Fresno Amateur Radio Club Newsletter APRIL 2009 Volume 70, Issue 4

Our next meeting will be April 10th., at 7:00 PM. Meeting place: Cedar Lanes Bowl—Cedar & Shields Aves. Hope to see all of you there. Board meeting this month will be on Wednesday the 8th instead of Tuesday.

The Prez Sez

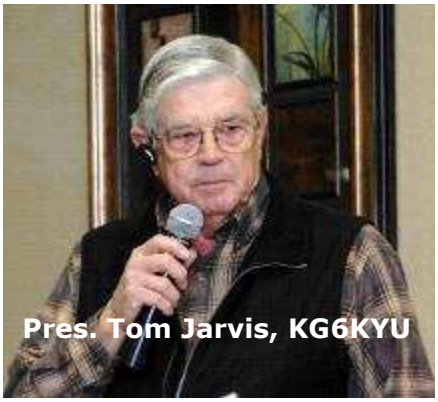
FARC General Meetings
Are held the 2nd Friday of each month, 7 p.m. at Cedar Lanes unless otherwise noted.

2009 FARC BOARD MEETING DATES
1st Tuesday of each month
Woodward Park Library at Champlain and Perrin.

FARC Nets
Morning Drive Time Net:
Weekday mornings-7:30—8:00 a.m.
W6TO/R 146.940
Tech Net:
Wednesdays @ 7:00 pm
W6TO/R 146.940
FARC Net:
Sundays @ 7:00 pm
W6TO/R 146.940

CQ CQ

We had a good meeting on March 13, which was our first Elmer session for the year.. I know of a few members who took advantage of it. Jim and Perry were kept busy answering their questions.


Pres. Tom Jarvis, KG6KYU

The program was on copying German code in England during World War II. Thanks Ken providing this interesting part of our code history.

I want to thank Charles W6DPD who is retiring from ARRL after 20 years of service. He has been our section manger for quite a few years, along with holding other positions before that. If you had a question on ARRL or Amateur Radio Charles had the answer or could tell you how to find it. As President of FARC and a friend, it has been a pleasure working with him over the years. Enjoy your nights at home.

The good news is that our own FARC member, Dan AE6SX is replacing Chuck as Section Manger for the Pacific Division. I have had the privilege of working with Dan and I know from experience that he will do an outstanding job for the ARRL and all the amateur clubs in his section.

73,,,,Tom

2008 FARC BOARD OF DIRECTORS

FARC Officers:			
Tom Jarvis, Pres. - KG6KYU	kg6kyu@w6to.com	(559) 916-2445	12/2009
Ken Holden, V.P. - WA6OIB	wa6oib@w6to.com	(559) 323-6753	12/2010
Jim Erbe, Sectry - WA6NIF	wa6nif@w6to.com	(559) 222-7524	12/2009
Ron Hunt, Treas - N6MTS	n6mts@w6to.com	(559) 289-8514	12/2010
Board Members:			
Aaron Lusk: K6USY	k6usy@w6to.com	(559) 301-1022	12/2010
John McGraw: AE6QR	No E-Mail	(559) 255-2349	12/2010
Steve Brunt: K6AAB	k6aab@w6to.com	(559) 696-4319	12/2009
Chuck McConnell: W6DPD	w6dpd@w6to.com	(559) 431-2038	12/2010
Jack Baker: AC6LT	ac6lt@cvip.net	(559) 297-4311	12/2010
Joseph Capell: W0PJD	jtcapell@me.com	(559) 225-3582	12/2009
(Vacant)			12/2009

Mark you calendars for every Thursday, for the lunch gathering at the *Silver Dollar Hofbrau* at the corner of Hwy 41 and Shaw. It starts at 12 noon and there is a table reserved in the back room.

Also every Monday and Saturday at the *Country Waffles* at Blackstone and Dakota starting at 7am.

Finally the last, is at *Yosemite Falls* at Blackstone and Shaw starting at 8am on Tuesdays.

Amateur Radio Event Calendar

Date	***Event***
April 3	CARP Meeting (Clovis Senior Center)
April 4	CARP Transmitter Hunt (Clovis Senior Bldg)
April 4	DX Breakfast
April 8	**FARC BOD Meeting (Woodward Park Library)**
April 10	**FARC Club Meeting (Cedar Lanes)**
April 17-19	Visalia International DX Convention (Holiday Inn) http://dxconvention.org/
April 17	EmComm & Coffee (Yosemite Falls Café)
April 17	SJVARS Meeting (Pelco)
April 18	March of Dimes—Woodward Park
April 21	QCWA Lunch (Perco's - Blackstone)
April 25	Madera VE Exam Session (United Methodist Church) http://www.w6wgz.org/License_%20Exams.htm
May 1	CARP Meeting (Clovis Senior Center)
May 2	Turlock Auction (map on page 12)
May 1-2	EMCOMM West & Pacificon Convention (Reno, NV) http://www.emcommwest.org/
May 5	**FARC BOD Meeting (Woodward Park Library)**
May 8	**FARC Club Meeting (Cedar Lanes)**
May 15	EnComm Breakfast (Yosemite Falls Café)
May 15	SJVARS (Pelco)
May 16	FARC Exam Session

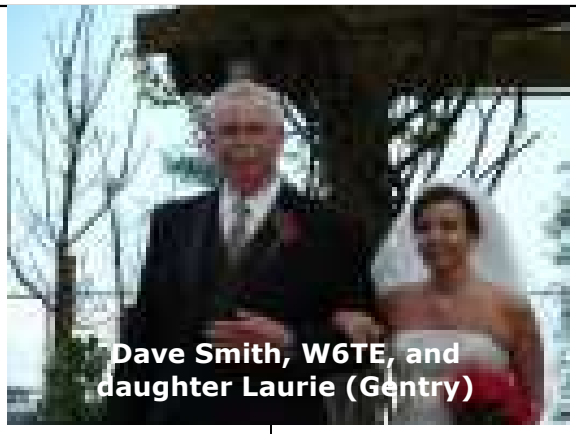

Jim "The Thinker" Clymer —WS6X pondering his next dxpedition.


Paul Heins—AE6QP

EDITOR'S COMMENTS by Dave Smith W6TE

Dear FARC Friends,

This has been a very busy month for me. My youngest daughter, Laurie, was married.... and we've had two long distance trips out of state. As you read this we will be leaving for a two week trip in NYC and DC. Both of my daughters Laurie and Jennifer, (ex-KB6NCF) Will be performing with the Pacific University Orchestra at a music festival at Carnige Hall in NYC.


Dave Smith, W6TE, and daughter Laurie (Gentry)

Charles McConnell, W6DPD, after 20+ years as SJV Section Manager and Division Director/Vice Director has decided to turn over the reigns. Thank you Charles for 20+ years of service to the Amateur community as well as to the San Joaquin Valley Section and the club! Dan Pruit, AE6SX, will be our next SJV Section Manager! Welcome Dan!

Our newest Amateur Radio Technician class will start on March 31st. It will be at Peoples Church, 7:00 PM. VP Ken Holden will be teaching the class for the first two weeks.

I am working on firming up classes for the remainder of the year as well as for next year. We hope to offer 2 additional Technician, 1 or 2 General class and 1 Extra class license offerings this year. Please get the word out. I'll send out a flyer when things are firmed up.

I am asking for volunteers and elmers to teach the FARC Amateur radio classes and help new-comers in getting on the air. It will take a very few hours out of your life. This is your chance to give back to Amateur Radio. We really need your help in supporting this FARC effort.

We continue this month with another fine article from well known VHF & microwave antenna expert Kent Britton, WA5VJB. This month Kent offers a very simple and cheap dual band antenna that works great for satellites or general VHF-UHF operations. Backpacking? This will work for you. It is easy and cheap. Use this with the duplexer described in last month's SKIP and you will be AOK.

73, Dave W6TE (w6te@msn.com)

Please support our advertisers in SKIP. They support us not only in revenue for the club but they also allow us space on the counters and shelves for copies of SKIP and other club announcements. This is important. Just this month we added a new student to the class who picking up a copy of SKIP and saw the class announcement. This person may well get his ham ticket and become a member of the club at some point.

The membership attendance for March was Red, W6AE!

Local Amateur Radio Repeaters

Organization	*Call Sign*	*Frequency*	*Offset*	*PL*
AARC	WB6QDN	146.610	-	NONE
CARP	K6ARP	147.675	-	141.3
CARP	N6JXL	224.380	-	141.3
CARP	K6ARP	444.725	-	141.3
CONDOR	WB6BRU	224.900	-	156.7
FARC	W6TO	146.940	-	NONE
FARC	W6TO	223.940	-	NONE
FARC	W6TO	444.200	-	NONE
FRESNO	N6MTS	145.230	-	141.3
KINGS ARC	KA6Q	145.110	-	100.0
MADERA ARC	W6WGZ	147.180	+	NONE
MADERA ARC	W6WGZ	441.175	-	146.2
QCWA	WQ6CWA	146.850	-	141.3
RACES	N6HEW	147.150	+	141.3
TURLOCK ARC	W6BXN	147.030	+	100.0
WA6NIF	WA6NIF	444.100	+	100.0
WIN/SYSTEM	K6JSI	147.790	-	141.3
WIN/SYSTEM	K6JSI	223.780	-	141.3
KJ6KO	KJ6KO	927.6625/902.0125	-	146.2

Birthdays, Anniversary's and Announcements

Perry Foster, W6XJ, April 10th
Bob Hervatine, N2NS, April 22
David Blevins, KG6HTE, April 26

Karl & Pat Kramer, W6TUI, Ann. April 21
Bob & his wife Airhart, WA6RTS, Ann. April 29
David & his wife Austin, KA6VTA, April 10

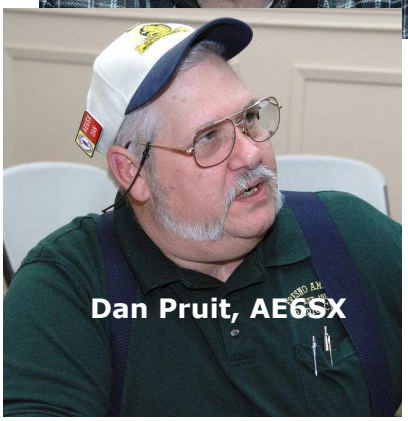
Amateur Radio Meets the Internet

by Andy Reistetter, K6RY

Truly enchanting. The work and capability of this French ham building triodes is humbling to say the least - you can tell from the confidence of his movements that he really knows what he is doing. The film is really great - nice combination of editing and music. This is a 17 minute treat that all hams will enjoy. This is one of the neatest things I have ever seen. 73's de K6RY

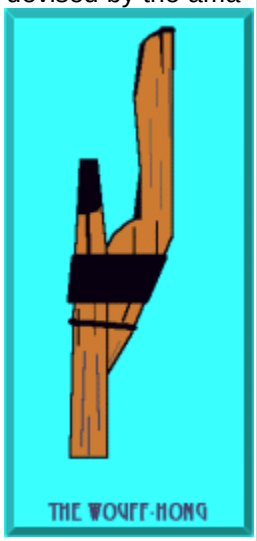
Click here: MAKE: Blog: Revisiting Claude Paillard's triodes;http://blog.makezine.com/archive/2008/04/revisiting_claude_paillar.html

Feeders going up the wall, Please don't radiate at all! If you do, then by and by I'll be plagued with TVI.



The Wouff-Hong, the Rettysnitch, and the What? The Uggerumph by L. B. Cebik, W4RNL (SK)

"There were three gadgets that were devised by the amateurs of those early days to keep Young Squirts constantly reminded of these three important don'ts of amateur radio.. A Squirt who used too much of what we used to call "Lake Erie Swing," or sent with a slobbery fist, or cluttered up the air with too many CQ's, or garbled his call letters so that they had to be guessed at, was called upon by a committee, the chairman of which was a big brute with a positive manner and who exhibited and explained the workings of an instrument known as an ***Uggerumph***.



"A Squirt who was a band-jumper, or who failed to maintain an intimate acquaintance with a reliable wavemeter, was politely knocked on the head with a base-ball bat, dragged out into the nearest sand lot, and subjected to a surgical operation with a thing called a ***Rettysnitch***. . . .

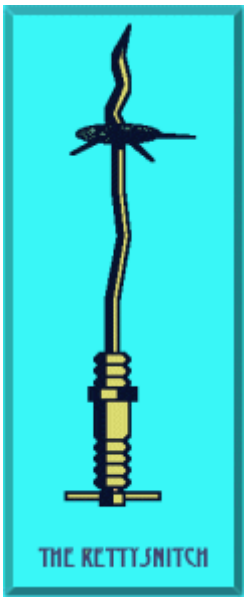
"Last but by no means least, a Squirt who even thought of using a false call, let alone actually using one, or used profane language on the air or who willfully broke up other legitimate amateur traffic, was taken for a certain kind of ride during which an instrument of torture known as a ***Wouff-Hong*** figured very prominently. No Young Squirt ever returned from one of those rides." from "Rotten Young Squirts" by The Old Man, *QST*, February, 1932, p. 27

We have seen the ***Wouff-Hong***. Those who have seen it, dread it.

Most of us have seen the ***Rettysnitch***. Those who have seen it, fear it. But, can anyone tell us what the ***Uggerumph*** looks like? Is it real--or just a mythical something that goes "bump" in the night?

The Revelation

I quickly learned from a number of victims of the Uggerumph that, unlike the Wouff-Hong and the Rettysnitch, this third instrument of torture for rotten operating may not be an inanimate object. It can chase you around and leaves scars on both body and psyche. It has a mean disposition, so mean that appropriately descriptive terms cannot be repeated in polite company (although I am assured that it loves its mother). Apparently, more modern



accounts viewed of the Uggerumph as a creature, while T.O.M. himeself called it an "instrument." Hence, cyborgs, robots, and androids are not out of the question as proper categories for the Uggerumph. It has been referenced, but not pictured, in *QST*, *CQ*, and *73*, but always by cartoonists and humorists who seem immune to its bite, claw, sting, scratch, gouge, rip, or whatever (or all of the above) (and possibly more).

From ARRL HQ, I received the following note: "Although the Uggerumph was not initially a "thing", in T.O.M.'s writings, he later turned it into one. Although we don't have a photo on the web page, we do have it on display here at HQ in the same case as the Wouff-Hong and Rettysnitch. It looks like a cross between a bear trap and a straight key, with a bone mounted on it (a vertebrae segment)." My thanks go to Dan Miller, K3UFG, Michael Tracy, KC1SX, and Joe Bottiglieri, AA1GW, for a chain of events that quickly

Two Views of the Uggerumph (or Ugerumf)

brought to me several photographs of the Uggerumph. It is customary at this point to note that the photos are explicit and may be unsuitable for viewing by children.

The First Mystery

How the Uggerumph originated was answered in a note accompanying the photographs.

"This mysterious object was made shortly after Hiram Percy Maxim wrote his story "Rotten QRM" in 1917. Whether the device was symbolic of QRM in those days or was supposed to cure its evils is left to the imagination, although strong hints were given by The Old Man."

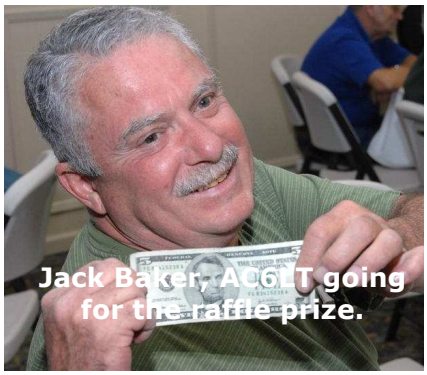
The "editorial" was reprinted in the December 1940 issue of *QST*. The word "ugerumf"--while mentioned in this writing, was actually part of poorly sent exchange by a "poor gink." A portion of the text reads:

"BIRRGRMP BRU ROTARY GE GE UGERUMF OM WITH MY SET RETTYSNITCH SPITTY TONE HIT IN POTIMUS? Now what do you suppose the poor gink was trying to say when he unreeled that? You have to guess a lot in wireless, and how would you guess this?" (TOM)

Yes UGERUMF--not the more popular spelling--UGERUMPH--was used (at least in the 1940 reprint) Perhaps the "ph" modifies this to a noun?

Why Uggerumph (or ugerumf)? From Jim Wade, WB8SIW, I received the following account:

Perhaps some additional information on early spark technology would be helpful. Early Spark Transmitters produced a "damped oscillation." The electrical discharge of a high voltage transformer across a gap in an LC circuit excited the LC circuit, which then oscillated at it's resonant frequency. The process is not unlike ringing a bell. Tapping the bell starts it ringing at it's resonant frequency, and the amplitude decreases over a period. The more often the "clapper" rings the bell, the greater the average amplitude. Early spark transmitters utilized a "straight" spark gap. The audio frequency one would hear in a receiver was typically a result of the the adjustment of an interruptor or other device at the primary of the transformer. Typically a low, rough, note.



Eventually, radio engineers figured out that one could increase the efficiency of the spark transmitter by placing a rotary gap in the LC circuit. This device was essentially a "spoked" wheel that rotated on a motor shaft (insulated from the motor, of course), that interrupted the spark at a much higher rate (e.g. ringing the bell faster). This improved efficiency and provided a somewhat more pleasing high frequency tone in the receiving operators phones; it also cut through interference easier.

The "zenith" (no reference to "9ZN" intended) of spark technology was the "synchronous" rotary spark gap. This was typically a spark-wheel on the shaft of a motor that rotated at a multiple of the AC frequency at the input of the spark transformer primary (e.g. a multiple of 50 or 60 hz). This device improved efficiency above the non-synchronous rotary spark gap for two reasons:

1) The spark gaps were aligned at the peak of the AC wave form, therefore delivering more power to the LC circuit.

2) The tone was more pleasing to the ear and cut through interference better, since the discharges were evenly synchronized.

All of this having been said, a common "trick" utilized by radio amateurs when sending "30" (di-di-di-dah-di-dahhhhhh) at the close of a QSO was to open the "transmit/receive" switch (usually a big knife witch), allowing the spark to die during this last prosign. The result was an unusual "growl." Likewise, an improperly adjusted rotary gap or an inexpensive "straight" gap typically had a rough, unpleasant note in the receiving operators headphones. Therefore, I suspect, the term "Uggerumph."

By the way, the reason we refer to radiotelegraphy as "CW" is related to spark technology. Unlike early spark transmitters, which produced a "damped oscillation", vacuum tube transmitters produced an "undamped" oscillation or "continuous wave." Therefore, when vacuum tube transmitter technology came into favour in the early '20s, the term "CW" became synonomous with radiotelegraphy. In reality, all modern modes utilize a continuous wave, but we continue to associate "CW" with radiotelegraphy.

Anyway, I hope that explanation of early spark transmitter technology helps.

The Second Mystery

The remaining mystery is why so many hams believe that the Uggerumph is animated, self-propelled, and no longer needs the oversight of the "big brute" with the "positive manner." After all, TOM clearly refers to the device as an instrument. However, in many stories, the animate take on the role of instruments of fate, of justice, of revenge, of . . .. Likewise, the Uggerumph is secretive and stealthy, attacking without being seen in advance and knowing precisely its target.

So let's do a little history. In 1932, the year of TOM's reference in this note, most equipment still used highly functional but aesthetically crude structures. Amateur radio equipment was no exception. However, by the end of the decade, culminating in the 1939 New York World's Fair, the geometries of art deco styling had given way to the sleek lines of a moving futurism. In automobiles, the Cord opened new vistas in disguising the chaos of the engine compartment under a smooth metallic veneer. Belching steam locomotives with their exposed boilers and steam lines suddenly looked like Buck Rogers space ships that simply preferred to hug a pair of tracks. After WWII, the

futurism took on a note of power. For example, the styling that in the 1980s we called "the hatchback" was--for the 1948 Oldsmobile--a "torpedo back." Imagine the possibility of applying a skin of smooth metal over the Uggerumph. Perhaps by the late 1960s, it even has fender fins adapted from the Desoto. By 1990, I can imagine an Uggerumph with perfected stealth technology that evades even our visual senses.

But is the Uggerumph more than manufactured, more than programmed? Is it self-evolving? The eminent science publisher, Hugo Gernsbach issued many reports of self-replicating and evolving "things" that appeared to be objects--but that were more. If the Uggerumph could self-replicate or even breed then it might also self-evolve. I have heard rumors of devices called electromagnetic hunters, "*E. H.*" for short. One breed of them becomes *riled* whenever it encounters especially bad and illegal operations. There must be more than one of them, because the breed has been spotted (but not identified for what they are) all across the country. They present themselves as mild-mannered makers of speeches at ham conventions. Generically, we call the breed the "Rile-E-H." If I interpret their behavior correctly, they have elevated torture for rotten operating to a new level. The original Uggerumph would send its victim to a doctor for repairs. The new generation of the Uggerumph, the Rile-E-H, now requires that victims go to someplace worse--the office of a lawyer.

This line of history and speculation, of course, cannot be proven. It can, however, serve as a warning to the same group of rotten operators against whom TOM railed. In the night, in the dark, in the mist may lurk an Uggerumph to reak havoc upon those who infect the amateur bands with foul operating practices and plain stupid activities.

How Do *They* Do Their Work?

I have been asked how the Uggerumph, Rettysnitch, and Wouff-Hong do their work of exacting fair and just punishments upon those who foul the airwaves with stupid, unethical, and/or illegal operations. My answer must be speculative, since no one upon whom these instruments/creatures of justice have performed their surgery will confess to exactly what happened. Perhaps they remember only the pain, but not the details. If so, that may be for the best, since amateur radio justice is firm and effective, but not vengeful. Speculatively then, we might let the shape of the instrument be the guide to its use.

Remember that the Uggerumph essentially is a treatment for uncaring ignorance--whose proper name is "stupidity." The Uggerumph is obviously a shocking hole-cutter, the depth being determined by the severity of the offense. Some hams describe the Uggerumph as a "bear trap," something capable of taking a bite out the victim. Although I do not see hinges in the photographs, neither do I see the hinges in the jaws of folks who speak to me. So a biting device or creature is certainly an allowable view of the Uggerumph. The size of the bite of which the Uggerumph is capable indicates use on the main torso, with the exact postion being optional. However, since young squirts were on the mind of TOM, I suspect that the most common placement is one that would prohibit sitting for a while. For all its ferocity, the Uggerumph is the gentlest of the torturing trio.

"The Rettysnitch. . .is used to enforce the principles of decency in operating work," according to the 1930 *ARRL Handbook*. The Rettysnitch is a much more specific instrument, also able to make holes, but smaller and deeper ones. It is capable of trepanning and even brain scrambling --or perhaps descrambling those whose operating habits begin scrambled. However, it can also be used on the key (or mike) arm to inflict a tatoo of scar tissue. Since it is the instrument of ethical conduct, it might also be used for heart reversal, and the Rettysnitch's missing teeth suggest that it might have encountered some very hard hearts in its past.

According to the same 1930 *ARRL Handbook*, "The Wouff-Hong is amateur radio's most sacred symbol and stands for the enforcement of law and order in amateur operation." The Wouff-Hong's nearest analog is the old-fashion but still effective can opener. Now every can opener requires an initial insertion point, and (if you picture the human anatomical form) you can choose between upper and lower points. The object is to open up the miscreant and expose his evil to himself. This requires the subject to be supine and all opening to be done on the front side, where the victim can indeed see the results: the exposure of his own evil. The beauty of the wood Wouff-Hong lies in the fact that it leaves splinters in places from which they cannot be removed. Thus is the scoundrel reminded for life of his misdeeds and what lies ahead if any one of them should ever be repeated.

John McGraw, AE6QR selling tickets and count-

History has it that the applications of the three instruments are unimaginable. However, I have spent my life imagining the unimaginable. Should protocol dictate or should you be too overcome with dread, you may destroy this note. However, you may also keep it in secret so that, if someone really needs to know, you can tell him what is in store if he does not change his operations for the better.

THE DX CORNER by Charles McConnell W6DPD

The local DX'ers meet on the first Saturday of the month for breakfast at Carrow's, 4280 N. Blackstone in Fresno. The group gathers between 0700 and 0800. All are welcome.

The International DX Convention is April 17-19, 2009 at the Holiday Inn at Visalia. Check www.dxconvention.org for information.

The address of the Sixth District QSL Bureau is P. O. Box 970, Fairfax CA 94978-0970. You can send up to 10 address labels and $0.70 for each envelope to the address above. They will put 1 unit of First Class postage on the envelope.

Postage rates around the world are constantly changing. To see current rates go to **http://www.qsl.net/w9ol/IRC_Chart.htm** where you can find the current postal rates for most of the countries of the world. Effective May 12, 2009, US overseas airmail is 98¢ per ounce and postage to Canada is 75¢ per ounce and Mexico is 79¢ per ounce. IRC purchases are $2.10 each.

If you want help with DX, you can contact the local members of the Central California DX Club for some assistance. Charles W6DPD 431-2038, Perry K6XJ 299-2802, or Jim WS6X 292-8353 can give you advice. The big thing about finding DX is to tune the bands.

If you don't get a DX Bulletin and you belong to ARRL, you should register on the members only web page and check the box for the ARRL DX Bulletin. This one is emailed each Thursday. Or you can go to the ARRL web page in the News/ Bulletin section and view the bulletins there. You can also read the OP DX Bulletin on the web. Search OP DX Bulletin to get the URL. You can subscribe to the Daily DX, Weekly DX or QRZ DX too. These bulletins will keep you informed of DX operations and QSL information.

The following operations are scheduled:

Marshall Islands V73NS now through 2009 and maybe 2 more years
Martinique FM/F5IRO Now through February 2009
Wake Island KH9/WA2YUN now until end of 2009
Bhutan A52VE April 2007 for 2 years
Djibouti J28OO soon for at least a year
Uganda 5X4X Now to June 2009
Glorioso FR/G hopefully sometime in 2009
Crozet FT5WO Dec15, 2008 to November 2009
Central African Republic TL0A, after Jan 1, 2009
Solomon Islands H44MS Jan 10 to April 28, 2009
Macedonia Z30MCWG Feb 20 to Dec 31, 2009.
Nigeria 5N/KT3Q March 5 to July 24, 2009
Guadeloupe FG/F4EBT March 22 to April 11, 2009
Lord Howe Island, VK9LA Mar 23 to April 3, 2009
Christmas Island VK9XGI April 4 to April 11, 2009
Mozambique C91FC April 9 to April 13, 2009
Guantanamo Bay KG4CN Apr 10 to April 20, 2009
Western Sahara S04R April 12 to April 17, 2009
Bahamas C6 April 17 to April 23, 2009
Cayman Islands ZF2ZB April 21 to May 6, 2009
Ogasawara JD1 April 29 to May 12, 2009
Bahamas C6AMS June 1 to June 14, 2009
Fernando de Noronha PY0F June 10 to 15, 2009
Sao Tome S9LX June 13 to June 27, 2009
Curacao PJ2/PA1FJ September 24 to Oct 7, 2009
Midway K4M October 5 to October 19, 2009
Sable Island CY0 October 7 to October 14, 2009
Spratly Islands sometime in 2009
Tokelau ZK3 April 2010
Central Kirabati T31 End of September 2010
Conway Reef 3D2C End of September 2011

Watch the DX Bulletins for up to date information. As the time for the operation is at hand, watch the DX Summit for listings. There are a number of state QSO parties each year. Check the contest corral in QST or the ARRL web page. State QSO parties are a good place to collect states for your Worked All States award. ARRL Log Book of the World now supports the Worked All States Award.

Good luck, tune the dial, and listen

Thanks to Richard Pack, KE6SHL, for providing many of the photographs included in SKIP. Ed.

AMATEUR OF THE MONTH, Paul Sullivan W6VPS , by Joe Capell, W0PJD

Another mainstay of ham radio in the central valley area is our ham of the month, Paul Sullivan, W6VPS. Paul tells me that his family moved around a lot when we was a small child, but settled for at least a while in Philadelphia where we went to high school and some college. He has been in Fresno for 47 years arriving here in 1962. His first Fresno home was on old Huntington Boulevard. His interest in his hobby, though, goes back to his father, first licensed as 9BWD in 1926 in Saint Louis, Mo. He learned SWLing on a Hallicrafters SX25 from his dad. Paul didn't get licensed for a while, but first took the plunge in 1969 as WA6CTR. His "Elmer" was Miles Humphrey, K6KDM and the actual first examiner for him was Dr. Bill Eichhorn, WB6KZO. He started on two meters with a kit-built Knight transceiver later converted to FM. He has worked in commercial broadcasting for twenty years and then as a County Sheriff corrections officer for another twenty, "retiring" in September, 2003. He is hardly retired. He teaches at the corrections academy program at the San Joaquin Valley College four nights a week for the last five years. He has been a long time member of the FARC and on the board of directors in the early '80's. He has been an active participant in many club Field Day efforts. His favorite aspect of ham radio has included radio teletype working with the old military models 19 and 28. Those are classics. You can hear him on the low bands sideband, chasing stateside and DX stations, glad that he finally has a good antenna set up.

FARC ENCOMM by Dan Pruitt AE6SX

We are a little early this month so we still have the March Meetings to report on but here is the summary.

March of Dimes event is April 18. Info is still sketchy however it will start 0730 where we will deploy as per instructions at that time. It will be smaller than last year and will finish as usual around 1300 hrs. The sooner we have a good list of volunteers, the better we can plan. So far I have 5 on my sign up list. Email me, please!

Skywarn is circulating their network security test so if you haven't done your annual upgrade then get in touch with Bruce, KD6DRU. Their frequency for the Skywarn Net is 146.880+ PL 100.3. This is Wednesday nights at 2000 hrs.

I guess the cat is out of the bag. It will be my privilege to serve as Section Manager of SJV come July 1, 2009. There is a whole list of people I owe my gratitude not the least is Chuck, W6DPD. He is creating the opening by retiring after 20 years as SM here in the Valley. I bring this up as there will of necessity, be a change in the ARES/RACES leadership and I hope you will support the new establishment as you have supported me. I hope the growth that has been evidenced will continue and I intend to be one of the supporters and retain my position as Asst Races Officer for a time.

Now on to the current Calender. It was decided at the last ARES/RACES meeting that we are going to do Field Day at the Citadel this year. We will not be in competition with W6TO as we will operate 2F, with a GOTA Station. Our goal is to operate as an Emergency Operations Center (EOC) for SATERN. In all of SJV section only Manteca and Bakersfield operated F stations during 2008 Field Day. We hope to make a big splash but we will concentrate on real situation operations. Focus will be made on the practice of handling traffic, practical disaster communications and first time use of the Citadel as an EOC. Capt. Dwaine Breazeale, KG6SYA and Capt. Kristin McConnell, KG6QYD are very enthusiastic, especially about the GOTA Station.

This months Emergency Medical Services (EMS) meeting, scheduled the next exercise for June. No particulars as yet but the focus will be pandemic in nature. This means it involves all the populace. In response I want to cover all the Hospitals. Those without equipment, we will use mobile or portable parking lot stations. I believe it is important to be involved as much as possible and exhibit a professional, varied and competent response. It seems to be the best time to make an impression.

In closing I want to say I was unable to attend the EmComm University, however I've gotten some feedback from it. The main take-away appears to be a program called "Outpost" for BBS Mailbox Packet Radio. I did some research on it, on the web (just google outpost ham radio"), and it focused on making the transition from email to packet mail seamless. All the controls were made to be the same. I would be interested to hear about it and a comparison to Narrow Band Emergency Message System (NBEMS).

Dennis Dura, K2DCD, ARRL's EmComm chief was a speaker at EmCommU via the Internet, and some other Hints and Kinks made the program worth the effort. They too had "First Time" problems, however I'm impressed with the efforts of David Coursey, N5FDL. He is the ARES EC of San Joaquin County.

Join us on the net at 1930 hours local, on Monday nights on 147.150+, PL 141.3. Or our Monthly meetings on the 4th Thursday of each Month at 1900 hrs. Come join us at the Salvation Army Citadel, 1854 N. Fulton St.and on the 3rd Friday of each month at Yosemite Falls Cafe on Blackstone, just North of Shaw ave, for EmComm and Coffee. Time is 0830 hours.
Check out the websites www.fresnoares.com/

or http://www.fresno-races.net/

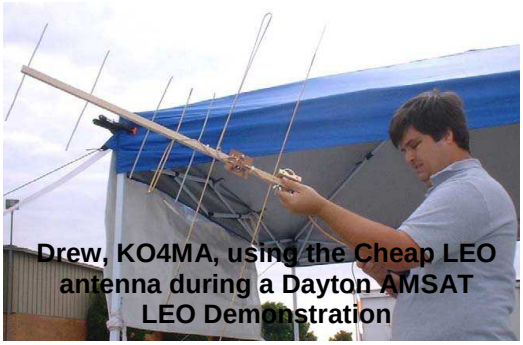
You can contact us on the website or me directly at ae6sx@fresnoares.com .73 TU ,.

Fresno Amateur Radio Club dues are due. Please renew now. While renewing your dues, ask a ham radio friend to join as well.

Simple & Cheap 144-440 Mhz. Satellite Antenna by Kent Britton WA5VJB

Hand held dual band antennas are popular for QSO's through many of the Low Earth Orbit (LEO) satellites. This article covers several 145 MHz antennas, a larger number of 435 MHz antennas, and how to combine them into one antenna.

Got a STRONG arm or plan to use it with a Tripod, then by all means the 4 Element 145 MHz and the 8 element 435 MHz can be used together. Or there is the 2 element 145 and 5 element 435 MHz used in the AMSAT demonstrations. It's is only 32 inches long. Something much lighter for backpacking? How about using a 20 inch long 2 elements on 145 MHz and a 3 elements on 435 MHz. For the 'Arrow' Enthusiasts, this smaller 2 elements on 145 MHz and 3 elements on 435 MHz will actually out perform the standard 'Arrow'. *More on that in a bit.*



Drew, KO4MA, using the Cheap LEO antenna during a Dayton AMSAT LEO Demonstration

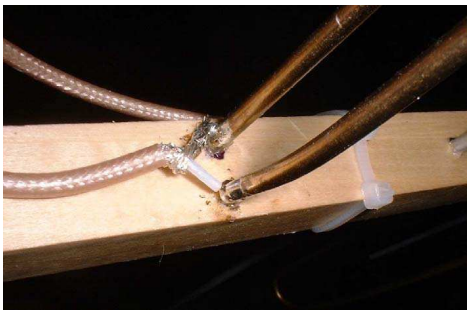
One popular commercial antenna mounts the elements 90 degrees to each other. This is a mechanical, not really an electrical, decision. On this antenna the elements can be mounted cross ways, but mounting them flat makes the antenna much easier to lay down in the back of the truck or store in the garage.
Construction: For the boom 5/8 x 5/8" or ¾ x ¾" wood works well. If you plan to mount the antenna outside for a long term, a coat of spar varnish, spray enamel, or some of that water proofing stuff you use on wood decks will add years to the life of the antenna.

For the elements I used 1/8" material. The 435 MHz reflector and directors were from a roll of Radio Shack Aluminum Ground Rod wire. RS Stock number 15-035. 40 feet will run you about 5 bucks and make a lot of antenna elements. But #10 bare Copper wire, Bronze Welding Rod, and Hobby tubing have all been used. If you want to use 3/16" diameter elements, cut them 0.2 inches shorter than the dimensions in the tables to compensate for the thicker material. The 2 Meter elements were all made from Bronze or Brass welding rod. I like to use something I can solder the coax to and the Welding Rod solders well

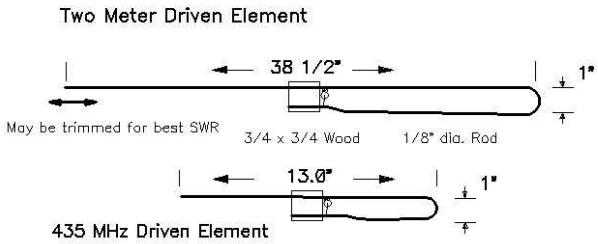
Element:
The Welding Rod is only 36" long. A section of 1/8" i.d. Copper or Brass hobby tubing makes a good splice. Just slip it on and solder them together. Save some of that hobby tubing. If you have a habit of "I trimmed the antenna twice, and it's still too short!", then you can solder a piece on the end of the driven element and start over. I usually hold the elements in place on the boom with a drop of super glue. But Silicon glue and even paint have been used.

These J driven elements usually bring several comments from people new to "Cheap Yagi's".The shield of the coax goes near the center of the top of the element. This is a voltage null anddirectly soldering the coax to the driven element has a lot of advantages.

The tip of the coax goes to the tip of the J. So you can think of this driven element as 3/4ths of a folded dipole or a gamamatch with no capacitor. In free space, the J driven element has about a 150 Ohm impedance. As other elements are added, they load down the impedance of the driven element. If the antenna has relatively wide element spacing, then a direct match to 75 Ohms is possible.



Bring in the reflector and directors a little closer, then you have a direct match to 50 Ohms. So the impedance matching is the length and spacing of the other elements. Just build the antenna to the dimensions, solder on the coax, and start talking. No tuning required.



Simple & Cheap 144-440 Mhz. Satellite Antenna by Kent Britton WA5VJB (continued)

Tuning it up:

For the ultimate in performance connect a coax to just the 2 Meter portion and trim the free end of the J for best SWR for your favorite LEO uplink frequency.

Element Dimension -- 145 MHz Version				
	Ref	DE	D1	D2
2 Element				
Length	40.5″	**		
Spacing	0.0	7.0″		
3 Element				
Length	40.4″	**	36.5″	
Spacing	0.0″	8.5″	19.75	
4 Element				
Length	40.5″	**	37″	32.5″
Spacing	0.0″	8.5″	19″	40″

Element Dimension – 435 MHz Version								
	Ref	DE	D1	D2	D3	D4	D5	D6
3 Element								
Length	13.5″	**	12.2″					
Spacing	0.0″	2.5″	5.5″					
4 Element								
Length	13.5″	**	12.4″	11.5″				
Spacing	0.0″	2.5″	5.5″	11.5″				
5 Element								
Length	13.5″	**	12.5″	12.25″	11.75″			
Spacing	0.0″	2.5″	5.25″	12.0″	18.5″			
6 Element								
Length	13.5″	**	12.4″	12.0″	12.0″	11.0″		
Spacing	0.0″	2.5″	5.5″	11.25″	17.5″	24.0″		
8 Element								
Length	13.5″	**	12.4″	12.0″	12.0″	12.0″	12.0″	11.1″
Spacing	0.0″	2.5″	5.5″	11.25″	17.5″	24.0″	30.5″	37.75″

Then connect the coax to just the 435 MHz portion and again trim the free end of the element for best SWR. Now install the band splitter *(described in last month's SKIP. W6TE)* and this time tweak the coil spacing for best SWR at your spot frequencies.

You have now gotten the last 0.1 dB out of the antenna. For everyone else, just build the antenna to the dimensions and the SWR will be under 2 to 1 on both frequencies. Just build it and talk. The design is pretty Idiot Resistant.

This antenna can be built in 30 combinations of elements and polarization's. One should fit yourneed. The 2 elements on 145 and 5 elements on 435 MHz version has done great in the field tests. Now you can have fun with the LEO's for less than $10.

Ref is the Reflector, DE is the Driven Element, and all spacings are measured from the Reflector element.

My first question was why the 'Arrow' has performed so poorly in the AMSAT demos. Arrows have been on the antenna range at several conferences showing 435 MHz gains as low a 4 dBi. I would like to thank SAM, G4DDK for sending me the detailed dimensions of his Arrow antenna. I built a NEC model of the 435 MHz portion, and the model showed the forward gain peak to be near 457 MHz, not 435 MHz.

When you change the diameter of an element, you also have to change the length of that element to compensate for the new diameter. Two common ways to mount elements are to make the antenna element part of the boom, or using insulators, electrically isolate the element from the boom. When you make the element part of the boom, you radically change the diameter of the element in that area. Now the length of the element must be changed to allow for this new diameter. This is called the "Boom Correction Factor". I try to avoid correction factors best I can by using thin wood booms with my Cheap Yagi's.

I don't know the history of the development of the Arrow antenna, but the model suggests that the dimensions for a 435 MHz Yagi using insulated elements were used for Arrow, but mechanically the elements were made electrically part of boom. It appears no Boom Correction Factor was used.*(The duplexer (band-splitter) was described in the March SKIP. W6TE)*

NEWS AND GENERAL INTEREST

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines Remember that the crew operates on UTC time. Also, all of the time line is NOT translated from Russian and posted.

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Have you ever wanted to listen in on school contacts and the ISS? The contact will be a telebridge between stations NA1SS and WH6PN. The contact should be audible over Hawaii. Interested parties are invited to listen in on the 145.80 MHz downlink. Audio from the contact should also be available via the AMSAT conference on EchoLink and via the 9010 Discovery reflector on IRLP. The participants are expected to conduct the conversation in English.

———————

6M and 2M dxpedition to the south Cook Islands - E51

Lance W7GJ and Bob ZL1RS will meet in Rarotonga in late March to operate on 6 and
2 meters from BG08dr. Activity should commence on 26 March and run until 04 April on both bands, with an additional 1 or 2 days of activity on 2M possible until 06 April.

The holiday house location has an excellent takeoff over Muri lagoon to our moonrise so we look forward to some interesting ground gain effects! Unfortunately there will be some obstruction at moonset due to the hills in that direction.

6M callsign E51SIX, and QSLs for 6M only go to W7GJ 2M callsign E51EME, and QSLs for 2M only go to ZL1RS. Lance has the E51SIX 6M operation information on his website:
http://www.bigskyspaces.com/w7gj/E51SIX.htm

Bob has the E51EME 2M operation information on his website:
http://www.qsl.net/zl1rs/ (follow the obvious link)

Good luck ... and remember to S-P-R-E-A-D O-U-T when calling :-)
73, Bob ZL1RS and Lance W7GJ

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NASA launches ISS webcam streaming video

Internet visitors can now see the Earth as never before - ***live*** from the International Space Station (ISS) via streaming video, seven days a week.

The streaming video views of Earth and the exterior structure of the station are from cameras mounted outside the laboratory complex, orbiting Earth at 17,500 miles an hour at an altitude of 220 miles. The video is transmitted to the ground - and Web viewers - primarily while the astronauts aboard the complex are asleep, usually from about 1 p.m. to 1 a.m. CST. When live feeds are not available, a map showing the current location and path of the station will be streamed from NASA's Mission Control in Houston.

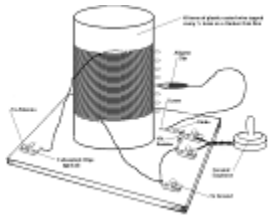
The streaming video will include audio of communications between Mission Control and the astronauts, when available. When the space shuttle is docked to the station, the stream will include video and audio of those activities.

To view the streaming station video and for more information about the station and its crew, visit:
http://www.nasa.gov/station

An Elmer Session before the April 10th meeting, 6:30 PM.

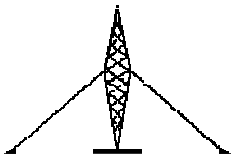
GOT QUESTIONS?

Bring them to the Elmer Session. There will be Hams there set up to help with the Hobby! Want to use "Ladder Line" instead of coax, someone can explain the differences.



This a great time to casually mull over all those little puzzles that develop as you grow in Ham radio. Everything from SWR Bridges, current meters, test equipment and techniques. New equipment is always a mystery. Find out how to change your modulation to suite yourself. Find other people working in the same modes as you do. Catch up on some new contest rules.

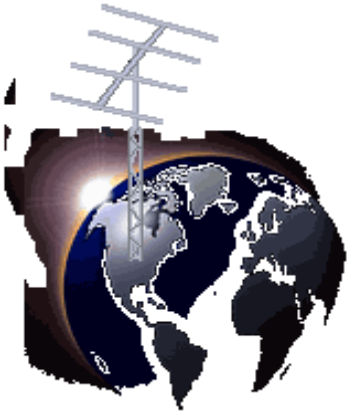
What someone else needs know, you can help! Volunteer as an Elmer to enlighten those in need.



Best ways of learning Morse Code? Fox Hunts? Best practices for RF grounding. Simple advice on transmission lines, Antennas, station set ups or just arranging a station for best wire dressing. You might even have knowledge you have acquired that you did not know you had!

Come out early and visit with the Elmers or be an Elmer or both. 6:30 PM, 30 minutes before the regular meeting. Maybe someone will have the story on who and where "Elmer" was first used, hi hi.

See you all there, de Dan Pruitt, AE6SX,



"Her own mother lived the latter years of her life in the horrible suspicion that electricity was dripping invisibly all over the house." — *James Thurber (1894—1961), US humorist.*

Turlock Amateur Radio Club
Spring Auction

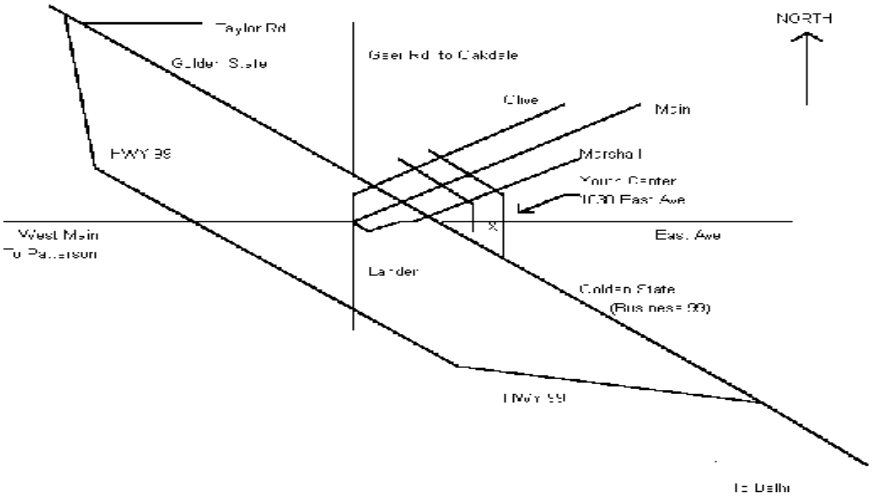
"Four" Different Estates

Including the remains of a Two-Way business, lots of NEW (in the box) and used commercial radios. Remember one man's Junk is another's Treasure. This promises to be an exciting and fun event that you don't want to miss.

Turlock Youth Center, 1030 East Avenue, Turlock California
Saturday, May 2nd. Doors open at 8:00 am Auction begins at 9:00 am.

Kurt's famous B&G for early arrivals and BBQ sandwiches for lunch.

Check www.w6bxn.org for pending posting of the major estate items. Contact Grady at gradyw@elite.net, for additional info. Be there for a great day of fun.



2009 AMATEUR RADIO EXAMS

UNLICENSED THRU EXTRA CLASS
Sponsored By the FRESNO Volunteer Exam (VE) TEAM
And The
FRESNO AMATEUR RADIO CLUB, INC.
AMERICAN RADIO RELAY LEAGUE

Exams for all Amateur license classes will be conducted on the following dates in Fresno California. All exams are given on Saturday and begin at 9:30 AM.

May 16 **August 15** **November 21**

LOCATION: ....Bonaventure Mobile Home Park, 1724 Minnewawa Ave Clovis CA 93612-2545. Exams are held in the community room.
DIRECTIONS: From Highway 99 South of Fresno, exit Clovis Ave. Go north to Shaw and turn left on Shaw to Minnewawa. Turn right on Minnewawa and then left to the Mobile Home Park.. From Highway 41 or Highway 99 North of Fresno, take Shaw Ave. exit, turn right (East), to Minnewawa Ave and turn left. Then turn left into the Mobile Home Park.

Theory exams are multiple choice. Priority mail is used to send paperwork to ARRL, who sends data to FCC via electronic mail, thus assuring the fastest possible service on new licenses, which typically arrive in about two weeks.

BRING. Two ID's, one with photo. Taxpayer ID Number (Social Security Number), or FCC Registration Number (preferred). Fee $15.00 per test session. Bring Exact change. **Original** and **copy** of **Amateur License** and CSCE's if upgrading. Talk in on 146.94 repeater.

Walk in's only, no pre-registration.

More Info?? Contact Charles, (559) 431-2038

F.A.R.C. DUES ARE $15.00 PER YEAR FOR FULL MEMBERSHIP. Additional family members in the same household are $5.00 each per year. Make checks payable to F.A.R.C. and send to:
P.O. Box 5912, Fresno, Ca. 93755-5912.

2009 Fresno Amateur Radio Club Application

Date _____

Name _____ Callsign _____

Address _____ State ____ Zip _____

Home Phone _____ Business Phone _____

Occupation _____ Birth Date _____

Spouses Name _____ Anniversary Date _____

License Class _____ First Year Licensed _____

I am interested in serving on one of the committees. Please contact me with more details. _____

FARC – PO BOX 5912, FRESNO, CA 93755-5912

Upcoming 2009 Fresno Amateur Radio Club Activities and Events

April 7th Board Meeting

April 10th Club Meeting

FRESNO AMATEUR RADIO CLUB, INC.
P.O. Box 5912
Fresno, CA 93755-5912

Send To: