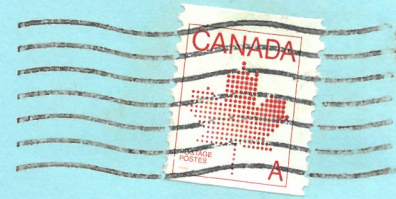


FROM: THE NORTH SHORE RADIO CLUB INC.,  
Box 171, Oshawa, L1H 7L1.



TO:

*Oct / 82.*

VE3CRK  
DAY, Ralph  
454 Holcan Ave.  
OSHAWA, Ontario  
L1G 5X6



" S P A R K S "

THE NORTH SHORE AMATEUR RADIO CLUB INC.

OCTOBER 1982 EDITION

OFFICERS & EXECUTIVE

Directors	Colin Bell	VE3CEU	723-7842
	Bob Elston	VE3LLE	725-5124
	Bob Leet	VE3LLZ	725-1236
	Mac McFarlane	VE3IKG	723-8484
	Hank Verwoerd	VE3FHV	571-0863
President	Bob Elston	VE3LLE	725-5124
Vice-Pres.	Mac McFarlane	VE3IKG	723-8484
Treasurer	Hank Verwoerd	VE3FHV	571-0863
Secretary	Colin Bell	VE3CEU	723-7842
Registrar	John Pluister	VE3FGL	655-4269
Get-Well-Cards	Ted Brant	VE3ADD	668-3561
Editor	Doug Smith	VE3MKC	705-786-2086
Tech Editor	Phil Leith	VE3LNE	728-8167

+ + + + + + + + + + + + + + +

Club Repeater: VE3OSH 147.72 In.  
147.12 Out.

Club Station: VE3NSR

NETS:- The 2 Meter Net meets every THURSDAY on the club  
repeater at 19:30 local, with Roy VE3AAF at control.

The 10 Meter Net meets SUNDAY at 10:00 local, on  
28.200Mhz. (plus or minus beacon QRM).

\* \* \* \* \*

N E X T M E E T I N G

THE NEXT REGULAR MEETING TO BE HELD AT THE OLD STAND, THE CAFETERIA OF O'NEILL C.I.  
FOR THOSE WHO ARE NOT FAMILIER WITH THE ENTRANCE, PARKING IS ON THE EAST SIDE OF  
THE SCHOOL AND THE DOOR IN ON THE SOUTH EAST CORNER OF THE BUILDING. ONCE ENTERED,  
TURN LEFT AND PROCEED THRU DOUBLE DOORS ON LEFT. FOLLOW HALL WAY TO RIGHT AND  
PROCEED UP LOW STAIR CASE, CAFETERIA WILL BE SECOND DOOR (OR THIRD) ON THE RIGHT.  
THIS IS A GOOD TIME TO GET TO MEET AND GREET NEW AND OLDER FRIENDS. BRING A FRIEND,  
HE OR SHE JUST MIGHT TURN TO RADIO. REMEMBER THIS HELPS TO KEEP "OUR" CLUB ACTIVE  
AND STRONG. TIME 7:30 / 19:30hrs. TILL.....

ED.

NEWS AND VIEWS

AND SPECIALS..

CANOE THE NONQUON (JUNE 5TH, 1982)

THIS CANOE RACE, WHICH IS THE LARGEST RACE IN ONTARIO, HAS BEEN HELD ANNUALLY SINCE 1969 AS A REVENUE MAKING EVENT TO HELP DEFRAY THE COST OF OPERATIONS AT THE SCUGOG SHORES MUSEUM ON SCUGOG ISLAND.

DESPITE THE LESS THAN FAVOURABLE WEATHER CONDITIONS FOR SUCH AN EVENT, THE PARTICIPATION FROM BOTH CANOEIST AND ORGANIZATIONAL HELP WAS A GREAT SUCCESS FOR ANOTHER YEAR. THERE WERE 330 CANOEISTS IN THE RACE, SOME FROM AS FAR AWAY AS GERMANY, NEW LISKEARD, NORTH BAY, HAMILTON, LONDON, ST. MARY'S AND WARSAW. NO RECORDS WERE BROKEN IN THE 13 DIFFERENT CLASSES ON THE 20 MILE COURSE WITH THE CANOEISTS STARTING ABOUT 10 MILES UP THE NONQUON RIVER. THE 14 YEARS AND UNDER CLASS FINISH THEIR RACE AT THE MOUTH OF THE RIVER AT THE PORT PERRY YACHT CLUB DOCKS, WHILE THE REMAINDER PASS THIS CHECK POINT, ENTER LAKE SCUGOG THEN PADDLE THEIR WAY TO THE DOCK AT THE FOOT OF QUEEN STREET IN PORT PERRY. THE TOURIST CLASS CAN ENTER AT ANY CHECK POINT AND GO ANY DISTANCE THEY DESIRE, COMING OUT AT ANOTHER CHECKPOINT OR AT THE FINISH LINE. A NEW CLASS, THE NORTH CANOE, WAS STARTED THIS YEAR. A "5" MAN TEAM ENTERS THE RACE IN A LARGE FREIGHTER TYPE CANOE -- ENTRANTS IN THIS CLASS AND THE M.C. RACING CLASS START AT THE DOCK IN PORT PERRY, HEAD UP THE LAKE TO THE MOUTH OF THE RIVER THEN RETURN TO THE FINISH LINE. A RAFFLE ON A CANOE IS HELD EVERY YEAR -- A PERSON FROM OSHAWA WAS THE HOLDER OF THIS YEAR'S WINNING TICKET.

THE AMATEUR GROUP SUPPLY THE NEEDED INFORMATION TO KEEP A DISPLAY BOARD AT THE FINISH LINE UP TO DATE AS TO THE POSITION IN THE RACE OF ANY CANOE NUMBER SO THAT FAMILY OR FRIENDS CAN MEET THEIR CANOEIST AT THE NEXT CHECKPOINT. THE STARTING TIMES ARE RADIOED TO THE FINISH LINE SO THAT AS SOON AS A CANOE FINISHES, A COURSE TIME CAN BE COMPUTED AND DISPLAYED ON THE BOARD. A NETWORK OF BOATS BY THE PORT PERRY YACHT CLUB AND INDIVIDUALS PROVIDE THE COMMUNICATIONS AND SAFETY LINK ON THE LAKE. THIS INFORMATION PLUS ANY EMERGENCY TRAFFIC SHOWS THE VALUE OF THIS SERVICE.

DON COLE VE3 HYW WITH THE HELP OF AL TAYLOR VF3 WJ MANNED THE CLUB STATION VE3 NSR, OPERATING DON'S KENWOOD 520S INTO A G5RV ANTENNA FOR 16 CONTACTS ON 2 BANDS (MAINLY 20 METERS SINCE THAT IS DON'S BAND). THEIR CONTACTS RANGED FROM GUATEMALA CITY IN GUATEMALA, CENTRAL AMERICA TO VALENTIA, NORTH EAST OF PORT PERRY ON LAKE SCUGOG. THEY CONTACTED A STATION IN SMITH FALLS OPERATING AS A CENTENNIAL PROJECT AT ONE OF THE LOCKS, ALSO THE PROVINCES OF PRINCE EDWARD ISLAND, NEWFOUNDLAND, NEW BRUNSWICK AND 5 STATES IN THE UNITED STATES. AMATEURS AND BYSTANDERS HAD A CHANCE TO DISCUSS SOME COMMON INTEREST SUBJECTS.

BESIDES THE AMATEUR STATION, THERE WAS A REMOTE CONTROLLED MODEL DISPLAY BY THE OSHAWA RADIO CONTROLLED FLYING CLUB, A MINIATURE DISPLAY OF THE BOYD HOUSE FROM PORT PERRY BY PATRICIA ROYD, AND A HOMEMADE CEDAR STRIP CANOE HANDCRAFTED BY KEITH GAYLORD OF CAESAREA. BILL JOHNSON OF "CHOO" RADIO PHONED IN LIVE COVERAGE OF THE RACE THROUGHOUT THE DAY FOR THE STATION'S SPORTS BROADCAST. THE PORT PERRY HIGH SCHOOL SUPPLIED A COMPUTER AND OPERATORS TO SET UP A COMPUTER DISPLAY AND TO GET SOME EXPERIENCE IN RUNNING OF THE RACE FOR THE POSSIBILITY OF FUTURE COMPUTER ASSISTANCE IN CALCULATING TIMES, RECORDING THE DAYS RESULTS AND ANY OTHER WAY THE COMPUTER MAY BE USED TO HELP RUN THE RACE MORE EFFICIENTLY. ALL OF THESE ACTIVITIES WERE HELD IN THE LATCHAM CENTRE IN THE PART AT THE LAKEFRONT.

WITH THE WEATHER CONDITIONS (NO WIND OR STORM) LOWER THAN AVERAGE PARTICIPATION (BECAUSE OF THE WEATHER) AND THE EXCELLENT RESPONSE FROM THE AMATEUR COMMUNITY, THERE SEEMED TO BE AN ABUNDANCE OF AMATEURS WAITING FOR SOMETHING TO DO. WE ARE AGAIN THANKFUL FOR THE ASSISTANCE FROM THIS GROUP OF INDIVIDUALS WHO HELP TO CO-ORDINATE THE RUNNING OF THIS RACE.

SEE YOU AGAIN THE FIRST SATURDAY OF JUNE 1983.

GLENN E. GOSLIN VE3 LI7  
JOAN SCOTT, CHAIRPERSON.

NOTICE: THE 1983 MEMBERSHIPS WILL SOON BE COMING DUE. DUES PAID BY JAN. 1st 1983 WILL ONLY BE 13.00 DOLLARS BUT THOSE WHO ARE TARDY WILL HAVE TO PAY THE PRICE..15.00 DOLLARS SO DON'T BE LATE.

\*\*\*\*\*

NOTICE: THE NOV. 9th. MEETING WILL BE AN AUCTION SALE, SO DIG THRU THAT JUNK BOX AND BRING IN YOUR OLD TOYS, BITS AND BITS OR PIECES.

\*\*\*\*\*

LOOK OVER HERE! "OSH" HAS ANOTHER NEW NET. IT'S RUN BY MAC VE3IKG (NET CONTROLER) THE TIME IS 19:30hrs. IT HAS A GOOD NAME TOO. "MONDAY NITE - BARGAIN BASEMENT"

\*\*\*\*\*

NOMINATION TIME IS ALSO HERE. BELOW ARE SOME TYPED FORMS TO BE RETURNED TO THE SECRETARY OR A CLUB EXECUTIVE.

\*\*\*\*\*

"MEMBER OF THE YEAR AWARD"

I,....., DO NOMINATE  
(name) (call)  
....., FOR THE "MEMBER OF THE  
YEAR AWARD". PLEASE STATE REASONS IF SO INCLINED.

\*\*\*\*\*

POSITION(S) OF DIRECTORS OF THE  
N.S.A.R.C.

I,....., DO NOMINATE  
(name) (call)  
....., for the position  
OF DIRECTOR OF THE N.S.A.R.C. (more than one person may be nominated)

\*\*\*\*\*

YOU CANE USE THE ABOVE BY CUTING ALONG THE LINES OR USE OWN NOTE PAD.  
\*\*\*\*\*

BERNIE (VE3ATI) WILL BE ON HAND THIS COMING MEETING TO TALK ABOUT THE REPEATER SITUATION AND OPERATION . I THINK WE SHOULD FIND THIS INTERESTING SO BE SURE TO COME ALONG AND BRING A FRIEND.

\*\*\*\*\*

SPEAKING OF FRIENDS WE SHOULD HAVE FRIEND FROM HOLLAND PA3BJA NAMED WILL HE IS STAYING WEST HILL AND MARTIN VE3NSO OFFERED TO PICK WILL UP AND ESCURT TO OUR MEETING. NICE GOING MARTIN THANKS FOR EXTENDING THE HAND OF FRIENDSHIP. Ed.

\*\*\*\*\*

THE BOY SCOUTS JAMBOREE OCTOBER 15th/82 LOCATED AT HIBER DOWNS C/V HAM STATION.

\*\*\*\*\*

DID YOU KNOW BY THE TIME YOU THINK YOU HAVE MADF BOTH FNDS MEET -SOMEBODY MOVES THE ENDS  
ANYWAY THANKS FOR YOUR ATTENTION FOLKS, I'VE PAD FUN THIS EVENING AND I CAN'T HELP BUT ONDER WHERE EVIN IS TO-NITE H1 H1. NO BODY WILL EVER KNOW THE IMPLICATIONS OF THAT STATEMENT. SOME PEOPLE DO ODD THINGS TO GET EVEN hee hee.

Ed.

\*\*\*\*\*

\*\*\*TECHNICAL SECTION\*\*\*

SATELLITE TV PART 4

THE RECEIVER

This is the last of the Satellite T.V. series and will describe a "typical" receiver.

REFER TO THE BLOCK DIAGRAM OF FIGURE 1.

Lets assume we have our antenna peaked on Satcom F3. 12 TV signals are coming down the coax after having been amplified 50db by the LNA. (remember 24 TV signals are available but only 12 on each polarization).

THE DOWN CONVERTER

The first receiver stage is the down converter. This stage is similar to the tuner in a conventional T.V. set. It's purpose is to select one of the 12 T.V. signals spread from 3.7 to 4.2GHz and mix it down to I.F. Notice that the down converter is AC coupled to the coax to allow the LNA DC power to use the coax also. Most consumer receivers use a single conversion approach with a voltage tunable Local oscillator and an image reject mixer. The I.F. frequency used is almost always 70MHz. The channel tuning could be continuous as shown in FIG.1 using a pot, or it could be channellized using a switch and presets.

Some commercial receivers employ dual conversion with a first IF of about 800MHz and a second IF of 70MHz. This approach provides better image rejection however it is also more complicated and expensive. The single conversion scheme shown in FIG.1 is used most often since it is simple, requiring only two prepackaged devices.

An AFT (AUTO FINE TUNE) voltage is combined with the channel tuning voltage to stabilize the Local oscillator.

THE IF SECTION

The down converter has given us a single TV signal down converted to 70MHz with a bandwidth of about 36MHz ( $\pm 18$ Mhz centred on 70MHz). The first IF stage is usually a 70MHz Bandpass filter. The 3db bandwidth of the filter is generally about 28MHz. Narrowing the bandwidth from 36 to 28MHz greatly improves the video S/N ratio while only slightly distorting the video signal.

The bandlimited IF signal is fed to the IF amplifier which has an open loop gain of 50db or so. Usually the amplifier uses AGC to maintain a fairly constant IF output level to the FM demodulator despite varying input levels.

### FM DEMODULATOR

The FM Demodulator is not unlike any FM demodulator the Ham may be familiar with except that the centre frequency of 70MHz and bandwidth of 28MHz are much greater than found in Ham FM gear. The demodulator may be of either the discriminator or phase lock loop type. Both types are found in commercial equipment. The output of the demodulator consists of 3 components.

(1) DC component which is zero when the signal is tuned exactly to the Demod. centre frequency. The AFT signal is derived from this component.

(2) The video signal

(3) The FM modulated audio subcarrier. Different audio subcarriers are used depending on the satellite. 6.8MHz is the normal one so we will use it in this discussion.

### VIDEO PROCESSING SECTION

The video signal from the Demodulator passes through a deemphasis network which alters the video frequency response to correct for the preemphasis used on transmission. A DC clamp, restores the DC component of the video signal which has a 30Hz triangular waveform superimposed on it during transmission. The video signal then gets amplified to a level of 1 volt peak to peak. The video can now be fed to a video monitor or a T.V. modulator.

### AUDIO FM DEMODULATOR

The 6.8MHz FM audio subcarrier is demodulated using a discriminator or phase lock loop demodulator. The audio output is amplified to 1 volt peak to peak. The audio output can now be fed to an audio amp or T.V. modulator.

### T.V. MODULATOR

The T.V. modulator is a very low power T.V. transmitter usually selectable for channel 3 or 4. It takes the video and audio signals and converts them to a standard T.V. signal on the selected channel.

That ends the satellite T.V. series. Radio Electronics has presented some interesting articles on this subject during the past few months so if your looking for more info thats a good place to start.

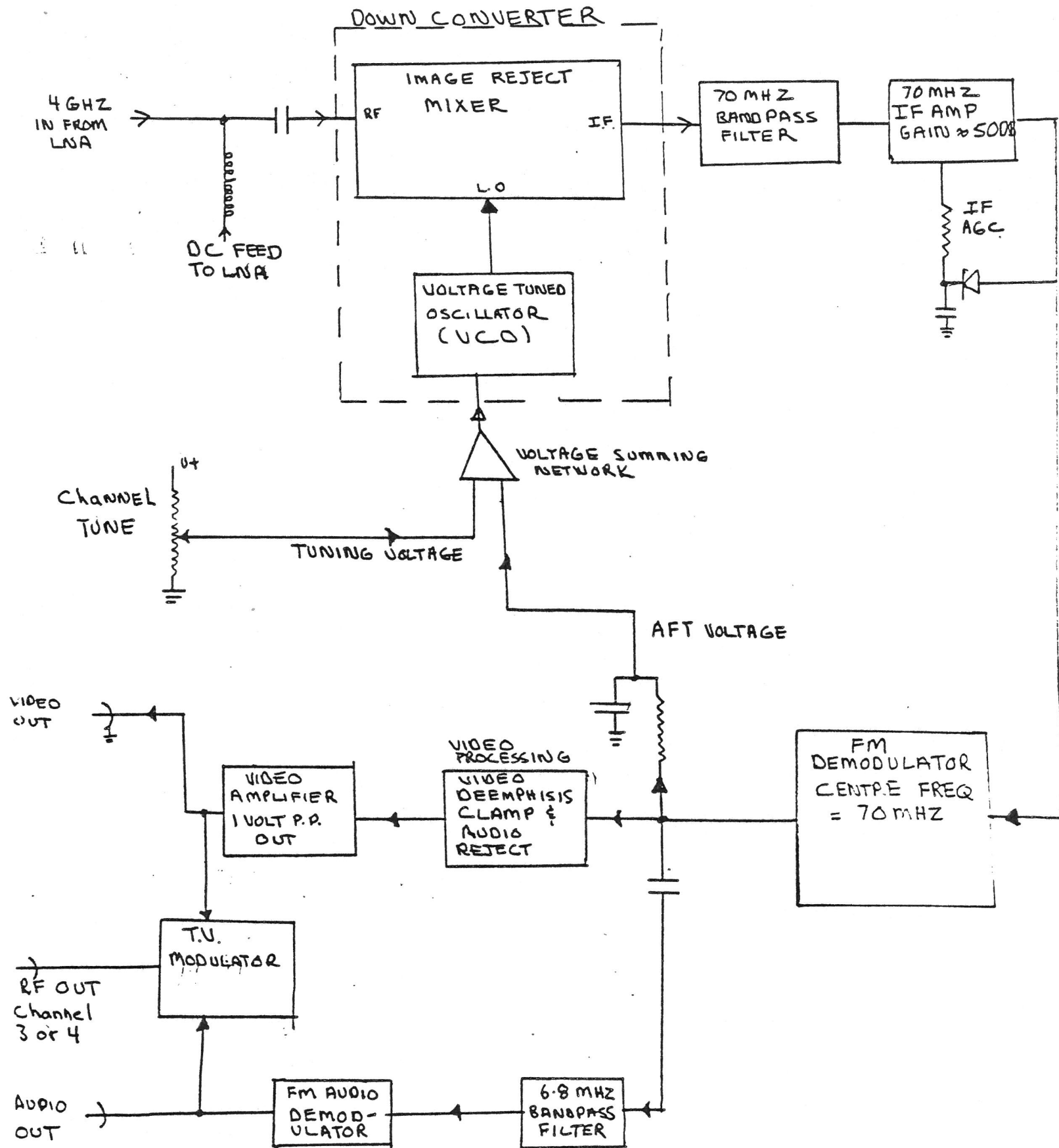


FIG 1

SATELLITE TV RECEIVER  
BLOCK DIAGRAM

SELL --- BUY --- SWAP

\*\*\*\*\*

FOR SALE: COPE 1030 TERMINAL USED CURRENTLY AS PRINTER FOR AN "FXIDY SORCERER" MTU  
INTERFACE IS PARALLEL. COMES WITH 6 (SIX) IBM GOLF BALL TYPE ELEMENTS.

\*\*\*\*\*

COPE 1030 TERMINAL USED WITH RADIO SHACK MODEL I MPU. SERIAL INTERFACE.  
NEEDS MINOR REPAIR. C/W 2 BALL ELEMENTS. BOTH UNITS CONTACT  
ALFRED BENGAL 416/576/4839.

\*\*\*\*\*

FOR SALE: ICOM 230 HANDY TALKY SYNTHESIZED 2M RIG 146 TO 148 MHZ. 10 WATTS OUTPUT  
WITH MIC. FOR INFO CALL LES DONN /662/8783

\*\*\*\*\*

FOR SALE: HEATH SB 104 NOISE BLANKER \$25.00  
"ELKEY" KEYS PADDLE \$25.00

CALL MAC AT 416/723/8484

\*\*\*\*\*

WANTED: HALLICRAFTERS MODEL HA-16 VOX CONTROL WORKING OR NOT  
DOUG VE3MKC 705/786/2086 coll.

\*\*\*\*\*

WANTED: 3ELEMENT 10 OR 11 METER BEAM IN REASONABLE REPAIR  
GARY VE3EPY 416/723/1210

\*\*\*\*\*

WANTED: EXTERNAL VFO. 6 THRU 8 MHZ.  
MOE AT 705/277/2984

\*\*\*\*\*

WANTED: SHARP CW XTAL FILTER, AUDIO FILTER, OR "Q" MULTIPLIER TYPE, TO BE USED  
WITH A HEATH COMANCHE. BERNARD FERRIS 416/668/6177

\*\*\*\*\*

FOR SALE: YAESU 207R, C/W AC/DC CHARGER, BATTERIES ETC. \$450.00  
MOTOROLA HT 220S (two units) each @ \$250.00

PHILL AT 416/655/4069

\*\*\*\*\*

FOR SALE: EICO TRI-BAND TRANCEIVER, EXCELLENT STABILITY 100 WATT OUTPUT  
JACK AT 416/725/9464

\*\*\*\*\*

FOR SALE: MODEL 15 TELETYPE C/W DEMODULATOR.  
G.E. 2 METER PROG. LINE C/W "OSH", "RPT", AND 147.520 EXTALS.  
RANDY AT VE3MUR 416/576/4577

\*\*\*\*\*

FOR SALE: HEATH DX-60B TRANSMITTER  
" HR-10B RECEIVER  
" VFO HG-10B  
" HW 101 TRANSCEIVER WITH HP-23B POWER SUPPLY  
" DESK TOP MICROPHONE

PERCY McELWAIN VE3LHL 416/461/6460

\*\*\*\*\*

FOR SALE: TEN-TEC CENTURY 21TRANCEIVER. 80 thru 10 CW SOLID STATE WITH KEYS \$325.00  
TWO 2BDQ 40 METER TRAPS \$25.00

COLIN VE3MTE 416/457/8042

\*\*\*\*\*

FOR SALE: HEATH STATION JUST LIKE NEW  
SB 104 A TRANCEIVER.  
SB 664 VFO,  
SB 604 SPKR, POWER SUPPLY

ALL IN TOP SHAPE WITH ALL MANUALS

MAKE LORNE AN OFFER VE3DJT 416/723/5673

\*\*\*\*\*



VE 3 NSR & CQ N.S.A.R.C. de VE 3 IND

Once more a wrap-up on Field Day.....1982 that is. Again the Good Lord or whoever U wish to nominate provided some lovely WX .....after the towers were up!

There are SO MANY people I want to thank for all their help & support. From Don 2ACN for 'another pea for the pot'..Bud 3JPB who visited us despite medical orders to stay off her feet.. the "car-pushers-out" who were rescuers at "the swamp" ...Ray Rev.Papa whose assistance gained us an extra 200 points....fine demonstration of the radio controlled helicopter and its unfortunate ending ( I hope, Brian (3HFC) the cost was not too much)...the tower crew who damned near drowned in the rain Friday night. It is unfair to name a few when there was so very many who contributed....BUT THERE IS ONE WHO MUST BE MENTIONED. We could do without any one particular person...EXCEPT TOM ROGERS. My most sincere thanks to all and especially to "Powerful Tom".

Below is a comparison of the last 2 years.

|                  | 1981 - 4A 1982 |     |     | 1982 - 3A |     |       |
|------------------|----------------|-----|-----|-----------|-----|-------|
|                  | CW             | Phn | Pts | CW        | Phn | Pts   |
| 2M               | =              | 112 | 112 | =         | =   | Bonus |
| 15M              | =              | 11  | 11  | 35        | 127 | 197   |
| 20M              | =              | 397 | 397 | 256       | 217 | 729   |
| 40M              | 281            | 153 | 615 | =         | 311 | 311   |
| 75/80M           | =              | 269 | 269 | 57        | 154 | 268   |
| Publicity        |                |     | 100 |           |     | 100   |
| Msg.to SCM       |                |     | 100 |           |     | 100   |
| Natural power    |                |     | =   |           |     | 100   |
| Copy WLAW msg    |                |     | =   |           |     | 100   |
| Work WLAW        |                |     | =   |           |     | 100   |
| Summary per tent |                |     | 702 |           |     | 1,003 |

Our main objective was to have fun...I am sure nobody beat us. Our second goal was to gain points AND EXPERIENCE & you can see those results. A lot of people found out what Field Day is all about...experienced tent managers gave much valuable time so newer operators, including SWL's, could learn...and everyone learned something new. The tent mgrs were great and some future TMs were obvious...AND SEVERAL FUTURE FD Mgrs were noted....I hope all future FDMs enjoy themselves as much as I have. TU very much, U are a great group to work with!

Best 73 all round de VE 3 IND AR SK

