

# SHORT SKIP



VOL 5, ISSUE IV

APRIL 1980

# POT LUCK — — DINNER

APRIL 11<sup>th</sup> - 7 PM

at the

Bellevue Elementary School

CLUB OFFICERS

President: Don Bremer, KB6LO  
546-7047

Vice President: Jim Tomer, W6CYM  
838-9464

Secty-Tres: Jeannie French, WB6RPQ  
829-2069

Board Members: Len Geraldi, K6ANP  
795-4335

George Shedore, N6AUP  
528-0201

Ron Pipes, WB6NBR  
545-3813

Short Skip Staff: Lyle Meek, N6BLN  
829-2032

Hank Davis, W6DTV  
823-7885

Pam Meek - Typist

Club Call: W6LFJ

Club Meeting: First Wednesday of each  
month, 8 P.M. Red Cross  
Building

DUES


1980 Dues are now due. Please mail to  
Club Secretary. PO Box 116, Santa Rosa,  
CA

NOTICE - RTTY NET

RTTY NETWORK, MONDAY'S AT 8 P.M.  
146.595 MC SIMPLEX, 170 SHIFT  
60 WPM - ALL WELCOME

SHORT SKIP NET

Each Sunday at 0330 UTC on 28.750.  
Informal; Primarily intended to collect  
information for the club news letter; DX  
info; Swap Shop etc. JOIN US...

 **PARK → GAP**

DON KB6LO

Amateur Radio provides many of us with many enjoyable hours of pleasure. To some it is the thrill of DX, to others it is the technical part of design and construction, to still others, it is just plain ragchewing with friends. That is the way it has always been. But with our changing society, Amateur Radio is in greater jeopardy than ever before, thanks to antenna regulations, TVI, commercial frequency usage, etc. What can we do to protect our interest?

Our club can do something very worthwhile, and we do just that every time we provide a public service. The problem is we fail to get recognition for our efforts. That brings me to the point of this column. PUBLIC RELATIONS!!!!!!!!!!!!!!

We are in desperate need of a Public relations person. We need someone that will assume responsibility to write and distribute info to the news media regarding our activities. This person should be able to cover our Club activities as soon as they take place, be up to date on what's happening in the club, and be willing to follow through without needing to be reminded. We have had several people attempt the job, but somehow, the results just were not there. Surely there must be one of our members that can fill this very important position. We have the ARRL P.R. package available if you are willing to give it a try. You can help our club and your fellow hams a great deal and will surely get a great deal of satisfaction from seeing your news stories in print. You may even qualify for the Pulitzer Prize. How about it? We need HELP.

## FCC Versus Repeater Groups

Following are excerpts from Grizzly Peak ARC Newsletter, January edition:

### ► FCC SAN FRANCISCO FIELD OFFICE PLATITUDES RELATIVE TO BAD LANGUAGE AND JAMMING OF AMATEUR RADIO REPEATER STATION OPERATIONS:

On Friday, January 25, 1980, the Engineer-in-Charge of the Federal Communications Commission (FCC) San Francisco Field Office, S. (Marti) Marti-Volkoff appeared as guest speaker at the regular meeting of the Grizzly Peak VHF Amateur Radio Club, (GPVHFARC).

Some of the points made by Marti as absorbed by this editor were as follows:

- (1) The term "malicious interference" so commonly used with regard to jammer type interference problems cannot be legally defined nor proven.
- (2) The Amateur Radio Service is at the absolute bottom of the FCC priority list when it comes to field investigation of interference complaints, that is to say, amateurs are in effect on their own when someone or group of persons deliberately interfere with an amateur operation such as a repeater station or net operation such as WCARS.
- (3) The FCC San Francisco Field Office has 3 filed mobile units to cover Northern California and Nevada. Not much when you consider the magnitude of the problem.
- (4) The FCC cannot and will not condone, and moreover cautions all concerned against, vigilante type action by an individual or groups of amateurs attempting to eliminate bad language or deliberate interference with a repeater operation such as the WB6AAE/HPT machine.
- (5) A repeater group is responsible for anything emanation over the air via the repeater, for example, bad language used by a non-identifying station, and can be (and apparently will be) cited by the FCC if the repeater is not removed from the air in order to prevent continuing re-broadcast of the violating station's language.

Marti further outlined the two types of enforcement action available to the FCC (1) administrative and (2) criminal. In the former, the FCC Field Office sends all information available regarding violations back to Washington. If deemed serious enough, the FCC issues a notice of violation to which a licensee must respond. Action by the FCC to suspend or revoke a license can take 1-2 years or more what with hearings, etc. In the case of a criminal action, investigation involves the FBI and legal action through the courts by the U.S. Attorney. Both avenues are time consuming and moreover, impotent where only individuals, small groups and relatively minor infractions (in the eyes of the federal government) are concerned. The impotent applicability of enforcement action by the FCC emphasizes the serious need for revamping of the still current Federal Communications Act of 1934.

The message from Marti on Friday evening, Jan. 25th, in summation was loud and clear that the GPVHFARC, or for that matter any other repeater group, should not expect meaningful assistance or support from the FCC San Francisco Field Office in cleaning up and reducing the last 6-9 months of deliberate organized jamming activity and bad language to which the WB6AAE system has been subjected.

The FCC gives first priority to investigation of interference complaints involving public safety such as aircraft/aircraft control tower channels followed by government services; commercial communications services involving many users and investment of large sums of money; public broadcast and television channel reception by large groups such as an apartment house complex served by a master TV antenna system (particularly if backed by a petition signed by 200 residents); and last and not least, the amateur radio service such as the WCARS and the GPVHFARC repeater problems. Interference complaints backed by congressional member inquiry and followings are more apt to receive meaningful attention from the FCC and FCC Field Offices than those that do not.

# A Guide to Propagation and

A look at ways to make the most of your DX hunting time in the shack  
by Thomas R. Sundstrom

**WHAT'S THE BAND LIKE?** A knowledge of propagation is useful to the SWL and the radio amateur in hunting that elusive DX station. In a period of high solar activity—and 1980 is the peak in the 11-year sunspot cycle—band conditions can become quite variable. With a solar disruption on the sun's surface, blackouts of communication links on earth can disrupt radio worldwide.

**The Old Method.** The long-range forecasts found in magazines, DX bulletins, and newsletters are estimates at best. With some variations, most are based upon projecting current activity against a 27-day solar cycle. For example, a solar flare that disrupts communications today will no doubt have some recurring effects in 27 days from now as the sun completes one revolution.

Long range forecasts are useful to do some long range planning, but current information is better. The National Bureau of Standards station,

WWV, broadcasts propagation data at 18 minutes past each hour; the information is updated every six hours at 0000, 0600, 1200, and 1800 GMT.

The first part of the WWV message contains a solar flux number (which is correlated to the sunspot number and the maximum useable frequency) and an "A" index (a daily measure of geomagnetic activity); these daily figures are changed at 1800 GMT. The "K" index is changed every six hours and is mathematically related to the "A" index. By tracking the daily flux and "A" over days and months, a relatively clear picture of the cyclical variations on a solar cycle can be seen; try graphing the data. A comparison of the latest "K" with a previous "K" or yesterday's "A" can tell you which way conditions are moving. (See the table.)

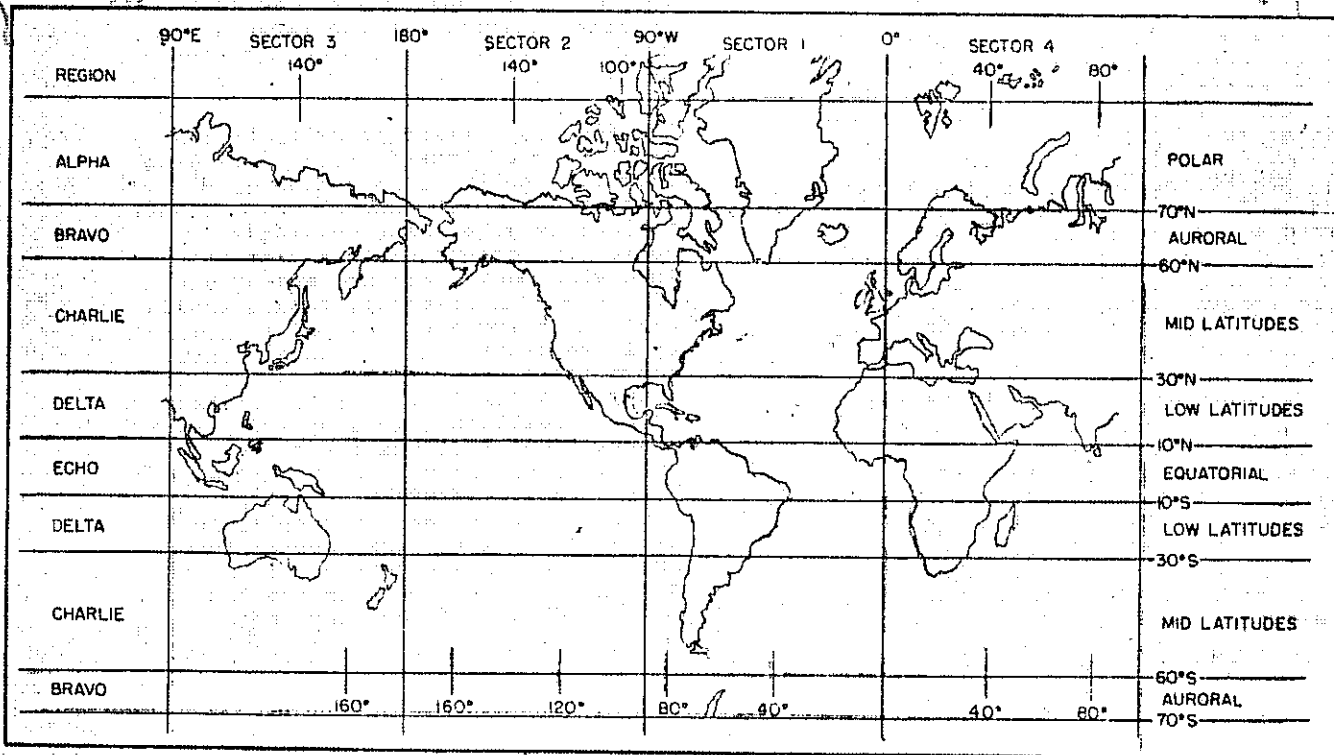
Ideally, a high solar flux number (to raise the MUF) and a low geomagnetic activity number (to minimize signal

path absorption) should produce the best long-haul signal propagation on the higher bands.

**The New Method.** There is now a second propagation bulletin on the air. This one is aired by the United States Air Force and, like WWV, information is broadcast 24 hours a day, 7 days a week. Unlike WWV, however, the bulletin is aired twice an hour.

The USAF calls the broadcasts "Beer Can." The information is in coded form, and depends upon prior knowledge of the USAF operator to know what the predicted maximum useable frequency and optimum working frequency (90% of the MUF) were through previously supplied 30-day forecasts.

The "Beer Can" broadcasts occur at 15 and 45 minutes past the hour on 4590, 7540, and 13993 kHz on upper sideband (USB). The content of the bulletin is revised at 0000, 0600, 1200,



This mercator world projection shows the regions and sectors into which the Air Force has divided the world for purposes of the propagation forecasts. The phonetic sectors read downwards on the outside margins, the numerical regions read across the top.

# Band Condition Reports

TABLE OF "A" AND "K" INDICES		
A	K	Geomagnetic activity classification
0	0	Quiet
3	1	Quiet
7	2	Quiet
15	3	Unsettled
27	4	Active
48	5	Minor geomagnetic storm
80	6	Major geomagnetic storm
140	7	Major geomagnetic storm
240	8	Major geomagnetic storm
400	9	Major geomagnetic storm

The WWV propagation broadcasts include both the A and K indices for calculations of the relative levels of geomagnetic activity.

and 1800 Zulu. Station AGA3HQ (Scott AFB, IL) broadcasts first, followed a minute later by station AIR (Bolling AFB, MD).

As the general public doesn't have access to the USAF long range propagation forecasts, we can substitute the WWV data recorded over a period of days and months and draw approximations from the flux data.

"Beer-Can" broadcasts are divided into three parts: the maximum useable frequency, solar anomalies, and other phenomena. See the table for a full breakdown on their contents.

Part I of the broadcast will always be aired. Either *regions* (defined by horizontal latitudes) or *sectors* (defined by horizontal latitudes and vertical longitudes) may be referenced. The grid system and boundaries are illustrated by the map in Fig. 1.

Parts II and III will only be aired on an *exception basis*; either regions or sectors may be referenced.

An actual broadcast at 2015 GMT:  
 BEER CAN BEER CAN THIS IS AGA3HQ  
 ALPHA GOLF ALPHA THREE HOTEL  
 QUEBEC  
 DO NOT ANSWER DO NOT ANSWER  
 ONE SIX ONE EIGHT ZERO ZERO  
 ZULU BREAK BREAK  
 BRAVO THREE TANGO  
 QUEBEC ALPHA BRAVO ONE EIGHT  
 ROMEO ALPHA BRAVO ONE EIGHT  
 BREAK AGA3HQ OUT

**Cracking the Code.** Let's decode the message using Fig. 1 and the table. The message was prepared on June 16

DECODING TABLE FOR "BEER CAN" MESSAGES	
<b>PART I THE MAXIMUM USEABLE FREQUENCY VALUE CODE</b>	
Sierra	Path MUFs Normal
Tango	Path MUFs High to 25%
Uniform	Path MUFs High to 50%
Victor	Path MUFs High to 75%
Whiskey	Path MUFs Low to 10%
X-ray	Path MUFs Low to 25%
Yankee	Path MUFs Low to 50%
Zulu	Radio Blackout
<b>PART II SOLAR ANOMALY STATUS CHART</b> <i>Part II message</i>	
Hotel	Probable significant SID (sudden ionospheric disturbance) of up to 30 minutes duration in sector _____ starting _____ hours Zulu time.
India	Probable significant SID of up to 1 hour duration in sector _____ starting _____ hours Zulu time.
Juliett	Probable ionospheric storm/PCA (polar cap absorption) of under six hours duration in sector _____ starting _____ hours Zulu time.
Kilo	Probable significant ionospheric storm/PCA of over six hours duration in sector _____ starting _____ hours Zulu time.
<b>PART III OTHER PHENOMENA CHART</b> <i>Part III message</i>	
Oscar	Moderate intensity Sporadic E in sector _____ starting about _____ hours Zulu time.
Papa	Blanking Sporadic E in sector _____ starting about _____ hours Zulu time.
Quebec	Significant radio noise in sector _____ starting about _____ hours Zulu time.
Romeo	Significant fading occurring in sector _____ starting about _____ hours Zulu time.

This is the table used for decoding the phonetic symbols used in the Air Force's Beer Can propagation broadcasts. Each part has its own phonetic/code alphabet characters.

(ONE SIX) at 1800 GMT (ONE EIGHT ZERO ZERO ZULU); note that the month is not given.

The signal path with a reflection point in the auroral zone over Siberia will handle frequencies up to 25 percent greater than the forecasted MUF; the rest of the world is "normal." The two part III messages indicate radio noise and signal fading worldwide (if just a sector or two were involved, a number of one, two, three, or four would have followed ALPHA or BRAVO) in the polar and auroral zones, commencing at 1800 GMT. Note that the last two numbers in the part II and III messages refer to the GMT hour.

This data, coupled with a solar flux that had been dropping for a couple of days (down to 161) and an "A" index of 18, would indicate no polar path signals and marginal and noisy signals from the middle and low latitudes.

Other examples to consider. If there is a part II message of HOTEL or INDIA, one would look for a JULIETT

or KILO message in the next day or two. Coupled with that, VHF DXers of either the TV channels, the public service bands, or the 50 MHz amateur band, should be on the lookout for an OSCAR or PAPA message in sector CHARLIE ONE or CHARLIE TWO (for the United States and Canada).

A part II message of KILO CHARLIE ONE TWO THREE would decode to a probable ionospheric storm of more than 6 hours duration beginning at 2300 GMT in the sector over the east coast of the United States, the Atlantic, and extreme western Europe. That would be a good time for U.S. amateurs to start looking for DX out of South America, in a direction unaffected by the storm.

In conclusion, the "Beer Can" broadcasts can be very useful in short-run forecasting for the active DXer. The WWV data and the "Beer Can" data provide an instant picture of band conditions. Take a listen; it's a more efficient use of time than tuning randomly around the bands.

# Swap Sale

For Sale: Best Offer. Wilson 1402 2 Mtr. FM Hand Held. Ni Cad. Ext. Spk. Mike. 52 and 94 Simplex. 13-73, 10-70, 18-78, Duplex. W6DZM 545-2241

For Sale:  
Swap: See KB6LO for Surplus Parts and Equipment. 10 and 6 Mtr. Fm. 546-7047

For Sale: Heath Monitor Scope. SB 610, \$85.00. W6J0X 542-0348

Wanted: Your used equipment for listing in this column. Call Hank Davis 823-7885

For Sale: VTVM EICO \$40.00- Scope EICO DC to 4.5 Mc. Manual, \$100.00 W6DCR 823-7303

For Sale: Drake SPR4 With Call. Xtal-Mint Vinal Cover Manual. \$390.00 ---Heath SB 301 with Op AM Filter Xtal- SB600 Spk.-Vinal Cover-Manual- \$190.00 N1AL 527-0840

For Sale: Progress Line- Head, Cable, and Info. Will tune to 6 Mtr. FM. \$25.00 AE6H 527-7955

For Sale: Henry K2000 RF Amp. Mint 220/110 Primary. Phone K6UKB 539 1709 Mornings

## Estate Sale:

See WB6NBR 545-3813 For Information. Heath HM15 SWR Bridge, \$20.00, HD15 Phone Patch \$20.00, Home Brew Antenna Tuner \$25.00, Regulated 12V-3 Amp. Pwr. Sup. \$20.00, Field Strength Meter-Archer \$5.00, Mobile Ant, and other items.

For Sale: HW202- 10 Watt 2 Mtr. FM, Few Xtals, \$125.00 See Ron WB6NBR 545-3813

For Sale: Johnson Thunderbolt HF Amp. Cont. Tune 80 thru. 10 Mtrs. 50-600 ohms- Parallel 4-400- Untuned or tuned input. Builtin pwr. Sup. \$200.00 Johnson Navigator- 160 thru 10, CW Transmitter, 6146 Final. Xtal or VFO. \$50.00 with Thunderbolt or any better offer singly. WB6TMY-Tracy Phone 584-8726 between 12:30 and 2PM.

FREE: Mercury Vapor Rectifier tubes, 3 ea. New #872A. /Same address as above.

For Sale: IC 202 Side Band. Has Satellite Xtal. \$135.00  
1/2 KW 2 Mtr. Amp. Self contained. \$300.00  
Gas powered BUG fogger- Good for use in gardens.  
\$25.00- W6RRD- W6DTV at 823-7885 will route  
calls for above.

For Sale: One set of coils for National HRO 50T, Home  
Brew tube type RTTY Demodulator. Assorted  
Tubes, 4-125 A and 5894, (new). QST 1948 to  
1975. GE VHF FM Transceiver Model 33N .  
Dave, WB6TBT, 763-5913

Wanted: 6 N 2 VFO, 2 Mtr. Amp. 50 to 100 Watts. Speed  
Key, Yoke for color TV, part #95-2501.  
Dave, WB6TBT, 763-5913

Have and  
Need: Logic (TTL) designed for surplus Motorola  
surplus 2 Mtr. rigs that use 6 plus Mhz for Tx  
and 5 Mhz plus for Rx. Covers 146/147Mhz.  
Need a layout man for printed circuits.  
Wanted - Good Scope Cash.  
WA6LUI-Earl 545-5860

For Sale: Swan 250- 6 Mtr. SSB \$200.00  
NCX-3 80-40-20 Transceiver SSB \$125.00  
WANTS-60 or 100 speed gears or 2 speed changer  
for Mod. 28 Teletype.  
WD6FSL, Neil, 892-1432

For Sale: GE-2 Channel 12V- 2 Mtr. Fm Transceiver  
Xtals for 13/73 and 22/82, \$50.00  
KB6LO 546-7047

For Sale  
or Trade: Teletype Model 28ASR. Would like to trade for good  
HF Transceiver for Novice. Call Don KB6LO

For Sale: Dentron Jr. Monitor. Antenna Tuner. 160 to 10 Mtr.  
300 Watt. Manual. \$50.00 W6DTV 823-7885

For Sale: Heath HX20 and Pwr. Sup. \$75.00. Heath Coman-  
che Receiver MR1 \$75.00. Heath Mohawk RX 1  
Receiver \$75.00. Panadaptor, 455 kc IF Tech.  
Manual. \$20.00. Hoppy Senior. K6MUP 823-2241

FOR SALE: Teletype model 33 ASR \$500/offer?  
" model 33 KSR \$400/ "  
Reconditioned and guaranteed. For info.,  
Contact WD6FEQ, John King, 584-5903

FOR SALE: Multi-2000 2 mtr CW, SSB, FM synthesized  
transceiver. \$300.00 incl desk mic  
and AC/DC operation. Or will trade for  
computer gear.  
Also want to buy or swap for freq. counter  
to 500 mhz or Bird Wattmeter.  
Call Alex, WD6CPU 415-754-5189 all day Sat.  
& Sunday till 4:00 p.m. or write p.o. Box  
1462. Antioch, CA, 94509

For Sale: Complete Station - FT101EE Tr sceiver Phone Patch and Boom Mike. Console. Call George, Evenings 528-0201, N6AUP

For Sale: SWR-WATT Meter - \$25.00. Call Steve, 546-8860, KA6EFK

## SWAP MEET

The Eighth Annual Sacramento Valley Amateur Radio Ham Swap Meet will be held Sunday May 4th, 1980, 9:00AM to 3:00PM at the Machinists Hall, 3081 Sunrise Blvd, Rancho Cordova 1/3 mile south of Interstate 50. K6IS talk in frequencies 144.59/145.19. THIS IS A GREAT ONE FOR USED EQUIPMENT AND ALSO FOR NEW. DON'T MISS IT.

## ACCOMPLISHMENTS:

During the First Quarter of 1980 the following Amateurs of our Club achieved some form of upgrading and/or code proficiency:

JAN: K6ANP, Len, to ADVANCE with 20 WPM code credit

KB6LO, Don, 20 WPM code credit.

KA6GDB, Alan, 13 WPM code credit.

FEB: N6AUP, George, to ADVANCE

N6BLN, Lyle, to ADVANCE

WD6CKP, Hoppy, to ADVANCE

KA6DEI, Terry, 13WPM Code credit.

MAR: WA6ACX, Don, to ADVANCE

WD6DXW, Bill, to ADVANCE

KA6ISV, Rob, to GENERAL

KA6ILU, Don, to TECHNICAN

## ARRL CODE PROFICIENCY:

35 WPM - KA6EFK, Steve

15 WPM - KA6GDB, Alan

NOVICES: The list of new novices is endless and was not complete in time for this issue. We will list them ALL next month.

## CLUB APPLICATIONS

Club application blanks are included in this months issue of the SHORT SKIP. Every member is asked to complete this application and return it to the club secretary or bring it this the meeting THIS Wednesday, APRIL 2nd. ITS VERY IMPORTANT THIS APPLICATIONS BE COMPLETED BY ALL MEMBERS.

## DX CHASING DOS AND DON'Ts SEMINAR

On Wednesday April 16th the Club will hold another in a series of its operating and technical seminars. This month will be devoted to the art of DX Chasing. Several of our club members will discuss the DOS and DON'Ts and give you some of their personal techniques. DONT MISS THIS ONE.

## MARCH OF DIMES WALK-A-THON

Many of the local Amateurs in Sonoma County turned out to assist with this years MARCH of DIMES WALK. W6LFJ the club station was the NCS for these activities. Thanks to the effort and hard work on the part of WA7UVE, Scott, the communications portion went off with out a hitch. We also had an HF station set as an added display. Rob, KA6ISV worked very hard on this adventure. We'll list next month all the HAMS that took part in the event.



SONOMA COUNTY RADIO AMATEURS INC.  
Membership Application

DATE \_\_\_\_\_

NAME \_\_\_\_\_ CALL \_\_\_\_\_

ADDRESS RES \_\_\_\_\_ HOME PHONE \_\_\_\_\_

ADDRESS BUS \_\_\_\_\_ BUS PHONE \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

LICENSE CLASS \_\_\_\_\_ YEAR LICENSED \_\_\_\_\_ COUNTY \_\_\_\_\_

CHECK  BANDS/MODES YOU CAN OPERATE: (Live In)

	160	80	40	20	15	10	6	2	
CW									
FM									
RTTY									
SSB									
MOBILE									

CAN YOUR HOME STATION OPERATE WITHOUT COMMERCIAL POWER? ( ) YES ( ) NO

If YES, What Bands? \_\_\_\_\_

HAM RADIO INTEREST: HF ( ) VHF ( ) TECHNICAL ( ) PUBLIC SERVICE ( )  
RAGCHEWING ( ) RTTY ( ) QRP ( ) SSTV ( )

WOULD YOU BE WILLING TO SERVE IN ANY CLUB CAPACITY? \_\_\_\_\_

WOULD YOU BE INTERESTED IN INSTRUCTING AN AMATEUR RADIO CLASS?

YES ( ) NO ( ) //( ) NOVICE ( ) GENERAL ( ) ADVANCED ( ) EXTRA

OTHER CLUB OR GROUP AFFILIATION: ( ) MARS ( ) RACES ( ) ARES  
( ) OTHER \_\_\_\_\_

AMATEUR AWARDS: ( ) WAC ( ) WAS ( ) RCC ( ) DXCC ( ) OTHER \_\_\_\_\_

XYL's NAME \_\_\_\_\_ NAMES OF HARMONICS \_\_\_\_\_

ARE YOU A MEMBER OF ARRL? ( ) YES ( ) NO

SIGNATURE: \_\_\_\_\_

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to ensure the validity of the results.

3. The third part of the document describes the different types of data that are collected and how they are used to inform decision-making. It notes that a combination of quantitative and qualitative data is often used to provide a comprehensive view of the organization's performance.

4. The fourth part of the document discusses the challenges and limitations of data collection and analysis. It identifies common issues such as data quality, bias, and incomplete information, and offers strategies to mitigate these risks.

5. The fifth part of the document provides a summary of the key findings and conclusions of the study. It reiterates the importance of data-driven decision-making and the need for ongoing monitoring and evaluation of the organization's performance.

6. The sixth part of the document offers recommendations for future research and practice. It suggests that further exploration of advanced data analysis techniques and the integration of data with other organizational systems would be beneficial.

7. The seventh part of the document discusses the implications of the findings for the organization's strategy and operations. It suggests that the insights gained from the data analysis can be used to identify areas for improvement and to develop more effective business models.

8. The eighth part of the document provides a final summary and conclusion. It emphasizes that the data collected and analyzed in this study have provided valuable insights into the organization's performance and have identified key areas for future focus.

9. The ninth part of the document discusses the limitations of the study and the need for further research. It notes that while the data collected provides a snapshot of the organization's performance, it may not capture all aspects of its operations and that ongoing monitoring is essential.

10. The tenth part of the document provides a final summary and conclusion. It reiterates the importance of data-driven decision-making and the need for ongoing monitoring and evaluation of the organization's performance.



**W6LFJ**  
**SONOMA COUNTY RADIO AMATEURS**  
**BOX 116 SANTA ROSA CA 95402**

SUN.	MON.	TUES.	WED.	THURS.	FRI.	SAT.
		1 Passover	2 Club Meeting 8:00 PM Bring a guest	3 code practice 3590 KHZ	4 Good Friday	5
10 meter SHORT SKIP NET every Easter Sunday	6 RTTY NET 146.595 Mondays	7 NOVICE CLASS SEE KB6LO	8 F.C.C. TESTS	9 8:00pm W6QIE Nightly except	10 Help a NOVICE	11 12
Sunday 13 28.750 MHz 7:30pm. PST	14 NOVICE CLASS	15 NOVICE CLASS	16 worksh-p Night Subject: open	17 Monday	18	19 Joy-A-Thon. To be announced
20 DX CONVENTION	21 Novice Class	22 Novice Class	23 check into A net. 20:00pm 8:30 AM 13:00pm 10:30 AM 5:00pm 12:30 PM	24 Wednesdays	25 Send a Radiogram	26 CONVENTION
27 WIAW Qualifying Run	28 Listen For OSCAR-29.400 29.500	29 Novice Class Graduation	30 F.C.C. Written No Code 1:00 PM			

MARCH							MAY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1							1
2	3	4	5	6	7	8	4	5	6	7	8	9	10
9	10	11	12	13	14	15	11	12	13	14	15	16	17
16	17	18	19	20	21	22	18	19	20	21	22	23	24
23	24	25	26	27	28	29	25	26	27	28	29	30	31
30	31												



# April 1980

WD6 DPE  
Bob Ostrom  
3723 Argonne Ave.  
Santa Rosa, Ca. 95405



POSTAGE  
PAID  
300  
SANTA ROSA, CA 95405