



# INFORMAL DXpEDITION TO FRENCH POLYNESIA

AB1OC and AB1QB

February 18<sup>th</sup> – 23<sup>rd</sup>, 2012

# Tonight's Presentation

- Planning and Preparation
- The Destination
- Our Station in Bora Bora
- Operations
- Propagation
- QSL'ing
- What we learned
- What's next for AB1OC and AB1QB?
- Q & A



# Planning and Preparation Checklist



HAUT COMMISSARIAT DE LA REPUBLIQUE  
EN POLYNÉSIE FRANÇAISE  
BP 115 - 98713 - Papeete (Tahiti)

Agence nationale des fréquences  
Antennes de Polynésie Française  
Case postale 8049 - Papeete

Tél : (689) 58 68 62 - Fax : (689) 58 68 63  
Dossier suivi par Madame Léone ARITA

N°4202HCRAFFLA  
Papeete, le 27/01/2012

**LETRE D'AUTORISATION POUR L'IMPORTATION  
DE MATERIEL DE RADIOCOMMUNICATION**  
(Article 11 de la Loi n° 93-1 du 19 janvier 1993 modifiée)

Importateur : KEMMERER FRED OU ANITA  
Bénéficiaire : KEMMERER FRED OU ANITA  
Type de matériel : MATERIEL RADIOELECTRIQUE TERRESTRE  
Utilisation : RADIOAMATEUR

Marque	Type	Numéro	Quantité
ICOM	FR0	CE	1

*Bénéficiaire d'une autorisation d'importation temporaire en Polynésie Française pour la période du 10 février au 28 février 2012.*

Pour le Haut-commissaire  
Par délégation,  
Le responsable de l'entente

Jean CHARTIER

Copie / Service des Douanes (Bo : SE 58 81)

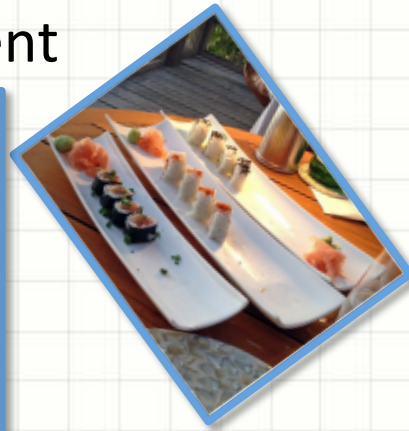


- ✓ Set dates and travel plans
- ✓ Secure Local License
  - FO is a CEPT country and requires an FO license
  - Noted band and power restrictions
- ✓ Determine station configuration & modes
  - Antennas, radio, computer, accessories,
  - Antenna Modeling
  - Backups for essential items
- ✓ Test final configuration/modes before leaving
  - Identify & correct any problems
- ✓ Create Operating Aids
  - Prop. predictions, Az. Projection, Band Plans...
- ✓ Develop and put in place a good QSL plan
- ✓ Setup online information
  - QRZ.com, LoTW, eQSL, ClubLog.org ...
  - Communications – PART list, DailyDX.org, “Announced DX Operations”
- ✓ Pack and Go!



# The Destination

## Culture and Environment



- Located in the South Pacific, northeast of Australia
  - Travel by air and then by Boat – Bora Bora is a long trip!
- Bora Bora is Part of French Polynesia
  - Mt. Otemanu on main island – surrounded by lagoon and Motu
  - #1 Industry is Tourism – major recreation is water sports
  - Most residents are Polynesian, some French
  - Weather is warm and sunny – temperatures in 80's



# The Destination

## Bora Bora Island – A Ham's View



DX most wanted list from ClubLog.org; maps from Google Maps

- Bora Bora is one of many islands in French Polynesia (FO)
  - Locator BH43dm, IOTA OC-067
- It is 160 of 343 on the DX Most Wanted lists (semi-rare)
- Closest significant landmass is New Zealand (2,640 mi)
  - 6,540 mi from Boston, 4,120 mi from Los Angeles
- Our location was 8' above salt water 400 yds. from shore

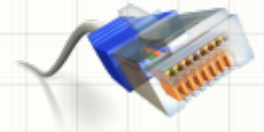


# Our Station in Bora Bora

## Overview

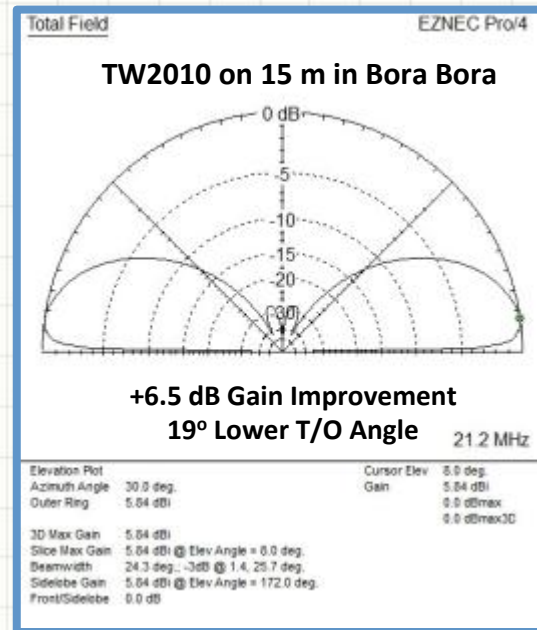
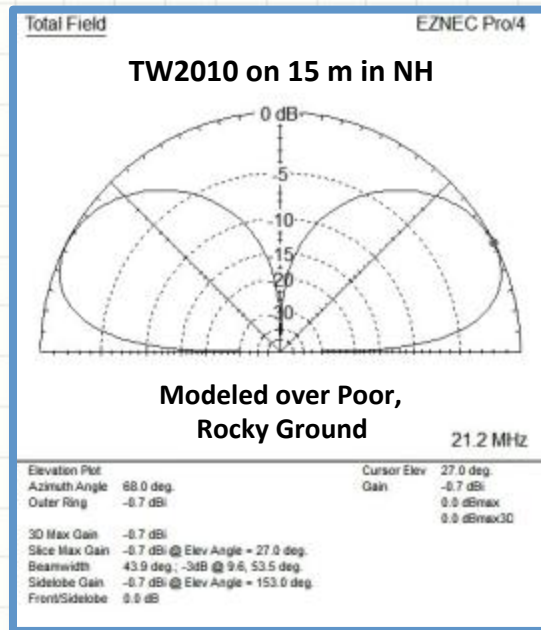


- Transceiver and accessories are lightweight, small and perform well
  - Icom 7000 Transceiver (100 w), LDG Auto Tuner, 30A Switching Supply, Power Meter
  - Heil lightweight headset microphone and trigger PTT switch
  - Signalink USB Sound Card, CAT USB Cable for PC Transceiver control & automated logging
- Computer and Software
  - MacBook Air running OS/X and VMware/Win7; iPad for documentation
  - Ham Radio Deluxe/DM780 5.1 for logging, DX cluster access and digital modes
  - JT65HF for weak signal work and WSPR for evaluating propagation
  - Echolink and DVDongle for accessing WB1GOF and other repeaters
- Antennas
  - TransWorld TW2010 Short Vertical Dipole (20 m, 17 m, 15 m, 12 m & 10 m)
  - 2 Element 10 m Beam built from Buddipole parts



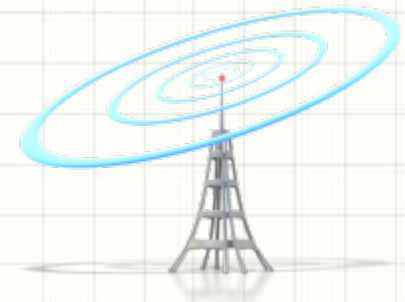
# Our Station in Bora Bora

## Antennas Over Saltwater



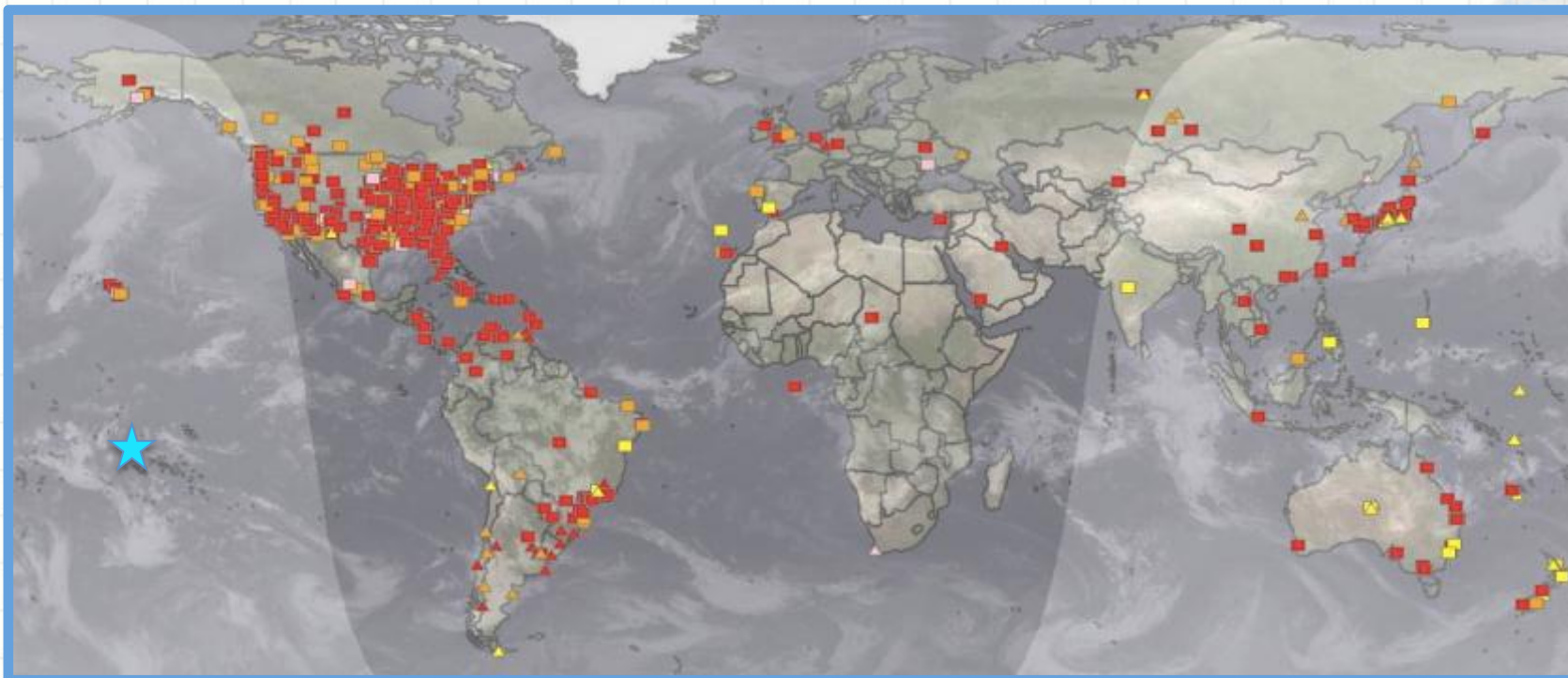
2 Element 10 m Buddi-Beam  
12 dBi Gain  
7 dB F/B Ratio  
21° Takeoff Angle  
24' Above Saltwater

- Used EZNEC to model antennas prior to trip
  - To select antennas to bring, optimize installation, and estimate performance
- Significant improvements due to location
  - “Saltwater Amplifier”
  - Lower Takeoff Angle = Better DX
- Antenna tune-up changed on-site due to:
  - Higher installed height & surroundings
- Having an Antenna Analyzer was essential



# Operations

## The Big Picture



Source: HRDLog.net – FO/AB1OC + FO/AB1QB

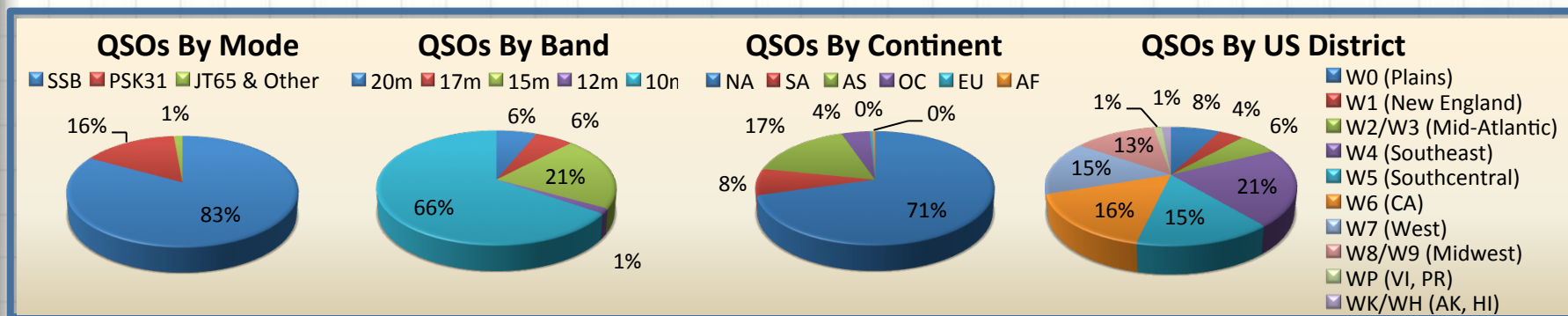
DX Country	Distance
Saudi Arabia (HZ1DG)	11,490 mi
Uzbekistan (UK8ZC)	11,120 mi
Kuwait (9K2HN)	10,920 mi
Ukraine (UT1FG)	10,370 mi
Spain (EC7MA)	10,010 mi
Kyrgyzstan (EX8MAT)	9,180 mi

- 1,550+ QSOs in 6 ½ days
- Contacts with 52 Countries
- Worked all 50 US States
- Top countries by QSO Count
  - USA - 947
  - Canada - 32
  - Japan - 226
  - Australia - 30
  - Brazil - 58
  - Argentina - 18



# Operations

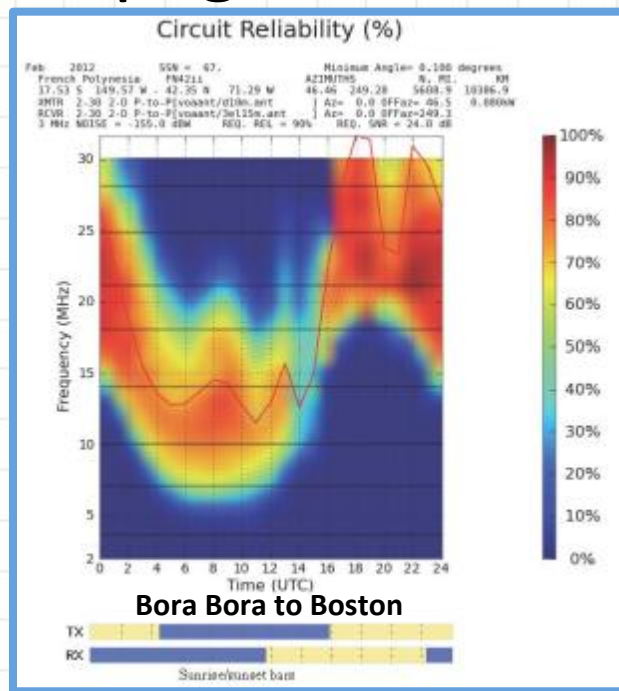
## The Details



- Pileup management is an art form!
  - Used split operations; calls “by the numbers”
- Many S0 contacts on our end – its fun to work the weak ones!
- Used JT65 on a Sked basis to work “must have” contacts
  - Used PSK reporter to find active digital stations
- Some memorable contacts
  - Calls to folks here in PART
  - Young Hams and Technicians on 10 m
  - A station using SSB Phone on 10 m in the Midwest operating QRP with 2.5 w!
  - Another station with 10 w and a  $\frac{3}{4}$  wave vertical in the northeast
  - A JT65 QSO with South Africa; Anita’s SSB phone QSO with Kyrgyzstan



# Propagation



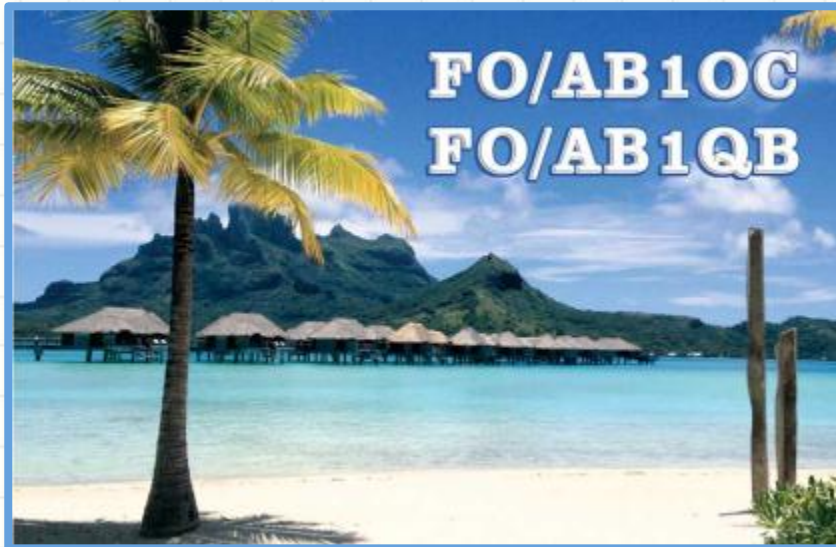
Sources: [www.voacap.com](http://www.voacap.com) and [www.WSPRnet.org](http://www.WSPRnet.org)

- VOACAP predictions were prepared in advance ([www.voacap.com](http://www.voacap.com))
  - Used WSPR as a tool for real-time evaluation (PSK Reporter also useful)
- Summary of experienced conditions:
  - Good openings almost every day on 10 m
  - 15 m openings during the first part of the day
  - Some 17 m openings in the late afternoon into the Americas
  - 20 m operations during local nighttime
- MUF changed rapidly causing bands turn on and off quickly
- Grey Line Enhancement was very noticeable and sometimes dramatic!





# QSL'ing



QSL Card by UX5UO



- Plan for this in advance – it requires preparation
- Important to have multiple means to confirm QSOs
  - LoTW, eQSL (AG), Bureau and Direct
- Near real-time access to logs highly desirable
  - We used ClubLog.org
  - Helps ops you've worked to have confidence that they are in your logs
- Be prepared to use good judgment and make reasonable log corrections
- Take some time and create a well-executed QSL card
  - Allow for multiple bands/modes

CLUBLOG				
	Worked	Confirmed	Log Search	
FO/AB1OC	49	25	Go	
DX Call	Date	Band	Mode	Entity
WK6RF	2012-02-25	10M	Phone	UNITED STATES
KB4YY	2012-02-25	10M	Phone	UNITED STATES
KE4SZL	2012-02-25	10M	Phone	UNITED STATES
W4GM	2012-02-25	10M	Phone	UNITED STATES
W4YTB	2012-02-25	10M	Phone	UNITED STATES
W4TT	2012-02-25	10M	Phone	UNITED STATES
W4TRY	2012-02-25	10M	Phone	UNITED STATES
WB4QQF	2012-02-25	10M	Phone	UNITED STATES
XE19GW	2012-02-25	10M	Phone	MEXICO
N6JQI	2012-02-25	10M	Phone	UNITED STATES





# What We Learned



- Get a local call sign
- Complete a Full Test well ahead of leaving
  - Isolate and fix anything that looks like it could be a problem
  - Consider potential mechanical and location related problems
- Prepare a game plan to target certain bands/regions/modes in advance
  - Focus more outside North America and on lower bands
  - Better balance between modes – learn CW!
- Bands below 20 m are difficult but important at night – need better plan next time
- Use the Voice Keyer
- Refine packing list & lighten the load

# Useful Resources



Resource	Site	Link
<b>DXpedition Information</b>	100 Pound DXpedition NE1RD's DXpeditions	<a href="http://www.100pounddxpedition.blogspot.com">www.100pounddxpedition.blogspot.com</a> <a href="http://www.bsandersen.com/DXpeditions/DXpeditions.html">www.bsandersen.com/DXpeditions/DXpeditions.html</a> DXpeditioning Behind the Scenes ed. by Cheadle, et. al.
<b>Portable Antennas</b>	Portable Ant. Resources Buddipole Antennas TransWorld Antennas	<a href="http://www.bsandersen.com/Rsc/resources.html">www.bsandersen.com/Rsc/resources.html</a> <a href="http://www.buddipole.com">www.buddipole.com</a> <a href="http://www.transworldantennas.com">www.transworldantennas.com</a>
<b>License Information</b>	ARRL CEPT Info Licensing Info	<a href="http://www.arrl.org/cept">www.arrl.org/cept</a> World Licensing & Operating Directory (RSGB Book)
<b>Logs and QSL'ing</b>	Online Logs QSL Card Printer	<a href="http://www.clublog.org">www.clublog.org</a> <a href="http://www.ux5uogsl.com">www.ux5uogsl.com</a>
<b>Propagation</b>	Predictions Real-time Reports	<a href="http://www.voacap.com">www.voacap.com</a> <a href="http://www.wsprnet.org">www.wsprnet.org</a> <a href="http://www.pskreporter.info">www.pskreporter.info</a>
<b>Software</b>	Ham Radio Deluxe JT65HF WSPR EchoLink DSTAR DV Dongle	<a href="http://www.hrdsoftwarellc.com">www.hrdsoftwarellc.com</a> <a href="http://www.hflink.com/jt65/">www.hflink.com/jt65/</a> <a href="http://www.physics.princeton.edu/pulsar/K1JT/wspr.html">www.physics.princeton.edu/pulsar/K1JT/wspr.html</a> <a href="http://www.echolink.org">www.echolink.org</a> <a href="http://www.dvdongle.com">www.dvdongle.com</a>
<b>DXpedition Announcements</b>	Daily DX Mailing List Announced DX Operations	<a href="http://www.dailydx.com">www.dailydx.com</a> <a href="http://www.ng3k.com/Misc/adxo.html">www.ng3k.com/Misc/adxo.html</a>
<b>This Presentation</b>	---	<a href="http://www.wb1gof.org/files/BoraBoraDXpedition.pdf">www.wb1gof.org/files/BoraBoraDXpedition.pdf</a>

# What's Next?



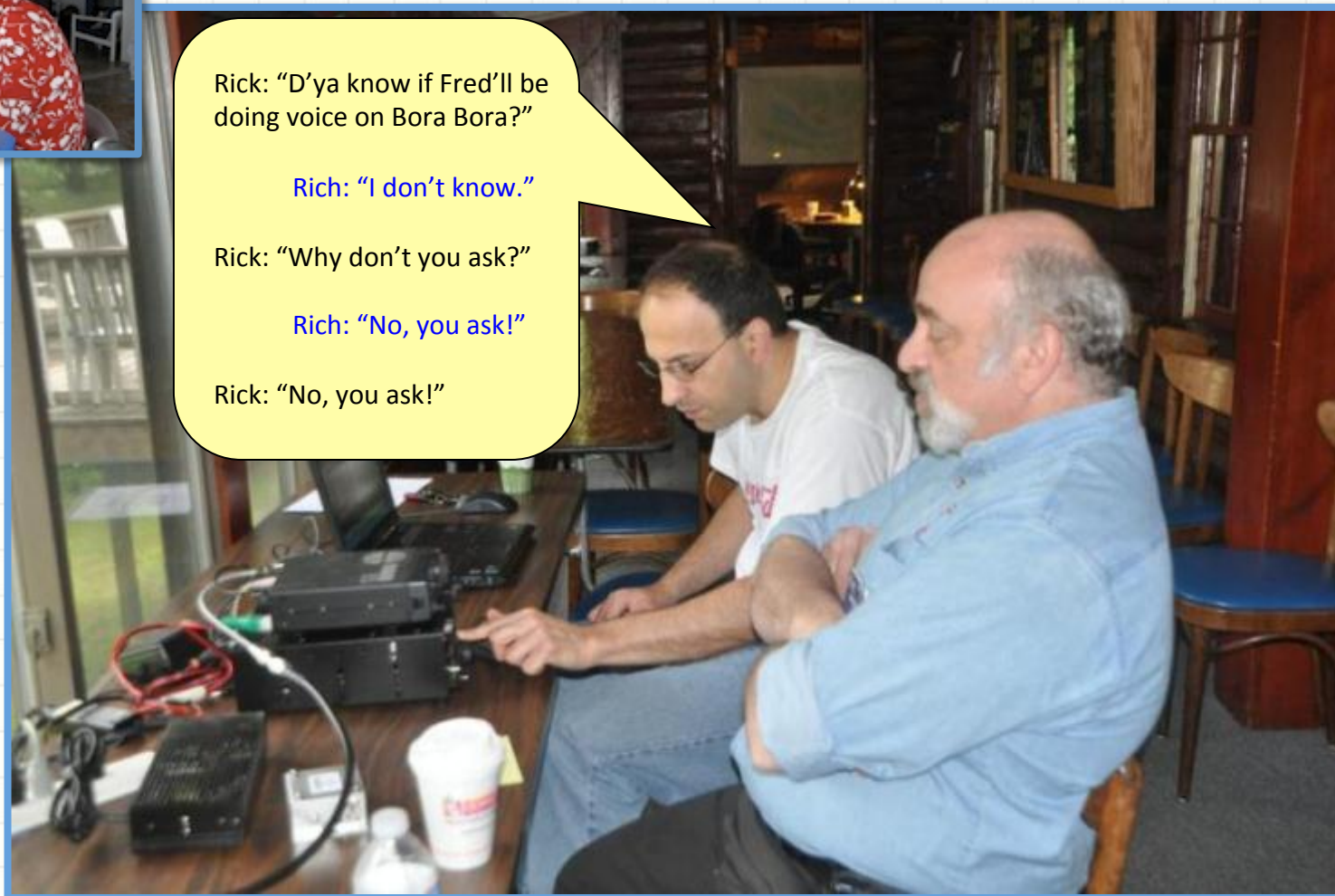
- Finish the Bora Bora QSL Process
- Continue to work on our operating technique and refine our portable station
  - 13 Colonies
  - Patriot's Day
  - Informal Contesting
  - Field Day
- Continue to operate portable on business and other trips
- Learning CW – important addition to our operating portfolio
- Develop and test a multi-op setup for portable operations
  - Filtering and antenna switching
- Develop more Buddipole antenna designs
  - 3 Elements on 10 m
  - 3 Elements on 15 m
  - 4 Elements on 6 m
  - A practical 30 m & 40 m Vertical
- Looking forward to another DXpedition!





# And a Special Thanks To....

**THANK  
YOU**



Thank You!

