

1 OI-CA-10-0361-I

2 Interview of Charles Monnett

3 February 23, 2011

4
5 ERIC MAY: Recording, um, it is February 23, 2011. My name
6 is Special Agent Eric May with the Department of Interior, Office
7 of Inspector General. I'm with, uh, Special Agent Lynn Gibson
8 with the Department of Interior, Office of Inspector General,
9 and we're accompanied by Mr. Monnett, can you -

10 CHARLES MONNETT: Charles Monnett.

11 ERIC MAY: Okay, and we are located at 3801 Center Park
12 Drive in -

13 CHARLES MONNETT: Centerpoint.

14 ERIC MAY: - Centerpoint Drive in Anchorage, Alaska, and
15 it is approximately, uh, 10:02 in the morning here in Anchorage,
16 Alaska. Um, and on the teleconference call, we're, we're talking
17 to - can you guys identify yourselves, please?

18 FEMALE VOICE: (Inaudible/background noise) an attorney with
19 PEER.

20 JEFF RUCH: This is Jeff Ruch, an attorney and the Executive
21 Director of PEER.

22 {TOM ASAGON}: This is Tom Assagon, Legal Fellow at PEER.

23 MEGAN CORRADO: My name is Megan Corrado, Legal Fellow at
24 PEER.

25 ERIC MAY: Okay, and you're all representing Mr. Monnett,
26 correct?

1 FEMALE VOICE: That's right.

2 ERIC MAY: Okay, and what legal firm are you guys with?

3 FEMALE VOICE: Public Employees for Environmental
4 Responsibility, or PEER is the acronym.

5 ERIC MAY: Okay, thank you. Um, uh, you - just a while ago,
6 we agreed to provide Mr. Monnett, upon his request, a copy of the
7 transcription, um, that we will have an independent transcription
8 service complete, um, which will take approximately two weeks.
9 Um, is there anything else that we need to cover before?

10 FEMALE VOICE: And, uh, my understanding, um, please
11 confirm, was that this is going to be a verbatim transcription
12 by this independent agency?

13 ERIC MAY: Yeah, not a problem, then this will be a verbatim
14 transcription of the tape-recording, uh, that I send them.

15 CHARLES MONNETT: Can I pause it for 10 seconds. I realize
16 that I didn't bring a pencil. I'm going to ask the secretary to
17 give me one right here, okay?

18 LYNN GIBSON: Do you want to take -

19 CHARLES MONNETT: Is that okay?

20 LYNN GIBSON: Sure, you can take this pen.

21 CHARLES MONNETT: Okay, I need something here. Okay.

22 ERIC MAY: Oh, and, and, uh, Mr. Monnett did sign the
23 Employee-Compelled Interview Notice, also known as Kalkines,
24 signed by me and witnessed by Special Agent Lynn Gibson, and
25 we will maintain a copy. Um, are you good to go?

26 CHARLES MONNETT: Yes.

1 ERIC MAY: Okay.

2 CHARLES MONNETT: Proceed.

3 ERIC MAY: All right, uh, you - have you - it's, it's - you
4 indicated that you worked with the Inspector General's Office
5 before, and you've talked to me before, Mr. Monnett, correct?

6 CHARLES MONNETT: Yes, we had that chat in the summer.

7 ERIC MAY: Okay, and part of the process of the Inspector
8 General's Office is that we receive allegations, and we go out
9 and investigate those allegations. And the reason we are here
10 today is that received, our office received some allegations
11 pertaining to scientif- - potential scientific misconduct
12 perpetrated by you and your, uh, coworker, Mr. Gleason, okay?
13 So that's what the scope of this interview is going to be is
14 your participation in the bowhead - the BWASP program?

15 CHARLES MONNETT: Um-hm [yes].

16 ERIC MAY: Okay?

17 CHARLES MONNETT: Well, how does that, um - you say this is
18 basically "scientific misconduct," and how does that jive then
19 with this being administrative in nature? What's that mean, just
20 that it's not criminal or something?

21 ERIC MAY: That's correct.

22 CHARLES MONNETT: Okay.

23 ERIC MAY: Right, this is an administrative matter under the
24 conditions of Kalkines, so -

25 CHARLES MONNETT: I see.

1 ERIC MAY: Okay? And the only - and we explained before,
2 the only reason it would be - reach the level of criminal is if
3 we find that you're lying to us.

4 CHARLES MONNETT: Right, and you're going to, you're
5 going to investigate, uh, the details of our science and you
6 (inaudible/mixed voices) -

7 ERIC MAY: Based on the allegations that we received.
8 That's correct.

9 CHARLES MONNETT: Okay, and, and just so I know how to put
10 my answers, do you have scientific credentials of any sort? Uh,
11 what, what, what level of scientist am I speaking with here
12 that's going to be evaluating my science?

13 ERIC MAY: No, we're criminal investigators.

14 CHARLES MONNETT: Criminal investigators.

15 ERIC MAY: With the Inspector General's Office.

16 LYNN GIBSON: Right.

17 CHARLES MONNETT: So I assume with no formal training in, in
18 science or biology or -

19 LYNN GIBSON: That's correct.

20 ERIC MAY: That's right.

21 CHARLES MONNETT: - marine, marine biology (inaudible/mixed
22 voices).

23 LYNN GIBSON: That's correct.

24 ERIC MAY: That's correct, right.

25 CHARLES MONNETT: All right, thanks.

1 ERIC MAY: Okay? All right. All right, we ready to
2 proceed? Um, Mr., uh, Monnett, can you give me some - a brief
3 background of, uh, your involvement with MMS or now BOEMRE -

4 CHARLES MONNETT: Um-hm [yes].

5 ERIC MAY: - your, your current title and what your current
6 job responsibilities include?

7 CHARLES MONNETT: Okay, um, I'll start with the backend
8 there. I'm Charles W. Monnett, Ph.D., and my - I'm a Wildlife
9 Biologist, and I'm responsible for, uh, what we call COR,
10 Contracting Officer's Representative, duties related to about
11 \$50 million worth of studies, uh, which is a significant
12 percentage of the studies that the Minerals Management Service
13 does nationwide.

14 And my first involvement with MMS, uh, was in 1984, because
15 I did my dissertation under, uh, support from a contract between
16 the Minerals Management Service and the University of Minnesota
17 where I did my Ph.D. dissertation. And for years, I was involved
18 as a contractor, uh, or, uh, someone working on contracts. And
19 then, in 199- - and, and I was very close to the unit. I used
20 to come in and meet with people, because I was always looking
21 for funding and I, I since have come to realize that I was very
22 unusual, because nobody ever comes in here, and I used to pop
23 in all the time and talk to these guys.

24 And in 1999, um, I was hired, um, into my current position
25 as - well, well, at the time, I was classified as a Marine
26 Ecologist, and then they changed me to a Wildlife Biologist

1 for some administrative reason. And my duties, um, have
2 evolved some over the years, but primarily it's been a COR role,
3 scientist role, um, managing studies. And for a period, uh, I
4 was involved directly as the Project Manager on the Bowhead Whale
5 Aerial Survey Project, which is an in-house study, and that ended
6 in I think '06.

7 ERIC MAY: Okay, and that acronym is BWASP?

8 CHARLES MONNETT: Bowhead Whale Aerial Survey Project.

9 ERIC MAY: Okay. And can you give us some background of
10 your, your, uh, participation in the - that program?

11 CHARLES MONNETT: In the BWASP program?

12 ERIC MAY: Right.

13 CHARLES MONNETT: Um, well, that's a program that started in
14 1979. Um, it was managed by a, a Wildlife Biologist named Steve
15 Treacy here, um, until '03 when he retired. I became involved in
16 1999 as a, as an observer and eventually as a Team Leader, which
17 meant I had the responsibility for, uh, managing the, the Survey
18 on a daily basis in the field. I was on the aircraft. And then
19 when Steve retired, I took over as, uh, Project Leader for the
20 whole Survey and, uh, dealt with all the issues related to
21 securing, uh, the funding and, and reporting.

22 ERIC MAY: Okay.

23 CHARLES MONNETT: Um, and then in '90- - uh, or I'm sorry,
24 '06 I believe it was, we made a - started to make a transition to
25 the National Marine Fisheries Service. Um, I'm, I'm - I can't
26 remember the years, but it was in that area. Um, and then there

1 was a year where, uh, we did kind of a cooperative thing where
2 they provided some people, and we provided leadership. And then,
3 the next year, I think which was '07, I took over completely.
4 And since then, I've managed the Project as the, uh, the COR, um,
5 but since I'm so intimate with it and we provided, uh, all of the
6 protocols and data collection software and everything, I've had
7 a, an uncommonly involved role in the study.

8 ERIC MAY: Okay. Can you get into the - a little bit more
9 specific about the BWASP? What - you, you go on up, you observe
10 the bowhead whale migration. Can you get into the specific of,
11 say, a specific flight? I mean, what - who, who participate in
12 the flights and -?

13 CHARLES MONNETT: All right, um, well, during the period
14 that I was responsible for, most of the period, uh, we flew with
15 the, uh, an air, uh, an airline called, uh, ERA, which was a
16 local airline, in one of their Twin Otters. And we would spend
17 months preparing, doing all the safety, all the training, and
18 I have a - I brought you a manual here. I don't have one, but
19 this is our, um, safety and etc. field manual. So that gives
20 you a lot of background on it. And, uh, so I was responsible
21 for assembling all of that and, and managing all of it. And
22 you'll see it's fairly involved (inaudible) training involved
23 and selection of personnel.

24 ERIC MAY: Okay.

25 CHARLES MONNETT: And then we would form our teams, and I
26 would lead one of the teams, that we would have - uh, we, we

1 tried to - well, the, the - initially, in the early years, there
2 would be two discrete teams. One would go up for a few weeks,
3 and the other one would replace them for a few weeks. But it
4 became clear that staff didn't want to commit for as long, and
5 some would commit for longer. So it became, uh, essentially
6 Team Leaders with teams that were in flux.

7 ERIC MAY: Okay.

8 CHARLES MONNETT: And so the - I would be a Team Leader and
9 would manage the day-to-day operations, which means that I would
10 confer with the pilots, um, and, and, uh, make decisions based on
11 their recommendations on operations, uh, about weather and safety
12 and all of that. They always had the last word when safety was
13 concerned. And I would, uh, provide oversight during the flights
14 and quality control, any training that was necessary and, uh,
15 oversee the - we usually had one person that was designated
16 as the data, uh, processor. Uh, we used a, uh, some in-house
17 software for recording the data that had a GIS, uh, mapping
18 routine built in it, so we could, in the aircraft, track our
19 progress and input the data and plot it as we went.

20 ERIC MAY: Okay.

21 CHARLES MONNETT: And so I would oversee that, quality
22 control that. And then, at the end of the day, when we got
23 back, I would have responsibility for sharing information with
24 the people who we shared with, and we had a list of organizations
25 and individuals that we provided data to immediately after the
26 flights.

1 ERIC MAY: Okay.

2 CHARLES MONNETT: And that's evolved some, but that's how
3 it was during the - it's much more automated now. That's, that's
4 how it was when I did - managed the individual flights.

5 ERIC MAY: How many observers are on a flight? I mean, who,
6 who's actually on the plane during a mission, going to -?

7 CHARLES MONNETT: A standard flight would be the, the pilot,
8 the copilot, a Team Leader, uh, who was an observer, a person
9 that was designated as an observer, and it usually was a
10 right-left aircraft thing. And then we would have the, a, uh -
11 I don't remember what we called them, uh, our data, uh, entry
12 person, and that person was at a window and might or might not
13 look out the window. Um, usually if there, if there was lots
14 going on, they were too busy entering data, um, but if something
15 interesting was seen, they might look out the window, or if it
16 was slow, they might look out the window.

17 ERIC MAY: And the data, data person has a laptop?

18 CHARLES MONNETT: Yes.

19 ERIC MAY: Okay.

20 CHARLES MONNETT: They used a laptop.

21 ERIC MAY: So go through a scenario, a quick scenario. Say
22 you observed some whales. What, what happens in the plane?

23 CHARLES MONNETT: Uh, well, the person that saw them would
24 call the observation and, uh, would start to go through a
25 sequence of data. Um, and the data recorder would be, uh,
26 filling in the data form. Some of it would be automated that

1 would be carried along as we went, some of the weather, and some
2 of it was automated, like from the instruments, like altitude,
3 location. But basically we would say, um, uh, let's see. Well,
4 we would - say we've got an airplane at 2:00, you know, or
5 whatever, coming up, and then we would start to describe, uh,
6 the - I mean, a, a whale at 2:00, a bowhead or a probable or
7 whatever. And then as we closed on it, we would confirm the
8 identification. We would say the number. We identify if it
9 was a calf. If there was any doubt, we would circle and, in
10 most cases, if we had time.

11 ERIC MAY: Okay.

12 CHARLES MONNETT: And, uh, then we would, uh, provide
13 information on the swim direction, the, uh - we used a clinometer
14 to get the angle from the aircraft so we could plot an exact
15 position - that was all automatic - automated - and, uh, some
16 behavioral things. And a sighting might be a bowhead, it might
17 be a ringed seal, it might be any of 10 different things, even a
18 ship or, you know, other things.

19 ERIC MAY: Okay, so do - other mammals, what happens if
20 you'd see something else other than a bowhead whale?

21 CHARLES MONNETT: Well, we, we would classify it as another
22 mammal. And in the early program, it was, it was kind of rigid
23 in that it was, it was, uh, it was built with zero flexibility,
24 so that if you saw something outside the norm, uh, you had to
25 improvise. And so the other thing we did was keep notes in a,

1 a smaller version of one of these green record books. And, uh,
2 some of us were better at that than others.

3 ERIC MAY: Okay.

4 CHARLES MONNETT: But, uh, the idea was to, uh, certainly
5 when we saw something unusual that we couldn't record, uh, in
6 the program, we would write it down manually and then have that
7 available later.

8 ERIC MAY: Okay. Uh, and were photos taken, videotape?

9 CHARLES MONNETT: No.

10 ERIC MAY: No?

11 CHARLES MONNETT: No, we, um, we were a very, uh, rigorous
12 and rigid protocol that was designed essentially to fly straight
13 lines with a minimum of circling, with, uh, very, very little
14 diversion of any sort, except when we saw something, um, that
15 required us to, um, maybe circle to do a count. If you came
16 over a, a large group of whales, and maybe there were 20 or 100,
17 then we would have to break our, break our protocol. But as
18 long as we were able to take the data as we went, we would fly
19 straight and at altitude, and we didn't take pictures, and we
20 didn't go down and, uh, we, we rarely circled.

21 ERIC MAY: Okay. Did - have you ever circled?

22 CHARLES MONNETT: Oh, yeah.

23 ERIC MAY: Like for example?

24 CHARLES MONNETT: Uh, well, like I said, over groups of, of
25 large groups of whales would be a case.

1 ERIC MAY: Okay. After the mission, what happens to the
2 data that you guys record in terms of the spottings? How is that
3 maintained?

4 CHARLES MONNETT: Well, it's all automated.

5 ERIC MAY: Okay.

6 CHARLES MONNETT: I mean, virtually, uh, every, everything
7 with just a very few exceptions were an- - were, were, uh,
8 anticipated when the database was designed, and so we had a
9 fairly automated, uh, system that involved bringing an access
10 file back, running some macros on it that spit out, uh, hard
11 copies of, you know, standard information maps and all that.

12 Now there were, there were real problems with that,
13 that there, there's, there's good reasons to have a very
14 rigid protocol, because it, it keeps you focused on whatever
15 your question is. And a lot of people have a tendency to
16 overdocument, and so you end up with a lot of unwelcome stuff,
17 uh, just details that, that really aren't relevant. But it also
18 means that when something changes that you can't anticipate, um,
19 you have to break out of that system and, you know, and record
20 a, a record. Um, but the vast, vast majority of things, this was
21 a 30-year program, you know, had been, uh, accounted for in, in
22 some way. Um, we did have our, our, uh, yellow - or our green
23 books that everybody kept -

24 ERIC MAY: Okay.

25 CHARLES MONNETT: - that, that had a lot of documentation.
26 And, and I would say that as we were nearing the end of, um, my

1 period, certainly by '06, we were completely, uh, reinventing
2 the program, um, because we recognized a need to, uh, build
3 flexibility into it so we could capture some things that we
4 hadn't been able to capture. Um, two examples of that, uh, were
5 the sightings of dead polar bears. We had no way to document a
6 dead polar bear in our system.

7 ERIC MAY: Okay.

8 CHARLES MONNETT: It simply wasn't an option, so that forced
9 us to write in our books. And another thing we were seeing was,
10 um, we suspected we were seeing some very unusual range expansion
11 in some of the waterfowl. With the retreat of the ice, they were
12 starting to move into offshore areas where birds had never been
13 documented, because it had always been frozen. And so we had a
14 desire, um, because Gleason is primarily a bird biologist, to
15 add some capability to record incidental sightings of waterfowl,
16 because we thought there were probably some - it probably was
17 really important for some of our analytical purposes here.

18 Uh, so we really reinvented the program and made it much
19 more flexible and much more complex, and that's the program that
20 NMFS continues to use as, as a more flexible version of that.
21 And that one is totally automated to where at the end of the
22 flight, when you turn the computer off, um, everything you need
23 is dumped to a jump drive and ready to email to anybody in the
24 nation. And a lot of that stuff immediately goes on websites.

25 ERIC MAY: Okay. Can you explain to us transect - and
26 that's the path of the airplane?

1 CHARLES MONNETT: Um-hm [yes].

2 ERIC MAY: Can you go into a little bit more detail about
3 how is that chosen, and do you go on the same transect each
4 flight?

5 CHARLES MONNETT: No. Yes, I can. Um, we had a program.
6 Um, we had a design that was a modified, um, it was a modified
7 transect design within fixed blocs, so it wasn't a true random
8 transect. But it had a random element in it, in that the start
9 and end points for any transect within a bloc was randomized.

10 ERIC MAY: Okay.

11 CHARLES MONNETT: And we, uh, had a requirement for some
12 number of transects. It was either six or eight usually. And
13 at the beginning of the flight, uh, we would use this random,
14 uh, it was kind of a random number generator that would give
15 us the beginning and end points for each transect, for each
16 bloc we expected to fly. And we would give those to the pilots
17 beforehand, and they would program them into their aircraft
18 navigation system.

19 And so when we would get out there, um, we would say, you
20 know, "Go to Bloc 4 and start on the, uh, southeast corner."
21 And so they would know right where to go. They would go to that
22 lat/long, and then they would start flying in the direction
23 dictated by the other endpoint. And so you would have blocs with
24 transects that would vary in there, and so that gave us a, a
25 random element, um, that there are, uh, there are some problems
26 with, but it's the best you can do in a large study like that.

1 ERIC MAY: Okay. And how, how high are you flying
2 typically?

3 CHARLES MONNETT: We tried to hold the altitude at
4 1,500 feet.

5 ERIC MAY: Okay.

6 CHARLES MONNETT: And we had a reason for that, had two
7 reasons. One was that, uh, when you're doing research on marine
8 mammals, you're often required to have a research permit from
9 the agency that has management authority, which in this case was
10 NMFS. And you have to have a permit if you have any possibility
11 of having a take under the Marine Mammal Protection Act, which
12 means you disturb the animal in some way.

13 And in the early stages of the project, there was a
14 discussion between, uh, Steve and NMFS people, and they decided
15 that as long as we stayed above, I think it was 1,200 feet,
16 that we wouldn't have to have a permit, uh, because we had no
17 potential to disturb the aircraft - or disturb the, the whatever
18 it was, the whales or, or seals. And so we routinely stayed at
19 1,500 feet, uh, only diverting because of weather, when we had to
20 fly up or down to avoid a cloud or a storm, and there were a lot,
21 a lot of little snowstorms. When you cover this much territory,
22 you'd fly in and around snowstorms. And then we also avoided,
23 uh, uh, any Native subsistence activities, because the Natives
24 would be whaling parts of the time we were out there. And so
25 whenever we saw whalers in the area, we would usually divert and
26 go up, to make sure we didn't have any potential to upset them.

1 ERIC MAY: Okay.

2 CHARLES MONNETT: Want some more?

3 ERIC MAY: No, that's good.

4 CHARLES MONNETT: Okay.

5 ERIC MAY: So how many, uh, missions have you - did you
6 participate in, roughly?

7 CHARLES MONNETT: Oh, gosh, uh, I don't know. You know,
8 the - we, we would go up there for - I'd go up there for a month
9 pretty much, sometimes longer, each year, and I might fly 10 or
10 12 or 15 missions, or I might sit there in my room for 30 days
11 in a row and never fly because the weather was too bad.

12 ERIC MAY: Okay.

13 CHARLES MONNETT: So, um, 25 to 75, I - probably around 50,
14 I think. It's very hard to say and then depends on how you
15 define a mission.

16 ERIC MAY: Okay, that's fine. Were you, were, were you
17 required to document other mammals besides bowhead whales?

18 CHARLES MONNETT: We documented, uh, any marine mammal we
19 saw.

20 ERIC MAY: Okay, every marine mammal during -

21 CHARLES MONNETT: Yeah.

22 ERIC MAY: Okay.

23 CHARLES MONNETT: Um, well, we had priorities. Our top
24 priority was the bowhead, because that was our reason for being
25 there. And then, um, we would, um, drop out some of the things,
26 uh, particularly some of the seals that were harder to see when

1 we were, uh, in situations where we were encountering a lot of
2 marine mammals.

3 ERIC MAY: Um-hm [yes].

4 CHARLES MONNETT: So ringed seals, for instance, were
5 frequently not observed, and a lot of the people couldn't see
6 them. And maybe a third of us had the ability to see them, and
7 that was a combination of experience and eyesight and attention.
8 Some people just wouldn't look, so -.

9 ERIC MAY: Okay. All right, so after the bow - do you have
10 anything about the background of the BWASP?

11 LYNN GIBSON: No.

12 ERIC MAY: So at the end of a season, what, what -

13 CHARLES MONNETT: You know, I never gave you the second
14 reason why we stayed at altitude.

15 ERIC MAY: Oh, okay.

16 CHARLES MONNETT: Can I do that?

17 ERIC MAY: Yeah, go -

18 CHARLES MONNETT: Okay, the second reason is, is entirely
19 safety.

20 ERIC MAY: Okay.

21 CHARLES MONNETT: Um, because when you're flying low, you're
22 at much higher risk if your aircraft, craft loses an engine or
23 something like that, the pilot can't recover. And, uh, so those
24 of that do this a lot under these circumstances realize how
25 dangerous it is and how high our risk is, and we, we tend to, uh,
26 want to be high rather than low. And I'm particularly sensitive

1 to that, because I've been in airplane accidents in the past, and
2 so I have great comfort the higher I am, really. I'm very uneasy
3 when I'm flying at two- or 300 hundred feet.

4 Um, and I can only think of really one occasion when I was
5 managing the Survey when we went down, uh, really below 1,000
6 feet, and that was one time we saw a dead whale. And we were
7 trying to document it, and so we actually went down probably to
8 500 feet. I think we took some pictures, because we had somebody
9 on board that had a camera, that knew how to use it, so -.

10 ERIC MAY: Okay. Is there always a camera onboard?

11 CHARLES MONNETT: Uh, no. No, a camera was, uh - well,
12 there are a couple of reasons. One is, um, that it's very hard
13 to get pictures from a moving aircraft at that altitude, um, and
14 people sometimes would take the little cameras, you know, the
15 little digital point-and-shoot type, um, and those were totally
16 inadequate. Um, and we didn't want to go down. We weren't in a
17 mode in those days where we were going down and documenting, um,
18 with any certain - I mean, we knew, we knew - you know, it's very
19 easy to tell what a bowhead is and, and the other things, so we
20 didn't need to document that.

21 Um, after '04, I think it was '04, we bought that digital
22 camera I was asking you about. Um, I think we bought that at
23 the start of our season, and I don't even remember why. It had
24 something to do with wanting to, uh, have a camera in case we saw
25 something interesting. But, um, we never really got any good
26 performance out of that, because I, I, I have a very hard time

1 using, um, cameras, because I - my vision is gone, you know. And
2 I, I can see great way out, but I can't see, you know, within
3 about four feet, and so having to put glasses on to look at a
4 camera and do all that just doesn't work for me. It, it, it
5 wrecks my, uh, uh, what do you call it, um - where you, you -
6 your search image, you establish, uh, when you look for something
7 a lot, you establish a "search image" it's called where, uh, you
8 recognize things better than somebody that's cold. And, and so
9 it's kind of like night vision.

10 ERIC MAY: Okay.

11 CHARLES MONNETT: You know, if you come back and blast your
12 eyes with light, you don't see as well, and so I never really
13 tried to use the, the big camera. A few people did. Uh, Jeff
14 took a few pictures with it, uh, and I actually used to encourage
15 him to go out and take pictures of ducks and things when we were
16 back at the motel to try to learn how to use the camera. Um,
17 but I, I, uh, once they went away from film, about then, my eyes
18 started going, and I just gave up on it altogether, because it
19 was a whole different, you know, sort of procedure.

20 ERIC MAY: Okay. At the end of the year, um, how do you
21 guys - is there a final report?

22 CHARLES MONNETT: Um, there's supposed to be an annual
23 report, and when I inherited the project, Steve was two years
24 behind because, unfortunately, our managers don't, uh - they
25 don't, they don't recognize the amount of work adding something
26 like this on generates. And we don't lose other duties, and I

1 still have more studies than anybody else and, and I did when I
2 was doing this. And so, um, you do the report as you can and,
3 and, uh, you've got which one there? Is that the '02 to '4?

4 ERIC MAY: Yeah.

5 CHARLES MONNETT: Yeah, I did that one probably in about '05
6 and caught it up, the first, uh, shortly after I took charge of
7 it. And then, uh, it took me a very long time to do this report,
8 just because I was too busy. And we had, uh - if you look in the
9 reports, you'll see that they're very heavy on graphics and, and
10 calculations and things and, and summary tables. And we had
11 programming for a while that helped generate a lot of that, but
12 primarily we worked with a GIS contractor, someone, you know,
13 that, that the unit here I had a contract with that came every
14 day and would work with data and produce graphics and summaries
15 and that for us. And that person's time was, um, heavily in
16 demand and, and I got pretty good support, um, up to about '07.
17 And then they got rid of them shortly after that. So I had -
18 now I had no capability to, you know, do anything related to
19 that - they don't even have software - so we're out of the
20 mapping business.

21 ERIC MAY: Okay. But did you help put these together when -

22 CHARLES MONNETT: Yeah, I, I was primary author on, uh, both
23 of those.

24 ERIC MAY: Okay, and that you - we're looking at the 2005
25 study.

26 CHARLES MONNETT: Yeah.

1 ERIC MAY: Is that the last one put out by this office?

2 CHARLES MONNETT: Yes.

3 ERIC MAY: Okay.

4 CHARLES MONNETT: Yeah, and the reason it's blue is because
5 it's different than the others in the series, because you'll
6 notice it isn't on -

7 (End of Audio Track 1)

8 ERIC MAY: This is a continuation of the interview with
9 Mr. Monnett. Uh, Mr. - Special Agent Eric May and Lynn Gibson
10 and representatives from PEER, who's representing Mr. Monnett
11 in Washington, D.C. Is that correct?

12 CHARLES MONNETT: Yes.

13 ERIC MAY: All right, so -

14 CHARLES MONNETT: Okay, how come you're so, so careful about
15 your own title, but you won't call me "Doctor"?

16 LYNN GIBSON: Ah.

17 ERIC MAY: Oh.

18 CHARLES MONNETT: (Laughing).

19 ERIC MAY: All right, I apologize for that, Dr. Monnett.

20 Um -

21 CHARLES MONNETT: I never use that except for when somebody
22 denies me it, then I - (laughing).

23 ERIC MAY: Oh, understood. All right, Dr. Monnett. All
24 right, Dr. Monnett, we were talking about the reports of the
25 BWASP.

1 CHARLES MONNETT: Oh, yes, and I, and I said there's a
2 difference between the two, because this one is authored, and
3 this one is not.

4 ERIC MAY: Okay.

5 CHARLES MONNETT: And that has to do with, uh, my
6 unwillingness to be an author on this document -

7 ERIC MAY: Okay.

8 CHARLES MONNETT: - because I had maintained that the
9 analysis we were using in this one was simplistic and incorrect,
10 and it was misleading. And I was forced to continue to use the
11 analysis in here, and so I took my name off of it and said,
12 "Well, all right, I'll do the report, but I don't want anything
13 to do with it."

14 ERIC MAY: Okay.

15 CHARLES MONNETT: Okay.

16 ERIC MAY: Okay, understood. Um, so during your
17 participation in the BWASP, did you observe - well, you did
18 observe polar bears.

19 CHARLES MONNETT: Absolutely, every year.

20 ERIC MAY: Okay, can you elaborate on your observation of
21 polar bears and what years and be a little bit more specific?

22 CHARLES MONNETT: What years?

23 ERIC MAY: Well, I mean, what was the first year you
24 observed a polar bear?

25 CHARLES MONNETT: Oh, I don't know. Um, I imagine I saw a
26 polar bear the first year I was out there, so that would be '99,

1 but I don't know. I don't, I don't remember. I didn't review
2 the reports. That's, that's too far back.

3 ERIC MAY: Okay.

4 CHARLES MONNETT: We had, um - we saw polar bears in three -
5 under three sets of circumstances generally. One was polar bears
6 out on the ice, offshore, which were dispersed over in a large
7 area. Another was polar bears on barrier islands all along the
8 coastline, and then there were a couple of places, particularly
9 one at Kaktovic, where the bears concentrated at a bone pile, a
10 bowhead whale, uh, it was, it was left over from the harvest.
11 The Natives would drag all the carcasses, and the bears would
12 gather around there. Um, in a normal year, you could count on
13 seeing 20 or 30 polar bears, uh, at certain times of the year
14 there. So all you had to do was go look; they'd be scattered
15 around the village.

16 And so we made a point to - uh, another was Cross Island,
17 which is also a, a whaling site, and so we made a point to visit
18 those sites a, a couple of times to document the numbers. And
19 we also made it a, a point to record any, you know, bears we
20 saw out on, uh, the ice. Um, and we had a few, um, behavioral,
21 um, uh, you know, variables that we - that were in the database
22 specifically for polar bears. One was if they were on a kill
23 and, otherwise, I think they were pretty general. Everything
24 swims, you know, so - uh, but, for instance, we didn't record
25 cubs. We had calves for the - and so it was different. I don't
26 know, there was - there were some problems with polar bears, and

1 that was one of the things that led to our redesigning the
2 program to be more flexible. It's the inability to record
3 everything that we might want to on polar bears.

4 ERIC MAY: Did you redesign it so you can -

5 CHARLES MONNETT: Yes.

6 ERIC MAY: - record the polar bear? What year was that?

7 CHARLES MONNETT: Well, that was at the end. We were
8 redesigning it, and I supposed we started in probably about '05.
9 I think we had a working version of it in '06 that we field
10 tested; it still had some problems. And then by the time NMFS
11 took it over, they had a, you know, a pretty reliable version.
12 But we kept - the programmer stayed involved, and we kept
13 modifying and fixing and all that. But, you know, most of
14 the program is as it was - now is at it was in - probably
15 about '07 or even '06.

16 ERIC MAY: Okay. When you observed polar bears, um, what
17 were your - what was your thought process? Was it a, a big deal
18 observing -?

19 CHARLES MONNETT: Oh, not for most of us. Those of us who'd
20 seen lots of polar bears, it was - but, you know, the first time
21 somebody sees a polar bear, it's, uh - well, we - typically,
22 if we were - occasionally, we would take a visitor out, um,
23 you know, like on a single flight, uh, either somebody from
24 the office here that hadn't really seen the Arctic, uh, you
25 know, would put them at another window and let them just fly
26 around and see it so they, so they understood better what they

1 were analyzing. Uh, occasionally, we'd have visiting
2 dignitaries.

3 ERIC MAY: Okay.

4 CHARLES MONNETT: And, uh, you know, they use - they - we,
5 we usually had, uh, I don't remember. There was a list of
6 species that, you know, if somebody saw all of them, then they
7 were pretty excited. If you saw a bear, if you saw a walrus,
8 musk ox, um, the whales, of course, um, those (inaudible).

9 ERIC MAY: Okay, did you, you ever see dead polar bears?

10 CHARLES MONNETT: Yes.

11 ERIC MAY: Can you elaborate on that?

12 CHARLES MONNETT: Um, well, I think the only time that we
13 saw dead polar bears, and I'm just trying to remember if I saw
14 them on any other occasions, I don't think so, was in '04, I
15 guess it was, when we saw some floating polar bear carcasses
16 at sea. And, uh, we saw four. Uh, we thought we might have
17 seen another one but, but, uh, we flew by it too fast and did -
18 weren't able to go back and find it. It's one Jeff saw, and he
19 was kind of uncertain. And by the time he decided that he was
20 certain enough to go back, we'd left the area, so -.

21 Uh, but we did see four, and we took sufficient time to,
22 uh, uh, you know, circle them. I don't think we dropped a lot
23 of altitude - we might have dropped a little - to, to get a
24 clearer look. Um, but they were pretty obvious.

25 ERIC MAY: Okay, were you - did, did it occur on the same
26 flight or different flights?

1 CHARLES MONNETT: Um, I think it was on more than one
2 flight. Yeah, it was on more than one flight. It was spread out
3 over a few days. I don't, I don't remember. It's in that paper,
4 the, the dates and everything.

5 ERIC MAY: Okay. Were you on all the flights that -

6 CHARLES MONNETT: I was, yeah.

7 ERIC MAY: Okay, and who was the other observer?

8 CHARLES MONNETT: Oh, well, Jeff I think was on all the
9 flights, but I don't remember for sure. And then there was
10 another - at least one other, um, person that would have been
11 the data recorder, that's the word I was looking for, and then
12 the pilots, who would have, you know, seen it.

13 ERIC MAY: Okay. And did these observations all get
14 recorded or -?

15 CHARLES MONNETT: No. Um, well, I think the, um - they got
16 recorded, but I can't remember whether we punched them in the
17 program. We were recording them in our book, because that's one
18 of the anomalies I was talking about that we really didn't have
19 any way to signify a dead polar bear. And so rather than have
20 that in the database when really what we wanted to analyze were
21 live polar bears - remember, the stuff is all automated.

22 ERIC MAY: Right.

23 CHARLES MONNETT: And so somebody has got to go through
24 and delete it, um, or do something, um, and I, I don't remember
25 whether it's - we recorded the location in the database or just

1 wrote it down. I'm guessing we recorded the location, uh, but it
2 would have been shown as a live bear.

3 ERIC MAY: Okay.

4 CHARLES MONNETT: The other thing we saw were a lot of
5 swimming bears, um, particularly that year, and in a typical
6 year, we'd see, you know, a swimming bear somewhere, about one
7 a year I think or less.

8 LYNN GIBSON: So the data recorder allowed you to log polar
9 bears and - on land, polar bears swimming, but not dead polar
10 bears?

11 CHARLES MONNETT: Well, no, no, we -

12 LYNN GIBSON: Or how does that work?

13 CHARLES MONNETT: We, um - hm, well, you're asking me to
14 remember something I can't remember the details of now, but
15 the, the - normally, if the bear was alive, we would record it.
16 That - we - uh, remember now, up to that point, we had never seen
17 a, a dead bear to record. Um, we did have swimming in the - uh,
18 as one of the behavioral choices, because whales swim. And there
19 were a few things that, um - I'd have to look. We've got a list,
20 you know, of behaviors that long and, and, uh, if they were
21 feeding on the carcasses, we probably noted that in some way.
22 Um, you know, it might be in that book, because that has the
23 protocols and, and, and things in it.

24 ERIC MAY: Okay.

25 CHARLES MONNETT: But that would be the best thing. Don't
26 try to drag this out of my memory. Look at -

1 ERIC MAY: No, it's understood, so we don't want -

2 CHARLES MONNETT: - look at the protocols, because we
3 had probably a hundred choices and, and if you look at all
4 the things, and we - and when we took our books in the field,
5 everybody cut out - we Xeroxed and shrunk and then cut out and
6 pasted them to the covers so we knew what our choices were.
7 And then the data recorder would, would, um, prompt us a lot of
8 times if we couldn't remember. You know, like ice type, there's
9 20 different ice types and, and, uh, some of the data recorders
10 were pretty expert, others weren't, and then we'd have to use the
11 sheets.

12 ERIC MAY: Okay.

13 CHARLES MONNETT: So the, the, the drowning part, the dead
14 bear part is in our books. It's not in the database. I, I,
15 I think - and I don't remember whether the bears are in the
16 database or not at this point.

17 ERIC MAY: Okay.

18 CHARLES MONNETT: They might be.

19 ERIC MAY: And just how did you know they were dead?

20 CHARLES MONNETT: Oh, it was really obvious.

21 ERIC MAY: Okay, like what, just -

22 CHARLES MONNETT: Well, I've seen a lot of dead things in
23 the water. Um, number one, I've seen a lot of live things, too,
24 so I know what a swimming polar bear looks like, but something
25 that's in the water, um, with its head down, with, uh, gurry and
26 stuff streaming off it, that's one way. Um, another - the last

1 one we saw was bloated like a, um, a beach ball, and it was this
2 thing with its legs out, and it was visible for a long ways ahead
3 of the aircraft. The sun was shining on it.

4 ERIC MAY: Okay. Any photos taken of it?

5 CHARLES MONNETT: Well, you've seen the photos. Uh, Jeff,
6 um, when he first was learning how to use the camera, he snapped
7 several, um, very disappointing. We call them the "Pillsbury
8 Doughbear photographs," because you can see a shape that's
9 consistent, you know, what looks like something you'd cut out
10 of a Christmas cookie or something.

11 ERIC MAY: Okay.

12 CHARLES MONNETT: Very rounded, um, and that's all we have.

13 ERIC MAY: Did you take a - attempt to make - take photos of
14 each individual -

15 CHARLES MONNETT: No.

16 ERIC MAY: - on each observation?

17 CHARLES MONNETT: No, I, I - again, it's - we're, we're
18 flying at a long distance from our base. We're trying to
19 complete a different mission and, um, our protocol is not to
20 break unless there's a, a very important reason. And I, I think
21 we probably circled on the one that we photographed. That's
22 pretty clear. But I know some of them, we didn't circle on. We
23 just kept going. We, we identified them, um, you know, flying
24 by. The water would be calm, and you'd be able to see them for
25 a way. And, and they were pretty obvious. You could see their
26 heads and legs and - even at 1,500 feet.

1 ERIC MAY: Okay.

2 CHARLES MONNETT: Uh, because remember, I can see a, a tag
3 that big at -

4 ERIC MAY: Right.

5 CHARLES MONNETT: - at, you know, those kinds of altitudes
6 on the sea otter. Um, we did not, at the time, um, this is one
7 of those things you always look back on, and you wonder why you
8 didn't recognize how important it was. To us, it was just like
9 weird. You're flying by. You're seeing some dead bears. Well,
10 the first one is just a dead bear, big deal, you know. We see
11 dead things floating, so you make a note. Um, by the time we'd
12 seen four, um, we realized that something unusual had happened
13 and - but even then, I, you know, I remember we talked about it
14 and, in fact, before we saw the dead bears, we had a, a couple
15 of days where we saw a lot of bears swimming. And that really
16 got our attention, because it was just incredibly calm, clear
17 weather, you know, just like being in, uh, well, not Hawaii,
18 because it was calmer than Hawaii, like being in the Caribbean
19 or something, you know, where the water just is perfectly clear,
20 and you can see way into it. On a clear day there, the water is
21 so clear that we can see the whales way down in the water, so it
22 was that kind of day where we could see a whale 100 feet down
23 below the surface.

24 And when we saw these bears swimming, uh, out in open water,
25 and some of them we saw when we were circling on whales, there
26 was some feeding whales and all in there. It was a very

1 interesting time. And we had this big discussion on the aircraft
2 about how well bears could swim and, you know, isn't this - I
3 mean, you know, maybe they, maybe they really are a lot more
4 aquatic than you'd think. Maybe they really could spend a lot of
5 time in the water. Because that was our first encounter of any
6 significant number. And I think we saw 10 or so and some, some
7 cubs with the bears.

8 And then, a few days later, we saw these, uh, we started
9 seeing these dead ones, and I know there were at least two
10 flights, there might have been three. I don't, I don't remember.
11 It was over a - it was about a week later, over that period, um,
12 and, again, you know, we had no, uh, notion that it would be a
13 important observation. And it was sometime later I think that
14 we started to realize that it was probably something that was
15 worthy of, of writing a note, you know, for a journal. And we
16 were looking for quick, clean products, um, because that's how
17 we, uh, justify our work, our study, you know.

18 ERIC MAY: So elaborate on what you're, what you're
19 referring to when you, you realized something important. What
20 are you talking about?

21 CHARLES MONNETT: Well, we realized that we, we had seen
22 something that was probably of general interest, not just
23 something you see that, you know, you just talk about, you
24 don't memorialize.

25 ERIC MAY: Okay.

1 CHARLES MONNETT: Um, if we had seen a bunch of dead whales
2 washed up, then you might write something like that. Um, the
3 Project, uh, I know there was a, a paper in the earlier years,
4 because they saw really a lot of feeding whales one time, you
5 know, just a lot of whales clumped. If you see a, a, a whale
6 that is, uh, hundreds of miles from where anybody would ever
7 expect it to be, like now the, uh, the humpbacks and fin whales
8 are moving north, because the sea ice is retracting, and there's
9 a lot going on. The water is a lot warmer up there. They seem
10 to be following their prey northward, so we're seeing this
11 expansion of the ranges. Um, they saw a humpback with a calf
12 to the east of Barrow, so actually around in the Beaufort Sea,
13 which is a huge extension of the range, and that was worthy of a,
14 of a publication in some little journal. These are what we call
15 "Notes -

16 ERIC MAY: Okay.

17 CHARLES MONNETT: - you know, in the, in the profession.
18 You write little Notes. Jeff Gleason, I don't know if you saw
19 some of the stuff. When Jeff was here, he was being, uh, very
20 creative in these. He, he saw some mallards eating salmon one
21 time in a stream up north, and he checked all the literature and
22 found that nobody had ever documented that before. And he wrote
23 a Note, and it got published in some little crummy journal. He
24 had a couple of things like that. Uh, this was, you know, more
25 than that, but it was a Note.

26 ERIC MAY: Okay.

1 CHARLES MONNETT: Just an observation, anecdotal Note with,
2 with limited analysis.

3 ERIC MAY: And what Dr. Monnett is referring to is your
4 manuscript.

5 CHARLES MONNETT: Yeah.

6 ERIC MAY: Can you elaborate on what started the manuscript
7 and how it came to -?

8 CHARLES MONNETT: Well, I just did. Um, we realized,
9 after we got back, um - the first thing we realized was that
10 the swimming, the amount of swimming we'd seen we thought was
11 exceptional to there, because we knew that, uh, there hadn't
12 been that much swimming. We didn't know how restricted it was
13 until we got back, and we started poking around in the database
14 and realized that we had seen almost as many bears swimming on
15 one day as had been seen in the entire history of the Project,
16 in the past 20-some years. And then we also noticed that there
17 was no history of, uh, or no notes, no indication that anybody
18 had ever seen any bears, and we checked with the other people
19 some. Nobody had ever seen any brown bears, I mean.

20 Um, and at that point, given that we had a 30-year or in
21 a nearly 30-year, what would it have been then, 26-year record
22 of doing the surveys up there with a time series of sightings
23 on swimming bears, that was worthy of, of acknowledging.

24 And also remember that this was - '04 was, um, a record
25 year, uh, for the retraction of sea ice from the coast. In
26 recent - in, in early years, um, it would be very icy when we

1 were flying surveys, and so the bears would be on ice. And in,
2 in those later years, uh, we would get up there, and it would
3 be wide open. You know, it would be hundreds of miles sometimes
4 out to the nearest ice. And so having a, a very open area where
5 there wasn't ice within a couple hundred kilometers at the
6 beginning of September was unusual, too. So we had some unusual
7 circumstances. Um, I don't know, it just came together as a, as
8 a, uh, uh, as relationships.

9 And then we - in, in the process of looking at this, we
10 realized there were other relationships, which led to a second
11 paper, and which were also mentioned. Um, this paper is very
12 narrow in that it only focuses on the swimming and drowning and
13 what, and what we thought was related to it, in other words, a
14 storm. Um, but when we developed the, uh, entire story, we
15 talk about, uh, our observations of the retreat of sea ice and
16 the changes in the quality of sea ice, going from multiyear to
17 annual, um, thinner sea ice, um, lower coverage, different types,
18 all that. And, and so there's another paper, um, that Gleason
19 and {Rhode} published, uh, in the last year or so that also
20 documents that.

21 And then those two papers support two posters that we
22 presented at scientific meetings. Um, one, this paper was at
23 a marine mammal meeting where we presented a poster, which is
24 much more comprehensive than this. And then we had a, a second
25 poster at a Wildlife Society meeting, which has, um, a lot of
26 the data on ice type and, you know, the, the changes we saw.

1 And then the other change in polar bears we saw was a really
2 dramatic change in distribution related to the change in sea
3 ice, which is that the bears were no longer dispersed over the
4 coastline. They were now either on shore, scattered along the
5 barrier islands or clumped at the whaling sites, and most of them
6 had shifted. Um, on this map here, if you look at the original
7 data, which I don't think you have - maybe in Jeff's (inaudible),
8 the bears would have been scattered along here. By the time we
9 were doing our study, they were, let's see, that's - yeah, here,
10 this is Camden Bay. The bulk of the bears were right down here,
11 and the vast majority were at the bone pile.

12 ERIC MAY: Okay.

13 CHARLES MONNETT: And then a few at Cross Island, which
14 is located off of Prudhoe, which is in here, because that's
15 another bone pile, and then others on the barrier islands.
16 But essentially, in the summer, since the - or in the fall,
17 when we're out there, since the ice is now gone, the bears have
18 to be on land, you know, or way out on the ice. And we have a
19 huge amount of satellite-tagged bears that we know where they
20 are, so - and they're in those places.

21 ERIC MAY: Okay. Well, your manuscript, so when you put
22 this together, was it peer-reviewed?

23 CHARLES MONNETT: Oh, yeah.

24 ERIC MAY: By whom?

25 CHARLES MONNETT: Uh, well, it was, it was reviewed here.
26 Um, Lisa Rotterman, my wife, who is a, you know, Ph.D. ecologist,

1 um, reviewed it and, and, you know, she took the first cut.
2 Cleve Cowles, um, gave it a thorough read. I think Paul Stang
3 did, who's a manager, and I wouldn't call that a peer review.
4 That's a, that's a political correctness review. And, uh, then
5 we sent it to, um - well, we sent it to Andy Derocher, who's
6 internationally - he's the, he's the, the head of the IUCN, uh,
7 polar bear, uh, specialist group and, uh, Ian Stirling, who's
8 probably the senior, like the dean, you know, the, the all-time
9 most famous polar bear guy in the world.

10 ERIC MAY: Okay.

11 CHARLES MONNETT: Um, and I had spoken to them on the phone
12 about the result, and I just told them, "Hey, we saw, you know,
13 some weird stuff this year, and what do you think?" And they
14 said, "Well, that's - you probably ought to write that up. Uh,
15 you know, it would be useful to have that in the literature."
16 And the other factor is I'm managing contracts that involve those
17 people, so they're tagging bears and things in a, in a study that
18 I, you know, helped create and manage. And, uh, then we sent
19 it to journal, and they sent it out to three peer reviewers,
20 anonymous peer reviewers.

21 ERIC MAY: The journal or -?

22 CHARLES MONNETT: Uh, *Polar Biology*.

23 ERIC MAY: *Polar Biology*, okay.

24 CHARLES MONNETT: Yeah.

25 ERIC MAY: How did they become involved?

26 CHARLES MONNETT: The journal?

1 ERIC MAY: Yeah.

2 CHARLES MONNETT: Well, we submitted it for publication.

3 ERIC MAY: You just submitted it to them?

4 CHARLES MONNETT: Yeah.

5 ERIC MAY: Okay, and was, um, MMS aware that you submitted
6 it to *Polar Bear* -

7 CHARLES MONNETT: Yeah, absolutely.

8 ERIC MAY: Okay.

9 CHARLES MONNETT: Yeah, we had to, um, you know, go through
10 a, a signoff process that I brought that along here. I think you
11 probably have already seen it, because I know you've seen all my
12 stuff. But here's, um, here's the signoff, um, for the, um, that
13 paper, and I want you to notice the note.

14 ERIC MAY: Okay.

15 CHARLES MONNETT: Basically, the point I'm making is that,
16 um, you know, Cleve, um, pointed out that Paul Stang, his
17 supervisor, had given it a fairly thorough review for I'd say
18 political correctness, and he had a couple of very minor, uh,
19 changes. And then the other thing I want you to note is, uh,
20 towards the top, there's a box checked, um, {right} here. He
21 checked, "No. Report, uh, contains national scope/policy and
22 requires higher approval." And so this is all the way through
23 Paul Stang.

24 Now these are approvals on the two posters, the same thing.
25 And the, uh, the second poster also has the Regional Director's
26 signature on it, and I want you to notice those also have that

1 box checked "No." So even after, um, this paper and the first
2 poster came out, and there was some, uh, angst within the
3 Department of Interior about the result, the Region was still
4 taking the position that this was not a national, of national
5 scope. And so I would say that tells you that we still weren't
6 recognizing at that point, um -

7 ERIC MAY: Regionally speaking.

8 CHARLES MONNETT: Yeah, regionally speaking. We weren't,
9 we weren't recognizing the paper as having any potential to be
10 controversial or influential.

11 ERIC MAY: In these peer reviews by these individuals, was
12 there any concern about some of the content and the calculations
13 or anything to that?

14 CHARLES MONNETT: No, not really.

15 ERIC MAY: Did they comment at all about any of the stats
16 or -

17 CHARLES MONNETT: Uh, there's no stats in there.

18 ERIC MAY: Well, calculations, for, for example, the
19 25 percent survival rate.

20 CHARLES MONNETT: Oh, well, that's just a mindless thing.
21 That's in the discussion. Um, that is not a statistic. Um,
22 that's a ratio estimator. It's a, it's a fifth grade procedure.
23 Do you have kids?

24 ERIC MAY: No.

25 CHARLES MONNETT: Okay, well, if you had kids, you would
26 know that in about fifth grade, they start doing a thing called

1 cross multiplication. "X" is to "Y" as, you know, "N" is to "M."
2 And you can - there's, there's a little procedure you use to
3 compare the proportions. And so that's a, um, simply a
4 calculation. It's not a statistic.

5 ERIC MAY: Okay.

6 CHARLES MONNETT: And, uh, we were very careful, um, in how
7 we presented that, to first make it clear that we had - we didn't
8 have sufficient sample size, although a, a, a peer statistician
9 type would probably argue we did. But we felt we didn't have
10 a sufficient sample size to do statistics and, you know, and
11 to estimate, to do any estimators or confidence intervals or
12 anything like that on. And we put caveats throughout that
13 section, saying that, uh, "it's possible." And we felt that,
14 um, we didn't want to leave the reader thinking that, "Okay,
15 they went out, and they surveyed it, and there were four dead
16 bears." Because this is a survey, and it only looks - it only
17 covers a small part of the habitat.

18 When you're out there flying in an airplane, uh, over this
19 vast area, our transects were 100 kilometers or longer, many
20 cases, and we were surveying an area 500, you know, kilometers
21 wide. We appreciated that we had a very limited, you know, scope
22 in this thing. We were only looking at a small percentage of it,
23 and so we thought that it would be worthwhile, uh, letting them
24 know essentially that we only looked at about 10 percent of the
25 area. And so if you just kind of draw a circle around the area
26 where the dead bears were, then if we looked at 10 percent of the

1 area, um, it's reasonable to think that if they're distributed
2 randomly, which we don't have any reason not to think they are,
3 that we would see 10 percent of what's there. And that's a
4 standard thing that's, um, used all the time and sometimes
5 very rigorously.

6 ERIC MAY: Okay.

7 CHARLES MONNETT: But you, but you have to state your
8 assumptions, which, you know, I think we did, so -. And
9 that's - that hasn't been controversial. Nobody, nobody's
10 really complained about that that I'm - that I recall anyway.

11 ERIC MAY: Well, on the, on the - let's go back to the peer
12 review.

13 CHARLES MONNETT: Sure.

14 ERIC MAY: Do you recall seeing this? And it's a, it's a -
15 where the (inaudible) - for you guys, it's a - from ESS, a
16 manuscript review approval, like a signature. Do you recall
17 reading those? And I believe it's from man- - like Cleve Cowles
18 and -

19 CHARLES MONNETT: Hold on, February 10th. Ah, no, I don't
20 recall seeing this. This must be what Cleve gave to Paul when he
21 asked him to review the, the document.

22 ERIC MAY: Well, this was in, uh, Mr. Gleason's possession
23 and -

24 CHARLES MONNETT: Okay.

25 ERIC MAY: - and do you want to read it for - some of
26 it - they're questioning your, your numbers in your poster

1 presentation, as well as the, the manuscript, particularly
2 regarding the polar bear numbers.

3 CHARLES MONNETT: Okay, where? Here, let me read it.

4 ERIC MAY: Oh, go ahead.

5 CHARLES MONNETT: "See my comments on ice. Statement
6 is not supported in the abstract." That just doesn't mean
7 anything. Um, "General comment: Are there enough data to make
8 the statement, these statements? Was survey protocol the same
9 through the 26 years?" Um, "This translates" - I don't know
10 where, where he got this 12 sightings per year. "I need to
11 see the poster." I don't - yeah, I don't know. I don't have
12 any problem with it. It's legitimate. He's just, uh, asking
13 questions. I would assume since they signed off on it, that
14 they were satisfied with whatever answers they got, but I don't
15 know, um -

16 ERIC MAY: Well, my question is did you ever - do you
17 recall following up to these comments or concerns regarding the
18 manuscript or the poster presentation when, when he's - because
19 he circles especially in regards to the polar bears that -

20 CHARLES MONNETT: Well, is this, um - 2-14-06, this, this
21 must be related to the second poster, which came out after the
22 manuscript.

23 ERIC MAY: That was the one done at the, the conference,
24 right?

25 CHARLES MONNETT: See, I can't tell what this is about,
26 whether this is, um, the second - uh, the Wildlife Society

1 poster, which Cleve was an author on, um, or, um, whether this
2 is related to the manuscript, because I think it was published.
3 I think it was already submitted and would - well, what's it say?
4 Where's that, uh -

5 ERIC MAY: Which one?

6 CHARLES MONNETT: The, the signoff, when did that go
7 through? Yeah, see, this is, uh -

8 LYNN GIBSON: That's the first one, and this one looks like
9 it's -

10 CHARLES MONNETT: Two-twenty-one.

11 LYNN GIBSON: Two, 2-14-06.

12 CHARLES MONNETT: Okay. No, that's the conference right
13 there. Here, this is the, uh, this is the signoff on the paper,
14 and that's '05. So this refers to the second poster.

15 ERIC MAY: The one done at the conference, right, the
16 13th Annual Wild- -

17 CHARLES MONNETT: The Wildlife one, yeah.

18 ERIC MAY: Right.

19 CHARLES MONNETT: The, uh, this one here. Um, uh, what's
20 at the, 13th Annual Conference of the Wildlife Society, right.
21 And what you've got is Cleve here just, you know, his job is to
22 point out, um any considerations to his manager so that, uh, his
23 manager, um, is satisfied with it. And you've, um - in there,
24 you've got the, um, paper, um, that, uh, Paul Stang, who this was
25 directed to, with his comments in it, so he obviously didn't have
26 any problems.

1 ERIC MAY: Now the Regional Director's signature is there as
2 well, or initials.

3 CHARLES MONNETT: Uh, jeez, I don't know {with that one}.

4 ERIC MAY: No, it was {John Gaul}.

5 CHARLES MONNETT: Uh, oh, yeah, yeah, he's there.

6 ERIC MAY: So did - so he reviewed it as a peer reviewer,
7 correct?

8 CHARLES MONNETT: Uh, no, not as a peer reviewer. That was
9 a management review, and that was the poster, not the paper.

10 ERIC MAY: Right, but the poster presentation at the
11 Wildlife Conference?

12 CHARLES MONNETT: Yeah.

13 ERIC MAY: Okay.

14 CHARLES MONNETT: And that one doesn't, um, that doesn't
15 have the data on the dead bears in it. That's stuff on ice, and
16 it, it may mention it, but it doesn't -

17 ERIC MAY: Well, actually, since you're bringing that up,
18 and, and I'm a little confused of how many dead or drowned polar
19 bears you did observe, because in the manuscript, you indicate
20 three, and in the poster presentation -

21 CHARLES MONNETT: No.

22 ERIC MAY: - you mentioned four.

23 CHARLES MONNETT: No, now you're confusing the, um, the
24 estimator with the, uh, the sightings. There were four drowned
25 bears seen.

26 ERIC MAY: Okay.

1 CHARLES MONNETT: Three of which were on transects.

2 ERIC MAY: Okay.

3 CHARLES MONNETT: And so for the purpose of that little
4 ratio estimator, we only looked at what we were seeing on
5 transects, because that's a - you know, we couldn't be very
6 rigorous, but the least we could do is look at the random
7 transects. And so we based, uh, our extrapolation to only
8 bears on transects, because we're saying that the transects,
9 the, the swaths we flew, represented I think it was 11 percent
10 of the entire habitat that, you know, that could have had dead
11 polar bears in it.

12 ERIC MAY: Um-hm [yes].

13 CHARLES MONNETT: And, um, so by limiting it to the transect
14 bears, then, you know, we could do that ratio estimator and say
15 three is to, um, uh, "x" as, uh, 11 is to 100. I mean, it's that
16 kind of thing. You, you've, you're nodding like you understand.

17 LYNN GIBSON: Yeah.

18 CHARLES MONNETT: Yeah, that's pretty simple, isn't
19 confusing. I mean, it's -

20 ERIC MAY: So, so, so you observed four dead polar bears
21 during MMS -

22 CHARLES MONNETT: One of which was not on transect.

23 ERIC MAY: Okay, so that's what -

24 CHARLES MONNETT: Yeah.

25 ERIC MAY: So is that considered an MMS survey, the one that
26 was not?

1 CHARLES MONNETT: Yeah, because when we go out there, we
2 don't - we aren't just limited to flying transects. We have to
3 get there.

4 ERIC MAY: Okay.

5 CHARLES MONNETT: And we connect. We go between transects.

6 ERIC MAY: Right.

7 CHARLES MONNETT: And in some cases, uh, we may divert, and
8 I don't remember where that bear was seen, but I do know that -
9 uh, well, no, I'm thinking of the swimming ones. I'm guessing it
10 was seen when we were flying what we called a base leg, which was
11 a leg along the shoreline a couple miles out -

12 ERIC MAY: Okay.

13 CHARLES MONNETT: - because, sometimes, we have to fly 10 or
14 15 kilometers to get to the next leg.

15 ERIC MAY: Okay.

16 CHARLES MONNETT: Um, I - it could have been something else
17 but, I mean, that's -.

18 ERIC MAY: So will that explain - this is an email from
19 you - between you and Mr. Gleason.

20 CHARLES MONNETT: Yeah.

21 ERIC MAY: And on the first page -

22 CHARLES MONNETT: Yeah.

23 ERIC MAY: - Mr. Gleason is talking about four observations,
24 I believe, then you correct him and say only three observations
25 during MMS surveys.

1 CHARLES MONNETT: Oh, huh. Well, that's a typo, I guess.
2 I don't know what the context of this was. But, I mean, I, I
3 gave four lat/longs here, so -.

4 ERIC MAY: Right, and, well, that's, and that's the
5 confusion.

6 CHARLES MONNETT: Yeah.

7 ERIC MAY: So why did you correct him and - because he
8 initially in the first email said four observations, using these.
9 And then you correct him -

10 CHARLES MONNETT: Yeah.

11 ERIC MAY: - in, in, in response by saying, no, only three
12 polar bear, dead, you know, dead polar bear observations during
13 MMS survey -

14 CHARLES MONNETT: No -

15 ERIC MAY: - and that's why I'm asking about your actual
16 observation.

17 CHARLES MONNETT: I don't know. You know, I don't know what
18 that is. I don't, I don't remember that, and I don't know if
19 that's the same thing.

20 ERIC MAY: Okay.

21 CHARLES MONNETT: Um, but those are the four locations, and
22 they're pretty far apart I think. Well, there's your dates, so
23 it was on four different dates. Yeah, no, I - you know, it is
24 what it is.

25 ERIC MAY: Okay.

1 LYNN GIBSON: So going back earlier, that the dead polar
2 bear information will not be in the data recorder, but it - all
3 four would in some way be indicated in the notebooks?

4 CHARLES MONNETT: Yeah, it'd be in the, in the books.

5 LYNN GIBSON: Is that correct?

6 CHARLES MONNETT: Yeah, I would assume Jeff's books or my
7 books, so -.

8 LYNN GIBSON: Okay.

9 ERIC MAY: All right. So I want to - I have the poster
10 presentation and -

11 CHARLES MONNETT: That's - if that's the kind of thing
12 people are after, that's -

13 ERIC MAY: Well, that's why we're here. Again, we're,
14 we're -

15 CHARLES MONNETT: Yeah, I know. That's just silly.

16 ERIC MAY: So I highlighted under here, and we've got the
17 four, and that's what -

18 CHARLES MONNETT: Oh, here you go. Yeah. Well, I'm pretty
19 confident that it was four. I mean, that's, um - uh, look, look
20 what is in the paper. I mean, it should have the - probably the
21 same information that, you know -

22 ERIC MAY: Well, it -

23 CHARLES MONNETT: There's a table in there, but does it - it
24 has the dead ones in it, doesn't it?

1 ERIC MAY: Well, and I think you, you explain, so this is
2 the portion where you're talking about the 25 percent survival
3 rate.

4 CHARLES MONNETT: Yeah.

5 ERIC MAY: And you're talking about four swimming bears and
6 three drowned or dead polar bears.

7 CHARLES MONNETT: Yeah. Yeah, but that's because those are
8 on transects.

9 ERIC MAY: On part of this 11 percent?

10 CHARLES MONNETT: Yeah, it says that right in here and,
11 and -

12 ERIC MAY: Right, right, but that's what you're talking
13 about, so it -

14 CHARLES MONNETT: Yeah, and that's why I don't know about
15 that, that email. Maybe, um, when I said three, what I left out
16 was the word "on transect" or something. I, I don't know.

17 ERIC MAY: Okay.

18 CHARLES MONNETT: I don't know. I mean, it's - I'd have to
19 be pretty stupid to put three and then list four locations right
20 under it, though.

21 ERIC MAY: Right, and you do list the four.

22 CHARLES MONNETT: Yeah.

23 ERIC MAY: And these four locations that you, you indicated
24 on that, I would be able to go back and verify it on the data
25 recorder information?

1 CHARLES MONNETT: I would assume so, yeah, that's where we
2 got it.

3 ERIC MAY: Okay.

4 CHARLES MONNETT: We, we pulled it out of those books.

5 ERIC MAY: Okay.

6 CHARLES MONNETT: And I'm not sure whether, um - sometimes I
7 leaned on - Jeff is, uh, um, was a meticulous data recorder. I
8 mean, he, um, he wrote everything down. And so I leaned on him
9 a lot that way, because I had different duties, and so a lot of
10 times, when we were busy, and we were seeing a lot, I would count
11 on Jeff to record observations. And I would be, um, looking
12 harder. You know, instead of bringing, bringing my eyes into the
13 airplane, I would keep my eyes outside the airplane, because I'm
14 a better observer than anybody. I just am, and if you look at
15 the data, I've, uh, I've seen a lot more, you know, whales.

16 ERIC MAY: Um-hm [yes].

17 CHARLES MONNETT: On a typical flight, I'll see more than my
18 share of whales. Occasionally not, but usually.

19 ERIC MAY: Okay.

20 CHARLES MONNETT: And that has to do with my vision and the
21 fact that I've been doing this for many, many, many years, so -.

22 ERIC MAY: All right. Can you do me a favor and we're - now
23 that we're on this subject, can you tell me how you came up with
24 the calculations in this little paragraph?

25 CHARLES MONNETT: Sure.

26 ERIC MAY: And it - again, this is the 11 percent.

1 CHARLES MONNETT: Yeah. Okay, let's see.

2 ERIC MAY: Can you get me my pen, Chuck?

3 CHARLES MONNETT: What did you lose? Oh, sure.

4 ERIC MAY: Just you (inaudible).

5 CHARLES MONNETT: That's all right. It's easier to -

6 ERIC MAY: And do you want a piece of paper to -

7 CHARLES MONNETT: No, no, this is, this is no-brainer stuff
8 here.

9 ERIC MAY: And, and for the individuals on the other end,
10 we're, we're referring to the manuscript and -

11 CHARLES MONNETT: Stuff under Table 2 -

12 ERIC MAY: Yeah.

13 CHARLES MONNETT: The paragraph in the left-hand column.
14 Um, God, I've got people here who are second-guessing my
15 calculations. Um, well, um, we flew transects. That was our
16 basic methodology. They were partially randomized. And we, uh,
17 we looked at a, a map. I think we probably used GIS to do it,
18 and we said that our survey area, if you bound it, is so big.

19 ERIC MAY: Um-hm [yes].

20 CHARLES MONNETT: And then we made some assumptions about
21 our swath width, and I think we assumed we could see a, a bear
22 out to a kilometer with any reliability, which mean you're
23 looking down like that. And, uh, sometimes you might see more;
24 sometimes you wouldn't. Sometimes you can't see a whale out that
25 far, so it depends on the water conditions. And so we just said
26 that, um, if you add up, we had 34 north/south transects provide

1 11 percent coverage of the 630 kilometer-wide study area, and
2 that was just to get our ratio of coverage. And then the area
3 we really were concerned about was just the area where the bears
4 were, so we could ignore the area at that point and just go with
5 a ratio, because we assume that's the same, because these things
6 are pretty, uh, they're pretty standardized. They were designed
7 to be standardized, so in each bloc - have you seen the blocs?
8 Have you seen our design? It's in here.

9 ERIC MAY: I took - yeah, in, in your study.

10 CHARLES MONNETT: It's right at the beginning here. Um,
11 every map in here has got it on it. Um, there, those are our
12 blocs. And so, uh, this one would have four pairs. This one
13 would have probably three pairs. I don't know, there will be
14 later maps. Um, and there, you can see the flights. Uh, well,
15 yeah, they're in here. Um, so we're flying these transects, and
16 we're assuming we can see a certain percentage or a certain,
17 certain distance. Therefore, we can total up the length and
18 the width and come up with an area. And so we calculated that
19 our coverage was 11 percent, plus or minus a little bit.

20 ERIC MAY: Okay. And I believe you rounded up, too. It
21 was 10.8 and you rounded up to 11?

22 CHARLES MONNETT: Yeah. Well, that's a nothing. Um,
23 yeah, 10.8. And then we said, um, four dead - four swimming
24 polar bears were encountered on these transects, in addition
25 to three.

26 ERIC MAY: Three dead polar bears?

1 CHARLES MONNETT: Yeah, three dead.

2 ERIC MAY: Right.

3 CHARLES MONNETT: But the four swimming were a week earlier.

4 ERIC MAY: Okay.

5 CHARLES MONNETT: And, um, then we said if they accurately
6 reflect 11 percent of the bears present so, in other words,
7 they're just distributed randomly, so we looked at 11 percent
8 of the area.

9 ERIC MAY: In that transect?

10 CHARLES MONNETT: Yeah.

11 ERIC MAY: Right.

12 CHARLES MONNETT: In, in our, in our area there, um -

13 ERIC MAY: Right.

14 CHARLES MONNETT: - and, therefore, we should have seen
15 11 percent of the bears. Then you just invert that, and you
16 come up with, um, nine times as many. So that's where you get
17 the 27, nine times three.

18 ERIC MAY: Where does the nine come from?

19 CHARLES MONNETT: Uh, well 11 percent is one-ninth of
20 100 percent. Nine times 11 is 99 percent. Is that, is that
21 clear?

22 ERIC MAY: Well, now, seven of 11 - seven of what number is
23 11 percent? Shouldn't that be - that's 63, correct?

24 CHARLES MONNETT: What?

25 ERIC MAY: So you said this is -

26 CHARLES MONNETT: Seven/11ths this is -

1 ERIC MAY: No, no, no, no, no. This, this is, this is 11 -
2 seven is what number of 11 percent?

3 CHARLES MONNETT: Seven?

4 ERIC MAY: Yeah.

5 CHARLES MONNETT: Is what number of 11 percent?

6 ERIC MAY: Eleven percent, right.

7 CHARLES MONNETT: Well, I don't know. I don't even know
8 what you're talking about. It makes no sense.

9 LYNN GIBSON: I think what he's saying is since there's four
10 swimming and three dead, that makes -

11 ERIC MAY: And three dead.

12 CHARLES MONNETT: Well, you don't count them all together.
13 That doesn't have anything to do. You can't - that doesn't
14 even -

15 LYNN GIBSON: So you're not saying that the seven represent
16 11 percent of the population.

17 CHARLES MONNETT: They're different events.

18 ERIC MAY: Well, that's what you try - we're trying to -

19 LYNN GIBSON: You're talking about they're separate?

20 CHARLES MONNETT: Yeah, they're different events.

21 ERIC MAY: Right, so explain to us how -

22 CHARLES MONNETT: On one day - well, let me draw. I, I, I
23 don't have confidence that you're understanding me here, so let
24 me (inaudible/mixed voices).

25 ERIC MAY: No, please, please do. That's why, that's why
26 we're here.

1 CHARLES MONNETT: Yeah, no, I'm starting to -
2 LYNN GIBSON: And I have (inaudible).
3 CHARLES MONNETT: Sorry, Jeff, that all - that we're going
4 to go to the blackboard.
5 ERIC MAY: Can - would you - it would probably be better if
6 you write it on -
7 CHARLES MONNETT: Oh, okay, you want evidence.
8 ERIC MAY: Well, no, so we understand it, so -
9 CHARLES MONNETT: Well, I was going to write it there, and
10 then you'd understand it, but if you -
11 LYNN GIBSON: Either way.
12 ERIC MAY: Yeah, it doesn't - I mean -
13 LYNN GIBSON: Either way, it doesn't matter.
14 CHARLES MONNETT: All right.
15 LYNN GIBSON: {The cover is easy}.
16 CHARLES MONNETT: It makes me feel more professorial if I
17 write it on the blackboard.
18 LYNN GIBSON: Okay, go ahead.
19 CHARLES MONNETT: No, that's okay.
20 ERIC MAY: (Inaudible/mixed voices)
21 CHARLES MONNETT: If you could see it, I wanted you to see
22 it was why I was going to do it there.
23 ERIC MAY: (Inaudible/mixed voices)
24 LYNN GIBSON: We're your students today.
25 CHARLES MONNETT: Uh, well, this has transects on it,
26 doesn't it, guys?

1 LYNN GIBSON: Yes, it does.

2 CHARLES MONNETT: I mean, look right here. So here's our
3 coastline right here, this red thing.

4 ERIC MAY: Okay, yep.

5 CHARLES MONNETT: And here's our, um, our study area. We
6 go out to whatever it was. I don't remember, 70, 71 degrees or
7 something like that. And, um, around each of these things, we
8 survey a tenth of the distance between, basically.

9 ERIC MAY: Okay.

10 CHARLES MONNETT: And so if you draw these lines here, and
11 this is - you're just going to have to pretend like I did this
12 for all of them. And you calculate the area in here.

13 LYNN GIBSON: Um-hm [yes].

14 CHARLES MONNETT: And you total them all, and then you
15 calculate the whole area. This - the area inside here was
16 11 percent.

17 LYNN GIBSON: Okay.

18 CHARLES MONNETT: Okay? Now what we said is that we saw
19 three, three bears in 11 percent.

20 ERIC MAY: Three dead bears?

21 CHARLES MONNETT: Three dead, yeah, dead -

22 ERIC MAY: Right.

23 CHARLES MONNETT: - in the 11 percent of the habitat.
24 And so you could set up a, um, a ratio here, three is to "x"
25 equals 11 over 100, right? And so you end up with - you can
26 cross-multiply. You know algebra?

1 ERIC MAY: Um-hm [yes], yeah.

2 CHARLES MONNETT: You can cross-multiply. Okay, so you end
3 up with 300 equals 11x, and I am sure that that's - equals 27,
4 okay?

5 ERIC MAY: Right, right, got that.

6 CHARLES MONNETT: And if you stick four in here instead, you
7 end up with -

8 ERIC MAY: Thirty-six.

9 CHARLES MONNETT: - whatever that number was, yeah, 36.
10 Now, um, those numbers aren't related, except we made the further
11 assumption, which is implicit to the analysis. Seems obvious
12 to me. We went out there one week, and we saw four swimming on
13 the transect, which we estimated could have been as many as 36.

14 LYNN GIBSON: Correct.

15 CHARLES MONNETT: If we correct for the area. And we went
16 out there later, a week to two weeks later, and then we saw the
17 dead ones, the three dead ones in the same area, which could have
18 been 27. And then we said let's make the further assumption that
19 - and this, this isn't in the paper, but it's implicit to this
20 argument -

21 ERIC MAY: Um-hm [yes].

22 CHARLES MONNETT: - that right after we saw these bears
23 swimming, this storm came in and caught them offshore, all
24 right? And so if, um, if you assume that the, the, the 36 all
25 were exposed to the storm, and then we went back and we saw
26 potentially 27 of them, that gives you your 25 percent survival

1 rate. Now that's, um, statistically, um, irrelevant. I mean,
2 it, it's not statistical. It's just an argument. It's for,
3 it's for the sake of discussion. See, right here, "Discussion."

4 ERIC MAY: Um-hm [yes].

5 CHARLES MONNETT: That's what you do in discussions is you
6 throw things out, um, for people to think about. And so what we
7 said is, look, uh, we saw four. We saw a whole bunch swimming,
8 but if you want to compare them, then let's do this little ratio
9 estimator and correct for the percentage of the area surveyed.
10 And just doing that, then there might have been as many as
11 27 bears out there that were dead. There might have been as
12 many as 36, plus or minus. There could have been 50. I don't
13 know. But the way we were posing it was that it's serious,
14 because it's not just four. It's probably a lot more.

15 And then we said that with the further assumption, you
16 know, that the bears were exposed or, you know, the ones we're
17 measuring later that are carcasses out there, it looks like a
18 lot of them, you know, didn't survive, so - but it's, it's
19 discussion, guys. I mean, it's not in the results.

20 LYNN GIBSON: And on the two different days, you're flying
21 the same transects?

22 CHARLES MONNETT: Not necessarily, no.

23 LYNN GIBSON: Oh, different -

24 CHARLES MONNETT: No, it's randomized. In fact, absolutely
25 not. We were flying -

26 LYNN GIBSON: Different.

1 CHARLES MONNETT: - transects in the same blocs, but
2 different randomized starting and endpoints. I - you know,
3 that's only confusing to somebody that is trying really hard
4 to be negative. That's - I mean, I think anybody -

5 ERIC MAY: So combining the three dead polar bears and the
6 four alive bears is a mistake?

7 CHARLES MONNETT: No, it's not a mistake. It's just not
8 a, a, a real, uh, rigorous analysis. And a whole bunch of peer
9 reviewers and a journal, you know -

10 ERIC MAY: Did they go through - I mean, did they do the
11 calculations as you just did with us?

12 CHARLES MONNETT: Well, I assume they did. That's their
13 purpose.

14 ERIC MAY: Okay. Right, and that's - again, that's why I
15 was asking peer review.

16 CHARLES MONNETT: Yeah.

17 ERIC MAY: Did they do that with that particular section of
18 your manuscript?

19 CHARLES MONNETT: Well, I don't, I don't remember anybody
20 doing the calculations but, um, uh, there weren't any huge
21 objections. There weren't a - let's put it this way, there
22 weren't sufficient objections for the journal editor to ask
23 us to take it out.

24 ERIC MAY: Right. Well, let me, let me read you what - the
25 four bears - and representing what we were just talking about,
26 this section.

1 CHARLES MONNETT: Yeah.

2 ERIC MAY: So just let me, let me read what I have here,
3 okay?

4 CHARLES MONNETT: Okay.

5 ERIC MAY: "If four swimming bears, if four bears represent
6 11 percent of the population of bears swimming before the
7 storm," -

8 CHARLES MONNETT: Um-hm [yes].

9 ERIC MAY: - okay? "Then 36 bears were likely swimming."

10 CHARLES MONNETT: Yeah, maybe, I mean -

11 ERIC MAY: Okay, but I mean -

12 CHARLES MONNETT: No, we didn't say "likely." I think we
13 said "possibly," or did you say "likely" or -?

14 ERIC MAY: Well, or this - again, as you just stated
15 earlier, this is Discussion, so -

16 CHARLES MONNETT: I'd be surprised if we said "likely," but
17 mostly we were saying "possibly."

18 ERIC MAY: Okay, so let me - let, let me continue, so -

19 CHARLES MONNETT: Okay.

20 ERIC MAY: - so you have that. "If three bears represent
21 11 percent of the population of bears that may have died" -

22 CHARLES MONNETT: Yeah.

23 ERIC MAY: - right?

24 CHARLES MONNETT: Yeah.

25 ERIC MAY: I think those are your words in your manu- - "may
26 have died."

1 CHARLES MONNETT: Yeah.

2 ERIC MAY: " - as a result of this storm, then 27 bears were
3 likely drowned." Okay, so far, so good?

4 CHARLES MONNETT: Well, if I used "likely." I don't know if
5 I did.

6 ERIC MAY: Well, okay, that's -

7 CHARLES MONNETT: Well, that's a big deal.

8 ERIC MAY: Well, no, but I'm saying -

9 CHARLES MONNETT: (Laughing)

10 ERIC MAY: - let me get to that - well, let me get to the
11 final thing here.

12 CHARLES MONNETT: Yeah.

13 ERIC MAY: "If seven total bears, four swimming, uh, and
14 three drowned represents 11 percent of the population" -

15 CHARLES MONNETT: It doesn't.

16 ERIC MAY: Okay, and we'll - let me, let - "of bears before
17 the storm, then the total number of bears after the storm is 63,"
18 and that's where I came up with the sixty -

19 CHARLES MONNETT: That's just stupid. I - did you do that?

20 ERIC MAY: No.

21 CHARLES MONNETT: That is stupid.

22 ERIC MAY: I'm a, I'm just - I interview -

23 CHARLES MONNETT: In the first place, there's - it's
24 200 percent, okay?

25 ERIC MAY: So explain - tell me why that's wrong.

1 CHARLES MONNETT: Well, because they're acting like they
2 were all seen at the same survey. We flew the whole thing twice
3 to see that, right?

4 ERIC MAY: Right, and that's, that's different.

5 CHARLES MONNETT: Yeah.

6 ERIC MAY: That's where the mistake is here -

7 CHARLES MONNETT: Yeah.

8 ERIC MAY: - because they -

9 CHARLES MONNETT: Yeah.

10 ERIC MAY: - they - it occurred on different trips.

11 CHARLES MONNETT: Yeah, it, it, it's, it's three out -
12 uh, three is to 11 to 100 percent, and then four is to 11
13 to 100 percent. It's another 100 percent. And so I, I don't
14 even still follow what they did to get the 60 percent. That,
15 that's -

16 ERIC MAY: The 63 percent.

17 CHARLES MONNETT: Yeah, that's just goofy.

18 ERIC MAY: Okay.

19 CHARLES MONNETT: But you should at least be - if you were
20 trying to, uh, uh, document the rate at which we saw something,
21 dead or swimming, it would be seven out of 200 percent.

22 LYNN GIBSON: I think the math is that if you take - if
23 they're considering that there are seven total bears, and that
24 represents 11 percent -

25 ERIC MAY: Eleven percent, right.

26 LYNN GIBSON: - of 63, and that, that -

1 ERIC MAY: And that's - so that's wrong.

2 LYNN GIBSON: And that's what we're trying to understand is
3 why is that wrong or right in this.

4 CHARLES MONNETT: Uh, I, I, I have no idea.

5 LYNN GIBSON: Okay.

6 ERIC MAY: Is there one - and as - well, you stated just a
7 few minutes ago, it's because the - it - uh, trips occurred on
8 different days. Now what if this occurred on the same day?
9 Would -

10 CHARLES MONNETT: Well, if we had seen seven something on,
11 uh, on, on -

12 ERIC MAY: One -

13 CHARLES MONNETT: Not, not even a same day, but the same
14 pass -

15 ERIC MAY: Right.

16 CHARLES MONNETT: - through the system, then that would be
17 100 percent of it, so it would be seven bears seen in a - not
18 100 percent but, I mean, we surveyed 100 percent. So seven in,
19 in 11 percent is what that would be. But that's not, not even
20 close to correct.

21 ERIC MAY: Okay.

22 CHARLES MONNETT: It's just goofy. And I - and, uh, the
23 63 number, what's the point of that? You know?

24 ERIC MAY: Wonder what, what they did is seven of what
25 number is, uh, represents 11 percent, and that would - that's
26 where the 63 came up.

1 CHARLES MONNETT: Somebody is deficient in fifth grade math.

2 ERIC MAY: (Laughing)

3 CHARLES MONNETT: Seriously. I mean, give me a break.

4 ERIC MAY: Right, do you have any other questions on -?

5 LYNN GIBSON: No, no.

6 ERIC MAY: Okay. Do you have anything else for us on that
7 particular section?

8 CHARLES MONNETT: No. No, this -

9 ERIC MAY: Now, and I want to reiterate or re- - go back
10 real quick.

11 CHARLES MONNETT: Yeah.

12 ERIC MAY: Just the three - when you indicate three dead
13 polar bears in that, that doesn't mean - you're just talking
14 about that transect for discussion purpose -

15 CHARLES MONNETT: Well, I don't, I don't -

16 ERIC MAY: Not -

17 CHARLES MONNETT: I don't recall. You know, I - you mean
18 the, the contradictory one here?

19 ERIC MAY: Between three and four observations of -

20 CHARLES MONNETT: Yeah, I, I, I don't recall what that was,
21 um, but I'm, I'm, uh - we, we never thought it was three. We
22 knew it was four. And the three is bears on the transect, and
23 so I don't, I don't know, out of context - uh, you've got to
24 understand, Jeff sat three cubicles from me, and so when I sent
25 him an email, I was really sending him the, uh, the lat/longs

1 of all the bears. He must have requested that. What did he say
2 in his memo or in his message? I don't remember.

3 ERIC MAY: Oh, in the -

4 CHARLES MONNETT: Do you have that?

5 ERIC MAY: Are you talking about the email?

6 CHARLES MONNETT: Yeah, his email to me that the - what was
7 his asking for or - I think it said that.

8 ERIC MAY: I don't know if he was even asking for anything.
9 He was -

10 CHARLES MONNETT: Well, I don't - why did I send him a
11 message here?

12 ERIC MAY: He was basically telling you event numbers where,
13 you know -

14 CHARLES MONNETT: Oh, okay, so he gave me the event numbers.
15 All right, now this should tell you that, um, we were basing this
16 on the notes in Jeff's book, okay, because I told you that I may
17 have relied on him to write it down -

18 ERIC MAY: Um-hm [yes].

19 CHARLES MONNETT: -because he's very good at that, and I
20 was busy. And this wasn't a high priority at the time. So he
21 went to his books and, and when we, uh, whenever we record an
22 observation, the computer logs an event. And if I wasn't so
23 rusty on this, what I would have said was, um, we're flying
24 along, we see a whale. We'd say, "I see a whale," and the data
25 recorder says something like, um, "Okay" or whatever. But at
26 that point, they push the button. If the bear - or if the, if

1 the whale or whatever it is is a, {a bemus}, and if, if we say,
2 "I see a whale ahead two miles," then they would wait. But at
3 some point, you would say - we had a word we used. I don't
4 remember. Um, it was something like, you know, "fix" or, or I -
5 it wasn't fix, but we had a word we used that indicated it was
6 time to punch the button. And they'd punch the button, and then
7 that would register, uh, the lat/long. And at that point, the
8 computer would register an event number. So any time they'd push
9 the button, it's an event. Even if it's weather, it's an event.

10 And so they would call to us, "Okay, you have Event #46,"
11 and Jeff would write that down in his book, or I would. And then
12 we would look out the window, see what was going on. Which way
13 is the whale swimming, is it accompanied with a calf? Is there
14 only one whale? How fast is it going? What direction is it
15 going - all that stuff. And then we would start to call that
16 back to the data recorder. At the same time, we would be making
17 notes in our book if we weren't too distracted with something
18 else.

19 And we got better and better at that, but Jeff was
20 meticulous at that. And so he's telling me here that, uh, I
21 must have said, "Jeff, I don't have this in my book. What were,
22 you know, what were the event numbers?" Or maybe, uh, um - you
23 know, I must - maybe - uh, I must have been, uh, going back and
24 he, he, he had the event numbers, and I'm guessing I was looking
25 at the data stream in the computer to get the lat/longs, because
26 he wouldn't have those in his book. And so he gave me the four

1 events. I registered the four, um, locations, and then I don't
2 know why I said three. I, yeah, see, he says, "I don't have
3 access to the database." So I did. That's the electronic
4 database.

5 ERIC MAY: Right.

6 CHARLES MONNETT: And, and so the three dead polar bears
7 may have been related to another question that he asked me,
8 um, being three cubicles away and, of course, I sent him this
9 electronically, because I'm not going to put it in - you know,
10 I'm not going to yell it at him or something like that. Who
11 knows? I don't know. But, uh, what I'm saying is there's a
12 lot of context going on here. He's close to me. We're talking.
13 We're exchanging information verbally, uh, either by phone or
14 by walking, you know, down a couple of cubicles. And so that
15 could have been a question that he asked, um, that had to do
16 with the transects, or maybe it's just an error. I don't know.

17 ERIC MAY: Okay.

18 LYNN GIBSON: So what makes - one more question on this that
19 I have is, um, for purposes of a manuscript, you use the three
20 bears, dead bears -

21 CHARLES MONNETT: Um-hm [yes].

22 LYNN GIBSON: - because those were seen on the transects.

23 CHARLES MONNETT: Transects, yeah.

24 LYNN GIBSON: Well, why wouldn't you use the three on the
25 poster, or what, what then -

26 CHARLES MONNETT: Well -

1 LYNN GIBSON: Why do you include the fourth bear in there?
2 What makes the difference I guess, you know, when, when it comes
3 to science and a poster versus a manuscript or -?

4 CHARLES MONNETT: Uh, well, because one is just an
5 observation. You know, when we say we saw four dead bears, we
6 go totally anecdotal. We were out there flying around, dude,
7 and we saw four dead bears. And - but then when we want to do
8 something that involves numbers, you know, some kind of a, a
9 calculation, we have to have, uh, you know, some, some standard,
10 some basis to extrapolate. And so we had to, uh - this, this
11 is real common. Um, you, you're going to limit it to the most
12 rigorous part of what you're doing, because then you know.

13 When, when we're flying, um, outside our transects, which we
14 do a fair amount of, uh, we see a lot of stuff, um, but we always
15 record it as outside our transects. For instance, in the, in the
16 bowhead reports here, uh, you'll see this a lot, because we'll
17 see bowheads on search, and we'll see bowheads on transect.
18 And "search" just means we're just flying around, and maybe
19 we'll see a whale in the distance. And it's on transect, because
20 we're flying straight on our transect. And we can estimate the
21 position using our clinometer and doing some geometry, but then
22 we may divert and go over to look at it, because we weren't able
23 to establish whether it had a calf and, and the circumstances
24 were, uh, right, that we had time to do that.

25 So we break off transect. Our program has all the stuff in
26 it, "break transect, go on search." Now anything we see is on

1 search. And we may start picking up other whales. There may be
2 25 whales over there, but if they're not part of the behavioral
3 unit, then they're classified as "on search" rather than "on
4 transect." So if the one is there, and it turns out it has three
5 other whales right next to it underwater, and we couldn't see
6 them, then there will be four whales on transect. But if we see
7 four on the way over, it's four whales on search.

8 And then when we do our analyses in here, um, and we do some
9 fairly rigorous stuff in here, we limit it to the transect stuff,
10 because that's what's valid for the statistics. But we'll report
11 everything. How many whales did we see? We saw 427 whales, and
12 208 were on transect, so - and the same with polar bears. So we
13 saw four polar bears, of which three were on transect, drowned
14 bears, and we saw 10, was it, swimming? I don't know, 10 or
15 11 swimming polar bears, of which four were on transect, which
16 meant that we were flying along the coastline, and we were seeing
17 a lot of swimming polar bears. But it wasn't until we, you know,
18 hit our transect, turned and went out the transect that we would,
19 you know, register them as being in that little swath that
20 represents 11 percent of the study area.

21 ERIC MAY: Okay.

22 LYNN GIBSON: Thank you.

23 CHARLES MONNETT: I hope it's really clear, because this
24 is -

25 LYNN GIBSON: Um-hm [yes], that helps, thank you.

1 CHARLES MONNETT: - this is, is really silly, and if you
2 don't understand it, I want to make sure you do.

3 ERIC MAY: All right, um, in your manuscript, we'll stick to
4 the manuscript a little bit.

5 CHARLES MONNETT: Sure.

6 ERIC MAY: Um, and I'll, I'll quote to make this - you
7 indicate that "No polar" - and I'll quote, "No polar bear
8 carcasses, carcasses were observed, and no dead and floating
9 polar bears were observed during aerial surveys conducted in
10 September 1987 through 2003."

11 CHARLES MONNETT: That's what the database told us, yeah.

12 ERIC MAY: Okay. What database are you talking about?

13 CHARLES MONNETT: Well, the BWASP database.

14 ERIC MAY: Okay.

15 CHARLES MONNETT: The, the big one that, that, um, did not
16 have a way to record the dead ones in it, but we checked with,
17 um, (inaudible/mixed voices).

18 ERIC MAY: Okay, because in, in, uh, referencing the BWASP
19 studies -

20 CHARLES MONNETT: Yeah.

21 ERIC MAY: - in the studies that we reviewed, I'll quote,
22 um, "1987 to 2003, BWASP aerial survey reports state, 'Sightings
23 of dead marine mammals were not included in summary analysis or
24 maps.'"

25 CHARLES MONNETT: Yeah.

1 ERIC MAY: So how could you make the statement that no dead
2 polar bears were observed during 1987 to 2- -

3 CHARLES MONNETT: Because we talked to the people that had
4 flown the flights, and they would remember whether they had seen
5 any dead polar bears.

6 ERIC MAY: So you talked to each individual from '87 to -

7 CHARLES MONNETT: No, no, we talked to the team leaders. We
8 talked to Steve Treacy and, and -

9 ERIC MAY: All the way back to 1987?

10 CHARLES MONNETT: Yeah.

11 ERIC MAY: Do you have documentation of that?

12 CHARLES MONNETT: No.

13 ERIC MAY: How, how did you talk to them?

14 CHARLES MONNETT: Well, on the phone. He's retired, but I
15 call him a lot.

16 ERIC MAY: And you asked him if he observed any dead polar
17 bears?

18 CHARLES MONNETT: Yeah.

19 ERIC MAY: Now how - isn't that a little questionable, only
20 because the, the objective of the studies was not to observe dead
21 polar bears, but to observe the migration of bowhead whales?

22 CHARLES MONNETT: Well, I don't know. Um, I think if they
23 would have seen what we saw, they would have noted it. It was
24 pretty obvious and pretty weird.

25 ERIC MAY: Well, let me -

26 CHARLES MONNETT: They did see swimming bears.

1 ERIC MAY: Well, let me ask you, as a scientist, and you
2 made it well known that you're a doctor.

3 CHARLES MONNETT: Yeah.

4 ERIC MAY: Isn't that stretching it a bit, though, saying -
5 making that conclusion that no dead polar bears were observed
6 during these years, and then, all of a sudden, 2003, you guys
7 are - you observe dead polar bears?

8 CHARLES MONNETT: I don't think so.

9 ERIC MAY: Why?

10 CHARLES MONNETT: Well, if you ask me, I would know, I mean,
11 what I saw, I mean, if I saw something weird like that.

12 ERIC MAY: So as a scientist, if another scientist made
13 these conclusions based on the information, you would be okay
14 with that as a peer reviewer?

15 CHARLES MONNETT: Well, yeah, I would, I mean, if, you know,
16 if they told me that. They keep notes. I mean, they did this -
17 every, everything like we do, so -.

18 ERIC MAY: And that's a, that's a - and it's a stretch,
19 isn't it, though, to make that statement?

20 CHARLES MONNETT: Well, no, I didn't think so. I thought
21 that was perfectly reasonable to ask them, since it isn't
22 something - remember, the reason it's not in the database is
23 because it, it doesn't happen. You know, you don't see it, so -
24 and there's a reason, uh, why it's changed, which is in, in, in
25 a lot of the early years, there was a lot of ice out there, and

1 there just weren't opportunities for there to be dead bears. You
2 know, bears don't drown when there's ice all over the place.

3 ERIC MAY: Well, so let me elaborate what I just asked you.
4 Wouldn't you, wouldn't you notate that as a - like maybe a - you
5 know, your statement kind of is stretching it, and you would say,
6 "Well, based on my conversations with individuals during these
7 surveys, although they weren't supposed to look for dead polar
8 bears, they did not" - I mean, because you're making a very
9 broad statement by, by that, saying that no dead polar bears
10 were observed during those years.

11 CHARLES MONNETT: Well, I don't know, we, we had complete
12 confidence in it. Um, people worked extensively with, with the
13 database and, and, uh, so we were totally comfortable with the
14 swimming ones, um, which, you know, were rarely seen. And it's a
15 small thing I think to assume that a, um - you know, the person
16 managing the survey would know and -

17 ERIC MAY: Well, and, and let me - it, it - so incidental
18 sightings of marine mammals, which are not the focus and target
19 of the survey, do not represent, statistically speaking, the
20 valid data and, therefore, wouldn't it be questionable as to why
21 the data was used to extrapolate such new scientific findings as
22 your manuscript presented?

23 CHARLES MONNETT: Well, I don't think so. Well, you know,
24 Jeff Gleason did the thing on ducks. I mean, you review the
25 literature, um, and there's no, no indication anybody has ever
26 seen one drowned. I mean, it wasn't just on our study but, uh,

1 we really couldn't find any documentation anybody had ever seen a
2 polar bear that had drowned like that. Uh, we did find evidence
3 that people had seen bears, uh, that were exhausted after long
4 swims, and we mention that in the paper. They, you know, they
5 would come in and, while we didn't have any history on them, um,
6 there's one anecdote of a bear that was exhausted to the point
7 where it didn't respond for three days, even with a {Borrelien}
8 bear dog put on it. You know, I mean, that's a pretty strong
9 motivation.

10 ERIC MAY: Well -

11 CHARLES MONNETT: Now, since then, people have seen some
12 drowned polar bears. I've got some pictures of totally emaciated
13 dead polar bears (inaudible/mixed voices), so -.

14 ERIC MAY: Well, and based on, based on what I just said, in
15 terms of the, you know, your statement, would it not make more
16 sense, too, because there was a major windstorm during this
17 period of time, which you do mention, but you didn't talk too
18 much about that as in 2004 regarding these dead polar bears.

19 CHARLES MONNETT: What do you mean (inaudible/mixed voices)?

20 ERIC MAY: Well, you're saying that from 1987 to 2003, there
21 was no dead polar bears.

22 CHARLES MONNETT: Yeah.

23 ERIC MAY: Did you discuss the storm conditions during those
24 period, period of years as well? I mean, you're extrapolating a
25 lot to make such, you know, scientific findings.

1 CHARLES MONNETT: You mean, the storms are increasing up
2 there?

3 ERIC MAY: No, you're saying that there was no dead polar
4 bears during those years.

5 CHARLES MONNETT: Certainly.

6 ERIC MAY: Yet in 2004, you, you observed four dead polar
7 bears.

8 CHARLES MONNETT: Right.

9 ERIC MAY: Yet you didn't really elaborate on why you
10 believe those dead polar bears died or drowned.

11 CHARLES MONNETT: Well, yeah, we did actually. I don't
12 know why you're saying that. We've got an extensive section in
13 the paper talking about the, uh, you know, the wind speeds and
14 out there, and we looked into that very hard. And, and we, um,
15 we're very, very careful in this manuscript to, um, write it
16 so that it, uh, reflects uncertainty, uncertainty about the
17 extent of what happened, the uncertainty of why it happened,
18 the uncertainty of what it meant in a, in a broader context.

19 We knew three things: That we had seen a bunch of swimming
20 bears and that that was unusual in the context of the whole data
21 stream. We knew we saw some dead bears, which had not been
22 reported before and that we had been assured, you know, was new
23 to the study. And we saw, uh - we experienced, we were there, a,
24 a, uh, high wind event, which was actually not a, a very severe
25 high - and it wasn't, you know, one of the really severe high
26 wind events, but it was enough to shut us down, which meant that

1 there were some pretty good waves breaking, you know, out at sea,
2 which, um, is pretty easy to imagine would be, uh, challenging,
3 you know, for a bear swimming. And a good bit of that, there's
4 a whole section in the paper that talks about the windstorm.

5 ERIC MAY: Okay.

6 CHARLES MONNETT: Um, right here, there's a map, you know,
7 of the wind speeds and all that and, uh, you know, it shows that
8 it just fits right in there. Um -

9 ERIC MAY: When I was relating to that with your - the
10 observation between 1987 and 2003, that's what I was getting at
11 with that.

12 CHARLES MONNETT: Um, you mean why we didn't look at the
13 wind then? I don't know why we look to the wind for something
14 that didn't happen. But let me show you something else here.
15 Um, you've got to put it in the context of what we know about
16 the Arctic and the, and the changes that are there, because while
17 you're working a vacuum, we're not. You know, we have this, this
18 history that's as good as anybody's, you know, in knowing what
19 the changes are. And let's see, um, there's some discussion here
20 about wave heights over the long haul, on this paragraph right
21 here. I don't remember exactly what it says but, let's see,
22 "Wave heights greater than 3.5 meters or 10 feet are not reported
23 during September or October." Now that's a - that's out of,
24 that's out of the literature. That's based on the long-term
25 database. And now we have probably 30-foot seas up there or
26 greater. It's changed dramatically.

1 Now the storm we saw that time probably had 8- to 10-foot
2 breaking waves. It was blowing something like 25 to 30 knots or
3 25 knots, I think. But those are based on, um, measurements on
4 land, and the wind is always a lot higher at sea. So that's an
5 indicator that there were some pretty strong winds out there.
6 The Beaufort Sea state, uh, was enough to shut us down. We don't
7 fly if we have a Beaufort 5 or greater, which they were probably
8 Beaufort 6 and 7, which is breaking waves, you know, big, tall
9 breaking waves, which just means that - uh, well, you can
10 imagine. It's just hard to -

11 ERIC MAY: Right.

12 CHARLES MONNETT: - stay on the surface when you've got
13 steep breaking waves. Um, the reason that there are bigger
14 storms, um, there are just bigger storms now, because there's
15 more energy in the environment, because the water is warmer,
16 and the water is exposed to the atmosphere. And you've got all
17 that conduction and everything, you know, how hurricanes work.

18 ERIC MAY: Right, right.

19 CHARLES MONNETT: Well, I mean, it's the same type of a
20 principle. Uh, but there's also, um, a lot of open water now,
21 which is a big fetch, and any sailor knows that a big fetch is
22 what it takes to generate big waves. And so even fairly light
23 winds can generate, um, much larger waves up there now than they
24 could when the sea was, uh, covered with ice. And, and we know,
25 from our operations, that when we're flying, that it can be
26 pretty rough, but if we come to an area where there's scattered

1 ice, even fairly low coverage, as low as 10 percent, it will be
2 calm on the other side of that for a ways. I mean, the water
3 will be glassy flat because the waves dampen down that much - or
4 the, the ice damps it down that much.

5 So you're going from, um, a situation where there used to
6 be a lot of ice scattered around out there, um, where no matter
7 how windy it was, there weren't any waves to now, where there's
8 hundreds of miles literally that those waves can generate and
9 build. The whole size, the whole storm, you know, basically the
10 whole width of the storm is open.

11 ERIC MAY: So - okay, and I understand, so based - would
12 there not be more observa- - dead polar bear observations then
13 in the post-years?

14 CHARLES MONNETT: Now?

15 CHARLES MONNETT: Uh, well, I don't -

16 ERIC MAY: Based on what you just explained to me.

17 CHARLES MONNETT: There may be. I mean, we've been
18 watching. Um, we've had some radioed bears disappear out
19 there in the summertime.

20 ERIC MAY: Because in 2005, there was one; 2006, there was
21 five; 2007, there was none.

22 CHARLES MONNETT: One what?

23 ERIC MAY: One dead - a, a, a -

24 CHARLES MONNETT: Swimming?

25 ERIC MAY: Yes, so - and then, in 2008, there was one.

1 CHARLES MONNETT: Well, look, I can't explain why all those
2 bears were swimming, but that's not the point here. The point
3 starts with the fact that there were lots of swimming bears.

4 ERIC MAY: Right.

5 CHARLES MONNETT: We didn't make any attempt to explain the
6 motivation of, uh, all these bears. It was, uh, and remains in
7 my mind as a bizarre thing.

8 ERIC MAY: Um-hm [yes].

9 CHARLES MONNETT: That all these bears were swimming.
10 Nobody that I know of has seen it in those densities, with
11 the exception of in '08. Uh, one of our surveys that we were
12 supporting with NMFS saw eight or nine bears in the water on
13 a single flight, and it was associated with the breakup of some
14 ice floes in the Chukchi Sea. And we had been watching that
15 situation, because we felt that there, there were a lot of
16 radioed bears out there on the ice, from another study. And
17 we had this tongue of ice hanging way down in the Chukchi Sea,
18 and I don't know how many bears.

19 But it looked like - well, all of the radioed bears from
20 this one study, the Chukchi Study, were on there, so it looked
21 like most of the bears in the Chukchi were at some peril. And
22 this thing was out a long ways, and we were very concerned that
23 we would have a wind event at the same time that that ice broke
24 up and that that would have, uh, you know, killed lots of bears.
25 But we didn't have the wind event. We had a lot of bears in the

1 water and a lot of bears documented, bears coming on shore. Um,
2 so that's one.

3 And then we've had other, uh, situations where we can infer
4 that bears will swim ashore, because we, we had - we and Fish
5 and Wildlife have had surveys along the coastline that have been
6 going and going and going with some ice offshore that we knew had
7 bears on it. And then the ice breaks up, and all of a sudden,
8 there's 30 or 40 bears on shore. So the question of swimming
9 bears is not, um, something that needs to be debated. I mean,
10 and we all know that, that, that they swim and that they are
11 capable of sometimes swimming long distances. Uh, we've added
12 a twist that most biologists, you know, and bear biologists
13 recognize is different and is, uh, reasonable, that if the bears,
14 uh, that are swimming encounter really rough sea states, uh, that
15 it's going to be hard on them, hard energetically. It may cause
16 them to drown.

17 ERIC MAY: Um-hm [yes].

18 CHARLES MONNETT: Um, when, when you have a very rough
19 sea state, the border between the water and the air kind of
20 disappears. In other words, it's not just water and air, like
21 we think of it. It turns to foam and, and, you know, other -
22 water just moving around so much that there's an area about
23 this thick that if you stuck your nose in there, you would -
24 you wouldn't do well. And I suspect that that's part of what's
25 going on with these bears is, you know, their head is about that
26 far - you've, you've seen a swimming one?

1 ERIC MAY: Um-hm [yes].

2 CHARLES MONNETT: I mean, they swim with their head right
3 on the water. They don't roll on their back, I mean, you know,
4 but - so they're, um, they're in a tough situation when, uh, it,
5 uh, you know, you've got that kind of foam and, and that's like
6 in the Beaufort. It starts at about a Beaufort 7 and then goes
7 up. So at like 30-knot winds, 25- to 30-knot winds, you get
8 that extremely hostile surface.

9 And then the other thing is just trying to swim, you
10 probably have swum in big waves, haven't you, at the beach?
11 I mean, you know what that's like when you're -

12 ERIC MAY: Right.

13 CHARLES MONNETT: - close to the coastline, and it's -
14 energetically, you know, you're fried.

15 LYNN GIBSON: Right.

16 CHARLES MONNETT: Go out and do it for a couple of days.

17 ERIC MAY: Right.

18 CHARLES MONNETT: You know, three days, try to bob around,
19 so -.

20 ERIC MAY: Well, and what I was - the - with your
21 manuscript, you would think if, if what you're indicating or
22 suggesting in your manuscript, that you would see more dead,
23 drowned - or drowned polar bears in, in the next year because
24 of the - what you're suggesting in your paper.

25 CHARLES MONNETT: No, no, that's silly. Um, this is the
26 Arctic. It's huge. Almost nobody is up there. We're up there.

1 ERIC MAY: Right.

2 CHARLES MONNETT: And, um, it was nothing short of, of, of
3 amazing that we were lucky enough to be flying on that day when
4 it was, I guess, that calm that whatever had lured those bears
5 out, um, had done that so we saw those bears and then to, uh, to
6 have the combination of the storm and then have some more calm
7 weather afterwards.

8 Um, if you look at our track record for flying, it's a hard
9 place to fly, and it's, it's, um, it's unusual. We usually have
10 it a few times a year where we have those calm sea states where
11 you can really see something. And, you know, when I said when
12 it's really calm, you can see a whale under the surface, that's
13 really rare. And so the day we saw the swimming bears was, uh,
14 in my memory, as calm and summery a day as I've ever seen up
15 there. You'd have thought you were in Hawaii. You know, when
16 you're flying around looking at the beaches and the sun and on
17 the calm, I mean, it, it's very deceptive, because it's not
18 Hawaii, believe me. Um, but to expect that, um, you know, this
19 isn't like the Chesapeake Bay where people are out there running
20 around. If there's something dead, people are going to see it.
21 To expect that is just, uh, out of touch with the realities of
22 the situation.

23 LYNN GIBSON: I just want to clarify one thing. Um, going
24 back to Eric's question on the - that from '83 to 2000 and -

25 ERIC MAY: Eighty-seven to 2003.

1 LYNN GIBSON: Eighty-seven, thank you, to 2003, um, and, of
2 course, the data recorder wasn't collecting that data and so, you
3 know, that information on dead polar bears would not be included
4 in the data recorder. So you went back and verbally checked with
5 the previous Team Leaders, correct?

6 CHARLES MONNETT: Yeah, yeah.

7 LYNN GIBSON: Who would that be from '87 to 2003?

8 CHARLES MONNETT: Well, it was primarily Steve Treacy.
9 I can't remember if we talked to - who else we talked to, if
10 anybody, but we, we kicked it around some here.

11 LYNN GIBSON: So it would be Steve Treacy?

12 CHARLES MONNETT: Yeah.

13 LYNN GIBSON: And anybody else or -?

14 CHARLES MONNETT: Uh, I don't remember.

15 LYNN GIBSON: And then they would have either, either
16 related to their notebooks or to their memory, because they know?

17 CHARLES MONNETT: Well, no, uh, they used their memory. It
18 was such an unusual thing -

19 LYNN GIBSON: Okay.

20 CHARLES MONNETT: - the - that it, it, uh -

21 LYNN GIBSON: Okay, thank you. I just wanted to clarify.

22 CHARLES MONNETT: Yeah.

23 ERIC MAY: You could just - you called them up and asked
24 them?

25 CHARLES MONNETT: Yeah.

26 ERIC MAY: Okay. All right.

1 JEFF RUCH: This is Jeff Ruch. We've been at this for an
2 hour and 45 minutes, and I'm curious, are we going to get to the
3 allegations of scientific misconduct or, uh, have - is that what
4 we've been doing?

5 LYNN GIBSON: Actually, a lot of the questions that we've
6 been discussing relate to the allegations.

7 ERIC MAY: Right.

8 JEFF RUCH: Um, but, uh, Agent May indicated to, um, Paul
9 that he was going to lay out what the allegations are, and we
10 haven't heard them yet, or perhaps we don't understand them from
11 this line of questioning.

12 ERIC MAY: Well, the scientif- - well, scientific
13 misconduct, basically, uh, wrong numbers, uh, miscalculations,
14 uh -

15 JEFF RUCH: Wrong numbers and calculations?

16 ERIC MAY: Well, what we've been discussing for the last
17 hour.

18 JEFF RUCH: So this is it?

19 CHARLES MONNETT: Well, that's not scientific misconduct
20 anyway. If anything, it's sloppy. I mean, that's not - I mean,
21 I mean, the level of criticism that they seem to have leveled
22 here, scientific misconduct, uh, suggests that we did something
23 deliberately to deceive or to, to change it. Um, I sure don't
24 see any indication of that in what you're asking me about.

25 ERIC MAY: No, no, no further comment on my part. We,
26 we're - I'm just about complete with my - the interview, so -

1 CHARLES MONNETT: Really? Oh, good. That's it?

2 ERIC MAY: Like I said, we receive allegations; we
3 investigate.

4 CHARLES MONNETT: Don't you wonder why somebody that can't
5 even do math is making these allegations and going through this
6 stuff?

7 ERIC MAY: Well, let me, let me finish the interview, and
8 then we'll, we'll -. All right, so as, as a scientist, uh,
9 Dr. Monnett -

10 CHARLES MONNETT: Yes.

11 ERIC MAY: Uh, in your, in your manuscript, you use a
12 lot of, um, like, uh, "we speculate," "we further suggest,"
13 "potential," "may pose." If you -

14 CHARLES MONNETT: Yes, meticulously so (laughing).

15 ERIC MAY: Well, right, and you use quite a few of them.
16 Um, as a peer reviewer, would you question those terms?

17 CHARLES MONNETT: No, I would - I, it, it, it - when there
18 is a level of uncertainty, I would require those terms. That's
19 the way it, it always goes. You know, if, if something, um,
20 moves beyond the realm of, of, of speculation or estimation
21 into certainty, which almost never happens, then you wouldn't
22 use those terms. But, um, "estimation" is another one of those
23 words, isn't it? It's just, you know, that's - any statistic is
24 inference. That's what science is. Science is about making the
25 best case you can to test your hypothesis. You assemble your

1 arguments and your data, you put it out there, and you see who's
2 going to knock it down.

3 ERIC MAY: Right.

4 CHARLES MONNETT: And, surprisingly, nobody, you know,
5 knocked this down in any way. Everybody just kind of like,
6 "Oh, yeah, four dead polar bears. Okay, that's kind of cool."

7 ERIC MAY: Right.

8 CHARLES MONNETT: But we didn't say, uh, much. I mean -

9 ERIC MAY: Right.

10 CHARLES MONNETT: - we - listen, we, we work for an agency
11 that is, especially then, extremely hostile to the concept of
12 climate change, that's hostile to the idea that there's any
13 effects of anything we do on anything. And we could only write
14 this paper by being extremely conservative, with a lot of
15 caveats. It's the only way we could publish it. Because you
16 saw those names on there. They're all looking at it, you know,
17 wanting to see whether we've said anything at all.

18 I think one of the things in there that, uh, that I had to
19 change in an early stage was we said that if, um, this continues,
20 that it's something that should be, uh, considered by MMS
21 analysts or something like that, something specific that way.
22 Well, of course, that went out right away because, you know,
23 we're not going to tell the analysts what to do here.

24 Um, the reason that I'm not on that other paper, the
25 Gleason-Rhode one, is not because I didn't do the work. Jeff
26 and I developed that paper together, but we abandoned it when

1 he was here. And when he left here, then he picked it back up,
2 and he found another author. And I just said, "Jeff, publish it
3 without me. If we try to publish it with me, it's not going to
4 get out the door here. It'll never get permission."

5 And as a COR, I conceive of, I design studies, I fund them,
6 and in some cases, I've provided, you know, extensive data and
7 things from my own work. And I tell every one of my PIs that
8 I will not share authorship on anything. And it's common for
9 people in my position to, you know, to have their name on a paper
10 in some - usually, you know, like a lab, like a lab manager or
11 something, the name is kind of stuck out on the end. But I've
12 told them that my name is not going to go anything, because it
13 will make it impossible to publish the paper because of the
14 attitudes here and the review we go to, go through.

15 And that's what you guys ought to be thinking about is that,
16 and why somebody is, is asking these silly questions, why they're
17 trying to, uh, make me look bad and undermine this simple paper
18 that's an obvious paper, uh, that hasn't been subject to any
19 scientific criticism up to this point. And it's been out there
20 for a while.

21 But why are people gunning for me constantly? Why is it
22 that I'm telling you and Jeff probably told you that we can't
23 do science here? Why did I outsource this? You know, why do
24 you think I outsourced it? It's because I couldn't do it here
25 anymore. They wouldn't let me do the right kind of analysis here

1 that had some potential to demonstrate negative effects from what
2 we manage as an agency.

3 This study was done for 20-some years, and it was permitted
4 to go forward because it never made a ripple in anything, because
5 it was designed in a way that it had almost no potential to
6 identify any sort of a problem. And part of that has to do
7 with the analysis, and part of it just has to do with the, the
8 questions that were asked.

9 And when I started the project, I had to make a basic
10 decision. Am I going to try to ensure that this study goes
11 forward forever and that we keep doing it the way we are, or am
12 I going to try to do some science in here and get some of this
13 stuff out? And I chose the latter, which led almost immediately
14 to me having to outsource the study, and so it's at the National
15 Marine Mammal Lab, because they're a trust agency, they have
16 responsibility for these, these resources, they give a damn. And
17 they're scientists, and if they find something in there, they'll,
18 they'll publish it, regardless of what my management thinks.

19 And my management have been trying to kill this study for a
20 while, ever since really the polar bear thing came out. That was
21 when they realized that it's dangerous to take data like this,
22 because if there are changes and, you know, God forbid something
23 that has anything to do with the climate change debate. So I, I
24 thought they'd softened. I'm amazed that it, um, is coming up,
25 at least if it's coming up here. I don't know, maybe it's coming
26 up somewhere else, but -.

1 LYNN GIBSON: You know, can I ask you then, I know, earlier,
2 you said that on the {blue} survey, which is dated Fall 2005, you
3 are not one of the authors on this, and -

4 CHARLES MONNETT: There is no author on it.

5 LYNN GIBSON: There is no author?

6 CHARLES MONNETT: It's authorless, right.

7 LYNN GIBSON: And, basically, you said that that's because
8 they wouldn't allow, that, that the analysis, the way they were
9 insisting you do the analysis is incorrect. Can you -

10 CHARLES MONNETT: I, I've said the analysis is incorrect
11 in here and, and for good reasons. I don't know if you want to
12 get into that, but I drug my feet on doing it, and I asked for
13 time to do the analysis right, which was going to be a bigger
14 deal. And I was, uh, I was threatened; I was given deadlines;
15 eventually, I was, uh, I was given a disciplinary action and
16 required to produce this thing in a certain amount of time on
17 their timetable, at which point I did, and I took my name off it.
18 So there's a lot below the surface here, you know, that you guys
19 aren't, aren't going to be aware of, um -

20 JEFF RUCH: Or interested in.

21 CHARLES MONNETT: Yeah.

22 LYNN GIBSON: What in particular, um, was it that, that
23 would - is different from -

24 CHARLES MONNETT: What's wrong with the analysis?

25 LYNN GIBSON: Uh-huh [yes], what's wrong with it, from the -

1 CHARLES MONNETT: Yeah, well, it's very simple. The, the,
2 the, the, there's one, um, simple question that has, um, been the
3 motivation for this survey since its beginning. And the Natives,
4 uh, early on, when, uh, they were, they were the first oil and
5 gas activity up there, the seismic vessels, the icebreakers were
6 coming up there, had a concern that those activities might cause
7 the migration, you know, what you think of as a linear thing,
8 right, to be displaced from the coastline. And if you look in
9 here, you'll see it's in a fairly narrow band, and it's sort of
10 consistent. We know that now. Uh, they were, um, afraid that
11 the whales would go so far offshore that they wouldn't be able to
12 safely, uh, go to the whales to, you know, do their traditional
13 harvest. And there's some merit to that concern, if the whales -
14 clearly if the whale is displaced. And some of them thought, oh,
15 the whales will scatter, you know, to the North Pole or whatever.
16 Well, that - there's no evidence for that.

17 And so they did a, um, a simple, um, line transect survey
18 where you go north/south, so you're cutting sections across
19 the, the migratory pathway. You establish your coastline. You
20 measure the distance between where the corridor is and {do} a
21 statistical thing, and you say is it deviating from, you know,
22 where it's been.

23 And the problem is that over the years, um, whale behaviors
24 changed quite a bit. There's less ice out there. There are,
25 there, there are other changes in the environment that, uh,
26 are causing the whales not to engage in just a strict migration

1 anymore. They stop a lot. They come into feed. You know, they
2 divert off of this pathway and, and all that. And, uh, my
3 concern was that instead of testing the hypothesis that the
4 migration, you know, isn't affected on migrating whales, we're
5 testing it on all whales. And, uh, in some years, the vast
6 majority of the whales I would argue are not migrating, that
7 they're doing other things. You know, they're - they've come
8 ashore to - in, in shore to feed or something like that. And
9 so, um, when - you know, when you, when you lump the whole year
10 together, and you've got all these things going on like that, it
11 makes it impossible to, to have any statistical power to detect
12 a displacement offshore.

13 And so I said that, at the very least, we have to select
14 the data from the survey to make sure we include whales that are
15 clearly migrating, and that would be defined as, you know, whales
16 that are moving, um, at, at swim speed, you know, in the right
17 direction, because we know where they go. Um, and that's what
18 they wouldn't give me time to do.

19 They wanted to keep punching this thing out. Uh, I would
20 argue, you know, in a, in a - uh, with an analysis that has no
21 power to detect a deviation. And we were starting to see a lot
22 of deviation, frankly, um, you know, significant differences
23 between one half of the corridor, you know, versus another, and
24 it was explained by things like that. I could see it in the
25 data, you know, that, that, you know, too many whales were in
26 some feeding group right next to the beach, and it blew the

1 average. Uh, we're doing a - and in statistical terms, we're
2 using a parametric statistic that assumes a normal distribution
3 and that the data are all independent, each observation is
4 independent, to do a parametric test, which is a, a, a, an
5 analysis of variance - or multivariate analysis it's called -
6 when we should be using what's called a non-parametric test,
7 which does not make assumptions of that sort, and it's done
8 completely differently. And I actually changed to that, um,
9 in that one. I changed from the, the, uh - I changed to a
10 non-parametric test, um, but we did not do data selection to,
11 um, eliminate, uh, different behaviors. And the feeding is
12 the worst one by far, because some years, more than half of
13 the whales are, are feeding.

14 Another problem with it, too, um, you're trying to
15 understand the migration of whales, individual whales, right,
16 and we record sightings. A sighting is any group of whales that
17 we see. And so when we do our means to say what whales are
18 doing, it's based on sightings. And so if you've got whales that
19 are migrating as singles, which they tend to do, they tend to be
20 in small numbers, moving along, you know, offshore, and then you
21 have other whales that are a single sighting that are feeding in
22 groups or milling or resting, you know, doing things in groups.
23 Those count the same, so you can be comparing one whale to 50 in
24 your mean. And so that's a huge problem, too.

25 So I don't - I haven't thought about this for a while, but
26 these are the kinds of challenges I gave to the Marine Mammal Lab

1 when I sent the thing to them. I said, "You've got to come up
2 with a, a better, uh, analytical procedure to do this," and
3 they're working on all that.

4 LYNN GIBSON: So what was your management then motivation to
5 not want you to ensure that this was statistically correct, by
6 doing all those things? I mean, what - why?

7 CHARLES MONNETT: Oh, you didn't want to get me started
8 (laughing). Well, why do you think? They, they, they don't want
9 any impediment to, um, you know, what they view as their mission,
10 which is to, uh, you know, drill wells up there, I mean, and, you
11 know, put areas into production. The bowhead whale is extremely
12 political, and the Native community is very powerful, and they're
13 very concerned about, uh, you know, any impacts that we might
14 have on the whale. So what MMS has done has created, um, the
15 perception that we're monitoring this, and we're finding negative
16 results all the time, when I would argue we're not monitoring at
17 all. We're just doing this study.

18 Um, and, you know, and lot of it - I, I think a lot of the
19 people I deal with up there probably do - would agree with me
20 and - but mostly, um, it's easy to pull the wool over their eyes,
21 because they don't have the time to dig into all this, they're
22 not familiar with the data.

23 ERIC MAY: Who, who are you talking about?

24 CHARLES MONNETT: Oh, just people in the Native community
25 and the scientists that I work with.

26 ERIC MAY: Oh, well - okay.

1 CHARLES MONNETT: And I work with Natives a lot. We do a
2 lot of studies.

3 JEFF RUCH: This is Jeff Ruch (inaudible/mixed voices).

4 CHARLES MONNETT: Go ahead.

5 JEFF RUCH: The Government accounting - uh, Accountability
6 Office did a report on scientific, uh, restraints by the Alaska
7 Office of then MMS that came out in the spring, April or May of
8 2010, which addresses some of the concerns that, uh, Dr. Monnett
9 just raised in some detail.

10 ERIC MAY: Hm.

11 LYNN GIBSON: Okay, thank you.

12 JEFF RUCH: And none of the underlying, um, dynamics that
13 were identified by the GAO have been remedied, however.

14 ERIC MAY: What year was that?

15 LYNN GIBSON: Two thousand ten.

16 ERIC MAY: Two thousand ten, recently.

17 JEFF RUCH: That was in '10.

18 ERIC MAY: Okay.

19 CHARLES MONNETT: Well, and the other thing is look at, um,
20 uh, you know, when I, um - as, as I've worked here, there have
21 been a lot of quality scientists that I've worked alongside of
22 and, uh, many of those people have been driven out of here, and
23 that's pretty well documented, too. And I think it's mentioned
24 in -

25 JEFF RUCH: The GAO report mentions that in some years, the
26 turnover -

1 CHARLES MONNETT: Yeah, the GAO report.

2 JEFF RUCH: - among the technical and scientific staff is as
3 high as 50 percent.

4 CHARLES MONNETT: Yeah.

5 ERIC MAY: Hm.

6 CHARLES MONNETT: They basically blew everybody out of here
7 that showed any, uh, desire to be a conscientious scientist.
8 Jeff Gleason was one of those. Did he tell you his story?

9 ERIC MAY: Not pertaining to this.

10 CHARLES MONNETT: Yeah, well, we got blasted, you know,
11 really, uh, hard, you know, by this agency when, when this
12 finding came out, and if you've been digging in my emails, and
13 I don't know if you've dug in my emails, or it's just Jeff Loman
14 selecting it, but you'll see a lot of emails there, uh, from
15 management to me telling me that I can't function as a biologist.
16 I'm not allowed to talk about this paper or our findings. I'm
17 not allowed to talk to the media. I can't, you know, I can't
18 do these things.

19 And, and they really dumped on us, um, uh, when this
20 things came out, and then that, um - uh, and, and some other,
21 um, manipulation and restrictions that Jeff got hit with caused
22 him to bail out of here, and he, he took a cut from a GS-13 to a
23 GS-11 position to go to the Fish and Wildlife Service. He's back
24 with MMS now, um, in the Gulf, um, but he, he, um - and he's back
25 I think at a level below what he was at here. But his motivation
26 there was he has a, a, a woman down there that he, you know, has

1 linked up with, and he was looking for any job and, you know,
2 because I think he felt that, uh, the Alaska Region is kind of
3 special in the way it treats its scientists.

4 ERIC MAY: Hm. Well, I'm - uh, any more questions on -

5 LYNN GIBSON: No, no.

6 ERIC MAY: I've - I'm done with my questions regarding this
7 matter. Um, it is, uh, 12:04 Alaska time. Um, this interview
8 has concluded.

9 CHARLES MONNETT: Thank you, guys.

10

11 (End of Interview)

