

The READOUT

Year 14 Number 9 September 1992

The Newsletter of the Stanislaus Amateur Radio Association

In This Issue

Easy KBEE History.....	2
Still of the Night.....	3
Manteca BBS Changes ...	4
New AM Radio Band.....	4
Satellite Jammer	5
Editor's Notes.....	6
SARA Minutes.....	6
Club Roster	8-9-10
Amateur Microwaves	11
Review of R7 Vertical...	12
Computer Wars.....	13
Photo Cops Out.....	14
SARA Sportswear	14
SARA Minutes.....	11
Cable QRM Fight.....	15

FCC Steps Up Enforcement Activities And Fines

The FCC has dramatically increased their fines. How tough are the fines? If you are in violation of the rules governing distress/safety frequencies (making a phoney mayday call, for example), you'll have to cough up \$8,000 -- for each day that the incident occurred.

Maybe you're a CB'er who decided to tweak up his transmitter a few extra watts to get over the interference. The fine is \$5,000 a day. What's even more surprising is that the FCC is apparently granted the authority to increase these fines. If, for example, the FCC determines that you have the ability to pay the fines and thus a "relative disincentive," it

can increase the fine by 50 to 90 percent, just to give it a little more clout. If the Commission feels that the misconduct was "egregious (flagrant/ deplorable)," it can also increase the fine by 50 to 90 percent.

Say that for some reason--temporary insanity is always popular--you decided to issue a series of false distress calls from your mythical boat, The Fool. You are caught. The fine is \$8,000 a day. You conducted this little charade for five days.

That would mean that your fine would ring in at \$40,000.

Suppose also that when you made

See 'FCC' page 6

SARA Technical Report

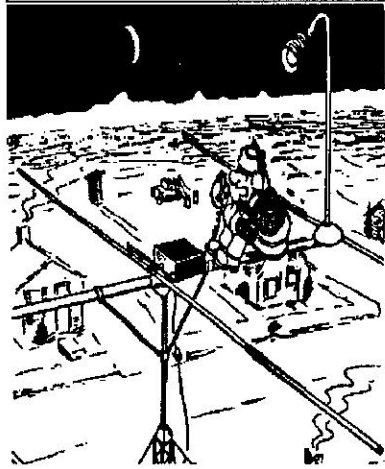
By LeRoy Campbell, NV6S

This has been a poor year for me and repeater work. I've had far too many distractions from my children graduating from college to my latest, surgery for myself.

We have problems with the two meter digi and I hope to get up the hill in a couple weeks and see what is happening there. I have suspicions but I cannot tell until I have my hands on the equip-

ment. The same goes for the 440 repeater which has desense problems from an unknown source. I need help from someone with some good equipment of locating that problem. Once located, the solution will be in sight.

I thank those who have helped out during my unavailability and thank everyone for having patience with the long delay in repairs. 73.



I finally got my line losses down to zero. But it's a little nippy here in the Shack.

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

The READOUT is published monthly by the Stanislaus Amateur Radio Association. COPYRIGHT 1992 by the Stanislaus Amateur Radio Association, (SARA), Modesto, CA. All Rights reserved. Permission is granted for reproduction in whole or in part provided credit is given to *The READOUT* and the authors of the reproduced material.

1992 SARA Officers

President

Jim Hertel, N6KMR, 531-1157

Vice President

Sandra Ingram, KC6TBK, 575.4765

Secretary

Ernie Rader, K6UVI 838-2921

Treasurer

Rita Palacios-Rader, KD6BNV, 838-2921

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 articles 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

209-523-5880

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.

Modesto's Beautiful Music FM Station Goes Country

By Bob Pinheiro, WA6ZLO

After nearly 18 years of playing easy listening music, Modesto radio station KBEE-FM is now history. On August 17, 1992 the station's new owner, Citadel Broadcasting of Salt Lake City, Utah, switched the station to a Country and Western live format.

"The FM is not up to it's potential!" said Citadel executive Stuart Stanek after the take over. "Switching to country music was an easy decision: It's the fastest-growing radio format in the nation" he said.

So, only three weeks after taking control of the station from Price Broadcasting, the easy listening music is gone from KBEE replaced with "Cat County" and with new call letters...KATM.

The KBEE call letters were moved along with the easy listening music to the company's AM station, KOOK, 970 kHz. The KOOK calls letters were dropped along with the oldies music it had been programming.

KBEE-FM became Modesto's first, and only, beautiful music station on October 1, 1974 when it was owned by McClatchy Broadcasting of Sacramento. The station at that time operated with 11 KW ERP from a 150 foot tower located behind the Modesto Bee newspaper in downtown

Modesto.

In 1985, McClatchy sold the station to the Price Broadcasting Co. of Salt Lake City. The station was completely modernized and moved to spacious new studios in West Modesto.

KBEE-FM was upgraded to 50,000 watts and a new transmitting site installed at 1,000 feet SW of Vernalis in the Coast Range Mountains.

Several SARA members have worked for the station over the last several years including Chet, W6XK; Bob, WA6ZLO, Marion, KB6NMF; Tim, N6ZUC and Lee, WS6Q who is the only remaining member still working for the station.

Declining ratings for easy listening stations, and a strong desire to be number one, was the main considerations in making the change according to Citadel. KBEE has been consistently in the top four rated stations since 1974, but that was not good enough for the new owners.

KATM-FM joins KMIX AM & FM, Turlock; KUBB-FM Mariposa/ Merced; KTRB-AM, Modesto, and KFMR-FM in Stockton in playing country music in this area.

Country music stations continue to be the hottest draw as shown by the number one rating of Turlock's KMIX over the last few years. Citadel plans to change that!

In The Still Of The Night

A Tale from The Early Days of Spark Radio



By Edward Walden

He was being broken in for the third watch at KPH. Everything was new to him as he listened closely to the regular operator's instructions.

The hours wore away...press was finished; the trans-Pacific ships had cleared and, as he sat listening in with the other operator, his mind had an opportunity to dwell on the other side of the picture.

A howling sou'easter was blowing, shaking the building and straining the cables that held it on the hillside. He began to think that perhaps he would not fancy being alone in that isolated place in the dead of night.

When he thought of the long black box in the back room he concluded the "graveyard watch" was well-named. Why had they put that transformer in a box so suggestive of our final habitation? He could not get the thought out of his mind.

Suddenly he was startled to find

he was alone. Only one pair of headphones was connected, the one on his head. Evidently he was now the operator in charge.

The wind subsided and all was still. The door to the little back room was open and the thought of that long black box came to him again.

He heard the cracking of wood and knew instinctively that a figure was emerging from the transformer case. There was a shuffling sound, a footstep; then a super-annuated man stood in the doorway.

Reassured by his harmless appearance, the young operator asked what business brought him to the station. The visitor just pointed to the phones and said:

"With those instruments, you hear signals your ears can't discern unaided, but I have a pair of glasses that will let you see the sparks from a radio transmitter as they fly through space.

He took a pair of dark-colored spectacles from his pocket and, handing them over, said, "I see your hesitation. Come outside and try them!"

Stepping out into the now-clear night the young operator adjusted the glasses and instantly saw a sky filled with balls and streaks of fire. Looking more closely, he saw that they moved in trains, in various directions, from horizon to horizon.

There were brilliant series coming



over Twin Peaks from the north; both balls and bars looked to be a foot in diameter as they followed one another at irregular intervals. He quickly realized the balls were dots and the bars dashes; he could read the code! He spelled out:

"DONT X JJC MSGS. CAN CPY DIRECT. KET"

Turning to the east, he saw the plain covered by Berkeley and Oakland erupting in sprouting geysers of fire. He read a few of them, but they all seemed the same:

"HOW IS MY SPARK? WHERE ARE YOU LOCATED PSE?"

Coming over the Berkeley hills was a scintillating continuous streak of pulsating fire which he could make nothing of. The old man noticed his perplexity and, handing him another pair of glasses, said: "Try these. The alternations are too rapid for those!"

Changing glasses, he saw the continuous streak as balls and bars connected in a hazy arc. He read:

"WE LSN FER U AT 6AM WGG."

He changed glasses again and,

See 'Still of the Night' page 4

'In The Still Of The Night'

from page 3

connected in a hazy arc. He read:
"WE LSN FER U AT 6AM WGG."

He changed glasses again and, looking south, was confused by the numerous trains of flying sparks. He tried to read them and this is what he got:

"ARRIVALS NERA AT 50 LBS"

"CABIN COFFEE TEN CASE."

"MILK CLEAR NW 1413"

"WE KNOW YOU ARE BRAIN-
LESS OR YOU WOULD NOT IN-
TERFERE WITH A COMMERCIAL
STATION"

"TERRIBLY LONELY WITHOUT YOU"

"TWO GUNNERS MATES
SECOND CLASS TEN ORDINARY"

"903 MILES SOUTH"

"5764 BAGS COFFEE"

"TEN POUND BOY"

"FLAG FGYQ, DRTW,
FYNT,GRQX"

He gave it up and turned seaward.

Fiery trains from the west were traveling slowly: evidently their force was spent. He read, "RAS DE JOC," just before one dropped into the sea.

Looking up at the aerial above his head, he found it curious to watch the balls and bars strike the wire and run down the leads like billiard markers. Four balls followed by two balls now struck the aerial but, instead of following the leads down, they clung for a moment and then dropped on his head.

He felt himself clutched violently--but it was the arm of the regular operator, who said with a growl:

"The first thing to learn on this watch is to stay awake!"

From Feb. 92 'Siera,' the bulletin of the Sierra Intermountain Emergency Radio Assn. via the ARNS Bulletin. The story, supplied by Bruce, N7CPP, was originally printed in the March 1917 'Wireless Age'. Bruce report that KPH, located just north of San Francisco on the Marin County coast, is still operating.

Manteca Packet BBS Reorganizes

Citing differing points of view with the Manteca ARC, Doug, WB6MFV, has withdrawn from operation of the WB6MFV-2 packet BBS located in Manteca.

According to various news sources, the Manteca ARC members involved with sponsorship of the BBS, were unable to reach a satisfactory working relationship with MFV concerning operation of the system.

It was therefore decided to move the system to the home of Andy, WB6GUM, in Manteca who is now the SYSOP. The club elected to use WA6KTK-2 as the designated call sign for the BBS with the consent of the licensee, Steve Consentino, who is a charter member of the Manteca club.

MFV and the Manteca ARC, took over the BBS (145.79 MHz) two months ago when N6REB BBS in Modesto shut down. It's appears that GUM's home QTH favors the Modesto area better than MFV with connects from this area much easier than before.

If you have any problems with the BBS, leave a packet for Andy, WB6GUM.

Meet New SARA Members



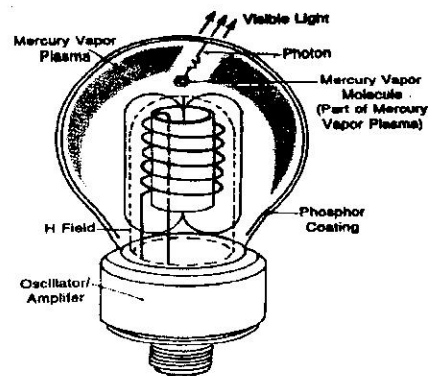
**Cameron
MacKenzie
KD6HJG**



**Richie
Kendrick
KD6KZP**

New AM Radio Applications

The FCC is preparing to accept the first applications for licenses to broadcast in the new extension of the AM radio band by the end of 1992. Presently, only broadcasters who presently transmit in the 540-1600 Khz band are eligible for licenses in the new 1600-1700 kHz extension. Those who are accepted will be allowed for five years to simulcast on both their present frequency and the new one, using the same call letters. -W5YI Report



**Diagram of new RFBulb
More Information Next Month**

FCC Targets Satellite Jammer

Ham License Revocation Proceeding Initiated

On September 24, 1990, Thomas M. Haynie, WB4PVK of Virginia Beach, Virginia was convicted by a Federal Court in Norfolk, Virginia of intentionally interfering with the operation of a communications satellite and unauthorized operation of a satellite uplink transmitter.

The incident took place right after the infamous April 1986 Captain Midnight satellite incident when John R. MacDougall, KA4WJA, of Ocala, Florida overrode Home Box Office programming. MacDougall, the owner of a retail satellite dealership, was arrested, convicted and fined \$5,000 and sentenced to one year's probation. After the Captain Midnight incident, Congress enacted new legislation (Section 303) making intentional interference to a communications satellite a felony.

Three episodes of deliberate satellite interference again occurred on September 6, 1987 to the adult programming of the American Ecstasy and Playboy Channels. The Playboy Channel was airing an "R" rated movie with some nudity at the

time. For about 30 seconds right in the middle of the movie, another transmitter came on the air and replaced Playboy with a religious message in red urging repentance.



It resulted in the most extensive investigation the FCC has ever had to find the jammer. Armed with a recording of the message, the Commission was able to determine the type and maker of the character generator used. The manufacturer furnished the FCC with their customer list.

Transmitter analysis of the interfering signal permitted the FCC to calculate the amount of power necessary to replace the Playboy

Channel and to produce a unique spectrum "fingerprint." Through an elimination process, several satellite uplink facilities were eliminated. All other uplink licensees throughout the United States were inspected by the Commission.

The FCC was eventually able to pinpoint the interference as coming from a transmitter at the Christian Broadcasting Network at Virginia Beach. Videotaped samples of CBN's transmitter signal output matched the Playboy interference. The records indicated the operator on duty was Thomas M. Haynie.

On December 7, 1990, Haynie was sentenced to three years imprisonment, all of which was suspended, ordered to pay a \$3,000 fine (\$2,000 of which was suspended) and ordered to perform 50 hours of community service each year for the next three years.

The decision has now become final. The FCC's Field Operations and Private Radio Bureaus are now moving to strip Haynie of his commercial Radiotelephone and Amateur Advanced Class radio licenses.

W5YI Report

Powerful Digital Signal Processing for Hams

Link Plus Corp. of Columbia, MD, recently unveiled an amateur radio version of its powerful Link-Plus digital signal processing technology that eliminates most noise and interference from SSB voice communications, thereby

producing a significant boost in effective signal strength. LPC calls its new amateur product the MULE (acronym for Multi-Use Link Enhancer.)

In 18 separate tests carried out on three days over an 1,800 mile path under a variety of transmission conditions, Link-Plus processing produced an average 22 dB improvement in HF-SSB signal-to-

noise ratio! In laymen's terms, the unprocessed signal had, on average, 160 times more noise content than the Link-Plus signal.

It's \$2,995 price tag probably places the MULE beyond the immediate reach of most hams. It connects by external cables to any HF radio. (1-800-982-2920).

W5YI Report

FCC Enforcement

from front page

your distress calls, you dared the Commission to find you, all the time sending hundreds of Coast Guard personnel racing through storm-ravaged waters (flagrant/deplorable), the FCC would be able to assess you an additional \$36,000, bringing your grand total for five days of "fun" to \$76,000.

The FCC has also set \$25,000 as the fine for any hoax by a broadcaster that could harm the public - anything that would involved police or rescue forces being called, for example. Just a few of the "pranks" that have led to the ruling include these false reports by Stations across the country: a nuclear attack, a station being held hostage, a near-by volcanic eruption, a dangerous build-up of gasses at a local landfill, and the shooting of a popular talk-show host. Tnx Monitoring Times

'Freebanders' Nabbed By FCC

The FCC has issued Notices of Apparent Liability for Monetary Forfeiture to 54 radio operators. The individuals, commonly known as "freebanders," engage in citizen's band activity just outside the CB band.

Forfeitures ranged in amount from \$250 to \$3,500 depending on the nature of the violation, financial impact, whether they are repeat offenders, and "other factors."

Moving?
Let SARA know!



Editor's Notes

By Bob Pinheiro, WA6ZLO

Have you ever wished for a quick and easy way to test coax? Thanks to this article in the Arlington, Tx ARC Newsletter here the answer.

Use a megger (megaohm meter) to test the impedance of the insulation - it should be a very high number (remember, you are measuring for megaohms). If a megger is not available, then you can measure the power loss in the cable to gauge the condition of the coax.

Put connectors on each end of the coax, connect one end to a transmitter (it doesn't have to be high power) and the other end to a wattmeter; then connect the wattmeter to a dummy load. If you don't know the output power of the transmitter then first place the wattmeter in line between the transmitter and the coax and take a reading.

Knowing the output of the transmitter and the loss per foot of the cable (this number can be found in many handbooks or from the manufacturer), and assuming some loss due to the connectors (say 0.5 dB), you can calculate the amount of power you should read from the meter at the end of the coax.

Just feeding the SWR isn't a valid test of the coax because there might be a bad spot in the coax at the non-meter end but the feedline impedance still matches well enough for a good SWR. Good Luck!

It is obvious the increase in the amount of fines the FCC can assess for violation of the rules, is directly purportional to enforcement in all services under their auspices. One person who has felt the sting is

Andrew R. Yoder, of Chambersburg, PA, who was fined a whopping \$17,500 for operating a pirate broadcast station on 7415 and 7416 KHz and for failure to allow FCC inspection of the station.

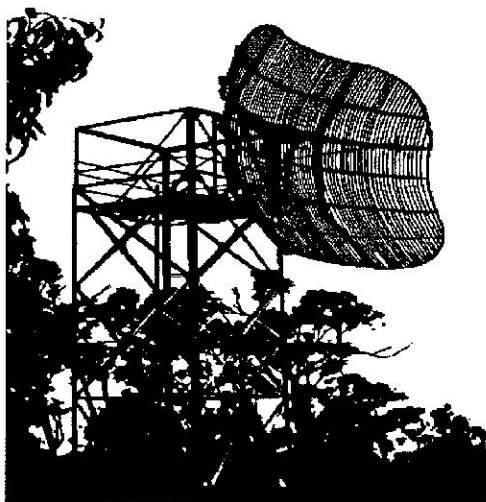
Yoder had operated as Mr. Blue Sky of "Radio USA" since the 1980's. To avoid detection, he maintained no set schedule, operated sporadically, and moved his station to many different locations. The FCC found "Radio USA" originating at various times from within the states of Michigan, Ohio, New York, Pennsylvania, Tennessee, Virginia and West Virginia. Yoder, who is in the process of writing a book on pirate radio, denies he was behind the entire operation, refuses to pay the fine, and plans to file an appeal on the charges levied against him.

A study by Austin, TX based Technology Futures, Inc. says we have only scratched the surface of our telecommunications potential. They say 8 million PC FAX cards will be in use by 1995, beginning the integration of computers, FAX and electronic mail. By 1999, 50 million U.S. households will have FAX. High resolution color FAX machines will capture at least 20% of the FAX market by the year 2000. 73, Bob

VE Test Sessions Coming Up

Sept 12Modesto9 am
Oct. 10Merced9 am
Nov 14Sonora9 am

For additional information
contact Chet, W6XK,
883-2968



The Amateur Microwave Region

By Tim Low, N6ZUC

Somewhere between the highest band most of us operate, 440mhz, and visible light, is that strange portion of the spectrum known as, the microwave region. The very mention of the term microwave brings visions of what once was alive, now dinner, sizzling away behind a little glass and screen door. Yes, believe it or not Ripley, there are Amateurs out there communicating via microwaves. And no, I'm not trying to tell you they're out there screaming into their ovens. (Ham in the microwave? Hmmmml!) No No!

This is a region populated by strange sounding equipment like bricks, parabolic dishes, and wave guides. Though it sounds it, it's not really all that complicated, and we'll take a look at what it takes to get up and on the air.

Reviewing Spectrum

First off, a little reviewing of the frequency spectrum just may be in order here. What we think of as radio frequencies, occupies only a small portion of the total spectrum.

The spectrum runs from all the way below the 60 hertz AC line frequency that is the power standard here in the US, up through visible light and on into the region of the x-rays and gamma rays, and beyond. What is commonly referred to as microwaves, run from 1 GHz (one billion hertz), up to just below the infrared light region at around 10 THz (ten trillion hertz). In all actuality, microwave refers to the physical length of the wave itself.

The Formula

By calculation, using the formula $300,000/.0001$, where 300,000 is the speed of light in kilometers per second, and .0001 is the length in meters, (micro meters in this case), we find that the true microwave region starts at 3 GHz, and continues up to 33 GHz. For our purposes, we will consider anything above the Amateur 23 centimeter band, (1296, or 1.2 GHz), as the microwave region. Though not overly crowded, we Hams are allotted some spectrum up in this region.

Safety Rules

Special considerations are called for when experimenting in these bands. Most notably in the area of safety. Exposure to excessive microwave radiation can be extremely hazardous to your health. This is not to scare you away. If proper safeguards are taken, there is no undue risk to life or limb. (For a horror story on the danger of microwave exposure, see the May 92 issue of The READOUT).

The safety rules for microwave operation are simple. As with all Amateur transmissions, only the minimum power necessary to carry out the communication should be used. Make sure that all connections for the feed sys-

tem and antenna are solid, as to prevent leakage, and never, never, stand in front of the antenna when energized. Make sure your antenna is located away from the general public.

Propagation Characteristics

Because of the extreme frequency and extremely small wavelengths involved here, the propagation characteristics are a little different than what we're used to when operating on the lower bands. At these frequencies, all transmission is normally line of site. Unlike the low bands, there is no groundwave, and unlike the VHF region, there is no bending over the horizon. So again, this leaves us with basically point to point communications.

There are cases of "bouncing" the signal off the nearest mountain, and coming up with some incredible distances. I even talked to a guy that claims to have made a 150 mile southerly QSO by pointing his dish north at the nearest mountain. It is possible, but you need the benefit of having a willing mountain close at hand. Normally mountains, unless your on top of one, are a hindrance to successful microwave operation.

Other detriments to operation in the microwave region is the fact that because of the small wavelength, the signal is easy to block. It doesn't radiate well through heavy vegetation, power lines, ect.. In the colder climates, snow can be a factor. Snow flakes just happen to be around a wavelength long at certain microwave frequencies. This has been a problem for TV station

See "Microwave" page 13

The New Cushcraft R7 Pricey- But Worth It



By Ike Kerschner, N3IK
Monitoring Times Magazine

A few months ago, I moved to a new home in town. The new lot is much smaller than what I have been used to and zoning restrictions make erecting a tower difficult.

Over the years, I have spent a lot of time worrying about my large beams coming down during bad weather and every advancing year makes tower climbing more of a chore. So I felt it was time to move on to a simpler, if less efficient, antenna. A 160 meter grounded loop has been doing an excellent job of snagging DX and letting me rag chew with hams all over the world; however, since this antenna is connected at four points (all of them trees) it does require a lot of maintenance.

Magazine ads touting the Cushcraft R7 vertical antenna piqued my interest, but at nearly \$400

the antenna just seemed a bit too pricey. However, several hams I had talked with were using them and spoke highly of the antenna, and the 22 foot height for seven bands was very appealing. Calling around to the various advertisers in the ham magazines I found "National Tower Company" had the best price around (their phone number is 800-762-5049). Three days later the R7 arrived.

The size of the box was not what I had expected! It was SMALL! Upon opening the box I began to realize why the antenna cost what it did. The antenna uses six linear traps to cover all of the bands from 10 through 40 meters, and the traps are superbly constructed. Considering the time and material to build the traps and the additional time to properly tune them, the pricing is understandable.

But Does it Work?

I dumped everything out on the garage floor and started connecting traps as per instructions. About an hour later I had the antenna ready to put up on the roof. Let me add here that I recommend using a 5/16th socket and ratchet wrench to tighten all of the clamps properly.

The R7 is only 22 feet long, but due to the linear method of loading, the antenna works as a half-wave antenna on all bands; resulting in an extremely low angle of radiation. In theory this equates to a good DX antenna.

All one need do to mount the antenna is to fasten a length of 1-1/4

inch diameter pipe to a convenient spot. My convenient spot was the chimney of my house. I dropped the antenna over the pipe, hooked up the coax and went down to the shack to check it out.

The SWR on ten meters was under 2:1 across the entire band, on 12 and 15 the antenna again covered the entire band. 20 meters had a 170 kHz band width from 14.0 to 14.170 (adjustable to any point in the band). On 30 meters the resonant point was 75 kHz below the band and had to be readjusted. Upon readjustment, it was found that the antenna only had a 15 kHz band width (the problem was a faulty trap which Cushcraft replaced within two days). 40 meters has a solid 75 kHz bandwidth which is adjustable to any frequency desired simply by extending or retracting one piece of tubing.

Considering that everything fell into place (except for the 30 meter problem) using Cushcraft's measurements, I must say I am impressed!

Using the Antenna

I tied my Kenwood TS-680 to the antenna and gave it a whirl. The first QSO on 40 was with a UT5 (Ukraine); 30 meters produced a G3 (England); and 20 meters turned up a UC6 (Byelorussia). An SM (Sweden) on 17 meters said I was one of the loudest signals on the band! First on 15 was a ZS3 (Namibia). 12 meters netted a PY and although 10 meters was very noisy I did manage

See 'R7' Page 13

Cushcraft's R7

from page 8

to work a WB7 in Washington State. Considering the fact that the bands were in terrible condition, I was well pleased with my first attempts.

In two weeks of operating, stations on all continents were contacted on 20 and 15 meters. Most impressive was 40 meters where I worked several ZL and VK (New Zealand and Australia) and enjoyed good rag chews with each (one of over one hour); I missed only Asia for WAC (Worked All Continents) on 40 in a two week period! All of this with less than 100 watts.

Conclusions:

Without doubt the R7 is an outstanding seven band (10-40) antenna. It is easy to install and adjust. It will work DX with the best of them and requires a minimum of space (no radials). The antenna is very unobtrusive and should not draw much comment in any neighborhood. It will work fine at any height above ground. While it does not compare with a large Yagi installed on a tall tower, it will let Mr/Ms average ham work a lot of DX and have a darn good time no matter where they live.

The R7 has very little wind load and consequently worries about the antenna falling in a big wind are minimal. It is competitive and will allow a competent user to break a DX pileup. After using this antenna all my concerns about the price have disappeared; it is well worth it. For more information, write Cushcraft, P.O. Box 4680-MT, 48 Perimeter Road, Manchester, NH 03108; 603-627-7877, or see your local dealer.

Microwave

from page 7

cies. This has been a problem for TV station studio to transmitter links, Telephone company microwave links, and satellite uplink stations. In certain instances, even a heavy downpour of rain can cause problems. Also working through an inversion layer can screw up the works.

Talk You Out Of It?

I have probably mentioned enough problems with the operation of microwave stations now, to talk you out of even considering operation in the microwave bands. If I have, I'm sorry. You'll be missing out on part of what Amateur radio is all about, furthering the state of the art through experimentation.

Here we are, out of space again for this month. Next month, we'll pick up with the hardware, what's available, and how to put it all together.

Questions or Obseervations

If you have Questions, answers, observations, or just want to say hello, contact me via packet at: N6ZUC @ KC6NZN. #SOCA. CA. USA. NA, or write me in care of *The READOUT*. 73 -Tim

If you can't Fight'em, Join'em

Big-name companies are going low-end! Look for IBM to take the same route as Compaq computers, only more so. Financially troubled Compaq had an image of top-quality ...and prices to match.

Earlier this year they fired their CEO and introduced a promotional line (fittingly named "ProLinea") at sub-Compaq prices. The line, which is designed and manufactured in-house, has been selling like crazy and has almost immediately returned the company to profitability. It hasn't gone unnoticed. Compaq says "ProLinea" quality (and parts) are the same as their higher end "Deskpro" line, but with less features.

IBM research has disclosed that most PC users (including large companies) are buying small computers as commodity items from low-price direct-response marketers. Now comes word that IBM Corp's Personal Systems Division is breaking away from IBM corporate. The new spun off subsidiary is totally autonomous and responsible for their own PC development, production, marketing and promotion.

IBM's primary distribution channel has been to "value added resellers" and corporate accounts. (VAR's bundle application specific software and/or hardware to the PC.) That will change. The objective of the new PS Division is two fold. First, to market through totally new channels (including mail order, tele-marketing and mass merchandisers) and, secondly: to develop and sell lower-cost products faster. -W5YI Report

Welcome New SARA Member



Herman
Brown
KD6LBM
Manteca

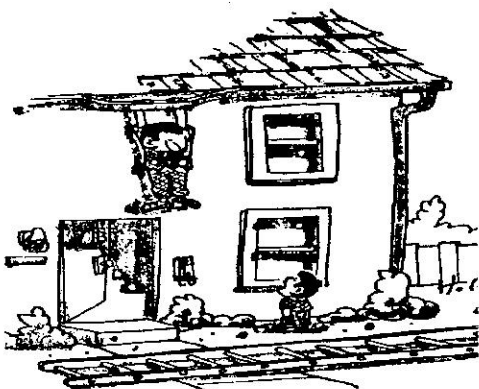
Photo Cops Retired In Sacramento

The Sacramento city council voted unanimously to discontinue the use of photo radar. When police began using the system in October 1990, nearly 500 tickets were issued, netting the city about \$8,500 in traffic fines.

But civil liberties lawyers have fought the fines, referring to system as an invasion of privacy. Lawyers compared photo radar to George Orwell's futuristic novel 1984 in which people live in a police state watched over by "Big Brother." Police were also forced to deal with irate car owners who were not the drivers pictured in the photo.

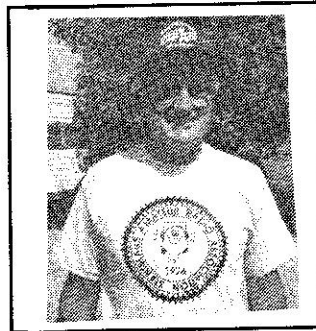
When police asked vehicle owners to identify the driver in the photograph, most people simply refused. In addition to the legal problems, the photo radar system was plagued with mechanical problems that required regular repairs.

(News clipping from the Sacramento Bee.)



Mama wants to know if it's important?

Tnx Triple States Radio Amateur Club



SARA T-Shirt

Yellow/Black
Sizes Small- XLarge
Bob, KC6TVE



SARA Logo

**Order Yours
Today!**

Contact SARA
Treasurer
Rita, KD6BNV,
209-838-2921

Official SARA SportsWear

Hats & Visors

SARA logo, callsign yellow with white front & black Letters \$5.00

Golf Shirts S-XL

SARA Logo on front pocket
yellow with black letters. \$14.50

Sweat Shirts S-XL

SARA Logo on front
yellow with black letters. \$14.50

Satin Jackets S-XL

SARA Logo on back, name and
callsign on the front pocket.
Yellow with black letters. \$35.50

Coffee Mugs

SARA Logo on one side and
your name on the other.
Yellow with black letters. \$5.50

License Plate Frames

Black frame with colored letters. \$6.50

Adhesive Vinyl Letters

for call signs on vehicles
2" white letters. Other colors and sizes
available. Ask for quote.
\$1.25 each letter.

**Order Yours
Today**

Prices subject to change without notice

**Next SARA Meeting September 15, 1992 730 pm
Stanislaus County Administration Bld.**

SARA Minutes

from page 7

club generator turns freely, but the gas tank is plugged. Work to continue. He also said that he's been contacted by those working with the Wine and Cheese festival. They need 10 operators and equipment to provide communication on October 12th for their event. He's going to coordinate **SARA's** participation.

Chuck, NW6G, suggested that a voice activated recorder be installed on the autopatch. This way we could monitor its activity and

have a record of what happens there. There was also a discussion of getting a telephone number that would cover a larger area. Bob, N6OCS, said that had been tried in the past with no luck.

Someone asked if the autopatch conversations were already being recorded, and we were told that Steve, N6EKV would be able to tell us. Don, AB6AE, said he'd check with the telephone company to see what would be available to us.

KC6VWO, asked about autopatch procedures for calling a tow truck in an emergency, and learned that it's best to ask another

operator on frequency to do it for him rather than use the patch. Autopatch protocol was discussed further, and Jim reminded us to use the patch sparingly.

There was a short discussion about VE's only giving Novice class licenses and reciprocal licensing was talked about too -

There was a short report given on the current forest fire in Calaveras County, and the meeting was adjourned at 9:21 PM.

Respectfully submitted, Emie, K6UVI, Club Secretary.

SARA Joins Fight Against Cable Use of Amateur Frequencies

Modesto ham operator Tim Johnson, N8QXL, has requested, and received, **SARA's** assistance in petitioning Post Newsweek Cable company of Modesto, and the FCC, to abandon use of 145.25 Mhz.

Post Newsweek Cable uses the frequency in their Modesto system to convert KSCH, Channel 58 in Sacramento, to cable channel 18. Cable channel 18's frequency is 145.25 MHz which falls in the Amateur service 2 meter band. This presents a serious TVI problem with Amateur signals entering (ingress) the cable system and tearing up channel 18 (KSCH).

In Tim's case, he gets into Post Newsweek's cable with a half a watt of power with his HT while transmitting on ANY frequency in the two meter band.

"We have done all we are going to do!" was the last comment Tim got from Post Newsweek after calling

them several times. They ended efforts by telling Tim he was running too much power (1/2 watt?).

He said they initially responded to his complaints and checked several connections and a distribution amplifier in his neighborhood. They added some grounding straps and changed the amplifier. However, the problem continues and now Post Newsweek refuses to spend any more time on the problem. In the meantime, Tim continues to receive complaints from neighbors.

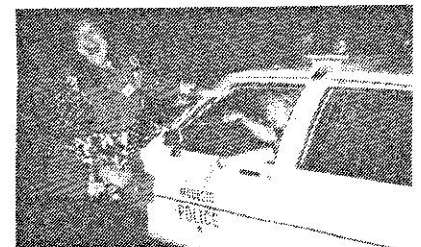
Many **SARA** members have encountered the same problem in their areas which indicates the problem exist throughout the cable system. Tim has contacted the ARRL and the FCC for help. The ARRL is forwarding informational literature that should be helpful and the FCC has acknowledged it is the cable company's responsibility to fix egress and ingress problems. They pointed out that cable companies are secondary

occupants on this frequency (145.25), Amateurs being the primary.

A petition is being prepared and will be circulated to **SARA** members and any interested Amateurs for their support. We will keep you advised in **The READOUT**. If you would like to talk to Tim or offer your support, write or call him at the following address.

Tim Johnson, N8QXL
1404 Mono Drive
Modesto, CA., 95354
(209) 529-3492

VP Sandy, KC6TBK, In Trouble With The Law?



The Story Next Month!




Calendar



Sept. 12 Foothill Swap Meet All Days
 Sept. 12 VE Testing In Modesto 930 am
 Sept. 15 SARA Monthly Meeting 730 am
 Oct. 3 Hams & Hackers Swap Meet
 Hanford, CA.....All Day
 Oct 10 VE Testing in Merced..... 930 am
 Oct.16-18.. Pacificon Hamfest 3 days
 Concord, CA. Hilton Hotel
 Oct.17-18.. Boyscout Jamobree
 on the Air 2 days
 Oct.16-18.. DX Convention Visalia ... 3 days

SARA meets the third Tuesday of each month (except holidays) at the Stanislaus County Administration Building at 12th and H Street in downtown Modesto. The meetings are held in the lower level conference room at 730 pm. Visitors and interested parties are most welcome. SARA is an ARRL affiliated club and is also affiliated with the Stanislaus County and City of Modesto RACES programs.

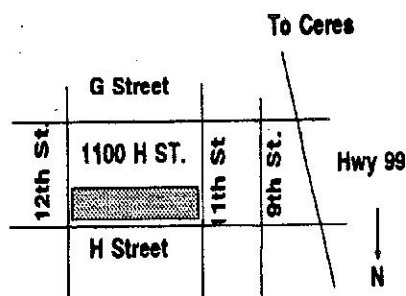


**Salli's
Budget Copy Center**
 High Speed Copying
 Public FAX Machine
 Laminating
 Spiral & Velo Binding
 Business Cards
 Resumes-Typesetting
 Tel 529-5395
 FAX 529-6366
 912 13th St.
 Downtown
 Modesto
 Open M-F 8-5

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

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

Address Correction Requested



To:



SARA Meeting Location
 1100 H Street, Downtown Modesto
 Third Tuesday of Each Month

**Next SARA Meeting is September 15, 1992
 at 730 pm & You're Invited!**