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ORAL HISTORY REPORT
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BY: JENNIFER EDMONDS
INTERVIEWEE: BUD CASSIDY

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BUD: My name is Bud Cassidy.

JENNIFER: Have you always lived in Kodiak?

BUD: Well, I got here ten day before the earthquake, so I got here just in time.

JENNIFER: Were you on vacation?

BUD: No, actually I just moved here. My father had been here for two months, retired Navy. Apparently some jobs became available in Alaska, along Adak and in Kodiak. He flew up to see if it was something he really wanted to do. Apparently he did, so he called for us and we flew up here on the 17th of March, the good Irish people that we are.

JENNIFER: How old were you?

BUD: Interestingly enough, my birthday is March 21st, so I just turned ten. We got here the 17th, my birthday was the 21st and the earthquake was the 27th. It was a real big trauma in my life.

JENNIFER: How many people are in your family?

BUD: There are two adults and three children. I have an older sister and a younger brother. My brother was eight and my sister was nineteen or twenty at the time. We were the younger ones, my sister was the responsible sub-adult.

JENNIFER: What happened?

BUD: We were at a neighbors house playing, I can't remember exactly what we were doing, because we did so many summer time things after the earthquake. The earthquake struck and the house was shaking there were things falling off the shelves, dishes, knick-knacks, things like that. The woman whose house we were in yelled that it was an earthquake and I just remembered if you've ever been on a wallow board, standin' there, kinda lookin' around, watching things as they fell. Again, it was new for me even though I had come from California and their were earthquakes there, I never felt one. It certainly was a big one cause I remember just standing there keeping my balance and watching things shake. I remember it shook for a reasonably long time, but it quit and there wasn't any structural damage, then it stopped. We just picked things up and I just shouted across the street.

JENNIFER: You were lucky.

BUD: Yeah. Well, I think one of the remarkable things, or maybe not so remarkable, one of the attributes to these Aleutian homes, are the fact that they're made out of cardboard and they can withstand shakes, if you've ever lived in a conventional house with concrete foundation, you'd probably have some damage, but these Aleutian homes are kind of like punch-out, bend houses that you just put a roof on.

JENNIFER: I've never heard that.

BUD: They can withstand alot of shaking. I mean they shook like crazy, but..

JENNIFER: But they weren't really badly destroyed?

BUD: No, I never heard of any, but then again I was just a ten year old kid.

JENNIFER: Where is your house?

BUD: We lived in Aleutian homes. What's called Borshon now was called Moorpool then. So we were in the heart of the Aleutian Homes.

JENNIFER: No one was hurt in your family?

BUD: No, no one was hurt. My father in fact was working out on base and he had to come to town and he tells a story about being in the dip. The dip is where the slide area is. It's not as much of a dip as it used to be, it used to be very pronounced, where in extreme high tides it would be flooded. Anyway, the story goes, he was driving through the dip when the waves came in and they jumped out of the truck to climb up Pillar Mountain, the inland side, and the wave came and picked up the truck, with the doors open and when the wave receded, it put the truck back down in about the same position. They jumped in and shut the doors. But he said, he never climbed a mountain so fast in his life.

JENNIFER: It sounds like someone was watching out for you guys.

BUD: Interesting for us, is that we just moved up from California, my mother was used to the suburbs and the all electric house, up in Kodiak and especially in the Aleutian homes you have propane stoves. Well, she barely knew what propane was, and coming from California, certainly wasn't familiar with it. We were eating cereal and cold foods, when in fact she had propane. So she could have boiled water.

JENNIFER: I'm not too familiar with propane, but I would think it would have blown up in the middle of this earthquake.

BUD: Well, they're in cylinders. It's a shaking of the ground, you're certainly not shaking on the scale like down at Sutliff's. It's kind of like a paint can shaker, it kind of rattled. You get

sort of a rolling effect. There's an upward movement and a sideways component. Yeah, you're shaking, but it's more like a wave, let's say you put your house on the ocean. The tanks can withstand it. That might be a fear in some other places.

JENNIFER: Are you familiar with the San Francisco earthquake?

BUD: Of 1906?

JENNIFER: Yes.

BUD: It was tremendous and it had some tremendous structural damage, realize that the city of San Francisco is reasonably dense. When you talk about our densest part of town is downtown. So, they had the fire, we didn't.

JENNIFER: Did you go into town or see other places that might have been damaged?

BUD: We did after the tidal wave. Actually you weren't allowed downtown. Because the National Guard and there was a Marshall law at the time. They were concerned about people looting the stores. So, you couldn't go downtown per-say. What we did was walk along the boardwalk on what was called High St.. I remember looking down and what struck me as odd was all the boats were in town and all the houses were out in the water. It was like a big coach of a football team saying, ready shift! And it just shifted. And what was interesting, was that there were little bits and pieces of breakwater all over. There were little chunks in different places, in little segments. Generally there was a boat or two washed up. The earthquake didn't do a whole lot of damage. What did the damage was the tidal wave. We were real lucky compared to other communities. Valdez actually disappeared, it was on a big delta and the delta kind of slid away. In fact they relocated town. Seward the same thing. Kodiak, we're on solid bedrock, so when it shook we shook, but when it stopped we stopped. The damage was primarily from the tsunami. Whereas in Anchorage, they didn't get any tsunami, but because they weren't built on solid bedrock they're more on a big bowl of jello, so when it shook it shook, but when it stopped, it kept shaking. So the underline geology of where a town is located is reasonably important. So when they moved to Valdez they moved into a big blowhole and now they're right next to a big wind funnel. Kodiak, like I said, is on bedrock, so when it shook, by determination of my survey, it sort of tilted, somewhat. Not with the axis in the center, but there's a portion of the island submerged, which is kind of this portion of the island, five feet is what they generally say at, I don't know, Spruce Cape. But then, there are parts that went up, to the East of Montague Island which is in Prince William Sound went up something like thirty feet.

JENNIFER: Thirty feet? For real?

BUD: Yes.

JENNIFER: Did it stay up?

BUD: Oh yeah, it's still up. It's still up today. In fact, of course all the kelp is gone. It's close to thirty years now. I'm sure it's forested. It's some pretty major displacement. Everything I read said the earthquake was between 8.4 and 8.6, that was sort of a mistrepulation based on information, sketchy information from the few seismographs that were in the state. Again, this was pretty wild and woolly. You may think so now since you're reasonably knew but let me tell you, it was alot more wild and woolly then than it is now. Well apparently they've gone back and done some more investigation and I read recently, where they're putting the earthquake up to 9.4 on the Richter Scale. So we're talking about a tremendous, they call them great earthquakes, in fact they're probably great from 8.4 to 8.6, but a 9.4.....
So, what was the big event? It actually had some effect...
I went on to major in physical geography and geology and my background and my training is in hazards geology and hazards planning. So, I think, growing up in earthquake country and having, I don't know, survived the 1964 earthquake, was a senior in high school when the mountain failed, I remember vividly sitting there watching big boulders run down the hill and the ocean, and being a commercial fisherman, seeing some country, had some effect, some guiding me in what I've done, in my education, and what I've done with my professional life.

JENNIFER: I know, it was really funny. We're from NY, but we just moved from MD, it was from a big city to a little country. But then, even here (AK), it's still shocking because we have all the mountains here and the snow. I thought alot of people were nuts going to the college during the blizzard. But, just the landslide, the mudslide scared me, I mean there is one road to town and I heard all these things.

BUD: I can't remember where I was at.

JENNIFER: The biggest impact? You were talking about how you got into this deal with geology.

BUD: Actually, the little mudslide we had here, I mean it, if you put it in perspective it's a small event.

JENNIFER: Compared to everything else.

BUD: And actually it certainly doesn't look as bad during the light of day as it might have looked while you were peering through inches of rain. For someone with a geologic background like me, this is a great place to live, in the middle of all these catastrophes, volcanoes exploding...

JENNIFER: You really like this?

BUD: Well, I guess if I was an attorney I would be chasing ambulances. But, there's alot to be gained by understanding these things. Yes, things happen and they're catastrophes, but in my mind, isn't it more important to sort of figure out why these things happen so that we can predict them or prevent them. An example of what I'm trying to say is, we have soils along the hillside here, and it's the same soil that gave away. It's these slide-chrome soils. It's called the Pyramid Soils Series. By mapping these soils, we know where they are, number one, we know, number two, that they're prone to sliding, and hopefully we'll know number three, that we should build underneath those. And the same thing with tidal waves. You know we had a big event in '64, you know where the damage was done, common sense should say that well, maybe we shouldn't build in these areas because it happened once in '64, it's a matter of when, not a matter of if. We should learn from these things, but we really don't, human nature being what it is, people like to live close to the ocean. So it's going to happen again I guess.

JENNIFER: Oh, yeah, but even if it did, it would be like saying well, you should never drive a car because you got in a fender bender.

BUD: That's right. You're always playing with sort of the statistical aspect of things. It could happen tomorrow, and happen the day after tomorrow, twice. Just because they say it has a hundred year reoccurrence doesn't mean it couldn't happen five days in a row. And not happen again for another five hundred years. But, I mean, I think, yes, you can't address everything, but you can increase your odds by knowing physical information. I remember skydiving, what appears to be a very hazardous occupation, and I remember the skydiver instructor, telling me, the only dangerous thing about skydiving is driving to the airport. You're right, the statistic or odds of things happening are...

JENNIFER: Do you know if the houses that slid are the Aleut homes, the type you were talking about earlier?

BUD: No. Aleutian homes are mainly in this part of town (near the Borough). The houses that slid there were older houses, I think in that case you had to look at the foundation. One of the houses, the Walters house was on concrete foundation, engineered, while others were just on pilings. Similar to tidal waves and earthquakes you just can't surmise what happened by looking at it from Near Island, you need to go up there and talk about how saturated is the soil, look at the technical aspects, what kind of foundation did they have, where was the drainage in the mountainside, what percentage of slopes do these things happen on, of course that's like I said, part of my training. I think alot of that has to go through, because I grew up in a place like Kodiak, survived the tidal wave, survived the landslide, survived Friday and Saturday nights at the Mecca.

JENNIFER: How did your parents react to the whole thing? I think they would panic considering the fact that you weren't home?

BUD: Well, I was across the street so they didn't have any real problem. I think what was interesting is the way that Aleutian home shook during the tidal wave, is the way a washing machine shakes when it's on the spin cycle. So, I think it took folks a little while to realize that number one, it was an earthquake, and then, number two, having known that you survived the earthquake, what about everything else, there was the panic of the tidal wave. Being a fairly recent arrival to Kodiak and not knowing, Kodiak is strange, the people are strange. I'm sure it was a fairly stressful time for my parents. For kids, it was the greatest thing in the world. Walking in the snow, being outside the entire time, having real neat, sort of Preston hats, it was dynamite. And then, even through the catastrophe, waiting for the tidal wave.

JENNIFER: You knew it was coming?

BUD: Yeah, there was some warning that there was a strong possibility of one. And the whole town of course was trying to run for higher ground and the road up to Pillar Mountain was packed.

JENNIFER: How soon after the earthquake did the tsunami come?

BUD: Well, the tsunami wasn't just one wave, it was a series of waves, so what you got basically was a little bit of higher water and then that would wash out, then you'd get a bigger one and that would wash out. They call it a train of waves, that came and battered the island all during the night. I couldn't tell you since I was only ten years old, we were rushed up the hillside, and my mom said, you will go to bed.

JENNIFER: But you had enough time to get up there?

BUD: Yeah, yeah, in fact where we were at was perfectly fine. So, reacting to rumors and on the National Defense radio, said move to higher ground. Even the authorities had no real sense of what was going to happen.

JENNIFER: Did you see the tidal waves?

BUD: No. It was in March and the earthquake occurred at 5:30. So you're talking about it being pretty well into the night. It does get dark fairly early here. And, also viewing it from hillside which is quite a distance. I didn't see a whole lot. A real good interview might be with a fisherman who might have been trying to take a boat out into higher water, because I heard the channel was just like a river.

JENNIFER: I heard that when the waves washed out the channel was empty.

BUD: Yeah, just think of what a smaller wave does on a beach and magnify that. Yeah, I heard that too.

JENNIFER: Do you know how far the waves reached?

BUD: No, But I know the boat harbor was dry.

JENNIFER: I know, someone said they had a picture of a boat in Krafts.

BUD: Well, of course Krafts was many stores back then, it wasn't just one building, there was a meat market, supermarket, a dry good section, alot of little structures, called Krafts. One of the biggest damages from the tidal waves was not the water so much, it was all the boats, and cars and cottonwood trees that were downtown that were being carried back and forth by the waves and they were battering rams. You can imagine what one cottonwood could do, smashing back and forth against buildings, and remember, this was older Kodiak with alot of stick buildings so a battering ram, a cottonwood tree would probably do a fair amount of damage floating around town. And, if you can imagine big 60 foot boats floating up near the China House, there was a big boat right up there. So, you can imagine, to get to that spot it must have done a fair amount of damage, and the cars and things like that. Alot of damage was done by things other than the waves, like the boats. There were about as many boats that are in the boat harbor now, crashing through town. It was a pretty traumatic sight.

JENNIFER: Do you know if anything happened down at the base?

BUD: Yeah, the base had some damage from the earthquake, some cracks, some displacement in the runway and the water was reasonably high. I got some books here, again, this being my profession. I collect things. The sea wall was bent. This is the kind of information I mentioned that we have now. Here you go, here's the highwater mark, above the desk. (He's referring to a picture he was showing me.) In fact, do you guys live on base? Okay if you go down here where the power plant's at, if you pass the PAC building, on the island's peninsula, there's a big grey building on the left, it's just past that. When I was there, there was a big line that said this was the level of the 1964 earthquake. If you go down there it's probably still there. It's in big yellow letters on the side of the building. So the base had, this was a flood, when the water goes above the peninsula. (He showed me a buoy almost the size of one of the hangars, that had been washed onto the runway by the flood/tsunami.)

JENNIFER: You know what was really funny, in case of a tsunami, we're supposed to evacuate to Peterson Elementary School. To me that seems like one of the places that would get hit, it's lower than where we live, but I guess it's farther away from the shore, and it wasn't get hit last time.

BUD: Yeah. Right. I think that's part of what we use as the one-hundred foot contour level, one-hundred foot evacuation level a little to freely. But I guess when your talking people's lives it's best to err, in the sight of saving lives. You have places in the center of the island that could be less than a hundred feet, but yeah you need to look at the distance away from the shore, you need to look at all kinds of characteristics. What the reef structures are out there, because the wave is going to dissipate energy by going over reefs, depending on what stage the tide is at. At low tide, the more reefs that are exposed, the more the wave is going to get beat up by the reef. There's an underwater component to a wave. An underwater component gets chewed up or slowed down by the reefs, the wave component above tends to fall on itself. Yeah, Peterson didn't get hit. Peterson's under a hundred feet, in fact it's probably well under a hundred feet. But, it's inland. I always tell folks to look at where the damage was during the 1964 earthquake, and tidal wave because that was a major 9.4 and from everything I've read, the next earthquake is supposed to occur along the same fault, generate about the same size wave. The only question is, how much will the island tilt? If it tilts a hundred feet.

JENNIFER: You're in trouble.

BUD: Or if it's at high tide or low tide. I think the variation between high tide and low tide is about eleven feet. So, if it happens at five feet or in high tide you'll have additional damage, but if it happens at low tide you'll have less damage.

JENNIFER: Have you guys anticipated when?

BUD: Well, that's something that's tough to determine. That's what the U.S. Geological Service is for. That's what the Geophysical Research Labs are trying to determine. There are some indications, animals always know, apparently animals have a sixth sense, they can tell if something's happening. The earth tends to bulge reasonably. You won't be able to tell on a small scale but apparently there's a bulge in the earth where the pressure's building up. You can't really tell, but you can tell when you fly over it, it measures the magnetic intensity of the location, apparently that changes alot. The water wells change in depth, the water goes down. There are, what they think are different indicators for the next tidal wave. But, when I was in school, there was a place called Pomdale California, outside Pasadena that exhibited all these characteristics and they swore up and down that boy this was going to be the sight of the next great earthquake, and it hasn't happened yet. And there are other places that didn't exhibit any of these characteristics and have had earthquakes. So, it's still a new science, earthquake prediction is real tough to do.

JENNIFER: Let me ask you a far-fetched question, do you have any theories about Atlantis?

BUD: Could it in fact have existed?

JENNIFER: Yes, or if it did exist, could it have sunk under circumstances caused by earthquakes and tsunamis such as these?

BUD: Generally talking about geology, generally things in geologic time happen real slowly. We have like mountain building processes like Mt. McKinley, we talked about subduction zones, where a portion of the earth is subsiding underneath another, but all these things happens at about two centimeters per year. Usually geologic processes are such that they happen real slowly, they happen over time. Like the theory of all continents being together and slowly moving apart. They didn't move apart by great leaps and bounds, they moved apart centimeters per year.

JENNIFER: So even if they had been together at one point, people wouldn't have known?

BUD: Sure. Well, another example would be that there have been mountains higher than Mt. Everest, that have been worn down by erosion, down to a flat plain. It's happened many times. But it's just hard for us to fathom if you don't think in geologic terms. So, for something like Atlantis to happen, probably, that's a great Jules Vern sort of notion. I guess on one hand I would say no because things happen slowly, they don't just disappear. But we've had events, Montague Island went up thirty feet in one event. That is traumatic motion in anyone's book. Anchorage had places that subsided quickly, but certainly not like Atlantis where the whole thing subsides, if I understand you to say that it was just swallowed up. It is hard to say. It makes for a good story. There are other things related, like if they were an advanced civilization.

JENNIFER: Do you know if Manashka Bay and the other side of the island was affected?

BUD: Of course the village of Afognak had subsided enough to where water was coming into the town, they actually moved the town over to Port Lions. So that town was actually abandoned. Uzinkie, I don't know what happened to Uzinkie. They had some flooding, as far as damage, again you're talking about small towns, yeah they had some damage but even Kodiak had damage, and we rebuilt.

JENNIFER: How long did it take to rebuild?

BUD: It took a long time. Because what they did with downtown is actually take alot of rock from the slide area, before they recognized it as a slide area, to build up downtown. Remember it had subsided. So they built it back up with fill. The fill came from the tow of what has become the landslide. So they actually came into town, I always say that (urban renewal is what they call it, a federal program) did more damage than the earthquake and tidal wave. Because whatever cottonwood trees were left were just mowed down, everything was just like taking an eraser and erasing

the slate clean. They just started from scratch and recreated a town on this flat area we call downtown. Remember I talked about earthquakes happening on solid rock and earthquakes happening on loose rock which acts like jello, so the town will...

JENNIFER: Be jello if it happens again.

BUD: Yeah. We'll see more types of things happen downtown. But that was where property values were at, were the boat harbor was located. We were a much smaller town back then. All the town was probably no further this way than the Aleutian homes, there was hardly anything out here, there were a few things out at Spruce Cape, but you're talking about a very tiny town. What has happened is, now that it's been thirty years or so, not quite thirty years, we have forgotten lessons of the past and history is bound to repeat itself. So we'll see major damage again, even more so for the next earthquake.

JENNIFER: I hope I'm not here.

BUD: Well, if you have a geology point of view you'd like to be here. One of the that things I'm hoping to do when it does happen, is get into an airplane and sort of map again, we have two photographs, we have some mapping of where the damage occurred. Like, I said we didn't recognize them for what they were.

JENNIFER: I have a question, I heard that the windows in Anchorage were shattered and things like that, and in places far off, like Seattle and California were affected. If that could affect the windows so many miles away, would that affect someone being up in a plane, right above it, while it was going on?

BUD: Let me back up and say the windows were affected in Anchorage because you had the buildings shaking, remember it's the jello affect, and the building was stretching as it was tilting, so of course the windows snapped. It wasn't a loud boom that made the windows snap. And the damage that occurred down in Cresent City, you know the tidal wave lapped up on the shores of Antarctica, people died in Cresent City, California, but that was because of the tidal wave. You have to separate the earthquake from the tidal wave. And find out, again, it's no different than the slide area, why did it happen. In Anchorage we had some major displacement, where parts of the building shifted differently to relative parts of the building.

JENNIFER: There's a picture that's really popular that shows half of a highway that had collapsed. The same thing happened in D.C. last year, a whole building and a couple blocks of highway just collapsed, totally and completely collapsed. I didn't think it was that bad until they showed the unaffected area around it.

BUD: That could have been just poor design. Well, that kind of stuff could happen but I guess that's why you can't take that point of view of boy, I'm sure glad I wasn't here when that happened,

it's why did it happen. There are alot of mistakes made at all levels. Apparently whoever decided to sign off on that bridge or decided what type of metal to use. So, I guess you have to understand the processes. Most of my papers during school were about what caused the earthquake and the tidal wave. It's understanding to help 1) predict, 2) plan for people who choose to live in that area, how to better survive I guess, because there is some common sense involved. I think the town moving to Upper Mill Bay is a good thing. It's a better sort of fishing section downtown, but safety-wise, people shouldn't be living in tidal wave prone areas. They should be living up at least a hundred feet, or something. I bought some property that wasn't on the ocean and there was ocean property available when I bought it. I've got a gorgeous view of the lake, not a view of the ocean which is sure breathtaking. At least when it comes time for the tidal wave and evacuation, I've got a big coffee pot that I set up and I tell people just come over to my house, bring your bottles of Bailey's and we'll drink coffee and Bailey's all night long. I'm perfectly safe. As many things as we have to worry about around here, mudslides, the wind blowing trees over, it's nice to be able to sleep through the night and say I don't have to worry about these things, I can sleep all night long, let the other people worry about them. I'll worry about the damn collapsing, due to the amount of rain we had.

JENNIFER: How did your brother and sister react?

BUD: My sister was nineteen years old, she was in the closet for two weeks. And the reason was we had just come from southern California she was nineteen years old, my father being the strict Irishman that he was, wasn't quite ready to let my sister go off on her own. After being nineteen and having living on the beaches of California and then having to come to Kodiak it was more than a wild shock for my sister and that was her way of coping. And the earthquake didn't help any.

My mom is from Boston Massachusetts and this was all my dad's idea, what the heck was he doing bringing her and her family up here, with the Kodiak bear and the cold.

JENNIFER: Did they stay in Alaska?

BUD: Yeah. Actually, parkas, fur parkas were really big when we first got up here and I remember my mom and dad making a pact that my dad would buy my mom a parka if she would stay for five years. Well they stayed for twenty-five years, so he still owes her four more parkas. My sister married a local boy and they live in Anchorage now. My brother lives in Anchorage. We still all live in Alaska, except my parents, they live in Arizona.

JENNIFER: It sounds like it all worked out for you.

BUD: Yeah, well, I'll be one of the few folks who has lived through two earthquakes and tidal waves.

JENNIFER: Two?

BUD: Well, actually, the other one is probably overdue. I've seen what they call return rates for these type of earthquakes are anywhere from every thirty years to every sixty years. But an average, like I said, it could happen five times in a row or not happen again for another five-hundred years. And we still need our one every one-hundred years. It's gonna happen. You just need to be prepared for it.

JENNIFER: Well, it sounds like you're well prepared.

BUD: I like to think I am, but there are always things you forget. I don't have my little Honda generator to heat my coffee. Because we lost power, we had to boil water, the water in the sewer lines were questionable but we've got better infra-structure now, we've got extreme planatory tidal wave zone, we've got our utility and highway tidal wave zone. KEA is just now moving out of tidal wave zone up to Pillar Mountain, city hall was located downtown and is now up here. We've come a long way. There will be new things because this won't be the earthquake of '64. I guess what I'd hate to see would be the earthquake to trigger landslides trigger smaller slides. We have a pretty good system in place now, hopefully we can use it, sort of our emergency services.