

Newsletter of the Golden West Chapter, International Society of Explosives Engineers 430 32nd Street, Suite 100, Newport Beach, CA 92663

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The Primer is published four times per year on the web site of the Golden West Chapter of the ISEE:

#### www.iseegoldenwest.org

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# President's Message...

# **Hey Members, Guests & Supporters**

As you have probably already guessed, The officers and board of directors of the Golden West Chapter of the International Society of Explosives Engineers have determined that it is too risky to the health of our membership to hold our annual 2020 business meeting in person at the Mount Pleasant Hall on February 20, 2021.

In lieu of an in person meeting, we have opted to hold our meeting via Zoom. Those of you without access to Zoom will be given call-in instructions. A date and invite to the meeting will be announced very soon.

In the meantime, there are a few things you need to think about to participate in the meeting.

- 1. Election-Think about nominations for the officers and board members for year 2021. The positions available are president, secretary and a board member.
- 2. Upcoming Events- The board agrees that the scholarship fundraiser should continue sometime in September to stay out of the heat and hunting season. Be prepared to share your thoughts and ideas regarding it or another event you would like to participate in.
- 3. Any other topics we choose to discuss.

As we get closer to an actual time & date, we will send out an alert with all the information you need including last year's meeting minutes and a meeting agenda.

Be Safe and enjoy the newsletter,

Your President, Mike Chiurato

#### **Editors Notes ...**



On behalf of the officers and board of directors, we would like to wish you, your family, friends, and colleagues, a Happy Holiday season. As we look ahead from 2020 to a more prosperous and predictable 2021, we would like to thank you for your commitment to the Golden West Chapter, your commitment to membership in GWC which provides us the ability to provide scholarships to deserving students. Advertisers play a large part in our being able offer these scholarships. If you would like to help and wish to run an ad in the newsletter please contact us. Ads in the newsletter run concurrently on this website. Thank you for your support!

As stated in the Presidents message we will be sending out an invite to join a ZOOM meeting or call in to hold our 2021 election of officers and board members. I am very disappointed that we wont be holding the annual business meeting crab feed this year. I really enjoy cooking for the group and it is the only time of year that I get to see many of you that I have know for so many years now. I hope that everyone stays healthy and that we are all able to get together this year for the scholarship fundraiser.

On the next page is a photo from 2002 that was taken at the Spring Work Shop.

# **Editors Notes Continued...**



On December 10th, I received this photo from long time chapter member Tim Hurley. He wrote, "I have been retired now for about three years and have been going through lots of boxes and doing lots of sorting. I came across this photo taken at the 2002 Spring GWC ISEE workshop. After 19 years, many of the faces are recognizable and some are gone from the industry and from life."

Thank you for your contribution to the Winter Primer Tim.

# Seismograph Monkey Business – Part 2

# By Wes Bender

Digital seismographs receive an analog signal from their sensors and convert it to a digital signal for further processing. The sampling rate (the number of times per second that it reads and stores the output level of a channel) is what determines the unit's frequency response. It's important to use a high enough sampling rate so that some high frequency peak does not pass through undetected.

For blasting seismographs, it's conventional to use a number that is one fourth of the sampling rate as the unit's frequency response. Most regulatory agencies specify a frequency response of at least 250 hertz; hence the unit must sample at a rate of at least 1000 samples per second (per channel) to meet this requirement.

In the early days of digital seismographs, having enough memory to store four channels of data for a fairly long event was a bit of a problem. Most manufacturers managed to install sufficient memory, but one manufacturer took a different approach. Instead of adding sufficient memory, they found it cheaper to slow down the clock rate. A five second event sampled at 1024 samples per second, and that was just fine. However, if the event was expected to exceed five seconds, they slowed the clock to half speed, which lowered the sampling rate to 512 samples per second per channel. If an even longer event was anticipated, the clock rate was reduced by two thirds, which further lowered the sampling rate to 341 samples per second. This meant that the unit's frequency response under those conditions was approximately 125 hertz or 85 hertz, but their technical literature failed to disclose that shortcoming.

Quite a few years ago, when it was becoming apparent that digital seismographs were about to take over the marketplace, a manufacturer in Texas that manufactured analog seismographs tried to stir the pot by having their attorney send a letter to all of Instantel's dealers and distributors, claiming that Instantel's seismographs violated several of their patents. The letter indicated that, if we continued to promote the sale of Instantel's units, we would be subject to legal action. This letter arrived just before the annual SEE Conference and was intended to discourage Instantel and their dealers from being able to promote Instantel's products there.

I immediately notified Instantel upon my receipt of the letter. They had not received their copy yet, so I faxed them mine. They immediately got in touch with their own patent attorney and had me fax my copy of the letter to him too.

It was readily apparent that Instantel's digital units did not even come close to violating any of the patents held by the competitor. Instantel's patent attorney wrote them a letter telling them to cease and desist or they would be subject to a lawsuit themselves. We never heard anything further from either the competitor or their attorney.

Because the company making the complaint wasn't willing to expend the effort and money to develop their own digital seismograph, they pretty much faded from the seismograph scene shortly thereafter. They later were successful in marketing a "tattletale" device to place in shipments that would report on how many Gs it experienced during shipment.

Another bit of monkey business was initiated by a seismograph manufacturer in Pennsylvania when they made the claim with the U. S. Federal Trade Commission that Instantel was using money from the Canadian government to help design and build their equipment and were charging unfairly low prices in the US. Instantel was developing some equipment for the Canadian government at the time, but this was isolated from their seismograph business. I didn't know if the complainant had a legitimate claim or if they were just trying to stir the pot. All of Instantel's US dealers were required to go back through their records and provide the Trade Commission with their costs and selling prices on all sales transactions. This took a considerable amount of time for which we would never be reimbursed. (I overheard one principal of the complainant company joking about it later at an SEE conference, so I'm pretty sure that it was all a sham.) The investigation by the U.S. Trade Commission found no credible evidence that Instantel was violating the rules and the case was dropped.

It irritated me considerably that I had to jump through all the hoops to gather the info for the Commission, but I got even in the long run. The company filing the complaint later bought out one of their competitors. A representative from that competitor had signed a hold-harmless agreement with a geophysical firm that it would protect said firm from claims of damage if they would use the competitor's monitoring and analysis on an extensive seismic project near McAllen Texas. The geophysical firm was using Vibra-Seis equipment rather than explosives. These are truck-mounted vibrators that put a sweep of vibration waves into the ground. The reflected waves are then recorded with sensitive devices. While the vibration generated is not likely to result in damage to structures, it can be felt quite readily by humans. Part way through the contract, an attorney stirred up a hornet's nest around McAllen. As more and more homeowners signed on with numerous claims of damage, the situation was rapidly getting out of hand. The company filing the Trade Commission complaint was stuck with the hold-harmless agreement that had been signed by the company they bought. Eventually, their legal team had to hire experts to assist in their defense. Two of the noted individuals they hired normally rented instruments from me. The defense purchased a house near McAllen, instrumented it with several of my leased seismographs and did extensive monitoring of vibratory equipment operating nearby. This went on for quite some time and the rent money kept rolling in. Of course, the complainant and their insurance company were paying the legal bills, so I was quite happy to get some remuneration from the company that had cost me guite a few manhours of research earlier. The seismic buzzards had come home to roost......



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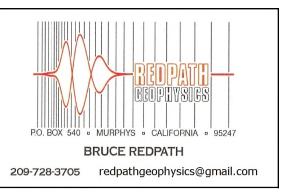
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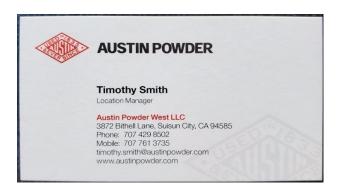
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Chapter Activities
ZOOM Business Meeting
To be announced January 2021

Scholarship Fundraiser To be Announced 2021

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#### Fire in the Hole...

A guy is driving around the back woods of Montana and he sees a sign in front of a broken down shanty-style house:

**Talking Dog For Sale** 

He rings the bell and the owner appears and tells him the dog is in the backyard.

The guy goes into the backyard and sees a nice looking Labrador retriever sitting there.

'You talk?' he asks.

'Yep,' the Lab replies.

After the guy recovers from the shock of hearing a dog talk, he says 'So, what's your story?'

The Lab looks up and says, 'Well, I discovered that I could talk when I was pretty young. I wanted to help the government, so I told the CIA.

In no time at all they had me jetting from country to country, sitting in rooms with spies and world leaders, because no one figured a dog would be eavesdropping.'

'I was one of their most valuable spies for eight years running...

But the jetting around really tired me out, and I knew I wasn't getting any younger so I decided to settle down. I signed up for a job at the airport to do some undercover security, wandering near suspicious characters and listening in. I uncovered some incredible dealings and was awarded a batch of medals.'

'I got married, had a mess of puppies, and now I'm just retired.'

The guy is amazed. He goes back in and asks the owner what he wants for the dog.

'Ten dollars,' the guy says.

'Ten dollars? This dog is amazing! Why on earth are you selling him so cheap?'

'Because he's a liar. He's never been out of the yard'