

# A Very Modern Device

Charlie Blue

From a *Management Newsletter* article written by  
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Procurement Manager Charlie Blue got the job done—the Laboratory's first analog computer arrived via a hearse from Champaign, Illinois.

Herb York came into my shop one day, and said, "We can't be doing all these weapons calculations by hand in Berkeley." He said, "There's a very modern device out."  
"What did you hear, Herb?" I asked.  
"There's a guy, a physicist at the University of Illinois, who has invented a machine," he said.  
"His name is Professor Nordsieck. Will you get that machine out here as quickly as you can? I need to do some calculations on it, and it'll do things in a very modern way—very far out."

I contacted Professor [Arnold] Nordsieck in the Physics Department of the University of Illinois. When I told him that we wanted his machine, he went into an absolute state of shock.

"Young man," he said, "do you realize that I have put 10 years of my life, day and night, into inventing and perfecting this analog computer? You're clear out in California?"

"Oh yes," I said, "we're right near the Bay Area. But it's no problem. We'll move it out."

"But, you can't do that," he protested. "What are you going to do with it?"

"Well, I really can't tell you over the phone what we're going to do with the thing," I replied, "but our people here are working on some very critical calculations that are important to the best interests of this country."

It took a lot of persuasion with this fellow. We even had other renowned scientists call the man and lean on him a bit. The professor didn't want to budge, but he finally agreed. I was going to fly it out here for safety reasons, but he didn't believe in airplanes.

"Those things are killers, they crash, and my machine isn't going to crash!"

"Look," he finally said, "I will agree to let the machine come out here to California for (I think) a six-month loan. But you have to have a highly trained technical person accompany the machine, and I will only agree if it is to come on the highway in a carefully controlled situation." He would not agree to any local transfer outfit from Champaign to bring it out here, so I didn't know what to do about it.

I called Ray Wood, who ran the University motor pool in Berkeley at that time. He said, "Well, I don't know whether I can make available a car for somebody to drive clear to Champaign and back. That's a very unusual request."



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In the meantime, we'd done measurements of the machine and weighed it. It turned out that with just an inch or so clearance, this machine would fit through the rear door of a Chevrolet meat wagon,\* as we called it in those days. Then I asked, "Who's the technical person who wants to drive to Illinois and back?" Nobody.

Wood thought about it and came up with an idea. There was a secretary of the University at that time, Marjorie Woolman, who worked with Treasurer Robert Underhill. "Marjorie's brother just graduated from dental school," Wood told me. "He has taken the state boards, and he is available. Let me talk to him—Doctor Woolman—and see if he would be willing to take a vacation drive to the University of Illinois."

So I called back Professor Nordsieck, and I said, "I've got it all lined up. I've got a vehicle in mind, and there is a doctor who is going to drive."

"A doctor!" he said. "Technically knowledgeable?"

I said, "Very technically knowledgeable."

"Oh! So nice! Please send him out then."

I dispatched the good Doctor Woolman, with my compliments. About three days later, I received a phone call with the sorriest sounding voice you ever want to hear at the other end of the line. "Yes?" I said.

"This is Doctor Woolman."

I said, "You don't sound so good." He said, "Well, I'm not so good. A truck, a big highway truck, just knocked my car off the road with me in it. It broke the windows out of the van, and it is a mess."

Well, this Professor Nordsieck didn't take that too kindly. But we eventually got that thing in the truck and in due course delivered here to Livermore. This became the first Livermore computer, the Nordsieck Analog Computer.

\*"Meat wagon" is a slang term for an ambulance or hearse.