



The DX HUNTER

MAY 17

MDXA CLUB INFO

**MEETINGS: 2nd SATURDAY OF EACH MONTH
7:30 AM @ GOLDEN CORRAL HWY 49
GULFPORT**

MDXA WEBSITE: MDXA.org

Net Frequency: 147.375 Tuesday @ 8:00 PM

Editor E-mail: KE4MBP@GMAIL.COM

"More than a Club – We are Friends"

CLUB NEWS

May Events:

Obtaining a Vanity Call Sign: **Vic West, N5YY**

Field Day 2017 Preparation: **Howard Thickman**

Armed Forces Day on the Air:

**Annual Armed Forces Day Cross Band Comm. Test
May 13**

Field Day is coming and we need to start getting ready. Since we have not been able to get CW operators what do you think about a digital station? Each contact will be 2 points. This could help us raise our score. Any other ideas you have to help will be greatly appreciated.

What a Station or Desk Ground Can and Cannot Do By Tom Rauch, W8JI

Effects on Signal Reception or Transmission

Even modern RF systems might have installation or design defects. These defects can cause excessive RF current to flow on wires and cables entering the house. Currents like this are called **common mode currents**, because the current flows without a close-by countering current. For example, a perfectly functioning transmission line has exactly equal and opposite direction currents one each close spaced conductor. This cancels distant radiation, and confines current to the inside of the transmission line. If an antenna or tower system has common-mode current problems, caused by a faulty design or installation, a ground can help reduce common mode noise reaching the antenna. This is really from an antenna flaw, and not from the "reflection of signals".

In a case with unwanted common mode currents, a station or equipment ground can also decrease TVI or RFI. The ground might do this by giving unwanted current someplace harmless to flow, keeping RF out of power lines, CATV lines, and telephone lines.

A station ground can also keep RF currents out of lossy media, by providing a low resistance path, if unwanted antenna currents are appearing on station equipment or cables.

Vertically polarized signals propagate along the earth with much less attenuation than horizontally polarized signals. A ground screen, counterpoise, or ground radial system below an antenna can reduce local noise sensitivity by reducing the antenna's response to local noise. This would apply only to a horizontally polarized antenna, because earth losses allow increased levels of polarization tilt. Lossy ground can increase vertical polarization response of horizontally polarized antennas. Ground rods have no effect on this, any improvement requires something that actually covers the lossy earth under the horizontally polarized antenna.



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A station ground might.....

Mask antenna installation or feed line problems

Allow use of single wire feeders brought into the station, like a longwire or Windom antenna

Improve lightning safety and reduce electrical shock hazard

A station ground will **NOT**.....

Help reception or transmission, or RFI or TVI, in a properly working station with properly functioning transmission lines

A ground will not reduce the chances of or number of lightning strikes

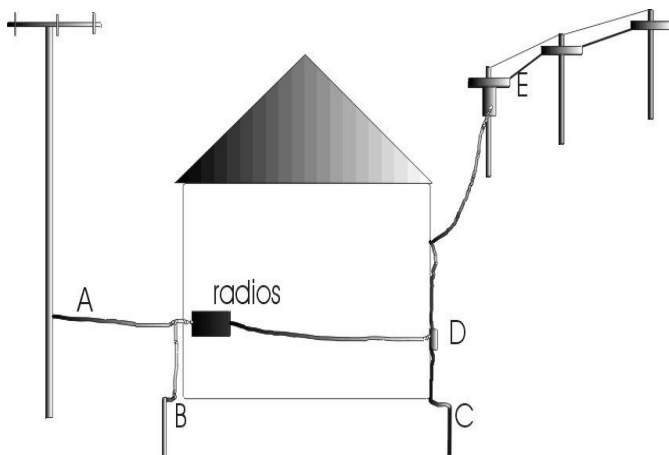
This is a typical amateur installation:

Unless we have a tower that is tall compared to surrounding structures, or unless we are fortunate enough to have underground utilities, lightning most often strikes utility lines. Even when heights of utility lines and towers are comparable, utility lines offer a much wider-area target, so they get hit much more often.

Many amateur radio installations have an independent radio-room ground rod installed just outside the radio room.

Station ground rods that are not bonded to the power mains ground outside the house can, and often do, **increase** chances of equipment damage. We should never use an independent ground rod or rods just outside the station as a station safety ground.

In this poor but common layout:



Lightning surges flow from E into the service drop and house entrance (D).

A very small portion of surge is diverted into the fairly high resistance entrance ground rod (C).

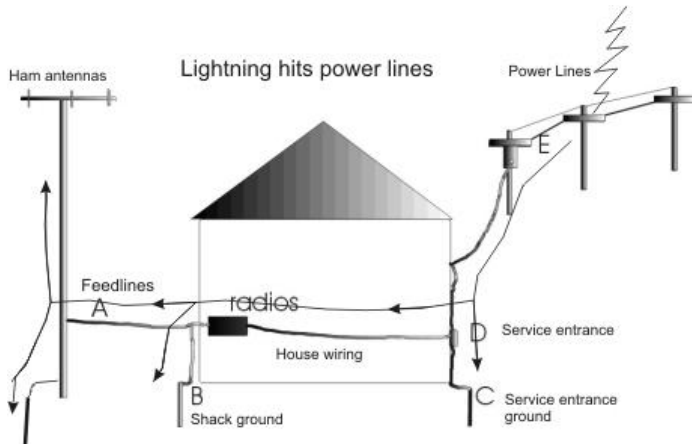
The station ground and "electrical mass" of the tower and amateur antennas look like a much better ground than a typical small ground rod at the service entrance. The largest portion of surge flows through house wiring to station equipment, and eventually out to the low impedance antenna system (A) and station ground (B).

With common lightning hits on power lines and power line surges, good grounds installed at A and B actually **increase** current flowing through house wiring and radio equipment when the power line gets struck, or if the power line has a ground fault!

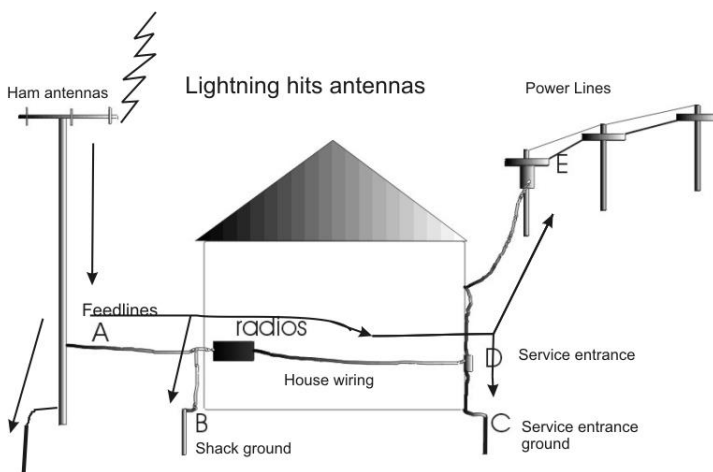


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One path for lightning, common with above ground utilities and modest antenna heights, is from power lines to the house and tower grounds. It can also loop from mains through telephone and cable equipment, or the cable and telephone can also share bringing lightning energy into the house.



Another path for lightning, common with taller towers or underground utilities, is from the tower through equipment to power mains, telephone, and/or CATV lines. Water and gas lines can be included in the path.

Some of us disconnect our antennas, and consider everything in the shack safe. If A is disconnected and B (the station ground rod) remains connected, the radio is still in the lightning path from D to B. Disconnecting the antenna doesn't do much, unless the tower or antenna takes a direct hit or has induced charges from a nearby strike. **Disconnecting the antenna is better than nothing, but not by very much. The only way to eliminate more common lightning paths is to disconnect every path through equipment.** Unplugging the radio equipment from the power line while disconnecting antennas helps, but there is still significant risk of lightning flowing through equipment on other paths from D or C to A, or from D or C to B unless all external connections are removed from station equipment.

The best solution is to bond point C to point B with a much lower impedance path than any other path. **B and C should always be bonded together.** This is even spelled out in the National Electrical Code. The National Electrical code says, "**Common grounding is important** to ensure an electrically **continuous and uninterrupted path** to properly dissipate lightning's harmful electricity. **Failure to make all of the required ground system interconnections is a common trouble spot cited in lightning protection system inspections.**"

Also, the desk equipment should be properly connected in the hamshack. Proper radio room cable and power entrance RF grounding also works well for lightning protection! Power lines feeding shack equipment should be grounded to the same entrance point as the antennas.



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ANNOUNCED DX OPERATIONS

May					
2017 May01	2017 May08	Lord Howe I	VK9L	DL1YAF	By DL1YAF as DL1YAF/VK9 fm IOTA OC-004 (QF98ml); 80-10m; SSB CW; vertical, dipoles; holiday style operation
2017 May01	2017 May10	Vietnam	3W9DQ	LotW	By DF7DQ fm Phan Thiet; 40-15m; CW SSB RTTY; holiday style operation; QSL also OK via DF7DQ
2017 May01	2017 May15	St Martin	FS	K9EL	By K9EL as FS/K9EL; 160-6m; 500w; verticals, dipoles, yagi on 6m
2017 May02	2017 May10	Seychelles	S79J	LZ1PJ	By LZ1PJ fm Mahe I (IOTA AF-024); HF + 6m; CW; QSL OK via Buro or direct and possibly LotW
2017 May04	2017 May23	Kosovo	Z68BG	HB9TSW	By HB9TSW fm Slatina Air Base; 40-10m; mainly CW; 100w; ground plane, dipole; not valid for DXCC
2017 May05	2017 May11	Jersey	MJ	LotW	By PA1AW as MJ/PA1AW, PA3EWP PA9JO PB5X likewise; 160-10m; QSL also OK via PA1AW and Club Log
2017 May05	2017 May15	Fernando de Noronha	PY0NY	LotW	By PY4NY; 160-10m focus on 160 80m; CW SSB + digital; delta loop and other wires; QSL also OK via PY4NY direct and eQSL
2017 May06	2017 May07	Market Reef	OJ0W	OH3WS	By OH3WS; 20-6m, perhaps 60m (circa 5354 Khz); CW, perhaps SSB; QSL OK via Buro or direct
2017 May09	2017 May16	Philippines	DU9	SP5APW	By SP5APW as DU9/SP5APW fm Siargao I (IOTA OC-235); 40, 20-10m; wire vertical + Hexbeam; 1kw
2017 May09	2017 Jun02	Cape Verde Is	D44TWO	M0OXO	By DF2WO fm Praia, Santiago I (IOTA AF-005); 40-10m; CW (slow) SSB + digital; holiday style operation
2017 May10	2017 Jun08	Guyana	8R1	KC0W Direct	By KC0W as 8R1/KC0W; 40-6m; CW; 100w; focus on JA; work once per band; Non-US include US\$2 w/ QSL request, US w/ SASE
2017 May11	2017 May23	North Cook Is	E51LYC	VE3LYC	By VE3LYC fm Pukapuka Atoll (IOTA OC-098); 40-10m; CW SSB; verticals, wires
2017 May12	2017 May19	Palau	T88MZ	LotW	By JH0CKF; HF; mainly SSB; yagi + inverted V; QSL also OK via JH0CKF (Buro or direct), Club Log, eQSL
2017 May13	2017 May27	Honduras	HR9	LotW	By AD8J as AD8J/HR9; fm Dunbar Rock (IOTA NA-057); 160-15m; mainly CW, some SSB; 100w; dipole over water; focus on JA at SR/SS; QSL also OK via AD8J direct (w/ SASE)
2017 May15	2017 May24	Malta	9H3SQ	LotW	By SQ3RX fm Gozo I (IOTA EU-023); 40-10m; CW SSB RTTY; inverted V, vertical wires; QSL also OK via SQ3RX (Buro or direct) and Club Log



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2017 May15	2017 May29	Galapagos	HC8	LotW	By LW9EOC as HC8/LW9EOC fm Isabela I (IOTA SA-004); 160-6m, focus on WARC bands; CW SSB RTTY; QSL also OK via LW9EOC direct
2017 May15	2017 Jul15	Minami Torishima	JD1	JA8CJY	By JG8NQJ as JG8NQJ/JD1 fm IOTA OC-073 (QL64xg); 80-6m; CW RTTY; begin and end dates approximate
2017 May16	2017 May30	Palestine	E44WE	SP9FIH	By SP9FIH fm KM71oq; 17 10 6m; 100w; QSL also OK via Club Log
2017 May18	2017 May21	Ceuta & Mellila	ED9T	EA4PN	By EA4PN EA3NN EA3HSJ EA4GMX EA5UF EA5IHK EA4JJ EA3CV EA8ZT EA2CW for the King of Spain CW Contest; will be EG9TOR before contest; HF; mainly CW
2017 May19	2017 May23	Sint Maarten	PJ7	LotW	By PH2M as PJ7/PH2M; 40-10m; SSB WSPR; 100w (200mw WSPR); end fed wires; QSL also OK via PH2M (Buro or direct)
2017 May19	2017 May29	Eritrea	E31AA	JH1AJT	By JH1AJT DJ9ZB E21EIC RA9USU; mainly 160-10m; CW SSB RTTY; will also use E39DI fm Dahlak I (IOTA AF-038) for a few days
2017 May20	2017 May21	Luxembourg	LX44FF	PH0NO	By PD77YY PG8M PH0NO fm various nature reserves; 80-10m; CW SSB; QSL also OK via Club Log
2017 May22	2017 Jun07	Guadeloupe	FG	DL2AAZ	By DL2AAZ as FG/DL2AAZ fm Saint Rose (FK96di); 30-10m; SSB CW; 300w; ground planes; QSL OK via DARC Buro or direct (w/ US\$2 + SAE)
2017 May24	2017 May28	Saba & St Eustatius	PJ6	LotW	By PH2M as PJ6/PH2M fm Saba I; 40-10m; SSB WSPR; 100w (200mw WSPR); end fed wires; QSL also OK via PH2M(Buro or direct)
2017 May29	2017 Jun04	Saba & St Eustatius	PJ5	LotW	By PH2M as PJ5/PH2M fm St Eustatius I; 40-10m; SSB WSPR; 100w (200mw WSPR); end fed wires; QSL also OK via PH2M (Buro or direct)



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CONTESTING NEWS

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6- 7 Sat	1300 - Sun 0700	7QP - 7th Call Area QSO Party - CW/Digital/Phone
6- 7 Sat	1500 - Sun 0300	Indiana QSO Party - CW/Phone
6- 7 Sat	1700 - Sun 2359	Delaware QSO Party - CW/Digital/SSB
6- 7 Sat	2000 - Sun 0500	New England QSO Party (1) - CW/Digital/SSB
7 Sun	1300 - 2400	New England QSO Party (2) - CW/Digital/SSB
13-14 Sat	1200 - Sun 1159	CQ-M International DX Contest - CW/SSB
13-14 Sat	1400 - Sun 0200	Arkansas QSO Party - CW/Digital/SSB
27-28 Sat	0000 - Sun 2359	CQ WW WPX Contest - CW

If you have info or articles you would like in the Newsletter, e-mail them to me and I will get them published.

K1AR CONTESTING HINT

Contest club newsletters are an excellent source for ideas and "what's happening" in contest circles. Consider subscribing to a couple--especially if you are geographically isolated from a club near your area--to get the latest information on RFI protection, computers in the shack, operating tips, etc.