

**THE WENDOVER BLAST  
MAY 1961**



Wendover Notch Microwave Radio Station  
The Explosion on May 28, 1961 as imagined by George A. Phelps

**SABOTAGE & RESTORATION  
of an  
AT&T RADIO RELAY STATION**

By George A. Phelps

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The Two Chapters  
EXCERPTED FROM

***AN AUTOBIOGRAPHY of a YANKEE-NEVADAN***

Pertaining to The  
SABOTAGE AND RESTORATION  
of an  
AT&T RADIO RELAY STATION

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## **THE WENDOVER BLAST**

### **CHAPTER FORTY-EIGHT**

Nearly two decades had passed since the start of the Big War. It was a period of great change, worldwide, in politics, science, economics and social behavior. The Space Age was born and growing fast. Alan Shepard made the United States' first space flight, not long after Yuri Gagarin of Russia became the first human to orbit the Earth.

In the U.S. of A., not only was there a chicken in every pot there was a car in every garage, sometimes two, and a television set in every living room. Recreational activity was emerging as a necessity of life, not just an adjunct to it.

But all was not rosy. We were caught in a cold war with our former ally, the U.S.S.R. Wage demands fueled spiraling prices and fed inflation (I wondered how long things could go on like this) and there was civil strife as well. Martin Luther King, an admirer of Mahatma Gandhi, preached non-violence but stirred unrest among the blacks; the number of black-versus-white confrontations increased, particularly in the South and East.

John F. Kennedy, a liberal but charismatic Democrat, was elected to the presidency and took office in 1961. While he and Khrushchev rattled sabers from opposite sides of the planet, Castro was setting up shop in Cuba, just across the narrows from Florida. Our president backed an ill-fated revolutionary effort against Castro (the Bay of Pigs debacle) that left Fidel more confident than ever in his communist regime. He openly wooed Khrushchev, his newfound friend, and suddenly we were on the brink of another war.

While it turned out not to be part of a large conspiracy, a serious and costly act of sabotage took place in our own back yard, in the Great Basin of Nevada and Utah. Three American Telephone & Telegraph Company facilities - two microwave stations and a cable-repeater station on the transcontinental communications routes - were blown up. One of them, called Wendover Notch, was located in Nevada; the others, Cedar Mountain and Knolls, were in Utah.

I had spent a large part of my early career at Wendover Notch as a craftsman, and now it was within my area of management responsibility. But it was more than just a site to me; it was an old and familiar artifact, one that I would miss.

Curiously, while other Bell System disasters (fires, hurricanes, earthquakes, ice storms) and restoration efforts have been well documented, I have found no such information relating to the Great Basin bombings of 1961.

Following is my account of the events prior to the bombings; the bombings; the damage done; the restoration effort and success:

**Saturday, May 27, 1961:**

With our camp trailer in tow behind the '56 DeSoto, Rita and I, with her folks and our three children, left Elko on vacation; destination, Lehman Caves in the Snake Range east of Ely, Nevada. By late afternoon we had arrived at the Lehman Creek Campground, selected a site and settled in, planning to rest and relax through the weekend, the Memorial Day holiday and beyond.

It appeared as if we were in for a fine time in that far-off part of the country, away from the job, away from home chores, away from the city. Our enjoyment would turn out to be real enough, but brief.

**Sunday, May 28, 1961:**

The day dawned clear and bright. We visited, the kids played, we fished and hiked, and ultimately joined a guided tour of the cave. It was a perfect day. All was right with the world. Or so I thought. Unbeknownst to us, while we were sleeping so peacefully that Sunday morning, a small "force of evil" was busy just 130-miles to the north.

It may have worked as follows:

It is shortly after 1:00am Pacific Time. Near a pass in the range of mountains just west of the Great Salt Lake, a car with its lone occupant turns south off the highway (US-40) onto a canyon road and proceeds to a saddle on the ridge above. The driver, a young man, turns the vehicle around and parks it near a shadowy, concrete-block building. He sits there for a moment and stares in silence through the open window, studying the silhouette of a tall steel tower, on top of which are mounted four, pyramid-shaped microwave antennas, two facing in each direction of east and west.

(This is AT&T's Cedar Mountain microwave site.)

With a small flashlight in one hand and a bag-of-tricks in the other, the man sets about his sinister work, that of planting the means to destroy the place. He first prepares four explosive charges (of a type first used in World War II), then climbs to the twenty-foot level of the tower and secures them to the main supporting legs, each with a fuse wire attached. Back on the ground he fixes two more bombs and sets them against the south and north walls of the building. Gathering the ends of the fuse wires together, he connects them to a master detonator, consisting of a clock, contacts and batteries, and sets the timer device to close the circuit at 4:40 am.

Done! He breathes a sigh of satisfaction, tosses his lightened satchel into the car, climbs in and speeds away toward the highway, the rear wheels kicking gravel from the curves in his haste. But there is much work yet to be done. More destruction to engineer. More

explosives to plant. And you can't waste time when you're in the employ of the devil.

There is no traffic in sight on the highway when he heads west toward the Great Salt Desert and his next target. Twenty minutes later, off to his right, the outline of a rooftop shows clearly in the moonlight. "This is it," he decides. "Knolls." He switches off the headlights, proceeds slowly along a narrow drive outlined by white sage and stops near the building.

(This is an AT&T, underground-cable repeater station.)

It is a neat brick structure with a pitched roof of slate, situated well back from the highway. It is necessary to blow this site, or another one just like it, not only to effectively sever America's major trans-continental communications, but also to make the Company's restoration efforts more difficult.

It takes but a few minutes to arrange the charges at Knolls and then he is off again, still traveling west. The nearly full moon hangs low in the sky, its light reflecting off the smooth surface of salt as if from a frozen sea. However, the ambient temperature quickly dispels that illusion, and he steps down on the throttle. He'll have to hurry, for he must complete his work and put as much distance as possible between himself and his planned, pre-dawn explosions.

Ten miles out onto the flat desert, he passes another microwave station (AT&T's Barro). Only 150-feet off the highway, it is much too close. Too much of a chance of being observed.

Twenty-five more miles of absolutely straight, absolutely flat highway brings him to the sleeping town of Wendover. He crosses the Nevada state line. Three miles farther on, at the top of a steep hill, he slows his vehicle and turns north onto a graveled access road. It is only a few hundred yards to the station, a bunker-like building crouched at the edge of a rocky precipice. He has already cased the site, as indeed he had the others, and knows that this one will present a real challenge.

(This is AT&T's Wendover Notch microwave repeater site.)

It is a window-less structure of reinforced concrete in the shape of two contiguous blocks; the larger, rear section is some three or four feet higher than the front. A battery plant and electronic equipment are housed in the main block, two Hercules Diesel engine-alternators in the smaller one. A steel deck, twice as high as the roof and supported by bridge-like beams and trusses, provides a platform for the microwave antennas, two of them facing the desert, two looking toward the Pequop Range to the northwest.

Once again the car is parked for a quick get-away. Once again the bombs are prepared, three of them this time, from materials in the man's bag. He climbs onto the roof and up a ladder to the deck, where he places one of the charges directly beneath a pair of antennas and attaches the fuse. Re-tracing his steps to the lower roof, he sets a second charge against the face of the four-foot wall of the main building block. Back at ground level, he puts the third and last bomb on a concrete pad, directly over the fuel tank and against the west wall of the building. As before, the fuse wires are connected to the clock and the timer set for 4:40am.

Finished! And just in time. The moon has set and the stars are already giving way to dawn's early light. With a sigh of relief at having escaped detection somewhere along the line, the saboteur drives away, soon to appear as just another inconspicuous traveler on the highway, but bound for a rendezvous with his leader.

No one actually witnessed the explosions that morning, although several people in the town of Wendover were aroused by the tremendous blast. The thunderous boom rudely awakened a driver, asleep in the cab of his truck parked near the driveway below Wendover Notch. A few seconds later, rubbing sleep from unbelieving eyes, he saw a shower of white particles (bits of Styrofoam from the exploding antennas) floating down like snowflakes.

At exactly 4:42am, Evard Van Welch, transmissionman on duty in the Elko toll-repeater office, was alerted by a signal from the Wendover Notch station. The alarm codes indicated a "total failure."

He notified his boss, George Elmore, who had the weekend duty and who in turn advised Red Wayman, the Supervising Wire Chief. (Had I been at home, I too would have been notified.)

Having barely hung up the phone with Elmore, Van was hit with a "Christmas tree" of alarms from the east underground-cable repeaters, a sure sign of a major failure. Now he had his hands full. All communications to the east, including the Company's maintenance circuits, were down. Men at the radio and carrier control offices to the west - Reno, Sacramento and Oakland - all phoned at once trying to find out what had happened.

Red and George came to Van's relief at 5:20am. A three-man crew, Albert Salls, Ernie Simonsen and Larry Staley, was quickly dispatched to Wendover. (At the same time, although unknown to the Elko men, crews were being sent from Salt Lake City to Cedar Mountain and Knolls.) A preliminary report was sent to the General Administration Center at PT&T Headquarters in San Francisco.

By 6:00am, the process of notifying successive levels of management was well under way: Wayman to Paul Brown (maintenance superintendent), to Jim Dodson (Nevada plant manager), to Bob McAdam (assistant to the Vice President and General Manager), all in Reno. The Company's chief special agent in Sacramento, Knopp, was also notified, while east of the Nevada state line similar calls were being made in AT&T Long Lines territory.

From San Francisco to New York, telephone men of all ranks were busy assessing the situation, re-routing as many circuits as possible and initiating emergency restoration procedures. By noon, hundreds of people in the Long Lines area were involved, and virtually every toll man - as well as dozens of engineers and exchange maintenance employees - in Nevada and California.

Portable microwave radio equipment and operating personnel were flown from San Francisco, Los Angeles and San Diego, in an Air Force Globemaster and civilian transport planes, to the Wendover Air Base; the first arriving that very evening. Long Lines airlifts landed at Salt Lake City's airport.

As the Bell System geared for action, so too did National Guards, local law enforcement agencies and the FBI. Even the Pentagon became involved, for in addition to long distance telephone, television and national news circuits, important military communications were in jeopardy.

No one knew, or could even guess, who was responsible for the bombings. Was it done by an enemy nation, testing our communications network? Was it a subversive plot? Or was it the work of vandals?

Elko County Sheriff Jess Harris, alerted at 6:45am, sent deputies out to guard the underground cable stations. Brigadier General James May, commander of the Nevada National Guard, ordered out 32 officers and men in Elko, to patrol the microwave stations in the northeastern part of the state. Utah's National Guard commander, Major General Maxwell E. Rich, was quoted as saying, "We do not feel it is the work of pranksters because the stations are so completely damaged." He, too, took the path of caution, calling out troops to guard telephone company facilities, as did commanders in nine other states.

All of the "professionals" would be relieved the following morning, when our own craftsmen took over the job of site surveillance. It was a lucrative but nerve wracking task, alone at remote locations, not knowing just who or what to fear, or if the reason for concern had passed.

The first men on the scene at Wendover Notch, the crew dispatched at 5:20am, after overcoming an initial sense of shock entered the bombed-out building to find small fires still burning in the battery area. They dug out fire extinguishers from the rubble and quenched the flames, and disconnected some of the heavy electrical conductors to prevent short-circuiting and the possibility of explosions. Beyond that there was little to be done, so complete was the destruction.

Art Richards, among the second group of tollies at the scene, noted bits of a clay-like substance scattered about the area, some of it still wrapped in olive drab material.

"This must be what they used," he remarked.

Later, Ernie Simonsen picked up a fragment of the stuff and, deciding to "test" it, was in the process of hitting it with a hammer when Knopp and the FBI agent from Elko, Eric Meale, showed up.

"Hold it!" they warned. "That stuff is so dangerous it could blow your foot off if you step on it."

The building and outside perimeter were immediately cleared of personnel while they conducted an investigation. By mid-afternoon - after a military demolition team removed the remnants of the unexploded bomb, the one over the fuel tank, the only one that had not properly detonated - our crews were allowed to return.

Within an hour of his learning the news that morning, Paul Brown (in Reno) had chartered an airplane and was on his way across the state. At the Elko airport he arranged to have his old friend, Ralph Scott, fly him and Red Wayman to Wendover. They were on site by 12:30pm.

Meanwhile, back at Lehman Creek, having returned to our campsite from the Cave Rita prepared the evening meal. There was a chill in the

air, so we elected to eat in the comfort of the trailer. I settled down at the table and, out of habit, turned on my battery-powered radio, tuning it to Salt Lake City's KSL, the only station receivable in that remote place. It was five o'clock (six in Utah) and time for the news. Supper was served and I began to eat.

Suddenly I stopped, a fork full of food halfway to my mouth, as I caught the phrase "AT&T" in the newscast. Quickly I reached around and turned up the volume.

"Three microwave stations in Western Utah were blown up this morning," the announcer said, and went on to state that coast-to-coast communications were seriously impaired by the blasts. "The National Guard has been activated...the military and the FBI alerted ... telephone company personnel are working diligently to restore service...as yet there is no clue to the identity of the bomber, or bombers, or a motive." And that's all there was to the report.

I was dumbfounded. Recalling as many of the key words as possible, I tried to figure out what had happened. "Three microwave stations," he had said. In "Western Utah." That would be Stansbury Island, Cedar Mountain and Barro, the only three microwave stations west of the city in Utah. Or could the newsman be mistaken? Could he have considered Wendover Notch in Utah?

Why did something like this have to happen when I was vacationing? Why did it happen at all? Anyway, there was no question of my responsibility; I had to return to Elko as quickly as possible.

But Elko was six hours away. I had a trailer-full of family to think of, and darkness was already approaching. I tried another line of thinking. If we were to pack up and leave immediately we'd arrive home in the middle of the night. What could I possibly accomplish then? What could I accomplish in Elko anyway? My place was at Wendover, if indeed it had been bombed. I cursed to myself as those thoughts and others raced through my troubled mind.

The first course of action, I decided, was to get to a telephone, call my office and find out what really happened. Leaving the kids with their grandparents, Rita and I went to Baker, a village of 120 souls at the foot of the hill. I didn't know where but I was sure there was a telephone in town, as I remembered seeing a single-wire line alongside the highway.

At the most likely place to look, the grocery store/general store/gas station, I learned that there was a phone at the U.S. Forest Ranger's office. I was in luck. He was at home. (Where else would he be on a Sunday evening in Baker?) I introduced myself, told him about the bombings and asked to use the phone. He led me into a small office where a black, candlestick telephone stood on an old oaken desk. I lifted the receiver off the hook, reached for the handle at the side of the magneto housing, and cranked it vigorously while praying that the current would make it all the way to Ely.

"Operator," came the familiar voice, low in volume but audible.

"This is George Phelps, chief transmissionman from Elko," I said by way of identification. "Can you hear me all right?"

"Yes," she responded, "Barely."

I talked a little louder, "Will you please connect me with the Elko toll testboard?" It was a routine request and toll free.

"One moment, please." Silence. Then clicking noises and, "Go ahead, sir, they're on the line."

"Hello, Elko, this is Phelps. Do you read me?"

No answer. Only the hum of the grounded wire-line and an occasional static pop. After a while, the operator came back on the line. At least I still had communication with her.

"I can't hear him at all," I explained. "You'll have to be a repeater for us." She agreed.

"Ask him if Wendover Notch was blown up," I enunciated, then waited for what seemed an eternity.

"The answer is, 'Yes'."

"Tell him I'll be at Wendover in the morning."

I held on while she conveyed the message, thanked her for the help, re-hung the receiver on its hook and rang off.

I thanked the ranger and, muttering to myself, left.

#### **Monday, May 29, 1961:**

Dawn arrived bright and clear, and early, at Lehman Creek the next morning. I had been awake most of the night, feeling guilty about not being on the scene at Wendover Notch and annoyed that our family holiday was shot. We were all up and dressed when the sun appeared over the Confusion Range, in Utah.

(No one then knew that within two years this would be the path of a new, AT&T microwave-radio route, to be chosen largely for its remoteness and strategic separation from the existing route up north.)

Rita made breakfast while I prepared the DeSoto and trailer for departure. We were all rather quiet, each with his own thoughts and imaginations about the bombings, wondering if there were more to come, and if so when and where.

Reluctantly, and with a promise to return, I eased the car-and-trailer down the grade. We were nearly an hour-and-a-half on the 62-mile road to Ely, having to cross over two high summits on the way. At the Standard Station, while he was filling our gas tank I questioned the man about the bombings. But he could furnish no news beyond that which I'd heard on the radio.

The highway to Wendover was - and still is - relatively smooth and level. The DeSoto pulled the trailer easily at 75-mph over most of the 120-mile distance, and, after stopping for gas and lunch at the State Line Hotel in Wendover, we arrived at the site before noon. I unhitched the trailer on a level spot about 300-yards below the station, then drove the car up the driveway so we could all get a closer look at the destruction.

How many times had I made that approach over the past ten years, always with a sense of pride. The station had become a permanent part of the landscape, inextricably merged with the jutting volcanic rocks of the hillside; its concrete, once a glaring white, had taken on the subdued gray and brown of the desert. Even the constant, rhythmic, melodic sound of the diesel engines had become, after a decade, an integral part of the environment.

Now all of that was changed. It looked as if an aerial bomb had been dropped on the place, the twisted deck reminiscent of the superstructure of a war-torn ship. The yard was strewn with debris;

chunks of concrete, shards of flashing, twisted bits of aluminum, and Styrofoam by the bushel. Two of the antennas had been torn completely loose, their parts thrown over the whole surrounding area; the remaining two were battered and torn but still clung tenaciously to their mountings.

Perhaps I should explain about the Styrofoam. The Bell Labs' delay-lens antenna was designed to direct radio frequency microwaves into a "beam," much as a glass lens concentrates light waves. The microwave lens, at the large end of a pyramid-shaped aluminum horn, consisted of a block of Styrofoam about ten-feet square by three-feet thick in which were embedded hundreds of narrow aluminum strips. When the antennas were blown apart, about four-dozen cubic yards of the snow-white stuff was scattered to the winds, some of it in breadboard-sized wafers, some no bigger than a silver dollar.

A gaping, six-foot hole in the roof, at the junction of the equipment and engine rooms, revealed a concentration of spaghetti like reinforcing steel. Soot-black stripes mottled the exterior concrete walls, evidence of the searing heat from the explosions and fires. I could almost hear the blasts and the crackling of flames and the lingering rustle of falling materials, and then total silence as the erstwhile sound of the diesel was throttled forever.

A half-dozen green, Bell System cars and trucks cluttered the parking area, along with as many "civilian" vehicles. Some men scurried about carrying things like two-by-fours, toolboxes and radio equipment; others (obviously managers) stood around with cameras to their faces, or conversed in small, tense groups.

Red Wayman observed me getting out of the car, came over, welcomed me heartily and said hello to my family. I said good-bye to them, and Rita drove our kids and her folks home in the DeSoto, without the trailer. And with that my holiday was officially over.

Talking as we walked, Red filled me in on what had transpired up to that time. Paul Brown was the site restoration coordinator; Stu Purcell and Mel Sparks, PT&T Headquarters staff technicians from San Francisco, would provide liaison assistance. We found all of them in the anteroom, the only place relatively free of dust, discussing plans and personnel assignments.

Western Electric made TE-2 microwave-radio gear would be used for the temporary restoration of the TD-2 channels, and would be operated, with help from our Elko and Reno tollies, by the men from San Francisco, Los Angeles and San Diego who were most familiar with it. (TE-2 equipment was normally employed in the cities for remote television pickups.) They would work in two, twelve-hour shifts per day, each crew consisting of from six to ten men. George Spellman, an installation foreman, would oversee the day crew of predominantly Bay Area people. Frank Moore, from Los Angeles, would supervise the night shift, a mix of mostly Southern California craftsmen. I would be on site every day, working with schedules, vouchers, time reports and so on, and assisting the various equipment and building engineers, plant engineers, line crews, outside contractors and Western Electric people, until the site was permanently restored.

I walked around to the rear of the building. Two wooden platforms had already been constructed; the higher one, atop a point of rocks, virtually bristled with antenna dishes; sixteen of them, eight facing in each direction of transmission. Bill Ponder and a helper, Hank, had done a whale of a job with saw and hammer. Now they were building a framework over the lower staging, where the first temporary radio gear was being set up, to support a tarpaulin roof and walls, for the wind whistled through the notch and a storm appeared imminent.

I came upon Vince Vercoe, chief transmissionman from Reno. He was a unique individual with clothes that hung loosely from his tall, skinny frame, and he was a good supervisor, with integrity and dedication to the job. Pumping my hand vigorously he chided, "I hear you've been hiding out in a cave somewhere."

"Yeah...and I would've stayed there if I'd known you were here."

Vince and one of his able tollies, Noble Crew, had arrived on Sunday.

It so happened that Noble was already on the job in Reno, working on microwave equipment serving the Reno cable-TV company, when he was "drafted" to fly to Wendover Notch. He and Vince were both aboard Bill Painter's airplane by 8:00am, with Noble complaining that he hadn't had time to get any spending money. Painter owned a flying service in California and had a contract with PT&T. He would transport a lot of people and materials to Wendover in those first few days.

Noble was still chuckling about an incident that occurred the night before I arrived, when he'd been sent to meet an aircraft at the Wendover Air Field.

"Vince sent me down to meet this Air Force Globemaster full of men and gear," he said. "You know how big a Globemaster is? How was I supposed to get all those guys in a Company pickup?"

Somehow they all got to the site.

I learned that microwave-channel continuity had already been established between Rocky Point, to the west, and Barro, to the east. However, until the temporary facility at Cedar Mountain was in working order the Oakland-Salt Lake Junction route was still inoperable. And the job of restoration at Cedar Mountain was much more difficult than ours; a 200' tower must be erected to enable the antennas to "see" over the shoulder of the mountain.

Nearby, a guy with a big impressive-looking camera composed and shot a photo of the bombed-out building. When he turned, I discovered that it was not a press photographer but my friend Phillip Hutchinson. I was more than a little surprised to see him.

Phil, whom I had gotten to know while attending one of his telephone carrier classes in Reno some years before, now worked at PT&T headquarters in San Francisco, along with Stu Purcell and Mel Sparks, in H.H. (Joe) Polen's organization. In many respects Phil worked directly for Mr. Polen, who held the title of "Plant Operating Engineer" but was really "Mr. Toll" of the whole Pacific Telephone and Telegraph Company.

Joe had quickly recognized Phil's varied capabilities and boundless enthusiasm, and assigned all sorts of special projects to him. Phil was an accomplished photographer and Joe knew that too. So it was only natural that Phil would be sent to Wendover for a

firsthand look, he'd undoubtedly take his camera along and get some good pictures. And that's how Phil came to be at Wendover Notch, after what he described as a "damned rough, low level, death defying flight" (in yet another small chartered plane).

Paul Brown wanted to keep Phil around to help, but Joe had other ideas and ordered him to "get his — back to the City." So Phil made the return trip to the Bay Area the next day, Tuesday, by automobile to Elko, via United Airlines from there, arriving home in the early morning. After a few hours' sleep he developed the film, made a set of 8"X10" prints, went over to the New Montgomery Street office and presented them to Mr. Polen. Joe immediately took them "upstairs" to the vice presidents' conference.

"Where did you get these photos?" came the question, for they were fine prints and graphically portrayed the bombed-out building.

"My boy Phil took 'em," was the proud response.

Back in '58 or '59, I'd been successful in having a metal "shed" constructed at Wendover Notch, about a hundred feet from the main building, to store our portable (meaning "on wheels") engine-alternator. That machine, formerly garaged in Elko, could then serve as an alternate source of AC power when the station's primary engines were being overhauled. Now, even though the corrugated steel roof and walls had partly collapsed from the force of the blast, the 20-kw plant was virtually intact, and Paul Walther got it running and on-line.

Paul, a tall, quiet, hard-working man (I suppose of German descent), was an Elko transmissionman and also an experienced electrician. He was a good man to have around when working with AC power, especially if multi-phased transformers and switches were involved.

We would need a lot of electricity, to power the temporary radio gear and tools of the construction workers, so Bill Bellinger towed our second portable engine-alternator from Elko, and he and Paul now added that unit, of 30-kw capacity, to the supply line.

When Bill left the site, as a personal favor to me he towed my trailer back to Elko. I was relieved to get it away from the vicinity as I worried that it might become damaged in some way. (Ironically, soon after Bill parked it at the curb in front of our house, a neighbor kid threw a ball through its front window.)

Inside the station, I looked around and shot some photographs. I had never been in a war zone, but reckoned this was a good example of the aftermath of a bombing. A strong odor of battery acid and cement dust permeated the air, and even those items not originally Western Electric gray were now of that color; exceptions being the wide, copper bus-bars, brass fire extinguishers, and a calendar-nude smiling up from her new position on the floor.

The main equipment room was torn from south to north, as if by an artillery shell's passing through it. The tall microwave-radio channels had taken the brunt of the blast; several were shoved up against the back wall like toppled dominoes. A portable test bay on wheels - seven feet tall and weighing 300-pounds - had traveled clear across the room and was literally flattened against the wall. A number of battery cells, some the size of a foot locker, had been cracked or

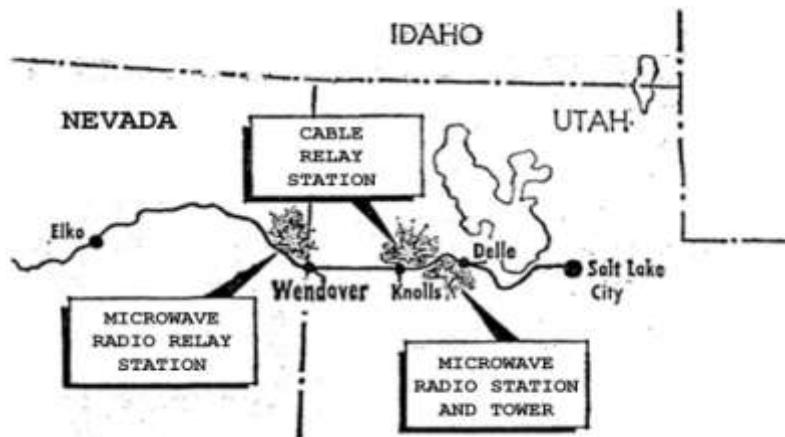
totally broken, spilling hydrochloric acid and shards of glass all over the place.

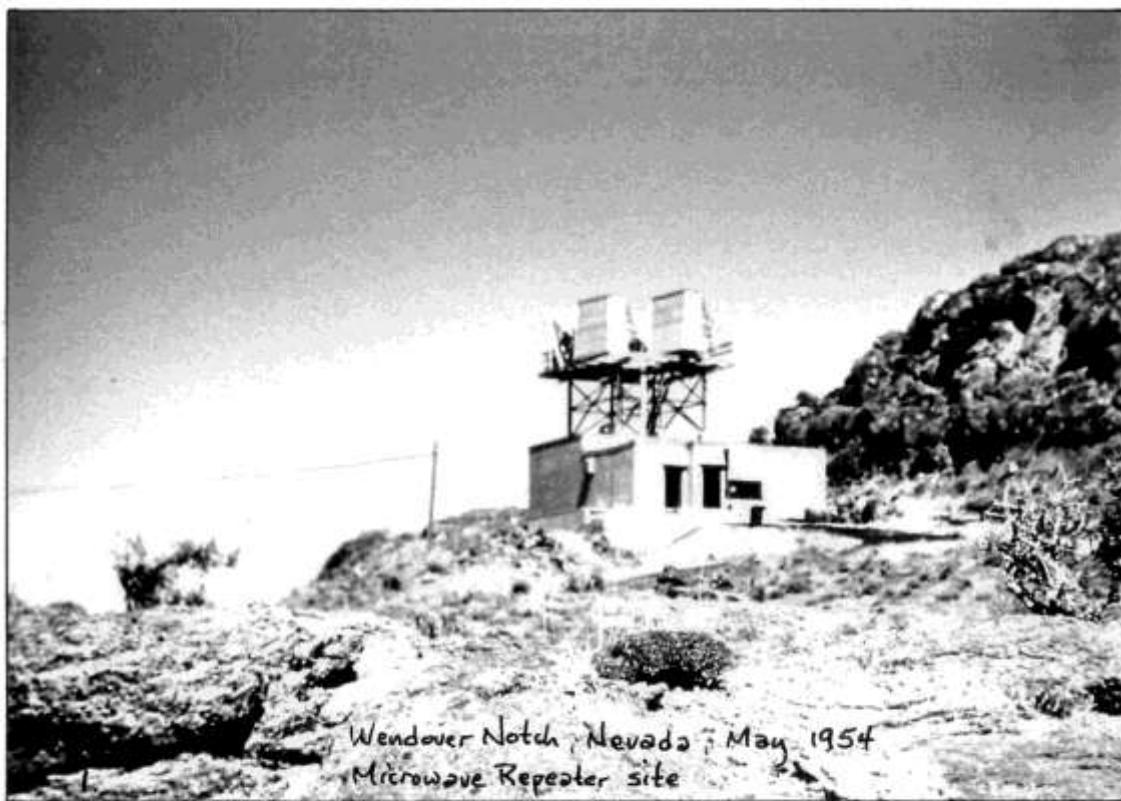
The same explosive that demolished the equipment room had penetrated the engine room as well, damaging the AC switch gear and diesel engines. I couldn't help feeling sad, remembering the many hours we'd spent with those babies, fueling them, watering them, changing their oil, diagnosing and curing their idiosyncratic maladies. And no matter how hot we'd been, or how late in the day it was, we never left the station without wiping them clean of dust and oil.

What a mess! What motive could possibly drive someone to so despoil the works of other men? What could he, or they, gain from such a deed? Does a saboteur's pride of accomplishment override any feeling of guilt for his act?

Who would know?

The map below shows the locations of the three telephone relay units in Eastern Nevada and Western Utah which were destroyed by separate explosions early Sunday morning.





AT&T's Wendover Notch Microwave-Radio Relay Station  
Before & After the Bombing in 1961





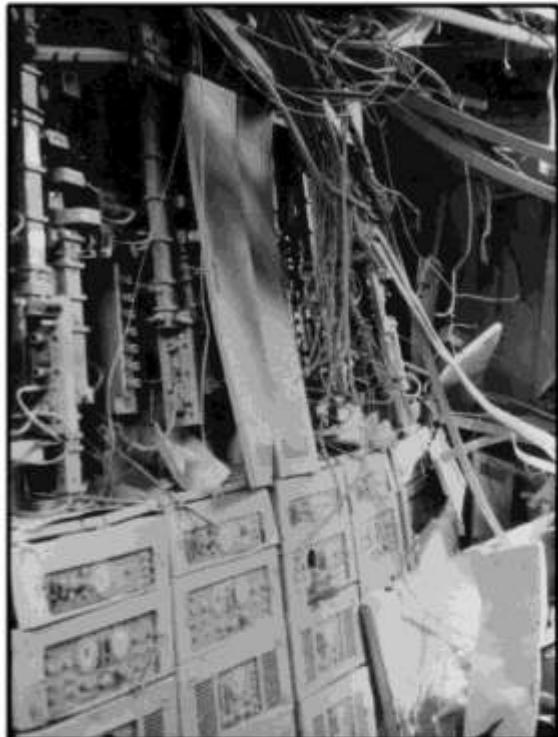
The bombed building from above.

One of the explosive charges blew away two of the four antennas on the deck. The second charge opened the large hole in the center of the roof.

(Photos courtesy of Paul Walther, Elko, Nevada)



Close-up of Hole in the Roof  
Evidence of the Power of the Blast



**Interior: Main Equipment  
And Engine Rooms**



THE WENDOVER RESTORATION



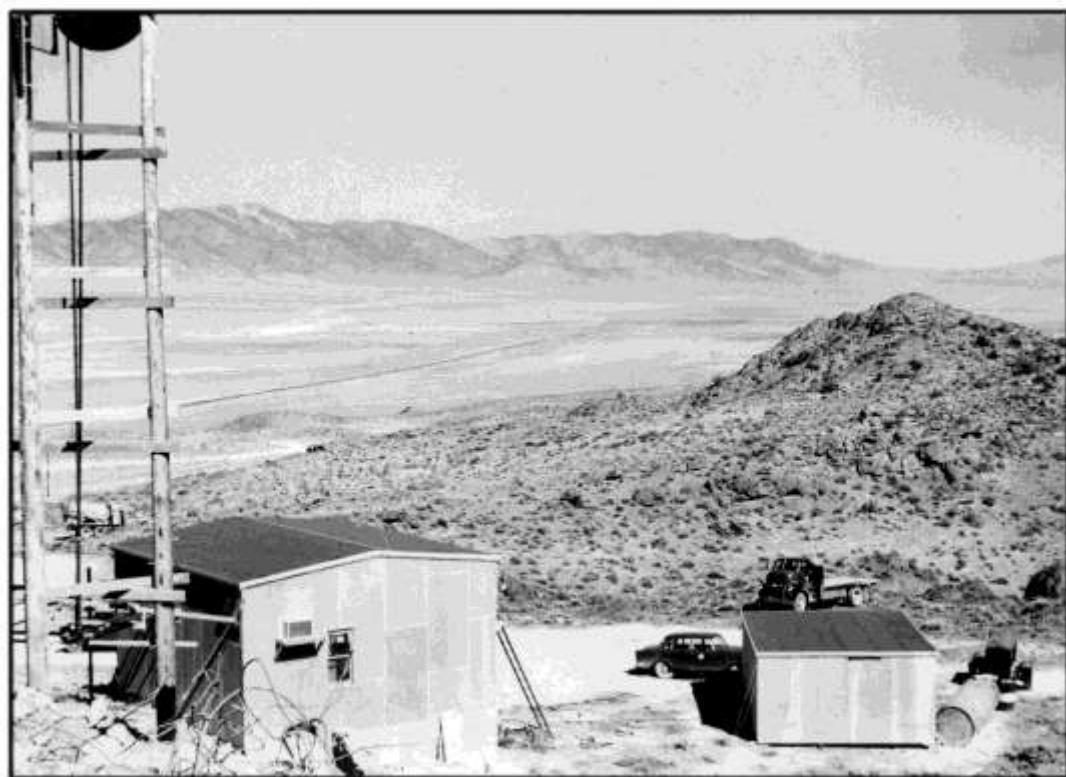
Western Electric Portable Microwave Antennas

FIRST TEMPORARY SERVICE RESTORED

Engine Alternators Powered Up, Paul Walther on the Right

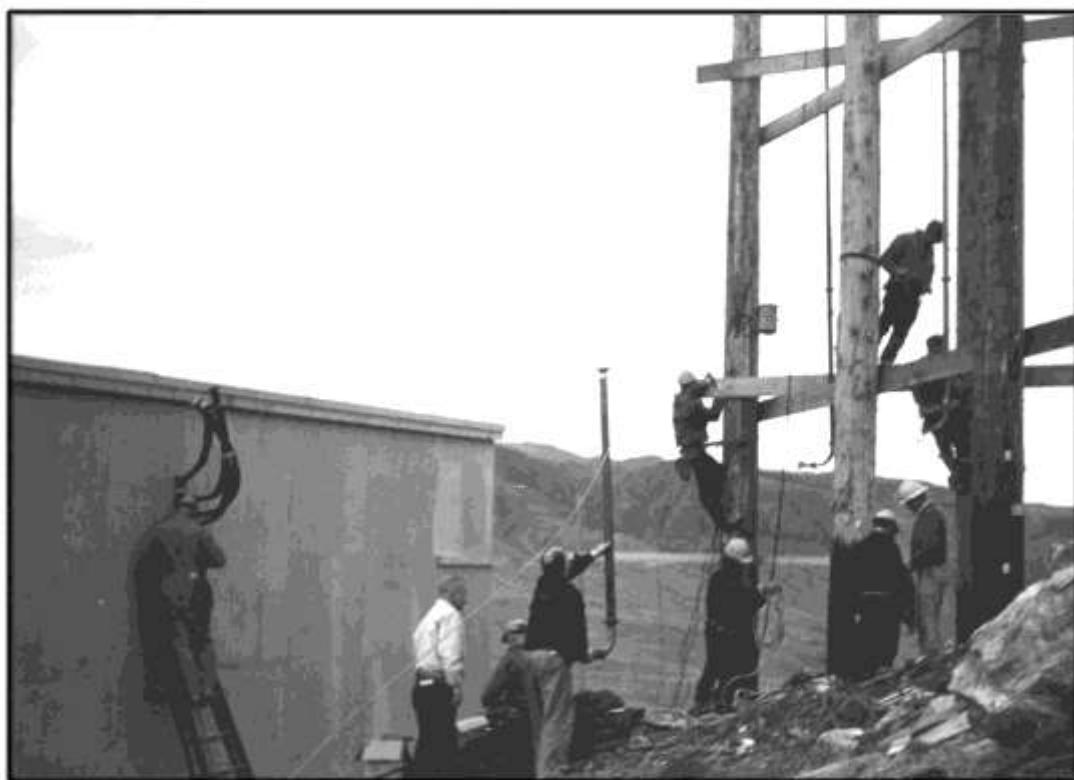


THE WENDOVER RESTORATION



Temporary Tower, Equipment Building & Diesel Generators Shed

Last Waveguide Run, Wayman & Mcquaid, Center

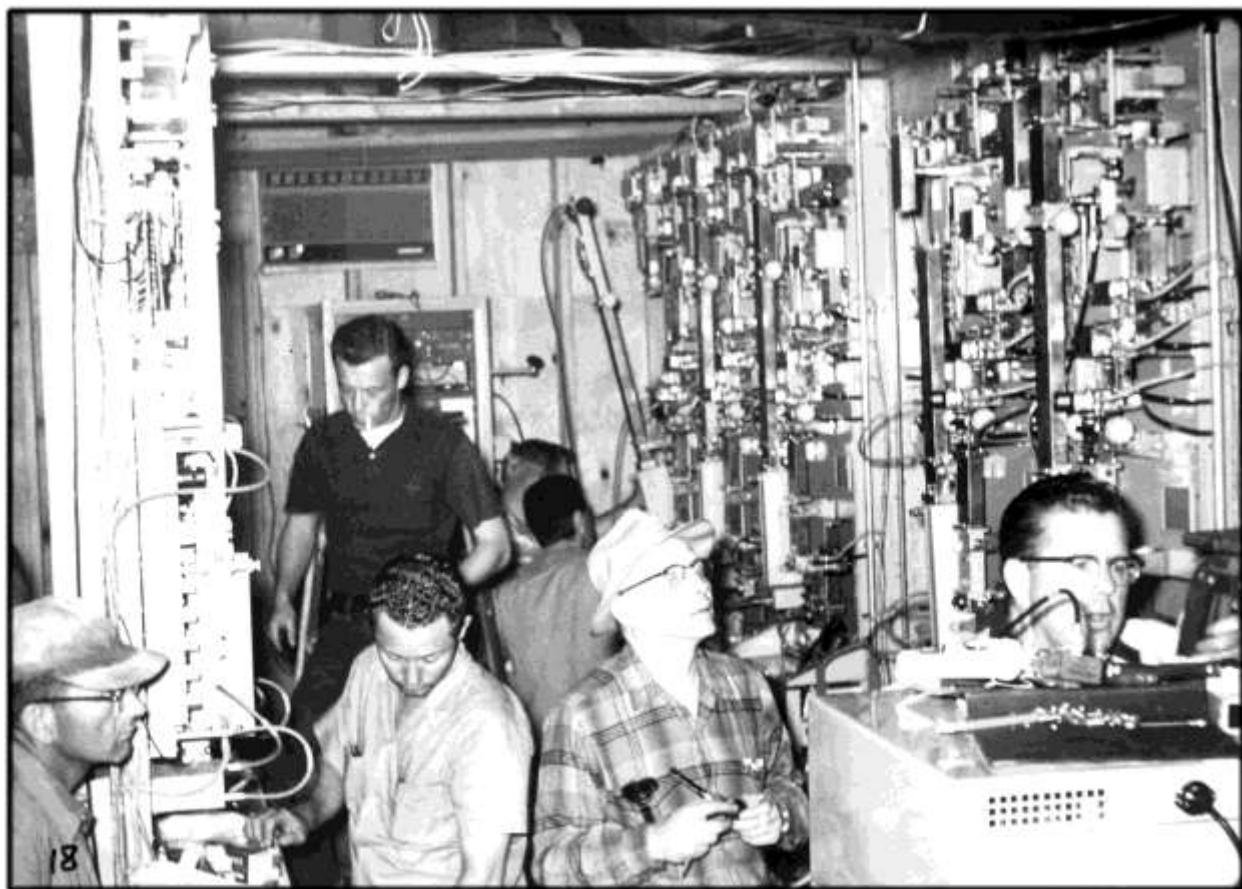


THE WENDOVER RESTORATION

Temporary Microwave Radio Building  
Interior, Night of Service Cutover



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THE WENDOVER RESTORATION



Second  
Temporary  
Restoration  
Antennas

WENDOVER NOTCH

Temporary &  
Permanent  
Structures



## THE WENDOVER RESTORATION

### THE WENDOVER RESTORATION CHAPTER FORTY-NINE

**Monday, May 29, 1961**

People were crawling all over Wendover Notch; from the tent on the ledge to the flat where a junk-pile grew. Two men, Walt Penner and Bob McQuaid, had "hit the ground running" on Sunday, armed with blueprints, transits and tapes. Penner, an architect, was a Bell of Nevada building engineer. McQuaid, formerly a plant operations man, was an equipment engineer. Both were now busily surveying the site, deciding where temporary structures could be erected and not interfere with the re-building of the station. Bill Ponder, of the contracting firm of Glen C. Williams, Reno, was there to put the new station together, working with and around everyone else on the site.

Elsewhere, many of our Elko transmissionmen (tollies) had by now been assigned as guards at our microwave facilities. They, too, would work twelve-hour shifts; some of them, because of the limited number of available craftsmen, two or three days before being relieved. While it was not officially condoned a couple of the guys, Julian Jayo and Bob Burns at least, took their personal firearms along for protection. It was a good time for strangers and visitors to stand clear of Bell System property.

I checked in at the State Line Hotel. My room over the lobby was a familiar one. I'd spent many a night there in the past while on out-of-town maintenance duty, listening to the incessant groaning outside the window. Every time the 50-foot metal-and-neon cowboy "Wendover Will" waved in greeting, his joints grated in metronomic fashion. As on previous occasions I was ultimately lulled to sleep.

(A quarter-century later, Rita and I would stop at the hotel for a meal and find that everything had changed except the noisy cowboy.)

Now we were fortunate to have the advantage of Wendover's amenities. It was easy for us to get away from the site for a bite to eat and a good night's sleep, whereas the Long Lines men working at Cedar Mountain had to drive to Grantsville or Salt Lake City for relief.

By mid-week, 25 Bell System employees, including Western Electric installers, and 40 outside contractor's men were at work at Wendover Notch. It was apparent that there were too many of us, but better too

## THE WENDOVER RESTORATION

many than too few; easier to defend the cost of manpower (after the fact) than to explain a poor job of restoration. And almost everyone kept busy. Regardless of title or position we would pull wires, haul equipment or tidy-up an area. The union members graciously ignored jurisdictional boundaries, for a while at least, and did not complain when supervisors physically labored. Not once was I admonished for using a broom or a shovel, or for packing a load of equipment up the hill. (Although later, when things slowed down, I'd be "reported" for making a screwdriver-adjustment on a piece of equipment, a charge too ridiculous to be taken seriously.)

After careful examination, the building engineers decided to remove the original structure and erect a new one right on the old concrete floor. Workmen with cutting-torches climbed to the upper deck and cut loose the remaining antennas and steel. A crane, imported from Salt Lake City, lifted the biggest pieces and lowered them to the ground. The hardest part of the job, or so it appeared to me, was knocking down the reinforced-concrete building, using a combination of acetylene torches and a giant ball.

As soon as the roof was opened up, bay after bay of dirty, twisted equipment was hoisted through the hole. All of this material - electronic devices, batteries, charging plants, antennas and structural iron - was now the property of a Wendover reclamation outfit. It was moved to a barren area below the site, out of the way. What an ignoble end, for some of the most sophisticated radio and power circuitry the Bell System, the nation, ever produced.

As the men were cutting away the walls a hot smoky fire erupted. Of course we had no running-water at the site, only Bill Ponder's water supply; a trailer-mounted tank that he periodically re-filled at Wendover. Ponder quickly opened the valve on the tank, then directed a crane operator to hoist the whole thing up and suspend it overhead, allowing the stream to put out the fire. Simple!

Man's curiosity is as basic to his nature as breathing and eating; and disasters, whether natural or man-made, beg to be seen. As soon as the opportunity presented itself, Paul, Red, Stu and I headed east, to view the effects of the blasts at Knolls and Cedar Mountain.

When the bomb went off at knolls, the K-carrier hut on the salt flat, the walls blew outward and the roof settled like an umbrella over the stuff inside. By the time we arrived, the roof had already been removed, un-covering equipment bays still standing upright. A dozen men were salvaging as many repeater amplifiers as possible, to augment those borrowed from various locations around the country, to get that system back up to service. It looked like an uphill battle.

It was noon by the time we reached the Cedar Mountain site. It too was a beehive of activity, but we managed to find a place to park. A hot, up-slope wind took my breath away as we walked toward a group of conversing men. We recognized one of them, a Long Lines staff man named V.T. McWhorter. (Because of his initials, Paul nicknamed him "Vacuum Tube.") He introduced us to the others, and then gave us a quick tour of the facility.

The blasted building had already been converted to a pile of rubble over the bank; a van, with a tent-like room attached, housed their portable radio gear; a temporary "snap-together" tower of orange and

## THE WENDOVER RESTORATION

white (FAA colors) stood some distance away; additional staging lay on the ground, horizontally, forming a bridge to carry waveguide from the tower to the van and vice versa.

We paused for coffee and rolls, and discussed the procedures to be used during our coordinated "cut-over" to new TD-2 equipment, that we hoped to accomplish by week's end.

Perhaps the most memorable of sights at Cedar Mountain was the original steel tower. Miraculously, it was still standing. The bomber's explosives had all detonated, had severed all four legs and dropped it twenty-feet straight down, but it did not tip over. Instead, it drove itself into the earth and remained upright, albeit tilted slightly to the east, with its antennas still in place. Like the leaning tower of Pizza it defied the forces of wind and gravity. Did the saboteur plan it that way? I should have thought he'd cut away three of the supports, allowing the tower to teeter and sway and fall to one side, to twist and bend along its full length and crash in a cloud of dust. Whether by accident or design, the fact that it didn't fall made the job of salvage a difficult and precarious one. On the other hand, the steel was almost totally re-usable.

With that unusual picture etched in our minds we took our leave. A big white-topped, black-bottomed cloud reared over the edge of the flat, a sheet of rain spilling from its base and evaporating before reaching the ground; a good thing for us, for we had opened the car windows in an attempt to get cool.

As always when crossing the salt flats, I thought of the forty-niners wending their way over that dry, fearful part of the country, some doubtless wondering if they could make it to the promised water at the base of Pilot Peak before dying of thirst. The Great Salt Desert was ever a formidable obstacle to our country's westward communication, and not until the coming of steel - initially in the form of a railroad and then the automobile - was the crossing viable.

It was 1915 when the first pair of shiny copper wires spanned the salt flat, the final link in the first coast-to-coast telephone facility. In 1942, not long after the bombing of Pearl Harbor, two cables of lead-sheathed, copper conductors were laid beneath the surface, for the "K" Carrier system. In 1951, invisible microwaves skipped unnoticed over this same wide expanse, by far the fastest, and theoretically the least vulnerable, of all.

Throughout the years, natural forces had found ways to interfere with man's flow of traffic across the desert - flooding the rails, washing away the highway, knocking down wires and poles, severing the cables - but this most recent impediment had been wrought not by nature but by human hands. Whose hands, was still a mystery.

**June 1, 1961:** The Californians, with a little help from our Nevada tollies, were doing a valiant job at Wendover Notch. Three channels had been made good on Western Electric type TE-2 gear, and were working through the break. But it was my opinion then (reinforced in hindsight) that the degree of success was far less than optimum. The TE-2 equipment was great stuff for short-haul transmission work, but as a substitute for TD-2 it fell far short. It was incapable of handling a full complement of circuits.

## THE WENDOVER RESTORATION

I was quick to admit, though, that the decision to bring in the TE-2 equipment and men was a good one. Operating at partial capacity was better than not at all. Furthermore, it demonstrated the Bell System's commitment to service "come hell or sabotage." But I was anxious to see the TD-2 channels set up and working. Only then would I consider the service truly restored.

A wood-frame building, to temporarily house the TD-2 equipment for this second phase of restoration, was rapidly being assembled below the bombed-out site. Gaylord Crosby's construction linemen - Don Jayo, Roger Christ, Al Gonzalez, E.B. Barber and R.H. McDonald - had brought a truck, poles, cross-arms and hardware from Winnemucca. They were putting up a 90-foot wooden tower alongside the building to hold four, eight-foot "dish" antennas.

Powder monkeys drilled through tough bedrock, in preparation for the permanent tower footings, and when it came time to "shoot" everything came to a standstill. From a safe distance I photographed the plumes of rock and dust forced up by the explosion, a tiny sample of the saboteur's earlier blasts.

By sundown that evening, except for a part of the roof through which some of the equipment was being lowered, the plywood-sheathed building was virtually completed. It was 28-feet long, 24-feet wide and roughly 16-feet tall. It had a low-pitch, tarpaper gable roof, a doorway at the northwest corner, and one window. The men who would be manning the station insisted on the window, so that they could observe anyone coming up the road.

The engine-alternators were relocated to a convenient spot next to this building. Paul Walther, Dick Babcock and others wired them to the new power switches and circuit-breaker panels. Later on, a shed was constructed over the engines, for protection against the weather that was, for some reason, being rather nasty that season.

While all of this was taking place, Western Electric's crack installers - R.R. "Sandy" Sandstrom, Jim Tallman, "Mac" McCombs, Ralph Streiff, Dave Miner, Warren O'Brien, Ernie Carlos - were inventorying and assembling the new equipment. These men were experts in their craft, having worked with TD-2 equipment since the original route was built in 1951. They were highly skilled in standard installation techniques, and also masters of innovation as well. They would be responsible for all aspects of the equipment installation, from procurement to final testing.

Until needed, most of their material was stored in one of the hangars at the airfield; according to the Air Force Colonel in charge, not nearly as neatly as it should have been. He strongly suggested that an effort be made to clean up the place but with the press of business his warning went unheeded. Until, that is, he caught Jim Tallman and Ernie Carlos there one evening. They toiled and sweated half the night before the piles of equipment met with the colonel's approval. Shades of old army days!

Heavy set, jocular Jim Tallman was one of the Western Electric "in charge" men (a supervisor). He shared the responsibility with tall, lean Sandy Sandstrom. Together with Mac McCombs, a slender lad from Boston who never lost his Yankee twang, they were an inseparable trio. When on the job they worked hard and long hours; off the job they

## THE WENDOVER RESTORATION

contributed unselfishly to Wendover's social life. I doubt if there were another three in the country who could have done as well at either occupation.

Our immediate objective was to effect total restoration of the route facilities (all twelve radio channels) in less than one week from the blast. The result would be a complete, albeit temporary, microwave station; that is, transmitters, receivers, waveguides, antennas, power supplies, even a surveillance and alarm system.

Engineers, transmissionmen, linemen, repairmen, Western Electric installers and non-company contract people worked side by side toward that goal.

We were coming down to the wire when things got really hectic. Two of the twelve necessary TD-2 bays, all of them borrowed from pending jobs throughout the United States, were lost. After hours of telephone calling they were located in, of all places, Twin Falls, Idaho. By Saturday evening, though, an hour or so after their arrival, they were in place.

But TD-2 transmitter tubes, because they generated a lot of heat, had to be air-cooled. And a new blower could not be found. It was Paul Walther, as I recall, who reclaimed the old one from the junk pile, dusted it off and got it working. And it was Warren O'Brien, a big, Western Electric installer who always wore a long-sleeved white shirt, usually with the tails out, who fashioned an old inner tube to work as a duct from the blower to the TD-2 bays.

A vital waveguide filter was also tardy in arriving. But that same evening a helicopter from Salt Lake City landed, virtually on our doorstep, and ten minutes later the filter was in place. That was the last expedited piece of material to arrive, and only just in time. Old Sol edged toward the Silver Zone Range, and four runs of waveguide had yet to be built from the radio bays to the antennas. Dozens of sections must be selected from the stockpile, measured and assembled in a race against the clock.

Crosby's linemen and our Elko repairmen, Pat Sullivan and Gary Cox, worked on the tower. The rest of us - Brown, Wayman, Penner, McQuaid, Walther, Babcock, Jim Redford, Gary Murphy and others whose names I don't remember - worked below on the ground or on step ladders, fitting pieces together, installing them in horizontal runs at shoulder level, passing them to those above. The whole waveguide job, that normally required many days to engineer and construct, was completed in three hours.

Just as we were finishing, someone noted that a local diamondback had taken up residency under the building. Luckily, none of us had stepped on him or otherwise incurred his displeasure so he was tossed over the nearest cliff. Some wag suggested that he should be put in a carton and mailed to the saboteur, if and when that rogue should be apprehended.

At 9:30pm, in accordance with our prearranged plan, the men at Salt Lake Junction and Oakland re-routed all services, allowing the TE-2 radios to be turned off, clearing the spectrum for TD-2 channel frequency and power tests. A half-hour later, our temporary station was "on the air."

So far, so good!

## THE WENDOVER RESTORATION

Those of us who were supposed to be supervisors rolled down our sleeves and relaxed around a big pot of fresh black coffee, to recount the many crises of the past few days. The Western Electric installers and our transmissionmen continued to work, installing the final nuts and bolts, studying meters and oscilloscope traces and fine-tuning channels. Everyone was physically exhausted.

I soon found myself wandering about observing the engines, the power supplies, the air blowers and other ancillary equipment. All were in good order. For something else to do I climbed a ladder and helped to install screws in the waveguides. There were literally hundreds of them, screws that had been left out during assembly to save time.

When I returned to the coffee urn - its lowering level of brew measuring time almost as effectively as an ancient water clock - it was 4:25am. Two television channels, one in each direction of transmission, were turned up for service. At 4:29am, two message channels were made good. But there was no time for cheering.

A quarter-hour later, at 4:46am to be exact, just four minutes past one week from the blast, the last channels were turned up for normal service. Our goal, give or take a few minutes, had been met!

If anyone had asked me when I arrived at Wendover Notch on Monday if our microwave route, or any microwave route, could be restored in one week's time, I'd have answered unequivocally, "It's impossible!" But it had been done. It was an accomplishment that ranked on a par with, possibly exceeded, the greatest restoration effort in the annals of the Bell System.

Later that day we learned that we had a problem of cross-talk; interference between radio channels. Although not harmful enough to preclude service, it caused the circuits to be a bit noisy. The trouble stemmed from our temporary antenna arrangement.

While the parabolic antennas were of standard design, they were not nearly as efficient as the delay-lens antennas; and, because they were so close together on the tower, some of the radio energy from the transmitters was being "fed back" to the receivers. What to do?

One possible cure would be to further separate the antennas, but the tower was not big enough for that. Other solutions, ranging from the impractical to the bizarre, were discussed and discarded. In the end it was up to the engineers, the guys with the charts, slide rules and crystal balls, to find a fix.

And then a message came from the East, from a Long Lines engineer in Denver (who shall remain nameless), with the answer.

"Chicken wire!" he said. Of course it had to be tried. We had to do something, as the saying goes, even if it's wrong.

The clerk at the general store in Wendover raised his eyebrows in wonder at Crosby's request. Luckily, he had some of the stuff in stock and Crosby bought it.

Back at the site, Ponder constructed two large, wooden frames and attached the wire. The units were then hoisted to the top of the tower and installed, vertically, between adjacent antennas; one on the east and one on the west sides. This chicken-wire shielding was not a perfect solution, but since there was a measurable improvement the silly looking devices were left in place. And the phrase "chicken wire" immediately gained popularity throughout the site. Anyone with a

## THE WENDOVER RESTORATION

problem, any kind of problem, was advised, "Get some chicken wire... that'll fix it."

We experienced but one serious failure while operating at the temporary site, and it was of short duration. It happened when our AC-power was being switched so that the primary engine could be shut down and serviced. Noble and Ernie had the privilege of being on duty that night.

Ernie was a nervous man. He believed, not without good reason, that if something were to go wrong it would do so with him. Noble, a fatalist, figured "if it happens, it happens, the job has to be done." Noble would throw the switch.

It was a make-before-break device and the operation should have been a simple one, resulting in no more than a glitch, if anything, on the TD-2 system. So Noble got on the phone and explained the situation to the man at the control office, at Salt Lake Junction, and received his reluctant permission to go ahead. There was, however, a gremlin lurking in the works. When Noble pulled the handle downward it stuck half way, killing all of the power to the building.

"I knew it!" Ernie yelled over the cacophony of alarms. "I knew it!" Noble immediately threw the switch back to its previous position; the lights came on again and the voltage rectifiers went back to work. But the damage was done. Once the power was interrupted there was a one-minute time delay before the voltage would be re-applied to the TD-2 bays. It was a protective feature, and there was absolutely nothing that could be done to hurry the process.

The radios were inevitably restored to normal but the guy at Salt Lake Junction was irate. "Have you any idea how many thousands of failure tickets I have to write?" he wailed.

The trouble turned out to be a bolt, or lag screw, that protruded unnoticed from the wall and was in the way of the handle. The obstruction was removed and Noble called the control office to say he was ready to throw the switch again.

"No, sir!" the man was adamant. "Not on my shift, you don't!"

Noble eventually got permission from a supervisor, the switch worked properly, the second engine took the load, the big diesel was shut down, its oil changed and coolant replenished. Not until everything was back to normal did Ernie quit sweating, when he and Noble could lean back and relax for a few minutes in the wee hours of early morning.

The next few days were rather anticlimactic. There was no further evidence of sabotage around the country, and our tollies were relieved of the tedious chore of guard duty. The Californians dismantled their TE-2 gear and headed back to the cities. Ponder and his men, as soon as the old walls had been tumbled down, began work on the permanent building, which was to be constructed on a plan recently used for new microwave sites in southern Nevada, with walls of concrete-block and a flat roof supported by steel trusses; a much faster method than reinforced concrete.

Footings for the permanent tower were poured, and when they had sufficiently cured my man Murphy operated our John Deere (a small dozer that proved invaluable during the rebuilding period) and leveled the gravel around them.

## THE WENDOVER RESTORATION

The steel for the antenna tower arrived, and to erect it a crew of intrepid iron-workers. It was the Flint Steel outfit from Tulsa Oklahoma. Without the use of belts or nets they climbed and walked the steel, working with amazing speed and dexterity. Some different from the way we operated in the Bell System, I mused, still I could see the logic in their working unencumbered by so-called safety devices.

The foreman, who appeared at least as tough as the others, directed the job from a vantage point on the ground, occasionally barking terse orders to the men aloft or hand signaling to the crane operator. I asked him about the odds of an accident, of a man's falling and the likelihood of a fatality.

"Never had a guy killed on the job," he said, not taking his eyes off the men above. "I watch 'em like a hawk.... I see a guy fall, I holler 'You're fired' b'fore he hits the ground."

The iron-workers' "act" was truly the "greatest show on earth," for it had many of the attributes of a circus yet resulted in a valuable product.

In town, after dark, in one or another of the local bistros, the steelworkers and Western Electric installers (and some of our more robust tollies) engaged in get-acquainted sessions, the hidden agenda being to determine which group could more nearly deplete the town's supply of booze. (One place actually ran out of beer.) No one judged those contests, nor did anyone receive a trophy for outstanding achievement.

Jim Tallman looked like one of the losers when he showed up at the site one morning, and his demeanor didn't improve when a steelworker slipped the big crane-hook under the back of his belt and motioned "away." Jim was hoisted aloft, kicking and yelling obscenities, until he voiced the magic expletive and was lowered to the ground. He picked himself up, apparently none the worse for the ride, and began another grueling day of work.

There were other moments on the lighter side, comic relief from the seriousness of the situation. The temporary outhouse, for example, was always good for a laugh. Unlike in today's world, where the first edifice at a construction site must be the now-familiar blue portable toilet, our "comfort station" consisted of three pieces of plywood nailed together to form three walls around a bench with a hole in the center. There was no door, but a fourth panel partially shielded the user from public view. Situated conveniently beyond the driveway, a stone's throw from the scene of activity, more than one occupant got the daylights scared out of him by a rock lobbed at the outhouse. Not funny, however, was the possibility of being surprised by a desert rattlesnake, some of which had discovered it was a good place to rest in the shade.

I obtained the double-decked, steel stand that once held the tube-cooling air blowers (for which I paid the junkie one dollar to make it legal). It would serve as a fine work bench.

## THE WENDOVER RESTORATION

I found the time to pick up a few souvenirs for posterity, among them the metal nameplates from two of the antennas (serial numbers 420 and 421) that read as follows:

Western Electric Made in U.S.A.

**KS - 5759**

10 X 10 DELAY LENS ANTENNA

Pat. Pend.

HANOVIA CHEMICAL & MFG. CO.

NEWARK, N.J. U.S.A.

At the end of two weeks I took my first leave and went home to relax with my family, and to celebrate Son Glen's second birthday.

On Monday the 19th, we received the first news of the saboteurs. A 47-foot ketch, the "Monsoon," was boarded at Ensenada, Mexico, for a routine inspection, and four people (three men and a woman) were arrested for possessing "several machine guns, rifles, shotguns, a large quantity of grenades and other paraphernalia." A subsequent check with the FBI linked them with the Nevada-Utah bombings.

The two accused of the crime were Bernard J. Brous, 51, and Dale C. Jensen, 33. Both were American citizens, the latter from Reno. (Unknowingly we had been referring to the unknown saboteur as "Benny the Bomber.") The others were Brous's wife, Minnie, a former dancer-model, and a Reno dealer named Bartoli.

Brous admitted to being the "leader" of what he called the "American Republican Army," which, he said, advocated the political overthrow of the United States. He claimed (according to reports) that AT&T, by refusing him a contract some three years before in Texas, had driven him to financial ruin.

The size of this so-called "army" was still unknown, but it turned out to consist of just the four, of whom only Brous and Jensen were charged.

From a copy of the Salt Lake Tribune I clipped the report, including a photograph of the leader and his ace demolition expert, and posted it on the bulletin board in our temporary building. But there was something lacking. I looked around for a more suitable way to display the picture and spotted, far down over the bluff, the perfect frame for the infamous pair: a toilet seat.

While climbing back up to the station, with the smooth seat cradled in the crook of my arm like a wreath, I remembered the time when, after accidentally setting a fire in the outhouse, I had extinguished the blaze and saved the outhouse and this very seat; providentially, as it turned out, for this singular purpose.

With a grease pencil I inscribed the following epitaph on the margin: "THE REMAINS OF WENDOVER No. 1."

As an added touch, someone suspended a brass doorknob from the bottom of it, perhaps as an indicator of the two men's attitude.

(The trophy was later moved to a prominent place in the permanent building, where it would remain for many years.)

## THE WENDOVER RESTORATION

The new station, while not built as quickly as the wooden one, was nevertheless constructed in record time. The Western Electric men moved in to install the ironwork, battery-charging plants and batteries preparatory to moving the TD-2 bays, the ones in use in the temporary building, to their final positions. The equipment floor plans had not yet arrived so a set was sent up from Reno by helicopter. The pilot landed on the bench, leaned down to hand-off the prints to an anxious installer, and an ill wind tore them from his clutch. An extensive search was made of the hillside but the plans were never found. The installation went ahead, the men working from memory!

A new diesel engine-alternator was installed, and a second one as a backup, to provide AC-power until commercial power could be provided sometime in the not too distant future. The backup unit was located in a wooden appendage at one side of the building.

As mentioned above, in the first days of the restoration cost was not a factor. But now, effective with the construction and outfitting of the permanent station, the emergency phase was over and the purse strings were tightened perceptibly.

Except for the new tower, the antennas (latest state-of-the-art cornucopias) and TD-2 equipment, reconstruction was relatively cheap. The new building, while quite serviceable, was not as large or convenient as the original, nor were the engine-alternators as reliable as our old Hercules Diesels. And when it came to equipping the site with tools and test equipment I had a tough time getting approval for the barest necessities. How I wished for some, just a small fraction of, the money wasted at the beginning.

Several of us, including Brown, Wayman and McQuaid, went to Salt Lake City for a conference with our Long Lines coordinates. We met and stayed at the Hotel Utah. There was a lot of discussion concerning reconstruction and we outlined plans for the final service cutover to the permanent TD-2 station. After the session we relaxed over cocktails and dinner, the latter provided by our AT&T hosts. It was a time for making new acquaintances and renewing old ones.

A funny thing happened in the hotel lounge, where we retired for after dinner conversation. Every so often we were interrupted by the unique (raucous) sound of a peacock - half hidden beneath a potted palm beside an artificial pool - that seemed to be calling out, "McQua-a-a-a-aid...McQua-a-a-a-aid." From that time on we jokingly addressed our engineering friend in "mock peacock."

The date for final restoration was set for the 7th, but to a man we wanted to be done with it by the 4th. A wooden raceway was thrown up, extending from the steel tower to the new building (it would later be replaced with steel), and Don Jayo, Pat Sullivan and Roger Christ assembled the copper waveguide runs. Unlike our earlier, temporary assemblies, these must be cut and soldered to specific lengths, a job similar to a plumber's except that it had to be done with extreme precision.

A cutover crew was assembled and "phase three" was begun. In turn, the service on each radio channel was re-routed (at the control offices), a bay was disconnected, un-bolted and removed from the temporary building and carried - gingerly, like an occupied coffin -

## THE WENDOVER RESTORATION

up the hill from the temporary to the permanent building. There it was bolted in place, re-wired, powered-up and thoroughly tested by both installers and tollies.

Duane Kern (who would ultimately become an Elko chief with responsibility for the site) and Bob Ernaut did the final tuning, then the service was restored. This procedure was followed for each of the twelve bays, and required more than one night to complete.

Finally, early in the morning of **July the 3rd, 1961**, 37-days after the blast, the last bay was successfully moved to its permanent position. Service on the Denver-Oakland TD-2 Microwave Route was back to normal!

A half-hour later, the whole lot of us was bellied-up to the State Line Bar in well deserved celebration.

Only the Elko guys returned to the station with me later that morning, to tie up a few loose ends. By mid-afternoon we were all winding down, but there was a case of trouble in the alarm sending system that had to be cleared before we could leave the station unattended. At last, Duane, Ernie and Pat found and fixed the problem and it was time to go. Just enough daylight remained that we'd have to drive into the sun going home, but no matter, we had done that dozens of times before.

I waited for the junkie, who had hauled away the last bit of salvage earlier in the afternoon, to return for his hoisting-rig: an old ton-and-a-half truck equipped with an A-frame boom and a winch. A car finally arrived, dropped off the man and left. I went over and spoke with him, offering congratulations on the fine job of cleaning up he'd done. He thanked me, climbed into the truck and drove away. I absentmindedly watched.

And then I stared in disbelief. A couple-hundred yards down the driveway the truck suddenly swerved, its front-end raised up off the ground and it rolled over on its side in a swirl of dust. Behind me, the station-alarm bell clanged loudly. It was an ominous sound. I was, to say the least, disheartened.

During the whole restoration effort, a period abounding with opportunity for mishap, up to now there had been but one mechanical accident: A crane's winch-brake failed and dropped the boom on its cab. Luckily, the cab had been vacated just moments before. There were two minor injuries: George Elmore, while "touring" the site, was bruised when hit by a wind-blown square of ply-wood, and Andy Anderson, of San Diego, received a cut on his hand that became badly infected. Now this!

The truck had rolled over so easily I believed the driver could not have been injured. Anyway, I ran down to make sure. Grinning sheepishly he climbed out through the passenger-side window. And he, too, was disgusted; with himself for having forgotten the low-hanging telephone cable that angled across the road at that point. The sheave at the top of the boom had caught just enough of it to tip the truck over.

The cable, with its dozens of copper wires for alarm and maintenance circuits, now hung from the steel messenger with its lead sheath open and wire-ends protruding.

## THE WENDOVER RESTORATION

Pat went to the break and, working from a ladder, began to clear and splice the broken pairs. But it would take a while, and we'd have to stay at the station until all was in working order again.

I gave the junkie a ride to town, to get a rig to right his truck, and decided, while there, to report the incident to my boss, Paul Brown, in Reno. Using the pay phone in the hallway at the hotel I made the call, charging it to the Elko testboard number. That was a smart move because, as it would turn out, there probably weren't enough coins in the place to pay the toll.

The general facts of the matter were fresh in my mind. The times and details of the damage I had scribbled on a piece of paper. But I was unprepared for what was to be one of the longest "dressing downs" of my life. It never occurred to me that the company, least of all Paul, would hold that the salvage contractor's accident was somehow my fault. Already tired from my long tour of duty, discouraged that I was not then on my way home, I believed that his criticism was unjust.

Our rather one-sided conversation went on for nearly an hour. I felt like exploding into the mouthpiece and hanging up the receiver, but my respect for the boss prevailed.

Finally, after almost an hour on the phone, Paul's attitude mellowed and he said, "You better go on back up there... help the boys finish up and go home.... You deserve a rest."

Paul was like that. He seemed to delight in scolding his subordinates but always stood by them in the end.

"And that," as they say, "was that."

Brous and Jensen were returned to the United States by the Mexican authorities (to Reno via San Diego) to face charges. Brous took credit for masterminding the bombings "as a step in destroying certain types of businesses...cartels such as the AT&T Company." Jensen admitted to planting the bombs. The Company, after totaling the damages (not including the loss of circuit usage during the outage), filed a new suit against the men seeking \$2,000,000.

Both Brous and Jensen were charged with "ordering high explosives in Beverly Hills" in March. And Jensen was charged with "setting off the explosives with timing devices at each of the stations." They were held in the Washoe County Jail in lieu of \$100,000 bail each.

**November 2, 1961:** The Elko Daily Free Press reported that Brous and Jensen "were sentenced to eight years in federal prison." (I believe the pair was also charged and tried in Utah but I am unaware of the outcome.)

The last I read about Brous, he was back in business in the state of Texas as a consultant. I could never imagine what kind of counsel he might be in a position to sell.

The actions of Brous' "army" exposed the vulnerability of our communications network in the 1960s, and the Bell System would spend millions of dollars over the next several years providing new, alternate routes, sophisticated equipment, elaborate emergency plans and ongoing restoration exercises. It was rather like a very expensive

## THE WENDOVER RESTORATION

insurance policy, and like most insurance policies it would pay off indirectly. Never again would AT&T or its Bell subsidiaries be faced with a like catastrophe.

Following is a copy of the news clip of the Saboteurs' apprehension:

JUNE 19, 1961  
**Leaders  
Boast of  
Sabotage**

**By The Associated Press and  
United Press International  
ENSENADA (Mexico), June 18.**

A bearded self-styled revolutionary and a bomb planting, co-conspirator were arrested today for blowing up three microwave communication towers on May 28 in a sabotage campaign. Motive for the explosions was not disclosed by the Federal Bureau of Investigation, but one of the men arrested said it was done on behalf of the "American Repubican Army," which he said advocates the political overthrow of the United States. The two accused in the case are Bernard Jerome Brous, 51, alias Robert Hill, and Dale Chris Jensen, 33, both American citizens.

### **WIFE SEIZED**

Taken into custody with them aboard a schooner here were Brous' 40-year-old wife, Minnie, a former dancer and model, and Robert Gerald Bortoli, a gambling house dealer from Reno, Nev.

Mexican officials said the four were being taken to the border tonight to be handed over to U. S. authorities.

Sporting a Castro-type grey beard, Brous admitted freely that he master-minded the bombings. He said it was done as a step in destroying certain types of business "cartels" such as the American Telephone and Telegraph Company.

## THE WENDOVER RESTORATION

### **INDEX of Principle Names and Places**

- Anderson, 29  
Babcock, Dick, 22,23  
Baker, 6  
Barber, E.B., 22  
Barro, Utah, 3,6,9  
Bellinger, Bill, 10  
Brous, Bernard J., 27, 30, 31  
Brown, Paul, 4,5,8,10, 23,28,30  
Burns, Bob, 19  
Cedar Mountain, Utah,  
    1,2,4,6,9,19,20,21  
Cox, Gary, 23  
Crew, Noble, 9,25  
Dodson, Jim, 4  
Elmore, George, 4,29  
Ghrist, Roger, 22,28  
Gonzalez, Al, 22  
Harris, Sheriff Jess, 5  
Hutchinson, Phil, 9  
Jayo, Don, 22,28  
Jayo, Julian, 19  
Jensen, Dale C., 27, 30, 31  
Kern, Duane, 29  
Knolls, Utah, 1,3,4,20  
Knopp (CSA), 4, 5  
May, Brig. Gen. James, 2,5,31  
McAdam, Bob, 4  
McCombs, "Mac", 22  
McDonald, R.H., 22  
McQuaid, Bob, 19, 23,28  
McWhorter, V.T., 20  
Meale, Eric (FBI), 5  
Miner, David, 22  
Murphy, Gary, 23,25  
O'Brien, Warren, 22, 23,30  
Painter, Bill, 9  
Penner, Walt, 19,23  
Polen, H.H. "Joe", 9,10  
Ponder, Bill, 9, 19, 20, 24, 25  
Purcell, Stu, 8,9  
Richards, Art, 5  
Salls, Albert, 4  
Sandstrom, R."Sandy" 22  
Scott, Ralph (pilot), 5  
Simonsen, Ernie, 4,5, 22,25,29  
Sparks, Mel, 8,9  
Spellman, George, 8  
Staley, Larry, 4  
Streiff, Ralph, 22  
Sullivan, Pat, 23,27, 28,29,  
Tallman, Jim, 22,26  
Van Welch, Evard, 4  
Vercoe, Vince, 9  
Walther, Paul, 10,22,23  
Wayman, J.E. "Red", 4, 5,8,23,28  
Williams, Glen C., 19