



JERRY WILLIAMS THE

GENESIS

OF WILLIAMS SOUND

P R E F A C E

Even though this book is titled *Jerry Williams, The Genesis of Williams Sound*, the story includes much of my professional life. It is the story of how God can take a life and use it for His purpose. He inserts other people and situations into that life to prepare and use a person to accomplish His purpose, without that person fully understanding what is taking place as it occurs. Yet in retrospect, God's leading hand in my life shows very clearly as I look back. In the interest of brevity, many details and some of the color had to be omitted, but I hope that, as you follow the thread of the journey, you will find it interesting. And, of course, it isn't over yet.

PART I . PREPARATION

My Boyhood Years

Williams Sound effectively had its beginnings when I was a lad of about 14 and my parents gave me a Christmas gift. It was a kit from Allied Radio Corporation in Chicago. With this kit, it was possible to build a variety of electronic wonders: a three-tube radio receiver, a transmitter that could broadcast to our household radio, a small public address system, and so on.

Until then, my chief hobby had been building and flying model airplanes — a hobby that I really enjoyed and shared with several other classmates in school. My dad encouraged me in that hobby because my hands were a bit shaky. He thought that building model airplanes would help steady my hands. It didn't. Instead, I just became very adept at finding assembly techniques that compensated for my unsteady hands. But I realize retrospectively that my father had a deep interest in seeing that my spare time was well spent; those interests did keep me off the street. That radio kit opened the door to a fascinating new world of interest — a world far more complex and intriguing to me than model airplanes.

After awhile, I was no longer satisfied to just build and rebuild the projects in the kit; so, I wrote for a

copy of Allied Radio's complete catalog. At that time, it was the Sears-Roebuck of the radio industry. To a young lad in a small town, the Allied Radio catalog was a book to be treasured and to be shown to others. From it, I learned that Allied sold books that had many more construction projects in them. And, of course, they also sold the parts that were needed for the projects. Considering today's blister-pack marketing mentality, it was helpful for my boyhood budget that Allied sold the parts by the piece. And they only cost just a penny or two!

After a year or so, I had developed a reputation in the community as an electrical whiz kid and the neighbors were asking me to fix their radios. I remember during that time that I couldn't possibly afford a tube tester, so I built one of my own. It didn't have a meter, just a light that told me if the filaments were good or bad; but it did help me fix a lot of radios while I was in high school.

During high school, I also worked for the local electrician, Allen Peter, after school and during the summer. Allen became like a second father to me, showing infinite patience and teaching me to repair all manner of appliances and small gasoline engines. He even taught me to drive. My reward at the end of a long day of wiring smelly cow barns was the chance to drive his '36 Chevy coupe back to town.

Allen taught me there was always a way to get a job done, but sometimes you just had to tough it out with patience and endurance. One of the bonuses of working for Allen was that he shared a building with the town's only radio repairman, Clair Johnson. Clair was also a willing and patient teacher and, when it appeared he was going to be drafted into the Army, he spent as many evenings as he could with me, teaching me as much as possible about radio servicing. He hoped that by coaching me, I could keep his shop open and the townspeople could keep their radios playing during World War II.

But back to the age of 14 for a minute....The reason that I remember being 14 is because that was the year that the Japanese attacked Pearl Harbor. I can remember the day vividly, listening to my father's car radio while we waited for him to make his rounds at the hospital.

As I heard President Roosevelt's carefully chosen words, I remember thinking to myself: "I wonder how long it will last?" Later, I saw older boys, fellows that I had idolized, going off to war. I wrote letters to some of them. Some of those friends came back home in boxes.

It didn't take long for three more years to go by. On



the 4th of July in 1944, I turned 17. That meant that I was now eligible for the draft as soon as I finished high school. My dad again showed his fatherly love and concern for me. Having been in the Army as a 17-year-old himself in World War I, he suggested we see how my skills and interest in electronics could get me into the Navy instead. He knew that, in the Navy, the sailors usually had a clean bed and better food than in the Army. He contacted a Navy recruiter and arranged for me to take their electronics aptitude test.

On December 11, 1944, (before Christmas of my senior year), I enlisted and was enrolled in the Navy's Electronic Technician's School. I have always been grateful for my father's insight and initiative, because the tour of duty in the Navy helped me to decide on an electrical engineering career.

Almost a year of my Navy electronics training was in Chicago. Remember where Allied Radio was? While most of my buddies were out socializing, I went to the Allied Radio store to browse through their bargains and books. After completing the Service Schools, I was assigned to the USS Artemis, a cargo ship in the Pacific. As the only electronic technician on the ship, I soon learned the meaning of responsibility. I also began to appreciate the value of reliability and serviceability in electronic equipment.

MY COLLEGE YEARS : 1946 - 1950

After my discharge from the Navy on July 5, 1946, I attended St. Olaf College in Northfield, Minnesota. I enrolled there primarily because it was only 15 miles from home, and because my step-mother, who had graduated from there, thought she could help to get me accepted.

Her concern came about in 1946 because all the GIs were getting out of the service and were crowding into colleges and universities to receive their education under the GI Bill of Rights. I was discharged later than most because I was on an extended assignment at Bikini Atoll in the south Pacific where we were preparing for a test of the atomic bomb. Getting into any college in 1946, let alone the University of Minnesota which had been my goal, was a problem because of the housing shortage at all schools.

In retrospect, I can see how the two years I spent at St. Olaf College were all part of God's plan for my life. However, at the time, I was not very enthusiastic about the school except for the chance it offered me to work at the college radio station, WCAL. I saw the radio station as opportunity to extend my knowledge of electronics.

In the short cycle of a few weeks, I studied for, took, and passed the requisite FCC First Class License exam. I also lined up a job and was committing nearly all of my spare time to the radio station. I also made a little spending money by renting out a portable sound system I had built and by repairing radios and installing TV antennas on the weekends in nearby Cannon Falls, Minnesota.

I stayed at St. Olaf for a second year because I really came to love the school, the faculty, and mostly a young lady who, three years later, consented to become my wife. At St. Olaf, I indeed learned a lot about living and loving.

At WCAL, I learned how to stretch a dollar. WCAL is a non-commercial radio station operating on a limited, member-supported budget. Yet, it justifiably prided itself on the quality of its programming and its broadcast signal. The station manager, Milford Jensen, a pioneer in radio broadcasting, was an excellent tutor and was one of the men who strongly influenced my life. He showed me the importance of attention to detail and was patiently willing to let me learn from my mistakes.

In the fall of 1948, I transferred to the University of Minnesota, enrolling in electrical engineering in the Institute of Technology. By taking all twelve quarters

in continuous succession (no summer vacations), I was able to graduate in December 1950, off the normal graduation cycle. The job market was very slim at that time for electrical engineers, particularly in Minnesota. I was one of the lucky ones, receiving two job offers — one from RCA, the other from Zenith Radio.

Three factors influenced my decision to accept the offer from Zenith. First, Chicago was a lot closer to Minnesota than Camden, New Jersey. Secondly, Zenith offered me \$25 a month more than RCA. (The Zenith offer was \$290/month.) But thirdly, from my experience of servicing radio and TV sets, I felt that Zenith built a better quality product than RCA. I appreciated their emphasis on quality, and I wanted to learn how they did it.

ZENITH RADIO : 1951

It is so interesting to look back over the years and see how each job partially prepared me for the privilege and responsibility of operating my own business. Indeed, I was able to learn the secret of Zenith quality. It was really no secret at all. First, they had made a commitment to quality. Next, they paid attention to all the details, selecting only top-quality components and testing them to make certain they

were consistent. And lastly, they made certain the people who assembled and tested the products had the proper training and equipment to do the job. I have been able to use that knowledge in every job I have had since.

As excited as I was to be working at Zenith (and I did grow to really like my job and to respect my boss, John Rennick, one of the most senior and respected engineers not only at Zenith but within the industry), I had another lesson to learn. That lesson was that it didn't matter how great the job was if we didn't enjoy living near the job location. It took only eight months of living in Chicago for Lorraine and me to decide that we were not cut out for the big-city lifestyle. The little things that we had taken for granted in Minnesota — like swimming in a lake or going for a picnic in a park or taking a drive in the countryside — were major undertakings in Chicago.

When I learned of a job opportunity in St. Paul at Engineering Research Associates (ERA), the forerunner of UNIVAC, we jumped into our '46 Chevy coupe and drove up for an interview. While my electronic interests were deeply aligned with audio and radio, I accepted the fact that I would probably have to make a career compromise in order to move back to Minnesota. When ERA made me a job offer, I accepted it. The subsequent 28-year detour in the

computer industry was both good for me and good to me. Little did I realize at that time that I was moving into an infant new industry that was destined to grow to undreamed-of proportions.

ERA / UNIVAC : 1951 - 1958

In the next few years, I saw ERA acquired by Remington Rand, and then a couple of years later, Remington Rand acquired by Sperry. But during those seven years at Univac, I was given complete freedom for design innovation; as a result, I was granted three U.S. patents for some of my work. I also had the privilege of working side by side with some of the more notable pioneers of the computer industry, the most famous probably being Seymour Cray.

At Univac, I gained knowledge of digital technology, the importance of engineering documentation, thorough design testing and, probably most importantly, the value of customer involvement and support in new-product development. But undoubtedly, the greatest lesson to come out of my days at Univac is that management must be visible and demonstrate its interest in all phases of a company's business. If Sperry management had done that, there probably wouldn't have been a company called Control Data.

At Univac, I had the opportunity to observe how morale can completely disintegrate when top-level management shows no interest in employees or their work. More specifically, I saw how a company can be torn asunder by political infighting; but that's another story that will perhaps someday be documented in a history of Control Data's beginnings. Suffice it to say, when my manager, Bob Erickson, called me into his office one day to tell me that Bill Norris was leaving his job as manager of the St. Paul Univac operation to start a new company, I realized too that it was time to start exploring new possibilities. I felt that if Bill Norris decided to give up the fight, then it was time for me to move on too.

THE MAKING OF A MANAGER - TEC: 1958-1963

In the fall of 1958, I was invited to participate in the formation of a new company known as Transistor Electronics Corporation (TEC). TEC was being organized to develop and manufacture complex components for the computer industry. These items were needed for designing transistor technology into computers, components that simply were not available in the marketplace at that time.

The president of TEC was a man with excellent

marketing ability so that TEC's business developed very quickly. However, I was driving 20 miles to work across town before there were any freeways, so Lorraine and I decided to look for a house closer to the plant. I believe that God led us to that house. It was across the street from Normandale Lutheran Church. When we moved in, our house was the only one on the street for three blocks. Our closest neighbors were Pastor Don Carlson, and his wife Marie, who lived in the parsonage next to the church. While they were nice neighbors, we had belonged to ALC Lutheran churches since we were married and this was an LCA Lutheran congregation; so, we visited the ALC churches in the area. Yet somehow, the Lord seemed to say, "This is where I want you, how close do I have to put you to see that?"

We soon found ourselves teaching Sunday School and becoming otherwise involved in the church. But the president of TEC, who also belonged to the church, told me not to get too involved. He wanted me to put all my effort into the company. He even warned the pastor not to make any demands on me.

I chose to ignore that warning, because I felt that I had to put my commitment to God ahead of my commitment to my employer. The Bible says in Joshua 24:15: "Choose this day whom you will serve. As for me and my house, we will serve the Lord." We

continued to become involved at the church, and the business prospered too. The president became a very wealthy man in a few years; our lives too were filled with material blessings.

TEC gave me a wide range of experience — managing the engineering activity, manufacturing, and ultimately the entire operation. I also was given the opportunity to receive formal training in business management at the American Management Association in New York. However, after one of my New York trips, I observed that success was taking its toll on the president in terms of his health and personal relationships. In my opinion, the president had begun to honor wealth and power and was turning his back on God and the people who had helped to build the business.

Friction started to develop, and it became apparent that we had fundamental disagreements over the future direction of the company. As my wife and I, along with several of the directors of the company, pondered the situation, I recalled something I had read. I searched it out and found that it was a prayer-poem written by Reinhold Niebuhr that says: “God grant me the serenity to accept the things I cannot change; the courage to change the things I can; and the wisdom to know the difference.”

I was faced with and made a painful, yet peace-

ful, choice. The hours of night work, the weeks and weekends spent away from the family, the struggle to reach the top of an industry which offered a bright financial future — all that work which had finally started to pay off, was discarded in a simple letter of resignation. Then came the guilty feeling that I was deserting the good people that I had hired one by one and helped to develop. The act of emptying out my desk, taking down the pictures, walking out the front door of the building that I had helped to plan and build, after everyone else had left for the weekend, is a feeling that a person never quite forgets.

THE COMPUTER INDUSTRY . CONTROL DATA : 1963-1979

However, once again I discovered that God provides opportunities and helps us to rebuild our lives. Isaiah (40:31) says: “But they who wait upon the Lord shall renew their strength, they shall mount up with wings like eagles, they shall run and not be weary, they shall walk and not faint.”

I never believed in burning bridges behind me; I think Lorraine convinced me of that. In this case, the friends I had made at Univac were now at Control Data, and they invited me to join them. One of these friends was Bill Keye, who had been one of my su-

pervisors at Univac and was now the Vice President for Engineering at Control Data. Bill took me on a tour of the company and gave me a choice of several opportunities. I chose one that gave me an opportunity to establish a new division within the company.

My first mission was to identify components that the company was purchasing on the outside but having problems with cost, reliability, or both. Then, my job was to set up the organization to develop and manufacture them in-house. My new boss, Jud Snell, turned out to be a tower of strength and support. I should not have been surprised to find out that he was also the superintendent of the Sunday School in his church. The challenge of the job was very rewarding because of the new variety of management experience that a large, decentralized company provided. In just four years, the new division became recognized in the company as a technically qualified, competitive source for power supplies; our work ultimately became concentrated in that area.

In 1966, I was invited to join the corporate technical staff. I was asked to help establish an organization that assisted the various engineering organizations in improving the quality and reliability of the company's products, while simultaneously reducing cost. We gradually built a well-respected staff and a solid offering of services; after three years, we had close to

60 people in the organization. Then, because of severe competitive pressure, CDC had a bad business year; I was told to cut 20 people from my staff.

Three years later the national recession hit and, a few weeks before Christmas, I was again told that another 20 people had to go. By this time, I realized that staff positions are particularly vulnerable in a business slump because they can be trimmed to help the short-term financial picture without a significant loss in productivity.

The recession continued and, two years later, my boss, Bob Perkins, Vice President for Engineering, called me into his office to tell me that pressure from the banking institutions was forcing another work-force reduction. He told me his job had been abolished along with the jobs of the other two men who reported to him. I was the only one on his staff to survive that cut! But the price that I had to pay was to cut my staff from 20 people to ten. If you have ever had the experience at Christmastime of telling 20 people, and then two years later, telling another ten that their jobs have been eliminated, then you know the feeling that I had at that moment.

The apostle Paul wrote in his letter to the Philippians: "Have no anxiety about anything but in everything, by prayer and supplication with thanksgiving, let your

request be made known to God. And the peace of God which passes all understanding will keep your hearts and minds in Christ Jesus.”

As I walked back to my office, I pondered that verse. Jesus told the people that when they pray, they should go into their room and shut the door and pray to the Father in secret, and the Father who sees in secret will reward them. So when I got back to my office, I closed the door and fell down on my knees against a chair and took my concern to God.

Another passage from the Bible also came to mind, James wrote “Count it all joy my brethren when you meet various trials for you know that the testing of your faith produces steadfastness. And let steadfastness have its full effect that you may be perfect and complete, lacking in nothing.” Further, Matthew wrote in his gospel that prayer should be simple and specific. Jesus said “Don’t heap up empty phrases, for your Father knows what you need before you ask Him.”

My prayer was that God would help me to find jobs for all those people and that none of them should become anxious or upset. I went to each one of them privately, told them what was happening and told them that I had already asked God for help to find them a new opportunity. The next few months

were most interesting for me as one by one, nine of them got even better-paying jobs within the company. Only one person doubted and quit. One of the nine thought that he was out for sure when, on his last day, still nothing had come through. I never doubted God though and, at 3:30 that afternoon, a job offer came through. He could scarcely believe it; but I could.

As much as I might have been pleased at how, with the help of God, I was able to find jobs for those people, I was equally distressed that the company showed so little concern for my three colleagues. Each of them had distinguished themselves with substantial technical and managerial contributions to the company, but that had counted for naught. I decided that I better start building an ark, or at least a small lifeboat, in preparation for the next crisis because they seemed to be coming more frequently.

PART II . THE FOUNDATION IS LAID

A God-given Idea

At this point, I need to digress. A year or so before that last layoff at Control Data, one of the couples in our church came to the pastor and told him that their elderly mother was unable to hear his sermons

because of her hearing impairment. They offered to pay for any changes to the sound system that would make it possible for her to hear. The pastor relayed their request to me, since I had installed the sound system in the church.

In meeting with the family, I learned that the lady was 83 years old and had a hearing aid that worked quite well for her in most settings. However, in large gatherings such as a worship service in reverberant space, her hearing aid primarily amplified the noises around her and that amplified noise masked the voice of the pastor. I asked the folks what they wanted me to do, and they quickly asked if I could install some jacks on the back of a pew that their mother could plug headphones into.

Church sound systems had long been of interest for me, and I had installed headphones and jacks in several other churches; however, very few people actually used them. Perhaps that was because I wired the pews that were easiest to connect to the sound system, rather than the ones where hard-of-hearing people actually sat. Also, there seemed to be a stigma attached to those pews, and they quickly became known as the “deaf rows”.

Further, the earphones or headphones became objects of attention for restless children; after awhile,

they were not very sanitary for either the adults or the children. When a person who needed to use them arrived late and found someone else seated in “their” location, they would seldom ask the other person to move. They usually just sat somewhere else and worshipped in silence, thereby forfeiting the opportunity for meaningful participation in the service.

Based on that experience, I told the family I would not be installing such a system in our church. However, I told them that I had been thinking about another idea for some time in anticipation of that need. I explained that I wanted to try using recently introduced, low-cost transistor radios in conjunction with a special radio transmitter that I would build and attach to the church’s sound system. The person who needed help could then sit wherever they chose, take the radio out of their pocket or purse and, using a small earphone, could tune in and adjust the volume to suit their own needs.

I asked this lady if she would be willing to try such an experiment. She nodded her head with enthusiasm. I went home and, taking some parts that were lying around my workshop, I proceeded to build a transmitter using several vacuum tubes. You see, when I was at the University of Minnesota, the transistor had not yet been invented and my computer-industry experience with transistors did not really pertain to



radio transmitters. I bought a little Sony receiver, removed the loudspeaker and fixed the station selector to the frequency of my homemade transmitter. I then tried it out for a couple of Sundays.

In the course of checking out the system, I got a few strange looks and comments from some friends who wondered what I was listening to during the sermon. The following week, I gave it to my elderly friend and showed her how to use it.

When I approached her after the service to ask how it worked, she started to cry. When I asked her why, she told me it was the first time she had heard the sermon in the three years she had been coming to our church. How many of you would come to church and be shut out from hearing what was being said? That in itself was a testimony to me of her love for God!

She then asked me if I could make her hearing aid work that well. I explained to her it was not possible because her hearing aid microphone was located behind her ear some 50 feet away from the pastor and the loudspeaker and, thereby, picked up extraneous noises. Her daughter then asked me to supply receivers to several other people they knew who had a similar problem, which I did.

A L T E R N A T I V E S

CONSIDERED

Now I can return to that last layoff experience and pick up the story there. Having come through the previous business crunches, I had the feeling that God was trying to tell me something, that he had something else in store for me. In retrospect, it is easy to put these experiences together; but at the time, it was not so obvious.

Lorraine and I discussed alternative possibilities because there were several other paths that seemed to offer greater promise in the event that I would be forced to look for another job. But this need in the churches to help people hear the Word of God was one in which I could directly serve God with my technical talent. My job was not threatened at the time; it just had the potential of being cut. So, we were slow to take any action. That is, until one day a friend of mine, Herb Streitz, who was in the recording business, stopped by to have me calibrate his equipment. He asked what was new in my life.

I told Herb about the wireless hearing system idea, and he then told me he was planning a mailing to 2000 churches in Minnesota, Iowa and Wisconsin. He offered to enclose a piece of my product literature in his mailing. I told him I did not have either literature or a product suitable for sale, just an idea. "If we

were to actually make a product, it would take a lot of work.” But as Herb left, he said to keep his offer in mind.

I talked Herb’s proposal over with Lorraine. We thought this to be an ideal opportunity to test the market. I drafted a letter that started “Dear Pastor” in which I described the concept of the system and gave approximate costs. I asked them to respond if the idea held any interest for them. I went on to say that if there was sufficient response, I would proceed with the investment of time and money to develop and produce the product. I sent the letter on to Herb and he responded saying that he would reprint the letter and enclose it in his mailing.

That mailing went out in late October 1974, and the letters started to come in one by one. One day it dawned on me that we would be faced with a decision to make: How many letters would it take to inspire us to go ahead? Being an engineer, I wondered if there could be a logical answer to that question. Knowing that I needed help, I recalled a boyhood schoolmate, Allen Anderson, who was now in the advertising business in Minneapolis. I thought he might have some answers to my dilemma, so I called him to see if we could have lunch together.

After explaining to Allen all that had led up to that

moment, I asked the question, “What kind of response could I logically expect from Herb’s mailing?” Then it was Allen’s turn to ask the questions. “Did you enclose pictures of the product?” No. “Did you give firm prices?” No. “Did you enclose a business reply card?” No. He said, “You mean that you expect people to pick up pen and paper and write you a letter?” Yes. He said “You’re crazy! When we use direct mail and do everything right, we’re happy if we get a one-percent response. You’ll be lucky if you get anything back!” I responded, “But I already have several letters!” To which he countered, “Well that’s probably all you’ll get.”

Needless to say, as I drove back to Control Data, I felt discouraged thinking that I had not done a very good job of using Herb’s generous offer. But, while walking from my car to my office, I got an idea. I decided to take the question to God in prayer. After all, a one-percent response didn’t seem like much to me; that would only be 20 letters out of the 2000 pieces mailed.

I remembered the test that Gideon had put before God to prove to himself that God was going to support his battle plan to defend Israel. It is described in the book of Judges (6:37-40). Gideon placed a fleece of wool on the threshing floor and asked God to moisten it with dew, but to keep the floor dry if

his battle plan was in God's will. The next night, as a further test, he asked God to moisten the floor, but to keep the fleece dry. God honored Gideon's request for proof and that proof enabled Gideon to proceed with confidence.

Knowing how much time and money it would take to develop and promote this product, I wanted that same confidence so that Lorraine would also be convinced. This project would require both sacrifice and involvement on her part as well.

In my prayer, I told God that if I had a one-percent return on the mailing (that would be 20 letters), I would go ahead. If not, I would drop the project and not be disappointed. Well, after several weeks, I had received a number of letters. They were exciting to read. Pastors wrote that this would be an answer to their prayers for their members, and that they hoped we could help them.

When Lorraine met me at the airport after I was out of town for a week, she handed me several letters, She told me to read them on the drive home because these were particularly encouraging. When we got home, I counted them and we had a total of 16. I was so excited that I called Herb to ask how many flyers he had mailed. He said, "Let me check the postage bill, and I'll be right back." When he

returned, he said it looked like he had mailed 1615 pieces.

I thanked Herb, hung up the phone, and turned to Lorraine and said, "That's it!" We have 16 letters, and that's the one-percent that I asked God for. Her reaction surprised me. She shook her finger at me and said, "No, your deal with the Lord was 20 letters. You need to wait!" Well, for once in my life I did the right thing and bit my tongue.

I knew that God would be faithful and not let this divide us, so I said, "Okay, I'll wait. If God wants us to do this, He's not going to let four letters stand in the way." Guess what happened the next week? No letters. But on Saturday, I wasn't feeling well and stayed in bed. Lorraine walked in and said she had something to cheer me up, and she handed me four letters! I don't mind admitting that I was so happy I cried. That experience taught me that we can pray and hope for answers, but we also sometimes lack the faith that our prayers will be answered.

DECISION POINT: 1975

With Christmas just a few days away, we put the project out of our minds until the 7th of January. That's when another letter came along. When I

opened it, I discovered that it was from one of the 20 churches asking how our survey had turned out! I turned to Lorraine and said that we had to make a decision. I had made that commitment to God telling Him that if my prayer was answered, we would go ahead with the project. Lorraine quickly agreed that my prayer had been answered, so we got busy and sent replies to the 20 churches advising them of our plan to proceed.

Now I had a real responsibility. I had made a commitment to God and to those 20 churches that we would produce a product to help their members. Furthermore, I felt that we had to use the best technology available and design and build a reliable system in full accordance with the Federal Communications Commission regulations. Some of the design requirements were in technical areas where I had little or no prior experience.

Proverbs 3:5-6 says, "Trust in the Lord with all your heart and do not rely on your own insight. In all your ways acknowledge Him and he will make straight your paths". With that comfort in mind, I talked to anyone I thought could help me technically. I also picked up some new books on the latest solid state radio transmitter technology and contacted the local FCC office for their guidance. It was exciting to take technical choices to God in prayer and see Him sort

them out.

By August 1975, I had a system operating that I was quite pleased with and installed it at Normandale Church to replace the earlier vacuum tube transmitter. It was thrilling to hear the users comment on how much clearer and stronger the new transmitter was. We then proceeded to order parts for 100 systems and placed national advertising in two magazines sent to pastors and church administrators. I also decided to order a subscription to the FCC regulations to keep up with any future changes.

T R O U B L E W I T H T H E F C C

In December, as the component parts were beginning to arrive, so did the first revision to the FCC rules. What the revision said was that in October (two months earlier) the rules had been changed to require unlicensed low powered transmitters to be tested and the results sent to the Commission before any marketing could commence. So I was in trouble with the very agency whose support I now needed. I called the local FCC office and told them I was in violation of the new rule because we had already scheduled advertising. They said, "Don't worry, just call the Washington people. We've got more to do than to worry about people who are trying to con-

form with the rules.” I called the Washington people and they said the same thing. They just asked that we get the testing done and send the results as quickly as possible.

The rule change also affected some of the technical requirements; so, I had to redesign the transmitter. I then arranged for testing by a local laboratory. I sent the results to the FCC and, while we waited for the certification which would confirm our test results, we started building the first dozen systems to meet the orders that were coming in by that time. A few weeks later, Lorraine called me at the office to tell me that the letter had come from the FCC office saying that they had rejected our request for certification.

That was hard to believe, but it came down to an interpretation of one requirement that was a bit ambiguous. Yet the FCC engineer suggested that I reapply under another procedure that would require field-strength measurements to be made in an open area outside at a distance of 300 meters (1000 feet). I had avoided that procedure for obvious reasons to anyone familiar with Minnesota winters. But now it was March, and the snow was nearly gone so that I could proceed with the tests. Regrettably, I found that I had to reduce the power of the transmitter and that, in turn, reduced its useful range.

With these new results in hand, I decided to fly to

Laurel, Maryland, where the FCC had its laboratories. Then I began to have some concerns. Would there be some way that I could restore the transmitter power or not? Would the FCC be supportive of the project? In the parking lot, I took a few minutes to pray and told God that it was up to Him to make this trip pay off. I knew that God had led us this far, and I knew He wouldn't let me down, but the trip down had not been smooth. Because of bad weather in Chicago, the scheduled flight connection was missed. I had only three or four hours of sleep; I was tired and needed reassurance.

I need not have been concerned for, once inside the building, I found out that the engineer who handled my request was a committed Christian and that his wife wore a hearing aid. He was completely sympathetic to my cause. He reviewed the test results and told me that, with the changes I had made, I could have the certification. Further, he suggested I visit the FCC Engineering office in Washington to see about the feasibility of a special ruling for our product so we could increase the power and range legally.

A few weeks later, I made the trip to Washington and again had the same apprehensions. The Federal bureaucracy is overwhelming to a neophyte. Again, I told God he'd have to come with me and guide the discussion. Once again, I couldn't believe it. In

that big Federal bureaucracy, I ended up talking to another engineer who allowed God to direct his life. He suggested that I file a petition for a rule change to establish a nationwide frequency for hearing assistance transmitters to operate on with increased power. Needless to say, I walked out of there giving praise to God! We filed the application he suggested, but no action was taken by the FCC until 1983, eight years later.

PART III . A BUSINESS IS BORN : 1976

Meanwhile, orders started coming in for the systems and we began making shipments. It was a thrilling experience to receive letters telling how people were being helped by the new product. But running a part-time business, in conjunction with a full time job at Control Data, placed extraordinary demands on my time. But when we got a little behind, amazingly enough, the incoming orders seem to slack off until we caught up. God knew just how much pressure we could stand, and He appeared to regulate it very well.

By February 1979, the business had increased to the point that the two of us could not keep up with it, working nights and weekends. We hired a techni-

cian to come into our home to build and tune the systems. He and I would pass each other as he was coming to work and I was leaving to go to Control Data. I wanted to quit CDC and devote full time to the new business, but Lorraine wasn't so sure. She liked my regular paycheck. But by May 1979, it was apparent that we had something good going and the long hours were taking a toll on both of us. She told me I could quit CDC.

By October of that year, we had outgrown our basement space and moved the business into a new industrial townhouse in Eden Prairie and had hired a part-time secretary to help Lorraine. By being able to devote full-time to the business, it grew even more rapidly. By April 1986, we had about 35 employees and had outgrown all the space that was available to us in the Eden Prairie building. We moved the business to a new industrial townhouse in Minnetonka, where the company resided for several more years. Today, it is back in Eden Prairie, just a short distance from the first building.

PART IV . EPILOGUE

I made a commitment to Lorraine many years ago that we would retire at age 60 if we had the means to do it. So, in 1987, just after my 60th birthday, we



William Sound corp.

sold Williams Sound to a group of our 55 employees whom we were confident would continue to operate it with the same philosophy of serving people as we had (and, I am pleased to say that they have done that). I was elected Chairman of the Board of Directors, even though we no longer owned any stock in the company. Up through 1994, we were formally involved as consultants to them. Today, we are associated simply as friends.

In the spring of 1987 we began building our retirement home on Lake Hubert, near Nisswa in central Minnesota. We sold our home in Edina, and we live here year around — except for the few weeks we spend each year at our condo at Kihei on the island of Maui. It didn't take long for people to make us feel welcome here, and we find ourselves involved in a wide range of new activities in the church, the community, and the Lake Hubert Conservation Association. We have quickly grown to love the Nisswa area and our many new friends, most of whom are transplanted retirees. I now have a new found interest: gardening, especially hostas. At last count, we had over 280 varieties.

P A R T V



POST EPILOGUE

Since I am still alive at 84 while they are re-printing this little story, I thought that I should bring it up-to-date. My wife of 56 years, Lorraine, died on May 12th, 2006. We were still living in our retirement home at Lake Hubert. She had been bed-ridden the last six years of her life with a broken back that Mayo Clinic surgeons could not fix. The fracture was the result of her taking prednisone to treat her arthritis for 30+ years. We did not realize it but it slowly dissolved her skeleton.

Overnight, I became her caregiver. I had to learn so much that I now give a talk titled “The Husband as Caregiver”. We engineers are problem solvers but all I could do was to care for her and devise a few things that made her situation more tolerable. I had a standing appointment with a chiropractor to put my back right every two weeks.

One day before she died, she called me aside and said “Jerry, you have to make me a promise”. She said “You have to promise me that you will take care of Florrairie after Bill dies”. Florrairie was her identical twin sister. Bill was Florrairie’s second husband and was ten years older than she. She married Bill after her first husband died from a sudden unexpected heart attack after only eight years of marriage.

I told Lorraine that I had given that some thought and asked if it would be acceptable if I married Florraine when the time came. She said "That would be alright".

I stayed on at Lake Hubert for one year after Lorraine died but it was terribly lonely, especially in the winter when I had no neighbors. At a Christmas family get-together, Florraine suggested that I consider moving to Northfield. That was a great idea because I would then be within a one-hour drive of all of my children, grandchildren, my sister and Florraine. I did that in May 2007.

Bill died in January, 2009. We were married on June 6, 2009. Because we were both in our 80's, we saw no reason to delay. Our children were very pleased because neither of us brought a stranger into the family. It is a good marriage. We both sense that God put it together for both of us.

