

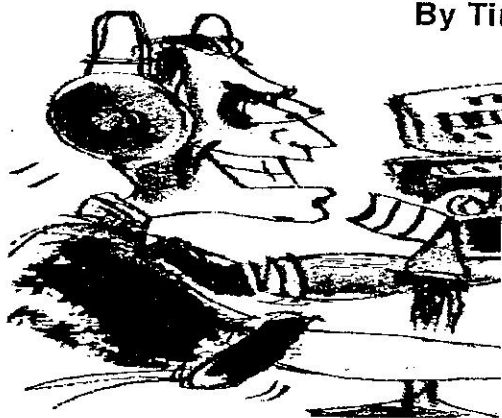
The READOUT

Year 14 Number 12 December 1992

The Official Newsletter of the Stanislaus Amateur Radio Association

Mono Avenue Madman

By Tim Johnson, N8QXL, Modesto, CA.



In April of 1992, I got my no-code Technician license and my first two meter rig, a Kenwood TS700s all mode. Boy, was I on top of the world that day. After hooking up everything it didn't take me long to get on 2M SSB where I had several hours of fun working every-

thing I could hear. The fun and enthusiasm ended abruptly when the little old lady from next door appeared at my door complaining she could hear me coming through the speaker on her television. The next day I went over to see if I could solve the problem. I checked her cable coax and found a few loose connections. I tightened them and told her that should solve the problem. Boy, was I wrong!

A few days later I was on my Kenwood calling CQ. After a few minutes someone, or something, was beating on my front door. And I do mean **beating!** So, I set the microphone down thinking "what the hell was

wrong...someone hurt or what?" When I opened the door I found out what it was real fast. It was the madman (he is really a she, I call her a madman) from across the street to the east of me. She was jumping up and down calling me everything in the book. After about five minutes of asking her to calm down, she told me she was trying to watch "Jake and The Fat Man" and I was tearing up her TV. She said if I didn't quit she was going to call the man in blue (the cops) and have me

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IBM Targeting Multiple Markets

Do you remember how we told you months ago that IBM would be embarking on multi-faceted personal computer marketing approach. Well the newly formed IBM Personal Computer Company finally completed the introduction last week.

IBM is now aiming at everybody! They now have multiple products being sold by multiple distribution channels targeting multiple markets. They even have competing multiple internal manufacturing subsidiaries.

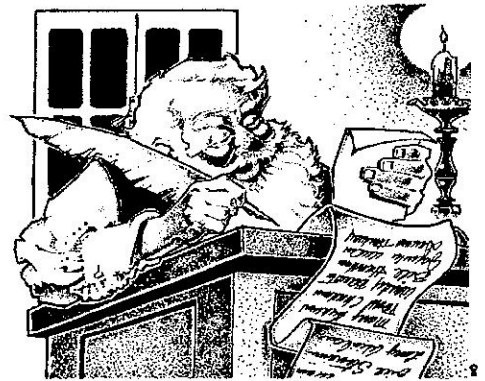
The big push is now on! ValuPoint, the new clone-killer, was introduced last week. It will be sold to consumers and small business through dealers and mail order. IBM's goal is market-share! In 1984 they owned more than a third of the PC business. It is now down to less than half that amount. And the market is big, some \$69 billion in the U.S.

IBM will be mimicking the off-shore manufacturers who learned years ago that the only way to make money in Consumer electronics is with huge volumes.

The new PS/ValuPoint line is less expensive, but not cheap. And there is a big difference. There are many things a giant PC maker can do to reduce cost without sacrificing quality - such as allocating less funds for R&D, accepting less profit (halving the gross margin while tripling the volume actually increases profit), design and assembly line changes aimed at manufacturing efficiency, playing competing suppliers against each other...and (in the case of IBM) establishing a separate self-sufficient leaner division that doesn't have to contribute to (or answer to) layers of corporate bureaucracy.

Remember too, that most of the industry tooling up costs have

now been amortized. IBM is also taking advantage of the current microprocessor CPU war between Intel (which it partly owns) and Cyrix. Some of the design changes combine usually separate components (such as video and IDE controller boards) right on the mother board. On the other hand, standard replacement parts won't work! The strategy is bound to cause the failure of many clone makers who will find it impossible to compete in such a market place environment. W5YI Report



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575.4765

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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 pm.

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. The deadline for ar-

ticles is the 15th of the preceding month. Articles regarding religion or politics are not accepted.

Editor

Bob Pinheiro, WA6ZLO

1221 Mist Flower Ct.

Modesto, CA. 95355

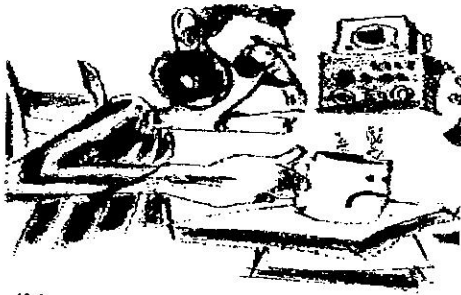
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An ARRL Affiliated Club

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**.

Mono Ave Madman

From front page



arrested and put in jail. That evening I decided to stay off the air even though I was mad about her accusations.

The next day I went over to talk to her and try to resolve the problem. She met me at the front door and promptly told me to "get the hell off" her porch. She said if I wanted to solve the problem, I could start by taking my antennas down. I thought, yeah, sure, give me a break lady! So, I went home fuming.

Later that day, the UPS truck delivered my new 2 meter 110 watt amplifier which I had ordered several days before. I ordered the amplifier because 10 watts and a disk-cone antenna just don't get it on single sideband. In addition to the amp, I bought and put up a 14 element beam. Now, I was ready to do some serious DX'ing. I fired up the amplifier and started calling CQ to the world.

It didn't take long before I heard this loud knock at my front door. I decided not to answer it. I kept calling CQ until the knocking got louder and more persistent. I put down the microphone and walked to the window to look out. I was hoping it was not the madman from across the street. It wasn't! It was the cops! My heart skip a few beats and then beat 90 to nothing as I opened the door...scared of course.

I asked politely..."Can I help you officer?" He asked if I had a two-way radio! I said yes! He said the lady across the street (the madman) called and said that I was disturbing her peace and quiet with my radio and she wanted to file a complaint.

By now I was starting to get a steady heart beat back and the blood circulation to my head had been restored. I asked the officer if I had violated any laws. He said no! I then excused myself and told him I was going to get back on my radio. The officer asked me to stay off the "CB" for a few minutes. I said no, and shut the door. I watched as he walked across the street. Boy did it (you know what I mean) hit the fan.

A few minutes later the phone started ringing. I picked it up and you guess it, it was the madman from across the street. She told me if I didn't get off "that damn CB" she was going to "kick my butt and throw that CB out in the middle of the street and run over it with a car!" I told her I wasn't on CB and hung up.

The next day I called the local cable TV company, Post Newsweek, and told them about the interference problems. They asked if I was having any interference on my television. I told them I was not on cable. About two days later they came out and worked on the cable lines

in the area. They told me later they had found a leak in their lines and I should not have anymore problems with the neighbors (yeah right!).

About three days later, I was working two meters SSB when a man and a woman from the other end of the street showed up on my porch. They told me that I was tearing up their TV. I asked them what they heard. They said they could not understand it because it was in Mexican. I tried to control my amusement and told them I don't speak Mexican. That didn't make any difference to

them they said. "You have the only antennas in the area" and if I didn't stop it they were going to call the FCC. I told them to go ahead!

The next day I was working on my antenna when a car drove by in front of my house. They yelled at me said all kinds of nasty stuff and calling me an "antennajerk!" Boy, was I getting tired of this harassment. It

seemed no matter what I did, I was still the bad guy on the block. So, I decided to stay off the air for a few weeks just to get the neighbors off my case. That did not stop the phone calls which continued at a rate of 3-4 a day until I had my number changed, after which I got back on the air.

Several days went by before the madman came over and said she was there to help me take my antennas down. I said "sure you are" and slammed the door shut in her face. She

**'She told me if I
didn't get off the air
she was going to
kick my butt and
throw my CB out in
the street and run
over it with a car.'**

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Technical Report

By LeRoy Campbell, NV6S

The repeaters have been doing pretty well for the past month. The air conditioner is back in place and operating and the KA-Node digipeater is currently operating on a hand held on loan from WB6GUM. We are planning a trip to install a Drake transceiver that Andy has donated to the club. This will replace the old Motorola Micor we had been using and should improve the sensitivity. It will also increase our

output to ten watts.

We also have plans to do some experimentation with the 440 repeater and hopefully will be able to solve the interference problems there. N6YHY will be bringing our six meter repeater to us soon and I hope to get that functioning soon thereafter. My special thanks to all of those who have helped with the technical chores. 73, LeRoy.



High Definition Television Report

On Oct. 16, 1992, the FCC's Advanced TV Advisory Committee considering a new HDTV standard, released a report on the Advanced Television Docket. Contrary to what a company called Future Images Today (FIT) believes, the committee says they are not precluded from selecting a high definition television broadcast medium that requires new receivers...nor must they mandate dual-mode (HDTV//NTSC) television sets. The advisory committee says they do not want to overly or prematurely burden consumers with unnecessary TV set components and capabilities.

FIT is the company created by Amateur TV enthusiast, Leo Zucker, K2LZ, of White Plains, NY. Zucker has

Pacemakers & RF Don't Mix

An article in the September 1992, Cortlandt Forum, (a medical journal for physicians) tells about how second year pathology resident, Maria L Evans, M.D., KT5Y, of Columbia, Mis-

souri, ran into one of her older ham friends in the lobby of a local hospital. He was there for treatment of two recent 'syncopal episodes'. Dr. Evans,

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Mono Ave. MadMan

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stood there screaming at the top of her lungs calling me everything but my name. This went on for about 30 minutes until I called the cops. She finally went home and then promptly continued the barrage by phone. I hung up on her and she would call back. This went on for another 10 minutes until I got tired of it and unplugged the phone. I then wondered how she got my new unlisted phone number.

Within a few days I took down my two meter antenna and worked all day getting my HF antenna ready to put up to commemorate my upgrading to a General.

The next day I went out to get my paper and found a note on my door which thanked me for taking down my antenna. It was signed by the neighbor next door, not the madman. Boy was she in for a surprise. I spent all that day putting up my 12 ft. boom 40 meter dipole, 440 MHz antenna and my 10 meter stick all in plain view of the neighbors.

It didn't take long before the madman called with language unbecoming of her 65 years plus. I asked her how she got my unlisted number. She said she got it from the cable company when she called to complain about the interference. She said the cable company told her they were not going to do anything to help her because I was not on cable. I hung up the phone and then called the cable company. You won't believe this, I ordered cable installed in my home. Boy did that make my wife happy. Within

a day I was hooked up and was hoping for the best. My hopes were shattered when I tested my two meter rig while watching channel 18 on the cable. Channel 58, KSCH, in Sacramento, is fed through the Post Newsweek system on channel 18 which is transmitted on 145.25 MHz right in the two meter band. When I keyed up with my handheld, I completely wiped out channel 18 on the cable...even with just 1/2 watt of power.

I called Post Newsweek and told them I was having TVI (television interference). They came out two days later and worked up and down the street with a gadget that looked like a box with rabbit ears on it. They then told me it was my television set that had a problem. So, I called the Curtis Mathis repair center. They came out and checked the set and found nothing wrong. *Part two next month.*

Hams Obsolete? Who Says?

By Wayne Thalls, KB6KN

I'm sure you heard it said that, with mobile and portable cellular phones, hams are becoming obsolete—that we won't be needed in future disasters. Don't believe it.

During the 1989 Loma Prieta Earthquake in the San Francisco Bay Area, telephones—including cellular—were either overloaded or wiped out over a wide area of devastation.

Cellular systems require wired connections and power to their cell site repeaters. They are not invulnerable to natural disasters. And in an emergency, the telephone companies place surviving resources under controlled access.

That's why so many subscribers weren't able to receive or originate calls in 1989. And within hours of the quake, many cellular repeaters went down,

having exhausted their batteries.

So, in areas that lost power, even those cellular nodes with intact telephone lines soon went down. Of course, the same happened to some hams and some of their repeaters—but far from all.

Amateur Radio became one of the few communications services left operational in many parts of Santa Cruz and Santa Clara counties. Hams were a vital resource for disaster relief. So, keep your batteries charged. Next time, you may be needed.

From the September '92 Sussex County New Jersey ARC 'Newsletter-WB2LHY via the ARNS Newsletter.

**Merry
Christmas**

HDTV Coming

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developed an HDTV system that can be received on conventional 525-line NTSC television sets by transmitting signals with dual polarity. K2LZ believes the All Channel Receiver Act requires that any new HDTV system must be compatible with existing receivers. The ATV Committee notes that FIT has yet to submit documentation showing the system "...offers important new benefits." K2LZ said he submitted it nearly two years ago. He is presently looking for an RF communications company that would like a chance to build a working model in exchange for patent rights. W5YI Report

Pacemakers & RF

From page 4

an Amateur radio operator for 16 years, was able to link the recent purchase and operation of a one kilowatt linear amplifier to the patient's attacks. It seems his amplifier was RFing his cardiac pacemaker. His original 100-watt station did not provide enough RF energy to interfere with his pacemaker, but the recent addition of the kilowatt linear amplifier changed all that.

The patient decided 100 watts was plenty, sold his kilowatt amplifier and hasn't had a syncopal episode since. A photo in the journal shows 32 year Dr. Evans perched on a tower complete with safety belt repairing her ham radio antenna. Trx KB4PGC and W5YI Report

Partial list

Area Bulletin Boards

The numbers listed will connect you directly to the board via your modem.

BBS Name	Phone#
Alpha-Omega	526-5234
Animal's House	848-0524
Anything Goes	549-0423
Bear's Cave	577-6165
Bird House (Supports MPCUG)	544-9810
Bizzy Bee	578-0435
B.J.'s Back Fence	537-6473
Bull's Locker	537-0454
Code of Chivalry	847-8901
Cyber Tronix	578-1359
Dave's Place	526-2080
Delta BBS	544-1651
Dragon Rider's of Pern	529-6130
FlightLine of DBase (MPCUG)	551-2227
Global Friends of AG	527-2944
Golden Nugget	575-4405
Hotel California	521-6082
Iron Bit (Modem Hell)	526-2847
Logarithmic Jello	667-0848
Lost Abbey	551-1916
Lost At C	521-2143
MACC	527-1521
Maggot's Dumpster	572-3602
Maxie's Toy	526-5899
Mc Co. On-Line	538-8454
MJC Info Net	577-3081
Modesto Grapevine	529-2272
Most Excellent BBS	549-2865
My Mother The BBS	551-1770
Night Stalking	667-2310
Old Man Wendy's	575-0175
On The Edge	634-9152

MPCUG= Modesto PC Users Group
Thanks PC Post Newsletter MPCUG

PACIFICON '92

A Real Pacific Pearl

By Ernie Rader, K6UVI

During the dates of October 16th through the 18th, the Mt. Diablo Amateur Radio Club sponsored PACIFICON 92 in Concord. It was billed as the 1992 ARRL Pacific Division Convention. Present were ARRL President George Wilson III, W4OYI; ARRL Director Chuck McConnell, W6DPD; Vice Director Brad Wyatt, K6WR; ARRL First Vice President Rod Stafford, KB6ZV, and guest speaker at the banquet Saturday night, Gordon West, WB6NOA.

There were activities for everyone to participate in. There was a special event station set up to celebrate the World Scout Movement's Jamboree on the Air (JOTA). Scouts from the area were encouraged to "work the world". A special Youth Forum was hosted by Rosalie White, WA1STO. Here, young hams discussed their likes and dislikes about amateur radio.

The swap meet had the usual boat anchors, and lots of "stuff" was on display to paw over. Only those who had retail products to sell were of any interest as the rest of the stuff was the same old WWII surplus that's seen at every other swap meet. I wonder if someone buys the stuff just to see if he can make a profit on it the next time there's a meet. Three transmitters were hidden within 1/2 mile of the hotel and there was supposed to be a "left foot and fanny" CW contest. My wife Rita, KD6BNV, always likes to see that, but she never did find where it was being presented.

There was a large VE session with

17 examiners giving exams. 73 people took tests the first day alone. Of course, all the big names in ham radio had booths where the latest in ham gear was displayed for everyone to touch and dream over.

I bought Rita a Diamond mobile



antenna for the pickup. Of course if it doesn't work well there, I'll put it on my car—HA! With all this going on, my main objective there was to attend the technical seminars.

Friday evening kicked off the proceedings with an emergency preparedness symposium that lasted until well after 10PM. The technical sessions that followed the next day were divided into three areas. The first was directed toward operating skills, the second dealt with areas new ham operators would find interesting, and I attended those presentations dealing with Emergency Communication.

All day Saturday and most of Sunday morning were filled with presenters talking about how to respond to a disaster, the Incident Command System, ARES/RACES, emergency antennas, and sev-

eral others not too technical in nature.

One of the highlights of the convention was Gordon West's presentation at the Saturday evening banquet. This man is truly touched in more ways than one. He began his talk by joking a bit about the times most hams face when moving into a new neighborhood and immediately putting up antennas. He described what it sounds like when a disgruntled neighbor bangs on your front door with a TVI complaint, and to demonstrate what it sounded like he hammered on the podium microphone with such vigor that it broke the microphone.

I never would have believed that Gordon West would be embarrassed by anything, but his face was red as a beet. Everyone laughed for a long time until the microphone was replaced by hotel staff.

His presentation continued with a demonstration of long distance CW communication and the instrument was a dill pickle that glowed each time the key was depressed. You had to be there; it was hilarious.

All in all, it was very professionally presented, and we look forward to the next one. 73's, Ernie, K6UVI.



ARRL Emergency Coordinator Report

By Ernie Rader, K6UVI
Stanislaus Emergency Coordinator

For those who attended the last **SARA** meeting you'll recall we introduced a new direction our club and its members could take. Dave, WA6GUO and Mike Seigal, KI6PR, **ARRL** Section Manager spoke about ARES and the difference between ARES and RACES.

As things stand now, if Stanislaus County OES needed help, a bunch of the EC's buddies would jump in their cars with their portables and say "here we are." Through the grapevine, I've been lead to understand that's the reason Stanislaus County Amateurs were not asked to participate in any of the emergencies this year.

We weren't trained, we weren't individually registered as disaster workers, and as such would have been a hinderance rather than a help. In times like this, ECs in charge of providing a professional service, don't want to take the time to train a bunch of the "local yokels" proudly wearing logoed T-shirts, baseball caps with pins and monograms, and a big grin wanting to be a hero.

Trained personnel, whose only reason for being there is to get the job done in a professional manner, are hard to find while at the same time absolutely necessary under stressful times such as a forest fire.

With this in mind, I felt it best to see if there was an interest in this type of activity within **SARA**. The number of those at the last meeting is testament to the interest within the group, as almost half at the meeting filled out and turned in ARES registrations.

I chose ARES affiliation as an en-

try into our community commitment because its structure is less rigid. It provides a training ground where we can make mistakes and learn while at the same time cause no conflict or embarrassment should we be trying to serve a government agency as we learn. Also, ARES registration forms provide me with the start of a data base where I can know of interest and request help should the need arise. If one were to step back



**Lets not get caught
with our pants down**

and look at my motives, one might say I'm using the ARES format as a training ground for what I really want, and that's a full fledged RACES organization, committed to service through Stanislaus County OES, with trained and registered disaster workers. That's my ultimate goal.

Those who don't want any RACES affiliation, but would rather handle H & W traffic at a Red Cross shelter, can participate while others with a deeper commitment can actually be on the firing line where the real professionals are needed. My motives may seemsneaky, but my heart is in the right place.

Without going into detail, I see the dissimilarity between the two organiza-

tions in two areas: 1) level of commitment, and 2) type of service provided. In RACES, registered disaster workers are volunteer employees of a government agency, and are asked to provide their service directly at the scene. ARES affiliation is sponsored by the ARRL, and its members provide their volunteer service at support facilities.

One last thought: as Emergency Coordinator for Stanislaus County, my organization is not going to be club specific. In other words, Dave, Mike, and I will be exposing the Turlock Amateur Radio Club to the same presentation as was provided for **SARA**. Also, every licensed amateur radio operator in the county, regardless of club affiliation, will be offered the chance to participate as well.

For all those that attended the last meeting and filled out AREA registrations, "thank you." I hope to see many more of you as we become even more proficient at our service. Ernie, K6UVI.



**Check in to the Stanislaus
County ARES Net
Wednesday nights
at 8 pm on 145.39 MHz.
Be Prepared and trained.**

FROM THE DESK OF

N6ZUC



A true Ham is never quite satisfied with his or her equipment. The thought is always there, that there just must be a better way to propagate those radiowaves. That's the way it is with me anyway. I'm always experimenting, trying new ideas, or new twists to old ones. I probably get more enjoyment out of putting together a new antenna, than I do in using the thing after it's built. Antennas are a particular area of interest to me.

The first antenna I ever used in Amateur radio was no more than a 50 ohm carbon resistor, terminating the end of a piece of coax, (some people call that a dummy load). Attached to which I put a 35 foot piece of 22 gauge wire, and strung it across the roof. With a Heathkit hot water 9, belonging to Lee, WS6Q, we proceeded to QRP our way through the bands. What band didn't matter, as the resistor was providing a good load for the rig on anything from 10 to 80. I don't think Marconi ever got as excited as I did when Lee worked Japan off that setup for the first time. Oh yeah, as I recall, he worked Scotland too. I guess this really does prove that you can work the world on a coat hanger and a couple of watts.

All this rambling on about wires and resistors is leading up to "J-Poles". Believe it or not, it all fits together as what I'm talking about are easy to construct antennas. The "J-Pole" fits this category quite nicely. It is easy to build, even for the inexperienced Ham. I don't know this for sure, as I've taken no survey on the subject, but I'll bet there are more "J's" out there in the 2 meter service than any other antenna. I think the reason for this is

because they are so easy to construct. It certainly isn't because it's a great antenna. Quite the contrary, in my experimentation, I've found it to be only a so so performer.

The reason I decided to build one, was the same as most I guess. I needed an antenna for voice operation here in the shack. Something that I could put together in an afternoon, and stick up on the roof and forget about. That was the intent. Didn't exactly work out that way.

I decided to build it the standard way, out of copper tubing and fittings. A trip to the hardware store, and a few dollars later, I was home, the pieces cut to length

When it comes to beer and test gear, the best brand is OP. (Other Peoples!)

and the torch in hand, soldering it all together. It went together easily, and was on a pole in the backyard ready for the feed line and a little tuning.

I decided to direct couple the coax to the antenna, as this seems to be the preferred way to do it, according to everything I'd read on the subject. Certainly it's the easiest. The antenna tuned right up, sliding the copper clamps I'd made, up and down for the lowest VSWR. In checking it with my MFJ SWR analyzer, I found the point of resonance to be a little on the high side. It was up at 149 Mhz. That's really no problem, as the antenna is wide banded enough, but I'm somewhat of a perfectionist, so back to the hardware store I went. With the purchase of a brass

reducer, and a short piece of 3/8 copper tubing to fit inside the 1/2 inch pipe of the "J-Pole", I was back home. I put the reducer and pipe in place, and adjusted the length to resonate at 146 Mhz. A readjustment of the sliding clamps to set the SWR and all looked good. SWR at 146 Mhz was 1.1 to 1, with no more than 1.4 to 1 at the band edges.

Just for the fun of it, I loaded the new "J" up in the car, and took it over to the home of fellow Ham, Art, KC6UQH, who has all the toys. Sure is nice, and cheaper, to know someone who has all the proper test goodies. Proving once again, that when it comes to beer and test gear, the best brand is OP, (other peoples').

A check with the spectrum analyzer and tracking generator, proved my earlier results as to the resonance and band width of the "J". A nice flat trace covering the entire 2 meter band, and then some. Just for kicks, while I was there, I borrowed his Bird wattmeter, and checked the reflected power with my HT. All was well.

When I returned home, I set the "J" up in the drive along side the car, to use the mobile to make some on the air checks and comparisons. Bringing up some distant repeaters, I noted the relative "S" meter reading. I then hooked up the Diamond dual band antenna I use on my car, and kurchunked those same repeaters. To my amazement, those repeaters indicated a full 2 "S" units higher. This with the "J" about 15 feet up in the air.

There could be many good reasons for this. Bad transmission line? Nope, that wasn't it. Position of the antenna? No, I moved the "J" down right alongside the mobile antenna, and it got worse.

Ok, so the Diamond is a real high gain antenna, and maybe this wasn't a fair comparison. I dug out the ground plane and set it up in the driveway, in the same

See 'N6ZUC' page 9

From The Desk Of N6ZUC

From page 8

position and at the same height, as the "J" was. Another call to Art, brought him up on simplex for some real field strength measurements.

First the ground plane for reference. To confirm the circularity of the ground plane, I rotated it 4 times, and had Art note the reading each time. Replacing the ground plane with the "J", the same procedure repeated. No real directivity could be seen in either antenna and the "J-Pole" showed a gain of about 2.5 DB over the ground plane. This is about what I'd expected, although you always hope for a little more.

**'SWR analyzer in hand,
back up on the roof to
see what went wrong.'**

Another check of the SWR, and up on the roof it went, securing it to a vent pipe and routing the RG-8U down the roof to the shack. When I connected it to the SWR meter attached to the rig in the shack, there it was, nearly 3 to 1 SWR. What???

SWR analyzer in hand, back up on the roof to see what went wrong. All checked out as before, perfect. Must be bad transmission line. Digging out another old piece of coax of approximately 50 feet in length, I hooked it up, and back to the shack I went to get another reading. Looking good again,

I decided to check out the first coax, and see what was wrong with it. Putting the dummy load on one end, and the

analyzer on the other, I discovered that there was nothing wrong with the first piece. What???. How could this be?

Deciding not to temp fate, I cut the working coax to length, soldered on a new connector, and hooked it all back up. Yep, you guessed it, 3 to 1 SWR. Well now at least we're getting someplace. The only thing that could be causing that is RF returning to the rig via the shield of the coax. Ok, so I needed a balun. Another call to Art.

By the way, in case your wondering, the reason the standing wave looked good with the longer coax is, it must have been a multiple of 1/2 wave length. At a half wave, the end of the transmission line repeats the load. Therefore whatever the SWR at the antenna is, you will see at the end of the transmission line. Since the load was very near a perfect match, no matter what length the coax was, the SWR should have been essentially flat. This was not the case, therefore it had to be RF on the shield of the coax.

Another trip across town to Art's, where we used his drill press to wind up three strands of 22 gauge enameled wire, wrapped it five times around a type 68 core and there was my 1 to 1 balun. Just to make sure, we put a 50 ohm resistor across the secondary, and checked it out at 146 Mhz. Looking good! Back home again!

Now it's day two of my couple of hours afternoon antenna project. I soldered the balun wires to my sliding clamps and hooked the primary up to a SO 239 connector. Back up in the driveway for more testing. A little adjusting for SWR, and then screw on a piece of coax. Still a good match. Try another piece of a different length, still a good match. Now we're getting somewhere. A call to Art. In a moment he's up on

simplex. I fire up the rig for the measurement. Disappointed again. The signal has fallen off by over 2 DB.

Just to make sure that no other factors were involved here, I put the old reliable ground plane back up for comparison. There was no change in the field strength of the ground plane. Of course this meant that there had been a real loss

**'In all honesty,
there isn't enough
difference
between a J-Pole and
a ground
plane antenna.'**

of efficiency in the "J-Pole". Obviously a new approach was needed.

Now it's the following Saturday and day three of my couple of hours afternoon antenna project. I had given it some thought through the week, talked with some people who's opinion I value, (Art), and decided to try to loop couple the antenna. This is done by forming a loop at the end of the coax, and taping it to the "J" section of the antenna. Sliding it up and down to obtain the lowest possible SWR. The match was easy to obtain and different lengths of coax had little effect.

"Hello Art....N6ZUC here." Back up on simplex. Well, to cut it short, that didn't work too well either. It was even less efficient than the 1 to 1 balun approach. I'm fast running out of ideas here.

The only thing left I could think of was to try to form a coaxial balun by winding a few 6 inch turns of coax just below the antenna. Then just for arguments sake, a few ferrite beads just below that. That

See N6ZUC page 11

Tri-County VE Examination News



By Chet Jensen, W6XK

The Tri-County VE Team is sponsoring an amateur examination session on Saturday, December 12, 1992 at 9:00 a.m. at Chrysler Elementary School, 2818 Conant Avenue, Modesto. All classes of license - Novice to Extra. Test fee is \$5.40 (except Novice). Bring the original and a photocopy of your ham ticket and any CSCEs in your possession. 610s provided by the team.

Two test rooms will be used to minimize waiting. All materials are returned to the ARRL/VEC via Air Express to ensure prompt issuance of licenses.

To get to the test site take the Sisk Rd. to Heritage Ford and then east on Conant, to Chrysler school. For additional information, contact Chet, W6XK on packet @ WA6KTK on 145.79 MHz, or (209) 883-2968. Good luck and vy 73, Chet W6XK

Upcoming sessions:

Turlock January 9, 1993
Merced February 13, 1993

Modesto March 13, 1993

Schedule for 1993

Date	Loc	Contact	Phone
1/9/93	... Turlock	... W6XK	... 883-2968
2/13/93	. Merced	... KI6PR	... 383-2166
3/13/93	. Modesto	.. W6XK	... 883-2968
5/8/93	... Turlock	... W6XK	... 883-2968
6/12/93	. Modesto	.. W6XK	... 883-2968
9/11/93	. Modesto	.. W6XK	... 883-2968
10/9/93	. Merced	... KI6PR	... 383-2166
12/11/93	Modesto	.. W6XK	... 883-2968

All tests start at 9 am and the area code for all phone numbers listed in 209.

All sessions accept walk-ins (pre-registration is not required) and will offer examinations for all classes of license. The test fee for 1993 is \$5.60 (except Novice) and all test materials are returned to the ARRL/VEC by Air Express. Phone the "contact person" for specific details regarding location or changes. These are ARRL VEC sponsored tests.

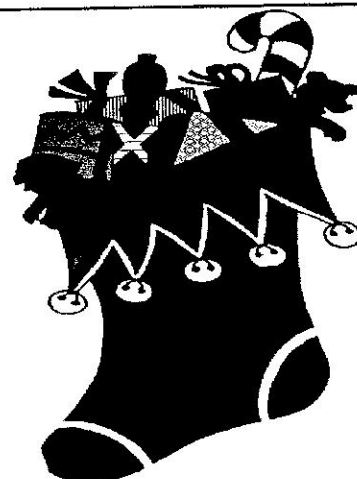
Cellular Phone Spying Fine

A Norfolk, Virginia, resident was sentenced to 30 days in a halfway house and fined \$500.00 dollars after admitting to monitoring and recording a cellular phone conversation.

As we all know, the monitoring of cellular phone calls was made illegal by the Electronic Communications Privacy Act. The frequencies to avoid are between 870.00 and 890.00 Megahertz.

If you should accidentally stumble into this frequency range, don't make a tape recording—it could become a very costly souvenir.

W5YI Report



Happy Holidays

VE Test Fee Increased to \$5.60

The FCC announced today that effective January 1, 1993, the maximum allowable reimbursement (testing) fee for an amateur license examination will be \$5.60. This amount is based upon a 3.0% increase in the Department of Labor Consumer Price Index between September 1991 and September 1992.

Volunteer Examiners (VEs) and volunteer-examiner co-ordinators (VECs) may charge examinees for out-of-pocket expenses incurred in preparing, processing, administering or

co-ordinating examinations for technician, General, Advanced and Amateur Extra Class operator licenses.

The amount of any such reimbursement fee from any examinee for any one examination session, regardless of the number of elements administered, must not exceed the maximum allowable fee. Where the VEs and the VEC both desire reimbursement, they jointly decide upon a fair distribution of the fee. No fee is allowed to be charged for the Novice Class Operator license examination. W5YI



From Desk of N6ZUC

From page 9

seemed to do the trick. Not perfect, but acceptable.

The next day, day 4 of my couple of hours, afternoon antenna project, I decided to put the ground plane up at the same height for some actual real world comparisons. In all honesty, there isn't enough difference in the performance of the two as to put one's self through the agony of building a "J-Pole." The ground plane is a little easier and cheaper to construct, is light weight, and has an incredible band width. The "J" is coming down, and the ground plane is going to stay. Wonder how well a 50 ohm resistor and a piece of wire would work on 2 meters?

Questions? Comments? Gripes? Answers? I'd be happy to hear from you. Drop me a packet at N6ZUC@KC6NZN.#SOCA. CA.USA.NA, or write me in care of *The READOUT*. 73 -Tim

How To Apply For Amateur Radio License Plates

By Bob Pinheiro, WA6ZLO

Editor's Note: We have been asked to run this story again for the benefit of the new hams who don't have Amateur Plates yet.

If you haven't done it already, here's the information you will need to know in order to apply for, and receive, California license plates with your Amateur call on them.

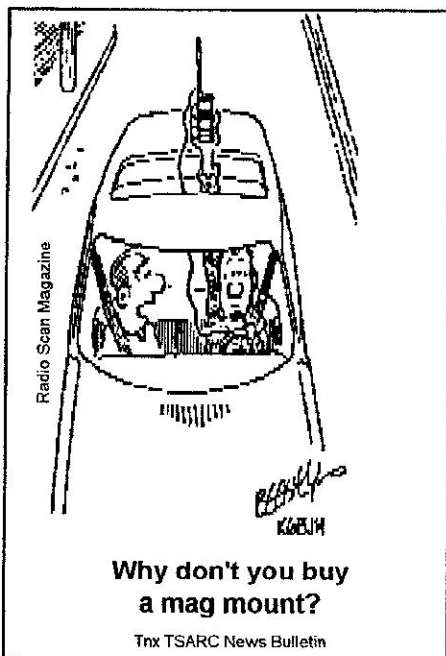
Section 5005 of the California Vehicle Code (CVC) allows the DMV to issue special "Amateur Radio" plates upon satisfactory proof the applicant is the holder of an unexpired Amateur Radio license. The cost is twenty dollars for the initial issuance of the plates. \$21.00 for reflectorized plates. When you need to move the plates to your next car it will cost you twelve dollars for the transfer.

A note of caution, if you are applying for the first time, be prepared to refer the people at DMV to this section, 5005 CVC. Otherwise, they may (and often do) make the mistake that you are applying for a so-called *environmental* or personalized plate which are \$35.00. So, remember, \$20.00 when

you apply for the first time and get new plates, and \$12.00 to transfer the plates from the old car to the new car if you are changing vehicles.

If you applying for the first time, be sure to take your Amateur license with you to prove you hold a valid license. It takes from 45 to 60 days to get the new plates if all goes well. It doesn't make any difference what class of license you hold, the only consideration is whether you planning to upgrade and/or change calls later.

Ham plates can only be issued to the registered owner or lessee of a motor vehicle and must be retained by the licensee when the vehicle is sold or the lease expires and the car is returned. Special radio call letter license plates may be used only on the vehicle to which they have been issued or transferred to. You must agree to surrender the special plates to the DMV in the event your FCC license is revoked, suspended or expires, or if the vehicle is sold or otherwise transferred to someone else.



Radio Scan Magazine

Why don't you buy a mag mount?

Tnx TSARC News Bulletin



Moving?

If you are moving please notify SARA in advance. The Post Office will not forward your newsletter if you forget. Thank You!

Turn it down some more!

On 10M I heard a W9 calling CQ, but it was very distorted. I called him and told him that he was distorted and FM-ing, and I said I would help him to correct the situation. I asked what rig he was using but, due to the distortion, I couldn't understand him. I suggested he turn

down the gain, and he did. I said turn it down some more and he did, but no luck. I said turn it down some more, and he answered, "If I turn it down anymore. I won't be able to hear you." I said "73" and went off the air. Sad, isn't it?
Ralph Saroyan, W6JPU, Fresno, Ca.

Thanks WorldRadio

Satellite Jammer Loses Amateur & Commercial Licenses

The FCC's Field Operation's Bureau has canceled the "General Radio telephone and Amateur Advanced class radio operator licenses of Thomas M. Haynie, WB4PVK. The action was taken in light of Haynie's 1990 conviction of intentionally jamming a communications satellite and replacing its transmission.

Using a powerful uplink satellite transmitter where he worked, Haynie replaced a Playboy Channel skin flick with a religious message urging viewers to repent. Found guilty, Haynie was sentenced to three years imprisonment (which was suspended), fined \$3,000 (\$2,000 suspended) and ordered to perform 150 hours of community service over a three year period.

After Haynie's unsuccessful appeal, the FCC moved to strip him of his amateur and commercial radio operator licenses. A 'Show Cause' order was issued last July.

Haynie chose not to request a hearing although he did submit a written statement on August 4th. He said he was not a habitual offender, had no previous record of violation and was capable of operating under FCC Rules and guidelines.

Haynie said he realized the seriousness of the offense and that he was particularly concerned about his ham ticket. He did not address the loss of his commercial radio operator license. Haynie pointed out that the violation did not involve his amateur station which he has properly operated for 25 years.

He said he obtained his license "...at an early age" and "...cherishes it dearly." The Field Operations Bureau ruled, however, that 'Mr. Haynie's arguments are unpersuasive' and that they could not "...justify a conclusion that Mr. Haynie is likely to abide by the Rules in the future.'

WSYI Report

License Class For Visually Impaired

Amateur radio license classes for the visually impaired will be held in Modesto starting January 6, 1992. The classes will be held at the home of KF6AX

at 309 Bodem Ave. Modesto. For more information call Bart, KF6AX, at 524-1670 or Mark, WB6BJN, at 523-5140.

Additionally, KJ6DO, Chuck, is considering a regular license class in Oakdale starting in January, 1993.

Courting Via CW

In 1884, Thomas Edison, widowed and nearly deaf before age thirty, used his inventive genius to court and win his second wife, Mina Miller. He taught her Morse code so that they could communicate privately in the presence of friends, relatives, and Mina's younger, more handsome suitors.

Even in the most crowded, noisy room, they could tap out private messages on one another's palm. This gave Edison an advantage none of the other suitors had!

Later that year, on an excursion in the mountains of New Hampshire with friends, Mina's family, and Edison's five-year-old daughter, Edison cut through the QRN with Morse and asked Mina to be his wife. She blushed as he eagerly waited for her reply, and tapped out "Yes." Tnx BNT Magazine

Don't Mix Zinc & Alkaline Batteries

Mixing alkaline and zinc batteries creates a pressure explosion when you connect several in parallel. The explosion is big enough to split the end cap of an explosion-proof flash-light and blow it off.

Of seven brands inspected, the Eveready Alkaline Energizer was the only battery incorporating a warning label about mixing battery types. Since it appears that major manufactures are converting from carbon zinc to alkaline mix, the possibility of mixing battery types is increasing. To avoid this hazard, check your batteries.

TNX ESS-ZED Newsletter.



SARA Minutes

By Ernie Rader, K6UVI

The regular monthly **SARA** meeting was called to order by president Jim Hertel, N6KMR, on November 17th, 1992 at 7:30 PM. While everyone introduced themselves, the sign in sheet was passed around. Forty people attended the meeting. The guest speakers included club member Dave Bergmann WA6GUO, and ARRL Section Manager Mike Siegel, KI6PR. Their presentations dealt with the difference between ARES and RACES. Discussions included level of commitment, areas of volunteer effort, and insurance coverage. RACES people handle tactical information transfer, while ARES members work with health and welfare messages. RACES is sponsored by a governmental agency, while ARES is sponsored by The ARRL. The thrust of the presentations was to offer the beginnings of an ARES group. The treasurer's report followed:

General Fund:

Beginning Balance: \$1,221.30
Deposits: 259.98
Expenses: 221.06
Ending Balance: \$1,260.22

Deposits:

Add in READOUT: \$25.00
Education Acct: 28.38
(previously undeposited funds)
Dues: 17.25
Education Acct: \$189.35

(Closing account)

Expenses:

Post Office Permit: \$100.00
Membership brochure and
The READOUT 97.00
Telephone 14.21
Reimburse LeRoy 9.85

Former Education Account:

Beginning Balance: \$189.35
Expense: 189.35
Ending Balance: 0
(to close out account, and
deposit in General Acct).

The secretary asked that the minutes of the previous meeting be approved as printed in **The READOUT**, and it was moved and seconded to approve. LeRoy, NV6S, gave the technical report and said several projects are in place. One of them is that the digipeater is working on borrowed equipment from Andy, WB6GUM.

Vice president Sandy, KC6TBK, reported that she's been investigating getting club vests and presented a catalog showing them. LeRoy said he could also get them.

Bill, KC6VWO, spoke of a CB group that is presently working with the fair grounds handling the search for lost children. Sandy is to contact the fair officials to see if we can help.

Bob, KC6TVE, said the club generator has no compression. More than likely the valves are frozen open. Work continues. He also read a letter from a participant in the Wine and Cheese bike-a-thon. Rita, KD6BNV, had picked her up after an accident and taken her to the hospital. She thanked the club and Rita both for helping her.

Break at 8:38 and return at 8:45. There was no old business, and under new business VWO told of plans for a future swap meet. Pacific Radio was willing to donate the space for the event. He also suggested a haunted house as a fund raiser.

Mark, WB6BJN, spoke of upcoming

ham radio classes for the blind or visually impaired. These classes are to start on the 6th of January at 309 Bodern.

Dave, WA6GUO announced that it had been decided at break that the ARES net would meet the following Wednesday evening at 8 PM on .39.

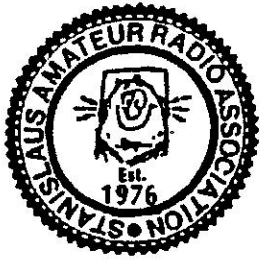
Bob, WA6ZLO spoke about the ongoing investigation into a communications trailer to house the club station and act as a mobile command post for disaster relief. Ernie is working with the Red Cross to secure this item.

VP Sandy suggested that the teaching responsibilities be passed around to those with expertise in different areas rather than just one person taking on the task of teaching everything.

It was then moved and seconded to seek the communications trailer for the club station. Oliver, KJ6YZ, said he'd also investigate something like this down at Castle AFB.

Nominations for club officers followed: Sandy, KC6TBK, for president; Liz, KD6GIW, for VP; Andy, KD6MOD, for treasurer; and Ernie, K6UVI, for secretary. Charlie, KJ6GE, reminded the club that he has been storing some club antenna paraphernalia for over four years, and suggested selling off some of the big-gerpieces. It was moved and seconded to do so, and Andy, MOD, will take care of it.

Bart, KF6AX, asked if the club wanted net check ins on Christmas and New Years eve, and he said he'd be there if anyone wanted to say "hello." Meeting adjourned 9:16 pm. Respectfully submitted, Ernie, K6UVI, club secretary.



Editor's Notes

By Bob Pinheiro, WA6ZLO

Here we are knocking on the door marked 1993 and I'm wondering where 1992 went. The end of the year brings with it the reminder that everyone's membership expires on December 31, 1992, and that it's time to pay your dues for 1993. Please use the handy form on page 15 of this issue of *The READOUT* and mail in your now while you are thinking about. Remember, it's your dues that pay our expenses, including the printing and mailing of this newsletter.

Congratulations to Jack Storne, WA6CYR, who has been appointed the new Chief of Police in Gridley, Ca. Jack has been a longtime member of SARA. He has been the City Manager of Escalon and before that the Chief of Police in Escalon. Best of luck Jack!

I want to take this opportunity to thank all the people who have helped make *The READOUT* what it is today, an award winning publication. My job as editor is made easier thanks to these people without whose help this job would be very tough. I particularly want to thank Tim Low, N6ZUC, who shares with us his many years as a professional broadcast engineer. In his column, From The Desk of N6ZUC, he discusses the many facets of our hobby and shares with you his expertise in the electronics field.

This year he covered radio spectrum as a commodity, tips on building your own power supplies; discussed the AEA Hot Rod antenna; safety tips while working on towers and around electronics equipment; a report on what you can find at your local Radio Shack store; digital spread spectrum; the Amateur

microwave region, radio frequency radiating devices and finally this month another interesting discussion on the every popular subject, home brew antennas.

Ernie Rader, K6UVI, has been a faithful contributor for many years in addition to doing an outstanding job as our club treasurer. This year he gave us stories on the *SARA* Old Timers Club; took us on a visit to the historic ghost town of Bodie, Ca.; gave us a reports on the Fresno and Pacificon hamfests; the *SARA* Field Day and this month on the new ARES efforts.

Leroy Campbell, NV6S, our club engineer, has kept us up to date with monthly reports from the engineering department.

George Ledoux, K1TKJ, a television engineer and owner of the new consignment shop in Modesto, took time from his business of building high powered UHF television transmitters to explain about "Those Darn Dee Bee's" in the November issue.

Dave Wallace, KA6GJN, took us to the streets of Los Angeles at the height of the riots and told us what it was like from his perspective as a California National Guardsman.

Chet Jensen, W6XK, head of the Tri-Valley VE team, kept us up to date of VE schedules and results. Tim Bosma, AB6FL, introduced us to the world of PacSat's and their worldwide coverage. Our club president Jim, N6KMR, brought us up to date on the *SARA* 10 meter digi and Gary Davidson, KJ6Q, gave us a personal profile of himself and his shack in Vacaville. In addition, Gary provides

his professional assistance in half-toning all of the photographs you see in *The READOUT*.

This month, Tim Johnson, N8QXL, hit the front page with his continuing story of the Mono Avenue Madman. In addition to those who actually write for *The READOUT*, many others contribute by providing me with information about other worthwhile news items.

I would also like to acknowledge and thank the helpful and friendly people at the Budget Copy Co. in Modesto where this newsletter is printed each month. These folks have gone out of their way many times to help get the newsletter printed on time and with professional results.

Thanks also to our club Secretary, Rita, KD6BNV, who kept an eye on the post office funds and replenished them when needed to pay the postage to mail the newsletters.

I would also like to thank the amateur radio clubs with whom we exchange newsletters. From the pages of these fine publications have come many stories you have read in *The READOUT*.

To all of you, a personal "Thank You!" With this type of help and dedication, you can see why *The READOUT* was selected one of the best Amateur Radio Newsletters in the country for the second year in a row in the Amateur Radio News Service nationwide contest I couldn't have done it without you! Have a happy holiday season and please.....send in your dues now. We need you continued support.

73, Bob.

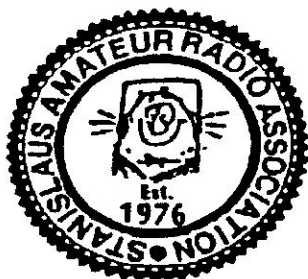
Time To Renew Your SARA Membership

The **SARA** membership year runs from January 1st through December 31st of each year. The dues rates are reviewed each year and adjusted if necessary based on the general financial health of the club treasury and anticipated expenses vs. the estimated number of members. As we have often stated, running a club is just like running a small business. We must have the income to pay our bills. The biggest part of your dues goes to support of this newsletter followed by liability insurance, equipment insurance and maintenance. You will not be billed separately for membership dues. Your only notice will appear here in *The READOUT*.



Full Membership	23.00
Associate (Unlicensed Applicant)	12.00
Student (Upto Sophomore in college)	12.00
Family (Head of Household)	23.00
Next two members living in same home	12.00 ea
Out of Area	11.00
(More than 150 miles from Modesto)	

Please examine the membership dues schedule appearing on this page and then prepare your check or money order and **ALONG WITH THE MEMBERSHIP FORM** below, mail them to the club's post office box listed below. Make your checks or money orders payable to **SARA**. Also, please note the ZIP code asks for your full 9 digit code. The post Office will be requiring all 9 numbers starting in 1993. If you don't know yours. call the post office an they will give it to you. Remember to include the completed membership form with your payment. Thank You for your support!



1993 Stanislaus Amateur Radio Association Inc.

P.O. Box 4601, Modesto, Ca. 95352
Membership Application

<input type="checkbox"/> Renewal	<input type="checkbox"/> New Membership	Date _____
Name _____		Call _____
Address _____		Member of ARRL? _____
City _____	State _____	9 Digit ZIPCode _____ - Home Phone _____
Business Address _____		Business Phone _____
Occupation _____		Business Phone _____
Class of License: N OV TECH PLUS TECH GEN ADVANCED EXTRA		Year first licensed? _____

Make checks or money orders payable to **SARA** and mail to **SARA PO Box 4601, Modesto, CA. 95352**



Calendar

- Dec. 16 SARA Monthly Meeting 730 pm
Election of 1993 Club Officers
- Jan 3 Livmore Swap Meet 7a-12pm
Las Positas College
- Jan 9 VE Testing in Turlock 900am
- Jan 16 WINTERFEST 93 8a-1pm
Monterey Peninsula College Armory
- Jan 19 SARA Monthly Meeting 730 pm
- Feb 13 VE Testing in Merced 900 am
- Mr 13 VE Testing in Modesto 900 am
- Mar 16 SARA Monthly Meeting 730 pm
- April 16-18 .. DX Convention 2 Days
Holiday Inn Visalia

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.

**Salli's
Budget Copy Center**

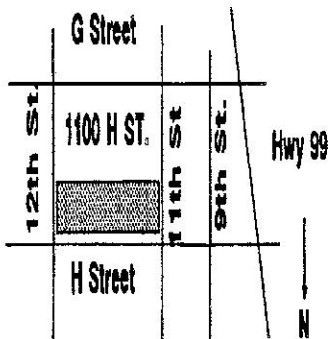
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Downtown
Modesto, Ca.
Open
M-F 8-5



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

Address Correction Requested



TO:

SARA Meeting Location
1100 I Street, Modesto, Ca.
Lower Level ConferencRoom.



Bulk Rate
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Modesto, CA.

Next SARA Meeting is December 16, 1992 at 730 pm & You're Invited!