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.

Technology	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		YN	Y N #	Y N #	
A FDY Y			*****	****	
ATV		YN	Y N #	Y N #	
Car or Truck		N/ NI	X NI #	37 NI #	
Car or Truck		YN	Y N #	Y N #	
Airplane		ΥN	Y N #	Y N #	
Timpiane		111	1 11 11	1111	
Dogsled		YN	Y N #	Y N #	
Dogsied		11,			
GPS		ΥN	Y N #	Y N #	
Cell phone		Y N	Y N #	Y N #	
Computer (prog./internet)		ΥN	Y N #	Y N #	
Electronic range finder		YN	Y N #	Y N #	
Chainsaw		YN	Y N #	Y N #	
Too anger		N/ NI	37 NI #	37 NI #	
Ice auger		YN	Y N #	Y N #	
Electric smoker		ΥN	Y N #	Y N #	
Licette shokei		1 11	Ι ΙΝ //	ΙΙΝ Π	
Generator(s) in camp		YN	Y N #	Y N #	
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Satellite phone		ΥN	Y N #	Y N #	
•					
SPOT (Personal Locator)		ΥN	Y N #	Y N #	

Technology	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		YN	Y N #	Y N #	
Solar chargers		Y N	Y N #	Y N #	
Spotting scope		ΥN	Y N #	Y N #	
VHF		ΥN	Y N #	Y N #	
Game cameras	-	ΥN	Y N #	Y N #	
Depth finders	-	ΥN	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....?

Resource	Attempt	Harvest
Moose	ΥN	YN
Caribou	ΥN	ΥN
Seal	ΥN	ΥN

Whale	YN	Y N
Non-salmon (i.e. Whitefish, Burbot, Sheefish)	ΥN	Y N
Salmon	ΥN	Y N
Furbearers	ΥN	YN
Waterfowl	ΥN	Y N
Bears	ΥN	Y N
Wolves	YN	Y N
	Y N	Y N

- 7) In the last 10 years, how has technology changed the way you hunt the resources listed above?
- 8) Is there a species in particular that technology has really helped to improve your ability to harvest? For example, Facebook helps us know when to go out and get caribou.
- 9) In the last 10 years have you made any switches among technologies to get subsistence foods rather than upgrades to hunt? For example, running ATVs along rivers to hunt moose instead of boats to save gas or switching from a liquid cooled snowmachine to fan cooled.
- 10) Have you made any upgrades in the last 10 years to the technology you use to do subsistence? If so for what resource and why? What year did you make the upgrade?
- 11) Are there any downside to using technology to do subsistence? For example, does it make you more vulnerable to getting lost or I have to carry more batteries/weight?

Why or why not?

12) In the last 10 years, to what extent have fuel prices changed the distances you travel to hunt or fish?

Not at all Decrease Increase

If decreased or increased, do you go...

No

25% more/less further 50% more/less further 75% more/less further Twice

as far

Yes

13) In the last 10 years, what extent have fuel prices changed how often you hunt or fish?

Not at all Decrease Increase 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....

Issues	
Dangerous ice	YN
Poor river/lake navigability	Y N
Erosion	Y N
Extreme weather (i.e. storms)	ΥN
Less snow	Y N
More shrubs	ΥN
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	-:1-
Issues	circle
Allowed you to harvest animals, fish, or marine mammals even though the	
numbers were scarce	ΥN
Allowed you to harvest animals, fish, or marine mammals even when their	
timing was off (Ex. Salmon to late, waterfowl show up early, etc.)	ΥN
Allowed you to harvest animals, fish, or marine mammals when they were in	
new places	ΥN

Allowed you to do multi-purpose trips so you go after multiple subsistence	X/ NI
resources at one time	YN
Allowed you to access areas where the water was previously too shallow	ΥN
Allowed you to harvest animals, fish, or marine mammals that before were too far from the community	ΥN
too far from the community	111
Allowed you to communicate more with your hunting/fishing partner(s)	YN
Helped you overcome management restrictions such as short harvest season, bulls only	ΥN
Helped you locate animals or fish more easily BEFORE you head out on the land/water	ΥN
Helped you locate animals or fish more easily AFTER you head out on the land/water	ΥN
Allowed you to travel over terrain or water that before was not navigable	ΥN
Created crowding issues among hunters/fisherman (i.e. increased competition)	ΥN
Others?	

SUBSISTENCE and CULTURE

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

SUBSISTENCE CULTURE	ID
Issue	circle
Allowed me to try new subsistence activities	ΥN
Allowed me to take more risks while out on the land/water	ΥN
Allowed me to out more often	YN

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

- 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?