



# Anatomy of a DxPedition:

## Bouvet Island

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April 17, 2023

# Agenda

- Introduction
- Past Expeditions
- Logistics
- Planned Deployment
- Difficulties
- Actual Deployment
- Challenges
- High Level Analysis
- Conclusion



# Introduction

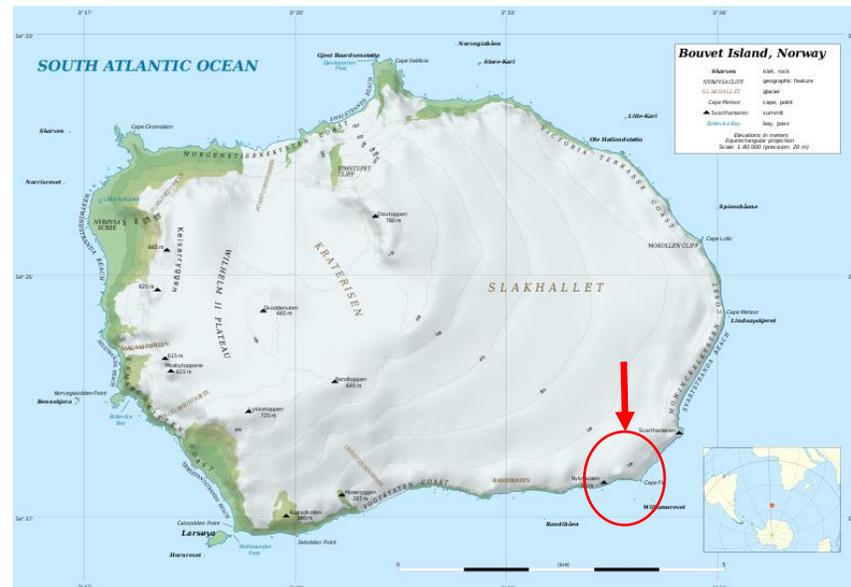
Bouvet Islands part of Norwegian dependency 2600 km SW of South Africa

- Discovered on 1739 by **Jean-Baptiste Charles Bouvet de Lozier**
- Governed by French, British and Norway making final claim in 1927

**Hostile and Uninhabited**: 93% covered in ice and snow

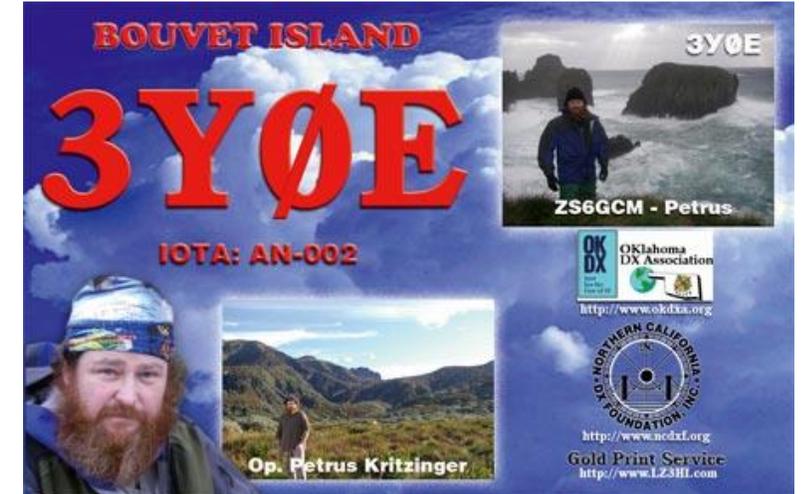
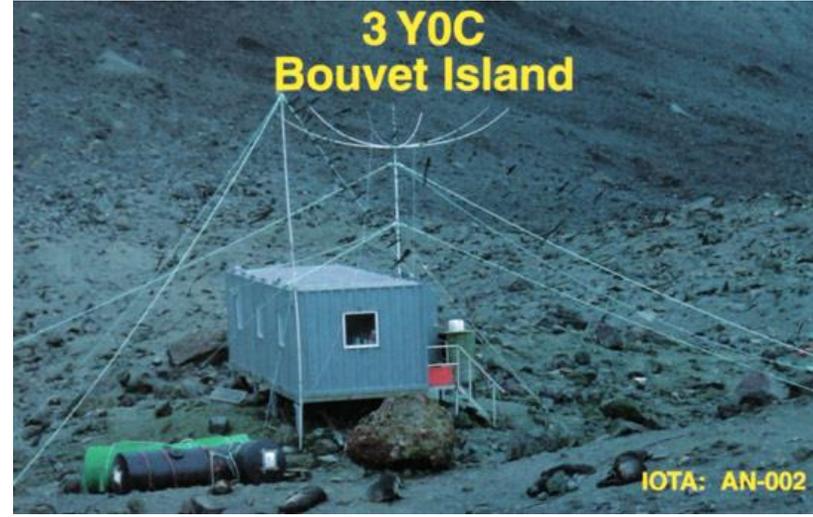
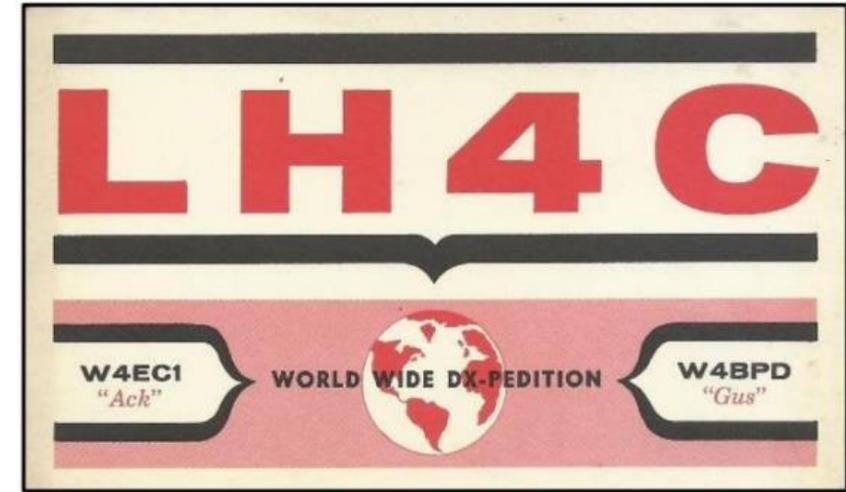
1 – First leg: 16 hr flight from London, England to Falkland Islands

2 – Second Leg: 14 days by sailboat to Bouvet Island, disembarkation at Cape Fie



# Past Expeditions

- **1945:** Bouvet Island became DXCC Entity
- **1951:** First QSO between GM2DBX and LN7B on 20 meters
- **1962** first Dxpedition, LH4C- W4BPD operator → 4000 QSOs in 4 days
- **1989-1990:** 3Y5X: Most successful DxPedition → 49000 QSOs in 16 days
- **2000:** 3Y0C –N4BQW, Chuck Brady , astronaut → 8000 QSOs in 60 days
- **2006:** Petrus, ZS6GCM, operated 3Y0E operator → 1400 QSOs in 60 days
- **2018:** 3Y0Z turned back after **M/V Betanzos**, suffered engine failure
- **2021:** 3Y0I turned back after **M/V Atlantic Tuna**, captain decided unsafe to continue



# Logistics

- Once in a lifetime opportunity, #2 DXCC on most wanted list (2/340)
- DxPedition cost \$750,000+ USD → 80% spent for boat, crew and fuel
- Each operator paid \$25,000 to be on DxPedition
  - **Jan 12:** Plane left London, England
  - **Jan 17:** Boat left Falkland Islands
  - **Jan 30:** Arrived at Bouvet, 4 days to unload equipment
  - **Feb 6:** Operations begin on 12-15-30 meters
  - **Feb 14:** DxPedition is QRT after fuel runs out
  - **Feb 18:** Boat sails for home via South Africa

## Notable Donors:

- Northern California DX Foundation → \$100,000
- German DX Foundation → € 25,000
- International DX Association → \$15,000

## Individuals Donors:

- \$15 / QSL via OQRS (Most DxPeditions charge \$5 or less)
- Tiered donation with perks, \$50 to \$1000

<https://www.3y0j.no/individualdonors>

Rank	Prefix	Entity Name	Whitelisted?
1.	P5	DPRK (NORTH KOREA)	✓
2.	3Y/B	BOUVET ISLAND	✓
3.	FT5/W	CROZET ISLAND	✓
4.	BS7H	SCARBOROUGH REEF	✓
5.	CE0X	SAN FELIX ISLANDS	✓

## MARAMA

We are very proud to team up with Olivier LEHEC and his crew for this extraordinary adventure.

101 Feet Oceanic Ketch

MARAMA is a unique Sailing Yacht, designed by Dominique Presles, and built of aluminium by the N2A shipyard in St Nazaire, under the control of Bureau Véritas.

It is an exceptional ship on all levels.

### FEATURES

Length : 31.00m  
Beam : 6.50m  
Draft : 3.50 m  
Masts : 35m and 25m  
Displacement (weight) : 68 tons  
Upwind sail surface : 455 sqm  
Downwind sail surface : 1000 sqm  
Engine John Deere / Baudouin : 320 hp  
Generator : 25 KW  
Watermaker : 250 L/Hour  
Hydraulic winches  
Central Heating  
3 watertight bulkheads  
2 dinghies with outboard engine



## 12 x Team Members:

\***LA7GIA**, \***LA7THA**, \***LB1QI**, LB5GI, KO8SCA, VE3LYC,  
NP4G, KO7SS, N0FW, DL6KVA, AB5EB, WD5COV

\* Team leaders

# Planned Deployment

## The original plan <sup>1</sup>

Dry run of DxPedition equipment done prior in Norwegian winter.

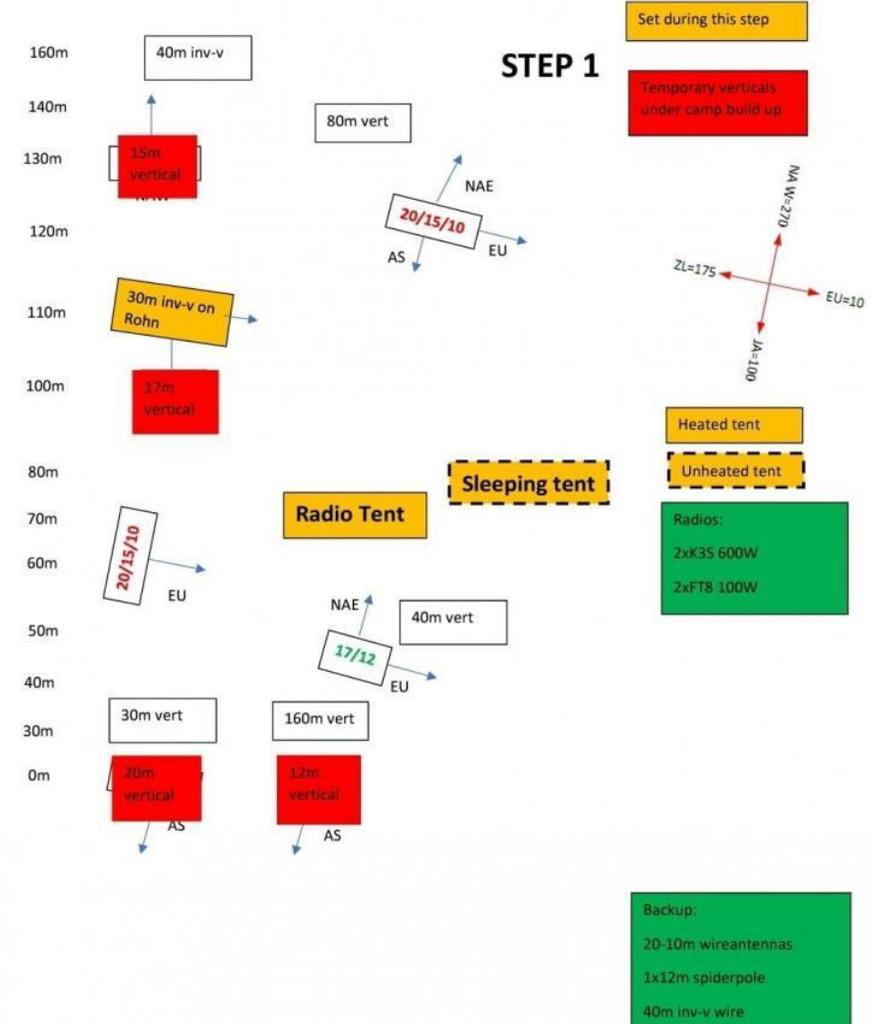
- 150 x 800 ft camp and antenna farm.
- 3 x 160m antennas, 3 x 80m antennas, 4 x tri-banders 20-10m
- 12 radios running simultaneously
- Power plant: Diesel generators running 24 hrs per day for 22 days

“The detailed plan to build up the camp indicates that we will be able to setup a camp on Bouvet even with short weather windows down to 80-120 min that will take only 4 zodiac trips <sup>2</sup>”

“We will be bringing the equipment from the cliff up to the camp roughly 200 ft up at 70ft ASL being planned <sup>3</sup>”

“This will help us when bringing 4.5 metric tons of equipment, fuel and water up to the camp <sup>3</sup>”

“Rest assured this is a well-planned DXpedition! <sup>4</sup>”



➔ 200000 contacts planned <sup>5</sup>  
➔ 22 days of activity <sup>5</sup>

1) <https://dxnews.com/3y0j/> Jan 23, 2023

2) <https://dxnews.com/3y0j/> April 3, 2022

3) <https://dxnews.com/3y0j/> Sep 14, 2021

4) <https://dxnews.com/3y0j/> Aug 30, 2022

5) <https://www.onallbands.com/3y0j-a-dxpedition-to-the-most-remote-uninhabited-island-on-earth> Dec 2, 2022

# Difficulties

Difficulty of transfer of equipment from boat to camp was greatly underestimated and hampered this DxPedition

Violent and unpredictable weather → small windows to move equipment

Two zodiacs took 4 days to transfer a fraction of the equipment:  
→ 3 meter high waves and 5 degree C water temperature

“We lost several objects in the surf and punctured the zodiac. The conditions on the beach were terrible. Despite this, we decided to go ahead and scale down Dxpedition <sup>6</sup>”.

“Beach landings were accomplished by holding onto a line attached to a buoy and floating 15 meters to the beach in our survival suits. .... We floated in all the equipment. Then carry the equipment 800 feet up to camp <sup>7</sup>.”

“We only took the equipment we needed, 620 kg in total including supplies <sup>6</sup>”

Much discussion on forums about using larger motorized boat with helicopter  
→ Helicopters are also difficult to control in Bouvet weather

6) <https://www.onallbands.com/3y0j-bouvet-island-2023-dxpediton-is-in-the-books-team-is-on-the-way-home/>

7) <https://dxnews.com/3y0j/> Feb 7, 2022



# Actual Deployment

## Actual operation

“100W from a single tent, no chairs and no table, 60m coax, no amp, simple antennas, small generator, etc <sup>6</sup>”

Power plants: Honda gasoline generator running for 8-9 days

- Only 2 or 3 actual operators at one time
- Reverse F/H occurred due to 14 second offset in local clock  
Caused great confusion and greatly reduced FT8 contacts

“Pileup was difficult as our signals were weak. We had good reception and very often we called 3 to 5 times to log a qso. Many DXers called us but couldn't hear us, how frustrating! <sup>6</sup>”

\*\* 4 members were stranded on island for 3 days and 4 nights <sup>10</sup>

## Living Conditions on Island:

- Food was packaged army rations
- Clothes dried on rocks by blowing wind
- No heating most of the time, 1 hour heating per day
- No showers for 3 weeks
- Human waste not allowed on island, all had to be collected



- ➔ 9 days of activity
- ➔ 19000 contacts made, 50% multiband calls <sup>6</sup>
- ➔ 1000 false contacts made by pirates

\* More people have climbed to Mt. Everest summit or been on the space shuttle than landed successfully on Bouvet Island.

# Challenges

## On top the difficulties of working the weak 3Y0J signal :

- Inconsiderate individuals deliberately QRM (DQRM) on DxPedition frequencies.
- People calling blindly when 3Y0J was not heard or even on the air
- Unwanted policing of bands by some self appointed individuals
- Foul language and verbal assaults common occurrence on DxPedition frequencies
- Pirates pretending to be 3Y0J → 1000 fake contacts rejected by QSL manager
- Armchair quarterbacks on social media criticizing the DxPedition and participants

## My Attempts at working 3Y0J:

- Initial attempts: Same setup for working FT8WW (Crozet Islands), G5RV dipole up 80ft with 100 watts on 30 meters
- Subsequent attempts: Previous setup @ 600 watts
- Rarely heard 3Y0J
- Never succeeded in contacting them when I did

de	dx	freq	obs
K7JF	 CT9/OM3RG	14015	
K4WI	 9U4WX	18085	QSX 18086.72
K2KA	 3Y0J	10115	[AN-002] QSX 124.8 TU ATNO
K6YK	 3Y0J	10115	[AN-002] How many USA running 200W?
W9MO	 3Y0J	10144	[AN-002] NA wants a cash refund
W9MO	 3Y0J	10144	[AN-002] Holiday style DXing on iceberg??
W9MO	 3Y0J	10144	[AN-002] Did HF amps fall into the sea?
K9MK	 9U4WX	18085	up 2.2
W3LPL	 TZ4AM	18085	[LoTW] Heard in NC
KD2WDR	 CT3ML	18100	[LoTW] FT8 2dB 2060 Hz
WW4BT	 EA8UP	14209	[AF-004] CQ
VA3PM	 CT9/OM3RG	14015	
W3LPL	 9U4WX	18085	Heard in MA
KC0DX	 CT9/OM3RG	14015	
VA3AB	 CT9/OM3RG	14015	

# High Level Analysis

## What went well

- Fund raising from clubs and individuals
- \$50000 returned to sponsors (NCDXF et al)
- Getting all equipment to Falkland Islands
- Able to activate, last two DxPeditions failed
- 2<sup>nd</sup> most successful DxPediton
- No one was hurt or injured

## Uncontrollable Events

- Rough weather
- Bad propagation to Northern Hemisphere
- DQRM
- Blind calling when 3Y0J is not heard
- Pirate stations
- Rude behavior on air and social media

## What went badly

- Over promising → 19000 actual QSOs vs 200000 QSOs
- Unloading equipment from Zodiacs was dangerous
- Raising equipment from shore to camp was dangerous
- Inexperienced FT8 operators (clock off by 15 secs)
- Did not take legitimate criticism well (FB posts deleted)
- Taking selfies near unstable areas of the island

## Lessons for future DxPeditions

- Dry run of unloading equipment via Zodiacs (or other way)
- Dry run of moving equipment up to plateau
- FT8 operators should use SW<sup>8</sup> to sync to remote stations
- Discussions and videos useful for future Bouvet DxPeditions
- Antarctic DxPediton veteran VK6CQ advocates banning Bouvet DxPeditions & delisting 3Y0 prefix from ARRL DXCC outright given potential dangers<sup>10</sup>

8) <http://www.dxshell.com/jtsync.html>

# Conclusion

Tremendous effort in planning and execution of 3Y0J DxPedition → 2<sup>nd</sup> most successful DxPedition

A Caribbean field day can be a tremendous effort, Bouvet Island is the Mt. Everest of DxPeditions

- Bouvet Island is the most distant and challenging place on Earth to activate a DxPedition.
- Conditions were very dangerous and participants risked their lives during DxPedition

DxPedition did not meet expectations of many wanting ATNO as well as 3Y0J operators themselves

- Operators might have to deal with many upset individual donors (who gave \$50 or more)
- Club and corporate sponsors might distance themselves from this and future DxPeditions

Top 3 items which hampered the full potential of this DxPedition

1. Difficulty of moving equipment and people to shore + camp was greatly underestimated.
2. Deliberate QRM on phone and CW
3. Inexperience with FT8 clock synchronization and workarounds in remote locations

→ I did not succeed in working them , but appreciate all efforts they put into the DxPedition.

# Questions ?

## **3Y0J Bouvet Island News 16 March 2022**

The 3Y0J team is looking for one more operator. Specifically we're looking for a NA SSB operator. If you always have wanted to go on a most wanted DXpedition like Bouvet then send us an email. We would love to have you on the team, and can guarantee an exciting challenge! It will be all hard work. You will have to sail for 10 days, get seasick, then carry 6.3 metric ton into a zodiac, do a wet zodiac landing, fight the elephant seals, climb a rock, haul all equipment up, install the camp in harsh and cold environment, operate A LOT we have 12 radios one for each, sleep in a cold place, no beer or steak being served but you eat MRE, toilet is w/o insulation - but great seaview, be prepared for an emergency evacuation and sail back for another 8 days. Team agreement says you can talk your own native language in the pileup and say hello to your friends in Romania, Germany, Colombia or whatever. There is no shower for 3 weeks. The fee for this luxury vacation is only \$20,000. But you will have the biggest pileup ever. And if there is a shortfall of donations you have to pay more.

Requirements:

- (1) can take 7 weeks vacation in Jan/Feb 2023
- (2) SSB contester or DXpedition experience
- (3) from NA

# Further Reading

Two excellent summaries of the 3Y0J DxPedition

9) Compilation of current and past Bouvet DxPeditons by F5JYD, Bruno Filippi

[https://www.cjoint.com/doc/23\\_02/MBtfor61JY6\\_Bouvet-F.pdf](https://www.cjoint.com/doc/23_02/MBtfor61JY6_Bouvet-F.pdf)

10) Bouvet Island 3Y0J – An independent assessment by VK6CQ, Alan Cheshire

<https://vkradioamateurs.org/bouvet-island-3y0j-an-independent-assessment/>