



**Aleut Community of St. Paul Island
Tribal Government
Ecosystem Conservation Office**

February 02, 2010

Michael T. Williams, Pribilof Islands Program Manager, Fur Seal Coordinator
NOAA Fisheries
222 West 7th Avenue, Box 43
Anchorage, Alaska 99513

RE: 2009 Subsistence Fur Seal Harvest on St. Paul Island Memorandum for the Record

Aang (Greetings):

Enclosed below, please find the Memorandum for the Record for the 2009 subsistence fur seal harvest on St. Paul Island. This memorandum has been prepared to satisfy the reporting requirements of the NOAA Cooperative Agreement No. NA08NMF4390535.

The harvest season began on 02 July 2009 and ended with a final harvest on 07 August 2009. A total of 341 fur seals were taken for subsistence within seven harvests at three different haulouts (Zapadni Sands, Polovina, and Vostochni West) on St. Paul Island during 2009 (Table 1). The harvest monitoring log is attached in Appendix 1.

Table 1: Date, Location and number of sub-adult male fur seals harvested during the 2009 subsistence fur seal harvest on St. Paul Island, Alaska.

Date	Location	Number of Males Harvested
02 July	Zapadni Sands	50
10 July	Polovina	23
16 July	Zapadni Sands	64
24 July	Polovina	32
05 August	Polovina	48
06 August	Vostochni West	45
07 August	Zapadni Sands	79
Total		341

By-products and Waste

An undocumented number of throats and 240 fur seal pelts were taken for arts and crafts purposes on St. Paul Island during the 2009 subsistence fur seal harvest. No waste occurred on the harvest field in accordance to 50 CFR §216 Subpart F on St. Paul Island.

Adult Males and Female Seals Killed or Struck

No adult male or female fur seals were struck and killed during the harvest on St. Paul Island in 2009.

Heat Strokes

No fur seal deaths occurred due to heat stroke (over heating) during or as part of the 2009 subsistence fur seal harvest on St. Paul Island.

Entanglement

Three sub-adult and three adult males were observed entangled in marine debris during this year's subsistence fur seal harvest on St. Paul Island. All six were successfully captured, disentangled and released during the harvest round up. No fur seals were observed with scars indicating evidence of previous entanglement.

Oil Contamination

No evidence of oil contamination on fur seals pelts of harvested animals was observed during the subsistence fur seal harvest on St. Paul Island in 2009.

Other Mortality

No other fur seal mortality occurred during this year's subsistence fur seal harvest on St. Paul Island.

Anomalies

Dr. Terry Spraker observed a stunned sub-adult male fur seal with "fine villous structures on the thoracic aspects of the left side of the diaphragm and on the pleural surface of the intercostal muscles of the left ribs". This seal was not taken for human consumption avoiding the risk of exposure to an unknown pathogen or parasite. No other anomalies were observed during the 2009 subsistence fur seal harvest on St. Paul Island.

Humane Observer

During the 2009 subsistence fur seal harvest on St. Paul Island an Island Sentinel performed the function of humane observer for the harvest. Dr. Terry Spraker worked with tribal personnel for the last three harvests on 05, 06 and 07 August 2009 to assist with the transition of responsibility for the subsistence harvest humane observer position. This transition included sharing expertise and techniques for detecting early signs of hyperthermia and round-up techniques for avoiding unnecessary stress that can result in excess body heat production leading to hyperthermia. The Island Sentinel collected seal core body temperatures, made behavioral observations of seals during the round-ups and harvests consistent with those of the humane observer. The fur seal body temperature log is attached in Appendix 2.

Fur Seal Teeth

The objective of this project is to provide an accurate age determination for all seals taken during the St. Paul subsistence harvest. Currently, accurate ages are determined for 20% of the seals that are taken for subsistence on St. Paul Island. Upper canine teeth were collected and processed from the 2009 subsistence fur seal harvest in accordance with an established protocol (see Antonelis 1992). A total of 74 upper canine teeth were collected, processed, and sent to NMML in Seattle for aging. The fur seal teeth collection log is attached in Appendix 3.

I would like to thank the St. Paul Island sealers for their participation and cooperation, our staff, Dr. Terry Spraker, and the National Marine Fisheries Service for making this memorandum possible.

If you have any questions please contact me by telephone, or via email pazavadil@tgsipi.com.

Qaġaalakux... Thanks,



Phillip A. Zavadil
Director

Cc. St. Paul Island Tribal Council Members
Dennis Bourdukofsky, Harvest Foreman
Kaja Brix, NOAA Fisheries
Tom Gelatt, National Marine Mammal Laboratory
Chris Mercurief, Traditional Council of St. George
ECO Public Files

References

Antonelis, G. 1992. Northern Fur Seal Research Techniques Manual. U.S. Dep. Commer. NOAA Tech. Memo. NMFS F/NWC-214, 47 p.

Appendix 1 - 2009 Northern Fur Seal Harvest Monitoring Log, St. Paul Island, Alaska

Harvest Conditions										
Harvest ID #	Harvest Date	Harvest Location	Drive Time	Harvest Time	Temp. (°F)	Wind Direction	Wind Speed	Weather Conditions	Grass Conditions	Observer Initials
SNPNFSHV09-01	7/2/09	Zapadni Sands	9:10 - 9:35	9:48 - 11:41	44.3	SE	8-12 mph	rain	wet	PIM
SNPNFSHV09-02	7/10/09	Polovina	8:57 - 9:07	9:14 - 10:10	43.2	SE	4-7 mph	fog/mist	wet	PIM
SNPNFSHV09-03	7/16/09	Zapadni Sands	8:50 - 9:03	9:34 - 11:04	42.1	SE	8-12 mph	fog/mist	wet	PIM
SNPNFSHV09-04	7/24/09	Polovina	8:48 - 8:56	9:01 - 10:11	44.9	S	1-3 mph	fog/mist	wet	PIM
SNPNFSHV09-05	8/5/09	Polovina	8:58 - 9:20	9:20 - 10:38	45.6	SE	4-7 mph	drizzle	wet	PIM
SNPNFSHV09-06	8/6/09	Vostochni West	9:10 - 9:20	9:30 - 10:41	46.9	NNE	4-7 mph	overcast	damp	PIM
SNPNFSHV09-07	8/7/09	Zapadni Sands	8:49 - 9:10	9:16 - 11:07	48.5	NE	4-7 mph	partly cloudy	damp/dry	PIM

Harvest Counts											
Harvest ID #	Seals Harvested	SAMs Released	Adult Males Released	Adult Males Stunned	Adult Males Killed	Females Stunned	Females Killed	Heat Strokes	High Seal Temp. (C°)	High Air Temp. (C°)	Oiled SAMs
SNPNFSHV09-01	50	238	1	0	0	0	0	0	100.3	44	0
SNPNFSHV09-02	23	143	1	0	0	0	0	0	102.5	43	0
SNPNFSHV09-03	64	263	0	0	0	0	0	0	102.9	43	0
SNPNFSHV09-04	32	178	0	0	0	0	0	0	102.0	45	0
SNPNFSHV09-05	48	185	0	0	0	0	0	0	102.6	47	0
SNPNFSHV09-06	45	238	0	0	0	0	0	0	103.3	48	0
SNPNFSHV09-07	79	192	0	0	0	0	0	0	104.4	50	0
Total	341	1437	2	0	0	0	0	0			0

Entanglement Counts										
Harvest ID #	SAMs Entangled	SAMs Disentangled	SAMs Scarred	Adult Males Entangled	Adult Males Disentangled	Adult Males Scarred	SAMs Sampled	Adult Males Sampled		
SNPNFSHV09-01	0	0	0	0	0	0	288	1		
SNPNFSHV09-02	1	1	0	1	1	0	166	1		
SNPNFSHV09-03	1	1	0	1	1	0	327	0		
SNPNFSHV09-04	0	0	0	0	0	0	210	0		
SNPNFSHV09-05	0	0	0	0	0	0	233	0		
SNPNFSHV09-06	1	1	0	1	1	0	283	0		
SNPNFSHV09-07	0	0	0	0	0	0	271	0		
Total	3	3	0	3	3	0	1778	2		

Appendix 2 - 2009 Northern Fur Seal Harvest Seal Temperature Log, St. Paul Island, Alaska

Date	Harvest Location	Temp. (°F)	Time
7/2/09	Big Zapadni Sands Haulout	97.4	9:51
7/2/09	Big Zapadni Sands Haulout	98.7	9:53
7/2/09	Big Zapadni Sands Haulout	92.9	9:56
7/2/09	Big Zapadni Sands Haulout	95.1	9:58
7/2/09	Big Zapadni Sands Haulout	100.3	9:59
7/2/09	Big Zapadni Sands Haulout	96.5	10:23
7/2/09	Big Zapadni Sands Haulout	97.4	10:26
7/2/09	Big Zapadni Sands Haulout	99.8	10:27
7/2/09	Big Zapadni Sands Haulout	97.8	10:30
7/2/09	Big Zapadni Sands Haulout	97.3	10:31
7/2/09	Big Zapadni Sands Haulout	97.4	10:54
7/10/09	Polovina Haulout	97.5	9:20
7/10/09	Polovina Haulout	100.1	9:21
7/10/09	Polovina Haulout	99.1	9:25
7/10/09	Polovina Haulout	97.1	9:26
7/10/09	Polovina Haulout	98.9	9:27
7/10/09	Polovina Haulout	98.7	9:55
7/10/09	Polovina Haulout	98.6	9:56
7/10/09	Polovina Haulout	96.5	9:57
7/10/09	Polovina Haulout	94.8	10:05
7/10/09	Polovina Haulout	100.5	10:07
7/10/09	Polovina Haulout	99.9	10:10
7/10/09	Polovina Haulout	102.5	10:11
7/16/09	Big Zapadni Sands Haulout	100.0	9:45
7/16/09	Big Zapadni Sands Haulout	98.2	9:48
7/16/09	Big Zapadni Sands Haulout	97.7	9:56
7/16/09	Big Zapadni Sands Haulout	97.5	9:58
7/16/09	Big Zapadni Sands Haulout	98.0	9:59
7/16/09	Big Zapadni Sands Haulout	97.5	10:00
7/16/09	Big Zapadni Sands Haulout	96.8	10:01
7/16/09	Big Zapadni Sands Haulout	100.7	10:02
7/16/09	Big Zapadni Sands Haulout	94.1	10:06
7/16/09	Big Zapadni Sands Haulout	97.7	10:08
7/16/09	Big Zapadni Sands Haulout	99.7	10:10
7/16/09	Big Zapadni Sands Haulout	97.2	10:12
7/16/09	Big Zapadni Sands Haulout	98.8	10:13
7/16/09	Big Zapadni Sands Haulout	96.7	10:34
7/16/09	Big Zapadni Sands Haulout	100.5	10:35
7/16/09	Big Zapadni Sands Haulout	98.7	10:35
7/16/09	Big Zapadni Sands Haulout	95.6	10:37
7/16/09	Big Zapadni Sands Haulout	99.5	10:38
7/16/09	Big Zapadni Sands Haulout	100.3	10:39
7/16/09	Big Zapadni Sands Haulout	100.6	10:43
7/16/09	Big Zapadni Sands Haulout	99.0	10:59
7/16/09	Big Zapadni Sands Haulout	98.8	11:02
7/16/09	Big Zapadni Sands Haulout	102.9	11:03
7/16/09	Big Zapadni Sands Haulout	99.7	11:07
7/16/09	Big Zapadni Sands Haulout	96.4	11:08
7/16/09	Big Zapadni Sands Haulout	99.3	11:11

Appendix 2 - 2009 Northern Fur Seal Harvest Seal Temperature Log, St. Paul Island, Alaska

Date	Harvest Location	Temp. (°F)	Time
7/24/09	Polovina Haulout	99.8	9:04
7/24/09	Polovina Haulout	99.3	9:05
7/24/09	Polovina Haulout	100.8	9:11
7/24/09	Polovina Haulout	101.4	9:17
7/24/09	Polovina Haulout	101.8	9:19
7/24/09	Polovina Haulout	102.0	10:01
7/24/09	Polovina Haulout	97.7	10:02
7/24/09	Polovina Haulout	97.4	10:03
7/24/09	Polovina Haulout	97.6	10:04
7/24/09	Polovina Haulout	100.5	10:14
7/24/09	Polovina Haulout	100.8	10:14
7/24/09	Polovina Haulout	100.4	10:15
8/5/09	Polovina Haulout	98.5	9:24
8/5/09	Polovina Haulout	97.9	9:26
8/5/09	Polovina Haulout	99.1	9:28
8/5/09	Polovina Haulout	100.3	9:29
8/5/09	Polovina Haulout	99.8	9:30
8/5/09	Polovina Haulout	100.6	9:31
8/5/09	Polovina Haulout	99.2	9:31
8/5/09	Polovina Haulout	102.5	9:32
8/5/09	Polovina Haulout	99.6	10:09
8/5/09	Polovina Haulout	99.1	10:09
8/5/09	Polovina Haulout	97.7	10:10
8/5/09	Polovina Haulout	101.2	10:10
8/5/09	Polovina Haulout	100.1	10:15
8/5/09	Polovina Haulout	99.6	10:15
8/5/09	Polovina Haulout	100.3	10:35
8/5/09	Polovina Haulout	100.1	10:37
8/5/09	Polovina Haulout	97.7	10:41
8/5/09	Polovina Haulout	102.6	10:42
8/6/09	Vostochni West Haulout	97.2	9:41
8/6/09	Vostochni West Haulout	95.9	9:44
8/6/09	Vostochni West Haulout	103.3	10:04
8/6/09	Vostochni West Haulout	100.9	10:04
8/6/09	Vostochni West Haulout	100.8	10:05
8/6/09	Vostochni West Haulout	102.2	10:05
8/6/09	Vostochni West Haulout	98.2	10:07
8/6/09	Vostochni West Haulout	99.8	10:08
8/6/09	Vostochni West Haulout	103.3	10:09
8/6/09	Vostochni West Haulout	100.9	10:10
8/6/09	Vostochni West Haulout	100.9	10:31
8/6/09	Vostochni West Haulout	101.6	10:38
8/6/09	Vostochni West Haulout	98.0	10:39
8/6/09	Vostochni West Haulout	102.1	10:40
8/6/09	Vostochni West Haulout	101.6	10:41
8/6/09	Vostochni West Haulout	101.3	10:42
8/6/09	Vostochni West Haulout	99.7	10:42

Appendix 2 - 2009 Northern Fur Seal Harvest Seal Temperature Log, St. Paul Island, Alaska

Date	Harvest Location	Temp. (°F)	Time
8/7/09	Big Zapadni Sands Haulout	93.1	9:20
8/7/09	Big Zapadni Sands Haulout	102.7	9:21
8/7/09	Big Zapadni Sands Haulout	101.7	9:21
8/7/09	Big Zapadni Sands Haulout	97.4	9:22
8/7/09	Big Zapadni Sands Haulout	103.7	9:23
8/7/09	Big Zapadni Sands Haulout	97.1	9:26
8/7/09	Big Zapadni Sands Haulout	97.4	9:42
8/7/09	Big Zapadni Sands Haulout	101.3	9:42
8/7/09	Big Zapadni Sands Haulout	100.3	9:45
8/7/09	Big Zapadni Sands Haulout	100.7	9:46
8/7/09	Big Zapadni Sands Haulout	102.2	9:47
8/7/09	Big Zapadni Sands Haulout	100.0	9:48
8/7/09	Big Zapadni Sands Haulout	92.0	9:48
8/7/09	Big Zapadni Sands Haulout	102.2	9:48
8/7/09	Big Zapadni Sands Haulout	98.2	9:49
8/7/09	Big Zapadni Sands Haulout	97.9	10:09
8/7/09	Big Zapadni Sands Haulout	104.4	10:09
8/7/09	Big Zapadni Sands Haulout	100.5	10:10
8/7/09	Big Zapadni Sands Haulout	102.1	10:11
8/7/09	Big Zapadni Sands Haulout	103.1	10:11
8/7/09	Big Zapadni Sands Haulout	101.0	10:32
8/7/09	Big Zapadni Sands Haulout	100.9	10:33
8/7/09	Big Zapadni Sands Haulout	101.2	10:33
8/7/09	Big Zapadni Sands Haulout	103.4	10:34
8/7/09	Big Zapadni Sands Haulout	102.2	10:35
8/7/09	Big Zapadni Sands Haulout	101.0	10:35
8/7/09	Big Zapadni Sands Haulout	103.2	10:36
8/7/09	Big Zapadni Sands Haulout	102.7	10:36
8/7/09	Big Zapadni Sands Haulout	100.9	10:56
8/7/09	Big Zapadni Sands Haulout	101.2	10:57
8/7/09	Big Zapadni Sands Haulout	99.1	10:59
8/7/09	Big Zapadni Sands Haulout	100.0	11:00
8/7/09	Big Zapadni Sands Haulout	101.5	11:00
8/7/09	Big Zapadni Sands Haulout	103.1	11:03
8/7/09	Big Zapadni Sands Haulout	104.2	11:05
8/7/09	Big Zapadni Sands Haulout	101.9	11:05

Appendix 3 - 2009 Northern Fur Seal Teeth Collection Log, St. Paul Island, Alaska

Date	Sample #	Harvest Location
07/02/09	1	Big Zapadni Sands Haulout
07/02/09	2	Big Zapadni Sands Haulout
07/02/09	3	Big Zapadni Sands Haulout
07/02/09	4	Big Zapadni Sands Haulout
07/02/09	5	Big Zapadni Sands Haulout
07/02/09	6	Big Zapadni Sands Haulout
07/02/09	7	Big Zapadni Sands Haulout
07/02/09	8	Big Zapadni Sands Haulout
07/02/09	10	Big Zapadni Sands Haulout
07/10/09	39	Polovina Haulout
07/10/09	40	Polovina Haulout
07/10/09	41	Polovina Haulout
07/10/09	42	Polovina Haulout
07/10/09	43	Polovina Haulout
07/16/09	11	Big Zapadni Sands Haulout
07/16/09	12	Big Zapadni Sands Haulout
07/16/09	13	Big Zapadni Sands Haulout
07/16/09	14	Big Zapadni Sands Haulout
07/16/09	15	Big Zapadni Sands Haulout
07/16/09	16	Big Zapadni Sands Haulout
07/16/09	27	Big Zapadni Sands Haulout
07/16/09	18	Big Zapadni Sands Haulout
07/16/09	19	Big Zapadni Sands Haulout
07/16/09	20	Big Zapadni Sands Haulout
07/16/09	21	Big Zapadni Sands Haulout
07/16/09	22	Big Zapadni Sands Haulout
07/16/09	25	Big Zapadni Sands Haulout
07/24/09	23	Polovina Haulout
07/24/09	24	Polovina Haulout
07/24/09	26	Polovina Haulout
07/24/09	27	Polovina Haulout
07/24/09	28	Polovina Haulout
07/24/09	29	Polovina Haulout
08/05/09	30	Polovina Haulout
08/05/09	31	Polovina Haulout
08/05/09	32	Polovina Haulout
08/05/09	36	Polovina Haulout
08/05/09	37	Polovina Haulout
08/05/09	38	Polovina Haulout
08/05/09	40	Polovina Haulout
08/05/09	47	Polovina Haulout
08/05/09	48	Polovina Haulout
08/05/09	49	Polovina Haulout

Appendix 3 - 2009 Northern Fur Seal Teeth Collection Log, St. Paul Island, Alaska

Date	Sample #	Harvest Location
08/06/09	44	Vistochni West Haulout
08/06/09	45	Vistochni West Haulout
08/06/09	50	Vistochni West Haulout
08/06/09	51	Vistochni West Haulout
08/06/09	52	Vistochni West Haulout
08/06/09	53	Vistochni West Haulout
08/06/09	54	Vistochni West Haulout
08/06/09	55	Vistochni West Haulout
08/06/09	56	Vistochni West Haulout
08/06/09	57	Vistochni West Haulout
08/06/09	58	Vistochni West Haulout
08/07/09	59	Big Zapadni Sands Haulout
08/07/09	60	Big Zapadni Sands Haulout
08/07/09	61	Big Zapadni Sands Haulout
08/07/09	62	Big Zapadni Sands Haulout
08/07/09	63	Big Zapadni Sands Haulout
08/07/09	64	Big Zapadni Sands Haulout
08/07/09	65	Big Zapadni Sands Haulout
08/07/09	67	Big Zapadni Sands Haulout
08/07/09	68	Big Zapadni Sands Haulout
08/07/09	69	Big Zapadni Sands Haulout
08/07/09	70	Big Zapadni Sands Haulout
08/07/09	71	Big Zapadni Sands Haulout
08/07/09	72	Big Zapadni Sands Haulout
08/07/09	73	Big Zapadni Sands Haulout
08/07/09	74	Big Zapadni Sands Haulout