

FEELER

When Doomsday Came Calling by Mistake

by Flawn Williams

Flawn Williams: I'm Flawn Williams.

Mistakes can happen at any time. Sometimes we're the ones who make them – sometimes we get to deal with others' mistakes. And these days we're constantly saturated with spin, about who's making the biggest mistakes.

But back in 1971, while I was working at a small Chicago television station, I happened to get caught up in someone else's major mistake...an error that triggered fears of a nuclear attack. That goof took nearly an hour to set straight, and a long time for the country to come to grips with.

On a wintry Saturday morning, Channel 44 had been on the air in Chicago for just a bit more than a year. The station promoted itself as an all-news television channel. That was a newfangled concept back then, long before nonstop news would become a mainstay of cable TV.

During off-peak hours, the 'news' on Channel 44 consisted of printed stories scrolling up on the TV screen. To get those stories onto the screen, we typed up information that we received from various sources.

And we used a special kind of keyboard. It punched holes into a skinny paper tape. That perforated tape could then be fed into a 'reader' to show the text on the screen.

[Sounds of a teletype]

Flawn Williams: Most of the stories that we ran came from the Associated Press [AP] and United Press International [UPI]. They sent us their reports over special 'teletype' circuits installed by the phone company. Those 'wires' were the reason AP and UPI were known as 'wire services.'

Our teletype machines would print out stories onto a regular roll of paper. But they also punched those incoming signals from AP and UPI into perforated tapes. We could splice those tapes together and put those stories on the air.

Another office also had the ability to feed information down those same teletype circuits. The National Emergency Warning Center was a civil defense information office, located at the base of Cheyenne Mountain in Colorado. From there, they could override AP and UPI and send alerts directly into the teletype printers at journalistic organizations all across the country.

At Channel 44, we were used to seeing a test message come from that warning center, on Saturday mornings. It typically came through at about 8:30 AM Chicago time. But on February 20, 1971, the story played out a little differently.

[Sounds of a bell]

Flawn Williams: The AP teletype machine's bell rang ten times, signaling an incoming alert. One of my coworkers was standing by the machine, reading what was being printed out there. I went over and joined him. What we saw took our breath away.

Voice 2: message authenticator: Hatefulness. Hatefulness. This is an emergency action notification – EAN – directed by the President. Normal broadcasting will cease immediately...

Flawn Williams: At first, I assumed that it was just the regular Saturday morning test. But when I saw the message authenticator code words, I froze. We watched the familiar keys of the teletype machine pounding out words that we thought we'd never see:

Voice 2: Normal broadcasting will cease immediately...stations will broadcast EAN message one, preceded by the attention signal, per FCC rules. Only stations holding NDEA may stay on the air, in accordance with their state EBS plan. Broadcast EAN message one. Message authenticator: Hatefulness. Hatefulness. 20 february.

Flawn Williams: Well, what should we do? It could be a mistake; after all, the message came around the time we would expect to see the weekly test. But what better time for some bad actor to choose to attack us? Would they catch everybody expecting a test and assuming a mistake? This could be as big a surprise as Pearl Harbor had been, a mere thirty years earlier.

We were staring at an authenticated message from President Nixon. We were scared stiff, and we stiffly set out to do what the message had ordered. I headed for the production studio and opened the folder of emergency instructions. I needed to know more about...what the alert had referred to as "Message One."

None of the three of us on duty that morning had been instructed on the details of what to do if an actual alert ever came through. Everyone had just assumed it would never happen. But now, as a first step, we needed to verify the secret authenticator code words for the day. Inside the folder was a sealed red envelope, which held a list of different code words for each day in the winter of 1971. My shaking hands didn't want to cooperate. But finally, I managed to remove the list, and found the authenticator code words for February 20.

There were two words listed for each date. One was for activating an alert. The other would be used to verify the termination of that alert. The activator code word for February 20 from the sealed red envelope, was 'hatefulness' –just as the message in our hands had said. The Terminator code word was 'impish.' Well, we had received the right activator word. And what an appropriate word for a possible missile attack: 'Hatefulness.'

Our next task was to find 'Message One,' broadcast it, and then sign Channel 44 off the air. 'Message One' should prompt our viewers to tune to WGN, the only Chicago area station that was authorized to remain on the air during such an emergency.

Meanwhile, our engineer had been changing the channels on a TV set, checking to see what other stations in the area were broadcasting during this crisis. Every other television station in Chicago was still running their regular Saturday morning programs. But they could be facing the same dilemmas that we were. And they probably didn't keep as close an eye on the news wires as we did. After all, little low-

budget Channel 44 was... “the only all-news TV station in the Chicago market.” So we tried to go on with the task of notifying our viewers.

But we hit a new problem. Where was ‘Message One?’ Neither the prerecorded tape cartridge nor the printed text copy for ‘Message One’ was in the emergency folder. We did find both a printed copy and the tape cartridge for ‘Message Two,’ which was the even more serious ‘Red Alert’ message. We didn’t want to air that...but we found nothing for ‘Message One.’ That was the emergency warning – that was what the alert from Cheyenne Mountain had instructed us to use.

I went through the folder two or three times, just to make sure I hadn’t missed ‘Message One’ in my nervousness. It wasn’t there. We decided instead to run our station’s regular pre-recorded sign-off message...at least as much of it as seemed appropriate...and then shut down our transmitter. Once that decision was made, it took less than 30 seconds to take Channel 44’s signal down.

All of the other television stations in Chicago were still chugging blissfully along...as we left the air...without explaining to our viewers why we did it. We had no way to open a live microphone. Some all-news station...

We notified our station’s general manager and chief engineer by phone about the ominous alert, and what we had done to respond to it. Meanwhile, our news editor had gotten in touch with the local Chicago bureau of the Associated Press. They hadn’t even noticed the message from the President, until we called them.

The next few minutes dragged slowly past. We had been informed we were in a state of national emergency. The President himself had directed us, according to that message. And yet, no one else in our part of the world seemed to know what was going on.

[Ominous music]

Flawn Williams: Under the Emergency Action Notification System in 1971, upon receipt of an authenticated emergency alert, all Chicago-area stations except one – WGN – were supposed to sign off the air. This was intended to steer viewers and listeners to a single primary source of information. Every broadcast station around Chicago owned a special receiver, which would turn on automatically, whenever WGN’s transmitter went off the air. So all that WGN had to do to alert all the other area stations during an emergency, was turn off their transmitter for just a few seconds, then come back on the air and play their emergency message. So far, though, nothing had triggered our emergency receiver. Our engineer turned it on manually, just to check. For a moment, we heard nothing. But suddenly, WGN came through loud and clear with a signal tone.

[Signal tone]

Flawn Williams: Immediately following that was an announcement, delivered in a stentorian voice obviously taped many years ago, informing us and all listeners that “an emergency exists.” And that all other stations in the Chicago area were to leave the air immediately.

Radio announcer: This station has interrupted its regular program at the request of the United States government to participate in the Emergency Broadcast System. During this period, many radio stations will remain on the air, broadcasting news and official information....

Flawn Williams: But about halfway through the recorded message, a live announcer broke in to say: “I’m sorry, ladies and gentlemen, that was run by mistake. We will now return to our regular programming.” And sure enough, WGN went back to its normal Saturday morning program.

At Channel 44, we went back to confusion. At 8:50 AM Central Standard Time, 17 long minutes after the original alert had appeared on our teletype machine, the Associated Press sent out a message.

Voice 3: Bulletin AP news directors (bureaus): Regarding the Emergency Broadcast Message which was sent by the Air Force on this wire about 9:30 ET. AT&T advises the AP that the Air Force at Cheyenne Mountain in Colorado put on the wrong message tape. The normal tape explains that the message is merely a test. You will be further advised when additional information is available. The AP.

Flawn Williams: Immediately following that, the military override system took control of the teletype wires again.

Voice 2: This is the National Warning Center. Cancel EANS tape sent at 09:33 EST.

Flawn Williams: For a moment, we believed the new messages on the teletype machine, so we dutifully signed Channel 44 back on the air. A few minutes later, though, we realized that both of those messages could be bogus. Neither one of them included the correct termination authenticator code word. Our emergency packet had showed us that the termination code word would be 'impish.'

And by the way, who was choosing these code words? Both of the words for February 20 – 'hatefulness' and 'impish' – seemed either very appropriate or very ironic. But since we had signed Channel 44 back on the air again, we elected to stay on, pending further instructions.

A few minutes later, the AP issued another bulletin drawing our attention to the Warning Center's retraction. But again – no terminator authenticator code word accompanied their message.

At 8:59 AM Chicago time, the National Warning Center took to the wires yet again, and issued another retraction. But this time, instead of including the terminator code word 'impish,' they accompanied this message with the activator code word, 'hatefulness.' At this point we were silently laying odds that a clever enemy, whoever that might be, had taken over the news wires. And that we couldn't trust any message.

Finally, at 9:13 AM Central Time, about 40 minutes after the original alert had been transmitted, the National Warning Center sent down another cancellation message. This time it was accompanied by the correct terminator authenticator code word 'impish.' So at that moment, for the record, the emergency ended.

[Music]

Flawn Williams: Probably what frightened people most about the SNAFU on February 20, 1971, was that a message which could supposedly be sent only by direct order of the President of the United States was sent out by accident. All because a machine operator at Cheyenne Mountain, Colorado, someone with fifteen years of experience in his job, had made a mistake. He grabbed the wrong strip of perforated paper tape and fed it into his teletype reader that morning – the same kind of paper tape reader that I was using at Channel 44.

But for broadcasters and other media organizations, there was another disturbing takeaway: Fewer than half of America's radio and television stations even bothered to check on the authenticity of the message. And fewer than ten percent of the stations took themselves off the air. The vast majority of American broadcasters assumed that the message was sent by mistake, and ignored it. Or they didn't even notice the message, until after the whole kerfuffle was over.

[Music]

Flawn Williams: In the nearly fifty years since that 1971 incident, much has changed in how we can receive news of emergencies, both local and national. We now have cell phones and other devices that get both text and audible warnings, as well as broadcast, satellite, cable, and Internet media.

The Emergency Broadcast System that was in use in 1971 was replaced by the Emergency Alert System, or EAS, in 1997. And a new testing protocol for the EAS was rolled out in the United States in 2011. But in its first test, in November of that year, not all went according to plan. Some cable TV viewers watched as their screens got switched to the QVC shopping channel.

In northern Virginia, listeners heard a Lady Gaga record playing during the test. And in other areas, people didn't receive an alert at all, or they heard unintelligible garbled sound. So, after that teachable moment, more changes were made. But the problems with alerts have continued. In 2018, at Hawaii's Emergency Management Agency office, an employee with ten years of experience...managed to send out a text alert that read:

Voice 2: Emergency Alert. Ballistic missile threat Inbound to Hawaii. Seek immediate shelter. This is not a drill.

Flawn Williams: Apparently, he sent this out after hearing an audio message in the emergency office that included the phrase "this is not a drill." But he missed hearing the testing marker word 'Exercise' at the beginning and end of that message. And all this happened during a shift change at the office.

Earlier that same year, the National Weather Service sent out a routine test message that included a mention of a possible tsunami. The text of the message clearly indicated it was a test, but the metadata codes that were transmitted with it flagged it as an actual tsunami warning. So the private weather information company AccuWeather passed the message on to its customers as a real tsunami warning for Florida and the Caribbean.

And also in 2018 in Florida, administrators in Palm Beach sent out a text alert about an overnight power outage in the area. Pretty normal local stuff, right? But the actual text read:

Voice 3: Power outage and zombie alert for residents of Lake Worth and Terminus. There are now far less than seven thousand three hundred and eighty customers involved due to extreme zombie activity. Restoration time uncertain.

Flawn Williams: Now, Lake Worth is a Florida city, near Palm Beach. But Terminus is a fictional city, portrayed in the television series called *The Walking Dead*.

[Music ends]

Flawn Williams: It's not just in the United States that these glitches happen either. In January of 2020, millions of Canadians received an emergency alert that warned of an incident at the nuclear power plant in Pickering, Ontario. No such incident had happened. It took about 90 minutes to get a retraction sent.

But new situations still call for novel ways to use our technologies. And that opens the door to new ways to make mistakes. In April of 2020, the state of Utah was trying to encourage motorists entering their state to fill out a travel declaration form. This was part of the response to the COVID-19 pandemic. So they tried to use a part of their emergency alert system, similar to the AMBER alerts, that claimed it could send a text message just to the cellphones of people driving on roads very close to the state border.

But although the GPS in our phones can determine and report our location with an accuracy of just a few feet, those messages in Utah were being received on phones as far as 80 miles away from the borders. And although the system in theory was set to send the message to each individual only once,

some people reported getting it as many as fifteen times. So the state abandoned their wireless alert strategy, and decided instead to put up signs at the borders.

[Music]

Flawn Williams: Mistakes have been made. And they most likely will continue to be made. After all, as the eighteenth-century English poet Alexander Pope wrote, “to err is human.” But with luck and perseverance, we can also continue to learn from our gaffes, and make progress to a better state of affairs. This is Flawn Williams.

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