



# SIGNAL



May 1996 Volume 5 Number 5

## From The President



May 1996

For my first task, I would like to thank Stan, KD1LE for his tireless efforts as the NVARC President for the last 3 years. Without his efforts we would not be in as strong a position as we are now.

Now, for my second task. I would like to remind everyone that the NVARC is their club. Without their active support and participation, the club will wither and perish. I would like to encourage all members to voice their ideas and suggestions at the regular meetings, or if you prefer, at the board meetings, which are open to all members. These are held at my home, 791 Townsend Rd, Groton, on the second Thursday, at 7:30 PM.

Now, with that over, I would like to thank all the volunteers that helped with the Groton Road Race last April. This year saw the largest turn-out of runners, and the smoothest event so far. The event has gained a reputation in the running community as one of the best organized and safest events in the running calendar. This is in no small part due to the efforts of the 38 Amateurs that volunteered their services. Nothing does more for the amateur image that actually getting out into the community and helping out. Again, many thanks to all who helped.

The Road race is only one of many events that the club gets involved with. The great thing about our hobby is that it encompasses a wide range of skills and activities. The trick is to find the areas that you and the club can participate in. I see one of the club's greatest tasks is to bring members together to help

them identify areas of the hobby they want to expand. This is accomplished by formal talks, organizing events, and by simply by getting members with similar goals together. Let the club work for you.

As part of this effort, we are setting aside the hour before the club meeting as a general workshop, for those that want help with any facet of the hobby that takes their interest. Come along and help, and be helped. Every-one has something to contribute.

I look forward to an interesting year. I expect that all of us will teach something to every-one else.

See you at the meetings.  
73's Erik. KA1RV  
erikp@eggo.ultranet.com

## Elections/New Officers

At the April Meeting elections were held and new officers were elected for the 1996-1997 club year. The resulting Officers, Board of Directors and miscellaneous positions:

President	Erik Piip	KA1RV
Vice President	Bruce Blain	K1BG
Treasurer	Ralph Swick	KD1SM
Secretary	Stewart Jackson	K1YET
Board Members		
Expire		
1997	Craig Kalley	N1ABY
1998	Dwight Fitch	AA1MT
1999	Bob McArthur	KE1ED
PIO	Earl Russell	WR1Y
Editor	Stan Pozerski	KD1LE

## Tech Talk

For those interested the Tech Talk will be from 6:30 to 7:30 on meeting nights. This

month's discussion will be on lightning protection and grounding. These talks will be geared toward Q&A and in depth discussion as requested by the members. Prior to the close of each meeting we will choose a topic for the next discussion.

### Members Corner

Boy, I had one heck of a weekend!! A couple of friends (Tony, N1VQP and Justin, N1TZD) came down to my house to do the Massachusetts QSO Party. We didn't do all that good (60 QSO's on 2m/440 FM and SSB, 10meter CW/SSB and AO-13/AO-10 Satellites), but it was fun.

The first real thrill was working R0MIR (the Russian space station MIR) on 145.550 simplex. I talked with Colleen (the American astronaut), for about 2 minutes. The space station was 65 degrees in the sky for me, so it was no trouble!

Then 3:00am Sunday I worked Alaska on 40 meters to complete my WAS.

Monday night I went to the Nashua (NH) Radio Club meeting and got my QSL cards from the bureau (or however you spell it!). Came home later that night and found out that I got the last 10 QSL cards I needed for DXCC on 10 meters (now I just have to find all 100 cards. Just had to brag a little bit! (hi,hi)

73's 2 all de Jeremy

### Upgrades

Ingrid Hersh KB1BVZ Tech +  
Herm Raymond KE1EC 20 WPM

### SKYWARN

Since summer is coming and April was "Severe Weather Awareness Month" I thought I'd include a few of the NWS bulletins. The weather mentioned is likely in the coming months so take note.-ed

National Weather Service Taunton MA  
540 AM EDT Sat Apr 27 1996

What about hail?

The glossary of meteorology defines hail as precipitation in the form of balls or irregular lumps of ice which are always produced by convective clouds. The type of convective clouds are nearly always cumulonimbus...or more commonly...thunderclouds. An individual unit of hail is called a hailstone.

In general...a hailstone begins as a frozen raindrop or snow pellet within a thunderstorm. The turbulent updrafts and downdrafts within the cloud send the hailstones up and down several times...where they gather layer upon layer of ice. The number of layers in a hailstone reveals the number of up-down journeys it has made before falling to the earth.

Recent research...however...has revealed that there is not one simple process of hail formation. Hailstones may actually form in several ways. While most hailstones acquire onion skin layers from traveling up and down in a storm...other hailstones can grow while balanced in an updraft and have little layering. Stones may also form around raindrops that are carried high into the storm and freeze. Finally... Some hailstones form around ice crystals. In any case...when the ice at last becomes too heavy to be supported by the updraft...it falls to the ground. Therefore...the stronger the thunderstorm updraft... The heavier weight of hailstones it can support before falling...and the larger the hail may grow.

A hailstone generally ranges in size from that of a pea to that of a grapefruit...or from about 1/5 inch to more than 5 inches in diameter. Hailstones are usually spherical or conical...but because they form in various ways...a myriad of irregular and fantastic shapes may be created. Some hailstones have been observed to look like pyramids with flattened bases...while others resemble jelly beans. Either while falling or when on the ground...hailstones can melt together and create even more unusual and irregular chunks of ice.

Here are a few interesting facts about hail and hailstones:

- Large hailstones fall at speeds faster than 100 mph.
- Hailstones sometimes contain foreign matter such as pebbles...leaves...twigs...nuts...and insects.
- The largest hailstone observed in the United States fell in Coffeyville Kansas on September 3 1970. The hailstone measured more than 7 inches in diameter...and weighed 1.7 pounds. The previous longstanding record was believed to be a hailstone which fell at Potter Nebraska on July 6 1928. It measured around 7 inches in diameter and weighed about 1.5 pounds. In this storm...individual hailstones fell far apart...about 10 to 15 ft from each other.
- Hail causes nearly \$1 billion in damage to property and crops annually.

- Costliest United States hailstorm: Denver Colorado July 11 1990. Total damage was \$625 million.
- The most deadly international hailstorm on record occurred in India on April 30 1888. This hailstorm killed 230 people at Moradabad. About 100 miles east of Delhi...and 16 others at Bareilly.

Public Information Statement - Lightning Safety Rules National Weather Service Taunton Ma 710 AM EDT Fri Apr 26 1996

All thunderstorms produce lightning...by definition. If you can hear thunder...you are close enough to the storm to be struck. Move inside. It doesn't have to be raining yet since lightning can strike 10 to 15 miles away from the rain portion of the Storm. These lightning strokes come out of the upper portions of The thunderstorm cloud which extends 5 to 10 miles into the Atmosphere.

In general...lightning will travel the easiest route from the cloud to ground which means that it often strikes the tallest object. Therefore...a simple rule is to not make yourself the tallest object or stand near the tallest object in your immediate surrounding. For instance...do not stand in an open field...on a beach...or on a hilltop. Do not stand under an isolated or large Tree or near a pole...and do not stay out on a boat. If you are in a forest...you should seek shelter in a low area under a thick growth of small trees. If you are in a group of people...spread out keeping several yards apart from each other.

Stay away from metal objects such as fences...poles... equipment...pipes...etc. Get rid of metal objects on your body such as coins...money clips...hair pins...jewelry...etc. Stay away from water. Inside...stay away from electrical appliances ...televisions...and telephones. Only use the phone in an emergency.

If you feel your hair stand on end...you are in immediate danger of being struck. Unless you can instantly jump inside a shelter...drop to a crouching position...bending forward and keeping your feet close together with your hands on your knees. The object is to be as low to the ground as possible...but with as little of your body surface touching the ground.

Persons struck by lightning carry no electrical charge and can be handled safely. Lightning often has a paralyzing effect that is temporary. Even though a person appears dead...he or she may be resuscitated. If a victim is not breath-

ing...immediately start mouth to mouth resuscitation every 5 seconds for adults and Children. If a person is not breathing a n d there is no pulse...cardiopulmonary resuscitation...or CPR...must be administered. This is a combination of mouth to mouth resuscitation and external cardiac compression...and should only be undertaken by persons with proper training.

Here are some fallacies and facts...

Fallacy...lightning never strikes twice in the same place.

Fact...there are numerous documented cases of multiple Lightning strikes in the same place

Fallacy...the rubber soles of your shoes or the rubber tires on a car will protect you from being injured by lightning.

Fact...rubber soled shoes and rubber tires provide no protection from lightning. However the steel frame of a hard topped vehicle will protect you...if you are not touching metal. If your car is struck by lightning...you may suffer Injuries and your car may be damaged...but you are enormously safer than if you are outside.

Fallacy...you can tell the distance to lightning by counting 1 second per mile after the thunder.

Fact...it takes 5 seconds for sound to travel 1 mile. So...count 5 seconds for one mile...10 seconds for 2 miles...etc.

Field

73,Rob-KD1CY.

In a related note. The Skywarn session in Nashua on May 10<sup>th</sup> was well attended. There were 150 or more people in attendance. The meteorologist from the National Weather Service did a good job covering a lot of basic material. KD1SM, N1PBL and KD1LE were in attendance.

### Resource List

Construction Earl Russell	448-5822
DX Bruce Blain	772-4138
NTS, MARS Stan Pozerski	433-5090
RACES Ben Akins	433-9227
TCP/IP Ralph Swick	582-7351

### This Month and Beyond

This months speaker was unknown at publication time.

### Upcoming Public Service Events

The following events for which we provide communications are coming up. Put them on your calendar. There are also a few in Fitchburg that MARA is working.

Harvard Bike Race	June
Pepperell Road Race	July 5
Pepperell 4 <sup>th</sup> July Parade	July 6 (noon)
Longsjo Bike Race	July 4-7
Marathon affiliated w Longsjo	July 5
Bike Race Leominster	July 4,5,6,7
Groton Septemberfest	Sept
Pepperell Soccer Tournament	Oct

Note; The U.S. Men's and Women's Olympic Cycling Teams will participate in the Longsjo Classic Bike Race.

### QSL Cards

Received any interesting QSL cards lately? Why not write them up for us to share. This week I received two that were interesting to me. Not that they represent some rare DX or anything. The first was from a ham who had been licensed 72 years. That's since 1924. He



had a string of callsigns to go with the years. The second was from a ham who was much younger. Only 76 years old. He was very pleased to have made general in April. Ham Radio is such a great hobby and apparently age is no object in its pursuit. Stan

### Meeting notes from April 18

The April meeting covered a lot of ground. After whirlwind elections, Bruce K1BG gave a slide presentation on Field Day and the sites he visited last year. There was commentary on the various ways and levels clubs choose to participate at. We then had an open Q&A session from an "Expert Panel". This was actually just an open Q&A where someone would field any question asked. The discussion then broke up into smaller groups with coffee and desert.

### Field Day

HF CW STATION

Bruce K1BG, Stan KD1LE

HF PHONE

Herm KE1EC, Bob KE1ED

POWER

Craig N1ABY, Ben KB1FJ

NOVICE STATION

John KA1ZTU, Wolfgang WA1VOU

SITE PERMISSIONS/PUBLICITY / SIGNS

Earl WR1Y, Dave N1MNX



### NVARC Slow Speed Net

The net meets Tuesday and Thursday at 8:00 P.M. on 28.123 MHz.



Except the third Thursday of the month. that being the club meeting night.

### Board Meeting Notes



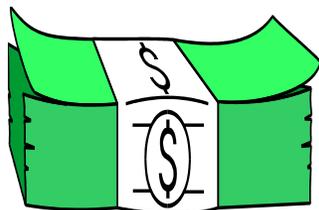
The May Board Meeting was an organizational one. It was a full house at Erik's, with all the officers and staff in attendance. We discussed how the tasks would be distributed in the new organization. There was also a financial summary of the past two years which is in the treasurer's report.

### \$The Treasurer's Report \$

NVARC Annual Report prepared 7-May-96

	4/1/95-3/31/96	4/1/94-3/31/95
<u>Income</u>		
Dues	630.00	660.00
ARRL memberships	28.00	26.00
Class books	79.60	46.55
Hoss Traders		77.50
Split the Pot	34.00	72.00
<b>Total Income</b>	<b>771.60</b>	<b>882.05</b>
<u>Expenses</u>		
Insurance	255.00	255.00
Newsletter post	329.71	327.25
Banking	32.50	10.00
PO Box	14.00	14.00
QSL Bureau	25.39	28.91
Field Day		24.00
Miscellaneous	81.58	51.80
Tables		110.97
Software		118.52
ARRL Field Forum		10.00
Badge Punch	47.25	
<b>Total Expenses</b>	<b>785.43</b>	<b>950.45</b>
<b>Net Income</b>	<b>- 13.83</b>	<b>-68.40</b>

The annual report above was prepared for the new Board of Directors to provide a complete picture of where your monies go. Notice that although we have operated at a deficit for the past two years, we purchased a significant amount of capital equipment- in the form of tables, software for preparing the newsletter, and the badge-making equipment. Also, just one more new member last year would have erased the deficit for the previous year. Alternatively, if every member joined ARRL and renewed through the Club we would have erased the deficit.



Additional activities such as the club table at Hoss Traders (where we collected a 10% commission on "trades") provide the means to do extras during the course of the year.

Income for April was \$70.00; expenses were \$21.70. We purchased two videotapes from the ARRL Educational Activities Department, for an Education Fund expenditure of \$24.00. Current balances:

General fund \$603.26,  
Education fund \$188.34

73,-Ralph KD1SM

### NVARC QSL BUREAU

The NVARC Buro has approximately one pound of cards on hand. So we will be sending out cards after the May meeting.

Bring your cards and a QST label to the meeting or to breakfast and the club will take care of the shipping and bureau fee.

### Predictions From The Past

"I have traveled the length and breadth of this country and talked with the best people, and I can assure you that data processing is a fad that won't last out the year." The editor in charge of business books for Prentice Hall, 1957

"But what...is it good for?" Engineer at the Advanced Computing Systems Division of IBM, 1968, commenting on the microchip.

### NVARC Flea Market

Diamond 2M/440 dual band Ant	\$60
Kenwood Commercial 440 MHz	\$300
Kantronics KPC-3 TNC	\$100
Toshiba laptop computer	\$100
Port printer (bat op) w/above comp	\$180
N gauge railroad landscaping	
Contact Dave Peabody N1MNX 433-2577	

### From the Video Library

The Video Library has seven titles to loan.

- **The Last Voice From Kuwait**
- The all China DF Competition
- **Your League at Work**
- **Signal to Noise Story**
- **Gonzaga Prep HS Radio Club Satellite Communications**
- **The New World of Amateur Radio**

You can get them anytime you can catch me at home, and I will bring the available tapes to each meeting.

### NVARC Members List

Call	Firstname	Lastname	City
	George	Johnston	Acton

KC1VS	Larry	Ober	Acton
KD1RO	Don	Spencer	Acton
KD1PI	James	Ford	Ayer
	BARC		Boston
N1OTR	Edwin	Charnley	Chelmsford
WB1HBB	Warren	Rothberg	Derry
KI2L	Lawrence	Spinak	Gardner
N1LLG	Daniel	Daigneault	Groton
N1NXQ	Rayna	Daigneault	Groton
KB1BGN	David	French	Groton
KB1BVZ	Ingrid	Hersh	Groton
WA1TAC	Rodney	Hersh	Groton
NZ1B	Ian	Norish	Groton
KA1RV	Erik	Piip	Groton
KE1EC	Herman	Raymond	Groton
KA1JVU	Karen	Reif	Groton
W1XP	Robert	Reif	Groton
WR1Y	Earl	Russell	Groton
AA1PO	James	Western	Groton
	Martin	Basch	Harvard
	Betsy	Basch	Harvard
K1BG	Bruce	Blain	Harvard
N1VQI	Arnold	Kelly	Leominster
WA1DKH	John	Dundas	Littleton
K1JKR	Kenneth	Atkins	Littleton
N1QDZ	Joseph	Swick	Lunenburg
N1QIT	Jeanine	Swick	Lunenburg
N1QLV	Elaine	Swick	Lunenburg
KD1SM	Ralph	Swick	Lunenburg
N1WEH	Robert	Purcell	Nashua
	Fred	Meshna	New Ipswich
		American	Newington
		Radio Relay	
		League	
KB1FJ	Bennie	Akins	Pepperell
	Dave	Banks	Pepperell
KB1AWE	Jeremy	Bisbo	Pepperell
N1OJW	Roger	Bisbo	Pepperell
N1UPR	Linda	Bisbo	Pepperell
N1NWE	Don	Campbell	Pepperell
UA3AGS	Sergei	Chikutov	Pepperell
KD2S	Den	Connors	Pepperell
K1YET	Stewart	Jackson	Pepperell
N1ABY	Craig	Kalley	Pepperell
AA6DF	Deke	Lightfoot	Pepperell
KD1JY	Duane	Long	Pepperell
KE1ED	Robert	McArthur	Pepperell
KA1ZTU	John	Nugent, Jr	Pepperell
N1MNX	David	Peabody	Pepperell
KD1LE	Stanley	Pozerski	Pepperell
N1OMM	Scott	Pozerski	Pepperell
N1PBL	Lynda	Pozerski	Pepperell
WX1J	Scott	Pyles	Pepperell

N1VAV	Gregory	Rice	Pepperell
N1VAW	Patrica	Rice	Pepperell
N1WLM	John	Ritchie	Pepperell
N1UMK	Tony	Sampas	Pepperell
KD1TX	Kent	Springer	Pepperell
	Dermot	Walshe	Pepperell
WB1BRE	Bill	Burden	Strafford
AA1MT	Dwight	Fitch	Townsend
KA1ZAQ	Robert	Kwiatkowski	Townsend
KA1DZV	Les	Peters	Townsend
KA1VOU	Wolfgang	Seidlich	Townsend
N1PIP	Allyn	Richardson	W. Groton
K9HI	Phil	Temples	Watertown

Note: Some of the listed names are ARRL officials or newsletter exchanges



**Nashoba Valley  
Amateur Radio Club**

PO Box # 900  
Pepperell Mass 01463-0900

Pres.: Erik Piip KA1RV  
V Pres.: Bruce Blain K1BG  
Secretary: Stewart Jackson K1YET  
Treasurer: Ralph Swick, KD1SM  
Editor: Stan Pozerski KD1LE  
PIO: Earl Russell WR1Y

Meetings are held on the 3rd Thursday of the month - 7:30 p.m. - Pepperell Community Center  
Talk-in 146.490 simplex

This newsletter is published monthly. Submissions, corrections and inquiries should be directed to the newsletter editor. Articles and graphics in most IBM-PC formats are OK.

Packet address: PEPMBX (145.09 MHz)