NVARC
Nashoba Valley
Amateur Radio Club

SIGNAL

de N1NC

August 2004 Volume 13 Number 8

This Month's Meeting

We have no regular meeting in August. The cookout is August 21st at the N8VIM QTH.

The next meeting is September 16th and the meeting program will be a presentation by Bob W1XP.

From the President

Not to rush things, but this is the last newsletter of the summer. I hope everyone is having a safe and fun one.

With Les' wrap up article on Field Day the 2004 event looks like it may have been our best showing ever. It was probably the smoothest operation we have ever run. There is a feeling of accomplishment when the planning (by lots of people) is transformed into action where everything goes as planned. Thanks again to everyone who planned, set up, took down, and operated.

The Boxboro Convention is this weekend and Saturday happens to be a Massachusetts sales tax free day.

Not to wish summer away, but keep in mind Ron is looking for help at Grotonfest September 18th and John for the fall soccer tournament. We will need a coordinator and volunteers for the Rotary Rail Trail Walk though we have not yet been contacted.

Many of us meet at Tiny's for breakfast on Saturdays at 8:00 AM. Besides the open discussion format for questions this is a good way to check up on what is going on.

Stan KD1LE

Adopt A Highway

Participating in the July cleanup were Bob W1XP, Stan KD1LE, and Jim AA1PO, John KB1HDO, Earl WR1Y, and Larry KB1ESR.

The next cleanup is Sunday August 22nd. We meet at the traffic island on the east side of the Nashua River.

Board Meeting Notes

There was no board meeting in August.

Remember to give your outgoing QSL cards to Bob to be sent out.

NVARC Club Net

The NVARC Information Net has been running three months now. We started just after the April club meeting.

The net on June 28th was called by Stan KD1LE. as net control. Participating were Gary K1YTS, Les N1SV, Dave N1MNX, Larry KB1ESR, Ralph KD1SM, and Stan KD1LE.

Nets continue to be called and are a good place to bring information for the club and questions or discussions. The net meets at 8:00 PM Monday evenings on the 442.900 N1MNX repeater.

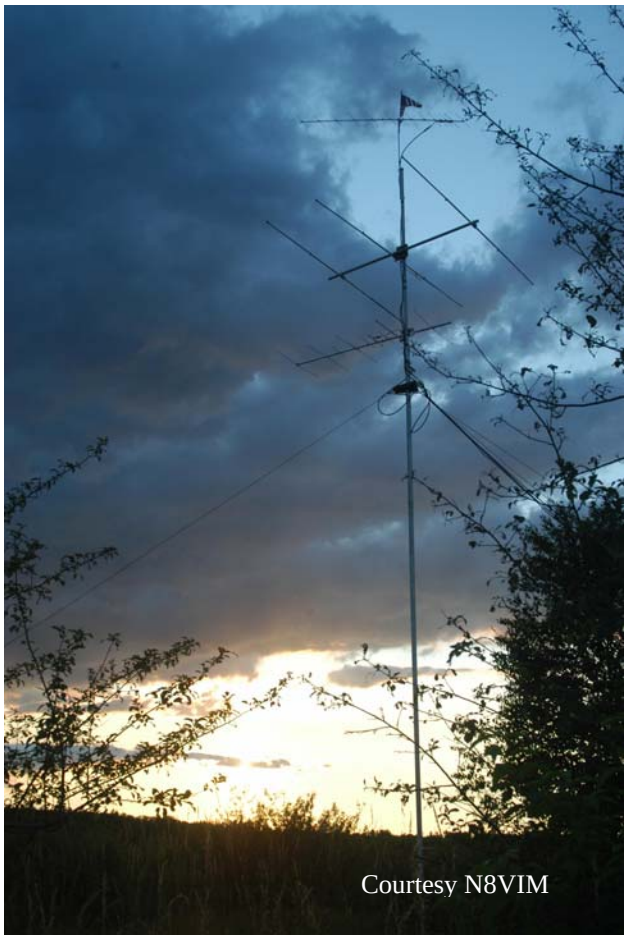
2004 Field Day Wrap Up by Les N1SV

Whether your interest was in operating CW, SSB, VHF or you were just trying to get reacquainted with ham radio, the 2004 NVARC Field Day entry had something for everyone. For the second year in a

row we ran in the 2A category from the Apple Orchard off Heald Street in Pepperell. In spite of the showers Saturday morning, setup went much smoother than last year and all four stations started on time.

Above the tower trailer in upper left, VHF/UHF/satellite station lower left, CW station center left and SSB and GOTA stations center right.

When the dust settled Sunday afternoon we had logged a combined total of 1,950 contacts, a 27 % increase over last year's total of 1,424. Our final claimed score was 7,458 up more than 40% from last year's 4,396. Again this year we ran dedicated CW and SSB stations with little or no inter-station interference. The CW crew really out did themselves making 1,079 contacts eclipsing last year's performance of 474 QSOs by more than a 2:1 margin. The addition of the crank up tower this year (Thanks to the Tower Consortium) was a big help. On the SSB side we got off to a slow start but finished with a respectable 871 QSOs, which was down 9 % from last year's 950.



Above the VHF/UHF/satellite and six meter antennas on a shared rotating mast.

Being in the bottom of the sunspot cycle there were few surprises in the way of propagation. The 10m band was closed for the entire contest and while 15m seemed to be open at times activity was way down. We made a total of 43 contacts on that band working into W4, 5, 6, 9, and W0 land. This was actually an improvement from last year when we only worked 28 stations on 15m. The VHF crew (Dave N1MNX and Ken K1KEY) experienced a nice 6m sporadic-E opening Saturday afternoon and into the evening. Sporadic-E openings on 6m occur annually in June and July and we took full advantage of it working into W4, 5, 9, and even a couple W0s in MO. The band opening helped the VHF crew to finish with a total of 103 contacts (98 on 6m) a five-fold increase over last year where they had no band openings and finished with 20 contacts (excluding satellite QSOs).

The CW antennas as viewed from the VHF/UHF station.

Again this year 20m meters was the place to be with wall-to-wall signals across the entire band. We finished with a total of 923 20m QSOs (483 CW / 440 SSB). An increase of more than 1/3rd over last year and accounting for almost 50% of all contacts made this year. We worked stations throughout the continental United States, Canada and even a handful of DX stations. The 40m band was a close second in activity level where we finished with a total of 529 QSOs (352 CW / 177 SSB) accounting for more than 25% of all contacts made. This was a 17% increase over the 526 QSOs made last year and again included contacts throughout the continental United States and Canada. On 80m we made a total of 240 contacts (203 CW / 37 SSB) down slightly from last year's 226 contacts. On the 80m band, which can be quite noisy in the summertime, we managed to work stations as far away as Arizona. I think what was a surprise to many was the lack of activity on 160m. While Bob had constructed an inverted-V strung from the crank up tower hoping to work at least some local stations, the band was a ghost town.

This year we really improved in the area of bonus points. We claimed 1400 points out of a maximum of 1600 (for a station in the 2A category) more than doubling last year's score of 600 points. As you can see from the table below we really did quite well compared to last year thanks to the hard work of many. Last year we made 26 contacts through the AO-40 satellite. This year with AO-40 out of commission things weren't that easy but Bob (W1XP) still managed to work one station netting us 100 bonus points. Our GOTA station headed up by Bob (AB1CV) and Larry (KB1ESR) made 112 contacts this year earning us another 100 bonus points. Thanks also to the many others who whose efforts allowed us to run like a well-oiled machine and turn in what possibly could be a top 10 finish nationally!

CATEGORY	**2004 POINTS**	**2003 POINTS**
100% Emergency Power	200	200
Media Publicity	100	100
Setup in Public place	100	100
Information booth	100	100
NTS message to ARRL SM/SEC	100	0
Copy W1AW FD message	100	0
Formal NTS message handling	0	0
Satellite QSO	100	100
Natural power QSOs made	100	0
Site visit by elected official	100	0
Site visit by invited served agency official	100	0
GOTA station min.100 QSOs	100	0
Non-traditional mode (1): APRS	100	0
Non-traditional mode (2): Packet	100	0
Non-traditional mode (3):	0	0
TOTAL =	**1,400**	**600**

After Field Day John and I solicited feedback on what you felt worked well and where you thought things could be improved. The following represent a summary of what we received.

- Move GOTA to its own location to alleviate noise issue.
- More table space needed at the CW and SSB stations.
- More table space needed at the VHF station.
- Need better lighting at all operating positions.
- Add 20m beam to tower displacing tribander to ladder.
- Rectify CW keying interface issue for CW station.

- Investigate the addition of digital station (RTTY, PSK31).
- Increase food budget.
- Investigate creating informal operator schedule to reserve time slots.
- Add rotator to VHF station.
- Need sleeping area for weary operators.
- Distributed planning / partitioning worked well, resulted in fewer missing pieces / headaches.
- Larry's RV customizations continue to work very well.
- Add a low elevation 40m antenna to work close in stations.

At the location of the CW station antennas (l-r) Bob AB1CV, Stan KD1LE, Bruce K1BG, and Bob W1XP assemble the tri-bander with the tower rear left.

Once installed on the mast (and cables connected) the tower is rotated vertical before extending it. All the guys for the tower and halyards for the dipoles and ZL Special are installed and draped to the rear of the trailer and can be seen under the tower.

Above (l-r) Larry KB1ESR, Bob W1XP, Ron W1PLW, John KB1HDO, and Karen KA1JVU relaxing in the evening sun.

Above Bruce K1BG and John KB1HDO work on the CW station

Although not required to reach the site, some of our "visitors" came on horseback. This picture was taken during Friday evening set up. The tower was left retracted until Saturday morning.

PSLIST

**** Every event listed is looking for communications volunteers ****

Date Location Event
Contact Tel/Email

Sep 10 Hyannis-Brewster MA MS Challenge Walk
Sep 11 Brewster-Eastham MA MS Challenge Walk
Sep 12 Brewster-Dennis MA MS Challenge Walk
John N1PYN 508-588-3250 n1pyn@arrl.net

Sep 18 Madison to Modus CT MS Tour 150
Sep 19 Modus to Madison CT MS Tour 150
Scott AA1WM 203-676-1016 sbicycles@comcast.net

See http://purl.org/hamradio/publicservice/nediv

ARRL Letter

HAM RADIO HAS MAJOR ROLE IN AT-SEA RESCUE DRAMA

Amateur Radio operators in the US, French Polynesia and Australia played an vital role in the successful late-June rescue of a couple aboard a privately owned sailboat in the Pacific Ocean. The drama began June 25 after John Caine, VK4CEJ, in Queensland, Australia, checked into the acific Seafarers Net on 14.313 MHz with emergency traffic from the 47-foot sailing ketch Fingolfin, some 680 nautical miles north of Nuka Hiva in the Marquesas Islands of French Polynesia. A young Australian couple, John and Kelly Hallows, were on their way from Mexico to the Marquesas. With the trip taking longer than anticipated, however, John Hallows had run out of a required medication and was experiencing debilitating pain.

Through Maritime Mobile Service Net (MMSN) <http://www.mmsn.org> member Bob Botik, K5SIV, in Austin, Texas, the US Coast Guard in Honolulu and a shipping firm, arrangements were made for a Greek container vessel to rendezvous with the Fingolfin and transfer the needed medication. Unfortunately, the larger vessel struck and badly damaged the ketch during the transfer. To add insult to injury, the medication transferred turned out to be the wrong one. Eventually several other radio amateurs became part of the unfolding drama, but Botik found himself as a key player.

The Coast Guard was in touch with the French Navy to effect a rescue, but the situation aboard the Fingolfin continued to deteriorate. John Hallows no longer was no longer able to assist in piloting the damaged vessel, and his wife, injured during the collision with the container vessel, was in pain and exhausted. Both also were suffering symptoms of dehydration. An hourly radio schedule with the Fingolfin was maintained, with stations staying on frequency after the MMSN shut down.

The next day, Botik patched Dr Jim Hirschman, K4TCV, in Miami to the Fingolfin so Hirschman could attempt a medical assessment. Due to the couple's condition, evacuation became imperative. A French Navy patrol vessel came on 14.300 MHz to advise it was on its way to the Fingolfin's last-known position. Via VK4CEJ and K5SIV, a series of questions and answers to and from the Fingolfin were relayed to the patrol boat.

The Fingolfin's situation continued to worsen. The vessel was taking on water and eventually lost both masts and its only lifeboat. Amateurs on frequency advised the Fingolfin to stay on frequency no matter what.

A few hours later, the increasingly stressed, demoralized and desperate couple made contact with Gary Walls, KE6SD/mm, a board the S/V Amidon Light in Suwarrow Atoll and with Bill Healy, N6JRD/mm, in the Pacific. The two amateurs attempted to lift their spirits to get them through the crisis.

The French patrol boat finally reached the Fingolfin on June 27 and took the couple aboard, but the sailboat had to be scuttled. The couple was hospitalized and later released.

Botik received a letter of appreciation in July from Rear Adm C. D. Wurster of the US Coast Guard in Honolulu.

"Your efforts and skills in radio communications directly resulted in the safe rescue of two personnel," Wurster said. He also applauded Botik's unselfish devotion and commitment to aiding others in distress."

A more detailed account of the Fingolfin rescue is available on the MMSN eb site <http://mmsn.org/events/fingolfin.htm>.--MMSN Assistant Net Manager Tom Job, VE3II

AMSAT "ECHO" SATELLITE OPENS FOR FM VOICE TRIAL RUN

AMSAT-NA's new "Echo" satellite (AO-51) has been turned on for general use in FM repeat mode for a trial period of about three weeks. During that time,

command stations on Earth will monitor AO-51's power budget and adjust the UHF Transmitter B (TX B) power as needed for good battery management. They'll also be watching the AMSAT Bulletin Board e-mail reflector, amsat-bb@amsat.org, for reports of how Echo is working.

"We are most interested in hearing about how well Echo hears you and how well you hear it," said the Echo Command Team--Jim White, WD0E, and Mike Kingery, KE4AZN--in an AMSAT bulletin. White and Kingery note that this is a trial period of the FM voice repeater. The digital portion of Echo is not yet open for use.

AMSAT Vice President for User Services Bruce Paige, KK5DO, says reports of successful QSOs on Echo's first day of operation came from all over the world, including the US, Brazil, New Zealand and Germany.

A Russian Dnepr LV rocket carried AO-51 and several other payloads into orbit June 29 from Baikonur Cosmodrome in Kazakhstan. The 10-inch-square microsat, circling some 800 km above Earth in a sun-synchronous orbit, will permit voice communication using handheld transceivers.

The digital transponder and the store-and-forward BBS, are not yet open for general use.

Initially, the AO-51 downlink transmitter was running at about 0.5 W. At that power level, AMSAT says, Earth stations will need a small directional antenna to hear it. If onboard power permits, ground controllers will slowly increase the transmitter's output during the trial period.

The Echo FM voice uplink frequency is 145.920 MHz, and the downlink is 435.300 MHz. The downlink transmitter will come on when it hears an uplink signal with a 67 Hz CTCSS (PL) tone for about 1 second, and it will stay on for 10 seconds after that signal goes away. "This operation is just like a terrestrial FM repeater with a 1 second 'kerchunk' filter and a 10 second hang time," AMSAT noted. Transmitter A (TX A), now sending telemetry, generally will continue to operate on 435.150 MHz.

AMSAT points out that Echo, which launched June 29, is still "wobbling a great deal," so the downlink polarization sense will vary.

The Echo Command Team says it expects Echo will be heavily used during the first few days of the trial period. "It is good amateur practice and common courtesy to let everyone have a chance," they said. "Echo will hear you as well as or better than any previous amateur FM repeater satellite."

With hundreds of stations trying out AO-51, ground controllers say they expect the transmitter will be on continuously when the spacecraft is over populated areas.

The Echo satellite project is still some $8000 short of the $110,000 that was needed to launch the spacecraft. AMSAT guaranteed the full fare by borrowing from its dedicated funds, which now must be repaid. AMSAT—a 501(c)(3) organization--welcomes additional donations to bridge the funding gap. Visit the AMSAT AO-Echo Web page for additional details.--AMSAT News Service

FIRES MAKE JULY A BUSY MONTH FOR NEVADA ARES VOLUNTEERS

Amateur Radio Emergency Service (ARES) volunteers in Southern Nevada have been assisting firefighters attempting to quell the so-called Robbers' Fire. The 290-acre timber and brush blaze in the Humboldt-Toiyabe National Forest some 36 miles northwest of Las Vegas has led authorities to close at least three state highways. Earlier this month Nevada ARES volunteers at the opposite end of the state assisted the American Red Cross during the destructive Waterfall Fire.

"The activation of Clark County ARES/RACES continues for the Robbers' Fire on Mount Charleston," said Southern Nevada District Emergency Coordinator Glenn Hale, KB7REO, in a July 28 report to Nevada Section Manager Dick Flanagan, K7VC. "It does appear that things are getting under control. Clark County ARES/RACES will be active at least through the weekend working 24 hour shifts."
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Hale said that while ARES/RACES volunteers have handled some tactical messages for supplies, their primary tasks have included programming and issuing radios for firefighters as well as monitoring fire service radios. He said an ARES Mutual Assistance Team (ARESMAT) request was implemented to have Nye County ARES members assist if needed.

After the Waterfall Fire broke out in mid-July, Bruce Wade, NZ7A, the American Red Cross disaster relief operation director, contacted Northern Nevada District Emergency Coordinator Don Carlson, KQ6FM, seeking ARES assistance.

"An evacuation center was being set up, and he wanted staffing for both the evacuation center and at the Red Cross chapter headquarters in Reno," Carl-

son said. Amateurs were deployed at the chapter headquarters and at the evacuation center in Carson City--the state's capital.

"In less than an hour from the initial call," Don Carlson said, "Amateur Radio communication through ARES had been established, and messages were beginning to pass between the two locations." Meanwhile, Washoe County EC Doug Abramson, KA7FOO, put out a successful plea for operators via the Western Nevada Noon Net.

"The operations continued as the fire raged out of control, coming dangerously close to the state capital city itself," Carlson said. "At one point the fire was about a quarter mile from the governor's mansion and a local college."

The Carson City Sheriff's Office ordered evacuations, and by the evening of July 15, hundreds of residents from communities west and northwest of Carson City started arriving at the evacuation center--by then an official Red Cross shelter. A second shelter opened the next day at a high school in southern Washoe County and immediately got Amateur Radio support.

Carlson said the ARES activation continued until July 18. During the four-day event, more than 35 amateur operators from three Northern Nevada counties participated. The Waterfall Fire charred some 8700 acres and destroyed more than a dozen homes. The ARES activation drew words of praise from Wade on behalf of the Sierra Nevada Chapter, American Red Cross.

"At all times your operators were on the ball and helped make the disaster relief operation go much smoother," Wade wrote. "Because it took a long time to get cell phones to all the our key people, many times you were the only link between the headquarters and the shelters."

Carlson noted that many of the participating ARES volunteers had taken the ARRL Amateur Radio Emergency Communications Level 1 course, and several had completed Level 2. He said their performance during the fire activation was testimony to their effectiveness.

"ARESCOM" PLAN TO ENHANCE EMERGENCY COMMUNICATION CAPABILITY

The ARRL Board of Directors has adopted a resolution encouraging further development and expansion of an inaugural network to enhance the emergency communications capability of the Amateur Radio Emergency Service (ARES). The action came during the Board's meeting July 16-17. The Board had charged an ad hoc committee, dubbed "ARESCOM," with developing an augmented ARES telecommunications system that would include rapid and accurate handling of long-range emergency communications. ARESCOM recommended deployment of a digital e-mail system based on Winlink 2000 software. The Board encouraged the deployment of e-mail via Amateur Radio--"as exemplified by Winlink 2000"--to meet the needs of served agencies and others involved in providing disaster communications.

"The digital network will provide a value-added service for ARES and will continue to be viewed very positively by our served agencies," the committee said in its report to the Board. "This allows ARES to be viewed as modern and necessary instead of antiquated and invasive."

The committee, chaired by Great Lakes Division Vice Director Dick Mondro, W8FQT, said situations arise when ARES must "pass message traffic across the nation quickly and accurately." It also said the need for such a nationwide ARES capability is likely to increase in light of the ARRL's Citizen Corps partnership with the Department of Homeland Security.

Winlink 2000--a worldwide Amateur Radio digital radio e-mail system--already is widely used by the blue water boating and recreational vehicle communities. Members of the ARRL Programs and Services Committee witnessed a Winlink 2000 demonstration at ARRL Headquarters the day before the board meeting.

The ARRL Board extended the committee's charter until its January 2005 meeting so ARESCOM can complete an implementation plan that ensures that ARES has "the prominent role" in managing the national network and that ARES officials and appropriate ARRL Headquarters staffers have an chance to critique the network's operation to ensure it meets the requirements of ARES and its served agencies.

A two-part series appearing in the August and September 2004 issues of QST, "Winlink for ARES," by ARRL South Texas Section Emergency Coordinator Jerry Reimer, KK5CA, outlines an enhanced ARES network that would include e-mail capability over HF links.

HAMS MUSTER IN WAKE OF FLORIDA CAPITAL BLACKOUT

Amateur Radio Emergency Service (ARES) teams and local amateurs in the Tallahassee, Florida, area volunteered to assist after electrical power went out in about half of the capital city July 13. The region was affected for about three hours before power was restored. More than a dozen amateurs participated in the blackout response.

"We have a very active ARES group here in the Capital District, and all the local hams as usual responded immediately," said Gadsden County Emergency Coordinator Bill Mapoles, KG4LFT. At the request of local authorities, hams helped during the blackout by reporting traffic difficulties, non-operating traffic signals and other power failure-related problems, he said. The 2 PM blackout during hot, humid weather, killed air conditioning, snarled traffic and led Florida A&M University to close for the rest of the afternoon.

Former Capital District EC Kent Hutchinson, KC4TOC, started up an informal Tallahassee blackout net, subsequently picked up by Paul Eakins, KJ4G. Amateurs staffed the local emergency operations center and also assisted the American Red Cross, which opened a shelter and three aid stations.

"I'm proud to be a part of our local ARES group," Mapoles said, "and I can say that we, in the Capital District, are prepared for anything."

Contest Calendar and DXpeditions

The information for a DXpedition can be quite detailed and may include bands, dates, number of stations, and times of day they plan to work certain continents so I can not list it all here. But if a country or prefix is of interest you can get more information at www.425dxn.org.

CONTESTS (JULY - AUGUST)

July 10-11 IARU HF World Chanpionships

DXpeditions

5H	Tanzania	1 year
5V	Togo	current
8Q7WP	Maldives	till 09/05
VK0DX	Antartica	till December
VQ9LA	Diego Garcia	till December
5H3HK	Tanzania	till March 2006
ZD8I	Ascension Is	till March 2006
HS0ZCW	Thailand	till August 25

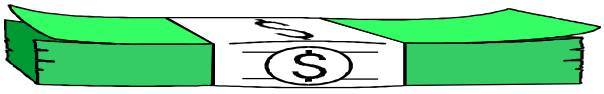
Advertisements

Tell them you saw it in the Signal. Advertisers should contact the NVARC Treasurer for information.

$August Treasurers Report$

Income for July was $35 in membership dues plus one penny found during the road cleanup. Expenses were $14.80 for postage and $212.98 for Field Day (pins and food), leaving a net expense of $192.77 for the month.

Please give me any additional Field Day receipts for which you are requesting reimbursement.



Current balances:

General fund $4550.66
Community fund $1722.95

We have 57 current members and four renewals outstanding.

73,
Ralph KD1SM

Nashoba Valley Amateur Radio Club

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http://www.n1nc.org/

President: Stan Pozerski KD1LE
Vice President: Peter Nordberg N1ZRG
Secretary: John Griswold KB1HDO
Treasurer: Ralph Swick KD1SM
Board Members:
Les Peters 2002-2005
Dave Peabody 2003-2006
Bob Reif 2004-2007
Editor: Stan Pozerski KD1LE
Emergency Coordinator: Den Connors KD2S
Photographer: Ralph Swick KD1SM
PIO: Ron Wood W1PLW
Librarian: Peter Nordberg N1ZRG
Property Master: John Griswold KB1HDO
N1NC Trustee: Bruce Blain K1BG
Meetings are held on the 3rd Thursday of the month - 7:30 p.m. - Pepperell Community Ctr. Talk-in
146.490 simplex
442.90 + 100Hz Repeater
147.345 + 100 Hz Repeater
53.890 – 100Hz Repeater
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. You can send items to
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NVARC

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