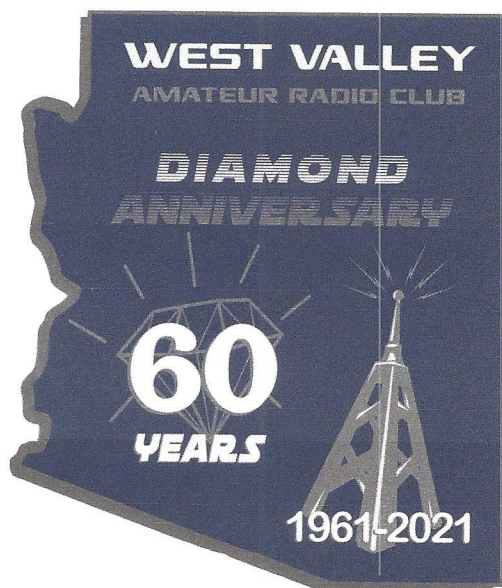
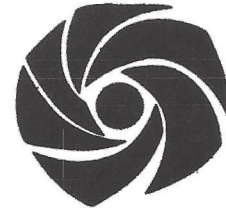


SIXTY YEARS OF HISTORY

by Jim Rogers, N7YTI
&
Ken Jenkins, WB6MMV





Sun City Amateur Radio Club
Sun City, Arizona 85351

In October of 1961, seven ham radio operators got together in Sun City, Arizona to create a new Ham radio club. Since they live in the recently formed retirement community of Sun City, formed in Jan 1960, they decided to call it Sun City Amateur Radio Club. The seven original hams are: Bill Poehls, K7RDC, Graham Maconomy K7RUR, Sam Davenport W7RHT, Bob Hill W7VZA, John Ingwerson W7CS, George Mezey K7NIY, and his wife Georgianna Mezey K7NOA. George Mezey, K7NIY stood up to be the first President, with Bill Poehls, K7RDC as Vice President.

The club started to grow with the addition of Charlie Blake, W7BP in early 1962, with Ray Kruke WA7NOY and Earl Baudendistie W7DMV joining in 1963. At first the group met in each other's homes, but as others joined like Stan Wade, W7PD, LeMarr Lundstrom K7OGA, and Chuck McGinnis W7GJH larger accommodations were needed. They moved the meetings to the Town Hall Center (later renamed Fairway Rec Center). In addition to this period, the club affiliated with ARRL on May 10, 1962. They were awarded a 30Year affiliation Certificate in Aug 1992.

By 1965, several Youngtown Hams had joined the club, the name was changed at that time to Youngtown-SunCity ARC. The meetings were moved to Youngtown's First Federal Savings, and later to First Federal's branch at the LaRonde Shopping Center on Del Webb Blvd.

The first public affair attended by the club that was authenticated by a QSL post card that Charlie Blake found in his files, celebrating the 2nd annual Western Days, October 12th, and 13th, 1962. Field Day operations were held at the swimming pool at the Town Hall Center.

By 1973 membership had continued to increase to over 120 members and it was decided to move the meetings to the Fairway Rec Center. The name was changed back to the Sun City ARC. This had to be done due to the rules of Sun City groups meeting at the Fairway Rec Center. In addition, only Sun City residents could be members of the group, this would prove to be a problem in coming years as Surprise and Sun City West started to develop. More on that later.

In 1974 Ray Dickerson, W7LZS, organized the first Club Bulletin and used a suggestion by a member to name it "Short Skip", which continues to this day. Ev Hanna, W7HUB, provided the typing and printing with other members contributing their ideas for the contents. We only have the one issue of October 1974 preserved, and nothing till January 1976. A lot of information was lost, we will take it up from here.

By January 1976, the membership had increased to 120 members and were meeting on the third Tuesday at the Fairway Recreation Center, 107th and Peoria. The club held a weekly net on 28.7 Mhz each Wed eve at 7:00 pm, and a 2-meter simplex was available on 147.57 Mhz. Phoenix repeaters in 1974 consisted of 146.04/64, 146.16/76, 146.22/82, and 146.34/94. There were only 21 repeaters in use or applied for in the state of Arizona. During the 1976 year the club finally decided to incorporate and was successful in getting that done at a cost of \$73 with many of the members donating a sizable portion.

DX was still a very popular part of Ham radio, however in 1976 the sunspot cycle was approaching the bottom of the cycle, 10 m and 15 m was not seeing a lot of use. Ham equipment for sale seems reasonable in today's prices, but you must remember that the minimum wage in 1976 was like \$1.25 per hours. When you see a HW-100 with Power Supplies for \$225, that was a lot of money back then. There was a Henry 2K4 amplifier listed for \$795, wonder what it would be worth today?

The Annual Ladies Night Banquet was first listed in the 1976 Short Skip. Since they were calling it the "annual" at that time, we have no idea when it started, but it has been an ongoing function since. A list of years, costs, and location is listed in the enclosed table.

One of the most prominent Hams at this time was of course K7UGA, Barry Goldwater. In November of 1976, an outing was planned to visit Barry's home QTH. That would have been a great opportunity. Another issue that the hams were dealing with during this time was the rise of Citizen Band operators, many wanting to cross over to ham radio. The club was developing classes for anyone wishing to become hams.

In October of 1976, the club celebrated the 15th anniversary. Only Bill Poehls, K7RDC, was able to attend, two of the founding members, George Mezey, K7NIY, and his wife Georgianna Mezey, K7NOA, were unable to attend, but about 40 members attended the picnic, held at the Heading Ranch. The club has grown from the original 7 charter members to 125 on the current roster.

The 70's saw a growth in membership not only for the club but Ham radio in general. Partially due to the people converting from CB to Ham. A problem with CB'ers was their jargon, causing the Hams to work at getting the CB'ers to use normal verbiage, especially on 2-meter operations. This also got the club to do more with license classes, not only Novice, but Technician, General, and at times Advanced/Extra classes as well.

Thru the 70's and early 80's, the club nets were on 28.7 Mhz on Wednesday Evenings. During the summer, they held daytime nets once a week for the people who were snowbirds and back home for the summer. From 1982 to 1987, the club moved the weekly net to 147.57 simplex each Wednesday. Regular club meetings were held on the third Tuesday each month at the Fairway Recreation Center in Sun City.

In 1980, the club decided to double the dues, from \$2.00 to \$4.00, and then in 1989 it was increased again to \$10.00. The last dues increase was in 2011 to the current \$15.00 per year. It's a tribute to this club how they have kept the dues low so anyone can afford to join.

By March of 1978, the VHF and UHF repeaters were growing in the Phoenix area as well as Statewide. 2-meter repeaters were the most popular by far, with 54 statewide and 17 in the Phoenix area. 6-meter had 8 statewide and 5 in the Phoenix metro, with 70cm only 8 statewide and 6 in Phoenix. Part of the

issue with 70cm was the lack of radios at that time, and the ones that could do 70cm were expensive. Not true in today's world. All the repeaters back then had to be registered and received a WR7 call, wonder why the FCC dropped that requirement.

In April of 1978, a couple members sponsored a Dutch Treat luncheon at the Greenbriar Cafeteria. That must have caught on since it is still going today. It started out as a Thursday lunch, and in 1984 a monthly Saturday breakfast group was started in addition the weekly Thursday luncheon. In 1998 the Saturday breakfast was moved to Tivoli Gardens and has met there ever since, now being on Thursday Mornings.

The club was moving in the right direction in the late 70's and early 80's. Most of the Short Skips just mention who was going to be the speaker at the meetings and buy and sell items. A few tidbits included such things as US Post Office was issuing IRC's, or International Reply Coupons, for 25 cents. Hams at the time used these to get foreign contacts to send their QSL cards. DX contacts were going great with sunspot cycle 21 at its peak around 1980 and 1981. May of 1983 was when the FCC eliminated CB licenses, now anyone can operate a CB, which only made the thousands that were already operating without a license, legal.

Summer nets continued to run for the club members that were out of the area. They ran on 20m, 15m, and 10m and were very popular. Lunch at Ritter's continued thru the summer even though the club meetings were suspended from June thru August.

Changes were coming in 1984 with Ham Radio Outlet opening their new store in Phoenix in February of 1984 and the formation of a new Multi-Community Radio club to meet at the First Federal S&L in the La Ronde Shopping center. Of the 45 hams in attendance, 29 from Sun City, 10 from Sun City West, 3 from Peoria, and 3 from Phoenix/Glendale. The second meeting consisted of mostly Sun City hams with one each from Youngtown, Glendale, Sun City West. Unfortunately, by the end of 1984, the new Multi-Community club was dissolved due to lack of interest outside of Sun City. In November of 1984 the first mention of assisting APS at their on-site Palo Verde Plant siren tests performed on Oct 17 and Oct 24. This project continued for the next 35 years.

Even with the demise of the multi-Community club, there still was a concern that according to George Chaet in January of 1985 there were 37 hams living in Sun City West. Should the Sun City club look into including them? Not much could be done right then due to the 25th anniversary celebration for Sun City. The Sun City club helped coordinate the parade with around 20 hams helping by standing by for emergencies. Sounds like it was a great time for all involved. The 2-meter alert list that was published in March of 1985 had over 100 hams on the list. The membership was at 147 members in total. The December meeting will introduce a fairly new "Packet Radio", I know some of us remember when this came on the scene. It was active for a few years but faded away when computers started coming into play. Something that was a Ham's worst nightmare was RFI, (Radio Frequency Interference). Hams had to help their neighbors by putting chokes and filters on the neighbors houses to eliminate this. The club had an active RFI/TVI committee to help with this issue for many years.

January of 1986 saw an increase of hams in Sun City West to over 70 hams, doubled from a year ago. However, the Sun City Club was not ready to expand outside of Sun City at this time. ARRL reported an increase of 15,000 in 1985, with most hams supporting keeping the Morse code as a license requirement. In February, the first DX report was in Short Skip by Ed N7EB. Not much to report due to

poor HF conditions. Mostly due to the being at the bottom of the sunspot cycle. Cycle 21 was ending in September of 1986. April of 1986 saw the Sun City Ham Swap meet at 108th and Grand. This is the first time a club sponsored Swap meet has been mentioned, possibly the first. Mention of the Sun City West hams in the April 1986 Short Skip stated that the 76 or more hams in SCW are welcome to attend the Sun City meetings and join in on the 147.57 Wednesday nets. A comment was made that it was expected that the Sun City West hams would probably form its own club one day. The Sun City club was more than happy to have the SCW hams renew their ARRL memberships thru the Sun City club, the SC club could reap the \$2 sign up award from ARRL.

Packet radio was busting at the seams, the club now has three members in the ranks of Sun City Packeteers and using TAPR TNC's. For those not familiar with TAPR, it stands for Tucson Amateur Packet Radio. The Tucson club was very instrumental in getting Packet radio going.

May of 1986 found the club acquiring a Post Office Box, SCARC P.O. Box 1573, Sun City, AZ 85372, which we still have to this day. The May meeting held a "Stump the Experts Night" with a panel of five local hams having a total of 242 years' experience. They were Ed N7EB, Bert W2GOB, Maury W7XY, Paul W7KBE, and Sam W7JHQ. October of 1986 saw the startup of training classes, Novice, Technician, General, Advanced, and Extra.

With the growth of Sun City West hams and others in surrounding cities, the Sun City ARC decided to open the membership to all west valley hams. In September of 1987, the first meeting of what will become the West Valley ARC met for the first time at St. Clements of Rome Church at 15800 Del Webb Blvd, which is where this club met for the next 30 years. Over 100 hams attended the September meeting from Sun City West, Youngtown, Peoria, Glendale, and Phoenix. They set the meetings for the fourth Monday of each month, and many joined on the spot to get the new club going. Elections for officers and board would be at the December meeting. George Hands would become the President of the newly formed WVARC.

Also happening in 1987 was the first 2-meter repeater placed in Boswell Hospital. The frequency was 147.90 input, 147.30 output. The repeater was a Spectrum SCR-2000-X with 8 watts output. This repeater came about when a group of West Valley hams needed a better antenna site, offered to share their repeater with Sun City hams. The repeater will eventually serve as a vital link in communications between Boswell and Del Webb, Fire Departments, and Sheriff's posse, with the hope to have a repeater on Del Webb someday.

Sunspot cycle 22 was in its third year and making DX hunting a lot of fun. John Allen W7YR was the editor of the DX part of Short Skip and every issue included more listings of hard-to-find stations around the globe. By September of 1988, there were two repeaters on area hospitals. On Boswell was the 147.90 machine and on Del Webb was 144.69/145.29 repeater. Both were dealing with intermod at that time, and both had autopatch capability. The weekly net was moved to the Del Webb repeater on 145.29/144.69.

January of 1989 saw hams discussing the proposed No-Code entry into amateur radio. The club was mixed on the subject, and we all know how that turned out. In addition, the club decided to raise the dues to ten dollars, the first change in ten years. Another item of interest is a new member that year by the name of Dan Ford, WA2YN (now K2LH), and from what I can see he is the oldest current member of the club. Later in the year, Bob Drake, N7ECE, was also mentioned. The Palo Verde Siren Tests had fifty-

five ham radio operators turn out to assist. Dick Jackson, K7VCI reported no malfunctions. Bill Johnson, W9WFV, was in charge and the WVARC had 45 members participating in the event.

In September of 1989 Hurricane Hugo hit the Caribbean and the WVARC hams stepped up to run messages in and out of areas including St. Croix. A total of 93 messages had been handled by local hams by the time it was over. One item mentioned was a woman in St. Croix was in need of medication that she was running low. One of the messages on 9/20 was helpful in locating her, and a second on 9/21 directed her to the airport at St. Croix where a ticket purchased by her mother in Phoenix was waiting. She arrived in Phoenix on 9/24, was checked briefly at a hospital, and was ok at her mother's home. On 9/19, NBC affiliate KPNX Channel 12 videotaped operations at the QTH of Bert Davidson W2GOB. The tape, showing Bert handling emergency traffic on the HF bands, was broadcast on the 5PM local news. The following day, Sun City's Daily News-Sun carried a front-page story of the club's operations, with a picture of Bill W9WFV in action at his QTH. A proud time for hams and WVARC.

Another great story about how WVARC hams can be prepared to help was in the December 1990 Short Skip. On November 8, 1990, Stan Swartz, K7PLO, heard a MAYDAY call on the Tower Mountain repeater. Phoenix ham Terry LaFuze N7IXW had been accidentally shot while hunting in the Williams area, and Mike Kitchen KB7CEH was calling the repeater. Stan called 911, and the information was relayed to Kingman where a helicopter was dispatched. Help was at the scene about ten minutes after the call, and the chopper arrived soon afterward and transported Terry to a Flagstaff hospital, where he was soon resting comfortably after removal of part of his liver. Once again, ham radio had come through to help someone in distress.

Good news was reported in February of 1990. The Glendale Planning and Zoning Commission recommended to the City Council that licensed Amateur Radio operators in residential family dwellings be permitted antenna towers up to 75 feet high in their backyards. The Council approved the recommendation at their next meeting. Other items of interest that year was the club would provide a list of members on a 5-inch DD Floppy disk, anyone remember these? At the May meeting, the club approved the expenditure of up to \$750 for the purchase of a used 440Mhz repeater to come from the repeater fund. The repeater fund is maintained by individual contributions and is separate from the club's operating funds. In November of that year, the club approved the purchase of a 440Mhz repeater with a cost of \$4300. \$1900 of this already in the repeater fund, and the additional \$2400 is expected to come from individual contributions which is tax-deductible under the clubs newly acquired 501 (c) (3). The 440 machine will be place on Boswell with the current 2-meter repeater to remain with the club maintaining the loaned machine.

The RFI (Radio Frequency Interference) group has been active in the 90's. One of the main areas of concern was with Telephone interference. Several articles addressed how to handle these cheap phones with less than adequate filtering and shielding. One of the issues that the RFI committee had to address was whether the offending transmitter was a Ham or a CB'er. A very in-depth article was written in the August Short Skip on how to handle these issues, including TV's.

Chuck, W7YU, continued to write a DX Notes column for the Short Skip showing where DX stations were found or may be operating. Stations such as Burma, 1B90CW, San Marino, T77C, Reunion Island, FR5DX, and many others. For those chasing DX, this column was very helpful every month.

At the December 1990 meeting, members that had licenses of over 50 years were acknowledged. Clifford Ray K7BQ, topped the list with over 70 years. Which means he got his licenses in around 1920, imagine the changes he had seen in ham radio. The full list is included.

The 90's found the club involved with a lot of different topics of ham radio. Such topics as OSCAR, AMTOR, Packet radio, ISS, ATV, RFI, and numerous articles of general interest. It would be difficult to reprint most of them here, but I highly recommend going back to the 1990's Short Skips for some very interesting articles.

In the April 1992 Short Skip an article of interest concerned the WVARC and emergency communication. It read as follows:

"Several years ago, on three occasions, telephone service from Sun City's Boswell Hospital to the outside world was cut off due to construction mishaps or other failures. Amateur radio operators from Sun City provided voice communications between nurse's stations and doctors in their offices. Because of these outages the Technical Committee of the club prepared a plan to provide better and more realistic emergency communications for the Boswell Hospital and the then new Del E. Webb Hospital in Sun City West"

"The useful relationship between the club and hospitals was recently demonstrated when Boswell lost its incoming and outgoing phone service on the morning of March 2, 1992. Boswell's communication manager, Susan Young, informed Emergency Coordinator Bill Johnson from an outside phone. Bill called the team captains, and within about ten minutes the first volunteers with HT's arrived at the hospital. They were stationed at various location around the facility to relay outgoing telephone messages to fixed monitoring stations ready to make the calls. Two mobile stations were sent to Del Webb to provide interhospital communications. The problem was found at the Glendale exchange, and normal communication was restored some 90 minutes after the outage began." This is a real tribute to the WVARC and preparation for emergency communications.

Our February Auction started in 1994. And continues to this day. In Oct 1994 it was announced that a new Science and Technology Museum would be built in downtown Phoenix. In 1997, CARL, Center for Amateur Radio Learning, at the science center was getting started. Our club donated a FT-990 radio and \$1000 cash to help get the station on the air. We have had a good relationship with CARL over the many years. The club encourages anyone that is interested to volunteer to help out at the science center, it is a great opportunity to get both kids and adults exposed to amateur radio.

The 1990's showed continued interest in Ham radio and membership in the club reached over 400 for several years. Exact numbers are not available. DX'ing was very popular during the 90's and continued into the 2000's with Frank Smith, AHOW, posting great information on DX every month. Other topics included such as ATV, Satellite, RTTY, Packet Radio, and other elements of the hobby. The club continued to have classes for all levels of licenses, had code practice over 2-meters, and promoted the Center for Amateur Radio Learning (CARL) at the science center. The Annual Auction continued to be a success and is still strong today. Members continued helping out with Palo Verde Siren Tests and several emergency events and exercises.

By the 1995, several current members start to show up on the roster, joining our Dan WA2YNE (now K2LH) who joined in 1989. Not sure when they joined, but Tony, W2QL (Silent Key) and Phyllis Cipolla, N2AGY (now W1JUN) are in the early 1990's short skips. Those showing up in 1995 were Jerry Basso, W9JIF and Rich Hayworth, W7MDQ. The following year shows Joe Cutitta, WA0SL (W0SL) now Silent Key, and Dave Morrell N7TWT. Faye Delaney, KC7TOJ, got her license in 1997 and joined the club. WVARC has seen a lot of people join the club over the past 60 years and made the club what it is today. It would be impossible to even try to list all of them, but I do suggest when you have time to go back and read some of the past Short Skips to get a feel how Amateur Radio and WVARC have evolved.

History of WVARC repeaters:

The original repeater committee consisted of Sam Lewbel W7JHQ, Stan Edgeton K8RAL, Tom Watts NY7S, Marty Shapiro KA7GKN, and George Hands KE7DH. They had the task of acquiring repeaters and getting them on the air.

In 1987, they obtained a Spectrum SCR-2000 to put on Boswell Hospital using the repeater pairing of 147.90 input and 147.30 output. This radio had an output of 8 watts and did not have autopatch at the time. They used Don Starkey's call sign of K7NHR/R. This machine experienced intermod and interference over the next few years.

A second repeater came about in 1987 and installed on Del Webb Hospital using the pairing 145.29 output and 144.69 input and George Hands call of KE7DH. They used a Yeasu FTR-2410 with an output of 10 watts. Again, intermod and interference was a problem with this repeater as well.

With the issues they were having it was decided in 1993 to relinquish the 145.29 pair and retuned the Yeasu for 147.300 pair and it is still in use today. Although we have gone thru several different radios over the years. Currently we have a Yeasu VXR-7000. In 2001 the club wanted to put a better antenna on the Del Webb repeater, 30 feet of Tower and a DB-224 was purchased and after David Cain got all the FAA paperwork approved, it was installed and remains there to this day.

After Tom Watts passed away, the club asked his son if it would be possible to get Tom's call to use on the 147.300 repeater, and he approved. Today we honor Tom by using NY7S on that repeater.

Our 70cm repeater was installed in 1991 on Boswell Hospital using 449.800/444.800 frequencies. Sam Lewbel lent his call for this repeater, but in 1992 after Sam passed away, they had to change the call to W7JHQ. Tom Watts obtained Sam's call in 1997 after the FCC had deactivated it. We still have that call today.

Prominent people:

First is Sam Lewbel, W7JHQ. Sam was very active since the early 1970's, and wrote many articles for Short Skip, such as how to use your oscilloscope or a new VOM, and many more subjects. Sam was instrumental in getting our repeaters on the air in the late 1980's. Sam passed away in April 1992, and in the Short Skip they mention how he had mentored many hams and was always available to help anyone that asked. His call is the one we have on the 449.800 repeater today.

Another man that needs to be mentioned is Tom Watts, NY7S. Tom was one of the founding members of WVARC and involved for over 30 years. He also was very involved in getting our repeaters on the air. Tom was selected Man of the Year in 1991. Tom passed away in Dec 2008, and his call is the one we have on the 147.300 repeater today.

Ray Summer, NW7R contributed almost monthly to the Short Skip with a column on DX'ing. He inspired many hams to get on the air and chase that rare DX station. Ray was Man of the Year in 1997. He moved back to Connecticut to be closer to his family. We owe Ray a special thanks for contributing his collection of Short Skips so we can have them available on our web site today.

Alfred J. Gross, W8PAL is a very special member of our club. Al was born in Canada, but grew up in Cleveland, Ohio. He was an inventor and held many patents over the years, but the one thing that hams owe him a tribute for, is his involvement in creating the walkie-talkie during WWII. Donald Hings invented the Walkie-Talkie in 1937, but Al created and patented his own version using frequencies above 100Mhz. He created and invented many other products and I recommend reading about him on Wikipedia https://en.wikipedia.org/wiki/Alfred_J._Gross. In later life, Al moved to Youngtown to retire and was a member of the WVARC until his death in Dec 2000. In May of 1992, Mr. Gross was the speaker at the club meeting. In the credentials listed in Short Skip were his commendations from the Dept of Defense, the FCC, GTE Sylvania, IEEE, the Japanese Electronics Association, etc. He was awarded a Presidential commendation by President Reagan and was also honored by the Radio Club of America for "pioneering the portable two-way personal radio." At that time, Mr. Gross was the Senior Staff Engineer of the Space Data Division of Orbital Sciences Corporation. The club was very excited to have him speak at the club meeting.

Notes on the Early years of the WVARC repeaters on Del Webb and Boswell Hospitals

Ken Jenkins WB6MMV

We pick up the early history of WVARC's repeaters with Tom Watts and Tim Hayes with Ted Walker. The club had just installed a commercial 4 element folded dipole array on a section of Rohn 25G tower using a commercial antenna company to mount the entire assembly complete with hardline to feed the antenna on the top of Del Webb hospital. The antenna was oriented to provide 360-degree coverage on 2 meters using a surplus Motorola repeater that was modified for the ham bands. A four can duplexer was installed and a repeater controller with associated power supplies were added to complete the station.

The 2-meter repeater on Del Webb

The station was in operation for 4 years or so before changes were made: 1. The antenna was reoriented to reduce coverage along the I-10 corridor to improve east directional coverage into the East valley, Apache Junction and down to Chandler and Gilbert, 2. The repeater controller was changed to a brand that was essentially a one-man operation with proprietary code which turned out to be a poor decision. This repeater was difficult to program, and Ted Walker spent most of his time trying to get the repeater controller to do what was desired; however, the controller had its own ideas and Ted was always spending time trying to get it operate consistently. Having the one-man code source was problematic. 3. The duplexer was a Wacom 4 can unit that was in need of periodic calibration and the club had been using a loaner spectrum analyzer from the Arizona Repeater Association. However, that individual passed away and Ted Walker was tasked with figuring out how to check the duplexer's performance. I had joined the club and began working with Ted and Tim Hayes. Ted felt we needed a spectrum analyzer and I suggested that we look at the new Rigol low-cost spectrum analyzers with a tracking generator. Cost back then was around \$1800. Due to some complex financial adjustments, we were able to secure the analyzer and then performed a check of the 2-meter duplexer on Del Webb. While it was within spec, it was clear that new connecting cables were needed. I fabricated some double shield Teflon cables suitable for a duplexer and we installed them and retuned the entire system. Another year passed and we decided to get a new repeater to replace the old Motorola machine. We ended up getting the wrong frequency range machine due to deception from the selling vendor and John Siepmann had to put on the hat of a mean finance guy to get the vendor to correct the wrong and get us the proper repeater. With a new repeater and newly adjusted duplexer, we then decided to go for a much fancier repeater controller which eliminated all the problems with the old one and provided new flexibility in repeater functions.

Wickenberg Hospital

We were asked by the Wickenberg hospital to install a direct 2-meter link from the Wickenberg Hospital to the club 2-meter repeater on Del Webb and then into the Del Webb hospital internal comm net. This was due to a major power outage in Wickenberg due to a construction project accidentally cutting all (and we mean ALL phone communications) in and out of Wickenberg. This resulted in need for the direct line to Del Webb Hospital. Ted, I and others designed an antenna system to mount on Wickenberg's hospital that was high enough to clear the terrain between both hospitals with a 50-watt 2-meter rig to access the repeater on Del Webb. Power was necessary due to the antenna on Del Webb being focused on the east valley and not North. Connections in the hospital were made so that the medical personnel on the Wickenberg staff (most had their ham licenses at that time) could operate the equipment and make direct contact with the Del Webb hospital. This arrangement lasted for a few years until improvements in the normal comm infrastructure eliminated the need to this direct link. The antennas are still in function on the Wickenberg hospital today. Key players were Dave Porta, Bob Kettler, Ted Walker, myself and others in the club whose names I have forgotten.

The 440 machine on Boswell

The 440 machine on Boswell was a much more modest installation with a smaller omnidirectional antenna mounted on the safety railing on the roof of Boswell. This install was done entirely by club members using surplus power supplies, cable, antennas and controllers. I don't have any info on when it was installed but was operating when I took over with Ted in maintaining the machine. We had to do a duplexer calibration using the club's Spectrum analyzer and once again I replaced all the interconnect cabling between the cans on the duplexer and we completed the calibrations. Usage of this machine was almost nonexistent for the most part. Most of the activity consisted of hams informing their wives when they would be home from work or errands. We had the usual repeater controller issues with this repeater due to using the same one man band repeater controller which was problematic due to programming difficulties.

General Thoughts on the two repeaters

We have had a lot of ideas on how to use the repeaters over the years that I was involved with them. Suggestions of going high power for greater range, bigger antennas for stronger coverage in the east valley, linking the two repeaters and doing automated back ups on each side with two repeaters being used, switching remotely, etc. Most of the suggestions were not acted upon due to cost and technical issues. Also, from time to time the Hospitals would get grumpy and suggest that we move our stuff to somewhere else came up. As with many clubs, lots of ideas for someone else to implement so that everyone could use them. Our experience with the extremely low usage of the 440 machine is what eventually led to the excellent suggest by Frosty to make the machine a digital one which reinvigorated the usage of the machine.

We did use the Del Webb machine to provide radio coverage for a World Class motocross event held in the Lake Pleasant back country providing comms for both race and medical coverage. I

went up with medical gear and played doc in the box for the racers who seemed to have desired intimate relationships with various species of cactus, requiring lots of spine pulling activities.

I have left out many names of those who had a part in the success of the two repeaters over the years but there were many who spent time, money and sweat keeping the machines running and meeting the club's needs.