

# **Stanislaus Amateur Radio Assoc.**

## **Mt. Oso Access Story**

### *The Mt. Oso Access Story*

[By Bob Pinheiro, WA6ZLO](#)

*(This is the story of a group of Amateur Radio operators in the Modesto area who banded together to build a radio repeater system on Mt. Oso in 1975, 19 miles west of Modesto and gaining access to Mt. Oso over a private road. This led to the birth of the Stanislaus Amateur Radio Association.)*

Sometime in 1975 Chet Jensen, W6XK, was in (QSO (ham radio contact) with Dave Metts, WA6MNM who at the time lived in the Los Angeles area. During the conversation Dave mentioned that he was a broadcast engineer and inquired about any jobs in the Modesto area. Chet told Dave that Channel 19 in Modesto was looking for a Chief Engineer. Channel 19 was owned by Chester Smith and operated from studios on Iowa Ave west of Modesto. Their transmitter was located on Mt. Oso in the Coast Range mountains west of Westley, CA.

Dave applied for the job and was hired. Shortly thereafter Dave hired his friend Chuck Dort, K6PSJ, as his assistance engineer.

Back in those days FCC regulations required close monitoring of remotely located transmitters that required Dave and Chuck to make weekly trips to Mt. Oso. Channel 19's transmitter was located in a small building constructed on the ridge just south of the South Peak of Mt. Oso. The elevation was right at 3,000 feet. A small tower was erected next to the building to hold the TV antenna.

To reach the top of Mt. Oso required Dave and Chuck, and other radio technicians, had to travel over what is known as the Ingram Creek road, a dusty rough private dirt road that made it's was from the beginning at Interstate highway 5 at the Westley off ramp the 7 miles to the top of Mt. Oso.

The road passed over the property of 3 different land owners, Ed Filbin and his family at the bottom, the Gerber family in the middle and the top which belonged to the Fisher family.

During their many trips to the top Dave and Chuck became well acquainted with the Paul Gerber and his son-in-law and at one point installed a CB radio system in their homes and vehicles for communications on their ranch which covered hundreds of acres in the area.

Dave and Chuck, both active hams at the time, were aware of the fact that Modesto did not have a 2 meter repeater. The only repeaters in this area at the time was the Stockton repeater, 146.88 MHz and the Turlock ARC repeater, WR6ALG, located on Mt. Bullion near Mariposa. They began thinking of putting on a repeater and what better place to put it than on Mt. Oso, the third highest point in Stanislaus County at jover 3,360 feet. As best I can recall this was late 1974 when they decided to go for it.



The first task was selecting a frequency pair in the 2M band, which was not going to be an easy task. Back in those days the 2 meter band was only 2 MHz wide, 146-148 Mhz. and the band was full in all most the entire state. After studying the problem for several weeks they decided that they should be able to use 146.73/13 which was a pair sanctioned to the Santa Rosa Amateur Radio Club in Sonoma County. Their thinking was that by pointing several beams directly at Modesto that the repeater would not interfere with Santa Rosa. They decided to go forward with the plan.

Although they never got official permission, they decided they put a repeater inside the Channel 19 building on Mt. Oso and mount antennas on the side of the TV antenna tower. They started to gather and purchase the equipment need including several pieces of surplus equipment belonging to channel 19 that became part of a homebrew repeater. Dave and Chuck contributed many hours of their time and money on the project and on December 10, 1975, WR6AHQ/6, came on the air from Mt. Oso. In those days the FCC required repeaters to be licensed and assigned "WR---" calls. WR6AHQ belonged to Dave Metts and was licensed to a Southern California location. Thus the portable 6 designation was necessary for operation from Mt. Oso.

After several weeks of operation many local hams became aware of the machine and started to order crystals...yes crystals for their 2 meter rigs. I remember the most popular 2M handheld in those days was the Wilson walkie talkie.

Interest and usage of the repeater grew as time went by. After several months of operations Dave and Chuck decided that it was time for local hams to come together and support the machine. Area hams were invited to first meeting which was held on January 29, 1976 at the studios of radio station KBEE located at 13th and I streets next to the Modesto Bee building downtown Modesto. Chet Jensen was working there at the time and made the arrangements for the use of studio A for the evening. There was around 35 local area hams there.

Dave and Chuck explained what had been done and what they hoped to do in the way of improvements with help from the local hams. Dave and Chuck had selected the name Stanislaus Amateur Radio Group as the official name of the group. Donations were made by those in attendance to purchase equipment. It was decided to form a club in order to support the repeater and thus the beginning of the club. Within a few months the name of the club was changed to Stanislaus Amateur Radio Association and name selected by Dave and Chuck.



I don't have a real clear recollection of all the hams that were there for the first meeting but here are the ones I can remember.

W6KU Bob Huff. WA6OYP, Mel McCoy. Clyde Brasher, WB6QJU. Charlie Harding, K6SWW. Jack Smith, WA6OOX. Chet Jensen, W6XK. Cliff Price, W6ERE. Bob Pinheiro, WA6ZLO. Dave Metts, WA6MNM. Chuck Dort, K6PSJ. Jack Scanlon, W6OIN. Hugh Avary, W6CD. Don Butterfield, WA6QWY. Frank Wheeler, W6MMH. Tim Bosma, WB6UJD. Butch Miller, K6LRJ. Cliff Price, W6ERE. Tom Hedges, WB6DSK. Carl Cilker, WB6FZK. Sam Okuye, WB6NVR.

Dave was selected as the first President of the club. He, Chuck and Tim Bosma were named to the technical committee and with the funds provided by the group, Dave and Chuck started to purchase equipment. The first purchase was for Andrews Hard-line to replace the used stuff they had initially installed. They then bought five or six Cushcraft beams which were eventually side mounted on the Channel 19 tower on Mt. Oso.

Records show that the group met on January 29, 1976 in the banquet room at the rear of Sambo's Pancake House at 926 McHenry Ave. Modesto. By that time the membership stood at 24 local hams and donations to that date totaled \$150. Donations were received from Joe Siebert Communications, Don Reichling, W6UGC, Frank Belcher, W6NKX, Jack Scanlon, W6OIN, Bob Pinheiro, WA6ZLO, Mel McCoy, WA6OYP, Chet and Karen Jensen, WA6JRZ and WA6GTC and Dan Cron, W6SBE. The next meeting was scheduled for February 17, 1976 at Sambo's.

The next record we have is of the March 6, 1976 at in the banquet room at the rear of Sambo's Pancake House 926 McHenry Ave in Modesto. I believe the group continued to meet at Sambo's and continued to grow. At that time membership was at 40.

In the meeting announcement for the May 19, 1976 meeting at Sambo's, the membership had grown to 30 and items to be discussed at the meeting included RACES, incorporation and bylaws. More slides of the repeater were shown.

In July of 1976 paid members was at 43 and the next meeting at Sambo's was on July 21, 1976. The main topic of discussion was touch-tone interfacing for the planned autopatch to be installed on the repeater. Additional donations were requested to fund 450 MHz equipment needed for the autopatch because no there were no telephone lines on Mt. Oso.

A one page newsletter was published in early September 1976 announcing the next meeting of the group was set for September 22, 1976 at Sambo's. The announcements indicated that an auction was being planned to bring in more funds and an election of officers would take place. Weekly nets were established about this time on Wednesday nights at 8 PM.

I could not find any more records after September 22, 1976 until the first club newsletter was printed on December 1, 1977.

In the spring of 1977 friction developed between Dave and Chuck and some of the officers of the club over the operation of the repeater. The club wanted more input into purchases and changes. As I recall additional problems revolved around access to Mt. Oso. The friction heated to the point that unscheduled meeting of club officers and members and Dave and Chuck was held at the Sundial Restaurant on McHenry. At this meeting Dave and Chuck invited the son-in-law of land owner Paul Gerber. All I can remember about the meeting was that Dave and Chuck were very unhappy at the developments and told the club that they (Chuck and Dave) were the only ones authorized to use

the road to Mt. Oso and specifically that portion that passed over the Gerber Ranch and Gerber's son-in-law confirmed the information.

Relations with Dave and Chuck from this point on deteriorated rapidly which led to Dave and Chuck deciding to sever relations with the club and they shut down the repeater and removed it from Mt. Oso on May 15, 1977. It was at this time that Dave left Channel 19 and accepted a job with McClatchy Broadcasting in Sacramento. The hard-line, beams and a few other items which had been purchased with club money were delivered to my home by Dave and Chuck and dropped off.

I asked Dave if the club could purchase the repeater itself. He was willing to sell the repeater with the exception of the transmitter. He said he had another transmitter which he would install in the system if the club was agreeable. A meeting of club officers was held and it was decided to purchase the modified repeater from Dave and try to put it back on the air on Mt. Oso. I was asked to handle the negotiations. Dave was contacted in Sacramento and agree to sell the machine for \$200. The club borrowed \$100 from Mel Coy, WA6OYP and \$100 from Bob Huff, W6KU in order to make the purchase. On May 28, 1977, Tim Bosma, WB6UJD and I drove to Sacramento in Tim's van and picked up the repeater.

We knew it was going to be difficult to get the machine back on Mt. Oso because of the access problem over Gerber's property. It became apparent that Dave and Chuck had created a less than favorable impression of the club in the eyes of Paul Gerber and his son-in-law and securing permission to use the road over their property was going to be a big obstacle.

In the interim it was decided to install the machine in Tim's, WB6UJD, garage which was done when we got back from Sacramento on May 28, 1977. It was

hooked to a Ringo Ranger on the roof of his garage off El Vista Ave. near Scenic. Needless to say, the coverage was very limited. I remember the machine was down more than it was up. It keep burning up the 6146's in the transmitter final. If I recall correctly, Jack Scanlon, W6OIN, became our club technician about that time. He was a two-way radio tech at the time.

The repeater operated from Tim's garage for a week when we got permission to install the repeater at the tallest building in Modesto at the time, the Reed Center at 12th and J streets in downtown Modesto. This was made possible with the help of a gentleman named Ray Thompson. I don't recall how we met Ray, but as it turn out he became a strong supporter of the club.

The tower being the highest point in Modesto was the best low-level site in the City at the time. Elevation was around 150 feet. The roof of the tower was crawling with commercial 2-way radio antennas. The tower was owned by the George Reed family and Ray was hired to manage the leasing of spots in the penthouse and space on the tower for antennas. Ray was kind enough to give us a spot at no charge. We also learned that Ray also managed the Fisher property which included the top of Mt Oso.

We explained to Ray our situation and desire to return to Mt. Oso. He said that he could give us permission to cross the Fisher property and later offered us a small shack to put the repeater in. He said that there two other landowners whose permission we would need in order to use the Ingram Creek access road. Ed Filbin owned the property at the mouth of the road and Paul Gerber had the section in the middle.

Around this time I contacted Chester Smith, owner of Channel 19, to ask permission to put the repeater back in his building on Mt. Oso if we could secure the rights to use the road. Chester said that he was not aware of the fact the

repeater had been in his building. We gave him the information on how it all began. After hearing the details Chester gave us permission to return the repeater to the building. He pointed out the problem with access and wished us luck in securing the road usage rights.

It was about this time that the club got caught up in events, which we had nothing to do with, that prevented us from gaining access to Mt. Oso for nearly 4 years. The event was a feud which developed between Ed Filbin, the landowner at the beginning of the Mt. Oso road and Paul Gerber. The feud was started by Filbin and his father who wanted to charge everyone crossing their property to access the Mt. Oso road a fee. Many words and hard feeling had already been exchanged.

The main gate accessing the road had several locks on it placed there by various users of the road. In addition to the Gerber's and Ray Thompson (Fisher property manager) several two-way radio companies who serviced radio equipment on Mt. Oso had locks on the gates.

As tensions escalated the Filbins began cutting locks off the gate and replacing them with their own locks hoping to force the issue. This infuriated the Gerbers and radio techs and further escalated situation. The situation at times involved tacks and nails being placed on the roadway which resulted in many flat tires and at one point firearms being brandished by the Filbins.

Needless to say, this was not the time to be asking for permission to use the road. The mess ended up in a lawsuit being filed by Gerber and others against Filbin. Within weeks of the suit being filed, a temporary injunction was issued by a Superior County Judge in Stanislaus County. An injunction is a temporary legal procedure used by the courts to in essence "put a lid" on the problem until the matter can be heard in court which could take 2 years or more in civil cases. In the injunction the Judge ordered that Filbin not interfere with the



*Mt. Oso after a rare dusting of snow.. This photo courtesy of the Stanislaus Amateur Radio Association.*

rights of Gerber or the radio techs to use the road. He ordered that those people who had been legally using the road at the time of the lawsuit be allowed to continue to use the road without interference from the Filbins. He ordered that NO NEW traffic would be allowed to use the road. This point caught us.

Gerber was ordered to oil the dirt road twice a year to keep down dust which was one of the things that the Filbins objected to in the first place. As a result of all this, we knew we were going to be off Mt. Oso for the duration of the dispute.



As luck would have it, in the summer of 1977, radio station KTRB in Modesto were making plans to upgrade their FM station, KHOP, and had purchased property on Black Butte Mountain just West of Tracy off Coral Hollow Rd. The elevation was just over 1,000 feet. With the help of Cal Purviance, K6BII, Cliff Price, W6ERE, retired employees of KTRB and Randy Hill, KTRB's chief engineer at the time, permission was obtained to install our repeater at their new Black Butte site and mount our antennas on their 380 foot tower to be erected at the site.

The repeater was moved from the Sealy Tower to Black Butte on December 3, 1977. A crew of SARA members help with mounting the Cushcraft beams on the side KHOP's tower. Other members installed the repeater. Late that afternoon the job was finished. Because the PG&E had not installed the electricity yet, the club brought along a generator which was fired up to power the repeater. The repeater was on the air for a couple of hours before closing up shop late that afternoon.

On December 12, 1977 the power was connected to Black Butte and the repeater was on the air on 13/73.

Before we could put the repeater on the air we needed a repeater license. The club did not have one, and the FCC had put a freeze on issuing anymore at that time. Having severed relations with Dave Metts we could no longer use WR6AHQ.

I don't remember who suggested it, but a suggestion was made to ask the Turlock Amateur Radio Club for help. SARA asked TARC for permission to use their repeater license to cover our repeater. TARC was very helpful to us and granted the request. Their repeater call, WR6ALG with a portable 6 attached.

The technical problems with the old tube type repeater continued on Black Butte with many failures. It was around this time the club began thinking about ways to gather the funds to buy a new solid state repeater. The first effort in this regard came on April 29, 1978 when the club held it's first auction at Elk's Lodge on McHenry Ave. It was a huge success bringing in over \$750. The second club auction was held on October 21, 1978 at the Empire Community Center. Grady, K6IXA, was the auctioneer for both events. Much of the surplus equipment we sold had been donated to us by radio station KTRB. Just over \$600 was raised.

In May of 1978 the club purchased it's first liability insurance policy and started the process to incorporate the club. Gil Goularte, W6SQR, in Turlock was most helpful with this process. He introduced us to a local attorney who was kind enough to prepare the incorporation papers at no charge to the club. The October 5, 1978 READOUT indicated that the papers were filed with the State in the fall of 1978.

Meanwhile the interference problems with Santa Rosa continued to plague us and the feelings between the 2 clubs was less than desirable.

Sometime in May 1978 the FCC deregulated their repeater operation rules and eliminated the requirement for individual repeater licenses. The club applied for a club license at that time and was issued WD6EJF. Under the new rules the club call with the RPT identifier was assigned to the repeater.

In March of 1978 the club borrowed \$700 from Mel McCoy, WA6OYP and Bob Huff, W6KU and together with donations and monies received from our two auctions the order for our new solid state machine was placed. The Spectrum Communications repeater was ordered and received in July of 1978. It was promptly installed on Black Butte Mountain on 146.13 MHz. The installation crew included Les Lester, W6LHQ; Charlie Mendoza, K6JFS; Jim Cupp, WD6CYZ and myself.

It was around this time that the FCC added 2 more KHz to the bottom portion of the 2 meter repeater band (146.00 to 144.00) that made available more repeater pairs. The club discussed applying for one of the pairs and on June 1, 1978 the club voted to switch to 145.39 MHz. We applied for the pair and a sanction from the Northern Amateur Relay Council (NARRC) was received (#409) for the pair. On October 15, 1978 the club switched to the new pair. Jack Scanlon, W6OIN, did the technical work including the retuning of the duplexer which proved to be a bear.

Although the Black Butte site was better than what we had, it still was not as good as Mt. Oso. The walkie-talkie coverage in Modesto was not good and the site did not look well to areas south of Turlock.

Not knowing if the club would ever get back on Mt. Oso we decided to seek other possibilities. We had established a good relationship with the County at which time had a vault on Mt. Rushing just East of Knights Ferry. We asked permission to operate a repeater from there. We learned that the county was leasing the spot and access to it from the California Department of Forestry and they had been involved in a dispute with the land owner regarding access and rent issues. These issues were never satisfactorily resolved and we were denied access

Several club members were active at that time in the club's history and were responsible for the strides we made. They included,

W6KU, Bob Huff; WA6SHV, Lee MacKenzie; Denny Stewart, WA6OEC. Mel McCoy, WA6OYP. Cliff Price, W6ERE. Jack Scanlon, W6OIN. Les Lester, W6LHQ. Pat Patterson, K6AYA. Leo Nepote, K6AYA. Mac MacKenzie, W6QDL. LaVonne Scanlon, WB6PJY. Gil Goulart, W6SQR. Ray Olive, WA6OQF. Rudy

Lundquist, W6SM. Chet Jensen, W6XK. Charlie Mendoza, K6JFS. Grady Williams, K6IXA. Ray Hildreth, WD6CEV, Bob Crawford. Dave Carlton, WD6EZL. Dan Cron, W6SBE. Allen Woods, WA6OYF. Jim Cupp, WD6CYZ. Bill Dalton, W6FIQ. Don Butterfield, WA6QWY. Larry Manning, WD6CMI, Cal Purviance, K6BII and Bob Pinheiro, WA6ZLO.

In 1980 our fortunes improved when Bill Pietz, W6AFS, joined the club. Bill had just retired from the Bureau of Reclamation and had been living in Tracy. He moved to Modesto to help care for his aging in-laws. Bill mentioned that the Bureau had a radio vault on Mt. Oso and felt that they may be receptive to allowing SARA to place our repeater in their vault which could be used as a back in case of an emergency.

Although we knew that even if permission was received we were still faced with the problem of access over the Ingram Creek Road. The club voted to pursue the site. AFS paved the way and after a lengthy period of negotiations, permission was granted by the Bureau to use the site on June 17, 1982. The club signed a 10 year contract which specifically stated that the matter of access to Mt. Oso was entirely up to SARA to obtain. WA6ZLO was working on the access problem.

It was sometime during the summer of 1982 that the lawsuit involving Ingram Creek Road was settled out of court by those involved. By this time, as mentioned, we had secured permission from 2 of the 3 land owners to cross their property. I don't recall the exact date, but sometime in the summer of 1982 I called Paul Gerber and asked to meet with him and talk to him about the access. He agreed and Bob Huff, W6KU and I met Mr. Gerber at his ranch in the canyon. He was pleasant to us and ask questions about the club and our intentions. He seemed to be more receptive and the end of the meeting but he

would neither say no or yes to our request. I also recall sending him a letter asking permission and never received a response.

After this meeting the club discussed the situation and conferred with Ray Thompson for his perspective. Ray, who had known Mr. Gerber for many years prior to this time, suggested that we had nothing to lose by going ahead and use the road. He felt that in the absence of a definitive "no" from Mr. Gerber that he probably would not object. We decided to go for it and we never had any problems.

In early 1982 the club began discussions on putting on a 220 MHz repeater. On August 25 of that year the order was placed for a new solid state Spectrum repeaters. The club secured a sanction from NAARC of operation on 223.68 MHz. The machine arrived on November 5, 1982. There was a problem with the repeater self-oscillating and it had to be returned to the factory. The machine was repaired by the factory and sent back to us. It was installed in the Bureau of Reclamation building on Mt. Oso. On January 2, 1983. In the meantime the 2 meter repeater continued to operate from Black Butte when the 220 machine was installed on Mt. Oso. Funds to purchase the machine came from a raffle the club conducted. The grand prize was a .357 Magnum Colt Python firearm. We made over \$3,000 on that raffle alone.

We began using the Ingram Creek road in conjunction with the 220 machine in the Bureau of Reclamation vault.

In October of 1983 we had the opportunity to purchase a new Hamtronics 2 meter repeater and a Wacom duplexer from N6DXB in Stockton who was going to put on a packet repeater and changed his mind. We got a good buy. The thinking was we could use it as a backup repeater to the Spectrum.

Shortly after deciding to use the Ingram Creek road again, Ray Thompson offered the club free space and electricity in one of his buildings on the eastern face of Mt. Oso. The building was an small building constructed of particle board with a tin corrugated roof. There was a 50 ft Rohn next to the building. It sat in the spot where our present day repeater is located today.

The club decided to put the Hamtronics repeater on the air from the Thompson site. The thinking at the time was we did not want to put all of our “eggs” , so-to-speak , in one basket on Mt. Oso in case we lost access again. Therefore we decided to keep the main Spectrum repeater installed on Black Butte until we saw how things went on Mt. Oso. The Hamtronics repeater was installed on October 15, 1983. The antenna, an Isopole, was mounted on the adjacent tower.

So, at this point in our history we had out 220 machine operating in the Bureau of Reclamation site and the 2 meter backup machine in the Thompson building about 200 yards down the eastside of Mt. Oso at about 3300 feet and our main 2 meter machine on Black Butte.

It wasn't until April 7, 1985 the club moved the Spectrum 2M repeater from Black Butte to Mt. Oso and relinquished the site on Black Butte. It was housed in the old particle board tin roof shack provided free of charge, including the electricity, by Ray Thompson.

Late in 1988 the club acquired an old cargo box (bread delivery) with the idea of transporting it to Mt. Oso to house the 2 meter machine. Ray Thompson's building was in bad shape at the time. We later changed our minds and decided to build a new building next to the old one. SARA member Don Fink, N6GGB, of Tracy drew up the plans and lead the crew in constructing the building which is still in use today. Shortly after the nice new building. with



much more space. was finished the club elected to move the 220 Machine down from the Bureau of Reclamation site to the new building. The packet repeater stayed in the Bureau's building at that time operating on 145.07. Sometime around 1996 the club obtained our 440 repeater and put it on the air on Mt. Oso.

73,

Bob Pinheiro, WA6ZLO

Charter Member of SARA

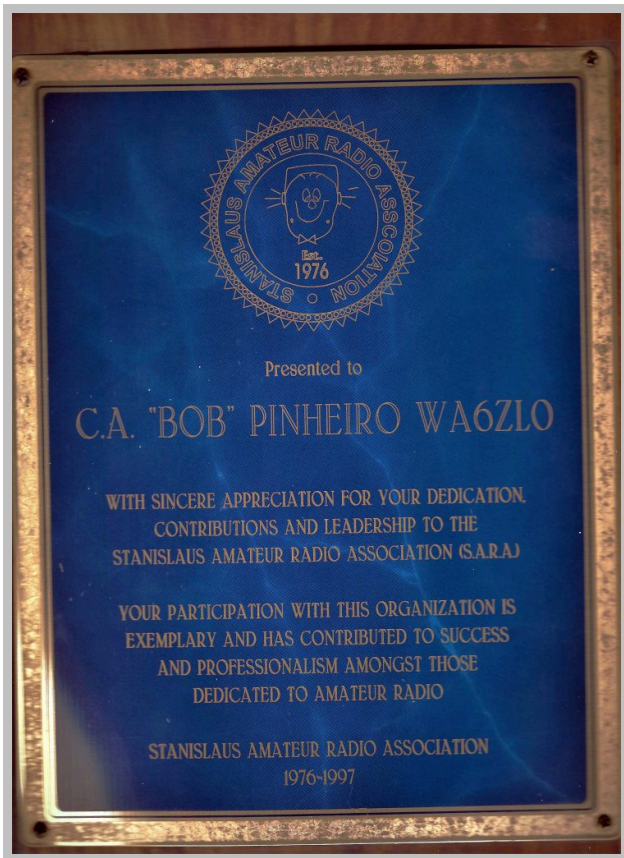
October 2003

*P.S – In 2003 SARA presented me with a life-time membership in SARA and nice plaque to place on my office wall . I appreciate the recognition, but I would like to share this award with my fellow ham-radio operators without whose help and support this would not have been possible. Thank You.*

*/s/ Bob Pinheiro*



*SARA president Ed Hanna, KF6FIR, (L) presents the life-time membership award to Bob Pinheiro, WA6ZLO in 2003,*



## **SARA builds new repeater home on Mt. Oso**

In the Spring of 1989 the Stanislaus Amateur Radio Association (SARA) built a new building on Mt. Oso to house their repeaters. The original building occupied by the club was "thrown together" with particle board and corrugated tin roofing by Ray Thompson, the then property manager.



*SARA Repeater Building on Mt . Oso west of Modesto, CA*

1. The original building which was built with particle board and corrugated tin roofing.
2. Side view of the original building.
3. Under pinning's of the new building.
4. New building framed.
5. Work on the framing.
6. Steel siding for the walls and roof are put in place
7. Don Fink, N6GGB, head of the construction crew working on the door jam.
8. Crew stands back a for a look at how their doing. The old building is on the right.
9. Long shot of new building taking shape.
10. Crew stands back a for a look at how their doing. The old building is on the right
11. SARA club president, Phil Hartz, WD0FFX, checks the insulation.
12. Cliff Kachline, KB6QLI, installing more insulation.
13. Missing

14. Don, N6GGB, puts the finishing touches of the building.
15. The nearly finished project.
16. Don, N6GGB, inspects the interior.
17. The interior with the sheet rock and work bench up and the repeater rack in place.

**The official newsletter of the Stanislaus Amateur Radio Association**





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667-5299

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Mark Lemmons, WB6BJN  
523-5140

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Ernie Rader, K6UVI  
838-2921

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892-8664

##### SARA VHF Net

Thursdays @ 8 P.M.  
(Except Holidays)

2 meters 145.39 MHz WD6EJF

220 Band 224.14 MHz WD6EJF

10 Meters 28,440 kHz USB

Tuesdays at 730 P.M.

ARES Net Wednesday 800 P.M.

Contributions to The READOUT are always welcome and may be submitted to the editor by mail or via packet at KD6JZZ-2 BBS on 144.97 MHz, or directly at my PBBS, WA6ZLO-1 on 144.91 MHz. If you can't reach my PBBS direct on 144.91, use the SARA Node. Type "C SARA" then "C WA6ZLO-1." The deadline for articles is the 15th of the preceding month. Articles regarding religion or politics are not accepted.

##### Editor

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An ARRL affiliated club!

ARRL membership may be paid through SARA with the club retaining a \$2.00 commission. Please send your ARRL membership form along with your check made payable to SARA. We will deduct the \$2.00 and send a check to the ARRL.

## Mount Sutro: Evolution of a tower

*Members and friends sometimes ask us to republish certain articles. With many new members, and old ones with memories no better than mine, some old gems are as good as new after a few years. Here's one that originally appeared in February 1986. Please keep in mind that the figures quoted are in 1986 dollars. Your guess is as good as mine as to what the tower would cost in today's dollars.—ed.*

On February 21, 1986 the Mount Sutro television tower will be 15 years old. The planning for the tower, however, began in 1956 when ABC first applied to the FCC for approval to build a tall tower on Mount Sutro overlooking the city by the bay. The final authorization for construction of the tower came in February 1966 when the San Francisco Planning Commission approved a conditional use permit for the site.

### Transmitting sites

Before the erection of the Sutro Tower, TV broadcasting in San Francisco originated in three locations. During the formative days in the late 1940's, as licenses were issued, stations opted for different transmitting sites. KPIX, Channel 5 broadcasted from the top of the Mark Hopkins Hotel on Nob Hill. KGO-TV Channel 7 chose Mount Sutro and KRON-TV, Channel 4, selected Mount San Bruno, 3 1/2 miles south of the city. KSAN-TV, a UHF pioneer, joined KGO-TV on Mount Sutro when they came on the air. KOVR Channel 13 (Stockton) erected their transmitting site on Mt. Diablo east of San Francisco that covered the Sacramento Valley and the Bay Area.

### Common tower was needed

It was apparent from the beginning that a common tower would offer advantages to all area broadcasters. The

problems encountered were location and ownership. Two sites were under consideration, Mount Sutro and Mount San Bruno. The latter was finally ruled out because of its proximity to the San Francisco International Airport. The ownership problem was solved with the formation of a corporation consisting of ABC, Westinghouse, Cox Broadcasting and Chronicle Broadcasting. Experts from the four companies joined consultants, engineers and designers from many disciplines in all phases of the project.

### Construction begin in 1971

Construction began in late February 1971 with footings cut into the undisturbed rock of the mountain. Grade beams were channeled to connect the three legs to prevent seismic shifting. After the footings were dug, which were each 56 feet square and 18 feet thick, pouring the concrete presented a logistical problem coordination ten yard capacity trucks, pouring every few minutes for 24 hours a total of 1100 cubic yards of concrete for each footing. The foundations, each a 14-foot cube, were then poured for each of the footings with the grade beams poured last.

The raising of the steel presented major problems. The erection of the first 300 feet of the 977 foot structure went without incident with the steel members raised by a ground-based crane. Above 300 feet a special basket boom was fabricated which swung from leg to leg within the center of the three legs of the tower. Support of the basket was by a series of cables attached to the legs. After the boom was in place (a major accomplishment because of its 300-foot length) construction resumed at an accelerated pace.

When ground crews lost visual contact with those aloft because of the famous San Francisco fog, radio contact kept work flowing. Wind was the greatest hazard as the height increased. There are times on Mt. Sutro when you

See "Sutro tower" page 9



# FCC Rules interpretation backs repeater licensees in evicting unwelcome users

The Federal Communications Commission has told the attorney for a southern California radio club that the license holder to its repeater can kick any ham off the system that he deems unfit to use the machine. In doing so, the FCC seems to have set the stage for a total re-evaluation of the way every repeater in the nation is operated.

The issue of what rights a repeater licensee has over the control of his repeater came into sharp focus on February 19th. This, in a letter of interpretation of Section 97.205 (e) of the Amateur Service Rules. Section 97.205 (e) says in part—and we quote—“Limiting the use of a repeater to only certain user stations is permissible.” That language has been on the books for years. Some repeater licensees are probably not aware the rule exists, much less understand the power it gives them. Moreover, until now the FCC has given repeater licensees wide latitude in its interpretation.

But a far narrower reading has now come as the result of a request for clarification sought by Raids, N6OMS of Orange, California. Raids is the attorney representing the Claremont Amateur Repeater Association in its fight against some unwanted users of its repeaters.

In preparation of a civil complaint against one user, Raids wrote to the FCC's Private Radio Bureau to find out exactly where his client stood in regard to Part 97.205 (e). His inquiry was answered by Personal Radio Branch Chief John B. Johnston, W3BE. Johnston is well versed in Part 97 regulatory matters in that he was the guiding hand that crafted the latest version. After quoting section 97.205 (e), Johnston added the rule applies whether a repeater is coordinated as an “open” or “closed” repeater. In fact, Johnston said, “Rule 97.205 (e) without qualification, permits the individual responsible for proper operation of a repeater to limit the use of a repeater to certain stations.”

The legal action taken by CLARA was a civil action asking for a restraining order against Tim W. Seawolf, KJ5KE, of Quail Valley, California. Johnston's letter was accepted by the court as evidence in the case heard by an Orange County California Court Municipal Court judge.

After hearing the evidence, the judge ruled for the radio club and granted a restraining order banning Seawolf from op-

erating on any CLARA repeater for the next three years.

After being served with the restraining order, Seawolf apparently chose to ignore it and continued to use CLARA's repeaters. CLARA documented the restraining order violations and notified the court. The court then issued a summons to Seawolf to appear on the misdemeanor charge of violating a restraining order, which carries a maximum fine of \$1,000, a year in jail, or both upon conviction.

The case was heard by Judge Daniel J. Didier, whom it turns out, is a licensed Amateur Radio operator, holding an Advanced class license, KD6FM. The judge at the outset immediately made it clear to all parties involved in the law suit that he was a licensed ham and would disqualify himself if either party objected to him hearing the case. Neither party did.

As it turned out, the judge was familiar with the problem having heard himself some of the offenses alleged in the complaint. During the hearing, in which Seawolf represented himself, CLARA club officials and the repeater trustee testified they had suffered repeated emotional distress as a result of Seawolf's language and harassment and introduced audio tape recordings as evidence. They then entered into evidence the letter they received from John Johnston, Chief of the FCC's Private Radio Bureau which includes the Amateur Service.

Seawolf testified in the hearing that he had a Constitutional right under the First Amendment to express himself by whatever means available. He challenged that the lawsuit therefore did not have merit and that it should be dismissed. Seawolf then attempted to call other witnesses in his behalf alleging that they were “expert witnesses” in the matter of free speech. The judge did not agree and refused to allow their testimony.

Following deliberation, the judge ruled in favor of CLARA and ordered Seawolf to obey the restraining order which barred him from using any of the club's repeaters for a period of three years. He was further restrained from annoying, harassing or molesting any member of CLARA for the duration of the order. He was also ordered to pay \$2,100 in attorney fees incurred by CLARA

in bringing the lawsuit and \$182 in legal filing fees, plus \$175 for subpoena services. In addition, the judge ordered CLARA's attorneys to provide the FCC Engineer-in-charge of the Los Angeles office with the audio tapes for possible action by them. The judge also condemned Seawolf for his conduct on the air, describing them as “despicable”. The judge told Seawolf that if it was within his power, he would immediately revoke Seawolf's Amateur license.

Thanks to the Amateur Radio Newline, Worldradio and Bill Pasternak, WA6ITF and the Triple States Radio Club of Adena, Ohio who contributed to this story.

Here is the text of Mr. Johnston's letter:

“Feb. 1, 1994

Dear Mr. Radus,

This is in response to your fax dated January 14, 1994 in which you request further response to your previous correspondence. Specifically, you request whether Section 97.205(e) permits owners of “open” repeaters to limit the use of their repeaters to certain users.

Section 97.205(e) states—Limiting the use of a repeater to only certain user stations is permissible. The rule section applies whether a repeater is coordinated as an “open” or “closed” repeater. Further, the rule applies without regard as to whether a repeater is coordinated at all. Rule 97.205(e), without qualification, permits the individual responsible for proper operation of a repeater to limit the use of a repeater to certain user stations.

I trust this is responsive to your concerns.

Sincerely,  
John B. Johnston  
Chief, Personal Radio Branch





# SARA Minutes

By Ernie Rader, K6UVI, Acting Secretary

The regular monthly SARA meeting was called to order by President Liz, KD6GIW at 7:30 PM on Tuesday April 19th, 1994. While introductions were made, the sign in sheet was passed around. Thirty-seven members and guests were present.

Liz reported that the Multiple Sclerosis walk-a-thon was held on April 10th, and SARA's part went smoothly in spite of complications. VP Mark, WB6BJN, reported that several ideas were being considered for a yearly banquet, and the minutes were approved as printed in *The READOUT*. Treasurer's report followed:

March income:	\$166.00
March Expenses:	\$990.29
Acct. Balance:	\$2,166.32
Year to Date:	
Income	\$1,664.00
Expenses	\$1,644.60

Under Old Business, the future of *The READOUT* was discussed. Several options were presented including a bi-monthly edition, each month excluding the summer, a combination of both, and a continuous monthly edition. Ernie reported that Jim Shea, KB5FB, had made an offer to print *The READOUT* for approximately \$20.00 more than what Budget Copy was charging us.

After discussion, and all proposals reviewed it was voted to continue with *The READOUT* in its present form each month with the treasury being bolstered by a fund raiser to cover the additional costs.

Rita, KD6BNV, reported that Field Day, and all the activities for the family members, was well under way including a "foot and fanny" CW contest for different classes of operators, including those who didn't know the code. Prizes would be presented to the winners.

The communications trailer is now in the hands of our Eagle Scout candidate, and preparations are being made for its restoration.

Under New Business, the SARA club station is presently installed at The Red Cross, and all repairs to the equipment have been made. The station looks very good in its new console. Plans are to be

made to install the needed antennas soon.

Ernie, K6UVI, reported that the March of Dimes walk-a-thon was in place and operators were already committed. Also the walk-a-thon at the Methodist Church was taken care of, as well as the American Diabetes Tour de Cure. Con Costello, AB6TA, spoke about the three legislative petitions recognizing Ham Radio as a national policy and urged everyone to sign those petitions.

New member Hal Singer, KE6FNR, presented Ernie with a very nice framed ARRL Elmer Award for helping him get his license.

Ernie then presented the membership with The Red Cross' Disaster Mini-Institute and SARA's part in its presentation. That's to be held on May 20th, 21st, and 22nd. Club members will be asked to operate the club station during

this event and answer questions about ham radio and its involvement during disasters.

The program for the evening was by Tom Hora of The Federal Communications Commission monitoring station at Livermore. He talked on several subjects including RFI/TVI and how we as ham operators should work with our neighbors to live harmoniously while each of us enjoys our electronic equipment. His presentation was not only informative but enjoyable. Afterwards, the meeting was adjourned.

A new member was welcomed to the club. He is Hal Singer, KE6FNR, of Lodi. He is a newly licensed Technician.

Respectfully submitted, Ernie, K6UVI, acting club secretary

## Commentary

By Mike Siegal, K16PR

San Joaquin ARRL Section Manager

Recently, I've heard more than a few complaints about the apathy and attitudes of "all these new hams". Well, I can tell you that the no-code license works, as an entry level. I know several hams that have gone from no-code Tech to General, and even Extra!

So, where are all our problems coming from? Frankly, it's our own fault. When was the last time any of us actually Elmered a new or would-be ham? Oh, sure, we have organized efforts and classes to get new hams licensed and on the air, but let's face it—these folks can do that themselves, with a book and a mail-order catalog.

But who's teaching all these new folks the mutual respect on the air that we have all earned? And who's teaching them about the rich history and traditions of Ham Radio? Are we doing everything we could to actively recruit these new folks into the local ham community, and into our public-service programs?

Our hobby has a long-standing tradition of service, not only to ourselves, in teaching, assisting, and testing each other, but a commitment of service to our own local communities through ARES/RACES, NTS, special events and so forth. If we could each just set aside a few minutes each day, and spend that time helping our new hams to get into just one aspect of giving something back to the hobby or the community, it wouldn't take long before we start seeing results.

Does that mean that we need to spend every waking hour of every day doing public service? Of course not! If each of us chose just one area, and brought our new ham friends into it with us, we would soon find ourselves looking for new places and ways to serve - to give something back to the hobby. This can even be something as simple as volunteering to serve on a local club committee.

The next time you hear a new ham committing some grievous error on the air, instead of going off to your longtime schedule and grumbling about it, how about spending just a couple of minutes Elmering, and perhaps doing a little public-service recruiting. In the long run, you'll both be better off for it, and so will the rest of us.





# Editor's Notes

By Bob Pinheiro, WA6ZLO

Due to the fact that I was out of state the last two weeks of April, I had to complete my notes before leaving. Therefore, I will not be able to comment here on the proposal received from SARA member, Jim Shea, K5FB, of Turlock, to print the newsletter for slightly more than what Budget Copy was charging. However, you will find the results of this proposal in the SARA minutes on page 4. I will have more about this next month. I want to thank all of you that took the time to write or send me packets on this subject. One thing is clear, the newsletter is well received and desired. Thanks again!

—SARA member Des, W6BMA, Lodi, is recovering from surgery to remove both of his legs below the knees. Medical complications aggravated by diabetes was the reason for the surgery. Good Luck Des!

—Brad, KC6TDH, reports that he has discovered a very nice map that can be used for beam heading for only \$2.75 which covers Fresno to Roseville and into the hills east and west. Modesto is right in the center of the map which is produced by Compass Maps of Modesto. You can pick up your copy at their store, 1172 Kansas Ave. Modesto.

—Welcome to new members, Jim Calonic, K6LKM, of San Ramon and Chris Martin, KE6DJK, of San Diego. Jim is retired and Chris is in the service in San Diego. As of this date, our membership stands at 147 and growing. Speaking on new members and the club in general, I'm still looking for a "club news editor" to write about wants going on with our members and general club news. The pay is terrific (HI HI). All you really need is an inquisitive mind and a computer. I will do the rest for you. If interested call me. My number is on page two of each issue.

—ICOM will be marketing their new ICOM-820 satellite base station transceiver shortly. The transceiver will be 9600 baud compatible out of the box, run around 50 watt output and covers 146/435 Mhz.

—Cable operators are understandably concerned about the coming billion dollar Di-

rect Broadcast Satellite (DBS) system. If everything goes as planned, DirecTV and its partner, United States Satellite Broadcasting, Inc. (USSB) will be beaming full power digital DBS service to the public within a month! GM and Hughes Electronics are spending some \$750 million to offer satellite-to-home television via their DBS-1 satellite, and a DBS-2 bird will follow later this year.

Programming will be uplinked by 54 high-power satellite uplink transmitters from DirecTV's \$100 million all-digital Castle Rock, Colorado, broadcast center. Supposedly the 24-hour service will eventually have 150-channel capability and some 30 pay-per-view sports channels. DirecTV debuted on May 1st with 75 channels broadcast from one jointly-owned satellite. USSB will be uplinking from their new \$10 million broadcast center in Oakdale, MN.

But, DBS won't come cheap! Viewers wanting the new service will have to shell out \$700 for the 18-inch dish and receiving equipment—plus an installation charge—plus a monthly subscription fee which starts at \$21.95 monthly. The equipment can be purchased in installments of about \$30 a month, however. RCA has an exclusive deal with DirecTV to manufacture the first one million receiving units. Actually, the Digital Satellite System home receiving unit is being made by Thomson Consumer Electronics under the RCA label. Thomson will spend nearly \$100 million on an advertising campaign; Hughes another \$50 million. The satellite service will be marketed by such well-known consumer retail outlets as Sears, Wards, Best Buy and Circuit City.

DirecTV says their signal quality will be better than cable since it is digital and they will offer double or triple the amount of programming options. DirecTV's break-even point is 3 million subscribers—or about 5% of the current cable market. We understand that the DBS service will be first test marketed in 5 cities (Tulsa OK, Albuquerque NM, Little Rock AR, Jackson, MS and Shreveport, LA,) before the national roll-out begins

later this fall. And another new DBS service (EchoStar) is on the horizon for 1995.

—President Clinton has indicated his intention to appoint two women lawyers to fill the two FCC Commissioner vacancies. Rochelle Chong, at 34, will be one of the youngest FCC Commissioners and the first of Asian-American heritage. She is currently a San Francisco lawyer specializing in communications (cellular phone) law. The other woman, Susan Ness, 45, will fill the Democratic seat made vacant when Ervin Duggan resigned to head the Public Broadcasting System. She has a law degree from Boston College and a MBA from the University of Pennsylvania's prestigious Wharton School of Business.

—The FCC has taken final action on establishing a new compliance policy for amateur stations participating in automated packet radio message forwarding networks. You will remember the 1991 turmoil that resulted when several amateurs were cited by the FCC for unknowingly and automatically retransmitting an anti-Persian Gulf war packet message that had "900" phone number business overtones. It wound its way through several stations before being killed.

Amateurs were afraid they would have to shut down their high speed packet radio messaging system because of their inability to individually review every message flowing through their "digipeating" stations.

To address the dilemma, the FCC proposed in March 1993 to add a new rule section 97.217 which would hold both the message originator and the operator of the first forwarding station accountable for the message account. Current Part 97 rules do not distinguish between amateur stations that originate and forward packet messages.

—Record numbers (more than 70 thousand) attended the 1994 convention of the National Association of Broadcasters held

See "Editor's Notes" page 8





# ARRL Pacific Division Director's Report

By, Brad Wyatt, K6WR

## Legislative News

Late information on HJR 199 shows 220 co-sponsors in the House, a majority of members. Lynn Woolsey of Marin County's 6th District is the latest co-sponsor. With a majority we can now plan to bring up the resolution for consideration. The identical resolution in the Senate (SJR 90) now has 42 co-sponsors. HR 2623 (Amateur Radio Volunteer Protection Act) has 70 co-sponsors in the House - not yet introduced in the Senate. Keep writing letters to your congressional delegation with copies to Steve Mansfield, Legislative Mgr. at ARRL HQ so he can use them when visiting your congressional delegation in Washington.

## Antenna Ordinances

Rusty Epps, W6OAT, Assistant Director and Volunteer Counsel, continues to lead a Pacific Division-wide effort to develop a database of antenna ordinances and related materials for the Pacific Division. Rusty reports that data is coming in from all parts of the Division — thanks! Rusty needs everything related to this entire field! All the information will, of course, be available to anyone in the ham community who needs it. Send all the material to Charles K. (Rusty) Epps, W6OAT, 651 Handley Trail, Redwood City, CA 94062.

## New FCC-ARRL Amateur-Auxiliary Agreement

The new agreement centralizes submission of interference report by Amateur Auxiliary members. A new manual is at the printers and should be available in a few weeks. More next time.

## Vanity "Preferred" Call signs - Latest News

The ARRL Executive Committee adopted the recommendations of the Ad-Hoc Committee of which I was one member. The basic outline are as follows: - All hams should be eligible to obtain preferred calls within the call sign blocks based on current license class (there are some exceptions). For example, this pro-

vision allows Extras to obtain 1 X 2 calls, but not Novices. - A phase-in plan starts with those who have lost calls through the years for whatever reason and regardless of license class. - Next would be Extra class licensees, then Advanced, and then open to all. Calls will be assigned based on availability within the current call areas. - A one time fee should be charged for the preferred call sign rather than the \$7 per year enacted into law by Congress. - Club call signs would also be issued. Remember, this is a brief summary (there are many details) of what the ARRL is developing for its Comments. What the FCC will actually do is still to be seen. The text of this docket starts on page 84 in February QST. Timing is unclear but could be as early as late 1994.

## Katashi Nose, KH6IJ, Silent Key:-

It is with great sadness I report the passing of Katashi Nose, KH6IJ, on April 7. In my opinion and that of many others he was the "father" of Amateur Radio in the Hawaiian Islands. Others have called him a "giant" in Amateur Radio. He was currently an Assistant Director and had served in many capacities over the years. Many of us will remember his cheerful voice and wonderful CW fist. 73 and Aloha!

## New Pacific Division Appointments

It is my pleasure to announce two new Pacific Division staff appointments: Eric Johnson, AH6MQ, of Honolulu, Hawaii, has been appointed Assistant Director for Oahu, and W. Thom Skeer, KD6IQJ, has been appointed Volunteer Counsel in the southern part of the San Joaquin Valley Section. Eric joins Pat Corrigan, KH6DD and Lee Wical, KH6BZF, as Assistant Directors on Oahu. Eric will focus on working with the clubs on Oahu while Pat and Lee will focus on specially targeted activities applicable to all the Islands. Thom joins Bob Foster, WY7M, of Stockton, and Joseph L. Horswill, KG6YA, of Tulare, as Volunteer Counsels in SJV. Thanks, Eric and Thom, for agreeing to serve!

## Coming Events:

- **Livermore Swap Meet** - 1st Sunday of each month at Las Positas College in Livermore, CA, 7 AM to Noon, all year. Talk in 147.045 from west, 145.35 from the east. Contact Noel Ankam, KC6QZK, (510) 447-3857 eves.

- **Foothill Swap Meet** - 2nd Saturday, through September, at Foothill College, Los Altos, CA.

- **West Coast VHF/UHF Conference**, Cerritos, CA, April 29 - May 1, 1994. Contact Bob Hastings, K6PHE, 854 Bernard Dr., Fullerton CA 92701 (714) 990-9203.

- **Dayton HamVention**, Dayton, OH, April 29 - May 1, 1994. Contact P. O. Box 964, Dayton OH 45401-0964 (513) 276-6930.

- **Fresno Hamfest**, May 7-8, 1994, Riverland Park at Kingsburg, CA. Contact James Wakefield, AH6CO, 1333 N. Palm Ave., Fresno CA 93728.

- **Northwestern Division Convention**, Seaside, OR, June 3 - 5. Contact Brad Beach, N7NVC, 2117 Jenny Lane, West Linn, OR 97068 (503) 657-1781.

- **ARRL National Convention**, Arlington, TX, June 10 - 12, 1994. Contact John Fleet, WA5OHG, Box 25028, Dallas, TX 75225.

- **ARRL Field Day**, June 25-26, 1994.- Southwestern Division Convention, Aug. 26 - 28, 1994, San Diego Town & Country Hotel/ Convention Center (800) 772-8527. For further information call W6GIC (619) 278-4284.

- **1st National Hamfest**, Oct. 7 - 9, Costerisan Lake, Bakersfield, CA. Contact KCCVARC, P. O. Box 473, Bakersfield, CA 93302.

- **Pacificcon94**, Hilton Hotel at Concord CA, Oct. 21 - 23, 1994. For more information contact Lauren Styles, WA6CIE, 1910 Sunshine Dr., Concord, CA 94520, or call the MDARC/Pacificcon Hotline at (510) 932- 6125.



# FROM THE DESK OF

Tim Low, N6ZUC

I wonder if there is any area of Amateur Radio that is growing faster than packet. Here in southern California, the packet frequencies are crowded, and getting busier every day. Getting through in the early evening hours is beginning to be a slow tedious process. The "system" just has not been able to keep up. I think that'll change as the demand grows, and more Amateurs become active.

If you haven't wandered into this area of Ham Radio, or if you're just getting started, all the choices to make concerning hardware can be frightening. Kantronics and AEA both make great controllers, as well as some of the other companies. When you wade through the available literature on equipment, talk to friends, and maybe your dealer, it all boils down to you really can't go wrong with any of them. Providing you've made the packet only or multi mode decision.

Now is when it really gets scary. What do you use for software? All of the equipment manufacturers that I know of also offer software packages for their machines. They all work, but not necessarily are they all easy to use, or give you the features you want. Another thing is that mostly they're expensive. You put out between 100 and infinity for the TNC, and now "they" want another 80 or 90 dollars for the software to run it. Well, that's what this month's column is about. I'm going to relay to you some of the "free" or "shareware" programs I've run across. These will all be PC based programs, as that's what I run. Sorry Apple and Commodore users.

Now, let it be said that just about any software you already use for your telephone modem, will run packet. Procomm terminal software is used quite a bit, but is expensive to buy. So if you don't already own it, it's a bit too much for running packet. The terminal application in Windows 3.1 will also work, but is a very simple program, and not really what you'd want to use long term.

There is the draw back to using software intended to run telephone modems. They don't have some of the features one likes to see in a packet program. Fortunately there are quite a few "Freeware" and "Shareware" programs floating around that does quite adequately for packet only operation. I'm going to fill you in on a couple of them.

I run an AEA PK-88 for packet, and I've run into a couple of programs that I really like to use. One is the beta version of the popular "Packet Gold" software. This version was distributed as a shareware program, and can still be found hanging around for downloading on Amateur related bulletin boards. I've looked at the latest version of Packet Gold, but being the cheap Ham that I am, can't see paying out the better part of a hundred dollars for the primo version. The other is an English program called WINPKT.

WINPKT or Windows Packet version 1.1, is as the name implies, a program written to run under the Windows operating system. It's a shareware program written by P.M. Hounslow, G4YFE, Triagonal Software of England. It operates in the split screen mode as does the chat mode in Procomm. What you type to send is displayed in the box on the bottom third of the screen, and the received packets are displayed on the top. As with all Windows applications, it works with mouse driven pull down menus.

The communications port and protocol can be set to your computer/TNC specs. This is under the "OPTIONS" menu, and you select "COMMUNICATIONS". Also in the OPTIONS menu is "FONT". This will allow you to select the type style on your screen, an option I find very valuable. Even the color of the incoming and outgoing text can be set, making it easily distinguishable on screen.

One of the best features of this program is the start-up and shut down routines, which are user definable through a text file. I use the start-up and shutdown files to change the status of my mail box,

the connect message and monitors, to reflect whether I'm available for a chat, or to put you in my mailbox automatically when you connect. All you need to make a start-up or shutdown file is a text editor, any will do. Simply type in the TNC command and setting, such as, MON 6, to set the monitor on, or MYM N6ZUC-9 to set the mailbox call sign.

Any text file can be sent directly from the main screen by pulling down the "FILE" menu, and selecting "SEND TEXT". You can direct it to the proper directory and file name, any directory and ASCII file in your computer. This is very helpful when you want to send a message through the Packet BBS forwarding system, allowing you to type out the message ahead of time. This saves time on the system.

Any incoming text can also be saved by toggling on the "RECEIVE TEXT" function, also found in the FILES menu. Like any word processor, you can cut and paste what is shown on your screen, so you can resend what you received to another station.

The printer, if you have one, can be toggled on, so that anything you receive can be printed out. This is a great way to get a hard copy of incoming traffic for later review.

The program is fairly intuitive, but if stuck, comes with a good help routine. For simplicity, this program can't be beat. Again, it needs the Windows environment to run, and should work equally well on most TNC's. The cost is reasonable, and the payment info is included with the program. If you can't find this program on a local BBS, drop me a packet, and I'll help you obtain one.

Out of room for this month, so I'll get to my other favorite packet program next time. Until then, if you have any questions, answers, suggestions or comments, direct them to me via packet at: N6ZUC@KJ6VC.#SOCA.CA.USA.NA, write me in care of The READOUT.

73 -Tim





# SARA Technical Report

By LeRoy Campbell, NV6S



Hello to all, Things have started coming together on the technical scene. The new Micor repeater is up and operating on Mt. Oso. The patch is back in operation. The links are giving me a bit of trouble and will probably be a while in coming on line.

I have spent a lot of time and now must catch up on some other work before I can spend more time with the repeaters. All of the control operator functions are doing fine although at the present the PL can only be activated or deactivated by a control operator. I believe an adjustment will solve that problem. The rest of the equipment is operational.

I am still in the planning stages of the low level repeater and we do have one back up repeater with a final problem. All of these items will be taken care of as time permits. At the present you have a very nice system that will be still better when complete.

I thank all who have helped with the repeater. Alex, K6LPG, setup the Micor and helped me locate an oscillating audio amplifier. He has been a great help. Others have picked up parts for me, helped with on the air testing both at low and high level, and accompanied me on many trips up the mountain. I as well as the club owe them a debt of thanks. 73.



## Editor's Notes

from page 5

Hughes another \$50 million. The satellite service will be marketed by such well-known consumer retail outlets as Sears, Wards, Best Buy and Circuit City.

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DirecTV's break-even point is 3 million subscribers - or about 5% of the current cable market. We understand that the DBS service will be first test marketed in 5 cities (Tulsa OK; Albuquerque NM; Little Rock AR; Jackson, MS and Shreveport, LA, before the national roll-out begins later this fall. And another new DBS service (Echo Star) is on the horizon for 1995.

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To address this dilemma, the FCC proposed in March 1993 to add a new rule section 97.217 which would hold both the message originator and the operator of the first forwarding station accountable for the message account. Current Part 97 rules do not distinguish between Amateur stations that originate and forward packet messages.

—The May, 1994 Sharper Image Catalog lists an "Antenna Guard" on page 13, billed as a radiation shield for cellular phones.

Recent court cases have made us all aware of the potential radiation hazards of cellular phones. While the experts debate, you can take an easy, inexpensive (\$12.95 plus \$4.00 shipping) step now to protect yourself. According to the ad, lab tests show the new Antenna Guard (tm) blocks up 85% of exposure to EMF radiation-

without interfering with phone reception. It installs on all brands in seconds and weighs less than a half ounce. Its made in the USA of rubber-coated space-age alloys, it comes in two sizes: small for 'stubby' or retractable antennas and tall for large non-retractable antennas.

—Finally this month a bit of humor. Did you hear about the minister who called the sheriff to report a dead skunk in his driveway? The harried Sheriff said, "We're too busy to be bothered by such trivial matters. Don't you preachers look after the dead?" "Yes," came the dignified reply. "But first we notify the next of kin."

Did you hear about the chicken rancher who hit upon a novel idea to increase egg production from his hens? He posted a sign in the hen house which read "An egg a day, keeps Col. Sanders away!"

Now, for credit where credit is due. The following contributed to these notes. W5YI Report, Westchester Emergency Communications Assn. "Wecagram" via the ARNS Bulletin; AB6FL; RadioWorld and the SBE Chapter 43 newsletter, Kent Randles, WA6YXZ, editor.



## Sutro tower

from page 2

can enjoy calm winds at ground level and experience 48 mph winds a few hundred feet in the air. Also, there are times when the ground level is fog bound while it is clear and sunny above.

### Sutro Tower statistics

- Overall height is 977 feet.
- Height above sea level is 1811 feet. (AMSL)
- It is the highest structure in San Francisco.
- It is only a few feet shorter than the Eiffel tower.
- There is three times as much weight in concrete below ground, as the weight of steel above ground. The center of gravity is 13 feet below ground.
- Steel, all domestic, weighs 3,400,000 pounds. The antennas add another 200,000 pounds.
- There is more than 25,000 feet of transmission line, all copper coax.
- Total cost including tower, building and antennas was in excess of 12 million. Today's cost would exceed 50 million.

Steel was supplied by U. S. Steel and Bethlehem Steel with the finished members shipped by rail flatcar to San Francisco and trucked to the site. The whole thing went together like a giant erector set. The trusses were assembled on the ground and raised as a sin-

gle unit. There was little welding done on site because everything was bolted together. Almost everything exposed to the weather was hot-dipped galvanized and all other members were coated with rust inhibiting paint. With the exception of touch-up work, there has been only one major paint job in the 15 years the tower has been in operation.

### Topping off

The topping off at the construction began in December of 1972 and the antennas were installed. Antennas for channels 2-4-5-7-9-32-44 along with four FM radio stations were set in place. Channel 4 and 5 share a common antenna with filters keeping interaction to a minimum. The four FM stations, KGO-FM, KFOG, KDIT and KQAK are located at and below the sixth level while the TV stations antennas occupy the stacks above the sixth level. All communications and microwave systems are located at the fourth level, two down from the narrowest part of the tower.

### Building at the base

While the tower was being built the transmission building adjacent to the base of the tower was being constructed. The building incorporates the south leg of the tower within the building itself so the transmission lines can directly enter the building.

### Beginning of broadcasting

On July 4, 1973, by mutual agreement, all of the stations began transmitting from the highest structure in San Francisco, the new 12 million dollar Sutro Tower.

Thanks Don Lincoln, Director of Engineering, Sutro Tower



"I say old chap...CQ Field Day...Over!"



**SARA**

Field Day

JUNE 25 & 26

24 hours

Big Meadows Camp Grounds

Approx 20 miles above

Arnold, CA on Hwy 4

The READOUT

Page 9

## Where is the bread?

By Cam Harriot, K16WK

**Y**our club is like making bread the old fashion way. All the parts are needed and if one is left out—no bread! A lot of us are quiet—like flower or milk. It takes a lot of the quiet ones to make a good club or loaf of bread, but that's not all. Some of us are saltier than others. A little salt is required, a lot of salt can ruin the whole thing. Then there are those of us who are really sweet like our YLs. This too is an essential ingredient.

You mix them together and what happens? NOTHING! You have a lump that just sits there. What is missing? The yeast! When you mix the yeast into the lump, the lump wants to sit there lumpishly but the yeast has that enthusiasm. "Get up, get up" the yeast cries out kicking and hollering. Very reluctantly, the lump starts to rise. Then it gets punched down, but the yeast won't quit.

Spurred on by the sugar, the yeast multiplies, and soon the loaf rises. Into the oven it goes and shortly thereafter the people are fed. It doesn't matter which part you play as long as you play a part. Just lookout, the yeast will get you!

Thanks Intermod, newsletter of WCARC, Inc in Costa Mesa, CA.



"He's from the neighboring tribe. He say you using too much power—you splattering over entire band!"

May 1994



## Repeater problems

from front page

bers on April 10, 1994 by President Liz Eyres, KD6GIW. Our Chief Engineer and club station license trustee, LeRoy, NV6S, said that he had to make a special trip to Mt. Oso to shut off the repeater during one of the man's tirade. LeRoy said at the time we were operating on the standby repeater while he worked on the new interface equipment, and this required him to bring the ACC controller down off the hill. That left us without a way to remotely control the repeater.

Following discussion, it was decided that further attempts to reason with the offender would be fruitless in view of his medically condition. It was therefore decided pursuant to §97.205 of the FCC rules (see story "Unwanted users may be ban by repeater trustee" on page 3) to send a registered letter to the man advising him that he was no longer welcome to use any of SARA's repeaters and that his violations have been documented and would be ultimately submitted to the FCC for action against his license. The letter advised him control operators have be instructed to terminate any of his transmissions on any of SARA's repeaters should he decide to ignore our letter.

He was also advised that in addition to any action that might be taken against him by the FCC, the club would seriously consider a civil law suit against him as well.

In the interim, all members are advised to be cognizant of this situation and do not add fuel to the fire by the way to react to it should he come on while you are using the repeater.

Therefore, now would be a good time to go over the standard rules on how to deal with a person like this.

—1. Never acknowledge a jammer or disturbed person. If you react to him and address remarks to, or about him, you are merely adding fuel to the fire and further exacerbating the problem. The moment you are aware of his presence, sign off and leave the air without acknowledging that awareness. DON'T TALK TO HIM! Control your urge to return the verbal abuse. You can not reason with or threaten these type of people. It won't work. It only makes things worse.

—2. Control stations will as soon as possible shut down the repeater and record the date, time and content of what was done and said before the repeater was turned off.

—3. Don't attempt to contact the offender in person or by phone. YOU MUST IGNORE HIM. YOU MUST NOT take the law in your own hands or do something that

is illegal and possibly get yourself in trouble. Let the club officers handle the matter. The best thing you can do is let one of the club officers know about your incident so it can be added to the report.

—4. Don't take it upon yourself to call the FCC and make a complaint. There is a set protocol that must be followed in cases of rules violations and SARA is following those procedures. They involve documentation (dates & times), sound recording of violations, direction finding reports and related documentation. Only the club officers should make contacts representing the club.

—5. Don't talk about person or the problem on other repeaters. Our jammer has a scanner and listens for remarks on many frequencies. Please excuse me for being blunt, but—YOU MUST KEEP YOUR MOUTH SHUT.

This situation will no doubt be with us for a prolonged period of time. We ask everyone to be patient as we work our way through this. Please be understanding if the repeater is off when you want to use it or is turned off while your using it. The trustee must protect the club's license, and his own, and not allow the repeater to be used for violations of the rules.

These things take time and patience. Please be liberal with both! We will keep you up to date here in **The READOUT**.

## Field Day

From front page

had all kinds of visions as to their state of repair and cleanliness.

In addition to all this, the fee structure for the site was one that lead to ambiguity, so all in all we felt it best to consider other areas if we could. Finding this place took the better part of one whole day.

The next day, a Sunday, we drove back again to the same area, and searched from a camp ground all the way to where the snow stopped our progress on Hwy 4 at Big Bear. We hiked into several areas, but the snow made it difficult to assess the attributes of each place, so we knew we had to seek additional advice. However, all the ranger stations were closed because it was Sunday, so again we drove back to Escalon.

Monday morning found us again at

the ranger station in Sonora, but they weren't of any help. We were getting a little worried, but at least they suggested we go to

the ranger station further up the line. How lucky to find a ranger there that really knew the surrounding area. He suggested a group site at Lake Alpine, but when we called, it was booked for the rest of the year. The ranger's second suggestion, Spicer Reservoir, gave us the same report. The third place he suggested was called Big Meadow, and we called from the car telephone as soon

as we left his station. We've now received written confirmation for this site, and it comes highly recommended by "our" ranger.

To get to the new site, you go east on Hwy 4, continue past Calaveras Big Trees park, which is just past the town of Arnold, about 20 miles to Big Meadow campground on your right. I've been told the elevation is 6,350 feet, and when we were there before, it had three feet of snow on the ground. There is RV parking and lots of tent space according to the ranger, but we could not see too much under all the snow at the time we looked it over. As the snow melts, I'll be able to give everyone a better picture of our location.

This year, Field Day is going to be the premier event of the year for SARA. Not only will there be several stations on the air at the same time on different bands. If you plan to participate contact me (K6UVI) as soon as possible and sign up. 838-2921.





# German ham makes friends via Amateur Radio

By Ernie Rader, K6UVI

Over the Easter weekend, Rita, KD6BNV, and I were to attend a family picnic on the beach just north of Monterey. As luck would have it, the picnic was canceled after we arrived. As we were backing our "rig" into our assigned space, our next door neighbor saw our ARRL "Amateur Radio" plate and came over to ask Rita if we were hams. Of course! So was he, only this ham was special.

His name was Jurgen Muller, and his call was DK9VG. He and his wife and two little children were on a three week vacation to The United States from a town in Germany called Saarwellingen. With our family picnic canceled, we knew we had much more time to spend with Jurgen and his family, and took advantage of the opportunity to ask about his life on the other side of the globe.

We learned that this wonderful couple and their family flew in from Germany landing in Los Angeles where they rented a motorhome to tour the Western United States. They

had stopped at this particular campground because they were going to see the aquarium at Monterey. They wanted to see Yosemite, but the snow didn't allow access from the east side of the mountains.

Jurgen is 31 years old, and is an electronics design engineer. He had a trunk full of his ham gear which included several things he'd designed and built himself. He uses design programs on his computer everyday, so this didn't seem extraordinary to him at all. He showed me a dipole antenna he'd designed, and it was like nothing else I'd ever seen. He said it works very well, but we didn't have any trees to hang it in, so we didn't put it on the air.

What a marvelous opportunity to ask a true resident what happened to his country when the Berlin Wall fell. He explained how Western Germany had to absorb the East German culture, currency, and working habits of a communist society, and all the burdens that posed. He said the differences and problems involved in melding industrious western workers with those formerly guaranteed work in the east. How eastern German currency had to be accepted in West Ger-

man markets, and how values of each were affected.

He continued by speaking about his education, and how it was a combination of practical learning as well as that gained through a university setting. He showed me his German driver's license, and said it was honored in The United States just like ours. He applied and received a reciprocal ham license from his government before he came here, and while here he talked with lots and lots of local hams.

Mrs. Muller was very gracious though didn't speak much English. Still, I could tell she knew what was going on pretty well. I asked how their English was so well developed, and was told that they have a satellite dish on their television. Jurgen likes the American cartoons, and that's where his command of our language came from.

So next time you're out and about, it's sometimes a good idea to let people know that you're a ham radio operator. Every once in awhile a rare and once in a lifetime experience can be the result.

## Tri County VE team report

By Chet Jensen, W6XK

The results of the ARRL/VEC sessions held in OAKDALE on April 9, 1994.

Number of applicants: 39

Number of new licenses: 22

New Novice: 3

New Technician: 8

New Technician-Plus: 8

New General: 2

New Advanced: 1

New Extra: 0

Pass rate (total elements administered): 68%

Participating VEs: W6XK, N6SAE, AA5TX, K6RAU K6UVI, KC6TUR, AB6TA, KC6WXX

Total number of applicants served by the Tri-County VE Team:

1986: 15

1987: 104

1988: 187

1989: 123

1990: 107

1991: 221

1992: 224

1993: 220

1994: 133

Total: 1,334

Next test sessions:

April 16, 1994 - Manteca

May 14, 1994 - Turlock

For more information on upcoming tests or the VE program in general, contact Chet via packet as follows: W6XK @ KD6JZZ or you may phone him (209) 883-2968 during evening hours.

Worldradio



"I wish you'd shut that thing off for awhile—I'm trying to get Gilligans Island!"



## Calendar

May 7-8 ..... Fresno Hamfest ..... All Day  
 ..... Riverland Park at Kingsburg  
 May 14 ..... VE Testing in Turlock ..... 9:00 A.M.  
 May 14 ..... Foothill Swap meet ..... All Day  
 May 17 ..... SARA Monthly Meeting ..... 7:30 PM  
 June 21 ..... SARA Monthly Meeting ..... 7:30 PM  
 June 25-26 ..... ARRL Field Day ..... 24 hours  
 July 19 ..... SARA Monthly Meeting ..... 7:30 PM  
 Oct. 7-9 ..... 1st National Hamfest ..... 3 days  
 ..... Bakersfield  
 Oct. 21-23 ..... PACIFICON94 ..... 3 days  
 ..... Hilton Hotel, Concord

SARA meets the third Tuesday of each month (except holidays) at the Stanislaus County Administration Building 11th and H Streets in downtown Modesto. The meetings are held in the lower-level conference room at 730 pm. Visitors and interested persons are most welcome to attend. SARA is an ARRL affiliated club and is also affiliated with the Stanislaus County and City of Modesto RACESVARES programs.

The READOUT is mailed with a bulk mailing permit. Please notify us if you move as the Post Office will not forward bulk mail regardless if you left a forwarding address.



## SARA Membership Application

Call \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City State \_\_\_\_\_

Zip Code \_\_\_\_\_

Are you a member of the ARRL? (Yes) (No)

Home Phone \_\_\_\_\_

Business Phone \_\_\_\_\_

Occupation \_\_\_\_\_

Date of Birth \_\_\_\_\_

Class of license \_\_\_\_\_

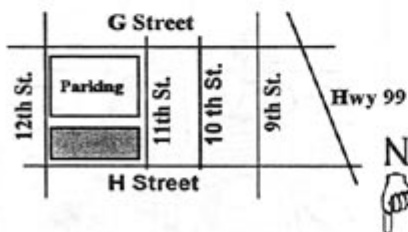
Year first licensed \_\_\_\_\_

Dues: Renewal \$23.00 per year. Out of area more than 150 miles from Modesto is \$11.00. New first time applicants dues are pro-rated from the month you join the club. Use \$1.91 times the number of months remaining in the year. i.e- You join in July- 6 x \$1.91= \$11.46

SARA repeaters on Mt. Oso at 3,300 feet- 145.39(-) MHz PL 136.5 Hz or \* 5 to override the PL. 224.14 (-) MHz, 440.225 (+) MHz PL 136.5 Hz. KA-Node Digipeater 144.91 MHz. Ten Meter Digipetar 28,440 kHz

Stanislaus Amateur Radio Association, Inc.  
 P. O. Box 4601  
 Modesto, CA. 95352

Address Correction Requested



SARA Meeting Location  
 1100 H Street, Modesto, CA  
 Lower Level Conference Room.  
 730 pm third Tuesday of each month.

Bulk Rate  
 U. S. Postage  
 Paid  
 Permit 5  
 Modesto, CA.

**Next SARA Meeting is June 21, 1994 at 730 pm & You're Invited!**

## 1999 Wesley Tire Fire

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On September 22, 1999 a lightning strike ignited a tire fire in Westley, California where an estimated five million scrap tires burned for thirty-four days at an illegal tire dump on forty acres owned by rancher Ed Filbin. Mr. Filbin is the person referred to in the story above about SARA . The fire resulted in numerous lawsuits and legal problems for Mr. Filbin. After several years of litigation Mr. Filbin sold the property. The last we heard he moved to Montana. It was Mr. Filbin who gave us permission to pass over his land on Mt. Oso Road. Without his permission SARA would not have been able to regain access Mt. Oso.

-O-