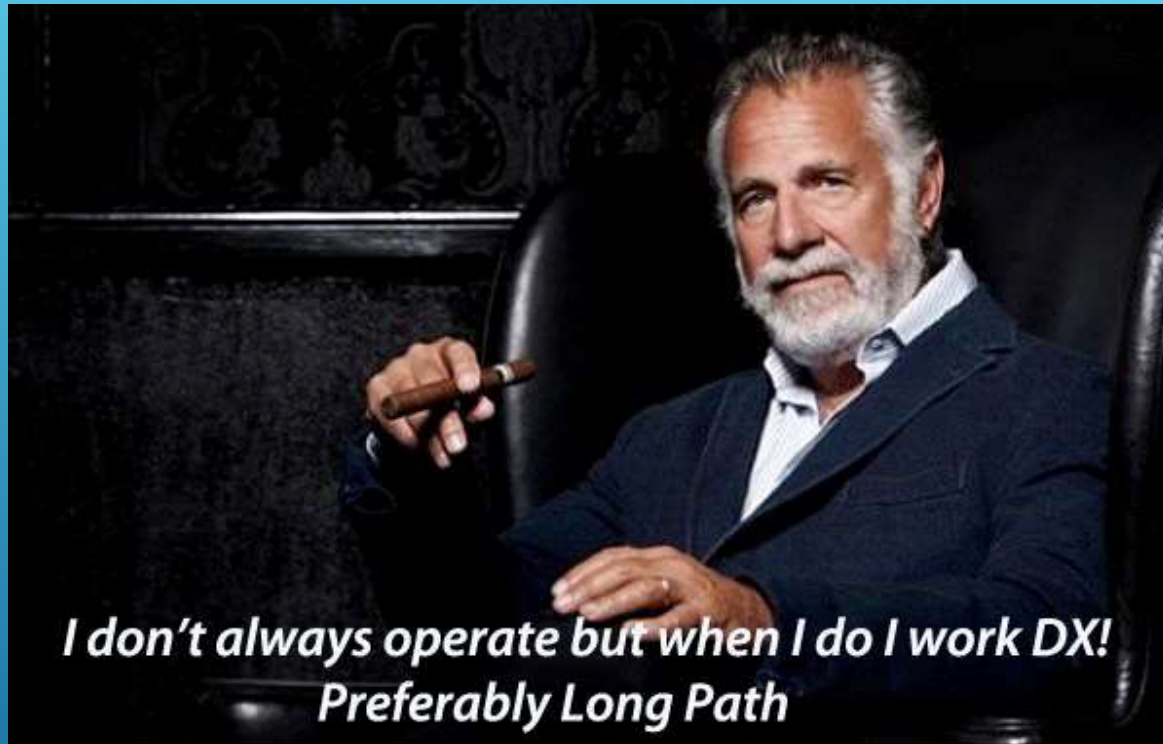


LIFE, LIBERTY AND THE PURSUIT OF DX



Joel Harrison, W5ZN
North Alabama DX Club
August 17, 2019 Banquet

ARKANSAS LOOKS



GOOD THIS YEAR



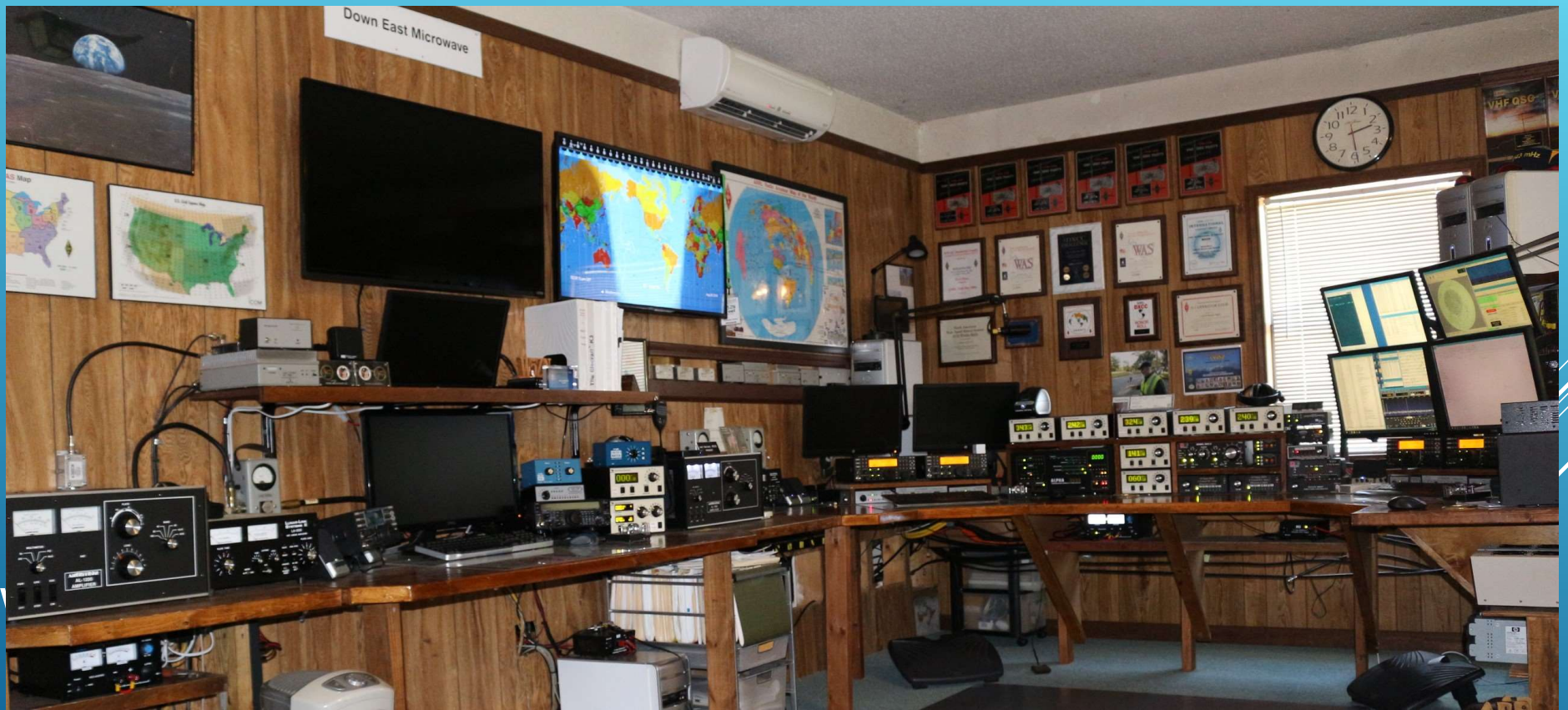
1.W5ZN Station

2.ARRL

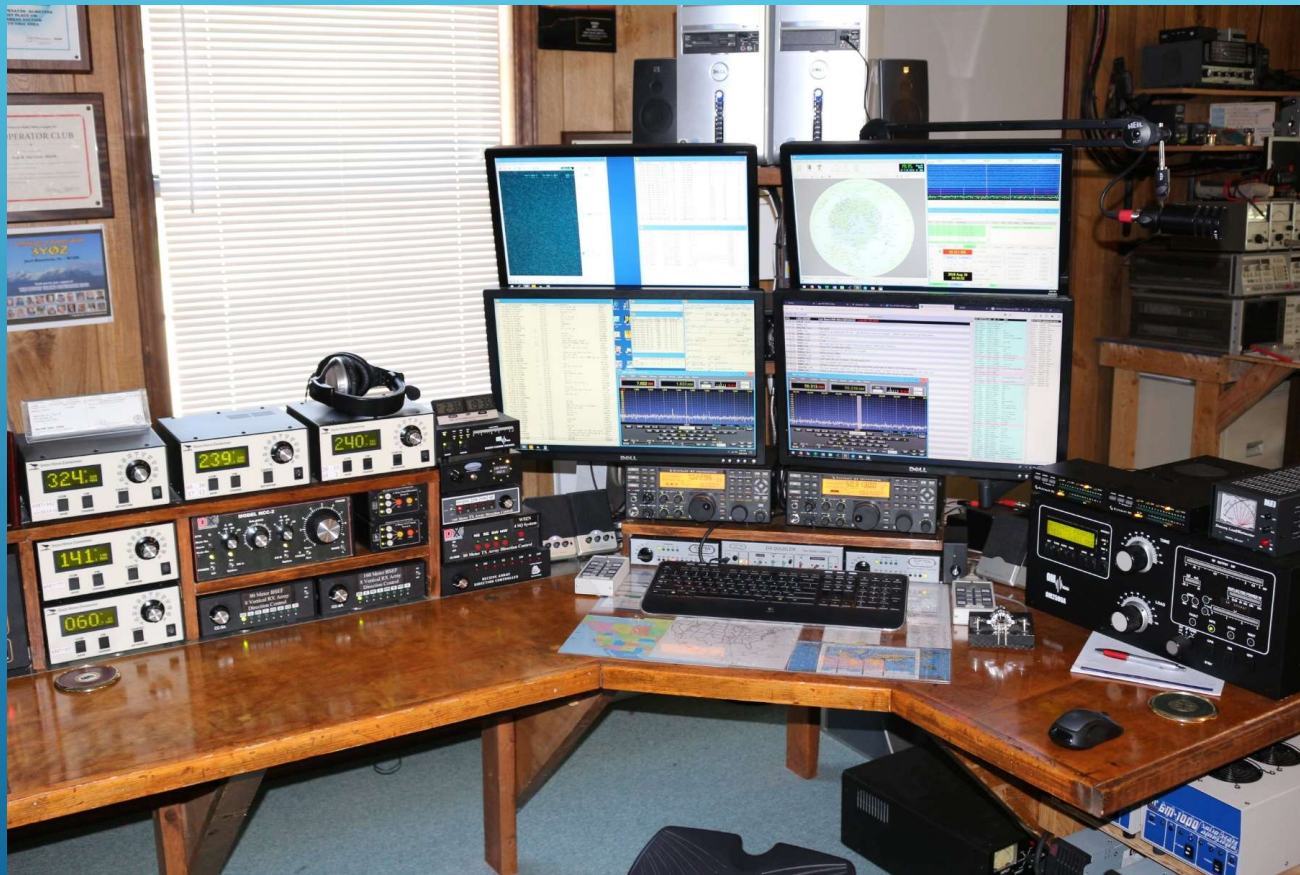
3.What's Killing Amateur Radio

4.How Can We Stop It?

W5ZN STATION



W5ZN STATION



W5ZN STATION



W5ZN STATION



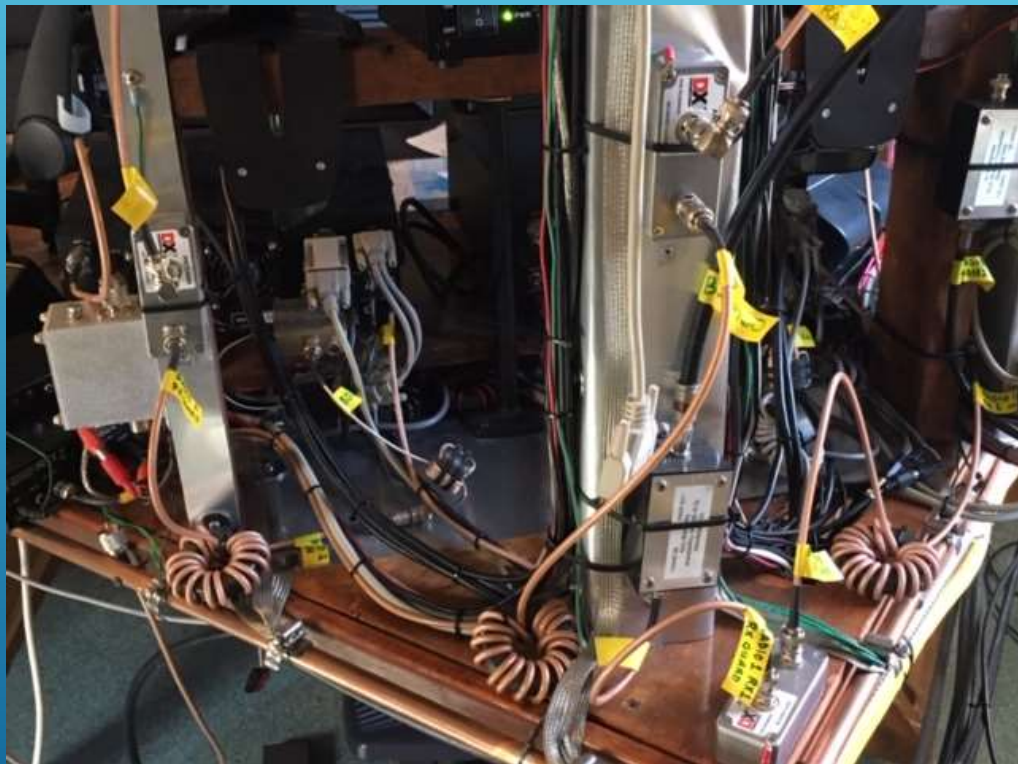
W5ZN STATION



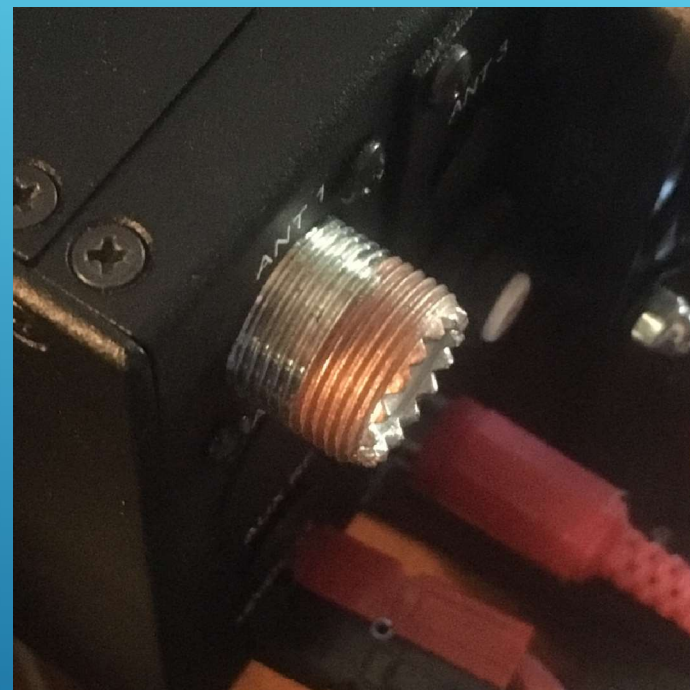
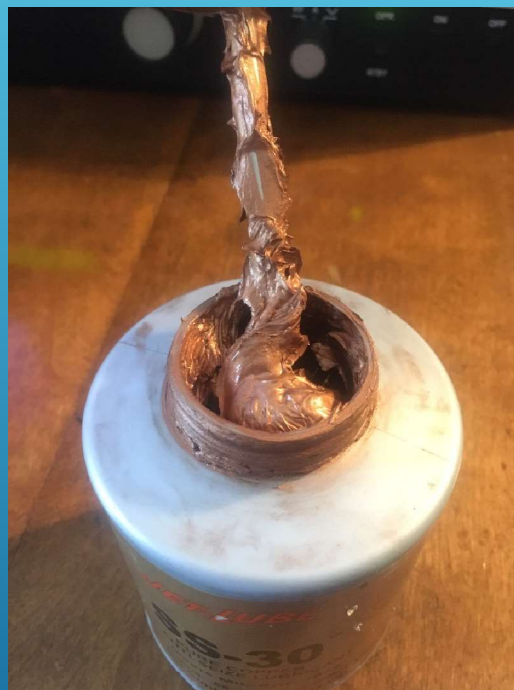
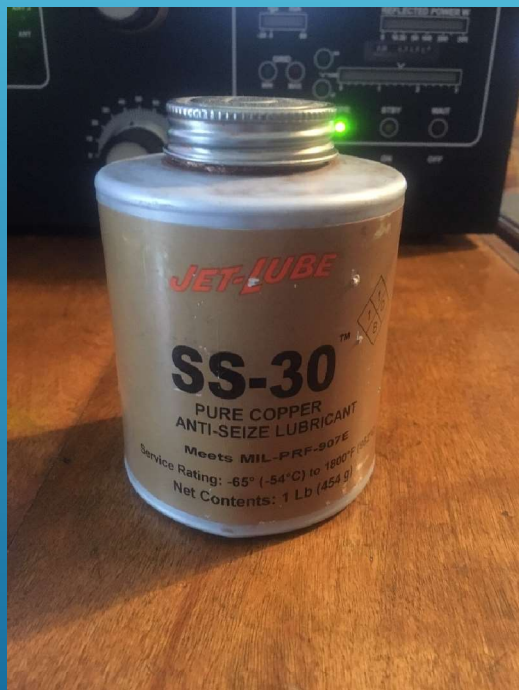
W5ZN STATION



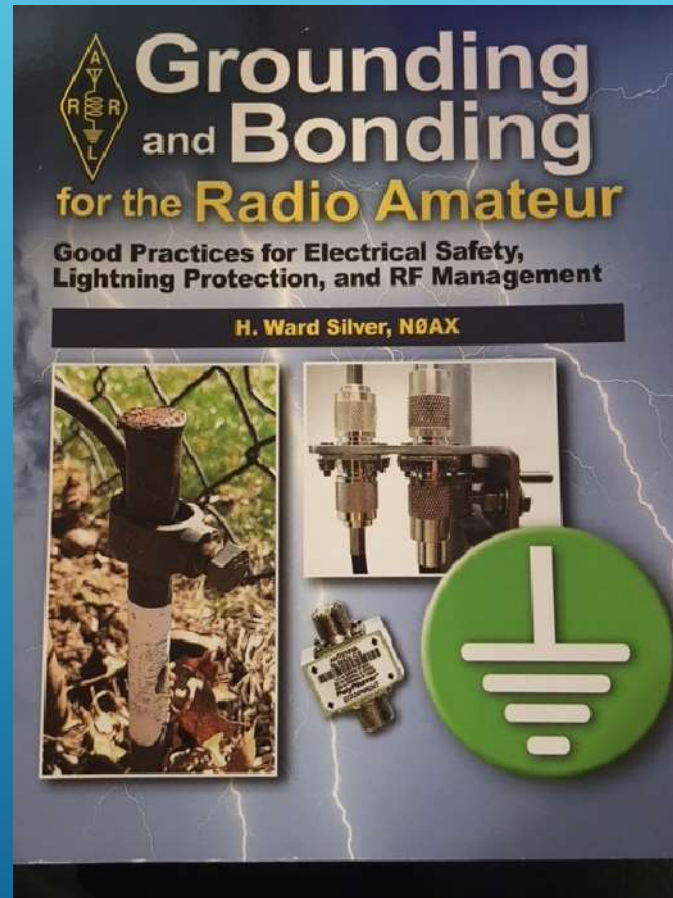
W5ZN STATION



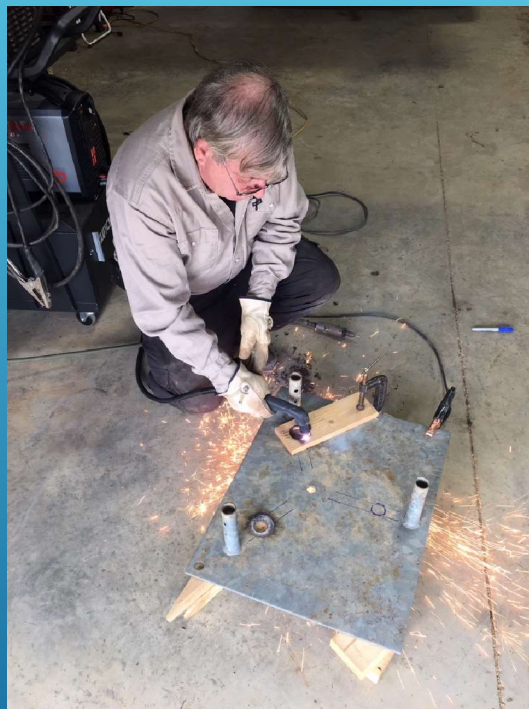
W5ZN STATION



W5ZN GROUNDING & BONDING



W5ZN TOWERS



W5ZN TOWERS



W5ZN ANTENNAS



W5ZN ANTENNAS – 160 METERS

NCJ NATIONAL CONTEST JOURNAL \$6
September/October 2018
www.ncjweb.com Volume 46 Number 5

HF Receiver Selection and Choices for Contesters

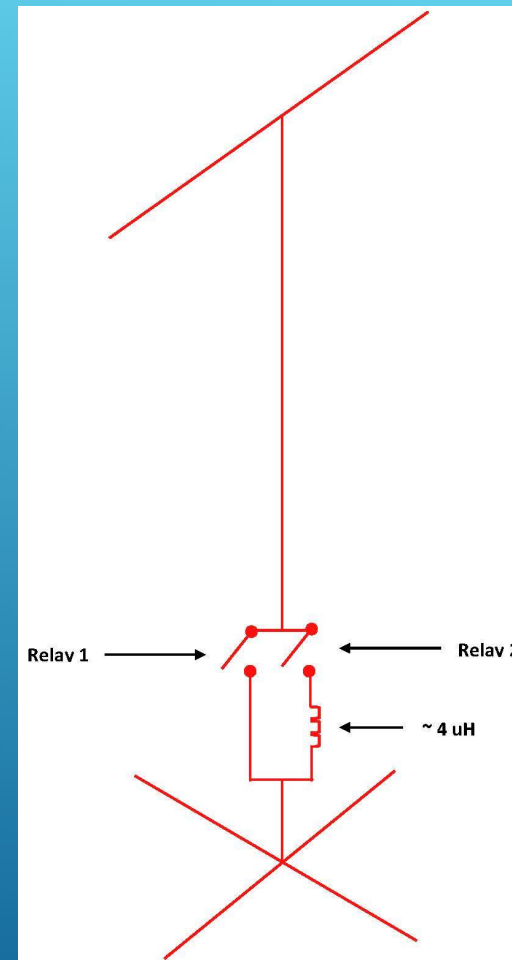
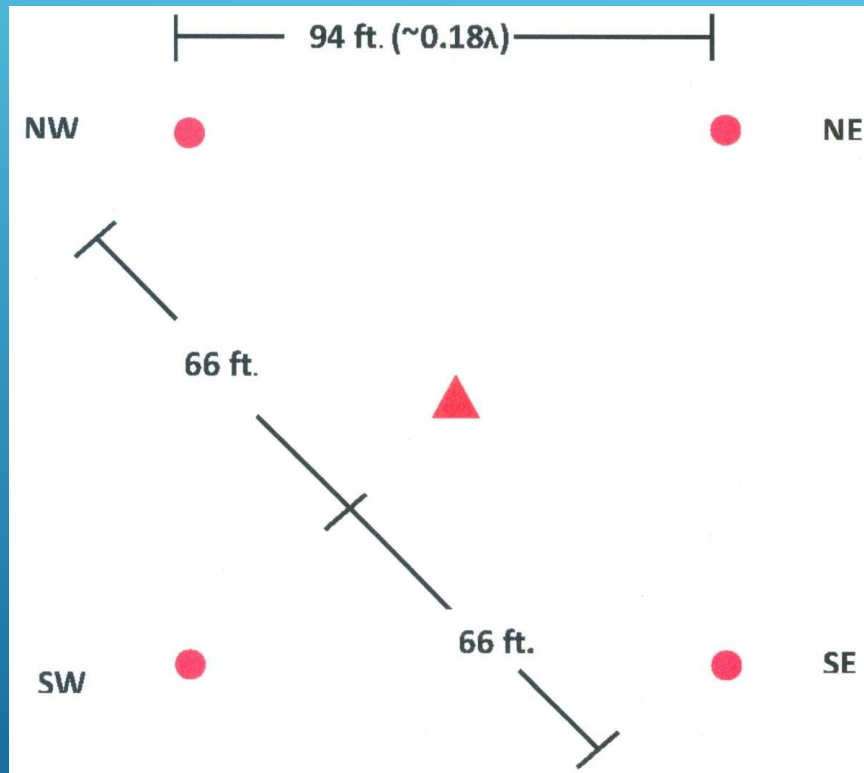
- The M6T Contest Station
- Picking a Contesting Receiver –Part 3
- A160-Meter Five Vertical Array
- Selected Contesters' Receiver Choices
- WRTC 2018–The Winners
- NCJ Profiles: Scott Redd, KØDQ
- New! The Collegiate QSO Party

Top Photo: Joel Harrison, W5ZN, and his five vertical array for 160 meters.

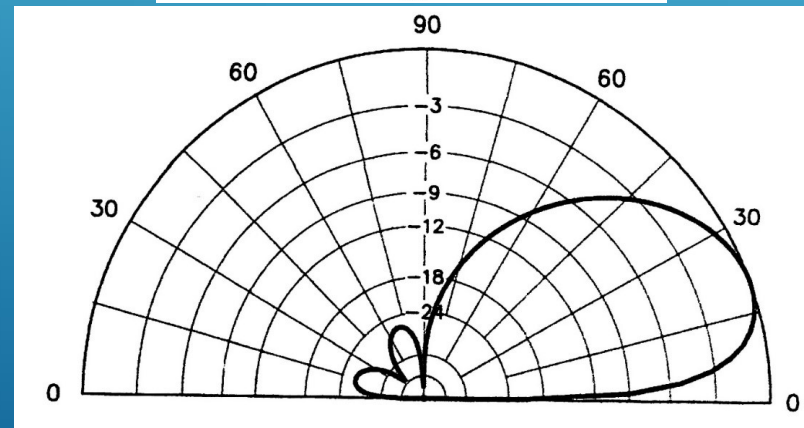
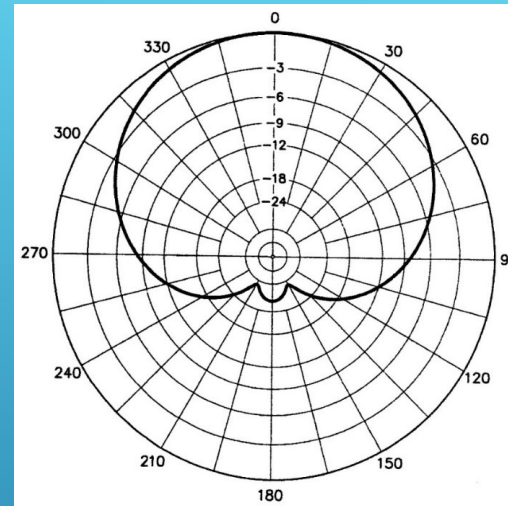
Bottom Photo: Next-Gen Contester Ryan Cutshall, KD9DAB, at the Indiana University Amateur Radio Club Station (K9IU).



W5ZN ANTENNAS – 160 METERS



W5ZN ANTENNAS 160 METERS



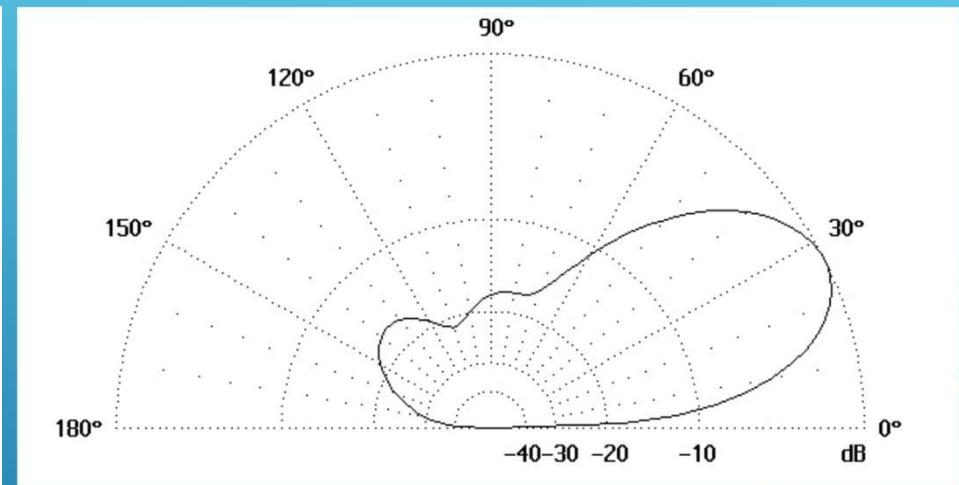
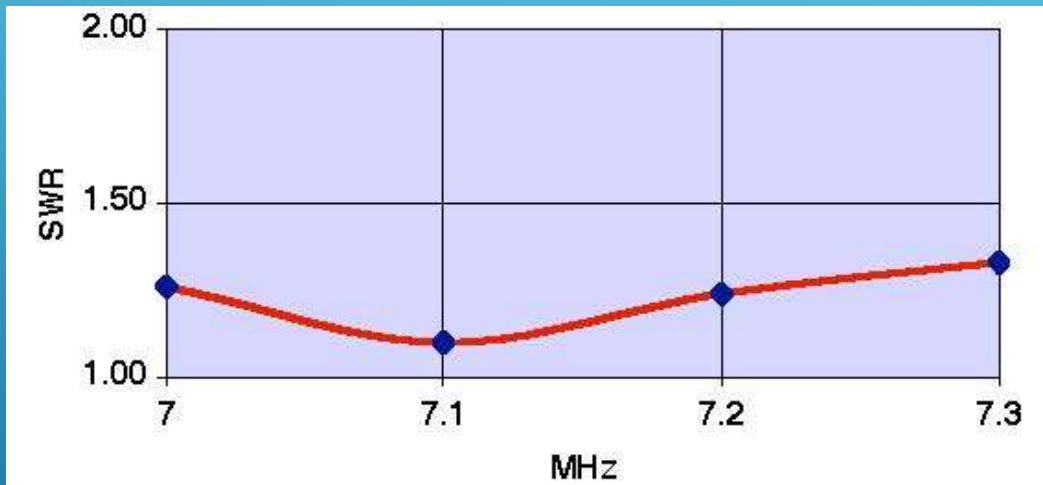
5 dB Forward Gain 25 dB F/B

W5ZN – 40 METER W6NL MOXON



DE 47.4 ft Reflector 48.1 ft Boom Length 22 ft

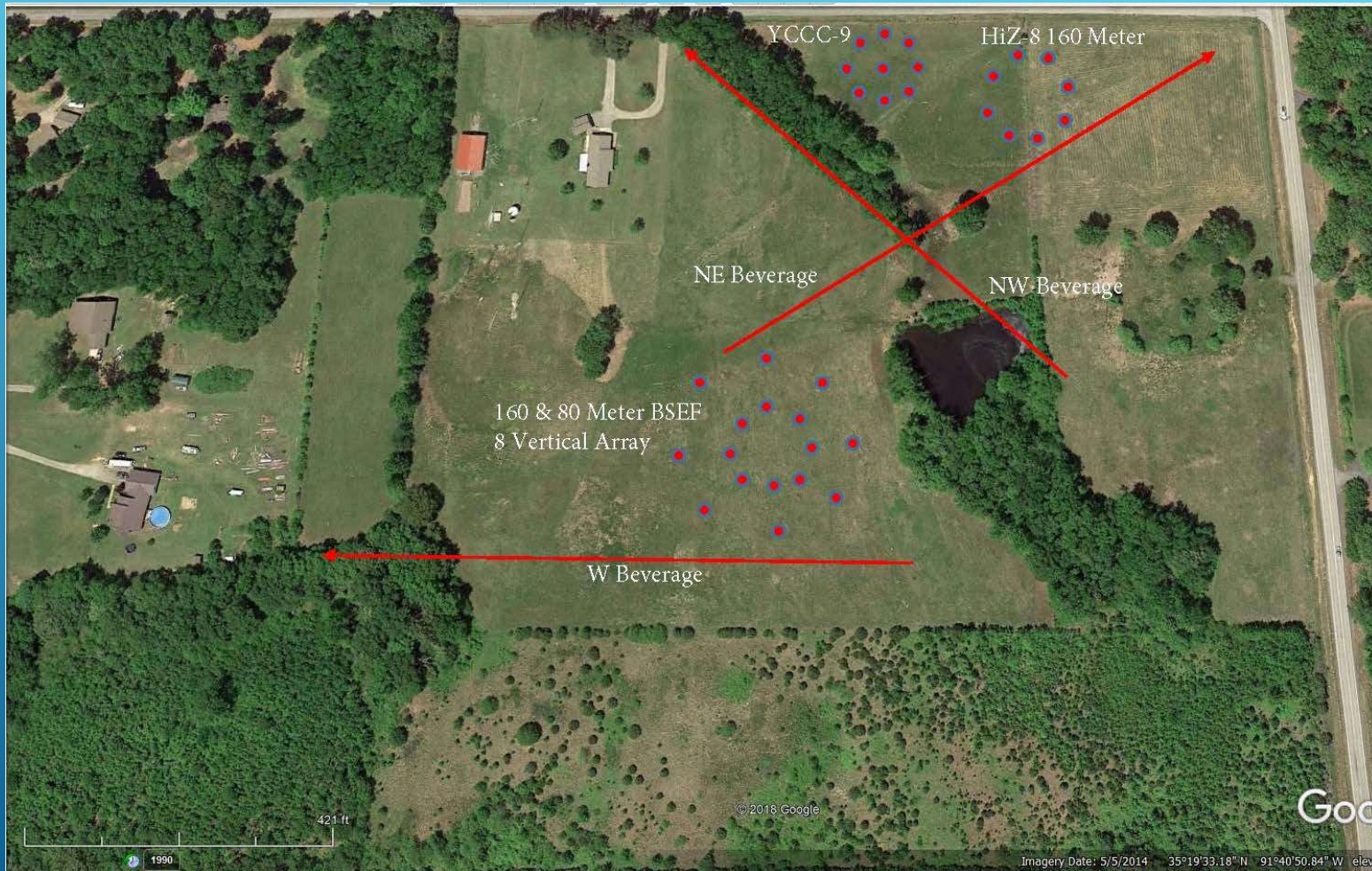
W5ZN – 40 METER W6NL MOXON



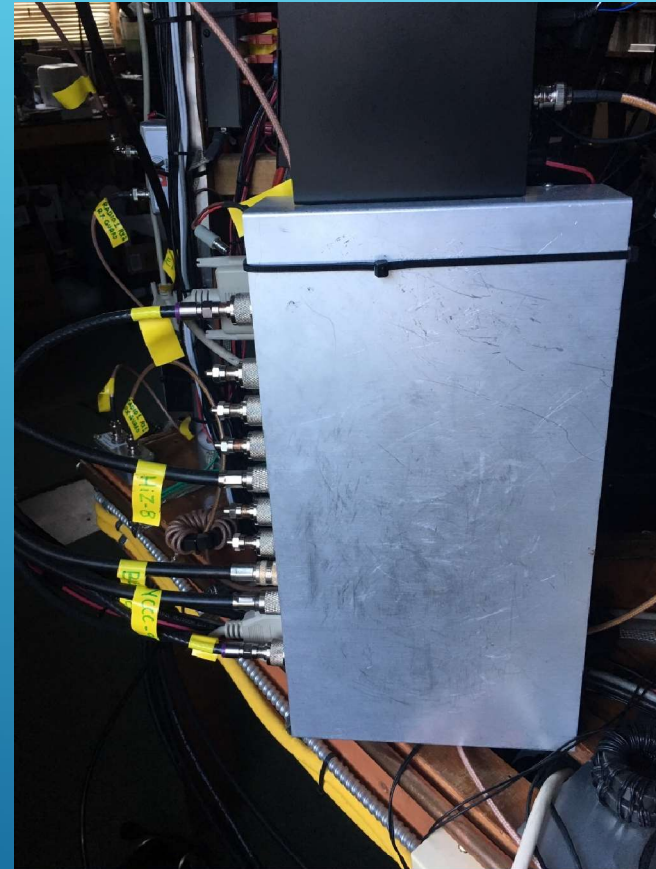
99.5% Efficiency

- High F/B
- 300+ kHz VSWR BW

W5ZN – 160 & 80 METER RX ANTENNAS



W5ZN - 160 & 80 METER RX ANTENNAS





ARRL – THE OLD “MAN”



ARRL – SECOND CENTURY AUGUST 2019

Howard E. Michel, WB2ITX, ARRL Chief Executive Officer, hmichel@arrl.org

Second Century

Embracing Change in the Shack



What is a radio? Is it any box with a microphone or key jack on one side and an SO-239 connector on the other side?

That is both a philosophical question and a technical question. Before I answer, imagine what radio you would buy if money was no object.

My mind immediately jumps to a vintage Yaesu FT-101. I still remember the Yaesu ads in *QST* from when I was a teenager. That's not to say they were the only great rigs made — Collins, Drake, and others also come to mind. I am sure every ham has their own personal preference, and my citing the Yaesu FT-101 is not meant to be an endorsement of the FT-101 or Yaesu. But in my youth, I could see myself, at least in my mind, operating the FT-101 in my bedroom and working the world.

What drew me to that rig? The features and specifications, and, as a soon-to-be electrical engineering student, the great engineering that went into it. As you may remember from my first editorial, I am a linkerer. I like to look under the hood.

Scientists discover physical properties in our world, and engineers build devices based on those properties. Our world is analog, and the properties scientists discovered were necessarily analog. Rigs built in the 1960s were composed of analog circuits. There was a natural correlation between the physical properties of resistors, capacitors and inductors, and signals and waves.

Now let's jump forward in time. At a recent hamfest, I was looking at a rig by FlexRadio, FlexRadio's primary product is a "software-defined radio," or SDR. Under the hood, an SDR is completely different than an analog radio. Because the world is analog, there are A/D and D/A converters and analog circuits, but the SDR is basically a computer operating on mathematical representations of signals. It operates in a digital domain. It is based on the fact that an appropriately sampled (and digitized) analog signal can represent that continuous analog signal in well-defined circumstances. While there is no natural correlation between a series of numbers and the physical world, I believe that most of us accept that an SDR is a radio.

But what struck me about the Flex was not that it was an SDR, but that the designers had separated the human interface from the receiver/transmitter back end. It was designed with remote operations in mind.

While there have been articles in *QST* on remote operating going back almost 30 years, what struck me was the paradigm shift at a major manufacturer. FlexRadio had turned the engineering problem around by envisioning a new way to operate. They had challenged my concept of what a ham shack is. The operator no longer needed to be in the same room as the radio.

While I consider myself a "guardian" of ham radio — a term we use at ARRL to mean one who respects and upholds the traditions — my engineering career has taught me to value innovation and embrace change. I like to think that Hiram Percy Maxim would agree — after all, he was an engineer and inventor before becoming a ham and founding ARRL. As a ham, he embraced change, from spark to CW, and I like to think that he would embrace change today, including SDR, remote operating, new forms of digital transmission, and pioneers with experimental licenses operating at 78 GHz. While I have written several editorials about needed change in ARRL's business operations, I believe that embracing technical change is equally important if we are to have a secure future.

Nothing in this article is an endorsement for any product or manufacturer. I encourage your comments to me at ceo@arrl.org.

Howard E. Michel WB2ITX

Where to Meet WB2ITX

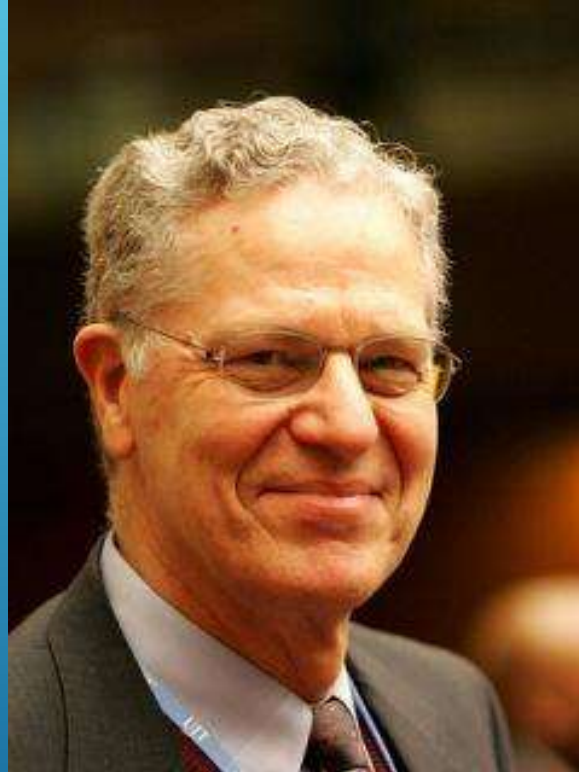
August 8 – 10 — Rocky Mountain Division Convention (Utah Hamfest), Ogden, UT <https://rmdc2019.org/>
August 17 – 18 — Alabama State Convention (Huntsville Hamfest), Huntsville, AL <https://hamfest.org/>
August 31 – September 1 — JARL Ham Fair Tokyo, Japan https://www.jarl.org/English/4_Library/A-4-6_ham-fair/ham-fair.htm

www.arrl.org QST August 2019 9

WHAT'S KILLING AMATEUR RADIO?



WHAT'S KILLING AMATEUR RADIO?



Dr. Joseph Taylor, PhD
Astrophysicist, Nobel Laureate
AKA K1JT



WHAT'S KILLING AMATEUR RADIO? "THE LIST"

CW	Ragchewers	VHF operators	QRP	Spoon Feeding
AM	Windows	Satellite Operators	QRO	Dumbing Down
SSB	Computers	Microwave Operators	Using Paddles	DMR
FM	Dxpeditons	Parks on the Air	Using A Bug	D-STAR
RTTY	List Operation	Islands on the Air	Using A Bug as a	EchoLink
Packet	Contesters	Summits on the Air	Straight Key	IRLP
Amtor	Holiday	DXCC	Using a Keyer	Remote Stations
Pactor	DXpeditons	WAS	QRM	RemoteHams
Winlink	Nets	VUCC	QRN	Remote Ham
PSK31	OQRS	WAZ	DQRM	Radio
PSK63	Paypal	ARRL	Kenwood	JT65
MSFK8	eBay	FCC	Yaesu	JT9
MSFK16	Linux	Appliance Operators	Icom	FT8
M-RTTY	Android	CB'ers	Elecraft	FT4
EME	MacOS	Low Band Operators	Tower Rules	K1JT

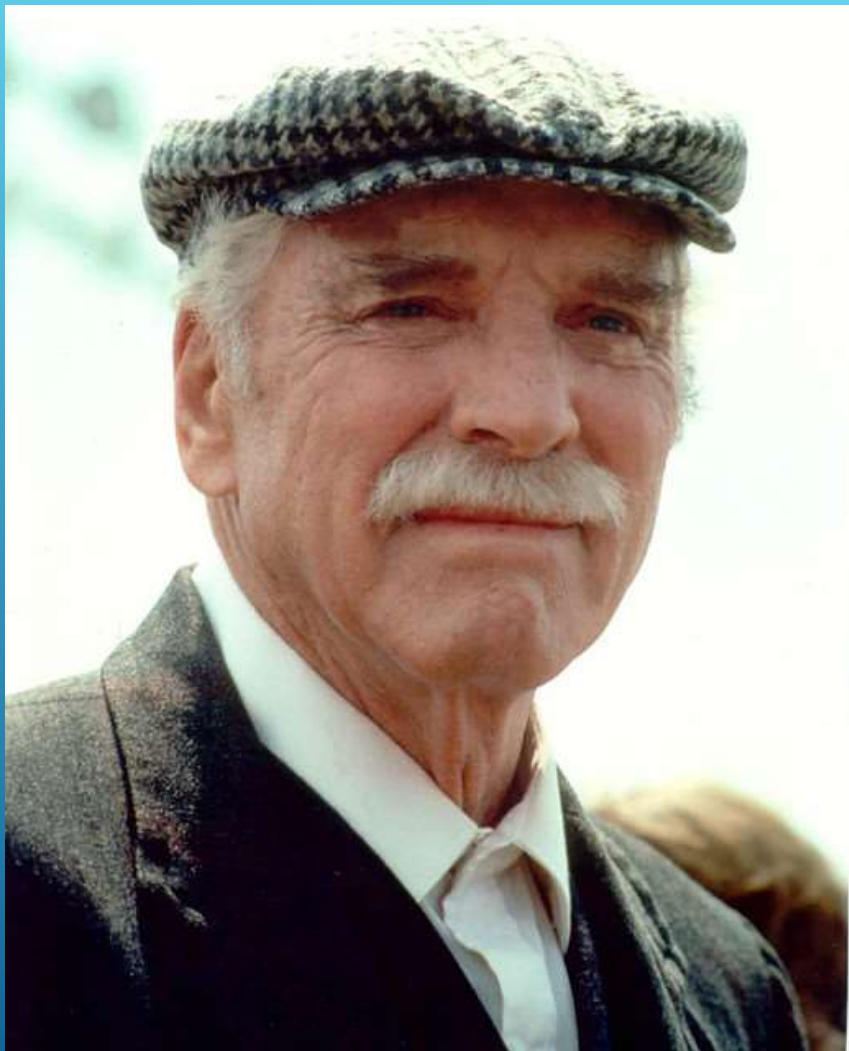
WHAT'S KILLING AMATEUR RADIO?

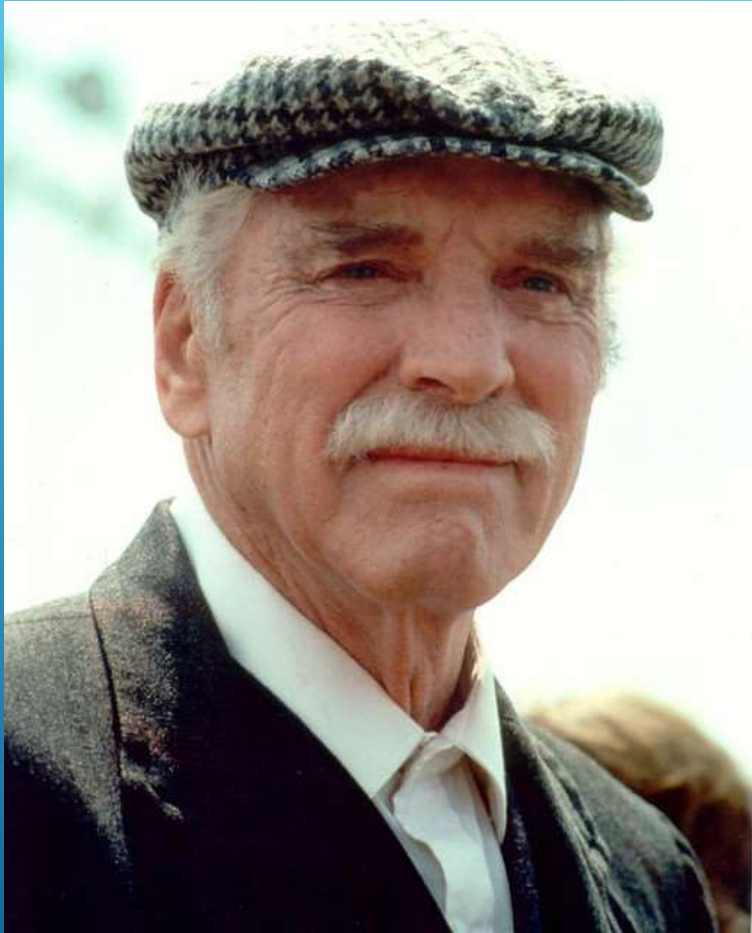


WE ARE

HOW CAN WE STOP IT?







YOU CAN'T
RUN WITH
THE BIG DOGS



IF YOU
PEE LIKE A
PUPPY!



GET ON THE AIR and WORK SOME DX !!!!
Preferably Long Path