

# ZF2EM

**EME DXPEDITION TO  
THE CAYMAN ISLANDS**

**By Bill NZ5N and Pete N8PR  
May 20-25, 2015**



# THE CAYMAN ISLANDS

British Overseas Territory

Populaton 58,435



ZF2EM was right under that cloud, but  
we only saw 15 minutes of rain all week



**What does it take to go on  
An EME Dxpedition?**

**Some time, energy and  
LOTS of equipment...**

**and planning !**

MOONRISE – MOONSET IN CAYMAN IS. EK99ig

	<u>MOONRISE</u>		<u>MOONSET</u>	
	UTC	LOCAL	UTC	LOCAL
Wed. May 20	1309	8:09 AM	0223	9:23 PM
Thur. May 21	1403	9:03 AM	0310	10:10 PM
Fri. May 22	1456	9:56 AM	0358	10:58 PM
Sat. May 23	1548	10:48 AM	0441	11:41 PM
Sun. May 24	1638	11:38 AM	0521	12:21 AM
Mon. May 25	1730	12:30 PM	...	...

Local time is EST or UTC -5 hours

ZF2EM

Along with this moonrise moonset schedule we had 6 pages of satellite pass times. Most of the passes were late at night when we wanted to sleep...

Finally, we decided that we had to go ½ mile from the EME station to work the satellites during the day.

All equipment was set up and running before we left.

We made this diagram so we knew where each cable went so we would not have to change COM ports after we arrived.

### R-51 Laptop USB setup for ZF2EM

(Has Torroids)

COM 6

Blue Cable end

To ROTOR

2

1

COM 5

Clear Cable

to Rig Ctl

1

COM 2

Black to

C-IV

3





## **What we needed to take:**

**HF/VHF Rig: Icom 7100 HF/6M/2M/440**  
**VHF AMP: IOJXX 1200 Watt 2 meter Amp**  
**Two 9 Element 2 Meter Yagis + phasing lines**  
**10 ft. x 1.5" cross boom (from ZF1A)**  
**Two antenna to one cable Combiner**  
**N to N jumper from combiner to LNA**  
**LNA Preamp/Antenna relay and Backup LNA**  
**LMR-600 Cable ends (75 ft. cable from ZF1A)**  
**Sequencer to control TX/RCV Sequence**  
**Control cable from laptop to rig w/interface**  
**Control cable from rig to sequencer**  
**Control cable sequencer to Amplifier**  
**Computer to rig audio/data interface and cables**  
**Control cable from sequencer to LNA (100 ft)**  
**Interface from computer to AZ/EL rotator**  
**Control cables from computer to AZ/EL Interface**  
**AZ/EL Rotator control + two 100 ft cables**  
**Azimuth-Elevation Rotator –Yaesu 5400B**

**ZF2EM Station license and equipment import  
waiver from the Cayman Government**

## **Hand Tools**

**Knife & file**

**2 rolls electrical tape**

**1 roll duct tape**

**Wire ties**

**Climbing belt**

**All clamps and hardware**

**For the antennas and**

**AZ/EL Rotator**

**Spare cables and jumpers  
(RF/Audio/Ccontrol)**

**Lots and lots of bubble wrap**

**3 laptop computers**

**2 cel phones + 1 tablet**

**Two 2m/440 HTs w/chargers**

**Two 2m/440 satellite antennas**

**Jumper cables HT-Ant.**

**TSA INSPECTORS:**

**THIS PACKAGE**

**CONTAINS TWO RADIO**

**ANTENNAS,**

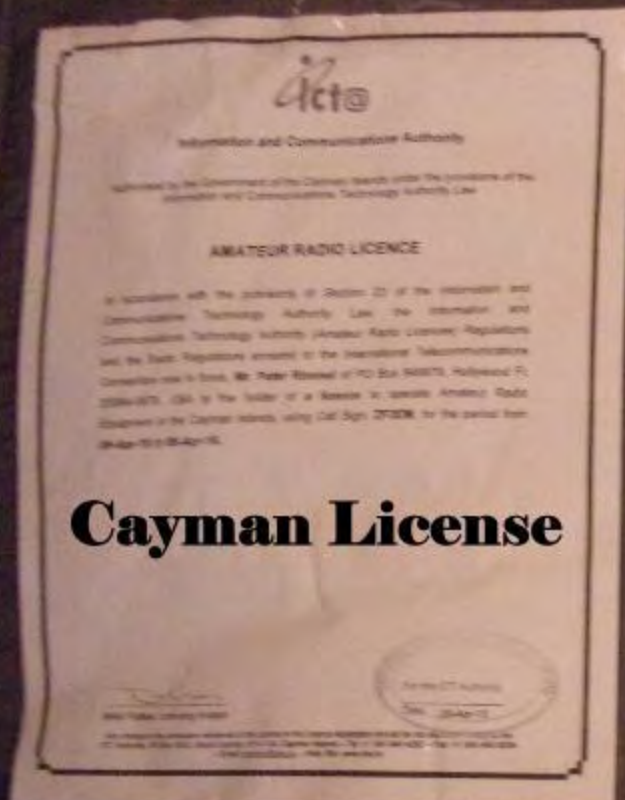




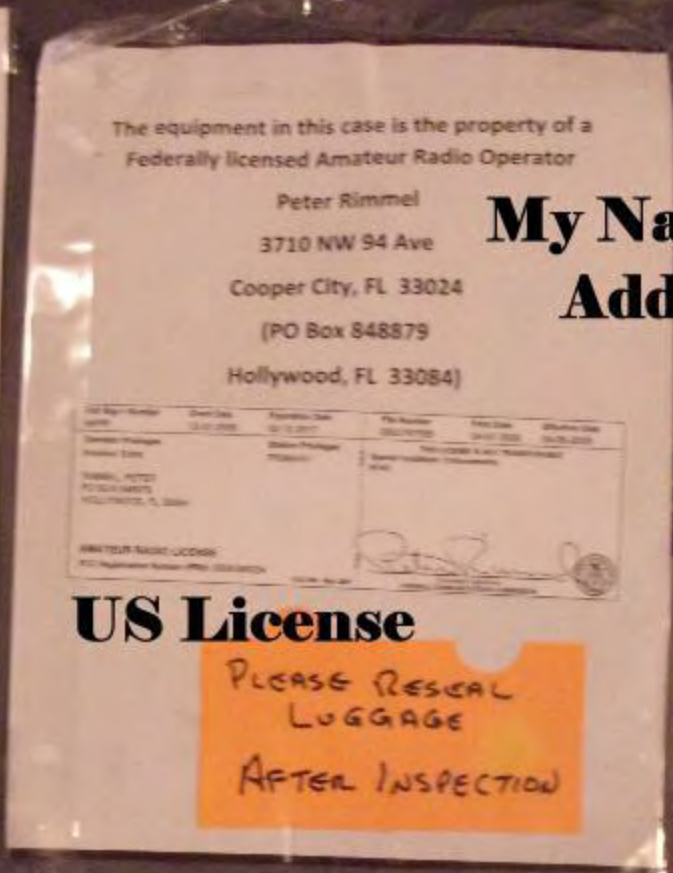
The 55 pound limit is tough to stay under with all we had to take.

The sign is more a wish than reality when flying !





**Cayman License**



**US License**

PLEASE RESEAL  
LUGGAGE  
AFTER INSPECTION

**My Name and  
Address**



**Tie  
Wraps**

Inside the suitcase be sure to have the credentials visible so that when the bag is opened by airline Inspectors they have some idea of why it is all there.





MHP-145

144 - 146 MHz



SUPER-AMP

Gain FET PREAMPLIFIER

DIR TRACKER

COMPUTER

ROTATOR

TO SEQUENCER

DCW 15.0



ICQ

Just some of the boxes  
We had to take to make  
It all work right



Low Noise Pre-amp + Relays



Backup LNA/ Antenna Relay



Computer to Radio Data  
and Audio Interface



Computer to AZ-EL Rotator Interface

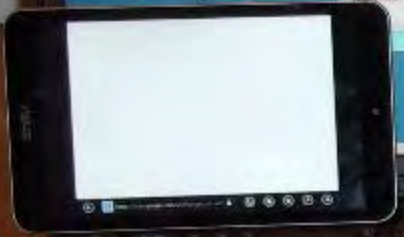


DCW 15 B

SEQUENCER

**Any equipment that is fragile  
and/or has a meter in it must  
be hand carried to avoid damage:**

**Icom 7100 control head and rig  
1200 watt Amp                      SWR Bridge  
Power supply                      Rotator Control  
3 Laptops, tablets and cel phones**





**MJ**  
**30 Amp Switching Power Supply**  
**MFJ-4230MV**

Power 10.0A  
Output Voltage 0 to 30VDC  
Output Current 10.0A  
Input Voltage 100V-240VAC  
Regulation 1%  
Efficiency 80%  
Size 100mm x 100mm x 50mm  
Weight 1.0kg  
Price \$199.95  
MFJ Enterprises, Inc.  
P.O. Box 100  
Batavia, NY 14020  
USA



**The IOJXX 1200 Watt 2 Meter Amp Was a carry on item, too!**



**When we arrived, we were told that Andrew, ZF1EJ, who owns the property where the shack is located had poured cement and put in a tilt base for 20 ft. of Rohn 25 on which we mounted the antennas.**

**We were too busy trying to get it all up that we forgot to take any photos of the antenna assembly or mounting on the tower.**

**Also mounted on the tower was the AZ/EL rotator, Combiner and LNA/relay unit from the antennas To the shack.**

**Andrew supplied us with a cross boom pipe and LMR-600 Cable. We supplied the connectors on the cable.**

**The Shack – home of  
ZF1A The Cayman  
Amateur Radio Society**



ZF1A and  
ZF1EJ  
Antenna  
Selector  
Controls →





ZF2EM



WS1T EME - 1  
Sun: 09:00 AM 10:00 AM 11:00 AM 12:00 AM  
Mon: 09:00 AM 10:00 AM 11:00 AM 12:00 AM  
Sat: 09:00 AM 10:00 AM 11:00 AM 12:00 AM  
ZF2EM

MATEUR  
RADIO SOCIETY





**Bill working a satellite**



**ZF1EJ/ZF1A**  
**Log Periodic**  
**at 100 feet on**  
**a 48 ft. boom**





**Here is the 2 element  
80 meter yagi.**

**There are phased  
Verticals for 160 M**

**Also 2 more tribanders  
Plus 6 and 2 meter yagis**

Our 2M  
pair

Log Periodic  
C3XR Yagi

PRO 67 Tribander  
2 el 80 M Yagi

6 & 2 M yagis



# POWER LINES



**We stayed at the “Turtle Nest Inn” a nice place  
On the beach with 2 bedrooms, a living room  
Dining room and kitchen.**













**Most people go for the diving and stingray alley**





**NOT US HAMS**

# ZF2EM

**EME DXpedition to  
The Cayman Islands**

**QSL to: Pete Rimmel N8PR  
PO Box 848879  
Hollywood, FL 33084 U.S.A.**

**GRID: EK99ij  
CQ Zone: 08  
ITU Zone: 11  
IOTA : NA-016**



**Pete N8PR**

**Many thanks to our host  
Andrew Eden ZF1EJ**

**Bill NZ5N**



**TO RADIO \_\_\_\_\_**

**CONFIRMING QSO OF MAY \_\_\_\_\_ 2015**

**AT \_\_\_\_\_ UTC ON \_\_\_\_\_ MHZ**

**YOUR  SSB  
 JT65B Signal \_\_\_\_\_ B - \_\_\_\_\_  
 Satellite**

**TKS QSL PSE 73, \_\_\_\_\_**

# We go for the contact sports !

**We made 211 contacts on 2 Meters via EME to 45 countries**

**We made 313 HF contacts in ~3 hours to 35 Countries**

**Many Thanks, Andrew, We had a wonderful time !**

