



Bora Bora Island OC-067

INFORMAL DXPEDITION TO FRENCH POLYNESIA

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March 2023

Tonight's Presentation

- Planning and Preparation
- The Destination
- Our Station in Bora Bora
- Operations
- Propagation
- QSL'ing
- What we learned
- Q & A



Planning and Preparation Checklist



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

Agence nationale des Télécommunications
Autorité de Polynésie Française
Autorité Régulatrice des Télécommunications

N°4202HCRAFFLA
Papeete, le 27/01/2012

**LETRE D'AUTORISATION POUR L'IMPORTATION
DE MATERIEL DE RADIOCOMMUNICATION**
selon de l'article 10 de l'ordonnance n°198 du 10/01/2012

Importateur: KEMMERER FRED DU ANITA
Bénéficiaire: KEMMERER FRED DU ANITA
Type de matériel: MATERIEL RADIOELECTRIQUE TERRESTRE
L'Utilisateur: RADIOAMATEUR

Marque	Type	Norme	Quantité
ICOM	180	CE	1

Déclaire d'une autorisation d'importation temporaire en Polynésie Française pour la période du 10/02/2012 au 28/02/2012

Pour le Haut-commissaire
Par délégation,
Le responsable de l'autorité
Jean CHARRIER

Copie : Service des Douanes (fax : 80 80 91)

- ✓ Set dates (Feb. 2012) & 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 – Local Clubs, DailyDX.org, “Announced DX Operations”
- ✓ Pack and Go!



The Destination

Culture and Environment

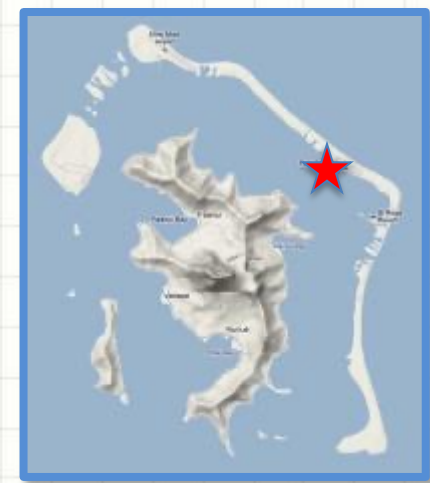


- Located in the South Pacific, northeast of Australia
 - Travel by air and then by Boat – Bora Bora is a long trip!
- Bora Bora is Part of French Polynesia
 - Mt. Otemanu on main island – surrounded by lagoon and Motu
 - #1 Industry is Tourism – major recreation is water sports
 - Most residents are 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 159 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

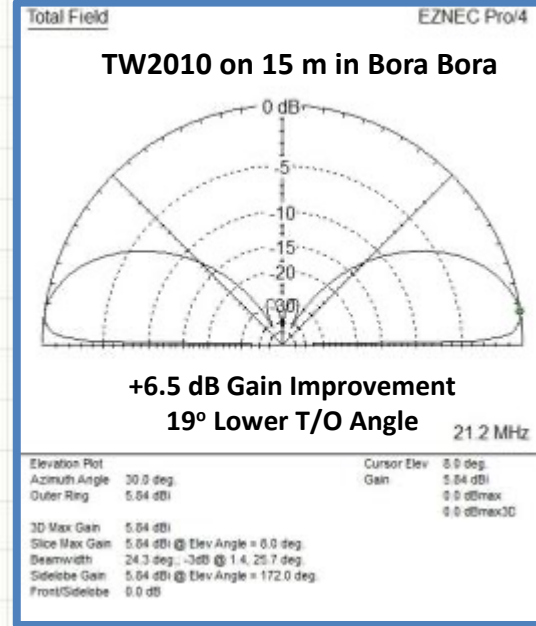
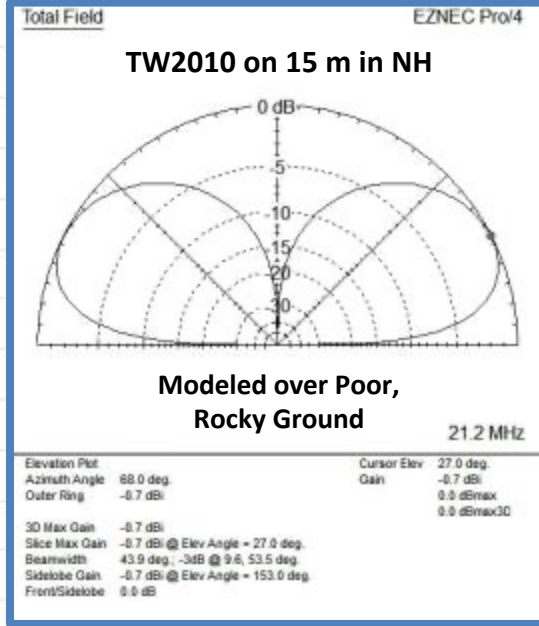


- Transceiver and accessories are lightweight, small and perform well
 - Icom 7000 Transceiver (100 w), LDG Auto Tuner, 30A Switching Supply, Power Meter
 - Heil lightweight headset microphone and trigger PTT switch
 - Signalink USB Sound Card, CAT USB Cable for PC Transceiver control & automated logging
- Computer and Software
 - MacBook Air running OS/X and VMware/Win7; iPad for documentation
 - Computer based logger for logging, DX cluster access and digital modes
 - JT65HF for weak signal work and WSPR for evaluating propagation
 - Echolink and DVDongle for accessing 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

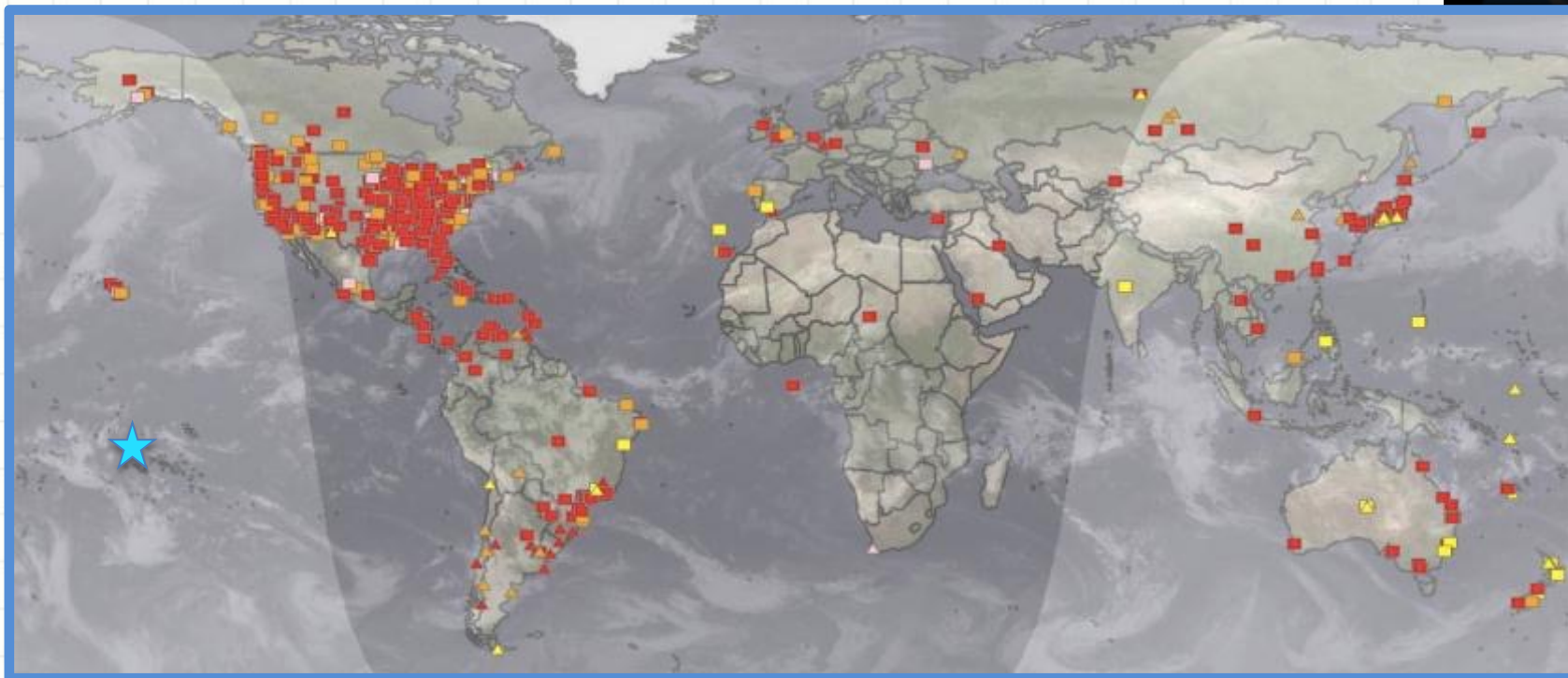


2 Element 10 m Buddi-Beam
12 dBi Gain
7 dB F/B Ratio
21° Takeoff Angle
24' Above Saltwater

- 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

WAS from Bora Bora Island



Worked All States Award



*The American Radio Relay League
recognizes*

Fred Kemmerer, FO/AB1OC

*has submitted confirmation of having conducted two way communication
with amateur stations in each of the states constituting the
United States of America.*



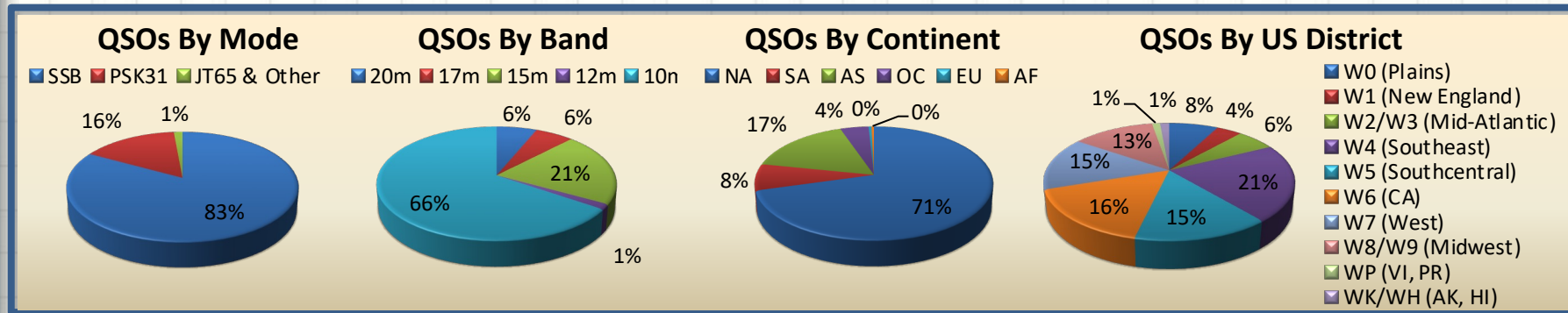
ARRL The national association for
AMATEUR RADIO

Basic #56,300 17-Apr-12

Kay Craigie N3KN
President

Operations

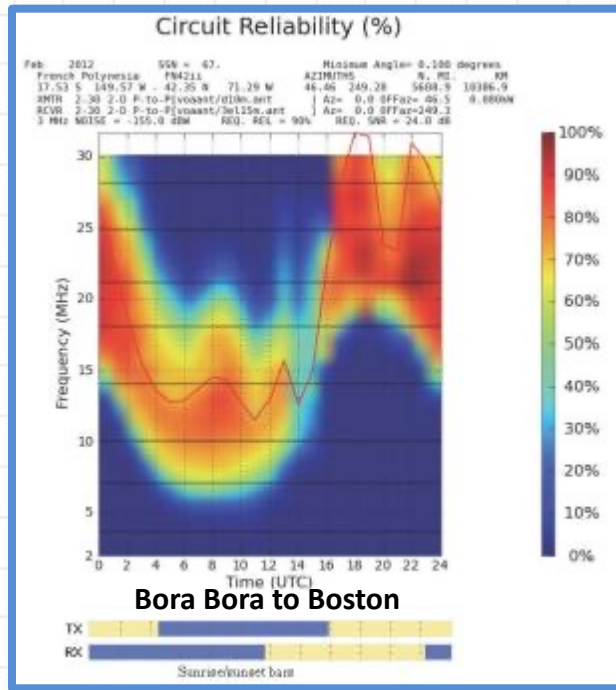
The Details



- 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!
- JT65 on Sked basis to help folks make “must have” contacts
 - Used PSK reporter to find active digital stations
- Some memorable contacts
 - Calls to folks we know at home
 - 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 using 10 w and a vertical in the northeast
 - A JT65 QSO with South Africa; Anita’s SSB phone QSO with Kyrgyzstan



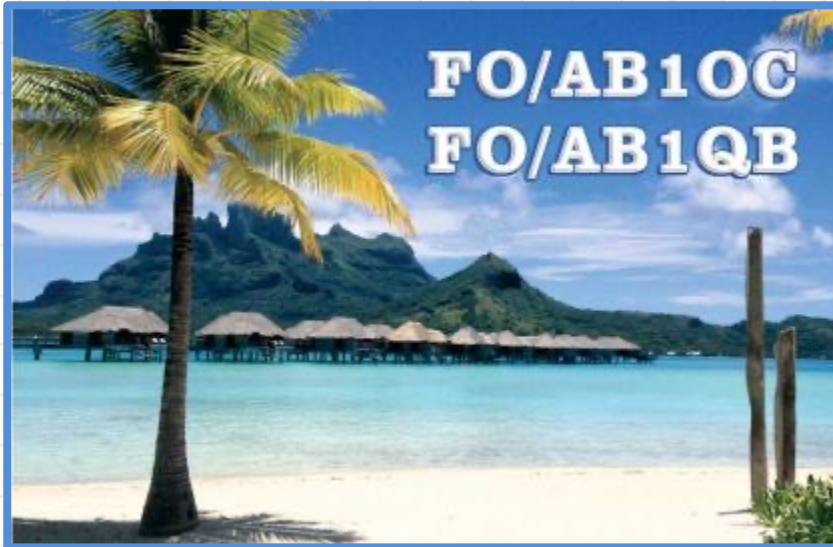
Propagation



Sources: www.voacap.com and www.WSPRnet.org

- VOACAP predictions were prepared in advance (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 to 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
 - Helps OPs you've worked to have confidence that they are in your log
- 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
- QSL stats – 91% of all QSOs confirmed, 60% via LoTW

CLUBLOG		Worked	Confirmed	Log Search	
FO/AB1OC		49	25	<input type="text"/> <input type="button" value="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	
XE15GW	2012-02-25	10M	Phone	MEXICO	
N6JQI	2012-02-25	10M	Phone	UNITED STATES	



What We Learned



- Better to get a local FO 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 (ex. 40m)
- Use the Voice Keyer
- Refine packing list & lighten the load

What's Next?



- On-going Bora Bora QSLs
- Continue to work on our operating technique and refine our portable station
 - 13 Colonies (K2K New Hampshire)
 - W1AW Portable Operation
 - Contesting
 - Field Day
- Continue to operate portable on business and other trips
- Improving our CW skills – 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
 - A practical portable 30 m & 40 m Vertical
- “Portable” Amplifier (500W)
- Looking for another opportunity for a holiday style DXpedition!



Useful Resources



Resource	Site	Link
DXpedition Information	100 Pound DXpedition NE1RD's DXpeditions	www.100pounddxpedition.blogspot.com www.bsandersen.com/DXpeditions/DXpeditions.html DXpeditioning Behind the Scenes ed. by Cheadle, et. al.
Portable Antennas	Portable Ant. Resources Buddipole Antennas TransWorld Antennas	www.bsandersen.com/Rsc/resources.html www.buddipole.com www.transworldantennas.com
License Information	ARRL CEPT Info Licensing Info	www.arrl.org/cept World Licensing & Operating Directory (RSGB Book)
Logs and QSL'ing	Online Logs QSL Card Printer	www.clublog.org www.ux5uogsl.com
Propagation	Predictions Real-time Reports	www.voacap.com www.wsprnet.org www.pskreporter.info
Software	JT65HF WSPR EchoLink DSTAR DV Dongle	www.hflink.com/jt65/ www.physics.princeton.edu/pulsar/K1JT/wspr.html www.echolink.org www.dvdongle.com
DXpedition Announcements	Daily DX Mailing List Announced DX Operations	www.dailydx.com www.ng3k.com/Misc/adxo.html
Our Blog	Info on this DXpedition, other operations, and construction of our station	stationproject.blog

Thank You!



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