Transcript: Jonathan Miller’s interview with KCB

Transcribed by Lillith Gillespie on Monday, June 11, 2018

Interviewer: “From major earthquakes in Alaska, tsunami warnings and volcano eruptions in Japan, Bali, and the Philippines, it’s been an active couple of days for the sprawling horseshoe-shaped geological disaster zone known as the “Ring of Fire”. For more, we’re joined on the KCBS Central News Night by Jonathan Miller, a volcano expert with San Jose State University. Thanks a lot for talking to us today. So, a 7.9 quake in Alaska, eruptions in Japan, Bali and the Philippines, is any of this connected?”

Dr. Jonathan Miller: “That’s a great question. So, as you already mentioned — that all of these occur along these very geologically active zone, the so-called Ring of Fire, which wraps all the way around the Pacific Ocean (the Pacific Rim). And so, in any given day, there are literally thousands of earthquakes. There may be many small volcanic eruptions. Many of those don’t necessarily – they aren’t large, they don’t necessarily impact people in real-time that much. And so it’s a very active zone. I don’t know that, for any of these, you could draw a correlation between any of those, but it’s an area of active research. Particularly in earthquake science, there’s a lot of questions about whether earthquakes can trigger other earthquakes, that sort of thing or whether they could trigger volcanic eruptions. But volcanic earthquakes, or rather volcanoes and the kind of earthquakes they have, like in Alaska, are generally unrelated.”

Interviewer: “Okay so you’re saying, basically, that there’s so much going on seismically in this area anyway these were just, you know... it could be chocked up to coincidence?”

Dr. Jonathan Miller: “Yeah. I mean, 7.9 – that’s a very large earthquake, right? We kind of pay attention when they’re that big. But could it be related to, say, the volcanic eruptions in, say, Japan or the Philippines? I would say that’s very unlikely. Or at least it’d be very hard to, in any clear, scientific way, to link those.”

Interviewer: “You know, I think we really, as human beings, want to see these links, because then at least it would give us some explanation...”

Dr. Jonathan Miller: (Chuckles) “Yes, absolutely! I mean, I, you know... it’s sort of natural to want to connect those sort of things, and there are – there certainly is research to look at whether or not those sorts of things can be connected, but there’s just not a lot of data that supports it. You know, every now and then, we can link – obviously, when you have, say, a major earthquake and then you have aftershocks... Okay, that’s a pretty clear relationship, or a pretty clear connection. In places where you have volcanic eruptions, like what’s happening in the Philippines, many times – including in Mayon, where the eruption is ongoing – that’s
preceded by, or sometimes can be preceded by fairly significant earthquakes. Sometimes not just sort of a little bit of a tremor, but a lot of times, volcanoes, they’re kind of slumbering giants. And they, if they’re properly instrumented – meaning that geologists put seismic detection equipment around it, they usually – you can usually detect them coming to life.”

(Interrupts throat)

Interviewer: “Now, so the people who were worried that the earthquake might perhaps trigger Mt. Saint Helens, again that’s more of the desire to connect than anything else?”

Dr. Jonathan Miller: “Yeah. Right, yeah. That would... you know, with Saint Helens, obviously it’s one of the most active volcanoes in North America, and it is very well instrumented and connected. And so if there was anything that was going to kind of happen with Mt. Saint Helens, the US Geological Survey has seismic stations all around that area and they monitor it; it’s a very heavily instrumented and heavily monitored volcano. And so if something was going to happen with Mount Saint Helens, we would know well in advance. We would detect the seismicity, we would detect the earthquakes beneath the volcano, we would detect it coming to life.”

Interviewer: “Alright. I think we’re comforted for the moment. Thanks for that!”

(Both chuckle)

Interviewer: “Thanks very much for talking to us, Jonathan Miller! Volcano expert with San Jose State University. KCBS News Time 10:36, traffic is next...”