



*Newsletter of the Ben White Memorial Nets, founded 1938*  
*Hit and Bounce Net ~ Hit and Bounce Slow Speed Net*  
**AUGUST 2001**

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### **Hit and Bounce Net Manager's Comments**

C L "Sis" Berry WD8DIN

In July, fifty-four different stations checked in for a total QNI of 630. Traffic listed was 526, 454 cleared. Average time per session 36.8 minutes.

Twelve stations listed 10 or more pieces of traffic: NG1A tops the list with 123; K8LJG 98; K2BCL 73; KA8WNO 71; W2WCG 22; W3JKX 16; WX4H and WA4DOX with 15 each; AA4AT 14; N3DE 11; WA3UNX and W8RTN 10 each. WX4H and K8KV didn't miss a day; K8LJG 28; AB4E 26; KK3F 25; W2MTA 24; WA2RUE 23; WØGRW 22 and AC4DV 20.

QNI 15 times or more were AA8PI, N4ABM, WA3UNX, W3JKX, N1DHT, KA5NNG, NG1A and N3DE. Thanks to all who checked in and brought traffic or for just being there. One new visitor in July, K4BEH, Pat in GA. Also, for those who aren't aware, Jan, (formerly KJ4N) has a new call, WA2YL. Nice callsign, Jan!

Bad day at the editor's desk was the day my computer's hard drive crashed (and burned!) – very near to the end of the month. (Bad timing) Hi. All data and files were lost, but I had backups of HBN data through June, which helped a great deal.

Those of you who like to keep track of weather conditions might be interested in checking out a very nice weather tracking computer program called Weatherbug. It's compact, and the features are outstanding. Check weather (live) anywhere just by entering a zip code. It displays temperature in the system tray and flashes alerts when there are advisories for the area you are monitoring, with access to radar maps, live cams, forecasts, travel wx, etc.. Check it out at [www.weatherbug.com](http://www.weatherbug.com).

Thanks to all for your input and for your support of the Hit and Bounce Net. You are very much appreciated. 73, ARF! Sis

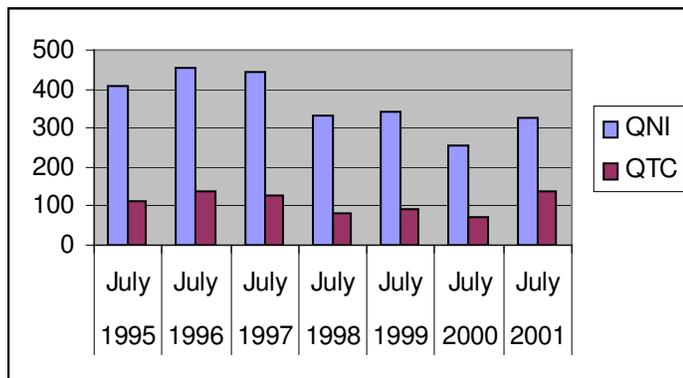
### **HIT AND BOUNCE SLOW NET** **MANAGER'S COMMENTS**

**C.M. (SAM) Shearer, WB5ZJN, Mgr.**  
**Charles (Chuck) Punzell, N3ON, Asst. Mgr**

Twenty-six hardy troupes checked in this month: five less than last month, but our overall count was still quite strong. Most of our stalwarts were ever-present which helped us to generate a QNI of 325 and a QTC of 138. Again, our thanks goes to NG1A for bringing us so much additional traffic. (Note: Because I did not receive two NCS reports this month, our attendance will be figured on 29 day month rather than 31.) Perfect attendance this month goes to Gail, K2BCL, and hot on his heels is Ad, NR9K (28); Sam, KG2GA and Don, K2YAI (27); Chuck, N3ON (26); Cid, W3QQ (25); Jim,

WA3DUH (24); and Bill, W2MTA and Sam, WB5ZJN (23). As always, everyone's contribution is greatly appreciated.

As can be seen in the graph below, our numbers are up this July from last year, and we are about equal to the QNI's of '98 and '99. Keep up the good work, everyone. Traditionally, our numbers pick up as we slip comfortably into our fall routines.



Condition were better this month, and most days everyone was able to hear the entire net. What a welcome change. I did get an interesting response from David, K2VX, to my questions last month: "Can it get any worse?" On July 27, David wrote:

Yes, it can, but it gets better when the cycle is lower and the maximum usable frequency (MUF) drops. The reason is that at the peak of the cycle, when the higher intensity of the flow from the sun activates the e and f layers, it also energizes the d layer. The d layer is low and, if it really gets zapped, it gets ionized down to near sea level and essentially "shorts" all the RF to ground. The solar maximum is, therefore, good for higher frequency DX paths but worse for short haul lower frequency stuff.

Three days later David wrote:

In addition to MUF there is optimum traffic frequency (OTF), which is lower than the MUF. Commercial services are, and ham nets should be, interested in the OTF. For DX'ing and casual use, MUF is great and can go

higher than 50 MHz. OTF generally stays below 20 MHz, if I recall. However, when the MUF is very high, the OTF is seldom as low as either 80 or 40 meters.

So, gang, there you have it. This is why we went "dead" a couple times this past month. Thanks for your comments David.

I also got a most enjoyable QTC from Gail, K2BCL. Traffic listed on HBSN, which can not be passed, often falls into the hands of Gail, who is our "unofficial liaison" to HBN. The large amount of traffic listed by Fred, NG1A, prompted Gail to send this message:

June activity took me back to thirty months pounding brass during WW2 with the First Radio Squad mobile part of Air Force with same propagation 73 – Gail, K2BCL

We're always glad to conjure up good memories, and we are very appreciative of Gail's untiring assistance to the net.

My trip to Florida was great. I worked with my son most of the day on his aerobatic biplane, which is about three-quarters complete, and I gave cooking lessons to my daughter-in-law and some of her female friends each late afternoon. The bad part, however, is that working with my son on his airplane has caused my on-going desire to have my own plane and get a pilot's license to well up again. I have been fighting this off for years, but this time I just may not be able to suppress the urge. Stay tuned...

Because Gail is our unofficial liaison to HBN, he has relayed most of the traffic from NG1A.

**HELP WANTED: HBN needs NCS for Saturdays, beginning the third weekend in August. Also need QNG on Thursday until further notice.**

**HIT AND BOUNCE SLOW NET JULY, 2001**  
**C.M. (SAM) SHEARER, WB5ZJN, MANAGER**  
**CHARLES (CHUCK) PUNZELL, N3ON, ASST.**  
**MANAGER**

CALL	NAME	STATE	QNI	Sessions - 31
QNI -325	QTC-138			
NG1A	FRED	MA	12	
W1KX	BILL	ME	5	
KW1U	MARCIA	MA	1	
K2BCL	GAIL	PA	29	
K2BSA	BSA	VT	7	
KG2HA	SAM	NY	27	
W2MTA	BILL	NY	23	
WA2RUE	PHIL	NJ	12	
K2YAI	DON	NY	27	
N3COR	DON	WPA	5	
N3DE	HARRY	MD	12	
WA3DUH	JIM	DE	24	
KK3F	PAT	MD	4	
W3JKX	EARLE	EPA	4	
WA3JXW	DUDLEY	EPA	15	
WA3QNT	BOB	PA	1	
N3ON	CHUCK	WPA	26	
W3QQ	CID	DE	25	
K3RC	BOB	OH	1	
WA3YLO	TONY	MD	4	
W4VLL	VIC	VA	7	
WB5ZJN	SAM	OH	23	
WD8DHC	MIKE	WV	1	
WD8DIN	SIS	NC	1	
W8RTN	LEE	MI	1	
NR9K	AD	EPA	28	

K2BCL	GAIL	PA	29	73
K2BSA	BOB (K3RC)	VA	7	4
WA2CUW	TOM	NJ	6	
W2EAG	MARK	MA	8	8
W2MTA	BILL	NY	24	2
WA2RUE	PHIL	NY	23	6
K2YAI	DON	NY	2	
WA2YL	JAN	FL	2	2
N3COR	DON	PA	7	2
N3DE	HARRY	MD	15	11
KK3F	PAT	MD	25	1
W3JKX	EARL	PA	16	16
WA3JXW	DUDLEY	PA	10	3
K3NNI	JOHN	MD	4	
N3QA	CAL	MD	3	
W3QQ	CID	DE	8	
K3RC	BOB	OH	11	1
N3SW	SCOTT	PA	1	
WA3UNX	DON	PA	17	10
N4ABM	OLE	VA	18	3
AA4AT	ART	VA	12	14
K4BEH	PAT	GA	1	
W4DNE	BILL	NC	1	
WA4DOX	OBIE	VA	7	15
AC4DV	ROY	NC	20	
AB4E	AB	NC	26	9
WX4H	MORT	FL	31	15
AF4QZ	ADAM	SC	3	
W4VFJ	CHAS	NC	4	
W4VLL	VIC	VA	10	
KA5NNG	MIKE	AR	16	
K5UPN	JOE	TX	7	
WB5ZJN	SAM	OH	1	1
WD8DHC	MIKE	WV	1	2
WD8DIN	SIS	NC	14	8
K8GA	JERRY	MI	1	4
K8KV	BEN	MI	31	8
K8LJG	JOHN	MI	28	98
AA8PI	DON	MI	18	5
W8RTN	LEE	MI	12	10
WB8SIW	JIM	MI	1	
K8TPF	BILL	WV	2	
KA8VWE	WALLY	OH	12	5
KA8WNO	JACK	WV	29	71
N9KHD	ANDY	WI	14	
WØGRW	GEB	MN	21	1

**HIT AND BOUNCE NET JULY**

CALL	NAME	ST	QNI	QTC
NG1A	FRED	MA	15	123
N1DHT	GEORGE	VT	16	
W1KX	BILL	ME	4	
N1OTC	JACK	MA	6	
W1PEX	DAN	NH	9	
KWIU	MARCIA	MA	3	
W1WCG	VAN	CT	4	22

### Bugs...

Interesting article about "bugs" in Traffic Call.....  
 I use a bug simply because that is the instrument on which I learned to send Morse after graduating from the straight-key. I initially learned telegraphy courtesy of a Grand Trunk Railroad operator. Because American Morse contains three different "dashes," each of a different length, the bug is the ideal instrument for this code. In addition, I continue to utilize my bug on various wire circuits which utilize American Morse.  
 The need for a bug makes transition to an electronic keyer difficult on occasion. However, I do occasionally utilize a keyer in the car while operating mobile CW. Nonetheless, I still find the bug to be easier to use.

As far as bugs go; They don't produce code as well as the electronic devices, but it can produce good, readable code. However, there are several factors, which seriously affect performance. They not only must be set up carefully and within fairly tight tolerances, but they must also be manipulated in a manner far different from the electronic devices.

It is my opinion that the bug gets a "bad rap" simply because most radio amateurs were never taught the proper method for setting-up the device and manipulating it. I recall my mentor breathing down my neck to make sure I learned to use the device properly. It still took me quite a few years to send decent code with a vibroplex.

My thoughts: Don't blame the key. Blame those individuals who refuse to take the time to read one of several available reference materials on the proper set-up and use of the key.

One final thought: I hear lots of miserable code from keyers, particularly those of the "iambic" variety. "Sins" are legion here as well. Letters get run together, people send far faster than they can copy, and so forth. Perhaps the problem is that we are all radio amateurs, and some of us will simply invest less time than others developing various skills.

73! WB8SIW

(NG1A) ...."will be away on Hollidays for most of the month of August up on Prince Edward Island, Canada. If I can hear HBN will try and send a few messages. Its about 600 miles north east of Boston so not sure if I can hear you guys and gals..Enjoy the month..." 73 Fred.

### HAPPY BIRTHDAY!!

**August: 24 KC8GMT; 30 W4VFJ**  
**September: 12 N3QA; 23 K4ZB**

### TREASURER'S REPORT

Ole, N4ABM, Treasurer

### **June 19 June thru July 25 contributions**

Balance	June 19, 2001		\$28.57
Contributions since June 19/01:			
June	29/01	WX4H	\$25.00
June	30/01	KA8WNO	\$10.00
July	3/01	WA4DOX	\$25.00
July	16/01	N9KHD	\$10.00
July	25/01	N4ABM	\$25.00
	Balance July 25/01		\$123.57
	TC/Postage June		84.35.
	TC/Postage July		83.14
Balance			- 43.92

To make contributions, please make checks payable to **Merritt Olson, 12106 Stirrup Rd., Reston, VA 20191-2104**. Checks are preferred for purposes of record keeping. Do not sent contributions to Traffic Call.

Send address corrections or changes to the editor of Traffic Call via radiogram, USPS, or email:  
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## **Communicators versus Experimenters**

-KA5NNG

Somehow, I had gotten the idea in my head that the "appliance-operator" or "communicator" was something relatively new to ham radio; so it was kind of a surprise to read the following material in the Clinton B. DeSoto book ("200 Meters & Down"). Dates and page numbers added in [].

[c. 1913]: "By this time the experimentally inclined were greatly outnumbered by those who found the predominant raison d'etre for amateur radio to be communication. Amateurs began to adopt commercial attributes in the handling of messages. Soon they were not only holding personal conversations but they were sending friendly messages, and even occasionally handling traffic for other persons. The whole character of the busy air lanes was changing." [p 37]

[c. 1936]: "Two variations in the central theme of amateur radio have been outstanding. The first was the development of the communicating class of radio amateurs, as opposed to those experimentally inclined; the entry into the art of those who developed and utilized apparatus for the conversations and human contacts involved, rather than the building of apparatus alone. This began, as has been pointed out, in perhaps 1907-08. "The second variation was the introduction of radiotelephony, the ability to transmit the human voice. This occurred shortly after the vacuum tube was put into general use. The actual development of amateur radiotelephony has been during the past decade; the number and the technique of its devotees has been steadily expanding." [p. 173]

## **Random thoughts on traffic and CW operating**

-KA5NNG

When trying to break into an ongoing QSO (and it goes without saying that you should have a valid reason to do so), it might be a good idea to use some sort of signal like BK instead of merely trying to break with random dots or dashes. That is especially true if the QSO you are trying to break into is running at a faster speed than you can

comfortably copy. The BK signal should be sent at a speed which you can copy comfortably, and thus will give the other guys something to match their speeds against, which the break via just a few dots or a dash doesn't do. Also, don't assume that just because you sent a couple of dots or a dash and got no response, that the other stations didn't hear you. They may just ignore anything but a clear attempt at a break due to there being quite a bit of deliberate QRMing these days (especially of QSOs running at the higher speeds).

When receiving traffic of the "mass originator" junk-gram variety, it probably is a good idea to let the sending station transmit the entire message, even if you think you already have the text in your files. It's always possible that the originator has more than one text with the same word-count, and just assuming you have the correct text based on the number of words it contains is not a good practice. N.T.S. guidelines have always specified that in order for a message to be counted for credit for the various operator awards (or for the net's traffic total, for that matter), it is to be transmitted and received in standard form. Technically, that should exclude all those "from my station to yours" type net reports one frequently hears on the SSB nets, as well as those regular messages that are not actually sent and received. Another poor practice that seems to be getting more common is for a receive station to use some sort of callbook-type data base to fix a message's address instead of copying it as sent. I had suspected this was happening when in poor band conditions a receiving station only wants to confirm the callsigns of the addressees even when some of the addressee names and streets contain unusual or difficult spellings. I had that suspicion confirmed when after sending a message in poor conditions, I later monitored the relay of it only to hear a totally different address being given. Since I had gotten the message directly from the station of origin, I was pretty sure the address I sent was correct, but without direct access to any of those data bases, was unable to determine where that new address came from, or if the message ever got to the intended addressee.

Once again, the bottom line is to copy the full message: preamble, address, text, and signature before sending that QSL or R. Personally, I have a hard time understanding how a net's or a station's "traffic count" can have meaning if what is being counted isn't real. If the counts are to have any value at all, they have to be uniform between nets and stations, and representative of reality. Otherwise, no comparison is possible, and if that is the case, why bother counting anything at all? 'Course, not being one of the "bean counter" types, I have a difficult time grasping the usefulness of traffic counts in any case. Hi.

of people. It has been an honor and a privilege. I will check into the nets from time to time to keep tabs on my friends and traffic family. To those of you who I have assignments with, I will keep my skeds until the second week in August.... It has been a "good run" and I wish you all well and may God Bless you."

73 de Mark W2EAG

Many thanks, Mark, for your outstanding performance with the net(s) throughout the years. You will be missed in the traffic circles. Please do drop by whenever you can. 73 ARF!

**The meeting places, when and where...**

(Changes in bold print)

**TIME CAPSULE**

**DINOSAUR LORE**

-KA5NNG

In the days of old, when dinosaurs ruled the earth and before there were silicon chips, radio-telegraph signals were generated by four basic methods: Spark, Arc, the alternator, and the vacuum tube oscillator.

\*\*\*\* SPARK \*\*\*\*

The Spark transmitters were probably the earliest. Within that category, there were numerous types of spark rigs. The simplest was the induction coil type, using what was basically (and some times actually) an automobile ignition coil and an "interrupter" device to pulse the direct-current in the coil's primary. The interrupter devices were sometimes electro-mechanical (like a door buzzer) and sometimes electrolytic. The spark gap was connected across the secondary of the coil, and (in simplest form) the antenna and ground connected across the gap, using the "natural" resonance of the antenna for tuning. As you could easily imagine, the radiated signal would be very broad, and to narrow it down, tuning coils (and capacitance) were soon added between the spark gap and the actual antenna (the same principle as a "tank circuit" in vacuum tube transmitters, except that they referred to the coils as transmitting helices and the capacitors as condensers.)

**HBSN 3714KHz 7:30 AM Daily**

(Changes in lineup in bold print)

Sunday	VE2DTR	John
<b>Monday</b>	<b>W2MTA</b>	<b>Bill</b>
Tuesday	NR9K	Ad
Wednesday	WB5ZJN	Sam
Thursday	N3ON	Chuck
<b>Friday</b>	<b>OPEN</b>	
<b>Saturday</b>	<b>OPEN</b>	

**HBN 7042 KHz 8:30 AM Daily**

**(alt 7114 KHz)**

Sunday	WA4DOX	Obie
Monday	KA8WNO	Jack
Tuesday	WA3UNX	Don
Wednesday	N4ABM	Ole
<b>Thursday</b>	<b>NEED QNG</b>	
Friday	WD8DIN	Sis
<b>Saturday**</b>	<b>W2EAG</b>	<b>Mark</b>

**\*\*HBN needs NCS for Saturdays, as Mark is retiring from traffic handling. The following is his announcement, in part:**

Dear Friends,  
 "After long consideration,.....I have decided to retire from Traffic Handling.... I will, however, say that the past 30 years has rewarded me with many pleasant hours of being a part of a wonderful group

The next category of spark transmitter used an A.C. line operated high-voltage transformer, charging a capacitor across its secondary on each cycle of the A.C., and adjusting the secondary components such that there would occur one spark per half-cycle. Some of these transmitters used motor-generator sets to generate the input A.C. voltage at frequencies higher than the usual A.C. line's 60 Hz. The characteristic sound (at the receiving end) of any given transmitter depended in large part on that line frequency, since that defined how many "wave trains" per second were being generated.

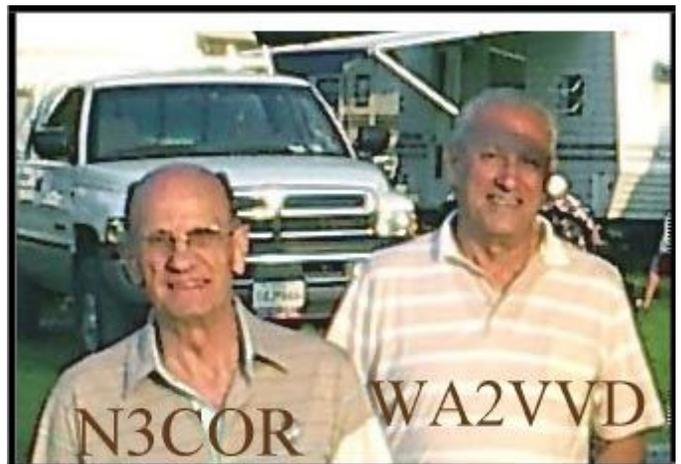
The next more complex form of spark rig utilized a rotary spark gap. The gap(s) on these transmitters were made of fixed and rotating electrodes. Commonly, the rotating electrode would be in the form of a "toothed" wheel (looking something like a gear with widely spaced blunt teeth). If the wheel was so constructed that the central part was of an insulating material, with only the outer rim and teeth of metal, then it could be arranged with two fixed electrodes such that the spark jumped first from one fixed electrode to the wheel and then from the wheel to the second fixed electrode. The wheel was motor driven, and the speed of rotation could be so arranged that the sparks occurred when the applied voltage was at the crest of the A.C. wave applied to the high-voltage transformer. (That form of rotary gap was known as synchronous because of that synchronization between the physical teeth of the wheel and the A.C. wave driving the transformer and capacitor. A rotary gap where no effort was made to synchronize the wheel to the A.C. voltage was known as a non-synchronous rotary gap.)

The actual transmitted signals generated by all of the spark transmitters consisted of a series of "wave trains" repeating at an audio rate, and with each wave train consisting of a number of cycles of R.F. The R.F. wave was of complex nature both because of an assortment of frequency components and because it was a "damped" wave. That is, its amplitude decreased during the entire period of the train. The repetition rate of the trains for the induction coil type transmitter was determined by

the interrupter's operating frequency. On the transformer type rigs, the repetition rate was a function of the incoming A.C. power line frequency plus (in the case of the rotary gaps) of the speed of the wheel in the rotary gap.

Reception was by means of rectification of the incoming wave, just as for ordinary A.M. broadcast detection; the resulting audio signal being a function of the shape and repetition rate of the incoming wave trains. The common method of detection/rectification was by use of a crystal detector, typically using a crystal of galena and a "cat's whisker" wire as a contact on the "active" surface of the crystal. (The cat's whisker wire would be moved about on the face of the crystal to find the most sensitive location, etc.) Other crystalline materials were used for detectors as well.

(to be continued)



July, 2001 -Army buddies, served as radio operators with Reg. Hq. Co., 136th Inf. Reg., 47th Inf. Div. fifty years ago. They are still active on the HF bands.

(photo by Merle McNutt)

Traffic Call on the web:

<http://hitandbounce.net>

<http://oe-pages.com/HOBBY/Hamradio/trafficcall>

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Overheard on the Marshall [AR]Town Square:

"They wuz tryin' to give us food stamps, but heck, we don't never mail no food to nobody."



## Royal Order of Artfers

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