

AOS2020

OBSERVING FOR ACTION: A NARRATIVE

KK Davis

University of Alaska Fairbanks

Interdisciplinary Studies

Arctic Environmental Policy

OBSERVING FOR ACTION: A NARRATIVE

The winters in Fairbanks, Alaska have always proven to be dry, very cold, dark and clear until recently. In the autumn of 2017, I began to record a phenomenon that came to my attention the spring before. What first appeared to be low-lying moisture laden clouds took on a more distinct form and color that became more and more persistent over time, and clearly a formation I had not observed in years past.

A noteworthy story has evolved over these past two years. This is a story about observations, about rapid change and real world effects. It is a story about the sharing of observations and the unexpected exchanges between the experts and the student as a citizen observer. This is also a testimony to the lack of awareness that modern day humans have for their everyday surroundings.

A long time resident to Alaska's subarctic Interior, I have been fortunate to enjoy a south facing view overlooking the greater Tanana Valley for over fifteen years. A queen on a throne, the mountains of the Alaska Range my jewels for admiration.

Just as the rest of the Arctic and Subarctic are experiencing warmer temperatures and unpredictable precipitation, so too does the Interior of Alaska. There is one thing that has remained predictable and constant — the long spell of darkness that is indicative of being located at 64.8378 degrees north. The people of Akureyri, Iceland are located at 65.6826 degrees north and can surely relate to what it means to live on a south-facing slope as opposed to a

north-facing slope. Living on a south-facing slope places you among the “advantageous”, meaning you can actually see 3 hours 41 minutes of sun above the horizon in the darkest days of winter, given that it is a clear day.

The phenomenon of persistent cloud cover I have observed is not just presenting itself to be a little cloudier in Fairbanks, in fact most often the clouds are not over Fairbanks. There is an ominous dark grey mass with a very distinct line parallel to the horizon and a behavior of its own. Condensing and lifting it changes shape throughout the day. It generally hangs across the length of the Alaska Range visible from Fairbanks and stretches some days as far to the west as you can see (as it originates in the West, from the direction of the Northern Bering Sea). This system can also push as far as the east end of the Alaska Range. Typically, the mass resides on the northern side of the mountains closest to Fairbanks.

The cloud color is alarming in that it resembles the color of emission particulates. The number of days I have observed this cloud cover, predominantly in the months now overreaching September to April, is uncanny. Last winter, I counted no more than 14 clear, sunny days. There are two very real concerns that come from my daily observations. First, that the mass could be a result of transboundary pollution in the form of an aerosol. I grow, gather and hunt a good deal of the food that my family eats, and an aerosol could be contaminating my family’s food sources. My other concern is that the amount of light I receive during the dark winter months has been reduced to a mere fraction

of what is normal. These low levels of light affect my greater health and I am to assume others as well.

With over a year of observations and daily photographs, I began to open a dialogue with climate researchers and other experts from the University of Alaska in Fairbanks. I shared my observations with the Department Chair of Atmospheric Sciences, a researcher and professor of Atmospheric Chemistry and Pollution, an Alaska Climate Specialist, a Meteorologist and a researcher studying the Ecology in the Changing Arctic Landscape. What I had envisioned to be an opportunity for sharing knowledge across lines, scientific cooperation, and a catalyst for further study, was instead met with muted response. To my knowledge these attempts for discussion did not result in action. However, this does not deter my efforts to shed light on the subject.

As an interdisciplinary student studying ecological security through the lens of Arctic Environmental Policy, my intentions have always been to learn how we might better bridge the gaps between science, policy, and the environments most affected by a changing climate. Although my observations began as a side project, through this process of discovery I have learned more about “these gaps” than I could have ever anticipated. In conclusion, I take away from these dialogues and muted responses, a better understanding of how my role in sharing observations, might sanction a platform for change.



From left to right, a clear day next to the changing persistent cloud cover