

**Appendix 1.** Interview guide used during interviews in Noorvik, Noatak, and Brevig Mission in March 2017.

- 1) I am going to go through some technologies and ask you if you own any and use them for subsistence. If you do own, did you lend it out and if you do not own, did you borrow? Finally, what year did you start using the technology.

<i>Technology</i>	How many own (#)?	Used for subsistence?	Did you lend to someone outside your HH (# of times)?	Did you borrow for subsistence (# of times)?	What year did you start using the tech.?
Jet boat		Y N	Y N #____	Y N #____	
Prop boat		Y N	Y N #____	Y N #____	
Snowmachine		Y N	Y N #____	Y N #____	
ATV		Y N	Y N #____	Y N #____	
Car or Truck		Y N	Y N #____	Y N #____	
Airplane		Y N	Y N #____	Y N #____	
Dogsled		Y N	Y N #____	Y N #____	
GPS		Y N	Y N #____	Y N #____	
Cell phone		Y N	Y N #____	Y N #____	
Computer (prog./internet)		Y N	Y N #____	Y N #____	
Electronic range finder		Y N	Y N #____	Y N #____	
Chainsaw		Y N	Y N #____	Y N #____	
Ice auger		Y N	Y N #____	Y N #____	
Electric smoker		Y N	Y N #____	Y N #____	
Generator(s) in camp		Y N	Y N #____	Y N #____	
Satellite phone		Y N	Y N #____	Y N #____	
SPOT (Personal Locator)		Y N	Y N #____	Y N #____	

<i>Technology</i>	How many own (#)?	Used for subsistence?	Did you lend to someone outside your HH (# of times)?	Did you borrow for subsistence (# of times)?	What year did you start using the tech.?
inReach		Y N	Y N # ____	Y N # ____	
iPad/tablet		Y N	Y N # ____	Y N # ____	
Solar chargers		Y N	Y N # ____	Y N # ____	
Spotting scope		Y N	Y N # ____	Y N # ____	
VHF		Y N	Y N # ____	Y N # ____	
Game cameras		Y N	Y N # ____	Y N # ____	
Depth finders		Y N	Y N # ____	Y N # ____	
Other?					

- 2) Are there any other technologies you use for subsistence I have not mentioned such as websites such as Facebook, phone apps like NOAA weather, google maps, backcountry navigator, etc.?
- 3) Are there any technologies that you don't have now, but would like to own that would help you get subsistence resources?
- 4) Do you typically have cell service in the areas you hunt or fish?      Yes      No  
 If yes, what kind (circle all that apply)    4G    3G    LTE    Most common?  
 \_\_\_\_\_
- 5) Does cell coverage influence where you travel or go hunting, fishing, or camping?    Yes  
 No    Why?
- 6) In the last 10 years have you attempted to harvest....?

<i>Resource</i>	Attempt	Harvest
Moose	Y N	Y N
Caribou	Y N	Y N
Seal	Y N	Y N



If decreased or increased, do you go...

25% more/less often      50% more/less often      75% more/less often      Twice as much

14) Are you using technology to help deal with the following environmental changes....

<i>Issues</i>	
Dangerous ice	Y N
Poor river/lake navigability	Y N
Erosion	Y N
Extreme weather (i.e. storms)	Y N
Less snow	Y N
More shrubs	Y N
Others(?)	

Please explain how you are using technology to overcome these issues.

15) Do you think technology can help you overcome problems raised by climate change during hunting and fishing?      Yes      No      Don't know

**ACCESS/DISTRIBUTION/ABUNDANCE/SAFETY**

16) I will go through a list of statements and please answer yes or no. Has technology ....

<i>Issues</i>	<i>circle</i>
Allowed you to harvest animals, fish, or marine mammals even though the numbers were scarce	Y N
Allowed you to harvest animals, fish, or marine mammals even when their timing was off (Ex. Salmon too late, waterfowl show up early, etc.)	Y N
Allowed you to harvest animals, fish, or marine mammals when they were in new places	Y N

Allowed you to do multi-purpose trips so you go after multiple subsistence resources at one time	Y N
Allowed you to access areas where the water was previously too shallow	Y N
Allowed you to harvest animals, fish, or marine mammals that before were too far from the community	Y N
Allowed you to communicate more with your hunting/fishing partner(s)	Y N
Helped you overcome management restrictions such as short harvest season, bulls only	Y N
Helped you locate animals or fish more easily BEFORE you head out on the land/water	Y N
Helped you locate animals or fish more easily AFTER you head out on the land/water	Y N
Allowed you to travel over terrain or water that before was not navigable	Y N
Created crowding issues among hunters/fisherman (i.e. increased competition)	Y N
Others?	

## SUBSISTENCE and CULTURE

17) I will go through another list of statements and please answer yes or no. Has technology ....

SUBSISTENCE CULTURE	ID
<i>Issue</i>	<i>circle</i>
Allowed me to try new subsistence activities	Y N
Allowed me to take more risks while out on the land/water	Y N
Allowed me to out more often	Y N

Allowed me to make more overnight trips	Y N
Allowed me to squeeze subsistence trips in between work or other commitments	Y N
Allowed me to take children or youth out more often to do subsistence	Y N
Allowed me to hunt or fish more often by myself (i.e. alone)?	Y N
Allowed me to be more successful in general	Y N
Cause me to share costs more often with friends or relatives	Y N
Allowed me to share more subsistence foods	Y N
Decreased the chance I will be stranded	Y N
Increased my ability to make it back to the community safely	Y N
Rely less on what elders have taught me	Y N

18) Has technology changed what you need to know from elders? For example, it may no longer be important to read stars. Yes No Explain

19) What are the things that are still important to know

20) Has technology changed how you learn how to fish or hunt?

21) Is there any specific changes in the climate or environment, like low snow, lack of river ice, lower river levels that technology has really helped you overcome?

22) During subsistence do you think technology engages people more with each other? How about the land? How about local knowledge?

23) What are the 3 most important issues for the community right now?

24) Is technology being used to address these issues? Yes No

Please explain why or why not?

25) Overall has technology positively or negatively influenced the community? How?

Circle Positive Negative

26) Are there any technologies your community needs to help meet future challenges? Please list the challenges and how technology can help.

Are there any other comments you would like to make on technology before we close?