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TELSTAR

March 1988 - #91

MARCH

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

SOUTH TOWNS AMATEUR RADIO SOCIETY OFFICERS AND BOARD OF DIRECTORS

President = Bill Siska = N2GAO
 Vice Pres. = Larry Shannon = K2KVS
 Secretary = Dick Dukat = K2RDD
 Treasurer = Mal Vallone = WA2VER
 Fin. Secy. = Frank Modzelewski = KE2DG
 Director = Nick Stanko = KA2SEZ
 Director = Voit Drankan = KA2WIO
 Director (past President) = John Leitten = KA2RFT

=====
General Meeting = 1st Thursday = 1930 hours = Youth Center
Board Meeting = 4th Tuesday = 1900 hours = Youth Center
75 Meter Net = Each Saturday at 1000 hours = +/- 3925 khz
2 Meter Info Net = Each Wednesday at 1900 hours = 147.69/.09
 =/ /=

J O T A
by Don Wagner W2QFC

SWEEPSTAKES, DX contests, QSO parties -- You've tried them all. Is there anything new? Yeah there is, and a most satisfying experience! It's called "JOTA", Jamboree On The Air, when boy scouts all over the world visit ham shacks and talk to each other. My two scouts came Sunday for 2 hours. They had never seen a ham shack before. We talked to scouts in Newfoundland, Switzerland, South Carolina and U.S.A Scout Headquarters in Texas, K2BSA.

Scouts told scouts who they were, their rank, interests, swapped camping experiences, etc. I think, to see the look of amazement and appreciation on their faces, gave me new thoughts about hamming. New converts? Who knows. But I think they hold radio in high regard and for these future leaders of our country, it can't hurt us. Please don't miss your opportunity to be involved in "JOTA 88" (ed. note = JOTA usually takes place the third weekend in October = see article beginning on page 17 of February QST.)

January 3, 1988

Ham Operators' Deaths Studied

Associated Press

TACOMA, Wash. — Amateur radio operators in two states appear to die at abnormally high rates from several forms of cancer, suggesting a possible link between cancer and electromagnetic fields, according to data collected by a state epidemiologist.

Others cautioned that evidence of such a link has been inconsistent and that other factors may be involved.

Dr. Samuel Milham Jr. of the Washington Department of Social and Health Services studied the deaths of 2,485 Washington and California ham operators between 1979 and 1984.

He reported in the American Journal of Epidemiology that 29 leukemia deaths would be expected in a group of people that size, but he found 36 deaths. Statistically, he expected to find 72 lymphatic and

blood-forming organ cancers, but found 89. And he expected to find 67.6 deaths from prostate cancer, but found 78.

The study "indicates that amateur radio operator licensees in Washington state and California have significant excess mortality due to acute myeloid leukemia, multiple myeloma and perhaps certain types of malignant lymphoma," Milham reported. All those diseases are forms of cancer.

Milham said last week that even more disturbing studies have come from other scientists. University of Colorado and University of North Carolina studies, for example, have found unusually high levels of leukemia among children who live near power lines, he said.

Dr. Noreen Harris, a Tacoma Health Department epidemiologist, said many questions remain on the

issue. "People living near power lines may be poor and other (cancer-causing) things may be in their environment," she noted.

Leonard Sagan, program manager for radiation studies at the Electric Power Research Institute in Palo Alto, Calif., warned that studies like Milham's can be misinterpreted. Milham's findings could be simple associations that have nothing to do with cancer causes among people who work with electricity, he said.

Sagan said his own research hasn't shown whether electricity causes cancer. But he predicted that if it does, it's rare.

"I think it would be unfortunate for people with children to become overly concerned about this," he said. "Evidence is weak and inconsistent and in a few years we will have better evidence."

The above item appeared the past month in the Buffalo News, 3 January 1988 = another followed on 17 January 1988 = "Research Provides New Insights on Body's Sensitivity to Electromagnetism" but space prohibits me from printing that article in its entirety.

THE ANSWER FROM ARRL....

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IN RESPONSE TO RECENT REPORTS IN THE MEDIA OF A POSSIBLE RELATIONSHIP BETWEEN AMATEUR RADIO AND HEALTH HAZARDS. THE BOARD ADOPTED A RESOLUTION EMPHASIZING THE LEAGUES PAST AND CONTINUING SUPPORT OF LEGITIMATE INVESTIGATIONS IN THIS FIELD WHICH AT THE SAME TIME DEPLORING INACCURATE AND IRRESPONSIBLE INTERPRETATIONS OF SCHOLARLY WORK THAT HAVE APPEARED IN THE NEWS MEDIA, CAUSING UNFOUNDED ANXIETY AND CONCERN.

TAKEN FROM THE K2RDD....BBS....



STARS GUEST COLUMN

Guz - WB2E2U

Our February meeting broke the attendance records, we nearly ran out of chairs and Lou, KB2AMD, made his usual good cup of coffee. The topic was packet radio and the guest speaker was Kraig, WB2PLW, who put on quite a display and introduced our members to that state of the art; undoubtedly a detailed report will appear in another article. We are fortunate to have Dick, K2RDD, in our organization as he runs a bulletin board on packet containing STARS as well as news from other clubs - please check in and keep up to date. You, no doubt, noticed that John, KA2RFT, kept very busy making copies of the disks for packet and kept it down to a science.

Don't know what is on hand for March but April has the flea market before the meeting - should you have something too heavy to haul just bring in the manual and make arrangements for potential buyers to view it at your home. The thirteenth of April the ARRL/VEC exams will be conducted at Hamburg Junior High (check Dick, W2UJR, article regarding those exams). Act fast as ARRL is fairly stingy regarding extra supplies and you could be left out - please take heed. Incidentally, all hams in WNY are invited to take advantage of this opportunity so kindly pass this info around. Those who get QST have noticed the listing of our silent key member (Bob, KC2VW) on page 76 of the February issue.

Our membership chairman kept busy recording the dues of those who took advantage of their opportunity doing so. Also hope that you taken the opportunity of using the new features on our repeater.

One of the members had visited us and upon checking his ham license found it had expired; so please check yours for its expiration date. The new licenses now are good for ten years. THE FCC DOES NOT GIVE YOU ANY NOTICE. I usually bring some 610 forms to the meeting so you can send in for your renewal.

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LIGHTNING

RELATED ARTICLES



The following article appeared in the December 1987 CQ and is printed with the author's permission-

A LIGHTNING PROTECTION SYSTEM FOR YOUR SHACK

by Peter Altman, K09G

Lightning is not a subject to be taken lightly. It can and does do considerable damage to amateur radio gear, household electronic equipment, and even computer software, to say nothing about the damage to home and other structures. Given the value of electronic devices in your house, and the cost of repairs brought on by direct, let-alone nearby, hits, adequate protection systems are certainly worth the time and investment.

This article covers the principles and installation of a lightning system based on ones developed for commercial radio stations. Such systems have provided direct-hit protection for installations up to several hundred feet high here in the Midwest, where electrical storms and thunderstorms are common, occurring even in the winter months. It is derived from a presentation put together by one of the members of our local club.

First Things First

Lightning is "the large spark produced by an abrupt discharge of electricity through the air generally under turbulent conditions of the atmosphere". The charge moves up a pre-ionized path from ground to cloud and the current frequently exceeds 30,000 thousand amperes; 500 amps flow in the ionized channel between strokes.

Lightning is also a series of alternating current (AC) pulses with large amounts of energy distributed all the way across the spectrum -- from DC to the microwave region. Thus, currents are readily induced in household wiring and electrical devices by near not-so-near strikes. The fields can also be propagated for many miles through utility and telephone wires.

Lightning-induced currents take the lowest impedance path to ground. They are RF currents, and the difference between high- and low-impedance paths is a matter of very, very few ohms reactance. Even a corroded joint or sharp bend in the antenna or ground leads is a high-impedance obstacle at higher RF frequencies. The objectives and methods of the lightning protection system described here, while focusing on tower-supported antennas, are relevant to any antenna system. These objectives are:

- 1) Provide a common, lowest-possible impedance path to ground for your antenna structure(s) and system, your home's electrical system, and your electronic equipment.
- 2) Provide the means to safely discharge lightning-induced fields before your gear and household electronics can be cooked.
- 3) Isolate your antenna system and amateur gear from house wiring -- and vice versa -- with respect to lightning-induced currents.

Common and Solid Ground

The first step is to establish a solid, common ground for everything: antenna supports and cables, household wiring, amateur radio and household electronic equipment, as shown in figure 1.

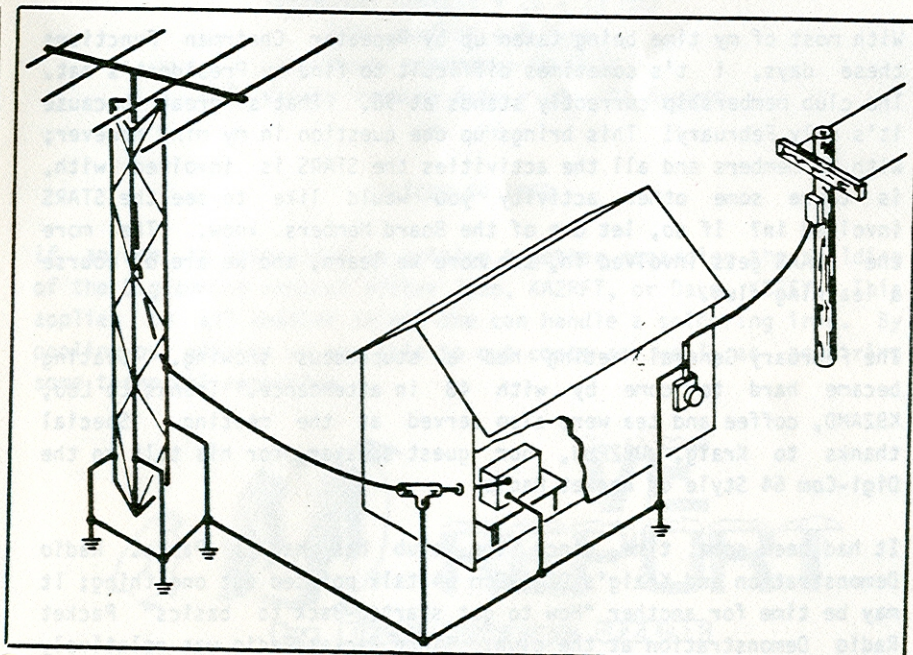


Fig. 1--A common ground tying tower, antennas, equipment, and AC service ground is essential.

A tower's concrete base is a great insulator. The reinforcing bars

and tower bolts embedded in this base are not at ground potential by any means. Also, there is significant loss -- high impedance -- between tower legs (or tripod legs) as cross members and joints become corroded over time.

Tower section joints should be bridged with ground strap or cable clamped to each leg above and below each joint; tripod legs are tied together with a continuous strap or cable clamped to each leg. Then each tower leg is grounded separately.

=== to be concluded ===

THE PREZ SEZ



With most of my time being taken up by Repeater Chairman Functions these days, it's sometimes difficult to find my President's hat. The club membership currently stands at 96. That's great because it's only February! This brings up one question in my mind however; with 96 members and all the activities the STARS is involved with, is there some other activity you would like to see the STARS involved in? If so, let one of the Board Members know. The more the STARS gets involved in, the more we learn, and we are of course a learning club.

The February General Meeting had a stupendous showing. Seating became hard to come by with 48 in attendance. Thanks to Lou, KB2AMD, coffee and tea were also served at the meeting. Special thanks to Kraig, WB2PLW, our guest speaker, for his talk on the Digi-Com 64 Style of Packet Radio.

It had been some time since the club has had a Packet Radio Demonstration and Kraig's Digi-Com 64 talk pointed out one thing; It may be time for another "How to get started-Back to basics" Packet Radio Demonstration at the club. Since Packet Radio was relatively new when it was last presented to the club nearly 2 years ago, most had little interest. With the advent of the "inexpensive" Digi-Com 64 system, new interest has been generated in by club members. If the club needs help from the Club's Digi-Com 64 Pioneer, John

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KA2RFT, I would be glad to run a Basic Radio Talk. RFT has even talked about a club project to build several Digi-Com Systems at once. I'm sure John will have more to say on that later.

We are still looking for a program coordinator to arrange speakers at our meeting. If you are interested in filling this position, let me know.

Remember the Mini Flea Market coming up in April. Bring your "excess" equipment to sell. You may be helping a new Novice get on the air during this time of the year when hamfests are far and few between.

Stay involved
Bill N2GAO



Dayton Hamvention = 29, 30 April, 1 May
Rochester Hamfest = 21 - 22 May
Rome Hamfest = 5 June
Batavia Hamfest = 10 July
Erie County Hamburg fair = 12 - 21 August
/= =/

DIGICOM 64 INFO

If anyone is interested in getting together regarding the building of the Digicom 64 contact either John, KA2RFT, or Dave, KD2EY. This applies to all whether or not one can handle a soldering iron. By pooling our efforts we may be able to cut costs as well as acquiring some technical expertise.



The VE test session will take place = Hamburg Junior High, Wednesday, April 13, 1988 = 7:00 PM to 10:00 PM. Technician through to extra exams will be given. There will be no walk-ins. Please

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send your completed 610 form, a copy of your license and a check for \$4.55 made out to the ARRL/VEC before April 6, 1988 to:

Guz Guzinski WB2EZU = 627 3724

5084 Chapman Pkwy

Hamburg NY 14075



REPEATER NEWS

Well, almost as fast as it went up, it went down. "It" being the repeater of course. For those who don't know what the story is with the new repeater it appears that one major "Maiden voyage" problem has cropped up. It is suspected that the crystal in the receiver will not operate properly on frequency. This is possibly due to improper or incomplete processing at the factory (Bomar). The repeater was re-tuned for proper operation, however this lasted for just short of one week.

New crystals are expected to be received by February 19th and every effort will be made to get the new repeater back into operation shortly there-after. As always, my thanks to Clint, N2FMM, for his assistance on the repeater. In addition, thanks to Kraig, WA2PCH, for being there, and to John, KA2RFT, and his son John Jr. for their recent grounding and bonding job on the repeater.

As of February 5th the repeater's sensitivity was set to a near maximum. I have been getting very favorable reports from all club members I have spoken to.

Most like the quality of the audio and the coverage. As a matter of fact, one night we had one ham from Ellery Center (Chautauqua Lake) talking with another ham 8 miles north of Lockport with perfect copy both ways.

Operations Guides have been sent out to those members who have contributed to the repeater fund. If you have not yet received your's, call me and we'll get one out to you, or see me at the next meeting.

For all other paid '88 members, the autopatch codes, NOAA Weather Codes, and Emergency Autodial Numbers along with basic repeater

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operation practices were published in a special flyer included with the February Telstar. If you didn't receive one and have paid your dues, let me know. We'll make sure you get one.

The activity on the repeater has been GREAT. However, I think there are others who want to try the repeater's new features but are too shy to try. Go ahead and practice. This repeater will be here a long time so get used to it.

A note about the ID messages. Don't be afraid to talk over them. The repeater will switch to a CW ID if you interrupt the voice ID. By the way, have you made up a message for the BRAG MESSAGE Contest? Surely you are tired of hearing the messages I have programmed in. So get your message into the board. See the February Telstar for details.

Please note the Bulletin Board Messages on page 7 of your Operations Guide. Message 1 may be interrogated for information in upcoming meetings and events or cancellations. Message 2 maybe interrogated for the current time.

Also, for repeater fund donators, 2 autodial slots are available. If you would like your home phone and/or any other number put into the autodialer, call me and let me know what they are. I will give you the autodial slot number in return.

Keep the repeater active and try the new functions. Use the Repeater Operating Practices Published in both Feb. Telstar and the Operations Guide. Remember, it's not too late to donate towards the repeater fund.

Bill N2GAO
Repeater Chairman

THE SINKING OF THE ANDREA DORIA

by Raymond Maurstad, W2JNA/MM
on board the SS Robert E. Hopkins

(continued from the January issue)

GMT

503 STOCKHOLM TO A.D.: ROBERT HOPKINS NOW ABOUT 18 OR 19 MILES EAST OF YOU WILL ARRIVE ABOUT ONE HOUR FOUR LIFEBOATS.

0606 HELDWOOD TO STOCKHOLM: OUR POSITION 6959 WEST 4016 NORTH PLEASE GIVE PARTICULARS TO ASSISTANCE OF OUR LIFEBOATS, TWO

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LIFEBOATS.

0608 STOCKHOLM TO HELDWOOD: HOW MANY MILES ARE YOU AWAY.
 0608 HELDWOOD TO STOCKHOLM: TWO LIFEBOATS.
 0608 STOCKHOLM TO HELDWOOD: YES, BUT HOW FAR.
 0609 HELDWOOD TO STOCKHOLM: 15 MILES.
 0609 TARANTIA TO STOCKHOLM: PLEASE CONFIRM POSITION OF ABDREA DORIA.
 0609 STOCKHOLM TO TARANTIA: A.D. POSITION 4034 NORTH 6945 WEST.
 0610 TARANTIA TO STOCKHOLM: OUR POSITION AT 0600GMT 3948 NORTH 6952 WEST PROCEEDING TO DISTRESS, ARRIVE IN FOUR HOURS -- LIFEBOATS.
 0613 LAURA MARSK TO STOCKHOLM: WE WILL BE THERE IN TWO HOURS.
 0613 STOCKHOLM TO LAURA MARSK: ROGER, THANK YOU.
 0614 ANDREA DORIA TI ILE DE FRANCE: ----- 943 YOU IN SIGHT YET.
 0615 ILE DE FRANCE TO A.D.: WE ARE JUST IN FRONT OF YOU.
 0615 A.D. TO ILE DE FRANCE: ARE YOU SENDING LIFEBOATS YET.
 0616 ILE DE FRANCE TO A.D.: WE HAVE 10 BOATS IN WATER.
 0616 A.D. TO ILE DE FRANCE: ROGER, MANY THANKS.
 0619 PVT. THOMAS TO PVT. THOMAS LIFEBOAT NR. ONE: DISTRESS, HOW DO YOU READ ME.
 0620 ROBERT HOPKINS TO STOCKHOLM: SS ROBERT HOPKINS WITH TWO LIFEBOATS ARRIVING DISTRESS POSITION 0300, 40 MINUTES FROM NOW.
 0620 STOCKHOLM TO ROBERT HOPKINS: ROGER, THANK YOU.
 0621 (IN HEAVY STATIC SOME SHIP CALLS TO ADVISE THEY HAVE SURVIVORS OF ANDREA DORIA, DID NOT READ HOW MANY, MAY BE LIFEBOAT WITH RADIO).
 0626 ROBERT HOPKINS TO ANDREA DORIA AND STOCKHOLM: IS FOG HEAVY.
 0627 STOCKHOLM TO ROBERT HOPKINS: NO, NOT BAD.
 0629 PVT. THOMAS TO ROBERT HOPKINS: VISIBILITY ABOUT THREE MILES HERE NOW.
 0629 STOCKHOLM TO A.D.: ADVISED ITALMAR VIA CHATHAM RADIO.
 0629 A.D. TO STOCKHOLM: ROGER, THANK YOU.
 0632 CAPE ANN TO PVT. THOMAS: LIFEBOAT FROM A.D. FULL SURVIVORS ALONGSIDE US NOW.
 0634 STOCKHOLM TO ILE DE FRANCE: DID YOU GET MY MESSAGE ON 454.
 0634 ILE DE DRANCE: ROGER, OF.
 0635 CAPE ANN TO STOCKHOLM: LIFEBOAT FULL SURVIVORS COMING ABOARD NOW.
 0636 ROBERT HOPKINS TO STOCKHOLM: APPROACHING ABOUT 4 OR 5 MILES TO GO, ANY INSTRUCTIONS.
 0637 STOCKHOLM TO R. HOPKINS: ROGER, OK WAIT.
 0639 R. HOPKINS TO A.D.: STANDING BY TO PICK UP SURVIVORS SIGNED MASTER.
 0639 A.D. TO R. HOPKINS: ROGER, AND MANY THANKS OLD MAN.

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0642 EXCHESTER TO ALL STATIONS: WHAT IS THE POSITION OF DISTRESS.
 0646 A.D. TO R. HOPKINS: (TRYING TO GIVE ME MESSAGE BUT THERE IS INTERFERENCE).
 0647 A.D. TO R. HOPKINS: PLEASE TELL THE BRIDGE WE WANT THEM AS SOON AS POSSIBLE.
 0647 R. HOPKINS TO A.D.: DO YOU WANT OUR LIFEBOATS ALONGSIDE YOUR SHIP.
 0648 A.D. TO R. HOPKINS: SURE, AS MANY AS POSSIBLE.
 0651 ---- HEAVY INTERFERENCE ---- DOCTOR FOR SURVIVORS.
 0652 STOCKHOLM TO PVT. THOMAS: HOW DO YOU READ ME.
 0653 CAPE ARGONA TO STOCKHOLM: WE ARE 9 MILES OFF, SPEED 11 KNOTS.
 0654 LAURA MARSK TO STOCKHOLM: WILL BE ALONGSIDE IN ONE HOUR LIFEBOATS READY.
 0700 STOCKHOLM TO ALL STATIONS: URGENT, HERE SWEDISH STOCKHOLM, OUR FORESHIP DAMAGED AND NUMBER ONE HOLD FLOODED OTHERWISE SHIP IS TIGHT. WILL TRY TO PROCEED TO NEW YORK WITH SLOW SPEED. AS A PRECAUTION WE WANT A SHIP TO KEEP US COMPANY TO NEW YORK. PLEASE INDICATE -- MASTER.
 0706 PVT. THOMAS TO CAPE ANN: PLEASE INDICATE TYPE OF MEDICAL ASSISTANCE YOU NEED. WHAT IS WRONG WITH PATIENT.
 0707 CAPE ANN TO PVT. THOMAS: ROGER, WAIT.
 0708 (IN INTERFERENCE) -- CAN SIGNAL -- WANT FLARE INDICATE WHICH SHIP IN DISTRESS --
 0709 PVT. THOMAS TO STOCKHOLM: ARE THEY GOING TO USE FLARE TO INDICATE WHICH SHIP IS ANDREA DORIA.
 0710 R. HOPKINS TO STOCKHOLM: ADVISED THAT CG CUTTER EVERGREEN WILL ARRIVE THIS POSITION WITHIN 4 TO 5 HOURS.
 0711 STOCKHOLM TO A.D.: SHIPS ASKING IF YOU ARE ABLE SENDING FLARES FOR INDICATE WHICH SHIP IS IN DISTRESS.
 0714 R. HOPKINS TO STOCKHOLM: WHEN DO YOU WANT TO LEAVE FOR NEW YORK.
 0715 STOCKHOLM TO A.D.: INDICATE HOW MANY PASSENGERS LEFT.
 0716 A.D. TO STOCKHOLM: DON'T KNOW, BENDING TOO BADLY AND ALL PEOPLE TOO BUSY TO LISTEN ME, WILL TRY TO FIND OUT.
 0718 PVT. THOMAS TO CAPE ANN: GO TO WORKING FREQUENCY.
 0719 STOCKHOLM TO A.D.: SLFA IS NOW PROCEEDING TOWARDS YOU AND 75 MILES AWAY.
 0720 STOCKHOLM TO A.D.: R. HOPKINS WANT YOU TO SEND FL--
 0720 R. HOPKINS TO STOCKHOLM: NO NO REQUEST HERE CANCEL.
 0721 R. HOPKINS TO STOCKHOLM: GET ANSWER WHEN POSSIBLE TO MY MESSAGE REGARDING YOUR TRIP TO NEW YORK.
 0725 ANDREA DORIA TO STOCKHOLM: CAPTAIN, WE ARE IN BAD CONDITION, YOU CAN PROCEED TO NEW YORK AND MANY THANKS FOR YOUR ASSISTANCE. REMAINDER OF SHIP STEADY HERE AND SOMEONE SHOULD KEEP WATCH FOR ME, AM SPARING BATTERIES.

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