tr>
<tr>
<td>Range</td>
<td>10+ km (LOS)</td>
</tr>
<tr>
<td>Airspeed</td>
<td>27-60 mph</td>
</tr>
<tr>
<td>Altitude</td>
<td>&gt;300 AGL</td>
</tr>
<tr>
<td>Endurance</td>
<td>90 min Lithium</td>
</tr>
<tr>
<td>Payload</td>
<td>EO/IR Full Motion Video</td>
</tr>
<tr>
<td></td>
<td>GPS - Radio uplink &amp; down link</td>
</tr>
<tr>
<td>GCS/RVT</td>
<td>- Combined Weight – 14 lbs</td>
</tr>
</tbody>
</table>

Manufacturer: AeroVironment
The name for our state is derived from the Aleut word *alaxsxaq* meaning “the object towards which the action of the sea is directed”
Remote Sensing of Changes to the Alaskan Coast
Change Detection of Northern and Western Coasts

- ~8,000 km of coastline
- ~500 km are erosional hotspots (6%)

Permafrost influenced erosional hotspots

Non-permafrost influenced erosional hotspots (fluvial/deltaic deposits)

Based on 27 circa-1985 and 29 circa-2000 Landsat TM and ETM images
Change Detection Using High-Resolution Imagery

*also note increase in pit formation
Change Detection Using High-Resolution Imagery

*also note increase in pit formation*
Permafrost Dominated Erosional Hotspot

Mean = 13.6 m/yr

- 91% erosional
- 9% depositional
- 70% > 10 m/yr
Permafrost Dominated Moderately Eroding Coast

Erosion rate measurements for two time-periods:

1950 to 1980
1980 to 2003

Manley et al.
Non-permafrost erosional hotspot and stable coast