

# DX 101



## Southeastern DX Club

# SEDXC



- Founded in 1958
- [www.sedxc.org](http://www.sedxc.org)
- Officers
  - President: Mike Weathers, ND4V
  - Vice President: Dick Baxter, K5TF
  - Treasurer: Jeff Cantor, K1ZN
  - Secretary: Paul Kelley, W4KLY
  - Activities Manager: Norm Schklar, WA4ZZV
  - Bulletin editor: Clark Macaulay, WU4B
  - Webmaster: Chaz Cone, W4GKF
  - Membership chairman: Bill Barr N4NX



# Getting Started in DXing

- What is DX and DXing ?
- Why do DX ?
- How do you DX ?
- Where do you DX ?
- Operating (QSO) tips
- Confirmation (QSL) tips
- Summary

# What is DX ?



# What is DX ?

- DX = DISTANT EXCHANGE
- DX = Another Country + Rarity
- DX = What *you* want it to be
  - HF
  - VHF/UHF
  - Any Mode – SSB, CW, RTTY
- DX IS !

# DX IS !

Stories about the Mysteries of DXing from:



Hugh WA6AUD



and Paul VE1DX

at <http://www.geocities.com/CapeCanaveral/1641/>  
or Google: K2CD

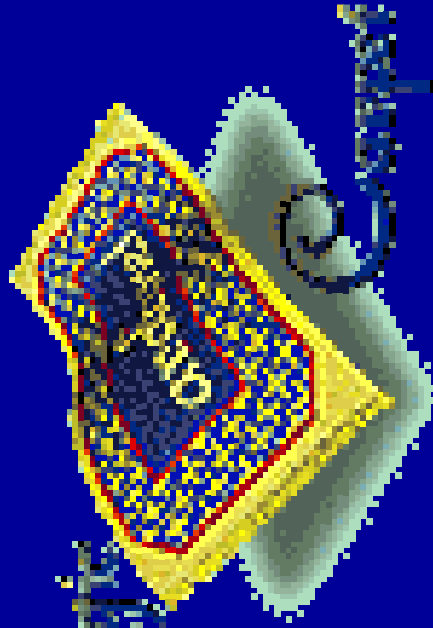


# What is DXing ?

It's your 'magic earphones' to the world

It's your

Quest to



to

adventure!



# What is a DX entity ?

- A listing on the ARRL DXCC List ([www.arrl.org/awards/dxcc/](http://www.arrl.org/awards/dxcc/))
- Distinct geographic and political entities which DXers seek to contact
- The DX Advisory Committee (DXAC)
  - Defined criteria to determine





# What is DXCC ?

- DX Century Club
- A premier ARRL operating award
- Work and confirm => 100 ARRL entities
- Submit application to ARRL (HQ or field)
- Local Field Checker: Bill Barr, N4NX
- Presently **340** Entities (+60 Deleted = 400 possible)

[www.arri.org](http://www.arri.org)



# Top 10 Most Needed Entities 2018

- 1) P5 North Korea
- 2) 3Y/B Bouvet Island
- 3) FT/W Crozet Island
- 4) CEØX San Felix Islands
- 5) KH1 Baker Howland Islands
- 6) BS7H Scarborough Reef
- 7) BV9P Pratas Island
- 8) KH7K Kure Island
- 9) KH3 Johnston Island
- 10) VKØM MacQuarie Island

# Why do DX?



# Why do DX?

- Fun and Adventure
- Challenge
- Goodwill



# Why do DX?

- Technology
- New friends
- Education
- Contests
- Awards
- Emergencies
- Travel
- Eavesdropping
- Stress relief
- And because it's genetic!!!

# FUN

**CH8MNP**  
MAGNETIC NORTH POLE

VE6EHX VE6KC VE6NAO  
s s  
VE6CQY VE6ZV

**KENWOOD**  
**B H Electronics**  
Magnetic  
Peripherals  
**HEIL**


Cameron Island  
Canadian Arctic  
IOTA NA 009  
CQ Zone 2  
CIA NW38  
76° 21' N  
104° W



CAMERON ISLAND EXPEDITION  
AUGUST 18-25, 1993

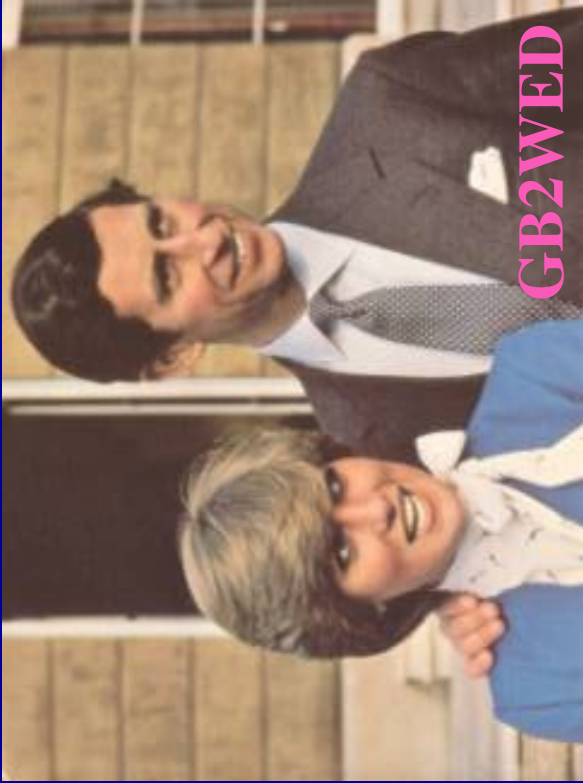
MARCONI CENTENARY STATION

**GB100LP**



LAVERNOCK POINT - WALES

August 1993



July 1981

July 1997

**GB50**

June 2002

# ADVENTURE ?

Lazy man  
DXpeditions

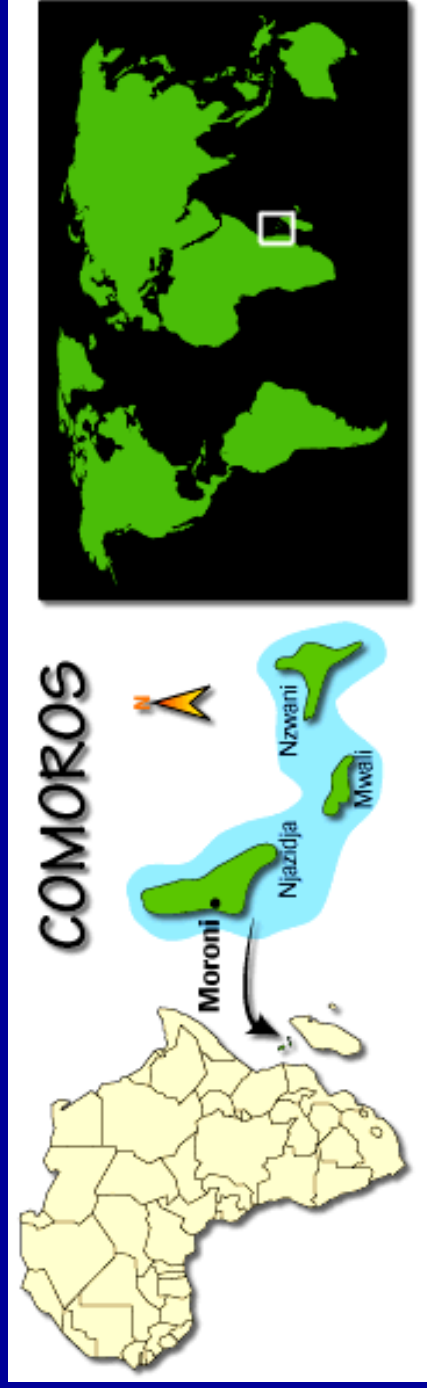


LSDXA Chief Director  
Bill Priakos – W5SJ

# CHALLENGE



**Goal: break ZL9CI '99 record of 96,004**



**D68C** - Comoros Is. 168,722 QSOs Feb'01  
21 days x 24 hours x 6 stations with  
26 operators from 10 countries  
AVG. ~60 QSOs per stn. per hour for 21 days!



# FUN, ADVENTURE, CHALLENGE



## WRTC = SUPER BOWL OF HAM RADIO

- Started with 1990 Goodwill Games
- WRTC 2010 in Russia
- 44 2-ham teams, 24 hours
- July 10-11, 2010

# ADVENTURE & CHALLENGE

VP8THU & VP8GEO  
South Sandwich & South Georgia  
goes "Micro-Lite"



**SEDXC: W3WL &  
K4UEE were there!**



Recent DXpeditions  
where SEDXC  
members were on  
the Team



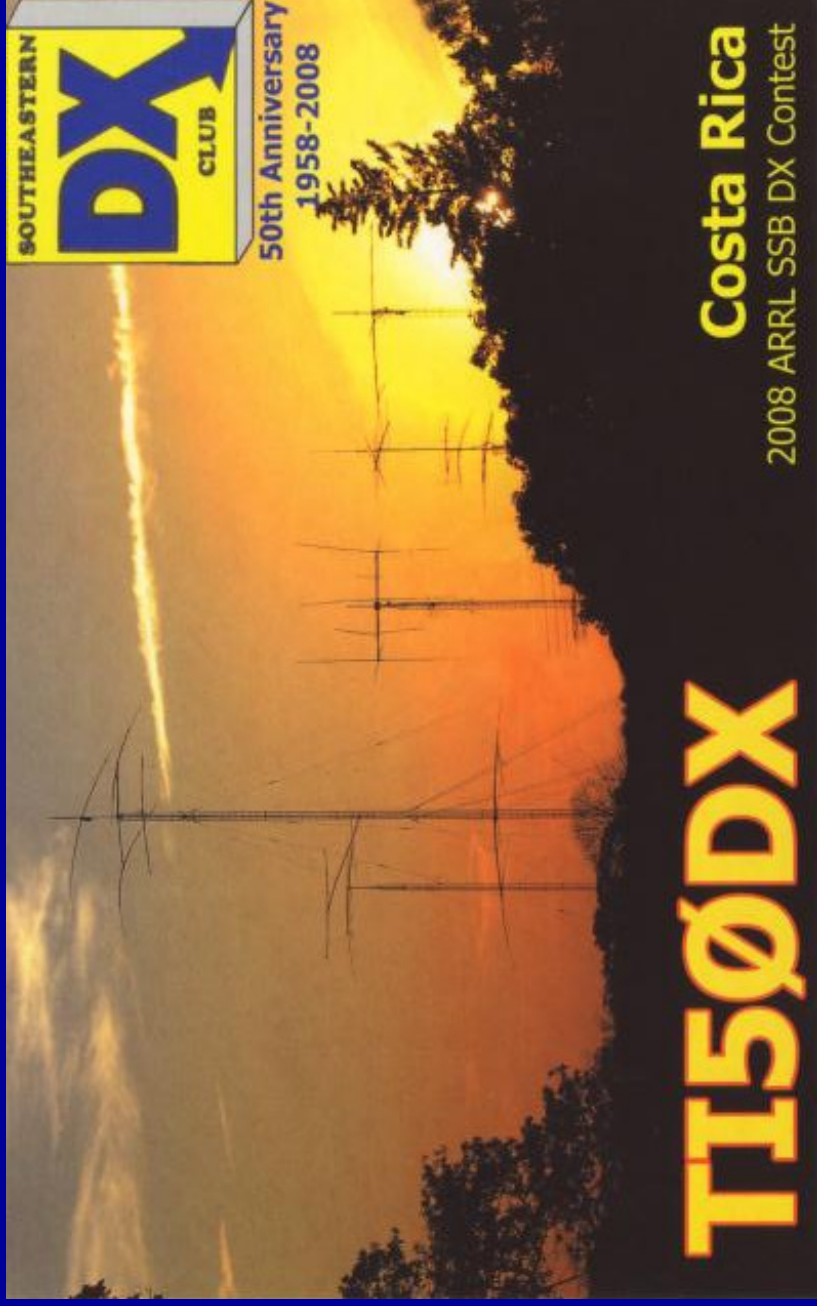
# 3YØX Peter I – 2006



SEDXC Members: K4UEE, KØIR, KU4V & N4GRN



# TI5ØDX Costa Rica - 2008



**SEDXC Members: AE4GX, K4UEE, KG4UVU,  
K4ODL, K4TE, N4GRN, N4HH, N4NX, ND4V,  
W4KJ and W6IZT**



# K5D Desecheo - 2009



**SEDXC Members: K4UEE, KØIR, N4GRN,  
N4NX and W6IZT**



# PJ2T Curaçao - 2009



**SEDXC Members: AE4GX, K4UEE, KI4DSO,  
KU4V, N4GRN, N4HH, N4LR, N4NX, ND4V,  
W4GKF, W9ELN and WA4ZZV**



# PJ6A Saba - 2010



**SEDXC Members: K4SSU, K4UEE, K4ZLE,  
K8EAB, KØIR, KU4V, N4GG, N4HH, N4LR,  
N4NX, W4GKF and W6IZT**





# HKØNA Malpelo - 2012

Malpelo Is. Dxpedition HKØNA



**SEDXC Members: HK1MW, K4UEE, KØIR,  
N4GRN, W6IZT and WB9Z**



# K1N Navassa Island - 2015



# K1N

*Navassa Island  
DXpedition 2015*

**SEDXC members: KØIR, K4UEE, N4GRN,  
W6IZT, WB9Z**

# GOODWILL

San Marino



Sudan

THE DEMOCRATIC REPUBLIC OF THE SUDAN

جمهورية السودان الديمقراطية



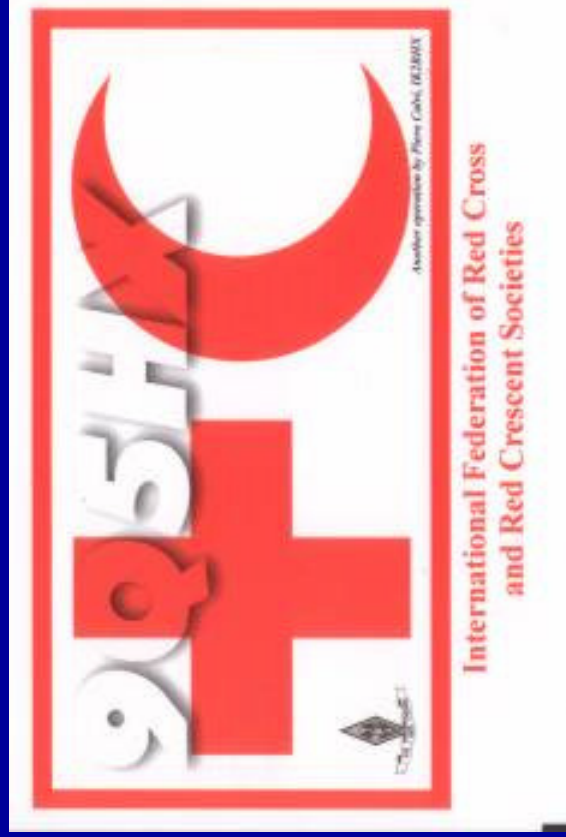
WORLDWIDE FRIENDSHIP THROUGH AMATEUR RADIO  
علاقات الصداقة بين الشعوب من خلال هواية اللاسلكي

6T17YP

SUDAN AMATEUR RADIO CLUB  
YOUTH & CHILDREN PALACE  
P.O. BOX 80 MORADA  
OMDURMAN - SUDAN



Zaire

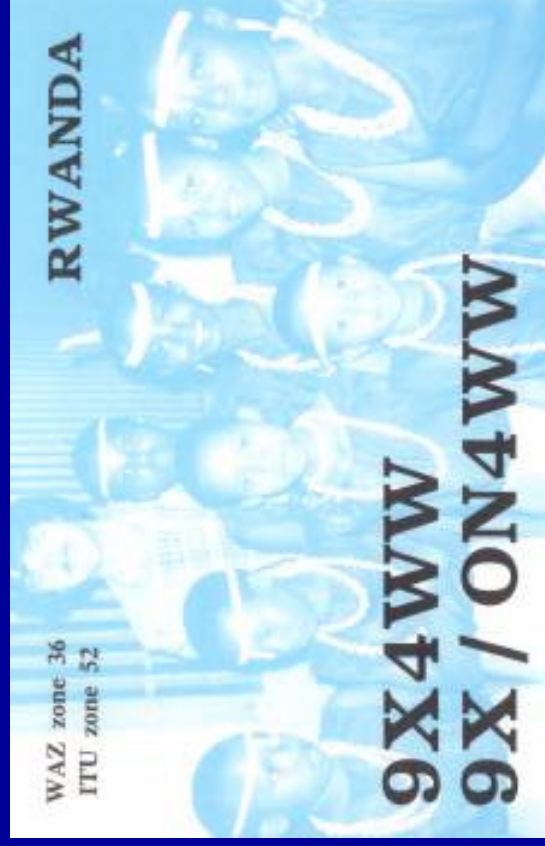


# GOODWILL

WAZ zone 36  
ITU zone 52

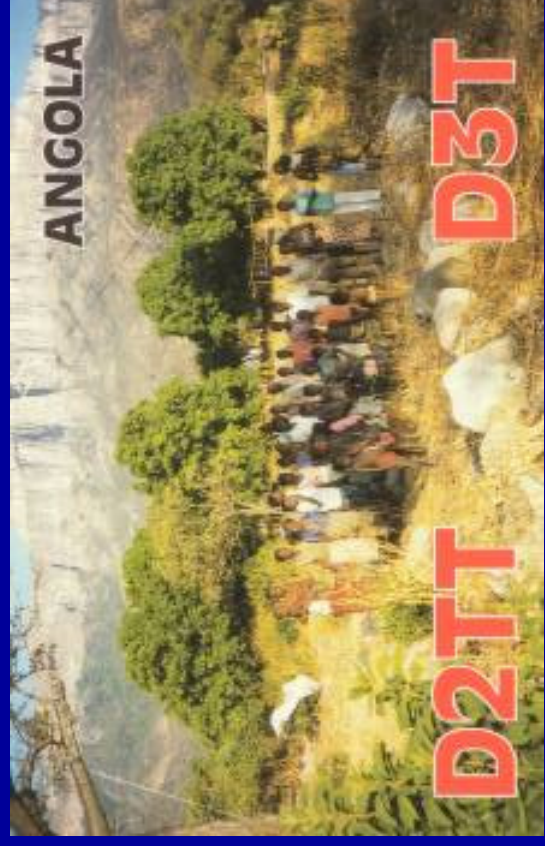
**RWANDA**

**9X4WW**  
**9X / ON4WW**



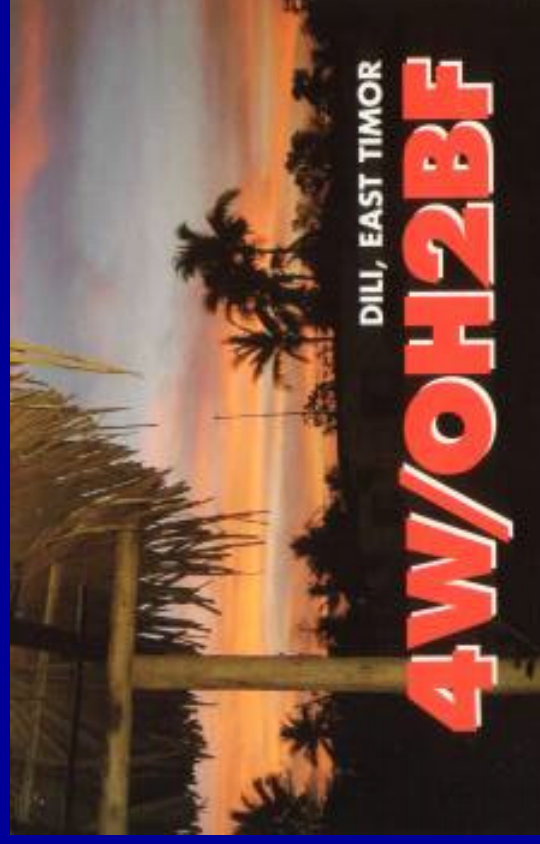
**ANGOLA**

**D2TT**  
**D3T**



**DILI, EAST TIMOR**

**4W/OH2BF**



Pero 9A4SP/4W6SP - SK



# GOODWILL

## North Korea – P5



Most Needed DXCC Country  
Ed Giorgadze in Pyongyang, DPR Korea  
with the United Nations World Food Program  
since 12/98. Oper. OK'd 11/01



# GOODWILL

## YA5T – U.N. Kabul, Afghanistan



<http://www.qsl.net/ya5t>



**Peter  
ON6TT**



**Robert  
S53R**



**Mark  
ON4WW**

# How do you DX ?

- SWL - receiver and antenna
- To make a QSO:
  - License from FCC
  - Transceiver
  - Antenna



KE4UYP  
17M LOOP



# How do you DX ?

Optional but helpful:

- Decent propagation
- Towers and yagi stacks
- Amplifier
- Extra class = all privileges
- Computer-internet access



# How do you DX ?

Join a club

SEDXC

[sedxc.org](http://sedxc.org)

SECC

[secc.contesting.com](http://secc.contesting.com)



# DX NEWSLETTERS

- QRZ DX - [www.dxpub.com](http://www.dxpub.com)
- DAILY DX - [www.dailydx.com](http://www.dailydx.com)
- Magazines - [DX Magazine](http://www.dxpub.com)  
[www.dxpub.com](http://www.dxpub.com)
- QSL MANAGERS – GOLIST  
[www.golist.net](http://www.golist.net)



# DX Cluster Page View

## DX Cluster Spots

<u>UA2FF</u>	<u>3502.2</u>	<u>HC8N</u>	Up 1	<u>09/24</u>	<u>0323</u>
<u>W2QO</u>	<u>7034.0</u>	<u>WØBR/3</u>	RTTY	<u>09/24</u>	<u>0322</u>
<u>SP3OL</u>	<u>3600.4</u>	<u>HG1S</u>	RTTY MRASZ	<u>09/24</u>	<u>0322</u>
<u>YL7X</u>	<u>7086.4</u>	<u>OH2BH</u>	Martti	<u>09/24</u>	<u>0322</u>
<u>WY3X</u>	<u>7037.2</u>	<u>W4BQF</u>	cqww rtty	<u>09/24</u>	<u>0322</u>
<u>WY3X</u>	<u>7040.1</u>	<u>WN1GIV</u>	cqww rtty	<u>09/24</u>	<u>0320</u>
<u>HK3JRL</u>	<u>50110.0</u>	<u>HK3JRL</u>	cq dx stby	<u>09/24</u>	<u>0320</u>
<u>SP3OL</u>	<u>14195.0</u>	<u>UU7J</u>	Working 4s	<u>09/24</u>	<u>0320</u>
<u>W2QO</u>	<u>7035.1</u>	<u>RK3DX</u>	RTTY	<u>09/24</u>	<u>0320</u>

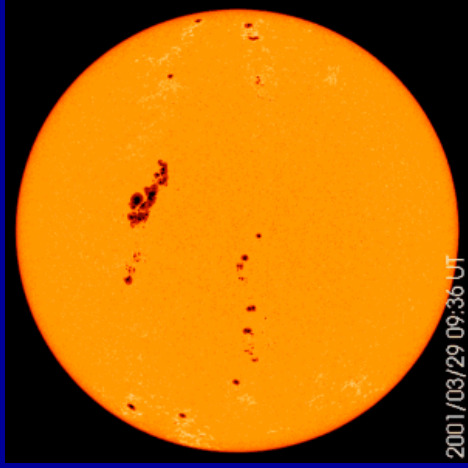


# Let's talk about...

## Propagation

- Most significant factor
- Out of our control
- Learn about it -- to fine tune

# Sun Influences Propagation



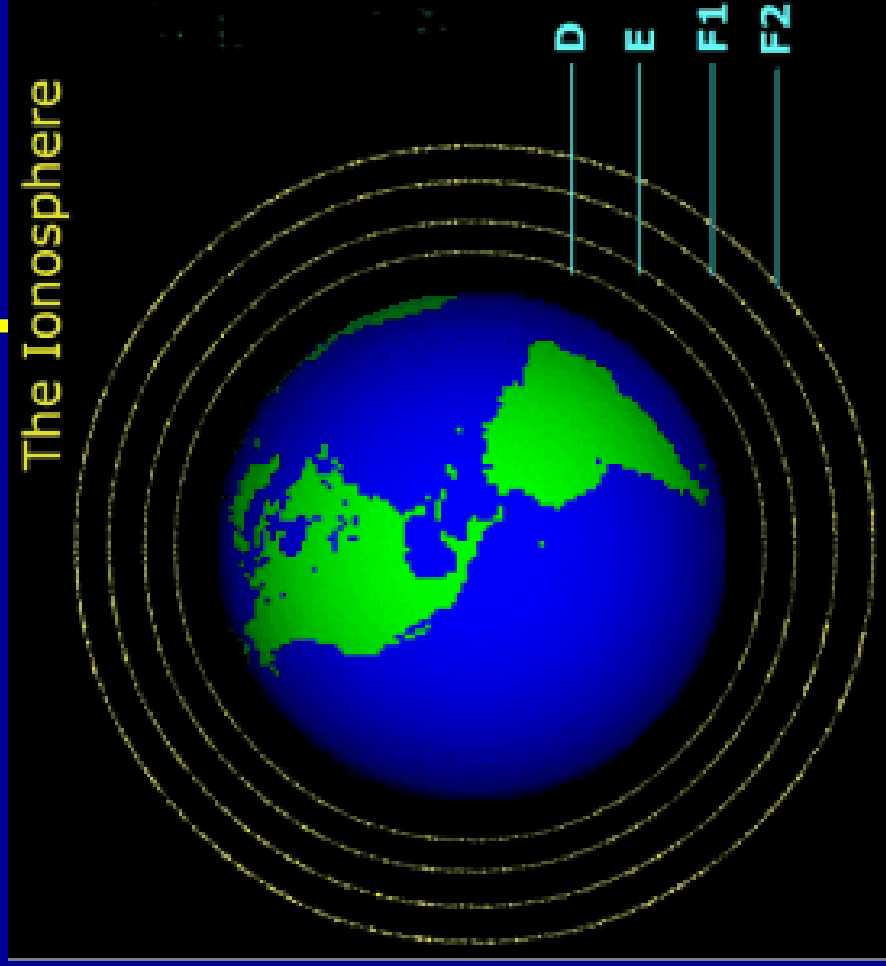
Sunspots



<http://sohowww.nascom.nasa.gov/> Coronal Mass Ejection

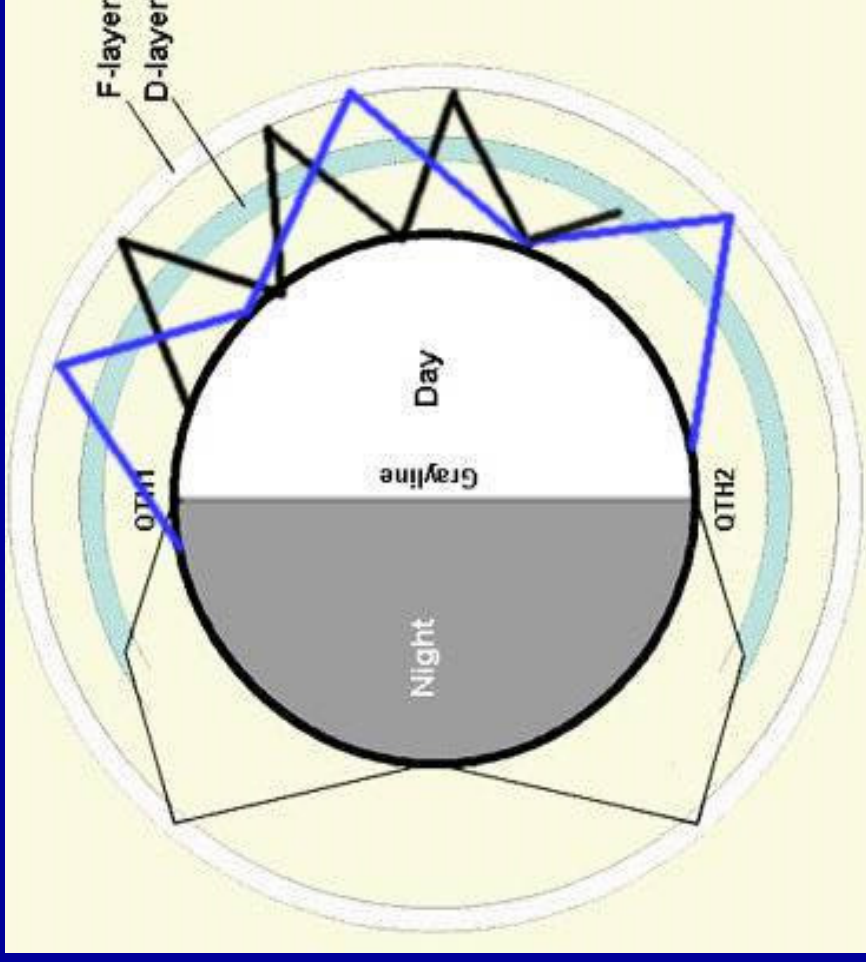
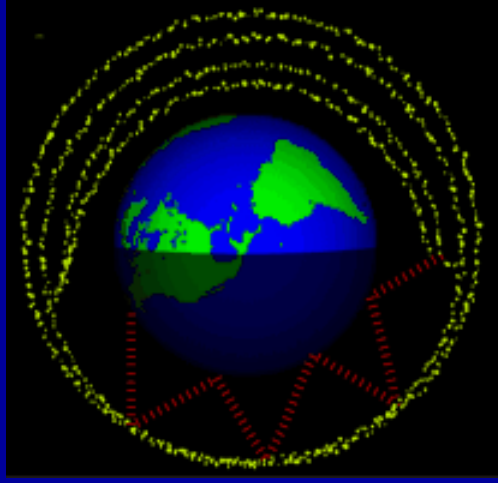
# The Ionosphere

The Ionosphere



# Ionized Layers D, E<sub>s</sub>, F<sub>1</sub>, F<sub>2</sub>

Signals are  
Absorbed or  
Refracted

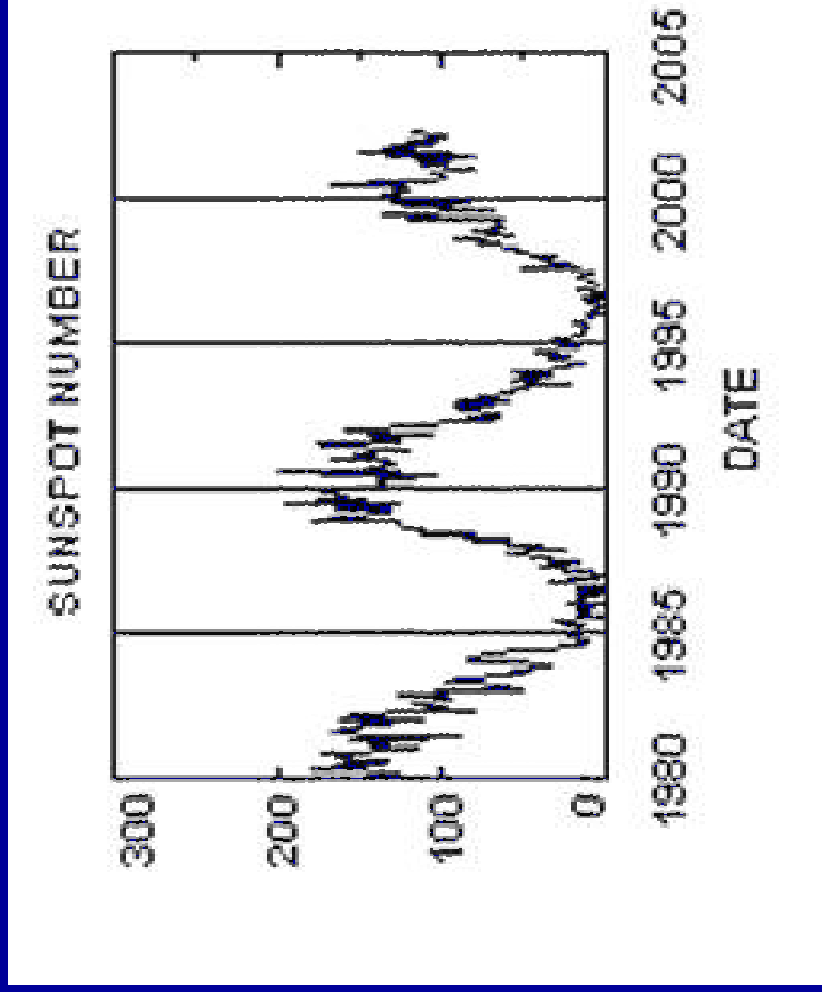


Low Bands  
< 7mhz

High bands

# Solar Cycles/Indexes

SSN 11 yr cycle



Indices we watch  
Solar Flux Index  
SFI=10.7cm 60-300  
Correlates to SSN  
A=Geom Index 4-50  
K= Geom Index 0-9  
Higher is Good  
MUF = Max Useable  
Freq. for a path =  
the predicted Answer

GM. PEAKS MARCH+SEPTEMBER, ION. PEAKS APRIL+OCTOBER





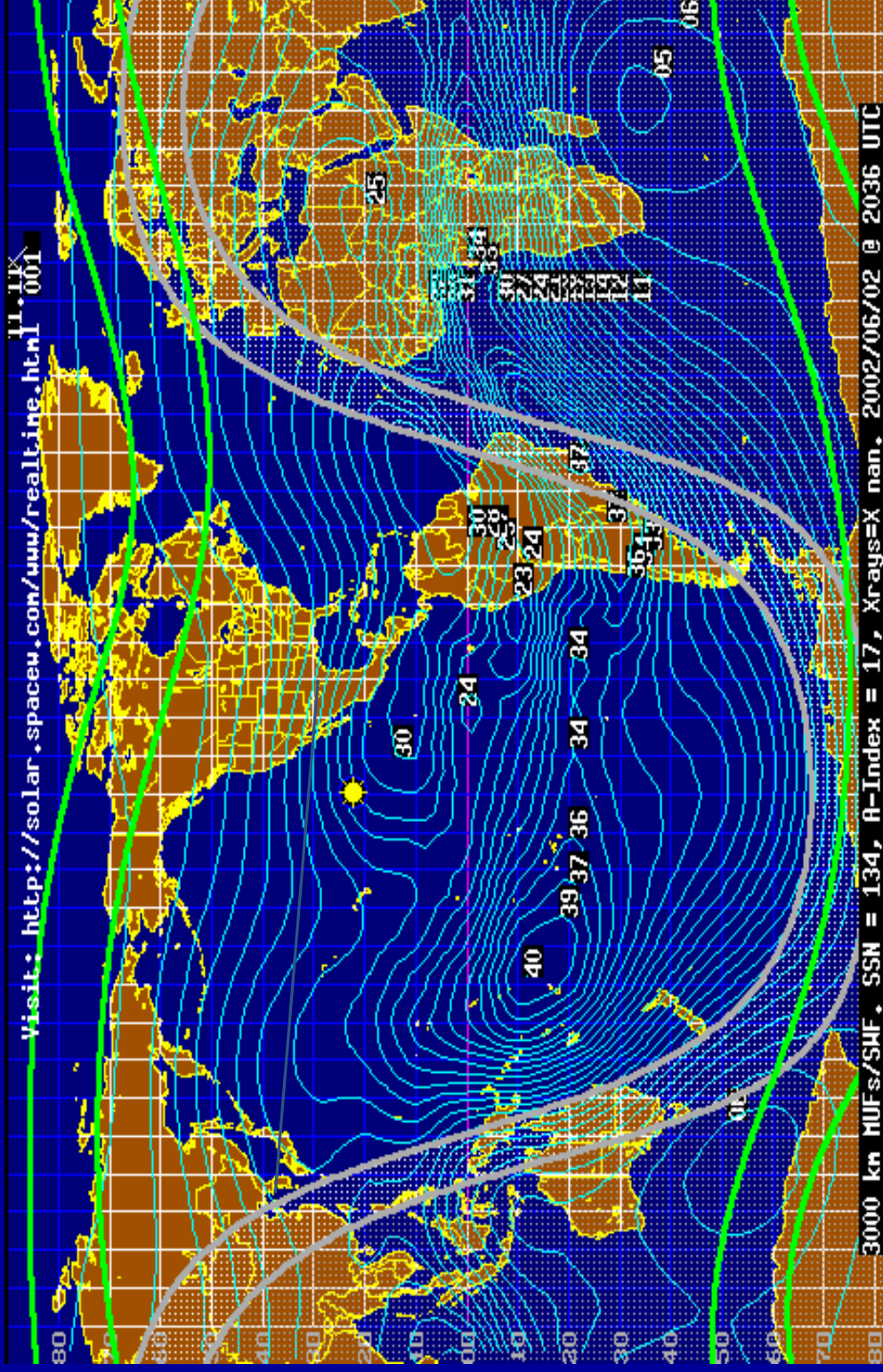
# Solar Cycles/Indexes

## Best DX propagation

- SFI = 120+
- A = Geom Index 0-15
- K = Geom Index 0-2
- MUF = Just above operating frequency

# MUF + Greyline CHART

<http://solar.spacew.com/www/realtime.html>



# Propagation

Primer:

[ae4rv.com/tn/propflash.htm](http://ae4rv.com/tn/propflash.htm)

[arrrl.org/tis/info/propagation.html](http://arrrl.org/tis/info/propagation.html)

Propagation data and charts:

[hfradio.org/propagation.html](http://hfradio.org/propagation.html)

[solar.spacew.com/www/realtime.html](http://solar.spacew.com/www/realtime.html)



# Propagation

Beacons:

[keele.ac.uk/depts/por/28.htm](http://keele.ac.uk/depts/por/28.htm)

Propagation Software:

[qsl.net/propview/](http://qsl.net/propview/)

[qsl.net/w6elprop](http://qsl.net/w6elprop) - FREE

[taborsoft.com/wwizard3](http://taborsoft.com/wwizard3) - \$65

[oh2aq.kolumbus.com/dxs/](http://oh2aq.kolumbus.com/dxs/)

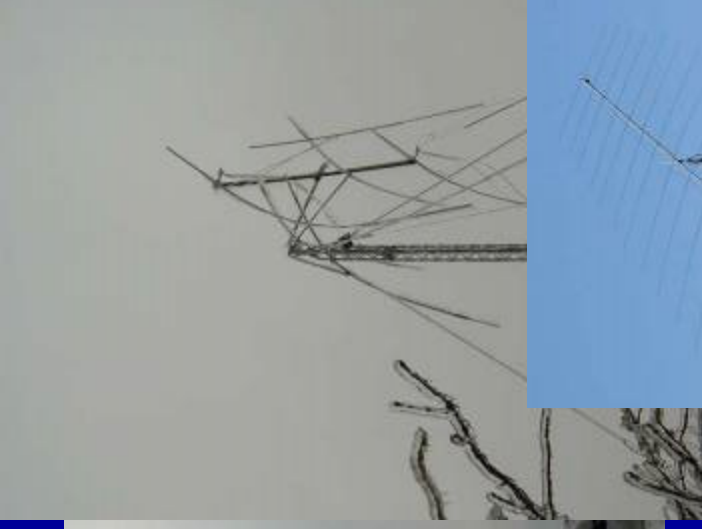
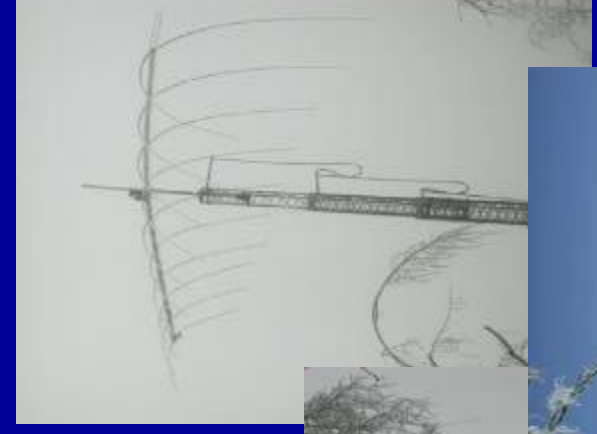


# There's some risk !

(WINTER '02)

DAN – KØDAN Raymore, MO

Coy – N50K Union City, OK



There's some risk !



Most DXers get hit eventually  
... and noise affects us all



# There's some risk... (pirates)

**PSRS7**

DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA



**KJ6DO/KH7S**

WSBA I

9/18-19/82

THE ISLAND SURFACED FOR TWO DAYS IN THE MINDS OF  
DIVERS SEEKING A 'NEW ONE' - YOU CRACKED THE PILEUP



# Before it's all said & done

If you don't hear anything:

- Antenna's connected? OK
- Radio working? OK
- Curious? Yep!
- Go Check the numbers



Before it's all said & done

Turn on the radio and LISTEN !

**LISTEN**

**LISTEN**

**LISTEN**



# Listening guidelines

## Night

- Check highest frequency with signals
- Work low bands if open

## Day

- Check lowest frequency with signals
- Work highest frequency if open

## Transition

- Look for greyline opening- lowest open frequency

# Where do you DX ?



# Where do you DX ?



**ANYWHERE !**

**Elroy WB9GIE: Trek-mobile - Yaesu FT-817- 2.5 watts  
96 countries and all 50 states**



# Jim - KJ5TF/QRP



From Wire Quad in Trees to Tower

Kingston, Arkansas  
50 states 911mw TOT.  
All under 50mw  
72 DXCC < 800mw  
DXCC+ < 5 watts



# Skip - W5GAI

Austin, Texas



200 Watts - ICOM IC775 - DSP  
332 Countries Confirmed



10/15/20: 4 ELEM. TRIBANDER AT 72ft.  
40/80: Trap Inverted V (Use Also For 12/17/30 bands)



# Jim - N3BB/5

SW of Austin, TX



Stn #1 FT1000MP and Alpha 76PA

Stn #2 FT1000MP and Alpha 87A



4 Towers, Monoband Yagi 2x6 El.Stacks on 10, 2x5 on15, 5x5 on 20, 2 El and 3 El on 40, Tribander, Slopers, Inv Veers Beverages for 80 and 160



# Some SEDXC Member Stations





# K4GK – Charles Sandersville, GA



# K4PI – Mike Douglasville, GA



**#17 in world DXCC Challenge**

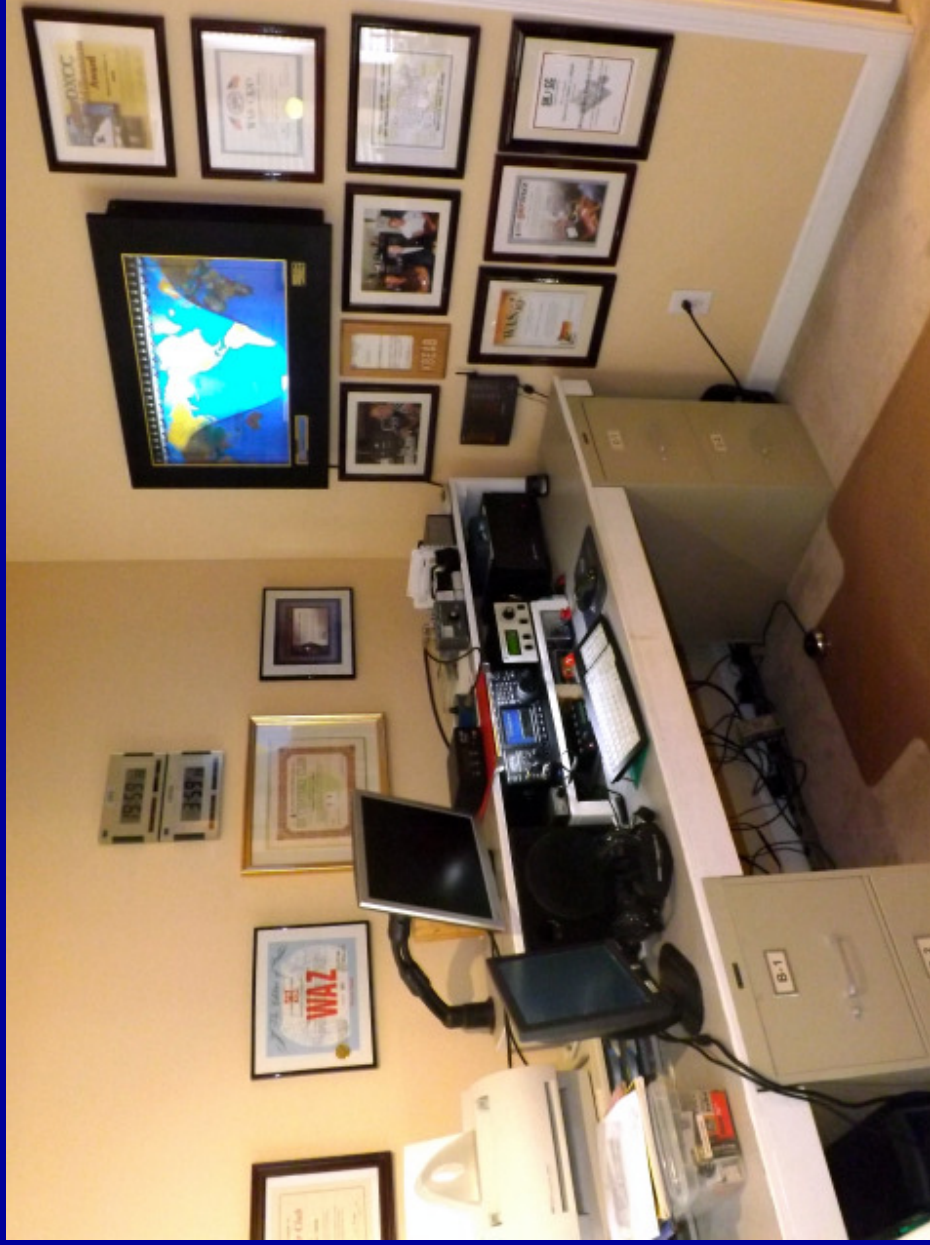
# K4SSU – Dave Winder, GA



# K4UEE – Bob Marietta, GA



# K8EAB – Wey Cumming, GA



# N4NX -- Bill Sandy Springs, GA



# N4TOL – John Roswell, GA



# ND4V – Mike Norcross, GA





# NN4K – Vaden Stone Mountain, GA



# NN4ZZ – Al Loganville, GA



# W4GKF -- Chaz Sandy Springs, GA



# W4KJ – Harry Atlanta, GA



# W4TE – Jim Atlanta, GA



Station in Buckhead on 1/2 Acre Lot

# WU4B – Clark Marietta, GA



# OPERATING TIPS – DOS

- **1st 3 rules:** Listen, Listen, Listen
- Be courteous
- Observe DX station routine
- Check DX listening freq

# OPERATING TIPS – DON'TS

- Don't call/tune up on the DX
- Don't call if you can't hear
- Don't call on DX freq if split
- Don't be a policeman





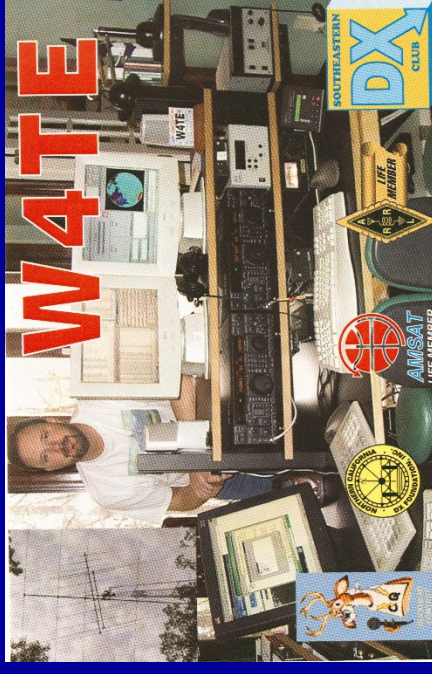
# OPERATING TIPS

- Be on when the DX is
- Check propagation
- Wait for propagation peak
- Check beacons
- Check cluster spots
- Wait for pileups to subside
- Use standard phonetics
- Do it at your own pace

# QSLing TIPS

- Get a picture QSL
- Direct with SAE, Etc.
- Via QSL Manager
- Via Country Bureau Direct
- Via ARRL or QSL Services - WF5E

~ 10 Cents ea.



ATLANTA, GEORGIA 30305-1955 USA  
558 ARDEN OAKS COURT

**W4TE** **DX**

EX-KO4RQ, AMSAT LIFE MEMBER, email: w4te@mindspring.com

CONFIRMS QSO WITH		DAY	MONTH	YEAR
LTC	MIR	RST	2-WAY	QSL

FULTON COUNTY GRID EM73 A 8936X QSL 73, JAMES R. KAUTEN, MD

**SOUTHEASTERN DX CLUB**

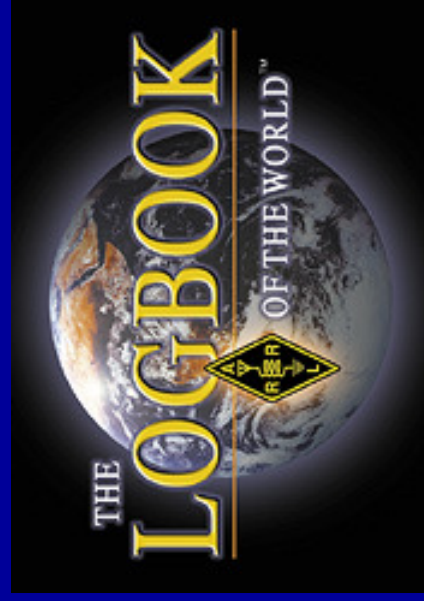
- Write a note on the card
- Send something memorable

~ 5 Cents ea.



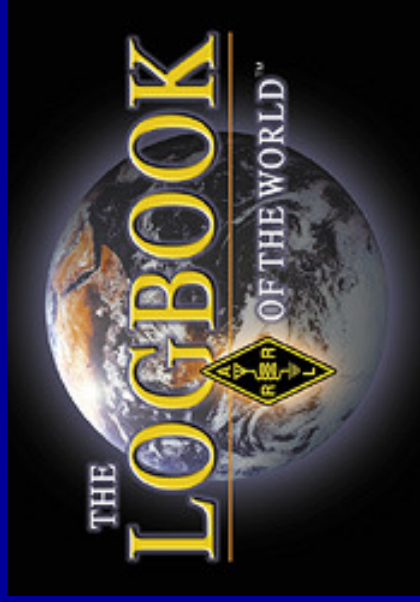
# LoTW—DXers Dream

- IF DX uses Logbook of the World
- No QSL cards necessary
- Nominal Fee
- Easy submission to DXCC



# LoTW—DXers Dream

- Montenegro
- 406DX
- #298 country on LoTW



# DXing Summary

- Fun
- Educational
- Exciting
- Challenging
- Goodwill
- Memorable experiences
- Many friendships
- A hobby for a lifetime

# DX IS !



# GUD DX!



Southeastern DX Club



[www.sedxc.org](http://www.sedxc.org)