



the B-VARC BULLETIN



of
BRAZOS VALLEY AMATEUR RADIO CLUB, INC.
Ft. Bend and Harris Counties, Texas

Vol. 6, No. 9

September 1983

Editor -- Stu Lawkin WB5IGG, 7401 Heilig, Houston TX 77074

Production -- Vic La Rocca K5KNH Cathy Schneider KA5BNC

Publication Deadline:

The 3rd Thursday of each month.

CALENDAR

Next B-VARC -- Regular membership meeting - Sept. 8, 1982
-- Board of Directors meeting - Sept. 15, 1983

Nets -- B-VARC 2M - Ft. Bend ARES, Mondays, 8:30PM } See Note * below
- Public service, Mondays, 9PM } for frequencies

-- B-VARC 10M - Ragchew, Wednesdays, 8:30PM, 28.700 MHz

-- West Houston RACES - Sundays, 8PM, 146.07/67 MHz

-- Ft. Bend County RACES - Tuesdays, 9PM, 146.16/76 MHz

-- Houston Area Traffic Net - Mon., Wed., Fri., 6:30PM, 147.60/00 MHz

-- Hella Hams Fone patches for Sick Kids - Wednesdays, 7:30PM, 3.955 MHz

Conventions -- ARRL National - Oct. 6-8, 1983, in Houston. There'll be advance registration forms at our September meeting.

* Note - Primary frequency 147.60/00 with 144.65/145.25 and 144.85/145.45 as backups at the option of the Net Control Station.

OUR PRESIDENT SAYS --

VERY IMPORTANT! Please read this paragraph carefully and then, before you forget it, mark your calendars accordingly. The Club will hold its October, November, and December regular membership meetings in the new building housing the Missouri City Police Department. This building is across FM 2234 from the fire station. We will meet in the Council Chamber/Court room located to the right as you enter the building. This is being done so the Fire Department can conduct intensive training sessions in the room where we have been holding our meetings.

As some of you know, I was in Bandera during the siege of Alicia. This was a mandatory business trip, but believe me when I say I wish I could have been here to help with the emergency communications. I was told of much cooperation and long hours spent by members of our Club. I truly hope that none of our group suffered any major damage to property

See you at the September meeting.

73, Steve Gottlieb WA5OEN

VP QSO

After enjoying a nice vacation traveling about the USA, it was very nice to come home and receive a nice welcome from all my friends and acquaintances in the Houston area. A personal tnx from me to all my ham friends.

This month's QSO will focus upon those individuals just starting out in Amateur Radio or those people who know others who have an interest in learning something about OUR hobby. In the August issue of 73 MAGAZINE is an article that should be reviewed by all people wishing to learn the Morse Code. This article is entitled: VISICODE: THE VIC 20 WAY TO EXTRA CLASS. In my opinion, this is the finest article I have seen in some time that really deals with the subject of using the computer for teaching training proficiency in Code. When I entered this program into my Vic 20 and ran it, I was completely surprised and astonished at what I heard. This program sends perfect code at the proper spacing and tone. The user selects the speed (5 to 20 WPM) and the computer does the rest for you. The characters are sent in 41 groups of 6 at random, with or without the video. You may copy all the text, then ask to see the text that was sent OR the user may wish to see the characters sent immediately AFTER it is sent. The sending of an "s" stops the whole process and displays the text sent up to that point.

I guess all of you can see that I am sold on this program. That is an understatement!! If I ever have the opportunity to teach Morse Code to any one, I will definitely incorporate this neat little program into my class. This program could probably be improved upon and made better by a good BASIC programmer; Tnx to H.R. Goodsell W7LTH and Hoa G. Nguyen KA7AQA and 73 MAGAZINE for this superb little program.

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VP QSO (Cont.)

Tnx for the support and let me know if there are any other programs that could be of use to the amateur community; I will put them into the computer and report the results to all.

73, Ron Bolyard KA5GYG

TREASURER'S REPORT FOR PERIOD ENDING AUGUST 15, 1983

Balance as of July 15, 1983 317.21

RECEIPTS:

Membership dues to date 4.00
ARRL Memberships to date 4.00
(Addition of two family members)

Total 325.21

EXPENSES:

Secretary of State 25.00
Stu Lamkin (Bulletin expense) 33.58
Steve Gottlieb (Picnic pictures) 15.66

Balance as of August 15, 1983 250.47

-- Lloyd Phelps WD5HEH, Treasurer

WHAT'S AHEAD FROM THE PROGRAM COMMITTEE

September 8 meeting -- Doc Estill W5FJU will speak on emergencies, communications, and the American Red Cross. Doc is Manager of Communications for the local Red Cross chapter and will enliven his presentation with some demonstrations.

At the October 13 meeting -- we'll have Marty Stebbins W4WUI, a well-known member of the Channel 11 KHOU news team and a ham for 27 years, will tell us about some of his adventures and misadventures along the

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Upcoming Programs (Cont

way. Marty does a great job on camera and we can look forward to an entertaining talk.

The November 10 meeting -- will have Rollie McGinnis W5PZP on fast scan TV. Rollie will need a couple of 19" color TVs for his presentation. If you have one you can let us use that evening, please call me at 621-5929.

73, Ken McAninch KA5DKS

MINUTES OF AUGUST MEMBERSHIP MEETING

Meeting was called to order by Steve Gottlieb, WA5OEN at 7:30 PM.

Standing roll call was held by all present with 26 present at the opening.

Mike Armatta, N5APC, announced that his wife Pat, KA5PXA, upgraded to Technician Class. Our congratulations to her on this achievement.

Our newest member David Alexander, N5CHW, was introduced and welcomed.

Tom Casey, WA5ACF, gave a report on the Club's repeater and announced that the repeater has an assigned frequency of 145.250 MHz as repeater output with an input frequency of 144.650 MHz. The repeater does have a slight RFI problem which is caused by leakage from Cable TV companies.

Motion was made by Tom Casey, WA5ACF, and seconded by Lloyd Phelps, WD5HEH, to pay the \$25.00 fee for the incorporation of the Club's repeater organization, Memorial Emergency Radio Association. Discussion followed as to the government of BVARC and MERA members. Ownership of the repeater is by MERA. Vote was taken and the motion passed.

Steve, WA5OEN, reported on the Club's involvement with Houston Com-Vention '83 and our involvement with the hidden transmitter hunt. Steve read a letter he sent them asking for the provision of quality prizes to be awarded first and second place winners. Steve then read a letter he received in reply stating that Houston Com-Vention '83 will provide a V-J Products 90 Watt 2 meter amplifier and a V-J Products 20 amp power supply for first and second place prizes respectively.

Steve suggested that the Club put all of its "junk" up for sell at the Flea-Market, and also that anyone interested in selling some of their equipment, or whatever, bring it down. Steve also mentioned the possibility of the Club receiving a percentage of all sales. These percentages to be agreed upon by anyone who wants to participate.

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August meeting minutes (Cont.)

Ed Harwell, W5WVX, and Bob Spradling, W5UBD, reported on the Club's involvement with the emergency communications program. Missouri City and Stafford locations are well equipped with Sugar Land rapidly following by stating that they (Sugar Land) can obtain the necessary funds to purchase the same type of equipment with the end result that all three cities will have the same radio equipment.

Steve, WA50EN, announced that the Fire Station will not be available for membership meetings through January commencing in October, but that space has been offered in the Police Station across the street.

Harold Parker, ND5F, on behalf of Bob Grady, N5DQR, discussed the possibility of the Club making some inexpensive 2 meter J-pole antennas for possible sale at Houston Com-Vention '83. Parts consist of short pieces of coax and 300 ohm twin-lead. The antenna can be enclosed in PVC pipe for protection, or left as is. Cost for parts between \$2.00 and \$3.00, with possible sale price of \$7.00. Stu Lamkin, WB5IGG, made one and reported that it will out perform a 5/8 wave antenna. Prices on the necessary coax, twin-lead and connector will be based on large quantity orders (hopefully).

Motion was made by Henry Freedenberg, N5HF, to allow Board of Directors the authority to spend seed money for the purpose of constructing the antennas. Seconded by Lloyd Phelps, WD5HEH. Vote was taken and motion passed.

For those interested, a "Breakfast Meeting" has been started for the purpose of general interest to anyone that wants to attend. Place for the "Breakfast Meeting" is Holiday Inn on the Southwest Freeway at the West Bellfort exit.

Meeting was adjourned at 8:45 PM.

Program presented by Henry Freedenberg on DX'ing.

Submitted by Lloyd Phelps, WD5HEH, Treasurer/Secretary Pro Tem

REMEMBER

It's \$2.00 for the Club treasury in you join or renew your ARRL membership through the Club. And you yourself save \$5.00 if you're over 64 or under 18 years of age. Call Lloyd Phelps WD5HEH, Club Treasurer, at 498-2088 as to how to go about it.

EDITORIAL from the *RF Carrier*, May issue, Dayton ARA

by R.R. McKay, N8ADA

The ARRL is all we have between a lot of frequencies and nothing. They are the only organized operation working to protect your interests. There seems to be little appreciation of the monetary value of the amateur frequencies. As the crush for new frequencies increases, the fight to retain amateur bands is going to get tougher and tougher.

Just a couple of months ago, a cordless telephone company made an attempt on our 160-meter band. Reasoning — they could sell more telephones and make more money if they had the band. Well, they failed, however, the approach was clumsy and ill prepared. Next time they will probably have more smarts.

For those of you who operated 40 meters recently, we hope you understand that it was only through several years of behind the scenes work by the ARRL with countries all around the world that we managed to keep the band. Commercial interests, after the frequencies, were completely taken back by the organ-

ized effort of the amateurs to retain them. Our good friend and soothsayer of the future, Wayne Green, had already written off the band. You can be sure, next time around that the commercial interests will be better prepared.

In view of the commercial pressures for our frequencies, it is going to get more difficult and more expensive to protect our interests. The ARRL is going to be sorely pressed for funds to mount an aggressive effort in our behalf. We are only 400,000 strong so it's hard to understand why only 150,000 think enough of their hobby to put a few bucks toward protecting their future. We recognize that there are some who just can't spare the membership fee but 250,000? No way. The ARRL needs the backing of every amateur if they are to present a strong front with the FCC and Congress.

We have a new team, new ideas and an opportunity to tell them what we want them to do. Let's give them the backing they deserve.

JOIN THE ARRL!!!

--ARRL Affiliated Club News

A NEW MEMBER

Y'all welcome David N5CHW who joined us at the last Club meeting. He and others who've joined this year wear red-bordered badges. If you haven't already done so, introduce yourself and make 'em glad they're one of us! David:

David Alexander N5CHW, 17118 Blue Mist Drive,
Sugar Land TX 77478. His home fone is 277-7861.
He has an Advanced Class ticket and is not yet a member of ARRL.



ROSTER CHANGES

New addresses and home fone numbers: Steve Gottlieb WA5OEN and Vic LaRocca K5KNH now are at 8600 South Course in Houston 77072. Steve is in Apt. #608 with fone installation pending. Vic is in #1603 with fone 568-1760.

B - S - S MART

No listings this month, but we'll run yours for any ham-related item you would like to buy, sell, or swap. If it doesn't go on the first listing, we'll run it for as long as you request.

AMSAT's Oscar 10 Is In Orbit
by: Harold Parker, ND5F

AMSAT proudly announced the successful launch of Oscar 10 on June 16th and its transponders were turned over for general amateur usage on Aug. 6th.

Unlike its predecessors that circled the earth in a low concentric orbit every 90 minutes or so, and could be used for only a few minutes at a time while you could "see" them, Oscar 10 is a highly visible satellite that is in a high elliptical orbit circling the earth only about two times each day. (699.545591 minute period)

At an apogee of 22,062 miles, an amateur station can now work distant stations dependably for extended periods of time. The "bird" seems to move slowly - usually from the West to the East - and sophisticated tracking systems are not necessary to locate and schedule passes for making solid contacts.

Oscar 10 is the new generation of satellites and is a look into the future of Amateur Radio. It is one of the many good things that we can expect to see coming from AMSAT.

For those of you who want to use Oscar 10, it operates on a 70 cm uplink and a two-meter downlink frequency. Many excellent articles have appeared in the recent issues of QST Magazine and AMSAT has developed an inexpensive computer program to aid the more serious operators with tracking.

Generally it requires a station that will produce about 1 KW of radiated power to "work" Oscar 10 on 440 Mhz. but you can hear all the activity on your two-meter sideband rig with a good beam directed at the satellite. Tune between the frequencies of 145.920 and 145.960, USB, for monitoring the contacts and to 145.810 and 145.987 for the beacons.

A group of local AMSAT members have recently organized under the direction of Hal, N5BXP as Net Control, and meet on Mark's WB5RDK repeater, 144.85/45, at 10:00 pm local on Tuesday evenings to discuss the weeks satellite activity and to update the orbital predictions. Please check in with us if you would like to learn more about satellite operations.

NCS SCHEDULES FOR SEPTEMBER - OCTOBER

2M Public	9/5 ND5F	9/12 WB5RDK	9/19 KA5NYI	9/26 N5FAB	
<u>Service</u>	-- 10/3 ND5F	10/10 WB5RDK	10/17 KA5NYI	10/24 N5FAB	10/31 ND5F
10M Rag	9/7 WB5IGG	9/14 K5EST	9/21 N5HF	9/28 KA5GYG	
<u>Chew</u>	-- 10/5 WB5IGG	10/12 K5EST	10/19 N5HF	10/26 KA5GYG	

FCC CHANGES RULES ON MAXIMUM POWER

The FCC has amended the Rules in Parts 2 and 97 pertaining to amateur transmitter power limitations.

FCC changes Rules (Cont.)

Effective 29 August 1983, most amateur power limits will be expressed in terms of peak envelope power (PEP). The new rules impose a 1500 watt PEP output limit on the majority of amateur transmissions. However, operators employing AM double sideband voice may continue to use the present 1000 watt DC input terms until 1990. The new rules also place a 200 watt PEP output limit on transmitters operating in Novice subbands, replacing the present 250 watt DC input limit.

Additionally, effective radiated power has been redefined in terms of PEP output from the transmitter. The special power limit at 1900 to 2000 kHz have been specified in PEP output figures, and power limits for 450 MHz transmitters located around certain military installations have been redesignated in PEP output terms.

--Worldradio, Sept. 1983

EDITORIAL from Worldradio, September 1983

Is the FCC just plain crazy? Strong language, but not really, for they have just made the stupidest decision in their history.

"Using an amateur station ... in conjunction with a normal police patrol is prohibited."

If things were normal, we wouldn't need the police. Strangely enough, the FCC put the OK on marathons, bike races, fireworks displays, walkathons, and the like with this language: Although amateur participation may incidentally benefit the sponsor, their main purpose is to provide a service to which the public is the real beneficiary.

One is hard-pressed to identify an organization whose actions more benefit the public than the undermanned police departments of this country.

Public safety agencies are truly an extension of the people. The chief law enforcement officer in each county, the sheriff, is directly elected by the citizens. Who elected the FCC?

In various areas of the country, Amateur Radio operators were asked by police agencies to position themselves on the roofs of buildings overlooking shopping area parking lots. What occurs in those parking lots? Burglary, robbery, knifings, rape, shootings, and drug transfers. If the amateur observed a violation of the law, he would call headquarters, and they would dispatch a patrol car..

Certainly the prevention of a serious crime or the apprehension of a suspect (and protection of the public) is a highly admirable utilization of a person's spare time and of the radio spectrum.

Police chiefs (appointed by an elected city council) have publicly praised the effectiveness of the volunteer radio operator.

United States is one of the few countries in the world where (theoretically) the people tell the government what to do, and NOT the other way around. Did the FCC ask the PUBLIC if they would like to (YES/NO) have a

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Worldradio EDITORIAL (Cont.)

tiny slice of the radio frequencies used to help keep them from getting mugged? For whom does the FCC speak?

The police have a rather tough go out there. The public has a terrible time of it. Anything that aids the police in helping the public should be amplified, not prohibited.

The ruling come in conjunction with FCC steps against "business communication". There is quite a difference between pizza shops and police departments. The protection of human life itself is on a far different plane than fireworks displays.

The most valuable service that amateurs could continuously provide the public has been prohibited by the FCC. Ask any police officer and he will tell you, "The criminals are winning."

You are urged to write to your congressman, senator, and the FCC commissioners who have apparently stopped reading the Washington DC newspapers.

Refer to Report No. 2198. The FCC includes "all types of communication intended to facilitate the regular business ... organization ... whether for profit or not ... whether government"

The regular business of the police is protecting you, your family, and others. This is a far different scope than is expected from other government agencies. The sworn officer is the only one who is pledged to put his life on the line for you.

Let's give them all the help we can.

MADISON ELECTRONICS SUPPLY :

1508 McKinney

Houston, Tx. 77010

Fone: 658-0268

TO ALL HAMS---

We carry in stock or can order for you any item you want from any major manufacturer of ham gear, including all line accessories and Kenwood service manuals.

Call me, identify yourself and wants, and I'll quote our HOT SPECIAL prices available to you.

73, Don Busick, K5AAD

Stephen Mendelsohn, WA2DHF
ARRL Hudson Division
Vice Director
64 Maiden Lane
Little Ferry, NJ 07643

June 28, 1983

A Simple Resistive Audio Multiple Distribution System
By Stephen Mendelsohn, WA2DHF

The time comes in any ham's life when he is called on to do public service work of one type or another. If he is public relations oriented he may want to take the audio from his receiver and feed it to several broadcast audio tape recorders, or the audio input to a commercial video tape recorder. These devices all use a 600 ohm balanced input. The receiver frequently has an output that is 8 ohms, unbalanced. The trick of designing an audio multiple output distribution system, or "mult box" as it is known in the broadcast trade, is to match the drive impedance (the receiver) to the load impedance for the broadcast equipment. Levels are the second thing that one must match. The input to most of the broadcast equipment is either "mic" level which is -45 to -60 dB at 600 ohms, or "line" level which is -10 to -25 dB at 600 ohms. The output of the average receiver, whether 2-meter fm or low bands, will vary between +6 and -10 dB at 8 ohms. Now that we have all of the required data, how do we make it all work together?

If you take the output of your headphone jack and connect it to the line input jack on a piece of professional equipment, you may wind up with lots of hum and distortion. This is because the impedances are badly mismatched. To use an antenna term, the SWR is too high. The hum will be from a lack of isolation. What we need is a resistive device that will perform three functions. 1) Isolation of the source from the load; 2) Match different impedances and 3) Drop the line level output of the receiver to a mic level satisfactory for the broadcast equipment. This requires the design of two different types of audio pads. Each pad is designed using common resistors that could be assembled on a standard perf board using "flea" clips to allow connections to be made to the equipment.

Section A of the pad is a standard "O pad". It acts to give isolation, and match impedances. Because not all receivers give the same audio output, several values of resistors (listed in table 1), which will give various levels of attenuation. In all cases the driving impedance is 8 ohms, and the load impedance is 600 ohms.

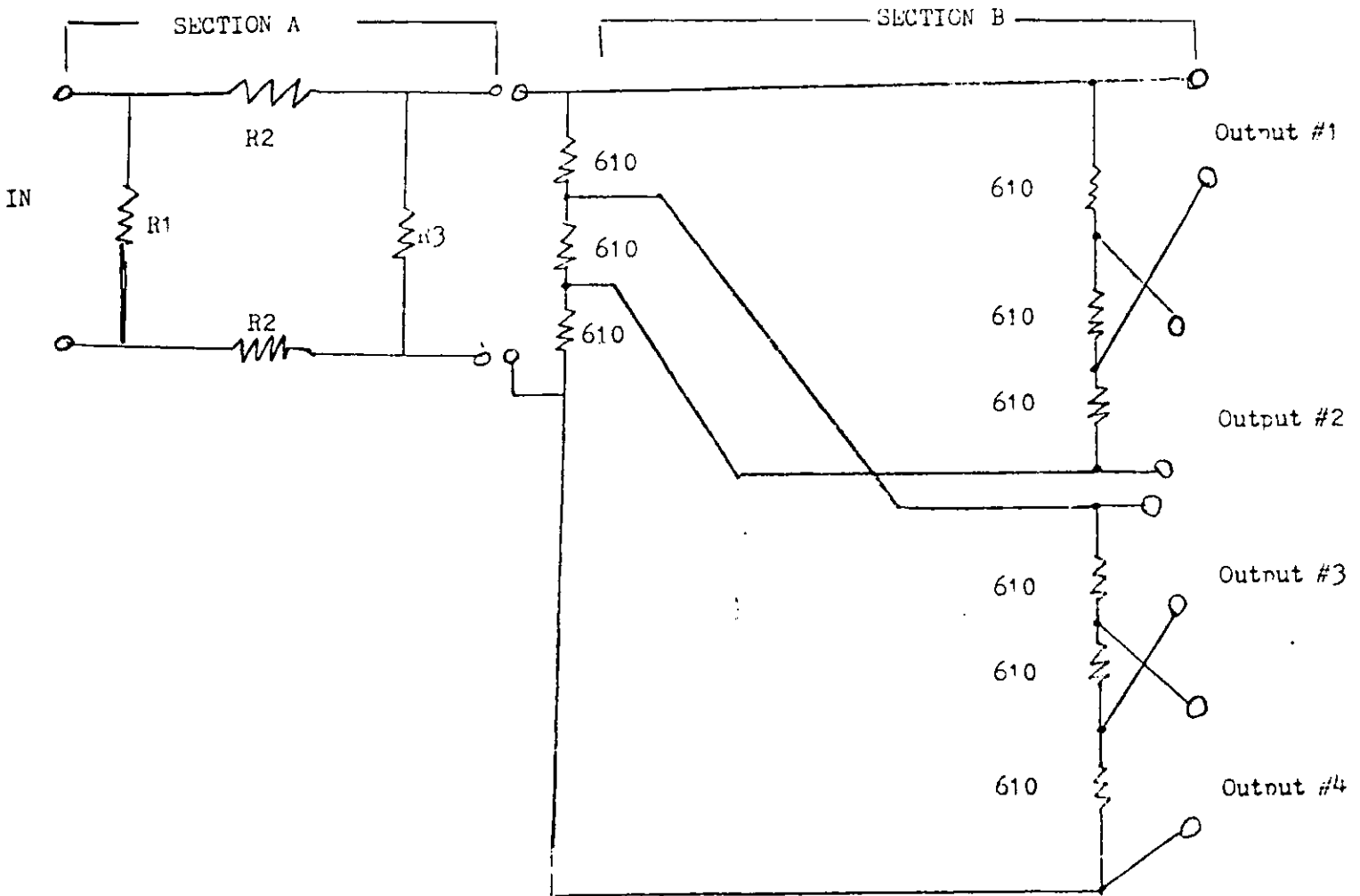
Section B of the pad is designed to take a single input and produce 4 outputs at 600 ohms with a 12 dB loss between input and output. In each case the four outputs will be isolated from each other, and provide correct level. All resistance values are 610 ohms for this section.

The resistors are all standard value half-watt types that can be found in a junk box or purchased at a parts store for a dollar or two. The resistors may be laid out in any fashion within reason. Keep the leads short since RF can creep into anything. In most cases, the broadcast equipment will be clipped on with small alligator clips provided by the reporter, but it doesn't hurt to have a Sony type mini-plug connected to one of the outputs. If you can save the reporter even one step, it will help to assure your story getting on the air. And getting the story on the air is the name of the game in the public relations business.

****NOTE:** This information may be reproduced without written permission of the author if name, and callsign credit is given.**

Table 1 Section A "O Pad" values
 Input=8 ohms Output=600 ohms

Attenuation	R1	R2	R3
10dB	6.8 ohms	51 ohms	620 ohms
20dB	8.2 ohms	180 ohms	620 ohms
30dB	8.2 ohms	560 ohms	620 ohms
40dB	8.2 ohms	1.8k ohms	620 ohms



INPUT=8 Ohms from receiver
 Outputs=600 Ohms to recording equipment

THOUGHT FOR THE DAY

Sympathy is wasted
 ONLY when it is for yourself.

B-VARC BULLETIN
7401 Heilig
Houston TX 77074

FIRST CLASS MAIL

