

The READOUT

Year 15

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April 1993

The Official Newsletter of the Stanislaus Amateur Radio Association

Support For SARA Mobile Communications Trailer Outstanding

By Bob Pinheiro

Restoration of the **SARA** mobile communications trailer is moving along very well, thanks to many members and supporters. On February 27, 1993, Ernie, K6UVI and I, picked up the trailer at Jim, N6UGH's, house in Patterson, and towed it to Denis RV in Turlock where the windows are to be repaired and replaced.

In route, we stopped at a public scale and weighed the trailer. It tipped the scale at 3,020 pounds.

We then stopped at Al's Certified Safe and Lock in Ceres, where the owner, Allen Woods, WA6OYF, made keys for the doors. He not only donated his time, materials and

equipment, but also offered to give us an older working alarm system which we could install to protect the equipment once it is put in.

As you recall, we published a list of the items needed to restore the trailer in last month's **READOUT**. Two of the items we felt would be the hardest to obtain, turned out to be almost the first two items we received. With the special help of SARA member, and Stanislaus County Supervisor, Paul Caruso, WD6EYX, we now have a secure place to park the trailer and it now has a new axle, electric brakes, springs and new tires—and it only cost the club \$50.00.

The parking spot was offered to

us by Stanislaus County Sheriff Les Weidman and is conveniently located at the former Stanislaus County Women's Jail located on Oakdale Road near Scenic in Modesto.

The County built a new Jail on Hackett Road off Crows Landing Road and moved the prisoners to that location late last year. The old jail is now being used for storage. The exercise yard at the rear of the building has a 30 foot high chain link fence around it and has plenty of room for our trailer. We can thank Paul Caruso for this, who mentioned our need to the Sheriff who graciously offered **SARA** the spot at no charge.

See 'Trailer' page 8

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2 meters 145.39 MHz WD6EJF

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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 WA6KTK-BBS on 145.79 MHz, or directly at my PBBS, WA6ZLO-1 on 145.79 MHz. The deadline for articles is the 15th of the preceding month. Articles regarding religion or politics are not accepted.

Editor

Bob Pinheiro, WA6ZLO

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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.

Amateur Radio's NewsLine

How It All Started

Linda Reeder, N7HVF

The Amateur Radio News Line is heard on the air around the country each week. Ever wonder how it got started? It began during a discussion over ice cream between Jim Hendershot, WA6VQP, and Bill Pasternak, WA6ITF, in Los Angeles in 1976 when the two meter band was only 2 megs wide, 146-48 MHz.

Jim wanted to do a newscast strictly about repeater deregulation and how it was going to affect the Los Angeles area. Pasternak said he would help since he already had experience in writing the "Looking West" column for 73 magazine. Another ham, Wayne Rankin, WA2MPG, had a recording studio in his home and said they could use it to record the programs.

So, they went to the Santa Barbara hamfest and interviewed several people for the first program. They decided to call the service "The West Link Amateur News." The name West Link came from a project Jim was working on which never materialized. However, several years later they had to change the name because there was a newsletter by the same name which had nothing to do with this news service. The name was changed to The Amateur Radio News Line.

The first newscast was aired September 27, 1976 and was 33 minutes long. It was aired simplex on the 220 band in Los An-

geles since there were no repeaters on the 220 band back then.

Wayne Rankin aired it from the top of a mountain known as Contractors Point so that they could reach as many Amateur radio operators as possible. He did, they loved it, and wanted more.

About a year and a half later, Jim married and moved to northern California and asked Bill to take over the service. Bill agreed if he could find help. Fortunately, Bill Orenstein, KA6QX, a good friend and NBC broadcast engineer, offered to help.

As time went on the service grew to over 50 reporters with representatives from all over the world. The only problem with the service are the costs associated with production and dissemination. Being a non-profit operation, the service depends on donations to pay their bills.

If you enjoy this service and would like to see it continue, you may send a donation to Norm Chalfin, K6PGX, P.O. Box 463 Pasadena, California, 91102. The money goes towards phone bills, maintaining the equipment such as cart machines, tape machines and E-mail all of which make it possible for News Line to bring this service to you.

It costs News Line a thousand dollars a year to provide this service. These people are strictly volunteers they do not get paid, but the bills must be paid.



Help! My Baby is Locked In the Car!

By Jim Jones, N6UGH, Patterson, CA.

The story you are about to read is true, the names have NOT been changed so as to embarrass the guilty. The facts have been changed to fiction, and fiction has been changed to fact. This little story is written so that we can all laugh at ourselves and each other, and to brighten up what might have otherwise been a dull day.

There I was, sitting in the car one hot day last summer waiting for my wife Sandy, N6YBE, to finish shopping at the Pak-n-Save in Modesto. I was on .39 talking to Mr. Up-Chuck, NW6G, up on the hill. I said, "Pretty dull day Chuck, sure not much happening around here."

All of a sudden our chat was interrupted by a lady yelling at me "My baby! My baby! You have to save my baby!" She was screaming at me and waving her arms as if she was trying to take off like a bird. I quickly told Chuck what was going on, and got out of the car. The hysterical female screaming at me was a tall bleached-blond wearing a florescent pink tube top and hot pink Spandex pants. I really don't know how I managed to notice all of that in the excitement of the moment, but I did.

On the way to the woman's car nearby, I spotted my wife hurrying

across the parking lot with a full shopping cart including ice cream which was starting to melt. I told her the ice cream would have to wait as we had to save a baby.

When we reached the lady's car, a fire-engine red Camaro, I quickly sized up the situation. I learned the lady had set her keys down on the seat of her car while she loaded the baby into the back seat. She had carefully placed a clean diaper over the baby's face to shield the baby from the blazing sun. When she finished, she stepped back to get her packages when the car the door slammed shut behind her, locking her keys and the baby in the car. With all the windows rolls up, the temperature inside the car was a critical factor for the baby.

I ran back to my car and grabbed the microphone and asked on the **SARA** repeater..."Does anybody out there have a Slim-Jim? We've got a baby locked in a car in the Pak-n-Sav parking lot!" Jim, N6KMR, came back and said he had one in his truck and offered to bring it right over. As KMR got to the corner of Carpenter and Hwy 132 he blew a tire on his pickup and had to stop and change the tire. Time was critical as the heat in the car was building. Then Ernie, K6UVI, came on frequency saying he could get a Slim-Jim from his folks' house and be here in just a few minutes.

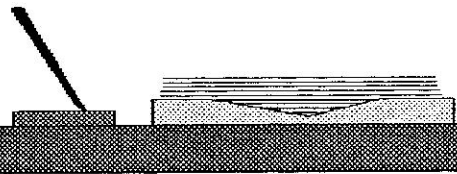
Minutes later Murphy struck again as Ernie radioed that he had rear-ended on Sisk Road by a little old granny in her 1945 Cadillac (original owner no doubt). In case you are too young to remember, Cadillac's built in the 40's and 50's were build like the proverbial brick house and the impact with Ernie's pickup was a total mismatch. The impact forced him into the trunk of the pretty little Miss Teen America in front of him who was putting on make-up at the intersection waiting for the light to change. According to Ernie, Miss Teem America was now wearing her mascara on parts of her face where it was not very appealing.

With Ernie out of service and the temperature getting higher in the car, I was starting to get real worried. Then I heard B-B-B-B-B-Bart KF6AX, say he was moments away and on his trusty steed (er..ten speed). Within minutes B-B-B-B-B-Bart was there and the door quickly unlocked using Mark, WB6BJN's walking cane and a piece of stiff wire. We quickly open the door, and removed the diaper from the face of the baby. The baby was just fine, but we were shocked to discover the baby is was only a doll.

Just goes to prove, we hams are a big-hearted, although easily suckered bunch and easily fooled around the first day in April each year.

FROM THE DESK OF

Tim Low, N6ZUC



As Amateurs, we agree to follow the rules and regulations as set forth in the Federal Code of Regulations. These regulations have been written by the Federal Communications Commission, as part of their authority, granted by congress in the Communications Act of 1939. Notice that these are rules, and not laws, as only Congress itself can make law. In a nutshell, the law states that you will follow the rules as set forth by the F.C.C.. Interesting, isn't it?

The F.C.C. is comprised of 5 Commissioners, led by the Chairman of the Commission, who is appointed by the President. The Commissioners meet to determine all matters related to the transmission of radio signals, and the reception of them. This includes all apparatus using radio frequency signals as part of the operation of that device. This means wireline, Cable, as well as Broadcast facilities, and any device capable of emitting RFR. This would also include microwave ovens, RF lighting, and computers for instance.

Being that it is this body of Commissioners that make the rules that we as Hams live by, and for that matter, affect us equally, I thought it would be reasonable to take a look at just how these rules are arrived at.

Unlike Congress, who can sneak through a pay raise in the middle of the night, the F.C.C. is re-

quired to solicit your input before passing these regulations. Because of this, you should know the procedure, and plan to participate in the process. The pressure is increasing for pieces of spectrum, and we as Hams are sitting on a big chunk of it. What the F.C.C. decides, can affect us forever.

Ok, so how does the process get started? A proposed new rule, or change to an existing rule, can come from many sources. Many times it will come from one of the F.C.C. field offices, particularly when it relates to technical items. The Commissioners can initiate it, or end users can propose one. You, as a private citizen, can even make a proposal. Many times they can be as a result of an order from Congress, or a court. When a request for a proposed new rule is received, the commission will then evaluate the merit of the proposal, and at that time decide how to handle it.

If the decision is made to proceed, a Rulemaking number will be assigned, and then listed in the weekly notice called the Federal Register, as a petition for rulemaking. It is at this time that you, or anyone interested in its outcome, may submit comments regarding this proposal. You have 30 days from publication to do so. At the end of the 30 days, the Commission can either drop it, or proceed by assigning it a docket number. A Notice

of Inquiry, (NOI), or a Notice of Proposed Rulemaking, (NPRM), is then issued. The NOI is issued when the Commission feels it needs more information on the topic.

A Notice of Proposed Rulemaking is issued when it believes it has all the facts to proceed, and is therefore proposing the rule as it will read. The public will again be given the chance to file comments concerning the proposal, and in addition be given the opportunity to respond to those comments. If in the judgment of the Commission, insufficient comments are received to make a ruling, a further NOI or NPRM is issued.

Further, the Commission may deem it necessary that oral arguments before the Commission be held. This will allow parties on both sides of the issue to state their reasons pro or con with regards to the notice. After all the arguments are considered, the Commission will make a determination, and a Report and Order will be issued.

In the Report and Order, the Commission will make the new ruling, or deny it. At this point another 30 day window will open for Petitions for Reconsideration. Any petitions will be considered and a Memorandum Opinion and Order will be issued either modifying the Report and Order, or the Petition for Reconsideration will be dismissed. This has now taken us

See 'N6ZUC' page 5

Quello Named Interim FCC Chairman

Veteran FCC Commissioner James Quello has been tapped as the interim Chairman succeeding Al Sikes, who exited the post January 19th. Quello is not a candidate for permanent appointment and his selection as interim chairman does not affect the Commission's search for a replacement for Sikes.

The 78-year old Quello was first appointed to the FCC in 1974. He had been the manager of a Detroit radio station before his appointment to the FCC.

From N6ZUC from page 4

through the process of rulemaking, and it can be seen that this is probably one of the most democratic procedures in our government. Here stated again is the fact that you do have a say in how the Commission rules. A very good reason to get involved, and try to influence the decision making process.

There are certain procedures that must be followed for your comments to be considered by the Commission however, and we will step through them next month.

Questions? Comments? Answers? Direct them to me via packet at N6ZUC @ KC6NZN #SOCA. CA.USA.NA, or write to me in care of The READOUT. 73 -Tim.

Pay-Per-View Wins Technical Knockout Over Video Pirates In Massachusetts

Big Brother isn't watching, but Continental Cablevision is. During last November's pay-per-view Holyfield-Bowe heavyweight title bout, the Springfield, MA cable TV operator aired a free T-Shirt ad using a new technology. The ad appeared only on sets using illegal signal decoders.

More than 140 saps phoned in for the shirts. Continental sent them letters instead of T-Shirts offering to

settle the matter for \$2,000. They have already received several checks. Since federal law allows fines of \$10,000, Continental says they consider the settlement fee generous. Anyone who disagrees, will find himself involved in another fight- in court.

From the February 15, 1993 Newsweek via the SBE Chapter 43 Newsletter, Sacramento, CA.

New 146.64 MHz Two-Meter Repeater On The Air from Bear Mountain

A new open 2M repeater went on the air February 14, 1993 on Bear Mountain near Angels Camp. AKØT-R, is on 146.64 MHz with a PL of 107.2 Hz. according to the owner, Chuck, AKØT, of Modesto.

The repeater, which can be heard from north of Sacramento to Merced, is a GE Master Pro. The antenna is a Phelps Dodge 4 bay dipole. Chuck plans to have a 6 meter re-

mote base hooked to the system in the near future.

There are 146.64 machines on the air in Fresno and San Jose and caution should be used so as not to bring up more than one machine at a time.

AKØT is the chief engineer of Channel 19, KCSO, in whose building on Bear Mtn. the repeater is located.

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MFJ's Commitment To Quality An American Success Story

By, Steve Hall , WM8P

If you live in the competitive world of professional high-tech electronics, then you may have heard of TQM, or 'total quality management'. This new way of running a business is at the heart of becoming competitive in an increasingly competitive world.

If you have noticed the ads for US auto manufacturers these days, the stress is on quality. It is their "most important product," claim some. Part of this new emphasis on quality deals with "continuous improvement." This means that manufacturers can no longer be satisfied with an existing product or manufacturing procedure; it must be improved everyday. If improvement isn't continuous in their product line they will be overtaken by the competition.

U.S. auto and electronics companies dominated their respective industries in the 50s, 60s and 70s and then became complacent. Foreign companies saw the weakness of the US giants and surpassed them. This alone caused the failure of many past US Amateur Radio equipment manufacturers.

As I thumb through an old copy of my first 1962 ARRL Handbook, I see the names that have passed from the amateur market, either from general failure, or to failure to pursue other markets. Collins, National,

Hallicrafters, Gonset, E.F. Johnson and Hammarlund are just a few. In fact, I do not see any of today's most successful manufacturers in this old publication.

A company that had done well and won't be passing from the marketplace is MFJ Enterprises, Inc. This American company uses American design ingenuity and a combination of both American and overseas manufacturing to produce a competitive product line.

The design work is done locally using the talent of hardware and software engineers in the college town of Starkville, Mississippi. They attract graduates from the local college and provide a service to the community by giving job experience to undergraduates. Most manufacturing is done at their main facility in Mississippi.

Ameritron, another American company, has been a popular manufacturer of Amateur Radio amplifiers for many years. A characteristic of both MFJ and Ameritron is the diversity of their product lines. Ameritron has one of the largest selections of amplifiers in the industry. They range from small low-power amps to full legal output designs using the newest ceramic-tube designs. There are products for all price classes.

The MFJ product line is too lengthy to detail but is well known for its line of antenna tuners, again from small mobile units to the high-capacity 3kw sizes with roller inductors, some of which I have used successfully in

my amateur station for years. Many manufacturers have entered the amateur packet radio market with excellent products, but MFJ has kept their packet TNC prices low, forcing the rest of the market to remain affordable.

In the past I have reviewed MFJ products including the very innovative MFJ-207 SWR analyzer. I have not seen anything quite like it in my 29 years of hamming. It allows you to determine the standing wave ratio of an antenna, covering from 1.75 to 33.5 MHz, without the use of a transmitter. Due to the low-power operation of the analyzer, antenna adjustments are possible while reading the meter on the analyzer. This is in contrast to typical SWR adjustments using transmitted power. In the past, real-time adjustments were not possible due to radiation from the antenna system. After decades of SWR bridges being marketed, here is something new!

Continuous improvement has led to an improvement of the MFJ-207 with the introduction of the model MFJ-247. This new model has added a frequency counter to the MFJ-207 SWR analyzer to better allow the user to determine the frequency of operation. When not using the unit to analyze antenna SWR, it may be used as a general purpose frequency counter. Under \$200, it's priced no more than other manufacturers' counters without

See "MFJ" page 7

MFJ Success Story

from page 6

the SWR capability.

In the area of antenna tuners, I have recently tested the MFJ model MFJ-986. This unit is rated at 3 kw, capable of tuning antennas designed for use from 1.8 to 30 MHz, both balanced and unbalanced. The reason I have rated this unit as an improvement over other models, both MFJ's and its competitors, is the ease of tune-up due to a unique design. Having used dozens of tuners in the past, this design is simply easier to use. Using a Differential-T design, one control is eliminated, saving time during tune-up.

Normally when using an antenna tuner the optimum position of two capacitors and either a rotary switch or rotary inductor is required to match an antenna to a transmitter. The Differential-T gangs the capacitors, both input and output on one control. This leaves the rotary inductor as the only other variable control to tune. Frankly, I find it faster to tune this coupler than describe its operation.

While MFJ doesn't tout this design as an improvement, I certainly do. I have used it on a variety of non-resonant antennas and frequencies

with total success. It easily covers impedances of a few tens of ohms to several thousand, giving me great flexibility in my antenna designs. I won't own a tuner or SWR bridge that doesn't have the convenience of a crossed needle meter. The days of switching between forward and reverse to read SWR are over.

The MFJ-986 meets this requirement with a large illuminated crossed needle SWR meter. Included as part of the tuner is an antenna switch so it may be used with several antennas, either balanced or unbalanced, with ease. At \$289.96 it is a real solid unit at a good price.

For more information on the MFJ products, contact MFJ Enterprises, Inc., P.O. Box 484, Mississippi State, MS 39762. Phone 800/647-1800.

Fortunately for today's ham radio operator, this competition has led to a wealth of new and improved products. A manufacturer can no longer market the same transceiver or accessory year after year. Now significantly better models must be introduced several times per year. They must continually strive for improvement or be passed by the competition, with you and I, the consumer, receiving the benefit.

Thanks WorldRadio

Nothing But Her Birthday Suit On



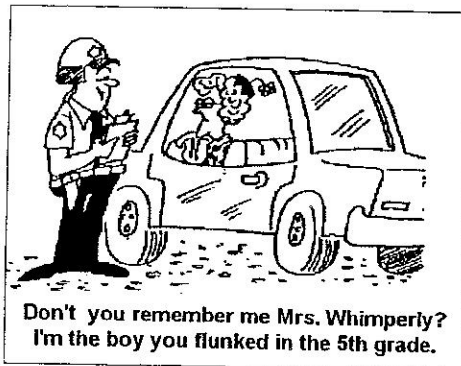
Two elderly ladies decided to take a cruise to Mexico. After settling into their cabin, one of the ladies decided to go to the lounge for a drink while the other decided to freshen up.

As she stepped out of the shower she was startled to hear a man's voice in her tiny cabin. It was only the cruise director making an announcement over the ship's intercom, but she thought it was a man in her cabin.

She was so alarmed that she quickly open the door to the cabin and stepped into the hall with only her towel wrapped around her. Her towel caught in the door as it closed and she found herself standing there in her birthday suit.

She quickly looked for shelter and found what she thought was an open closet nearby where she sought privacy. The door closed behind her after she entered and she quickly realized she was in the elevator.....and furthermore, she was not alone!

When she turned, she came face to face with a male passenger who was drunk. The drunk looked at her through his blood-shot eyes and said, "Gee....my wife has an outfit just like yours!"



Don't you remember me Mrs. Whimperly?
I'm the boy you flunked in the 5th grade.

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George Stevans, K6SNA, Office Manager

Communications Trailer from front page

Paul was also directly responsible for putting us in touch with Mr. Bob Yohanan, owner of San Joaquin Valley Mobile Homes in Ceres. Paul said Mr. Yohanan might be able to help us out with a set of new or slightly used tires at a good price for the trailer.

We met with Mr. Yohanan, and after hearing what we were doing and what the trailer would be used for, he not only donated the tires, but also an axle with electric brakes already installed. The value of these items alone would have been over \$300 not including labor to install them.

We were then faced with the job of getting the old axle off and the new one installed. Mr. Yohanan mentioned that his handyman, Manny, might be able to help. Manny was contacted and said he could install the axle. He said he usually charges \$45.00 an hour and the job would take between three and four hours. Then Manny asked who this was for. We told him it was for "ham radio".

He said he remembered several years ago while he was stationed in Vietnam during the war, his mother became very ill in Keyes. He said he went to the MARS (Military Affiliate Radio Service) station on base, and with the help of ham radio operators he was able to call his mother in Keyes and cheer her up. He said it only cost him 85 cents for the call. He said he was very grateful for what the hams had done for him and never forgot it. He then said he would install the axle for only \$50.

Later, when we started to pay him, he said he would like to have a CB radio instead. We told him we would try to get one for him and get

him on the air.

After the new axle was installed, Ernie, K6UVI, towed it back to Denis RV in Turlock, where the windows will be repaired and some minor repairs done. After they are made, it will next go to Jim, N6KMR's place where the inside restoration will begin.

An amusing note to all of this. When we picked up the trailer at UHG's home we were very concerned about the tires, especially the one on the right side as it was in very poor condition. We worried what we would do if it blew in route to Turlock. As luck would have it, we made it all the way without a blow out. Then when Ernie moved the trailer from Denis RV to San Joaquin Valley Mobile Homes in Keyes, the tires held up until Ernie pulled up in front of the mobile home place. That's when the right side tire finally gave up and blew. Our luck was holding.

Another piece of good news came from Steve Crabtree of the American Red Cross in Modesto. If you recall, he is the person who originally negotiated with the Navy to get the trailer and then donated it to us. Ernie mentioned to him about the licensing fees we were going to have to pay. It appeared from our initial check with the DMV they would be around \$120 a year. Steve mentioned there was a special rate (much lower) that we should be able to get with the Red Cross's assistance. We are checking on that now.

The good news continued when we checked our club mail. Several nice money donations were made by **SARA** members for which we are extremely grateful. As of this writing, with those donations, the trailer and its repairs have cost us less than two dollars! This has truly been an outstand-

ing effort by **SARA** members and supporters. When it's all over with, we will have something that we can be proud of and can use for pleasure and emergencies.

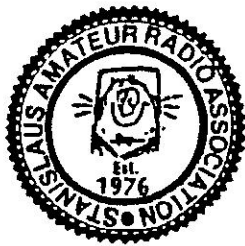
Please remember, the job is not over yet. If you can help with materials or labor, we need it! Please keep the money donations coming. Every dollar helps. We couldn't have done it without you and those people who have helped us.

Letters of appreciation will be sent out soon by the Secretary.

Thank You

These people have contributed time, money, material or in some way, have assisted **SARA** in the Mobile Communications Trailer restoration. A sincere Thank you!

1. Paul Caruso WD6EYX
2. Sheriff Les Weidman Stanislaus County.
3. Bob Yohanan, San Joaquin Mobile Homes in Ceres
4. Manny (the handyman)
5. Ernie Rader K6UVI
6. Bob Pinheiro WA6ZLO
7. Bob Vreugdenhil N6OCS
8. Chuck Loveland NW6G
9. Andy deGroot KD6MOD
10. Chris de Groot (Andy's dad)
11. Bruce Denis, Denis RV in Turlock.
12. Allen Woods WA6OYF
Al's Safe and Lock Company
13. Jim Jones N6UGH
14. Steve Crabtree, American Red Cross in Modesto.
15. Bob Kimball KC6TVE
16. Tommy Farr WJ6O
17. Larry DeWitt WB6GJT
18. Steve Faries N6EKV
19. Jim Hertel N6KMR
20. Reserved for you!



SARA Minutes

By Ernie Rader, K6UVI

The regular monthly **SARA** meeting was called to order by President Sandy, KC6TBK, on March 16th, 1993 at 7:30 PM. While members and guests introduced themselves, the sign in sheet was passed around. Twenty-nine members and guests attended.

Treasurer Andy, KD6MOD, reported that there had been no activity in the club's account since his last report during the previous net except that there was a deposit to be made in the amount of \$250.00.

Secretary Ernie, K6UVI, read a letter prepared by Bob, WA6ZLO, to Sheriff Weidman thanking him for the secure parking place for our new communications trailer, and two exceptions to the minutes were taken. In the first paragraph, the month of April should be changed to March, and in the third from the last paragraph, Liz, not Sandy offered to talk with Andy, WB6GUM.

Liz, KD6GIW, reported on her meeting with the board of the Manteca Amateur Radio Club, and recommended that **SARA** back away from any commitment to the Manteca BBS until internal matters associated with its ownership and operation are resolved. Don, AB6AE, mentioned that the SYSOP, Andy, WB6GUM, was a very busy man. Bob, ZLO, suggested that support of the BBS, should be a user's choice and that **SARA** funds should not be used to support it because it was not owned by the club. ZLO then made a motion to that effect which was seconded and approved.

LeRoy, NV6S reported that our KA-Node locked up and there was an RF spur which interfered with one of the Livermore Police Department's frequencies. They notified the FCC who were about half way up the hill looking for the source of the interference when LeRoy was notified and the unit remotely shut off. LeRoy said he's hoping no pink tickets come in the mail as a result.

Presently, the KA-Node is at Alex's (K6LPG) house being repaired. Brad, KC6TDH, asked if a time-out timer could be installed on the KA-Node to alleviate the lockup problem in the future, and asked if the TNC had been damaged in the "day-long transmission." LeRoy further reported that he's in the process of getting our Micor back over to Alex for repairs. Alex has repaired our 440 repeater, but the source we had lined up for the new duplexers did not come through. It was therefore moved and seconded to purchase new duplexers not to exceed \$800.00. Andy, KD6MOD, is looking at a possible source for the duplexers for around \$400.

Our 2M repeater is still experiencing a small amount of intermod, and Alex is looking into it. It was reported that N6EKV and NV6S are the only two full control operators.

Brad reported that there is an intermittent jammer on the .39 machine, and coordinates are being taken for his location.

The club decided to raffle a .357 Python six inch magnum revolver as its fund raiser this year. ZLO made the arrangements to purchase the gun at dealer cost. If the winner is not legally able

to possess the gun, then a cash prize will be awarded. Sandy is to get the ball rolling on getting the tickets printed and distributed.

Our Field Day site reservations have been confirmed to ZLO by the Corps of Engineers. Andy, MOD, is planning some T-hunts some time in April.

Under old business, Loyd, KD6JWE, was asked to report on the progress with the symposium, and he promised to do so at the next meeting if he can ever nail down the club secretary for a strategy meeting.

Under new business, Sandy reported that the Multiple Sclerosis Society needs 12 ham operators to provide communication for their Sunday, March 28th event. Sandy was able to get plenty of commitments from those at the meeting.

Cameron, KD6HJG, reported that Bart, KF6AX, gave up his position as SARA net coordinator, and he is now taking over that position. He was thanked for his help. He further reported that he needs at least two more net control operators, as he only has two people doing it now.

Ernie said he's still looking for additional operators for the American Diabetes Association Tour de Cure on the 17th of April and TVG and HJG said they'd help. Sandy reported that the California State University Sacramento Amateur Radio Club is having an event on March 27th called "Radio Days." We think it might be something like our proposed symposium, so we might want to

See 'Minutes' page 10

Minutes

from page 9

take an interest in this activity. Stanislaus County Supervisor Paul Caruso, WD6EYF, came into the meeting and Bob, ZLO introduced him to the club. Paul is the one that helped secure the new axle for our communications trailer and a place to park it. Paul was given a round of applause.

Break at 8:30 and return at 8:45. It was moved and seconded to give a \$20.00 donation to Newsline to help keep the on the air weekly reports going.

The program for the evening was a video tape of the Finland DXpedition on the island of Curacao. The group used 17 antennas on towers no less than 100 feet (many higher) and Yaesu donated (temporarily of course) the use of 15 FT-1000s. Miles of coax, line amplifiers and special air conditioned buildings were brought in by ship and diesel truck for the project in 1990.

The tape was very professionally produced, and it was very informative and entertaining. Thanks to Grady, K6IXA, for letting us use it. The raffle was won by Loyd, KD6JWE...a subscription to WorldRadio magazine. The meeting adjourned at 9:35 PM. Respectfully submitted, Ernie, K6UVI, club Secretary.

For Sale

Yaesu FL2100B

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Call Tim Bosma, AB6FL,

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**Next SARA Meeting
is April 20, 1993**

UPS Abandons 220-222 MHz

Do you remember how United Parcel Service back in early 1988 filed very impressive comments stating they intended to use ACSB (amplitude campandored side-band) equipment operating at 220-222 MHz to implement a nation-wide network to improve the efficiency of their package delivery service?

There can be no doubt that the UPS filing played a very important role in the FCC's decision to reallocate 220 to 222 MHz to narrow band business radio. UPS said they wanted to develop a state of the art delivery system using narrowband equipment in the 220 MHz band.

We mention all of this because UPS has now totally abandoned their plan to use 220 to 222 MHz for their package tracking system. The March 1st issue of Radio Communications Report, a weekly business radio trade publication, tells how UPS "...has in-

vested about \$150 million in a nation-wide cellular mobile data network that gives its customers immediate access to delivery information." UPS activated the system last month for its fleet of 50,000 vehicles that reportedly pick up more than one million packages a day.

UPS selected cellular over other communications technologies because of its highly reliable, fail-safe redundancies, extensive geographic coverage and potential for future upgrades. "The network operates with custom built electronic clipboards, called DIADs, which enable UPS drivers to enter information such as pickup time and date, delivery time and date and customer signatures each time they make a delivery or pickup," the RCR article reported. Fifty-five cellular carriers formed an alliance to serve UPS nationally.

W5YI Report

Are You A Scuba Diver ?

My wife has had her Tech ticket since the early 80's. On her New Jersey license plate is her call sign, N2CWD. I took my wife's car with her ham radio license plate to get gaso-

line. While filling up the tank, the person behind me came up and asked, "are you into scuba diving?" With a puzzled look on my face I said, "No, why do you ask?" His answer was the ham license plate N2CWD. He though it meant "into seaweed!"

Ric Susswein, KJ2D, Hamilton Square, NJ
via Worldradio

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Issued as of the first of March 1993

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Extra	Advanced	Tech/Gen	Novice
AA0LX	KG0DS	N8VRS	KB8LAU
AA1FM	KD1NI	N1ONN	KB1ASR
AA2MV	KF2NG	N2TZR	KB2PZS
AA3DP	KE3HF	N30JS	KB3APW
AD4AS	KQ4PC	**	KD4YME
AB5LE	KJ5IW	**	KB5YWC
AB6RE	KN6HQ	**	KD6SYN
AA7UK	KI7KY	**	KB7SXX
AA8KH	KF8ZG	N8XKP	KB80RZ
AA9GA	KF9NP	N9SMB	KB9ILH

** = Group "C" ("N"-by-3) call signs have now runout in the 4th, 5th, 6th, 7th and Puerto Rico call districts. The next lower Group "D" (2-by-3 format) callsigns are now being assigned in these areas. Source: FCC Licensing Facility, Gettysburg, PA.

Ex-WB6JAC Goes Back To Prison Again

The only amateur radio operator ever to be imprisoned for illegally transmitting on ham radio is headed back to the pokey. Richard A. Burton, 48, of Harbor City, California, was sentenced to prison on Monday, February 22nd, for talking on his 2-meter radio without a license. He used to be WB6JAC.

Burton has a long history of repeated amateur radio violations going back more than a decade. The FCC initially revoked Burton's ham ticket in 1981. But that didn't keep him off the amateur air waves. A 1984 federal court found him guilty of transmitting on the ham bands without a license on three separate occasions ...and using obscene language.

The obscenity charge was later overturned but the license revocation continued. He was sentenced to a four year federal prison sentence which was later reduced to 6 months to be followed by a 5 year probationary period. He

served the sentence at the Lompoc (California) federal detention facility; the probation was over in 1989.

In 1990, Burton was once again monitored on the 2-meter band and convicted of operating without a license. This time he was ordered to undergo therapy.

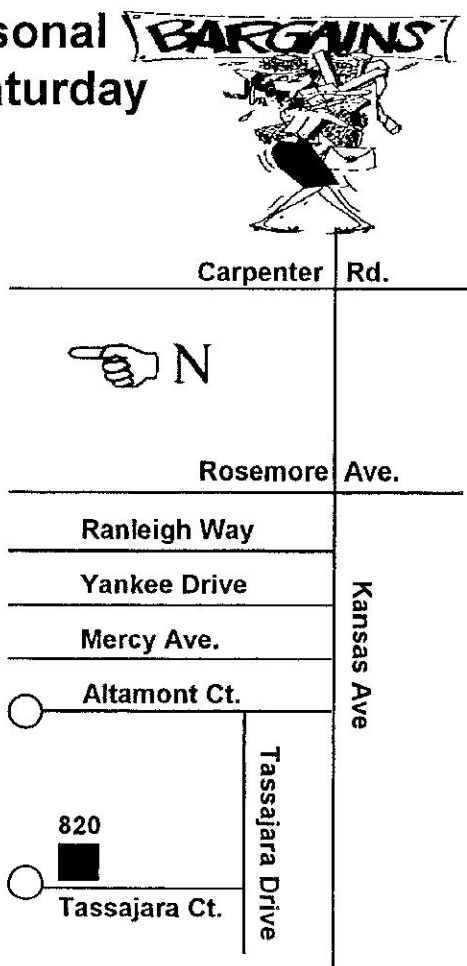
The following year, Burton applied to become a legally licensed radio amateur and the FCC designated the application for a hearing. They wanted to know in view of his past enforcement record whether granting the ham license "...would serve the public interest, convenience and necessity."

The FCC dismissed Burton's amateur radio license application when he failed to respond to the hearing notice within 30 days as directed. Burton later appealed to the FCC Review Board but the judge agreed with the Private Radio Bureau that he

WB6IDT To Hold Personal Home Flea Market Saturday May 1, 1993

Jack, WB6IDT, has been hamming since 1952 and like most of us, he has accumulated "tons" of ham radio related equipment. The war department (his wife) has proclaimed the "junk", (as she calls it) or Jack must go. So, Jack has decided that the equipment can withstand being out in the cold better than he can.

Accordingly, Jack will holding a personal Flea Market at his home on Saturday May 1, 1993. There will be plenty to choose from and the price will be right. Time will be from 8 AM 4 PM at Jack's home, 820 Tassajara Ct. Modesto, CA. (See Map)



See 'Burton' page 12

1993 SARA Field Day Site Selected On Stanislaus River Near Escalon

An excellent Field Day site for this year's event has been obtained from the U.S. Army Corps of Engineers. The McHenry Avenue Recreational Area is an improved area on the banks of the Stanislaus River between Modesto and Escalon. The site is nestled in the trees (good for antennas) along the banks of the river one mile east of McHenry Ave off River Rd.

The site has running water, restrooms, picnic tables and barbe-

cues and paved parking all of which will be available on Field Day.

There are two restrictions. The gate leading into the site off River Rd. is closed at 9 PM nightly and vehicles are not allowed off the payment in the picnic table areas. There is a large parking lot where vehicles and camp trailers maybe parked.

So, if you are planning to spend the night Saturday June 26th, then you must be at the site before 9 PM when the gate closes. It reopens at 6

AM the next morning. There is a so-called park hostess who lives in a trailer in the park and has a key to the gate. If for some reason you need to get out after 9 pm and before 6 am, you could contact the hostess and she would let you out.

This spot is very much like the spot we had at Caswell State Park in Ripon several years ago which was enjoyed by all. More about this next month.

Burton

from page 11

should not be issued a ham ticket based on his record.

Last summer, Burton was again cited for making several illegal unidentified 2-meter ham radio transmissions after the Los Angeles FCC Office tracked his broadcasts to a Redondo Beach address. He pleaded innocent and was ordered to return to federal district court for a jury trial last November.

On Dec. 1, 1993, Richard Burton was convicted on all four counts of operating an amateur radio station without a license. This was his third conviction. He could have received up to a two year prison sentence and a \$10,000 fine.

Last month, Burton was sentenced to a seven month prison sentence by U.S. District Judge, Ronald S. W. Lew. After Burton serves his time he must undergo psychological counseling and perform 500 hours of community service. Burton was quoted as saying "I think I need to get myself another hobby." W5YI Report

ARRL Pacific Division Update

by Charles P. McConnell, W6DPD,
Director ARRL Pacific Division.

FCC PROPOSES NEW BAND: In response to an ARRL request, the FCC has proposed in ET Docket 93-40 to establish a secondary allocation for the Amateur Service in the 219-220 MHz band. This band would be used for Amateur Auxiliary station (point to point) Packet backbone networks and other Amateur point to point fixed communications.

The FCC also proposed operating limits and other measures to ensure that such Amateur operations do not cause interference to primary operations in and adjacent to the 219-220 MHz band. The FCC said it believes this allocation will foster technological experimentation and innovation, particularly with higher data rates, facilitate the construction of a nationwide packet data backbone network and relieve congestion in the 222-225 MHz band in certain geographic areas. The comment date will be known when the full text is published in the Federal Register.

lished in the Federal Register.

SPECTRUM BILL PASSED: On March 2, 1993, H.R. 707, the Emerging Telecommunications Technologies Act of 1993, was passed by the House. It requires the Federal Government to release 200 MHz of frequency spectrum for commercial use to foster new technologies in the private sector, with at least 180 MHz to be below 5 GHz.

The Senate version, S. 335, includes specific protection for the Amateur Service that were sought by the League during the previous session of Congress. If the Senate adopts S. 335 in something resembling its present form, the ARRL will encourage the conference committee that resolves the differences between the bills to include those protection.

WIND PROFILER RADARS: The FCC has agreed to issue a Notice of Proposed Rulemaking and Notice of Inquiry on the subject of Wind Profiler

See 'Update' page 13

Late Breaking Stories

Radars, ET Docket 93-59. The FCC has proposed to allocate the 449 MHz band for wind profiler radar systems (they look for wind shears around airports) and perhaps an allocation at 915 MHz for the wind profiler systems.

The 449 MHz is currently allocated to Government relocation operations by the military on a primary basis and to Amateur and to government and non-government radio location systems for coastal radars. The comment date will be announced when the entire text of the docket is published in the Federal Register.

LOCATION MONITORING SERVICE: FCC has proposed new rules to allow greater use of the 902-928 MHz band for so-called automotive vehicle monitoring systems. The FCC proposes to expand the service to encompass location of all objects and allow licensees to provide service on a private carrier basis to individuals, the Federal Government, and Part 90 eligibles.

FCC proposes to license wide band systems on the 904-912 and 918-926 MHz bands and narrow band systems on the 918, and 926-928 MHz bands. The FCC believes wide band systems are capable of operating in a shared environment, with co-operation among the various licensees. The comment date will be announced when the full text is in the Federal Register.

NEW RF RADIATION GUIDELINES: PROPOSED. The FCC has proposed changing its guidelines for evaluating RF radiation to reflect guidelines adopted in 1992 by ANSI and IEEE, Inc. Two tiers of exposure levels, one for controlled environments and another for uncontrolled environments. Watch the Amateur Press for more information.

—While President Clinton hasn't selected his FCC Chairman, he did pick Larry Irving to head the NTIA. The National Telecommunication and Information Administration is the White House top telecommunications advisor. Irving has been a counsel to the House telecommunications subcommittee since 1987 and played a key role in crafting the new cable TV law. It is expected that the NTIA will assume a heightened role in the Clinton administration.

—May 1st is the day that "800-number portability" goes into effect. This allows businesses to change carriers without changing their toll numbers and risking loss of customers and relationships. MCI, Sprint and AT&T are already gearing up for the battle. In-coming toll-free "800" calling is a \$7 billion market and growing at 10K a year. Since they had a 20 year head start, AT&T currently has 75% of the business. MCI follows with about 16% and Sprint claims 8%. You can expect to see all sorts of broadcast and print advertising in an attempt to get businesses to change from one "800" service carrier to another.

—It appears that it won't be long before telephone Companies will be allowed to own and offer video programming inside their service area. The Clinton administration is already considering methods that would provide competition for cable TV. You can also expect cable companies to offer telephone service as common carriers.

At least one local Bell telco (Ameritech) said they would be willing to open up local telephone service to competition in exchange for entry into the long distance and cable TV marketplace. The big winner, of course,

will be consumers who will pay lower rates. The 1984 Bell System divestiture currently prevents the seven regional Bell operating companies (RBOC) from being in the long distance business. AT&T has a 68% share in the fast growing \$65 billion long distance industry, to MCI's 16% and Sprint's 10%.

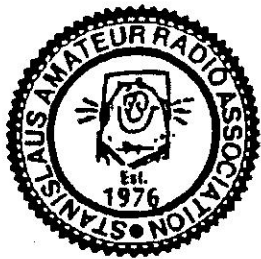
—Tele-Communications, Inc., the nation's largest operator of cable systems will shortly begin installing digital compression equipment that will allow it to up to 500 channels. The big question is what programming could possibly be offered on 500 different channels?

In some cases they will be "repeats" of previous shows you may have missed. 'Personal TV' will allow viewers to tailor their viewing to their own schedule without going to the trouble of programming the VCR. "Video-On-Demand" will be big business! Be on the lookout for a big expansion in interactive TV. You will be able to scroll through a menu to determine which movie you want to watch, which product to order or which news story you want expanded upon ...and more!

Cable is now in 66% of all U.S. homes - and in 81% of all up-scale homes. Compressed video should be available to half the nation's homes within five years.

—Do cellular phones cause brain cancer? A March 8th article in Fortune magazine states the "wireless revolution" is bathing us in electromagnetic radiation. It also reports that a researcher for Motorola, the nation's No. 1 cellular telephone manufacturer, says he "...would not

See 'NewsWire' page 15



Editor's Notes

By Bob Pinheiro, WA6ZLO

—The Livermore ARC sponsors a monthly swapmeet on the first Sunday of every month from 7 am to 12 noon, rain or shine. The event is held at Las Positas College in Livermore and features covered spaces at no extra cost in the event of rain, refreshments and free parking. Admission is free. Vendor spaces are \$10.00 per space. Talk-in-on 147.045 and 145.35 MHz.

—A flea market is held the second Saturday of each month March through September at Foothill College in Los Altos Hills. It features refreshments and VE exams also. Admission is free, but there is a parking fee of \$2.00 per vehicle. Talk-in-on 145.27 MHz.

—The FCC has fined Richard L. Whiten, WB2OTK, Taylors, SC, \$10,500 for jamming 14.313 MHz last fall. Whiten denies he was causing willful interference and that he was the "victim of entrapment" by other operators. It was Whiten's third jamming fine.

—The FCC is writing to the doctors of certain "severely handicapped" amateurs who apply for 13 and 20 wpm telegraphy exemptions. The telegraphy credit is disallowed if the doctor can not substantiate that the disability prevents the applicant from passing the code test.

—A Notice of Apparent Liability for a Forfeiture was issued to FM radio station KLSX, Los Angeles for broadcasting indecent material during 'The Howard Stern Show.' The \$12,500 base amount of the fine was increased

to a whopping \$105,000.00 due to the outrageous nature of the material and the number of days it was broadcast. Stern maintains the Commission is violating his First Amendment right to free speech. The FCC says the public airwaves should not be used for disseminating indecent material defined as offensive language which describes sexual or excretory activities of organs.

—Intel says it has its new 64-bit Pentium microprocessor ready to ship! But beware! Today's PC's are configured to run 32-bit processors and can't take advantage of Pentium's 64-bit architecture. 486 based machines will be the mainstay PC "brain" for some time to come!

More personal computers are sold than TV's and VCR's put together and there are now more floppy disks on this planet than people. Very impressive when you realize that PC's didn't exist eighteen years ago! Almost every PC has at least one Intel chip in it! The Pentium microchip has the equivalent of three million transistors.

Intel's founder, Andrew Grove, fled his native Hungary in 1956 with only \$20 in his pocket. This year, Grove will spend \$2.5 billion for R&D.

In 1984, the IBM-PC commanded about half of the personal computing market ...about \$4 billion worth were sold. All had Intel brains and Microsoft nerves. In 1992, IBM owns only a 15% share, lost \$5 billion and cut 40,000 employees. While IBM's market share

has nosedived, Intel and Microsoft are enjoying huge sales and profit increases. They did it by selling microprocessors and operating system software (the two most profitable PC components) to the clone makers who consistently undersold IBM.

The new Microsoft DOS 6.0 operating system (set for a March-April rollout) will have two new features that almost guarantee it to be a winner! First it will have file compression and secondly, peer-to-peer networking capability which will allow DOS machines to talk to other DOS machines.

—The resistor of the future will be made of polymer thick-film paste. By mixing carbon powder, silica, and a resin to glue together, you literally have a bowl of resistance. Printing a small, wide line on a circuit board with this mixture and allowing it to dry, will result in a working resistor of a fixed value. If a different value of resistance is needed, just change the recipe and use a different amount of carbon powder.

When the circuit board is completed, all the resistors look like black hyphens, each about the size of any other surface-mount component. Polymer resistors are ideally suited for VHF use because they contain no metal mounting leads to alter their performance at microwave frequencies.

—That's it for this month. Enjoy the spring and get ready for Field Day.

Thanks to WSYI Report and Worldradio who contributed to these notes.

use a cellular phone more than 30 minutes a day." FCC Chief Engineer Tom Stanley says he intends to recommend that the Commission initiate a rulemaking to update its guide-lines for evaluating environmental RF (radio frequency) fields.

—Effective April 26th, the FCC will no longer certify scanners which cover - or can be readily altered to cover the cellular telephone frequencies at 824-849 and 869-894 MHz. Six months later, no such scanner may be manufactured in or imported into the United States. The FCC will require scanner marketers to certify that their equipment meets the requirements.

—AT&T has a new Cellular Privacy System that scrambles the signal as it travels through the air. It is descrambled at the location where it is handed off to the wired telephone network. Eavesdroppers intercepting the AT&T system will hear only "chirping bird" sounds. The Electronic Communication Privacy Act of 1986 makes it a crime to monitor cellular phone calls.

—Kenwood has unveiled the World's Smallest Transceiver. The TS-50S is only 7.2" wide by 2.4" high and 9.3" deep and weighs 6.4lbs. The all mode (SSB/CW/AM/-FM) 100-watt HF transceiver also has a general coverage (500 kHz to 30 MHz) receiver and all the "bells and whistles" ...including 100 memory channels, dual VFOs and computer controllable. (\$1,199.95)

—U.S. Postage to Canada is 40 ¢ per ounce plus 23¢ per additional ounce. Mail to Mexico costs 45¢ per ounce. QSL Cards to both are 30¢. Canadian mail to the U.S. has just been increased to 49¢ per ounce.

Thanks W5YI Report

SARA Technical Report

By LeRoy Campbell, NV6S



There are many things happening on the technical front at this time. The set of duplexers I tried to buy for the 440 repeater failed to materialize. Andy, KD6MOD, believes he can get us a set and that is being explored. The problem with music on the squelch tail of the 440 repeater has been found and corrected through the efforts of Alex, K6LPG. As soon as we are able to get a new set of duplexers and get them tuned and installed on the 440 repeater, we should have a fairly decent repeater.

About two weeks ago, I received a call from WB6GUM advising me that the SARA KA-Node was locked up on frequency. I immediately shut it down. The following day the FCC called me and said were looking for some interference to Livermore police at the time I shut down the KA-Node transmitter. The interference went away at the same instant that I shut the transmitter off. I was unable to get the transmitter to come back on for a test but it seems likely that our transmitter was guilty. It has been brought down for repairs. Our Micor radio that was used on the KA-Node, is at Alex's home where he

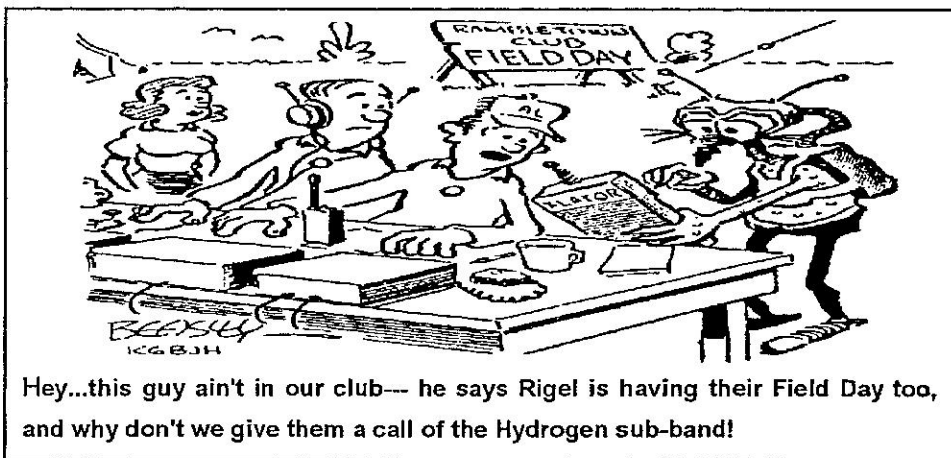
will attempt to put a 35 watt final in it so we can get it back operational. Additionally we are working out the details for a time out device so if it does lock up again it will time out and shut down.

The two meter and 220 machines have been running very nicely. We are experiencing occasional interference on the 2M machine and hope to find that. It may be something that will ultimately force us to PL the input to the repeater. The hardware is installed to do that job when it becomes necessary.

The ten meter digi has been running decently although experiencing some drift problems. Plans are in place to install a light bulb over the crystal to help the thermal stability and hopefully the frequency stability as well.

The six meter repeater is waiting for arrangements for transportation to Modesto. Brad, KC6TDH, has offered to pick it up for us and we are waiting for authorization to do the job. Frank, N6YHY, is supposed to be making the arrangements.

I thank all who have helped with the engineering chores and particularly thank Alex, K6LPG, for his technical help. 73, LeRoy





Calendar

Apr 4 Livermore Swap Meet 7 AM -12 PM
 Los Positas College
 Apr 10 Foothill College Swap Meet All Day
 Los Altos, CA.
 Apr 16-18 DX Convention 2 Days
 Visalia Holiday Inn
 Apr 20 SARA Monthly Meeting 730 P.M.
 May 1 Fresno Swap Meet All Day
 In Kingsburg. Talk-In 146.94
 May 8 VE Testing in Turlock 900 A.M.
 May 18 SARA Monthly Meeting 730 P.M.
 Jun 12 VE Testing in Modesto 900 A.M.
 Oct. 22-24 Pacificon '93 Convention 3 days
 Concord, CA.

SARA meet 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 RACES programs.

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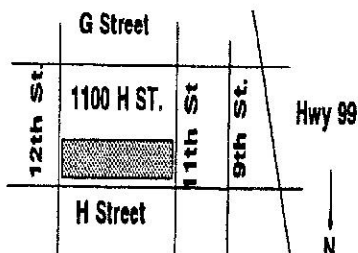


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SARA Meeting Location
 1100 H Street, Modesto, CA
 Lower Level Conference Room.

Next SARA Meeting is April 20, 1993 at 730 pm & You're Invited!