

The Contest JUG



NEWSLETTER OF THE
NORTHERN CALIFORNIA CONTEST CLUB
34456 COLEVILLE PLACE
FREMONT CA 94546

AUGUST 1982
NUMBER 124

PRESIDENT: W6SZN

DIRECTORS: AA6G, N6KB, N6XI, W6XX

COMMITTEES: PROGRAM-N6AUV

VP/CC: KN6M

JUG Post P: K6RU

MEMBERSHIP-OPEN

FINANCE-N6AUV

SCTY/TREAS: K6ZM

JUG EDITOR: K6RU

AWARDS-KA6ING

WE WON!!!

NCCC WINS 1981 CQWW DX

FIRST WEST COAST EVER

PRES KIP SAYS

WE DID IT, FOLKS!

THE NCCC HAS PULLED OFF WHAT IS PROBABLY THE BIGGEST UPSET IN CONTESTING HISTORY BY CAPTURING FIRST PLACE IN THE CLUB COMPETITION FOR THE 1981 CQ WORLDWIDE DX COMPETITION. GARY'S ARTICLE STARTING ON THIS PAGE PROVIDES THE DETAILS. THE NARROW MARGIN OF VICTORY SHOULD MAKE IT CLEAR TO ALL THAT WHAT YOU DO AS AN INDIVIDUAL CAN (AND DID) MAKE THE DIFFERENCE BETWEEN WINNING AND LOSING. EACH CLUB MEMBER WHO PARTICIPATED LAST YEAR CAN CORRECTLY SAY THAT HE OR SHE WON IT FOR THE CLUB. I HOPE EVERYONE WILL KEEP THAT IN MIND THIS YEAR WHEN YOU ARE MAKING YOUR CONTEST PLANS. CONGRATULATIONS TO EACH OF US!

EVERY ONCE IN AWHILE AN OPPORTUNITY COMES ALONG TO WITNESS SOMETHING SO SPECTACULAR THAT YOU FORGET ALL ABOUT THE DAY-TO-DAY PROBLEMS OF TRYING TO MOVE THE BALL FORWARD A LITTLE. THOSE WHO ATTENDED LAST MONTH'S DINNER MEETING WERE PRESENTED WITH SUCH AN OPPOR-

(CONT)



GARY, CQWW MAESTRO SAYS

THIS NEWS OUGHT TO BRIGHTEN UP YOUR DAY.

THE NORTHERN CALIFORNIA CONTEST CLUB HAS INDEED WON THE CLUB COMPETITION FOR THE 1981 CQ WORLDWIDE DX COMPETITION.

ACCORDING TO BOB COX, K3EST, CO-CHAIRMAN OF THE 1981 CQ CONTEST, NCCC COMPILED A FINAL TOTAL OF JUST A SHADE OVER 160 MEGAPOINTS. SECOND PLACE WENT TO THE YANKEE CLIPPER CONTEST CLUB, WITH A SCORE OF JUST OVER 159 MILLION. BOB SAID THAT NCCC'S MARGIN OF VICTORY OVER YCCC WAS LESS THAN A MILLION POINTS. THIRD PLACE GOES TO THE FRANKFORD RADIO CLUB, THE 1980 WINNER, WITH 155 MILLION.

BOB TOLD ME, IN A JULY 31ST TELEPHONE CONVERSATION, THAT THE RESULTS ARE FINAL AND WILL NOT CHANGE. HE SAID THAT HE HAS ADDED UP THE CLUB TOTALS TWICE TO INSURE ACCURACY, AND THAT THE GALLEY PROOF FOR THE WRITE-UP WHICH PROCLAIMS OUR VICTORY HAVE ALREADY BEEN COMPLETED. BOB ADDED THAT NCCC WILL RECEIVE TWO TROPHIES FOR THE '81 WORLDWIDE: ONE FOR WINNING THE

(CONT)

COMING EVENTSAUGUST MEETING PROGRAM

Russ Bentson, K6KLY - 4GHZ DX'ING - SATELLITE TV EARTH STATION - LIVE DEMONSTRATION

Aug. 23: NCCC MEETING, CWA HALL, HAYWARD
7:30 PM.

Aug. 28-29: JARL ALL ASIAN DX CONTEST, CW
(SEE MAY '82 JUG FOR RULES)

SEPT. 12: SUNNYVALE OLYMPICS-SEE THIS JUG

SEPT. 19: NORTH AMERICAN SPRINT-CW

SEPT. 26: NORTH AMERICAN SPRINT-PHONE
(SPRINTS ARE SAT. PM, PDT)

SEPT 27: NCCC MEETING

PRES KIP SAYS (CONT)

TUNITY WHEN ADAM MENTES, N6QR, PRESENT-ED HIS PHOTOGRAPHIC-MUSICAL EXTRA-VANZA ON THE FOUR SEASONS OF YOSEMITE. THE THOUSANDS OF HOURS OF WORK AND OBVIOUS TALENTS OF THE PRODUCERS (ADAM AND HIS WIFE IDA) RESULTED IN AN AUDIO-VISUAL EXPERIENCE THE LIKES OF WHICH YOU WILL NOT SEE ELSEWHERE. THANKS AGAIN, ADAM AND IDA, FOR A TRULY OUT-STANDING EVENING.

THE CALIFORNIA QSO PARTY IS LESS THAN TWO MONTHS AWAY. FOR THOSE WHO HAVE NOT PARTICIPATED IN THIS EVENT IN THE PAST, THE LEVEL OF ACTIVITY IN PRIOR YEARS HAS BEEN SO HIGH THAT MANY THINK OF THE CONTEST AS THE CALIFORNIA SWEEPSTAKES. ACTIVITY INCREASES EACH YEAR, AS DO THE SCORES, AND I WOULD HATE TO SEE THE TREND REVERSE ITSELF THIS YEAR. I URGE EACH OF YOU TO SET ASIDE ALL, OR AT LEAST PART OF SATURDAY AND SUNDAY, OCTOBER 2 - 3, 1982, AND PLAN TO BE ON FOR THE CONTEST. I WILL HAVE LOG FORMS AND SUMMARY SHEETS AT THE SEPTEMBER MEETING. IF YOU ARE PLANNING A COUNTY EXPEDITION, PLEASE DROP ME A NOTE OR GIVE ME A CALL AND LET ME KNOW WHERE YOU WILL BE.

THIS MONTH'S MEETING WILL FEATURE RUSS, K6KLY, ON SATELLITE TV SYSTEMS, INCLUDING A LIVE DEMONSTRATION. THERE MAY ALSO BE A WORD OR TWO ON THE CLUB'S CONTEST PLANS FOR THIS YEAR. I HOPE TO SEE YOU THERE.

73, KIP, W6SZN

NEXT BoD MEETING: SEPT. 2.

JUG DEADLINE: SEPT. 15.

GARY, CONTEST MAESTRO SAYS (CONT)

CLUB COMPETITION, AND ONE FOR BEING THE MOST IMPROVED CLUB (OUR CLUB TOTAL IN 1980 WAS 9 MEG!).

JOHN DORR, K1AR, LAST YEAR'S YANKEE CLIPPER PRESIDENT AND ORGANIZER OF THE YCCC '81 CQWW EFFORT, SAID HE THOUGHT IT WAS PRETTY GOOD FOR A WEST COAST CLUB TO WIN THE WORLDWIDE, ESPECIALLY IN ITS FIRST MAJOR TRY AT THE CONTEST. JOHN DID, HOWEVER, HAVE HIS OWN THOUGHT ON THE OUTCOME. "AS FAR AS I'M CONCERNED, IT'S A VIRTUAL TIE", HE SAID. (IS A 31-30 SCORE IN THE SUPERBOWL A "VIRTUAL" TIE? NO WAY-ED.).

IN SUM, CONGRATULATIONS ARE IN ORDER TO EVERYONE WHO PARTICIPATED IN LAST YEAR'S EFFORT. WITH THE MARGIN OF VICTORY ABOUT 0.5%, IT BECOMES VERY OBVIOUS THAT EVERY SCORE IS IMPORTANT, REGARDLESS OF SIZE. IF JUST ONE OF OUR SOLID SINGLE-OP ENTRANTS HAD DECIDED NOT TO PARTICIPATE IN LAST YEAR'S CQWW, OR FAILED TO SEND IN HIS/HER LOG, THEN THE NCCC WOULD HAVE LOST THE CONTEST.

I THINK WE KICKED US SOME BUTT!!

73, GARY, WA6VEF

1981 CQWW DX CHAIRMAN

CLASSIFIED

FOR SALE OR TRADE: DRAKE C-LINE, W/MS4-AC-4 SPEAKER-POWER SUPPLY, \$600 OR TRADE FOR AMPLIFIER OF COMPARABLE VALUE. GARY WA6VEF, 415)538-0520.

SUNNYVALE OLYMPICS

SUNDAY, SEPTEMBER 12 IS THE DAY FOR THE ANNUAL SUNNYVALE OLYMPICS HELD AT ORTEGA PARK (LOCATION SHOWN ON MAP BELOW). FOR THOSE OF YOU WHO HAVE NOT ATTENDED IN PAST YEARS, IT IS ONE OF THE LARGEST OF NCCC'S SOCIAL EVENTS. FACILITIES AT ORTEGA PARK INCLUDE RESERVED PICNIC TABLES, BARBEQUE PITS WITH GRILLS, SOFTBALL FIELDS, TENNIS COURTS, AND PLENTY OF GREEN GRASS FOR OTHER ACTIVITIES. THE CURRENT SCHEDULE OF ACTIVITIES IS LISTED BELOW.

GARY, WA6VEF HAS AGREED TO CO-ORDINATE THE TENNIS MATCHES SHOULD ENOUGH PEOPLE WANT TO PLAY.

COME A BIT EARLY TO RESERVE YOUR SPOT ON THE COURTS AS THEIR USE IS ON A FIRST COME-FIRST SERVE BASIS.

YOURS TRULY WILL BE HIDING THE TRANSMITTER FOR THE 2 METER HUNT. TENTATIVE FREQUENCY FOR THE FOX WILL BE 146.43, ALTERNATE 146.49 MHZ. BRING WHATEVER RIGS AND ANTENNAS YOU THINK YOU'LL NEED. THE TRANSMITTER WILL BE HIDDEN 1 TO 2 MILES FROM ORTEGA PARK. THE WINNER WILL BE DETERMINED BY A COMBINATION OF LEAST TIME AND LEAST DISTANCE TRAVELED TO FIND THE TRANSMITTER.

FOR ALL THOSE INTERESTED IN THE SOFTBALL GAME, PLEASE REMEMBER TO BRING YOUR BATS, BALLS AND MITTS. ANY MITTS FOR LEFT HANDED PEOPLE OUT THERE?

IF YOU HAVE A SPORT YOU'D LIKE TO PARTICIPATE IN, BRING THE EQUIPMENT FOR IT.

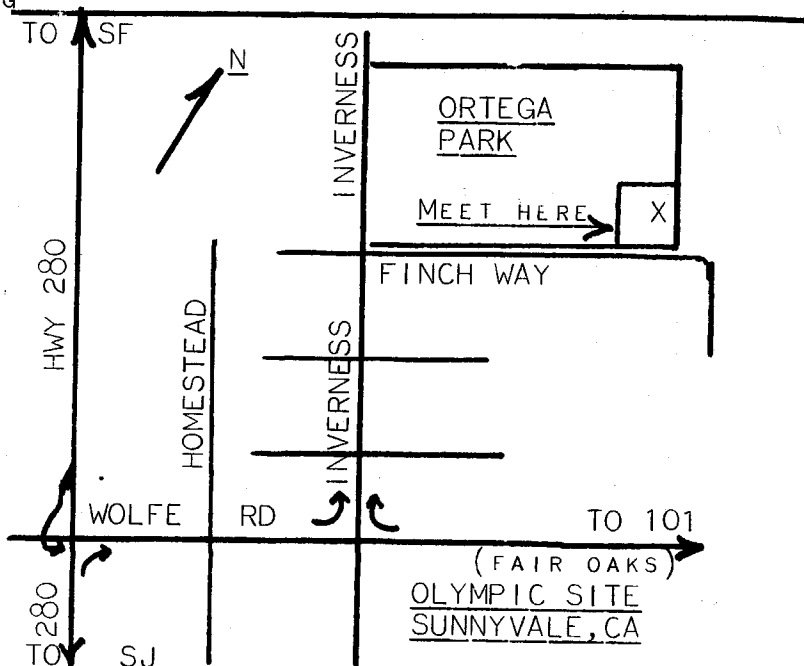
THIS YEARS SUNNYVALE OLYMPICS SHOULD BE BETTER THAN EVER, SO BRING THE FAMILY AND WE'LL SEE YOU THERE.

CHUCK, AA6G

SCHEDULE OF ACTIVITIES

- 11:00 - 2:00 - EATING AND SOCIALIZING
- 12:00 - 2:00 - TENNIS MATCHES
- 2:00 - 3:30 - 2M TRANSMITTER HUNT
- 4:00 - 6:00 - SOFTBALL GAME
- 12:00 - 6:00 - OTHER SPORTS, FRISBEE VOLLEYBALL, ARM WRESTLING, ETC.

HOW TO GET THERE



THE CONTEST JUG NUMBER 124 AUGUST 1982 **4**

MINUTES OF
NORTHERN CALIFORNIA CONTEST CLUB
MEETING OF JULY 23, 1982

THE SUMMER DINNER MEETING WAS STRICTLY A SOCIAL MEETING WHICH BEGAN WITH "HAPPY HOUR" STARTING ABOUT SIX-THIRTY AND CONTINUED UNTIL DINNER WAS SERVED SHORTLY AFTER SEVEN-THIRTY. 36 MEMBERS AND GUESTS ENJOYED SEVERAL OF MIGUEL'S SPECIAL MEXICAN DISHES SERVED PIPING HOT OR HOTTER!

AFTER A VERY SHORT BUSINESS SESSION, THE MAIN ATTRACTION OF THE EVENING WAS PRESENTED. ADAM MENTES, N6QR WITH HIS VERY EFFECTIVE DOUBLE PROJECTOR SYSTEM SHOWED HIS BEAUTIFUL "YOSEMITE 4 SEASONS" SLIDES WITH BACKGROUND MUSIC BY COMPOSER ANTONIO VIVALDI, NOT A MEMBER. ALL OF US WERE OVERWHELMED BY THE BEAUTY AND GRANDEUR OF YOSEMITE DURING THE FOUR SEASONS. MANY THANKS, ADAM, FOR SUCH AN OUTSTANDING SHOW!! WE ALL HOPE TO SEE IT MANY MORE TIMES.

THE MEETING WAS ADJOURNED AT 10:45 PM.

RESPECTFULLY SUBMITTED,

PHIL FRAZIER, K6ZM SECTY/TREAS.

MINUTES OF
NORTHERN CALIFORNIA CONTEST CLUB
BOARD OF DIRECTORS MEETING
5 August 1982

ELEVEN MEMBERS AND ONE VISITOR ATTENDED THE AUGUST 5 BoD MEETING AT THE HOME OF W6SZN.

KIP OPENED THE MEETING BY ANNOUNCING THAT THE SCCC VIA N6TR HAD CHALLENGED NCCC TO THE TUNE OF 6 CASES OF BEER FOR THE BEST CLUB SCORE IN THE FORTHCOMING CQWW DX CONTEST, BUT SINCE IT APPEARS THAT WE HAVE JUST WON FIRST PLACE IN THE 1981 CQWW DX CONTEST, IT WAS ASSUMED THAT SCCC WOULD WITHDRAW THEIR CHALLENGE ANYWAY!

KIP STARTED DISCUSSION OF SOME WAY OF SHOWING APPRECIATION TO EVERYONE WHO TOOK PART IN OUR WINNING EFFORT. MAYBE AN ARTICLE IN CQ MAGAZINE ON HOW WE DID IT IN OUR FIRST MAJOR DX CONTEST EFFORT. RON, N6AUV, WILL CONTACT THE EDITOR OF CQ, ALAN DORHOFFER, K2EEK, ABOUT COVERAGE OF OUR EFFORTS.

KIP URGED THAT THERE IS LOTS TO DO AND LITTLE TIME LEFT FOR ANYONE PLANNING ON GOING ON A DXPEDITION THIS FALL. IT WAS SUGGESTED THAT WE COULD USE A TRAVEL COORDINATOR WHO COULD SUPPLY INFORMATION ON TRAVEL ROUTES, CUSTOMS, EQUIPMENT, VISA AND PASSPORT HELP, ETC.

MORI, KN6M, NEEDS MORE FEEDBACK FROM HIS RECENT QUESTIONNAIRE AS HE HAS HAD LESS THAN 40% RETURNS SO FAR. HE ASKED THAT ALL COORDINATORS COMPLETE CONTACTING ALL MEMBERS IN THEIR GROUPS AS SOON AS POSSIBLE.

THE LEAST EXPENSIVE DXPEDITIONS ARE THOSE TO HAWAII AND MEXICO. THE CARIBBEAN WOULD BE NEXT IN EXPENSE AND THE SOUTH PACIFIC AREA EVEN MORE EXPENSIVE. OF COURSE AFRICA OR ASIA WOULD TOP THEM ALL.

OUR VISITOR WAS JIM TREYBIG, W6JKV, WHO HAS TRAVELLED A LOT RECENTLY AND HAS CONCENTRATED ON 6 METER DXING ONLY. HE WILL GIVE A TALK ON THIS SUBJECT AT THE NEXT NCDXC MEETING. HE HAD SEVERAL GOOD SUGGESTIONS ON TRAVEL PROBLEMS AND PLACES TO GO.

MEETING ADJOURNED AT 10:15 PM.

RESPECTFULLY SUBMITTED,

PHIL FRAZIER, K6ZM SECTY/TREAS

SCOPE

Dear Editor:

During the past few years I've become increasingly concerned about the impact contesting has had on my life in general. I tried "big-time" contesting for the first time back in 1975, and by the end of SS had swallowed it hook, line and sinker. Lately, though, it feels like the rod and reel are also attempting to force their way down my throat. Big-time contesting is no longer an amateur sport. It is a semi-professional activity which requires extraordinary COMMITMENT... in terms of time, energy, and \$\$ (not necessarily in that order).

Now don't get me wrong -- the contest "hoo" is not all bad. It can supply the same kind of natural high that you get from a fast, flowing, downhill run on a mountain trail, for example. The goose-bumps and mental exultation blend with and overshadow the physical pain and fatigue when the early morning rate escalates... or when you crack that 30-deep pile... or when you know that you're running ahead of some hot-shot operators who kicked your butt last year. Thus the \$64,000 question becomes one of somehow maintaining perspective with respect to contesting while remaining sufficiently active to be competitive and achieve that natural high.

Here's one possible answer that I plan to try: Sane Contest Operating Experiences (SCOPEs). What's a SCOPE? KIKI and Co. had the right idea a few years ago when they turned the CD Parties into 10-hour contests with ½-hour minimum break times. I'd like to apply this concept to the typical contest marathon in the following way.

1. Operate no more than 10 hours out of the first 24 hours in any given contest.
2. Off times must be a minimum of ½-hour in length.
3. All-band single-operation is recommended (for optimal training) but not required. Only the results of your own operating are valid for SCOPE competition, however.
4. Otherwise, follow the rules of the given contest.

What are the benefits of a Sane Contest Operating Experience? First, you operate only what are usually the most interesting or fun parts of the contest. Second, you don't completely kill yet another weekend (plus Monday and maybe Tuesday??). Third, you keep your operating skills up for the contests in which you want to go "full bore". Each of these three benefits has various sub-benefits which I won't go into here (e.g. ask your MYL or YL). And if others are willing to make the same contest a SCOPE, you can even compete!

I plan to make IARU and All Asian CW my first SCOPEs. The AA CW Contest, in particular, is now just too long for the level of activity (especially on Japanese Monday), but really supplies some great moments in the first 24 hours. Anyone want to take me on in an AA CW SCOPE? I'll be flyin'!

To compete in the AA CW SCOPE (and in any other major CW-only competition such as Can-Am, CQWW, 10-Meter, ARRL DX, CQ WPX, IARU, SS, or even WAE for you East Coast types), simply send me an extra copy of your carefully duped logs (including a summary of Q's and mults by band). I'll then send you a list of high claimed scores... and let JARL (or whichever organization sponsored the contest) do the official honors in terms of log checking. My new address is:

Bill Zachary, N60P 415)549-1900
7027 Buckingham Blvd.
Berkeley, CA 94705
ROSTER CHANGE

Postscript: Having decided to bring more sanity into the radio portion of my life with the introduction of SCOPEs, you would think I had learned. Unfortunately, not so. This June I took whitewater kayaking lessons. In July you'll find me pounding the pavement in the S.F. Marathon, and in August I'll attempt to hike the John Muir Trail from Mt. Whitney to Yosemite Valley (210 mi.) in 10 days. But at least now the insanity is a little more balanced!

73, Bill Zachary, N60P

INTERPRETING THE WWV PROPAGATION BULLETINS

As long as the solar flux is high and the A index is low, everything is peachy, right? Well if you are like most contesters, you have your radio tuned to 15 MHz at 2318 before the start of a contest listening for the latest dope from WWV so you can plan your band strategy. But what does it really mean? Well, I have always kind of half-listened to what they said and never really absorbed what they were saying until one of the local QRPers did some research and synoptized what all that data means.

At 18 minutes past each hour, WWV broadcasts solar conditions to aid in propagation forecasting. They announce the solar flux, the A index, the K index, solar activity, condition of the geomagnetic field and a prediction for the next 24 hours.

1. The solar flux is a number from about 60 to over 200 that indicates the degree of ionization of the F layer. The daily number is important, but the long term cycle changes indicate major changes in propagation. 60 is about the bottom of the cycle while numbers of 150+ will keep 10 and 15 jumping for long haul and numbers over 200 will see F skip on 6 meters.

2. The A index is a number from 0 to 400 indicating the solar activity of the past 24 hours. The A index is extremely important, because if the solar activity is high and the absorption (A index) is up, you won't be able to use the high solar flux effectively. The lower the number, the better, although it affects high latitudes more than ones closer to the equator. For instance, with a flux of 180 and an A index of 20, the path from the US to Asia may be unusable, but there should be a good USA to VK path.

3. The K index is related to the A, but it is a measure of the geomagnetic field over the previous six hours and is usually reflects storm activity. The K seldom gets over the number 5.

4. Solar activity indicates the storm conditions on the sun and ranges from very low to very high. Low to moderate is best because it keeps the flux up while the A and K are down.

5. The geomagnetic field activity is a result of the solar activity and ranges from quiet to unsettled to active and follows K indices of 0-1, 1-3, and 4+

In summary, you hope that on a contest weekend, the A and K are low, the flux high, the solar activity moderate and the geomagnetic field quiet, but now you know why.

TNX TO NCJ

SEPTEMBER 1982 NORTH AMERICAN SPRINT CONTESTS

Sponsored by the National Contest Journal

1. Eligibility: Any licensed radio amateur may enter.
2. Object: To work as many North American stations (and/or other stations if you are in North America) as possible and as many multipliers as possible during the contest period.
3. Entry Classification: Single operator only. Use of helpers or spotting nets is not permitted.
4. Contest Periods: The CW contest will be held 0100 to 0459 UTC, September 19, 1982 (Saturday night, September 18th, local time). The Phone contest will be held 0100 to 0459 UTC, September 26, 1982 (Saturday night, September 25th, local time). These are two entirely separate four-hour Sprints. An entrant may submit scores for either one or both Sprints, but he may not combine his scores.
5. Mode: CW only on September 19 UTC and Phone only on September 26 UTC.
6. Bands: 80, 40, and 20 meters only. Suggested frequencies are 3530-3550, 7030-7050, and 14030-14050 kHz on CW and 3870-3910, 7210-7240 and 14260-14290 kHz on Phone.
7. Exchange: To have a valid exchange, you must send all of the following information: His call, your call, serial number, your name and state (or VE province or country).
EXAMPLE: WA7NIN de KØTO nr 32 Tod MN K
KØTO nr 16 Pat NV de WA7NIN K
8. Valid Contact: A complete correctly copied and logged two way exchange between a North American station and another station. Proper logging requires including the time of each contact. Serial numbers must begin with serial number one (001) and must be sequential thereafter. Regardless of the number of licensed call-signs issued to a given operator, one and only one call-sign shall be utilized during the contest by that operator.
9. North American Station: Defined by the rules of the CQ WW DX Contests.
10. Scoring: Multiply total valid contacts by the sum of states, VE provinces and other North American countries to get final score (do not count USA and VE as countries). KH6 is not counted as a state and is not a North American country. VE multipliers are Maritime (VE1, VO1 and VO2) and VE2 through VE8 (8 total). Non-North American countries do not count as multipliers.
11. Special QSY Rule: If any station solicits a call by sending CQ, QRZ?, QRZ, etc., he is permitted to work only one station in response to that solicitation. He must thereafter move at least 1 kHz before he works any other station, or at least 5 kHz before he again solicits other calls.
12. Reporting: CW entries must be sent to Rusty Epps, W6OAT, 948-H Kieley Blvd., Santa Clara, CA 95051. Phone entries must be sent to Rick Niswander, K7GM, 1914 W. Cortez Cir., Chandler, AZ 85224. Entries must be received not later than 30 days after the Sprint to be eligible for trophies and awards. An entry consists of (1) a summary sheet showing valid contacts by band, total multipliers, total score, name, call-sign and address of the operator, station call-sign and station location. (2) A complete, legible log of all contacts (including dupes marked as such) with indication by number sequence of each multiplier claimed. (3) A separate check sheet for each band. Logs, summary sheets, and check sheets may be home-made or patterned after those shown in the NCJ.
13. Team Competition: Team competition is limited to a maximum of 10 operators as a single entry unit. Clubs having more than 10 members may submit more than one team entry. Pre-contest requirement: To qualify as a team entry, the name, call-sign of each operator, and call-sign of the station operated should the operator be a guest at a station other than his own (eg. WA7NIN op by W6OAT) must be registered with W6OAT. The team information may be contained either in a letter, which must be received by W6OAT before the start of the Sprint, or it may be contained in a Western Union mailgram dated at least 24 hours before the start of the Sprint. There are neither distance limitations nor meeting requirements for a team entry. The only requirement is pre-registration of the team. An individual may be on one team for the CW competition and on the same or a different team for the phone contest. A team does not need to have the same members on both modes.
14. Disqualifications: Any entry may be disqualified for illegibility or incorrectness of log information, or illegal or non-ethical operation. Such disqualification is at the discretion of the NCJ Contest Review Committee.
15. Awards: A trophy shall be awarded to the highest-scoring entrant on each mode. Also, for each mode, certificates of merit shall be awarded to the highest scoring entrant from each USA call district, Canada, and other country; to each of the ten highest scoring entrants; to each member of the winning team; and to the highest scoring entrant on each team.

Name the professional football teams described below. Use your imagination.

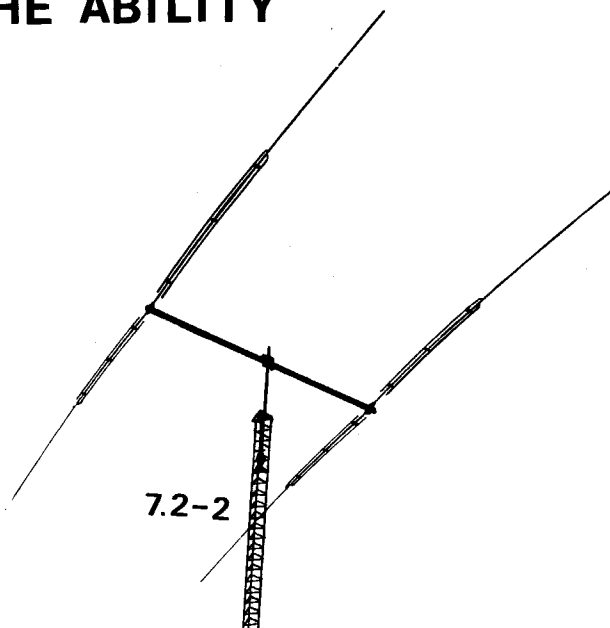
- | | |
|----------------------------------|---------------------------------------|
| 1. Six Shooters _____ | 15. I.O.U. _____ |
| 2. One dollar for corn _____ | 16. Credit Card Holders _____ |
| 3. Fish Arms For Girls Toy _____ | 17. Midnight Snackers _____ |
| 4. Loaders _____ | 18. Lubricators _____ |
| 5. Six Rulers _____ | 19. Half Bovine, Half man _____ |
| 6. Wise Sunbathers _____ | 20. Indian Leaders _____ |
| 7. Foolish Sunbathers _____ | 21. Peter and Paul _____ |
| 8. Protected Species _____ | 22. Uncles' Spouses in the Army _____ |
| 9. Loyalists Opposition _____ | 23. Type of Tiger _____ |
| 10. King of the Beasts _____ | 24. Marine Birds _____ |
| 11. Seven Squared _____ | 25. Fundamental (rules) _____ |
| 12. Henry's Compact _____ | 26. Shoplifters _____ |
| 13. Streakers _____ | 27. 747's _____ |
| 14. Ewe's Mate _____ | 28. Equine Rodeo Participants _____ |

IARU: W6BIP(+WA6DJI) M/S, AB, CW -
1,033 Q's, 89 MULT., 315,594 PTS.

FIERCE FIELD DAY: K6YT-13,784 K6YA-13,400

FOR SALE: HIGH VOLTAGE DIODES, 1N5603.
5 KV PRV, 3.5 AMPS CONTINUOUS. THESE
WILL NEVER BLOW UP IN THE MIDDLE OF
A CONTEST! SIX FOR \$65, UPS PAID.
SCOTTY WILLIAMS, AE6U.

YOU PROVIDE THE ABILITY



SPECIFICATIONS

7.2-2

Frequency of operation: 7.0-7.3 MHz
(x 125 KHz)

Gain: 4.9 dBd

F/B: 12 dB

Feed Impedance: 50 ohms unbalanced.

Max element length: 46'

Boom length/Dia: 16'3"

Weight: 45 lbs

Windload: 6 sq ft

For Mast: 2" O.D.

The 7.2-2, on a 16 foot boom, is ideal for hams seeking well-rounded coverage of the amateur bands, as well as good DX capabilities. The linear-loaded elements virtually eliminate interaction with 20 meter beams and permit stacking as close as 4 feet.

WE DELIVER THE PERFORMANCE!

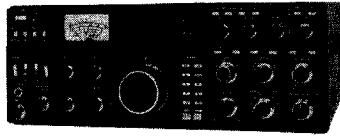
KLM

P. O. Box 816, Morgan Hill, CA 95037
(408) 779-7363

KENWOOD

Save substantially!
Call now for
your price.

TS-930 S



TR-7850

TS-130S



TR-2500



TS-830S

BARGAIN PACKAGE

- TS-830S** Transceiver
- SP-230** Speaker
- YK-88C** CW filter

SALE!

A \$1084.85 VALUE

\$949 95

KLM/TRI-EX

KLM KT-34A
4 element tri-bander

Regular \$389.95 **\$309**

KLM KT-34XA
6 element tri-bander

Regular \$569.95 **\$459**

KLM 7.2-1 40M rotatable dipole.
Regular \$199.95 Special **\$159.00**

KLM 7.2-2 40M, 2 element beam.
Regular \$349.95 Special **\$299.00**

KLM 7.2-3 40M, 3 element beam.
Regular \$529.95 Special **\$449.00**

KLM 7.0-7.3 4A 40M, 4 element beam.
Regular \$749.95 Special **\$629.00**

TRI-EX W51, 51 foot tower.
Regular \$999.95 Special **\$829.95**

W51 TOWER w/ KT-34A
\$1099

W51 TOWER w/ KT-34XA
\$1239

ETD ALPHA

ALL ALPHA AMPLIFIERS
IN STOCK FOR FAST DELIVERY
CALL FOR SPECIAL PRICES



ONE EXAMPLE:
76PA
REGULAR \$2395

SALE! \$1799



BURLINGAME, CA 94010
999 Howard Ave., (415) 342-5757
5 miles south on 101 from S.F. Airport.

OAKLAND, CA 94609
2811 Telegraph Ave., (415) 451 5757
Hwy 24 Downtown Left 27th off-ramp.

THE CONTEST JUG-PUBLISHED MONTHLY BY
THE NORTHERN CALIFORNIA CONTEST CLUB
34456 COLEVILLE PLACE
FREMONT, CA 94536



FIRST CLASS
FIRST CLASS
FIRST CLASS

W60AT
EPPS, CHARLES K. EXPIRES: 0682
948-H KIELY BLVD
SANTA CLARA CA 95051

