

About LEO App

Smart phone technology for the
Local Environment Observer Network

Center for Climate and Health
Alaska Native Tribal Health Consortium



Funded by US EPA





The Eyes, Ears & Voice of

LEOAK

Our Changing Environment



**LEO, the Local Environmental Observer
network is monitoring the changes
in our environment.**

LEO is a network of people,



Photo by Mike Brubaker

who are experts on the local environment.



Photo courtesy Nikolski IRA

We share observations about environmental change.



that are based on local knowledge.

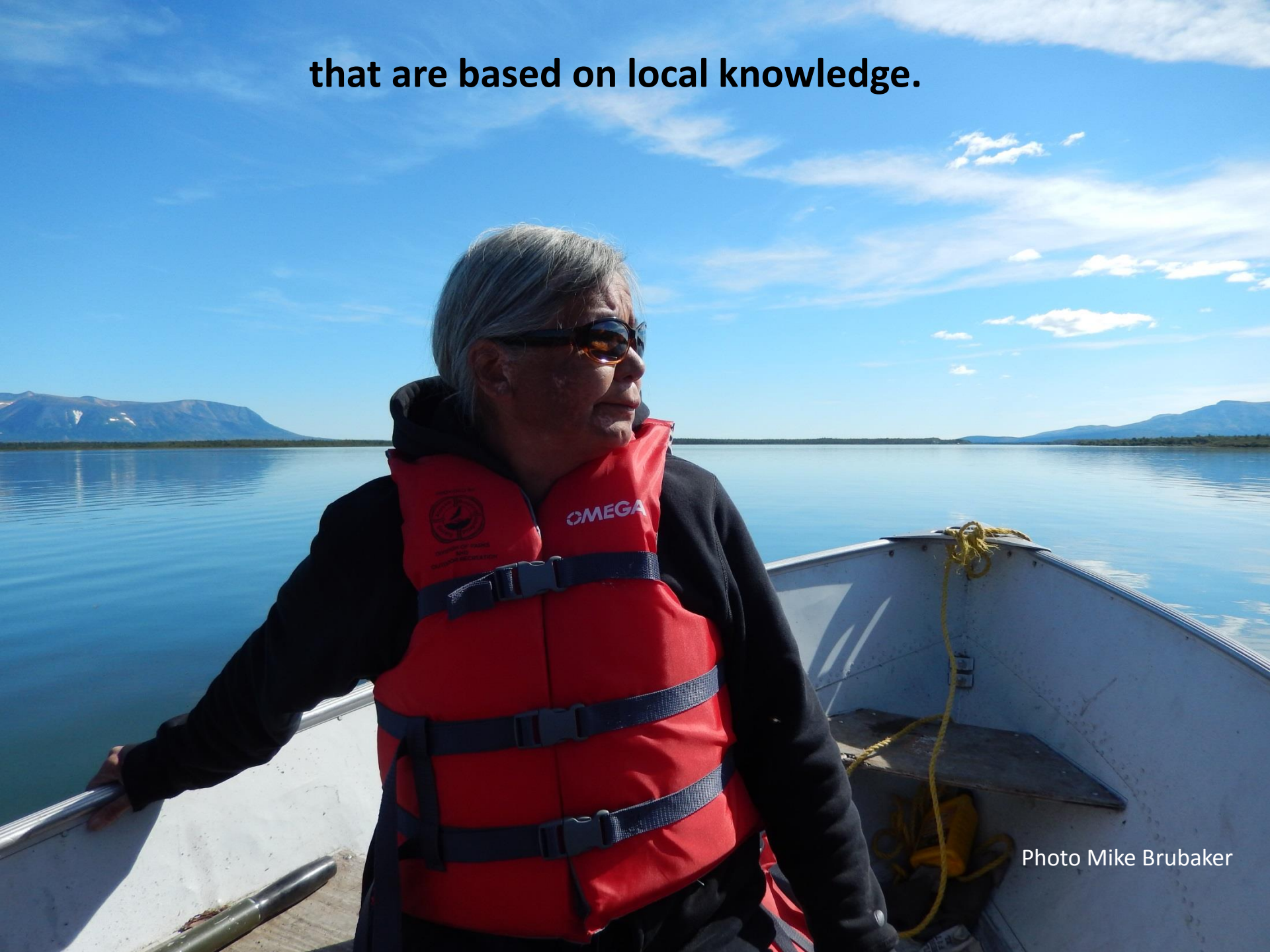


Photo Mike Brubaker

We collect photos and videos to document these changes.



We use Google maps to share these observations,

Get directions My places

Collaborate **EDIT**

Explore making custom maps in an [interactive tutorial](#).

Local Environmental Observer (LEO) Map, May 2012

Local Environmental Observer (LEO), May 2012
This map provides a monthly record of unusual or noteworthy events that have occurred across Alaska. The purpose is to increase communication and understanding about our changing environment and to encourage healthy ways to adapt. Reports are provided through the network of Local Environmental Observers (LEO); environmental professionals located in local or regional tribal organizations across Alaska.

For more information visit our site at the [Alaska Native Tribal Health Consortium, Center for Climate and Health](#):

<http://www.anthc.org/chs/ces/climate/leo/>
Email: anthcleo@anthc.org

Funded by the Environmental Protection Agency

Public · 2 Collaborators · 8,470 views
Created on May 3 · By [mbrubaker](#) · Updated Jul 9
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Deer with fur loss in Southeast


Rolls, Alaska, May 1, 2012 (land mammals) We have been seeing Black-tailed deer with large patches of fur hanging from their bodies and bald spots the size of plate mats. Some deer also have mu...

Unusual bug found in home (photo)

King Cove, May 6 (insect) Unusual insects were found in a local home. LEO, Honey Lou Wilson, suspects the insect might be the Brown Marmorated Stink Bug. We figure the bug came in a box I we had...

Discolored seal with sores on side flipper (photo)

Last Updated by [moe](#) on Jul 9



Shishmaref, May 19, 11:30 PM, (sea animal)
This ringed seal was taken in Shishmaref Inlet, approximately 3 miles up the staked trail to 7 mile ice pond. There was no breathing hole present, the seal had traveled from the east of the stakes heading westward. There seems to be a BB size lump on one of the forearms, and showing evidence of sores on one side flipper. Hopefully this seal will bring us closer to understanding what may be causing the illness and disease that our marine mammals are being affected by. According...

[Directions](#) [Search nearby](#) [Save to map](#) [more](#)

100 mi

Alaska

and we consult with experts to understand impacts and to find ways to adapt.



Photo Mike Brubaker

**But we cannot post observations from the field,
yet...**



To post an observation LEOs must return to their computer.



And click this window on the LEO website

[Click here](#)
Post an Observation

and fill out a form.

Post a LEO Observation

* 1. Name

* 2. What organization do you represent?

3. Time of Observation

MM	DD	YYYY	HH	MM	AM/PM					
<input type="text"/>	/	<input type="text"/>	/	<input type="text"/>	:	<input type="text"/>	:	<input type="text"/>	-	<input type="text"/>

4. What is the location? (use landmarks or lat/long if possible)

5. What is the type of observation?

6. What is your observation?

But what if photos and information could be automatic and provided from the field...



Wireless cell service has expanded in the past decade.

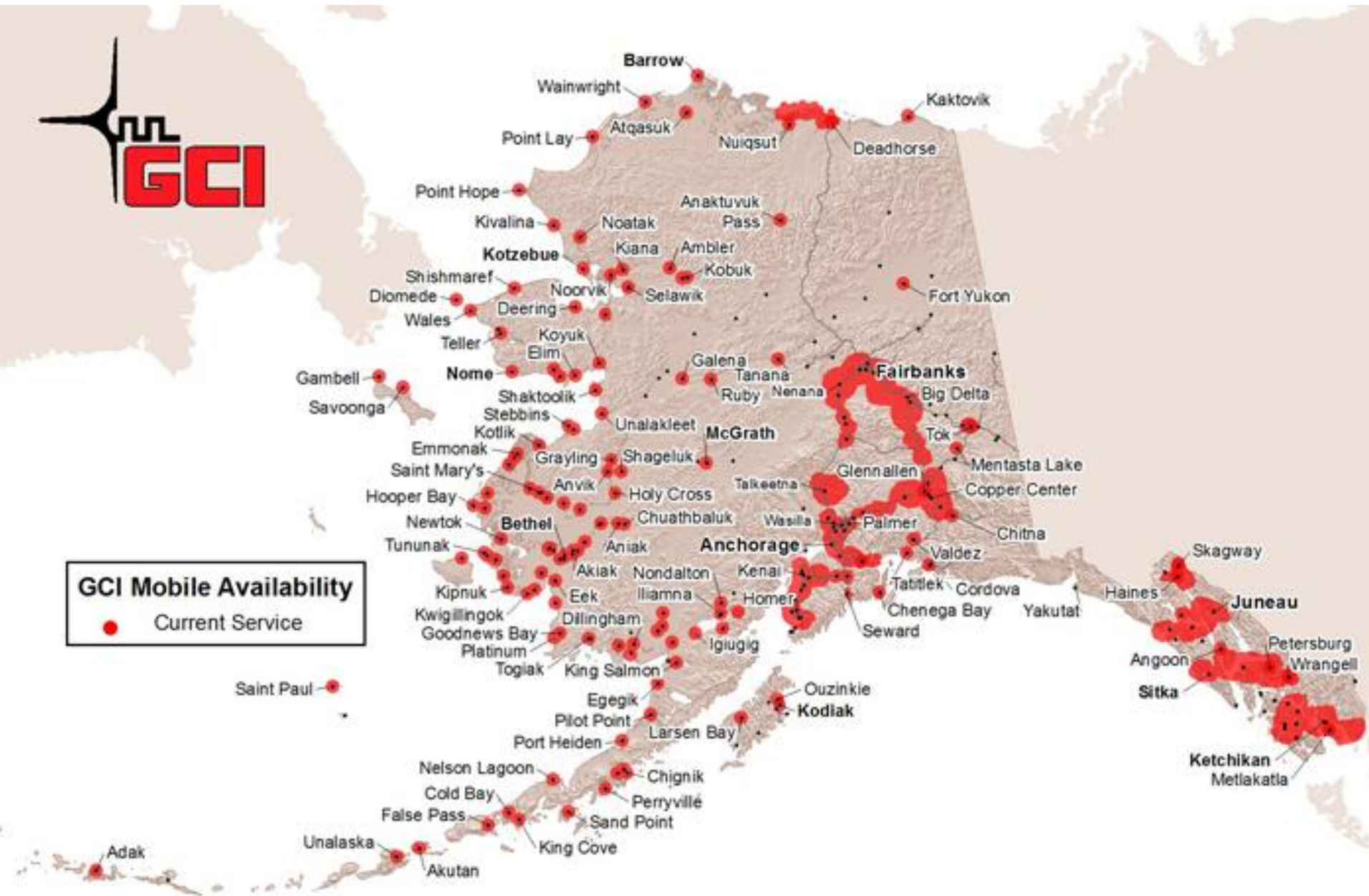


This means more communities that can use wireless communication.



GCI Mobile Availability

● Current Service



**Can this age of rapid communication, help us adapt
to an age of rapid environmental change?**



Photo Suzanne Caldwell
[Alaska Dispatch](#)

**We think so and because of this LEO is developing a new app,
with the purpose of making our observations easier and better.**



app */noun/*

An app (application) is a self-contained program or piece of software designed to fulfill a particular purpose; especially as downloaded by a user to a mobile device.



Many apps are free or come with devices. Others must be purchased from an app store.

The LEO App would be available on for your phone, and would talk with and use other standard apps already available.



An aerial photograph of a vast, flat, icy landscape, likely a frozen body of water or a tundra. The ground is covered in a mix of dark, wet-looking ice and lighter, snow-covered patches. In the far distance, a range of low mountains or hills is visible under a clear, bright blue sky. The overall scene is desolate and expansive.

What are some of the things that a LEO App could do?

WHO - Identify the person who is making the observation

WHAT – Use photo and text to record content

WHERE - Provide location via GPS

WHEN - Provide the time and date of observation

WHY – Provide text box for detail content descriptions

**You could opt to receive text alerts
of new LEO posts as they occur.**



**We are also looking into ways to develop a “My LEO” function
Where you have access to personal or regional posts.**



Photo Mike Brubaker

With My LEO, you could access your personal posts to LEO. You could also set a reminder to go back and collect a sample or photo.



**Here is how you could post an observation with LEO App:
You would open the LEO App and select the photo function,
and then take your picture or video.**



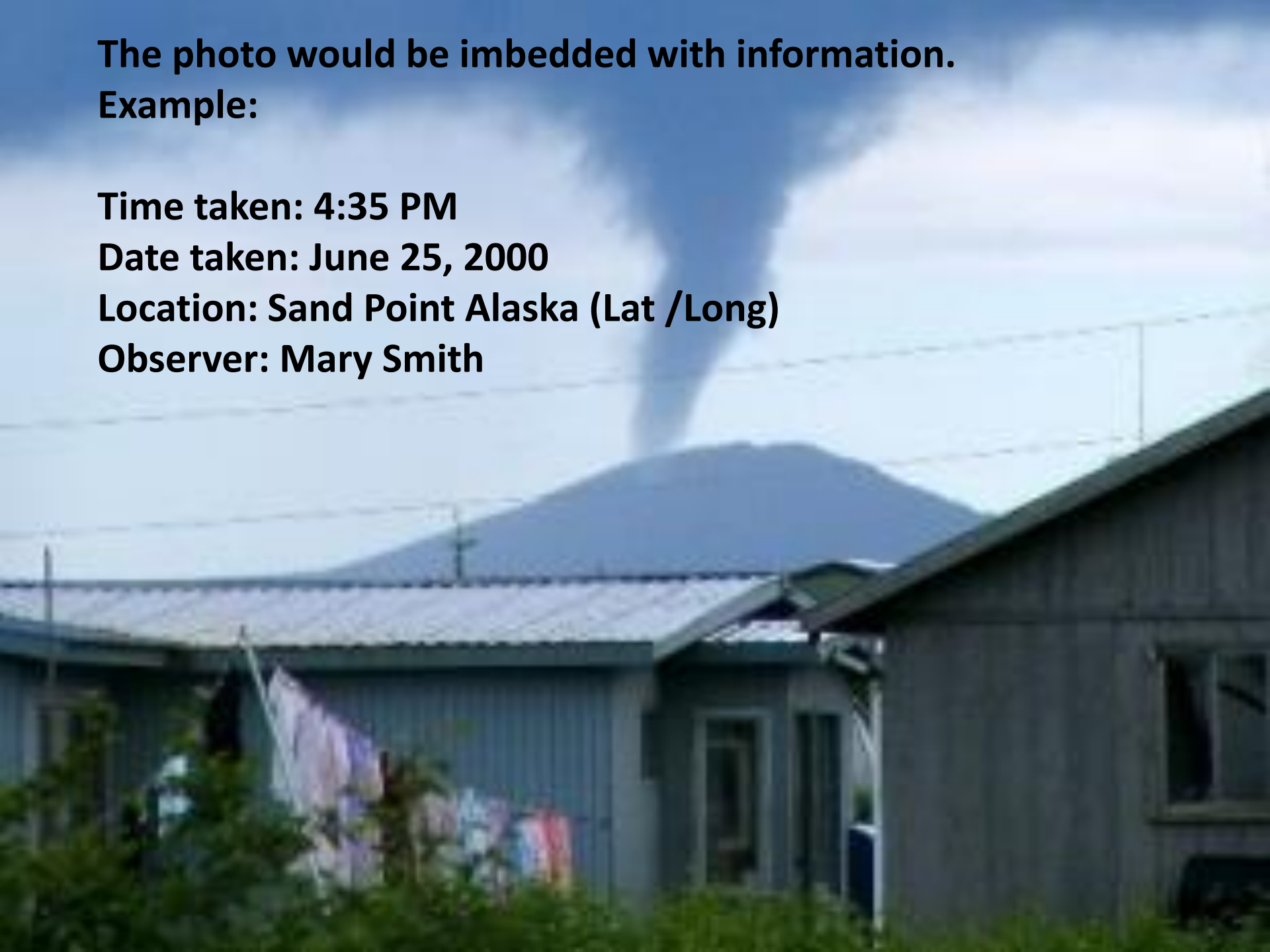
**The photo would be imbedded with information.
Example:**

Time taken: 4:35 PM

Date taken: June 25, 2000

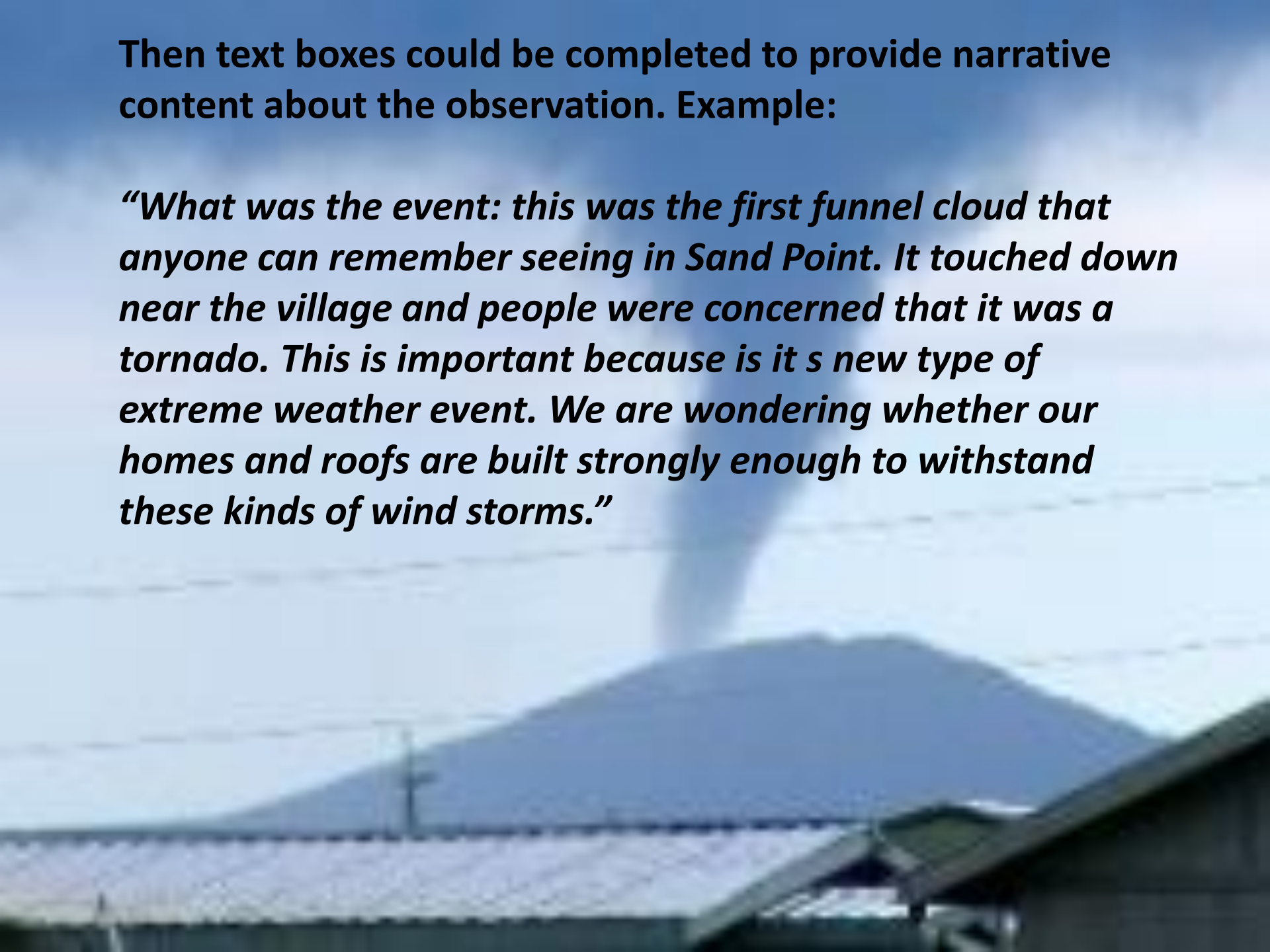
Location: Sand Point Alaska (Lat /Long)

Observer: Mary Smith



Then text boxes could be completed to provide narrative content about the observation. Example:

“What was the event: this was the first funnel cloud that anyone can remember seeing in Sand Point. It touched down near the village and people were concerned that it was a tornado. This is important because is it s new type of extreme weather event. We are wondering whether our homes and roofs are built strongly enough to withstand these kinds of wind storms.”



The observation would be sent to LEO managers and transferred to a draft map for review and approval by the LEO partners in the community that was the source for the post.



Photo Mike Brubaker

Observation could also be posted using the standard method through our LEO website.

About ANTHC

ANMC Hospital

Community Health

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You are here: [ANTHC](#) > [Community Health Services](#) > [Community Environment and Safety](#) > [Climate and Health](#) > [LEO Home](#)



Local Environmental Observer (LEO) Network

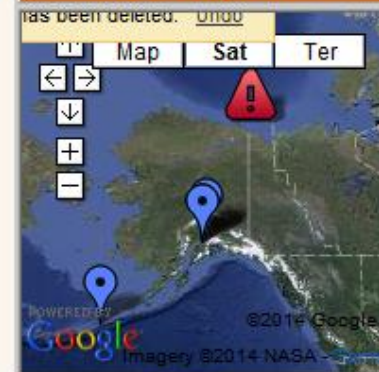
Northern communities are changing due to environmental impacts, climate change and development. Monitoring the environment is important for understanding the risks and benefits and for adaptation. The LEOs are the eyes, ears and voice of environmental change in our communities.



We are tribal professionals who apply traditional knowledge, western science and technology to document unusual plants and wildlife, extreme weather, erosion, flooding, droughts, wildfire and other events that can threaten food security, water security and community health. Checkout our LEO Public Maps, and resource links to learn more. You can view our observation data on our [2012](#) and [2013](#) spreadsheets.



LEO May 2014



View LARGE: [click here](#)

Monthly Maps

October 2013

Go

Category Maps

Air Quality

Go

Alaska Region Maps

Aleutian & Pribilof Isl

Go

Canada Region Maps

British Columbia

Go

LEO communities at a glance, click icon:



Related Pages

- [About LEO](#)
- [Contact Info](#)
- [Faces of LEO](#)

What's Next?

We welcome your ideas and suggestions. Just put them in an email to anthcleo@anthc.org.

ANTHC is beta testing a new organizational website software system. Testing is needed to ensure compatibility with app.

LEO is testing existing and available observer apps to identify functions that would work well for LEO Network members.

LEO is reaching out to cell phone service companies and app companies such as Google to explore emerging technologies and new ideas for app improvements.

LEO is looking for app developers who can help us to develop the vision and design the app software.

