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STATEMENT FOR THE RECORD

On behalf of
The State of Alaska

Before the Senate Homeland Security Committee
Subcommittee on Emergency Management, Intergovernmental Operations,
and the District of Columbia

*Extreme Weather in Alaska: State and Federal Response to Imminent
Disasters in the Arctic*

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Thank you, Chairman Begich, for holding this hearing today. I appreciate the opportunity to appear before you to provide a state perspective in this important dialog on preparedness for all our Alaska communities and especially those most directly affected by extreme weather.

Our state faces an extreme range of hazards – from nature, humans, and technology. We are no stranger to disasters as we have experience a declared disaster on average every ninety days since statehood. Therefore the State of Alaska chooses a strenuous strategy of prepreparedness for our citizens, our businesses, our volunteers, our federal partners, state agencies, and our communities. We seek to create and sustain a posture of preparedness enabling a swift, coordinated response, enabling an immediate, comprehensive recovery.

The fundamental element of our strategy is to assist community leadership in obtaining information needed to solve problems and to make informed decisions for the safety and security of their communities.

I have four sections to illustrate our approach: the recent history of Alaskan disasters; how we understand, assess, and address risk; state support of local preparedness and planning; and our next steps to improve upon our already effective programs.

Recent History of Alaskan Disasters

Our state has experienced a declared disaster an average of every ninety days since statehood. Most of these we handled through our state programs. For the remainder we requested assistance from the President. This is not a comprehensive list but a representative one.

2007 A very strong sea storm hit Kivalina with wave surges threatening to breach the barrier island. About 400 residents evacuated in small boats across the lagoon to safe haven.

2008 Three separate storms – from the Pacific and Arctic Oceans, and the Bering Sea caused severe floods in Nenana and breached the seawall in Wainwright.

2009 Mt. Redoubt Volcano erupted nineteen times from March to July 2009 causing disruptions in aviation and maritime supply lines. The first cases of H1N1 influenza were first detected in the United States in April resulting in extensive surveillance and distribution of vaccine throughout the state. The breakup of the Yukon and Kuskokwim Rivers in May resulted in damage from extreme floods and ice in dozens of communities with Eagle, Tanana, and Stevens Village among the hardest hit. During a prolonged fire season, 527 fires burned close to three million acres.

2010 A late season Bering Sea storm deposited sea spray drawn from rare open water onto power lines in Savoonga causing widespread power outages.

2011 The Tohoku earthquake in Japan generated a Pacific wide tsunami that reached Alaska in less than five hours and swept through Alaskan coastal communities for another five hours. Crooked Creek on the Kuskokwim lost many residences from extreme flood and ice. An extra tropical typhoon moved from the western Pacific past the Aleutian Islands in October 2011 and damaged dozens of western and northwestern communities with storm surges and high winds.

2012 A series of closely spaced and intensive storms dropped record amounts of snow on several Prince William Sound communities and threatened to collapse buildings and disrupt transportation. A series of closely spaced storm systems hit south central Alaska in September and October and brought damaging winds up to 130 miles per hour and widespread flooding across 60,000 square miles.

2013 The spring ice breakup on the Yukon River again hit communities from Eagle to Emmonak with the heaviest damages at Galena and Circle.

The only common factor throughout these events is that we cannot rely upon the thirty year averages to guide our planning or our preparedness. Rather we must expect the unexpected and plan for uncertainty.

Understanding and Reducing Risks

The national process of assessing risk has several points of origin in Alaska. Threat and hazard identification and risk assessment or THIRA seeks to aid in making rational decisions to build capabilities that address hazards and conceptually reduce risks. The federal system starts by identifying hazards. The Alaskan approach begins with understanding how things work during normal operations or what we refer to as peacetime. We focus on the movement of goods and people and the provision of essential services. By understanding these we have a better grasp of what can go wrong and the consequences.

As we conduct our analysis we seek to understand the interdependencies between our systems. What are the effects on banking from the loss of communications? on healthcare from loss of energy? on food from loss of transportation? By documenting and mapping these relationships we can decide on investments that build the capabilities with the greatest probability of reducing risks -- perhaps from more than one risk or hazard.

Unfortunately the federal THIRA is not the problem solving approach it could and should be. THIRA within Alaska is an iterative process where we vary the assumptions and conditions to seek deeper understanding of our options. The federal process flows like this:

1. The major hazard is a flood.
2. Based on history, you need shelter for 500 people.
3. Based on current capabilities, you can shelter no more than 250 people.
4. Based on mutual aid, the adjacent community can shelter the other 250 people.
5. Problem solved.

But is it really solved?

Alaska decided to embrace the complexity of the real world. We introduce and understand the effects of seasonality, time of day, demographics of the community, and the various types of flooding (precipitation, rising water table, storm surge, ice jam, ballastic ice, etc.). These complexities call for more analysis but results in more realistic problem solving. Every shread of analysis in peacetime contributes directly to more effective response during the disaster. Because of the multiple levels of analysis, we need only to adapt our analyses and plans rather than replace them when they encounter anything unanticipated..

The Alaska process flows like this:

1. How do things work in peacetime?
2. What can go wrong?
3. What are the consequences?
4. What needs to be done to reduce risk?
 - a. What capabilities are needed to address the consequences in all their forms?
 - b. What investments will produce the capabilities (training, exercises, plans, commodities)?
 - c. Who else can contribute to these capabilities and under what conditions can we rely upon them?
 - d. How will we measure the performance and effectiveness of these investments?

Without a continuous and iterative process, no state or community can ensure its investments will accomplish any reduction in risk. Without using the real world for our inspiration, we cannot ensure our plans will succeed when applied against the unpredictability and uncertainty of the real world. Many of the disasters I outlined earlier in this statement occurred for the first time in each location in thirty, forty, even one hundred years. Absence of a pattern does not remove the risk of one emerging. Decades without a disaster does not decrease the possibility of one happening tomorrow.

State Support of Local Preparedness and Planning

Within this era of uncertainty, the State of Alaska has not waited for clarity or perfect information. We have approached uncertainty by investing in the human element and in capabilities that can be brought to bear on all our hazards. Knowing that help is a long way from Alaska, the Governor directed a program to develop essential capabilities that can be counted upon under all conditions and throughout the state.

We have a multi-tiered emergency communications systems that is completely independent of the commercial systems. This includes the most modern and failsafe mobile emergency operations and command center in the nation. This is supplemented with transportable communications trailers moveable even by small aircraft or snowmachine. The third element is a supply of backpack communications systems distributed around the state to serve as the immediate and initial communications link upon which we can augment. The final backup is the placement of satellite telephones in hundreds of communities that are regularly tested and exercised. These state assets are complemented and integrated with communications systems of the Alaska Land Mobile Radio network, the Alaska National Guard, the Department of Defense, and FEMA.

| We have a cache of emergency generators rated from 100 kilowatt up to two megawatt power rating. These generators are Arctic retrofitted and transportable by air, land, and sea. These will not replace the entire power generation of our larger cities but are designed to power the critical infrastructure and provide for the continuation of essential services.

We have a similar cache of water purifications systems of range from a few hundred gallons an hour to tens of thousands of gallons a day. The smallest units can be carried by one person and set up by anyone without training. The largest unit can provide clean water by desalination of sea water. Again, these are not designed to replace entire water systems but will provide the essential quantities until the permanent systems are repaired.

We believe by experience and education that the three most critical elements for success in any disaster are reliable information contributing to problem solving supporting decision making. We further all three elements with our communities through conferences, training, exercises, and plans. We have held tsunami conferences throughout our southern coastal communities from Unalaska to Metlakatla. By good fortune, we completed these conferences before the Japanese tragedy in March 2011. In that event, every community received automated or voice warnings well before the arrival of the leading waves. Each community invoked its tsunami plan and several began evacuation to pre designated safe havens.

We hold a state-wide preparedness conference each spring and summer to focus on the threats and hazards facing us. Recent themes have been on school safety and security, health systems during emergencies, and continuity of government and operations under all conditions. We enable communities hit by disasters to share their experiences and their lessons with others facing similar threats. We provide highly relevant training to ensure that every community has the tools, plans, and experience when facing the uncertainty of nature, humans, or technology. We bring in speakers from around the world with first-hand experience with earthquakes, tsunamis, mass casualties, disruption of all lifelines who tell their stories in plain terms for immediate benefit of the leadership of participating communities.

Most of our recent disasters occurred in our rural communities. With the uncertainty of the weather and the climate, these disasters do not strike the same communities each year. Because of this, we cannot focus our efforts only on a few communities. All our communities face some risk against some hazards. Therefore, we choose to prepare all our communities to the highest levels possible within our resources. In the last year, we developed the Small Community Emergency Response Plan. This guide is not a substitute for deliberate planning but rather a distillation of that process. When action must be swift and decisive, a community leader has in one binder all the essential elements, all the contacts, and all the guidelines necessary to protect lives and property. It even has a hole on which it hangs on a nail on the wall. Several dozen communities have completed or in the process of completing these plans. These are Alaskan in design and in focus. But several other states and territories are considering similar plans for their small communities.

Next Steps

The Governor of Alaska has placed an extremely high priority for preparedness against all threats and all hazards -- possibly among the highest in the nation. That priority and the consistency of the support from the Governor and the Legislature have enabled the transformation of Alaska preparedness from a reaction to a discipline. No community stands alone against any hazard. It is joined by the state as its partner. No individual must bear the total burden of preparedness. The state shares that burden.

March 2014 marks the fiftieth anniversary of the Good Friday Earthquake in 1964. We chose to commemorate that event and the Alaskans lost to the nation's most powerful earthquake with the largest and most complex exercise in our history. Alaska Shield 2014 will involve close to 85% of our

population throughout all regions, in communities large and small, and include the private sector and volunteer organizations. In all the intricacy of the scenario, we will emphasize and test our progress in gaining reliable information, solving problems, and making decisions by all the participants. We will simulate breaks in our supply lines and work to restore them. We will simulate disruption to essential services and work to bring them back. We will simulate separation of families and strive to reunite them. We will simulate a loss of communications and test our command and control systems with independent but unified responses. We will simulate our people leaving their homes and congregating for care and support.

Alaska Shield 2014 will be the premier exercise in our history. Further, our federal partners in the Department of Homeland Security have chosen our Alaskan exercise as the capstone exercise in the nation. This decision recognizes that a catastrophic event in Alaska will be a true test of the nation's ability to rally to the needs of its people. In this exercise we will join with many Alaskan communities in testing our ability to rapidly stabilize the disruptions. These include include Anchorage, Fairbanks, Matanuska Susitna Borough, Cordova, Valdez, Kenai Peninsula Borough, Unalaska, and many others, along with many state agencies.

We expect all our assumptions to be challenged by this exercise and many to be validated. But the true value of this exercise is to reveal any areas where our myopia and pride have disguised a true need of our people. We will not have an exercise scripted for success. Rather will exercise to reveal what we are overlooking and where we must focus our future investments.

Summary

In summary, the State of Alaska faces threats, hazards, and risks far disproportionate to our population. Our people, our economy, even our culture are at risk of severe disruption if we leave our preparedness to chance. The changing nature of the Arctic ice and our experiences with extreme weather in recent years require us to learn from the past but not be blinded by it. Our greatest risks are on the ones we do not anticipate and for which we do not prepare. Through leadership of the state, support of our communities, and involvement of all partners, Alaska is a leader of the nation in emergency management. Our citizens deserve no less.