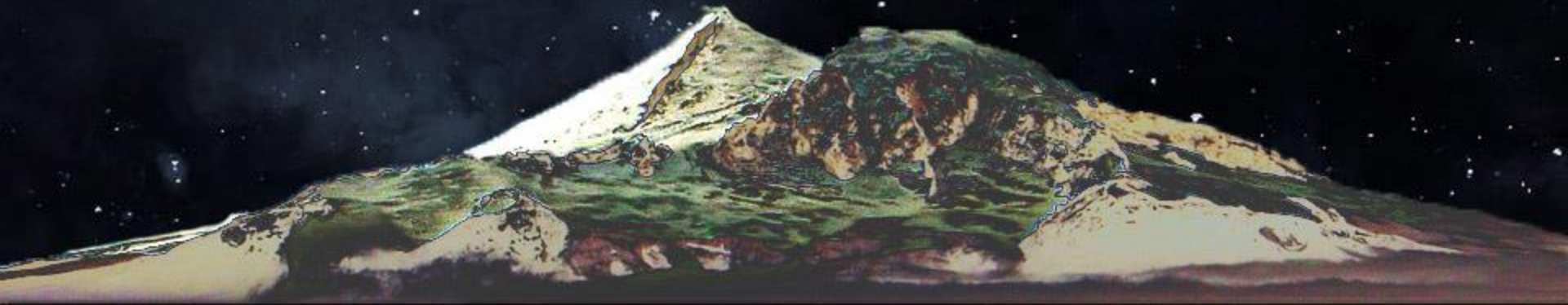


VKØEK

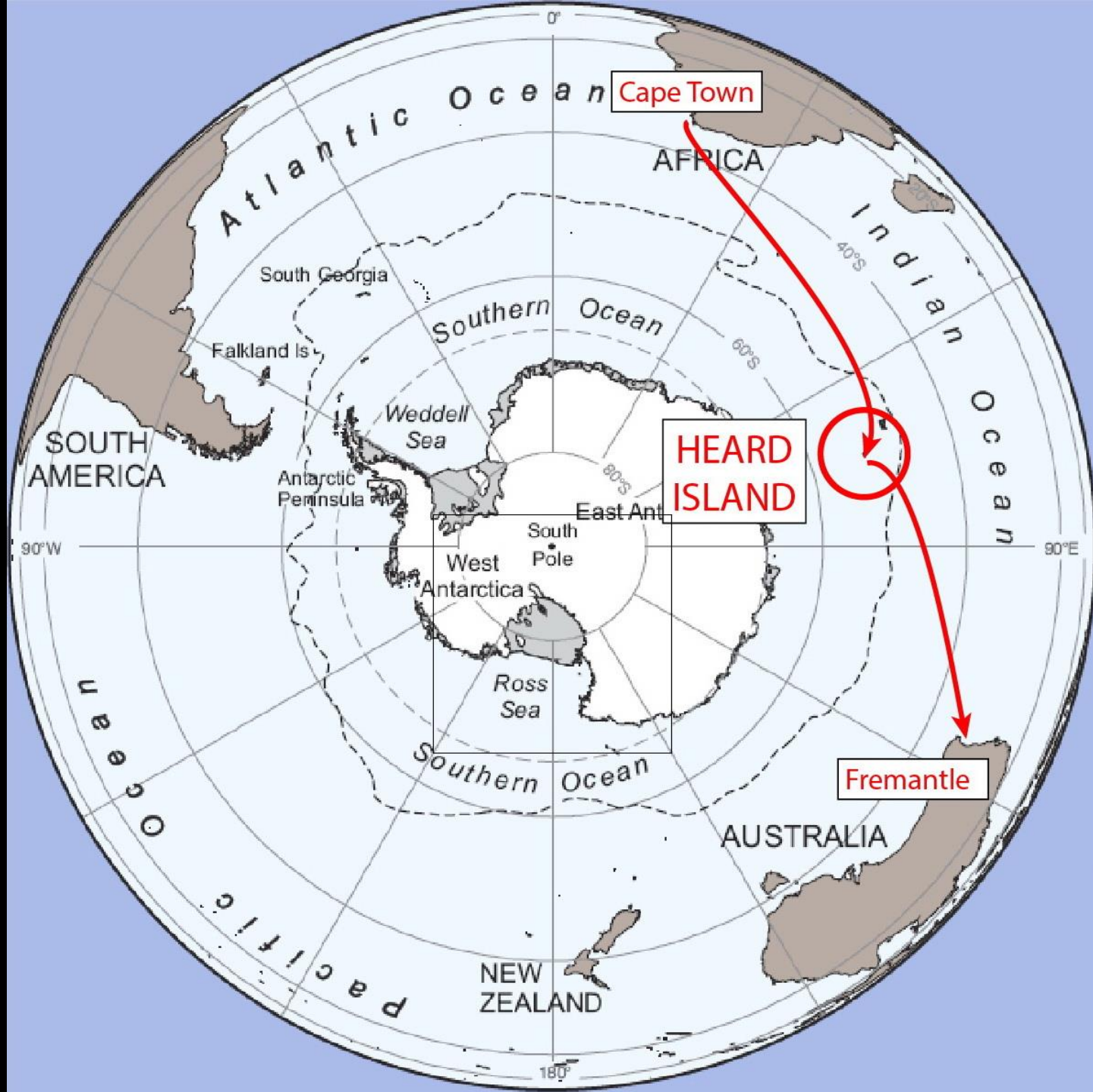
Heard Island 2016



Cordell Expeditions



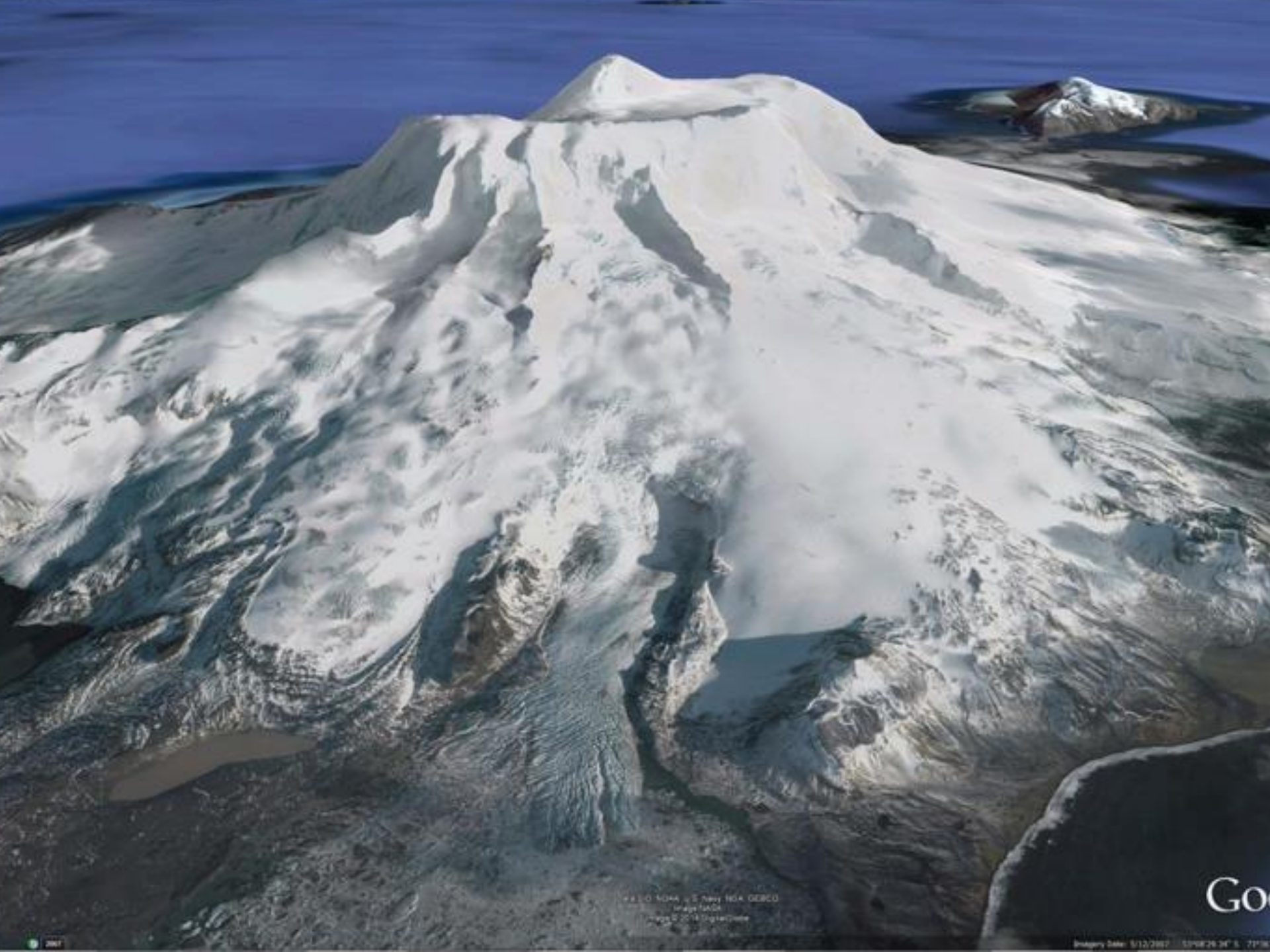
Heard Island











U.S. Navy NGA GEMO
Imagery
© 2014 DigitalGlobe

Go

Imagery Date: 5/12/2017 15:08:26.34° S 71°

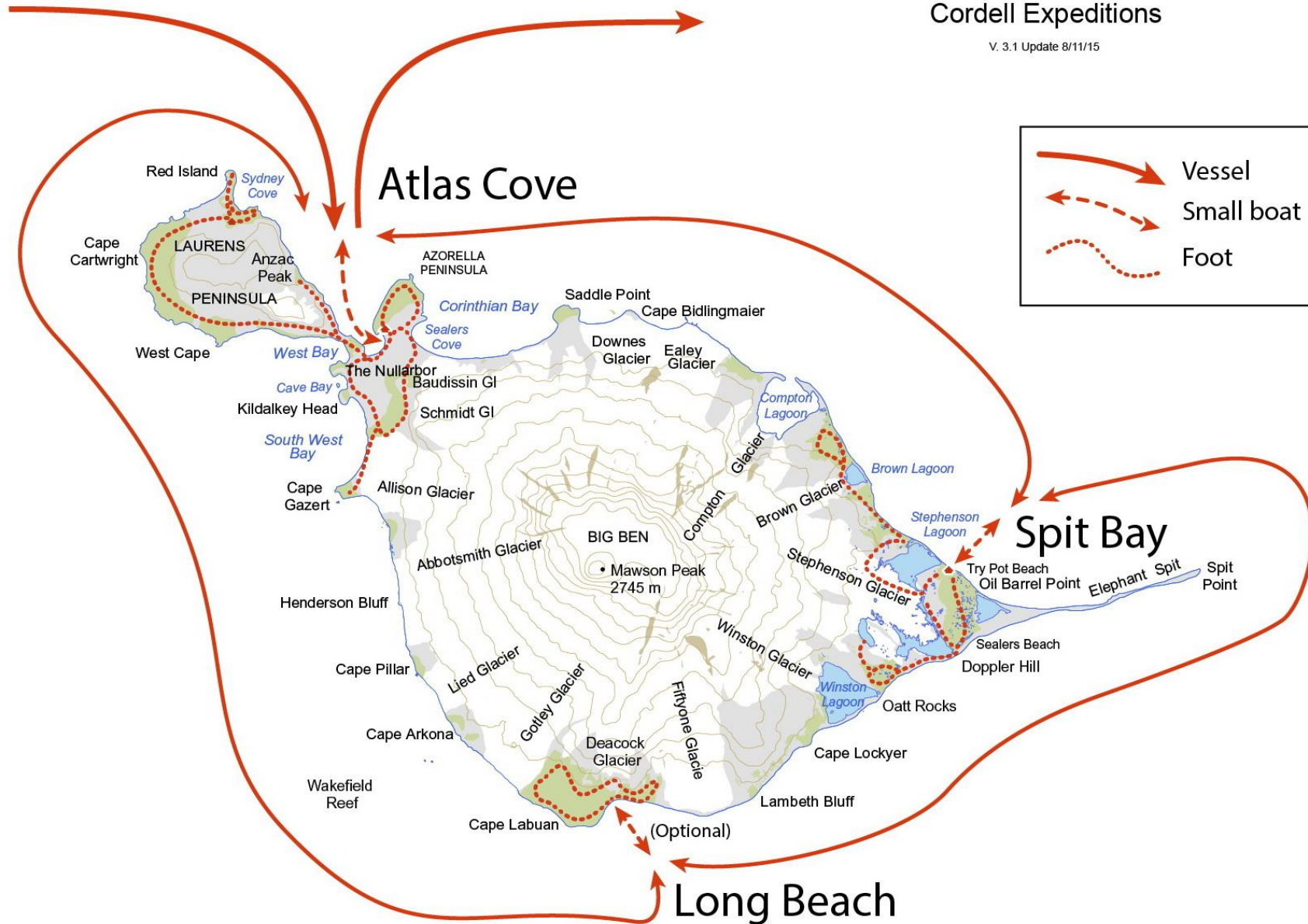
From Cape Town

To Fremantle

Heard Island 2016

Cordell Expeditions

V. 3.1 Update 8/11/15



Laurens Peninsula

Atlas Cove

VKØEK
Campsite





* VKØEK

Google earth

Image © 2014 DigitalGlobe

2006

Imagery Date: 2/5/2014 53°01'07.89" S 73°23'35.87" E elev 6 ft eye alt 244

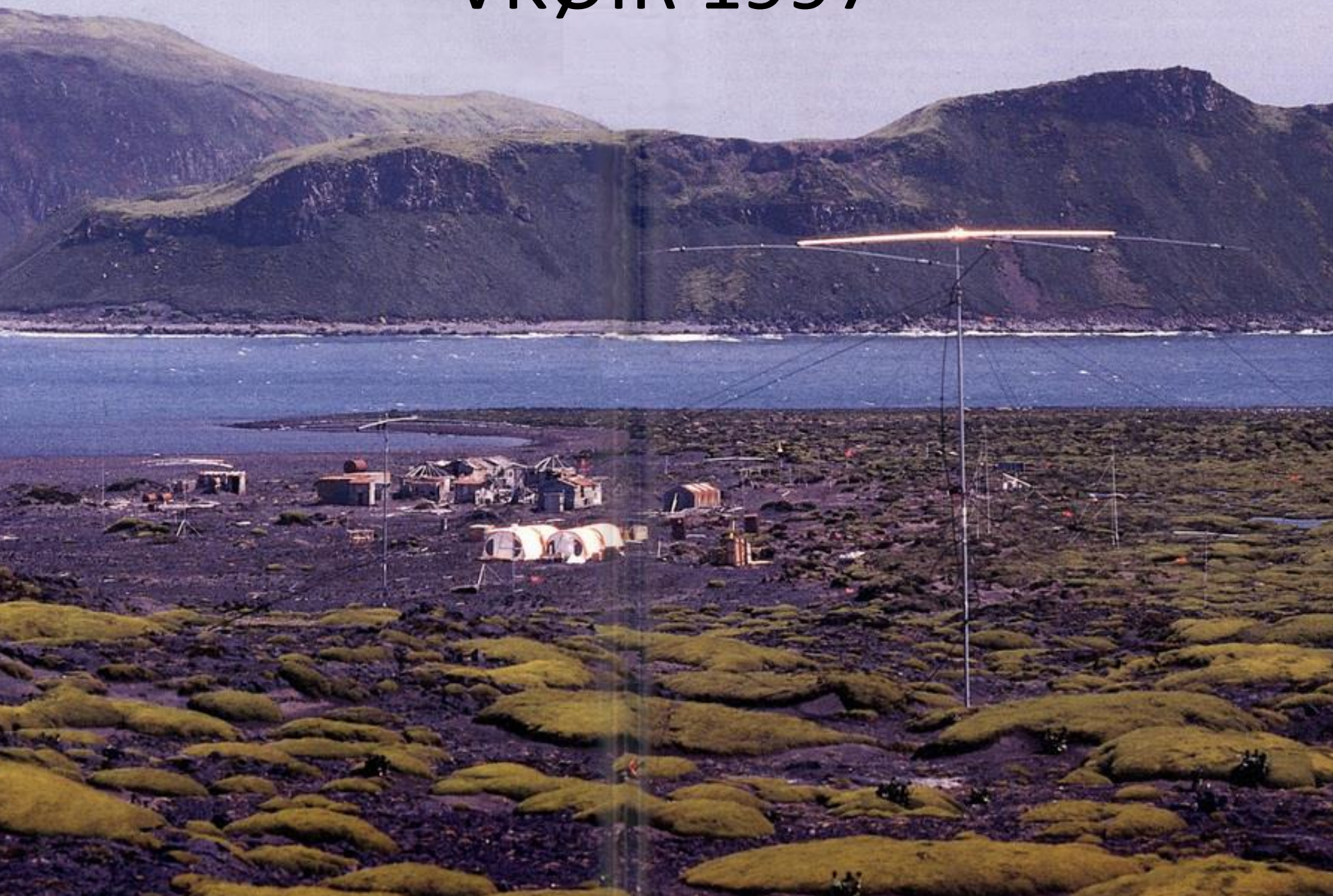
1947



1997

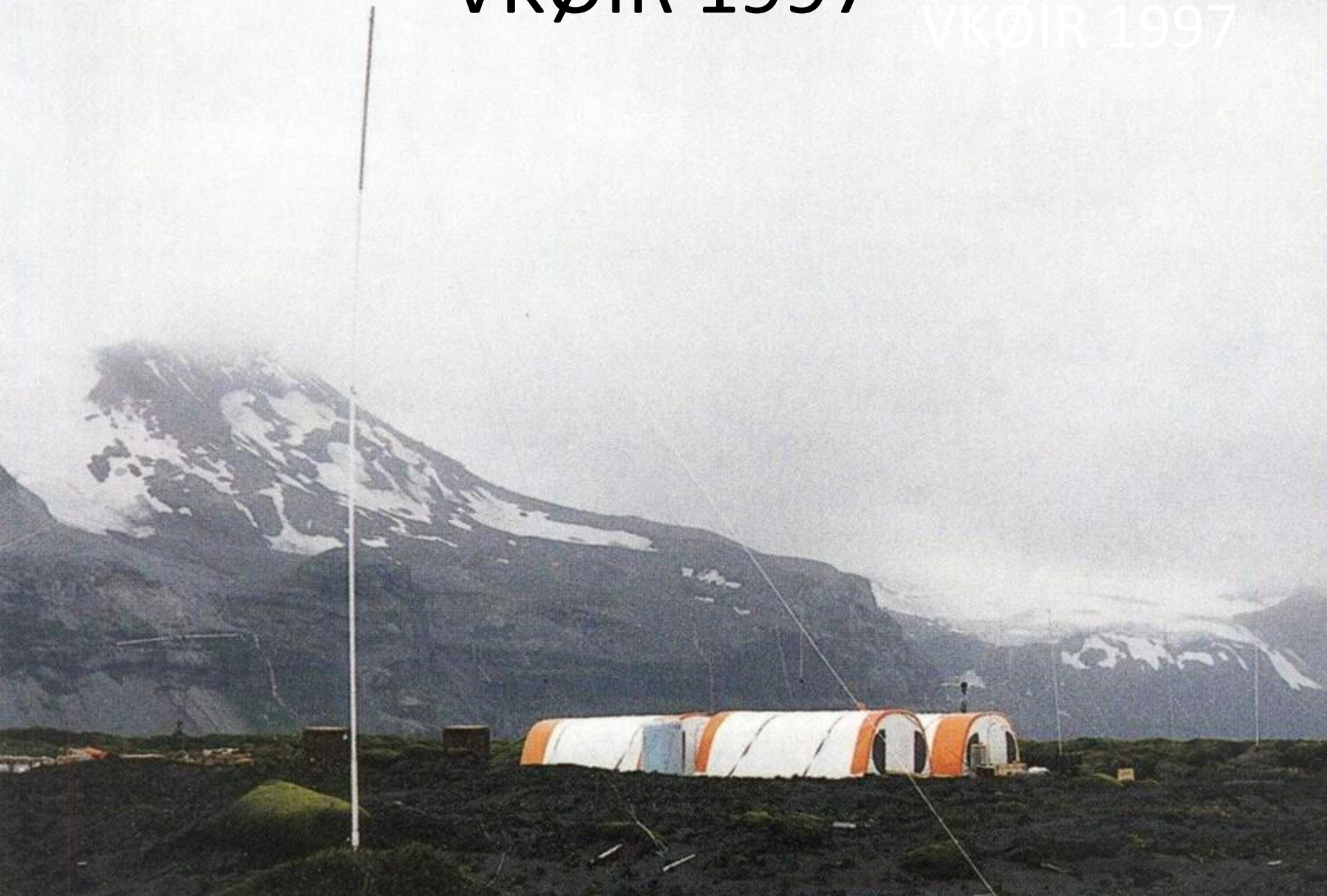


VKØIR 1997



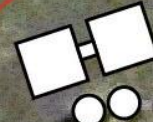
VKØIR 1997

VKØIR 1997



HDT Airbeams

● AAD Apple



AAD Tanks

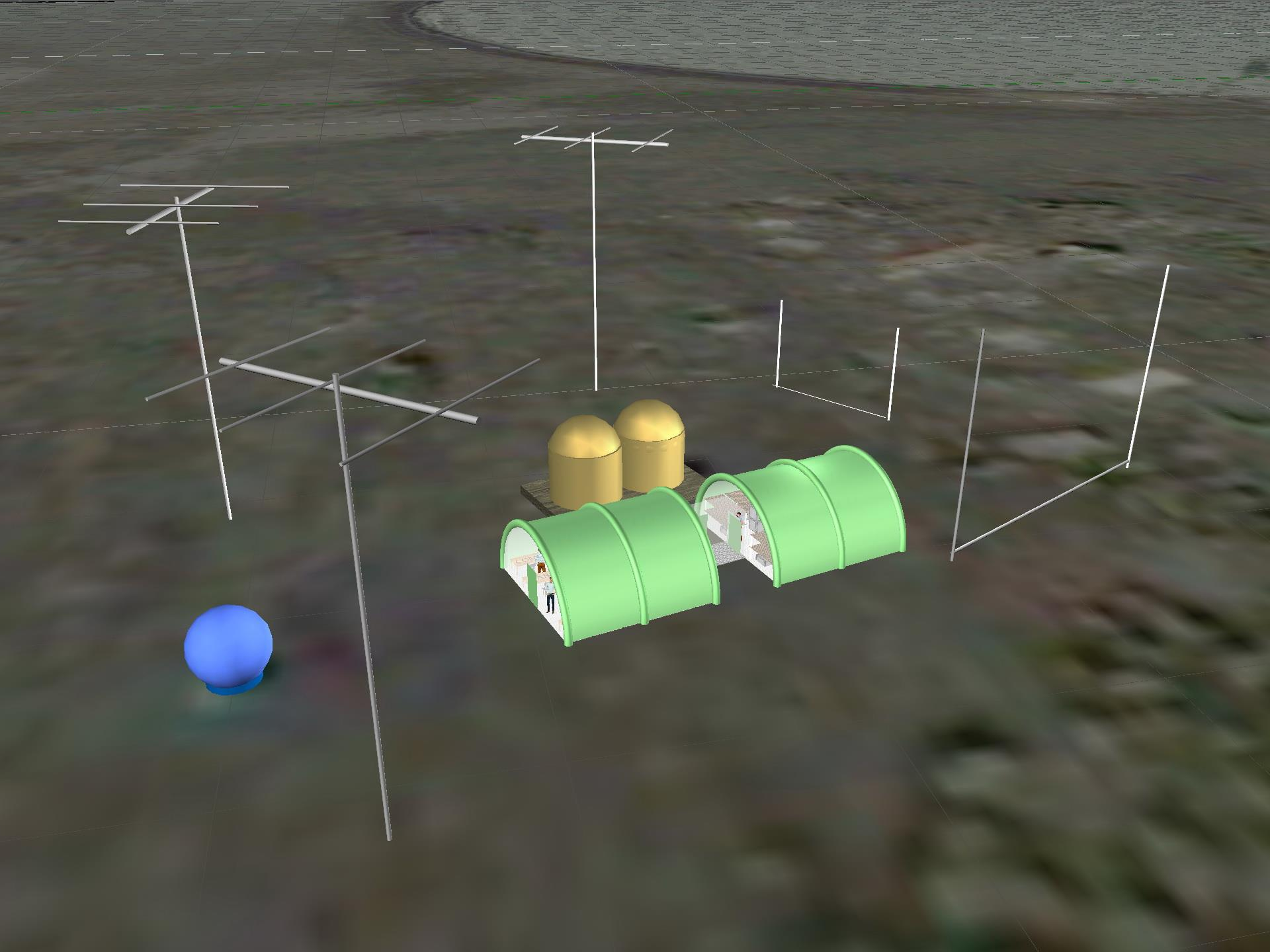
VKØEK

Mar-Apr, 2016

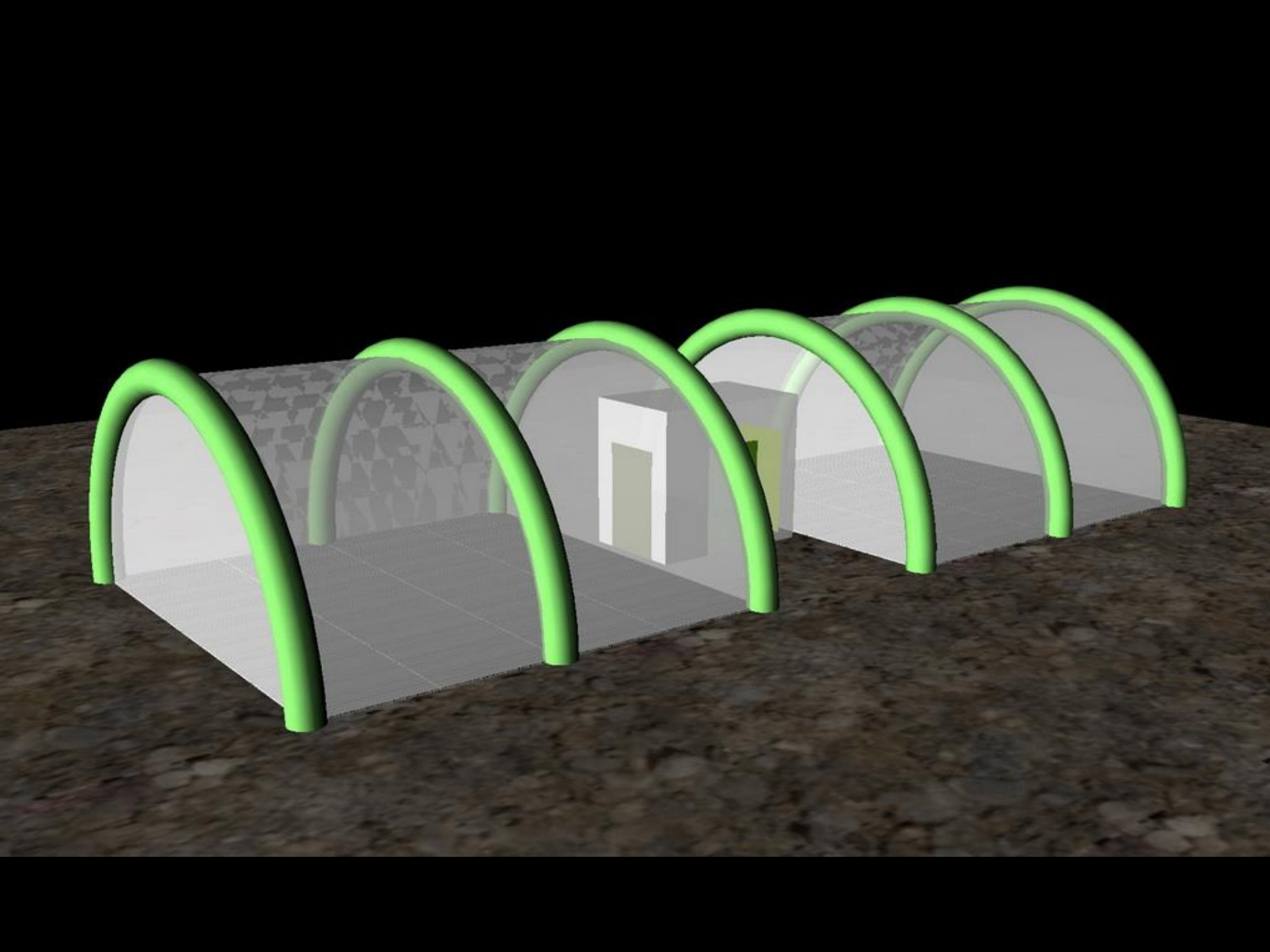
AAD
Helo site

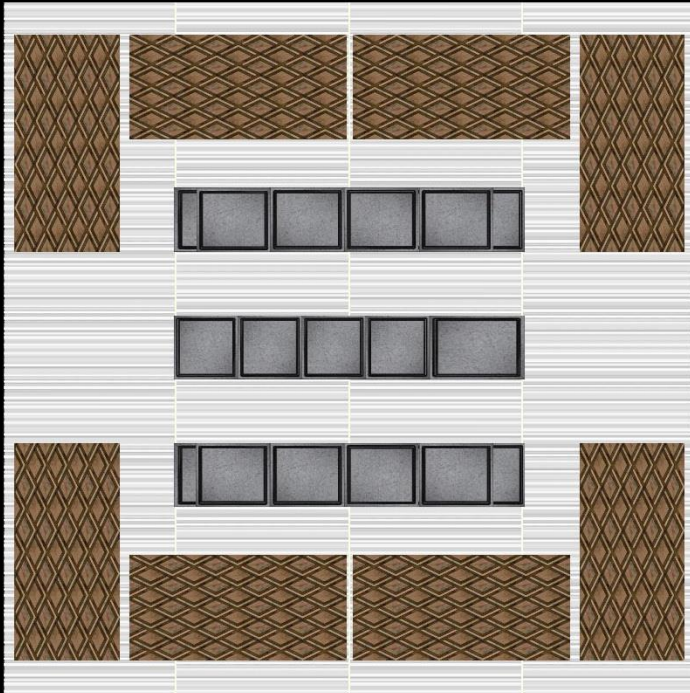
ANARE
(Off limits)



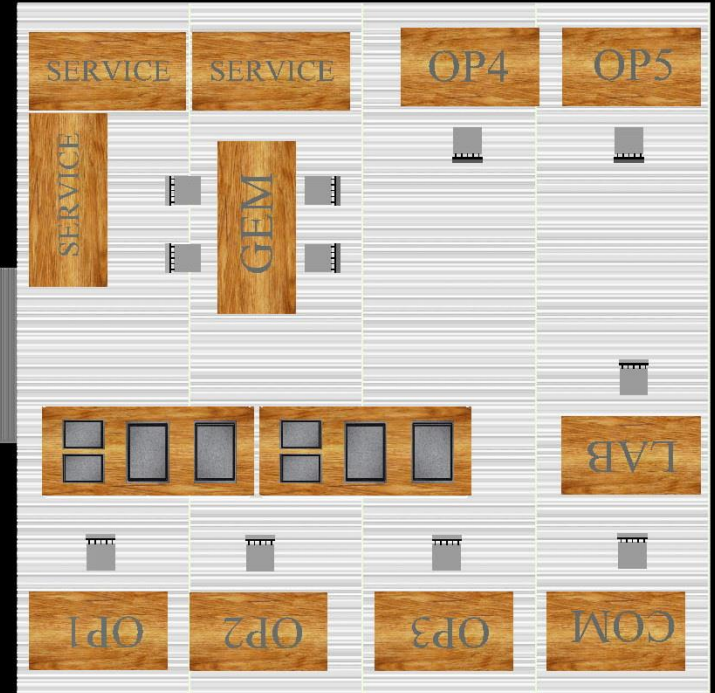




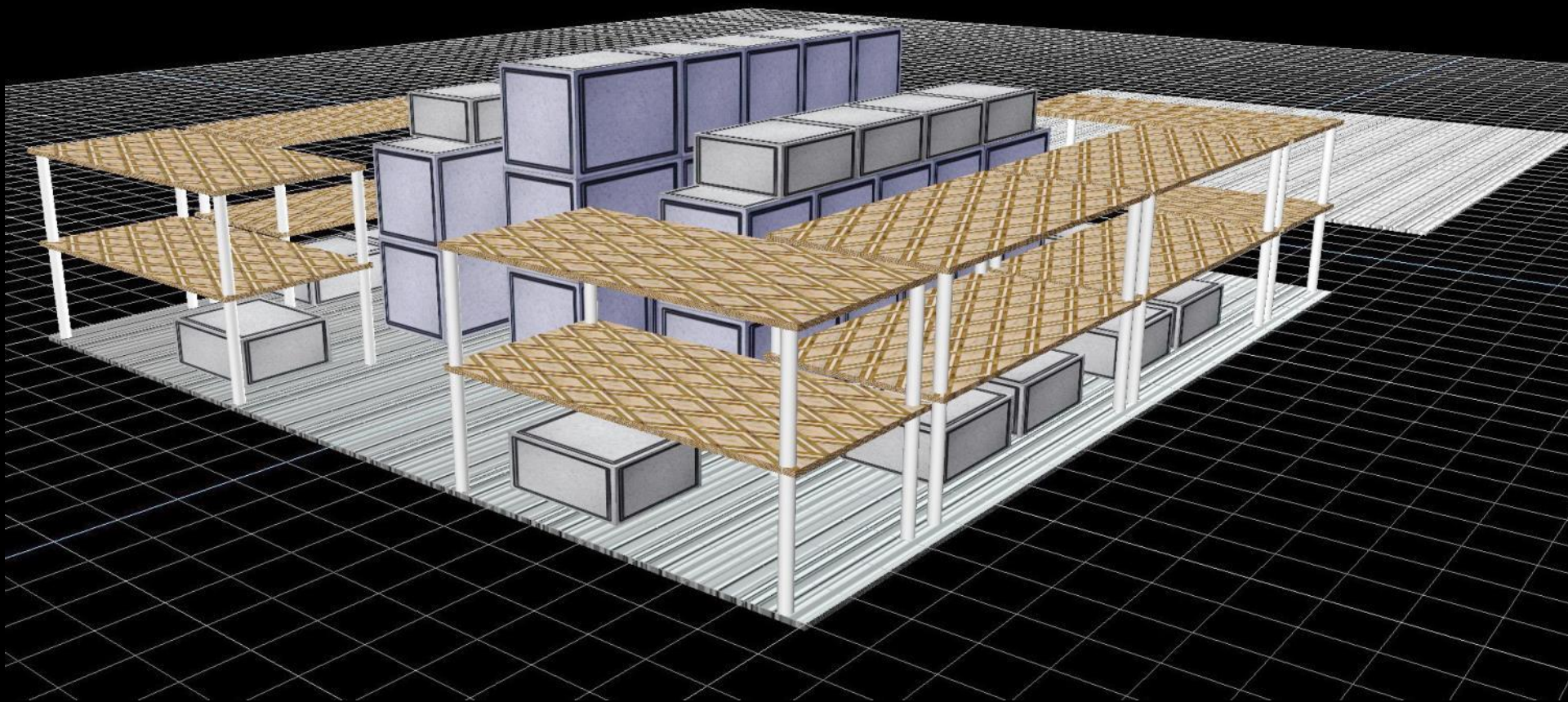




Dormitory



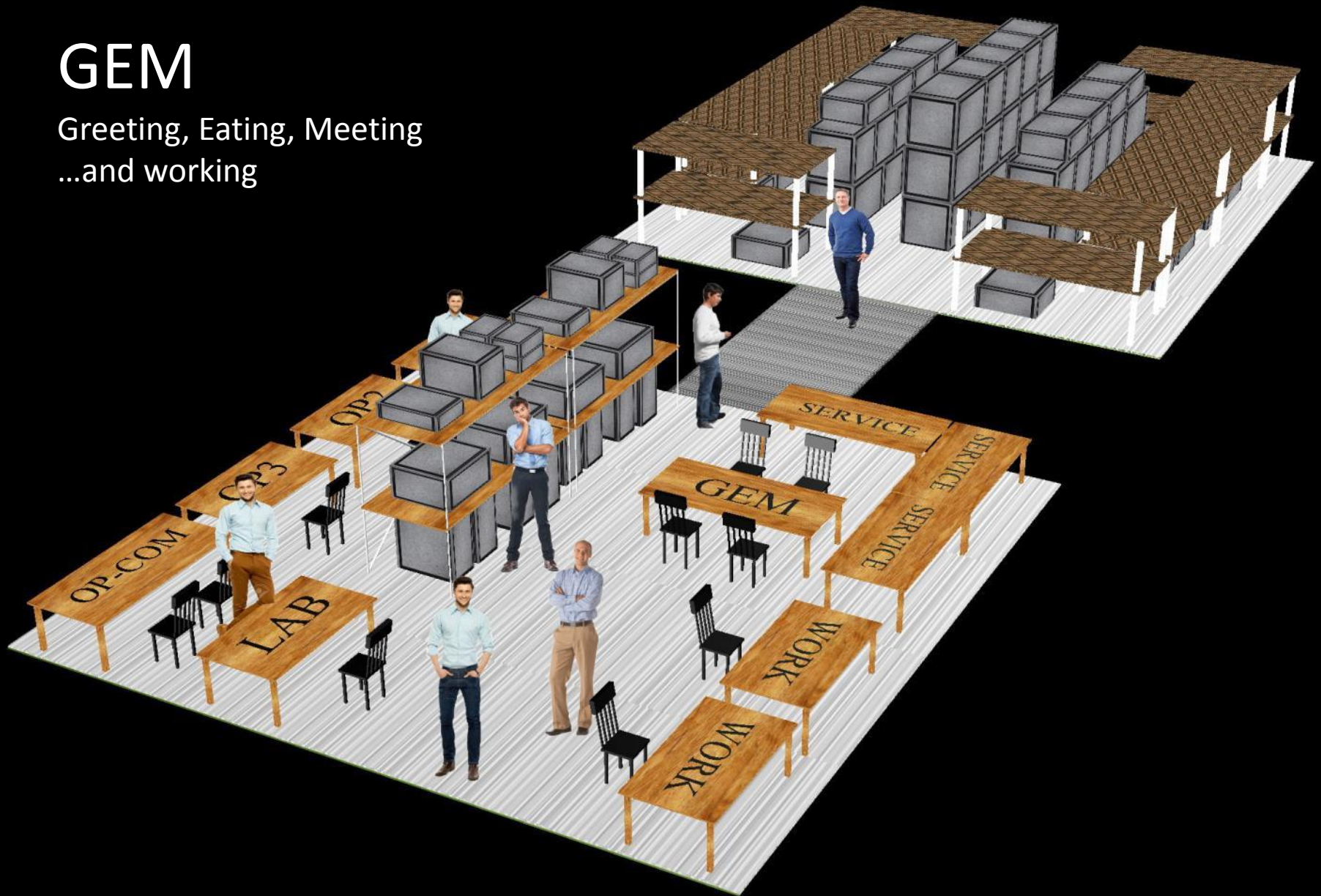
GEM

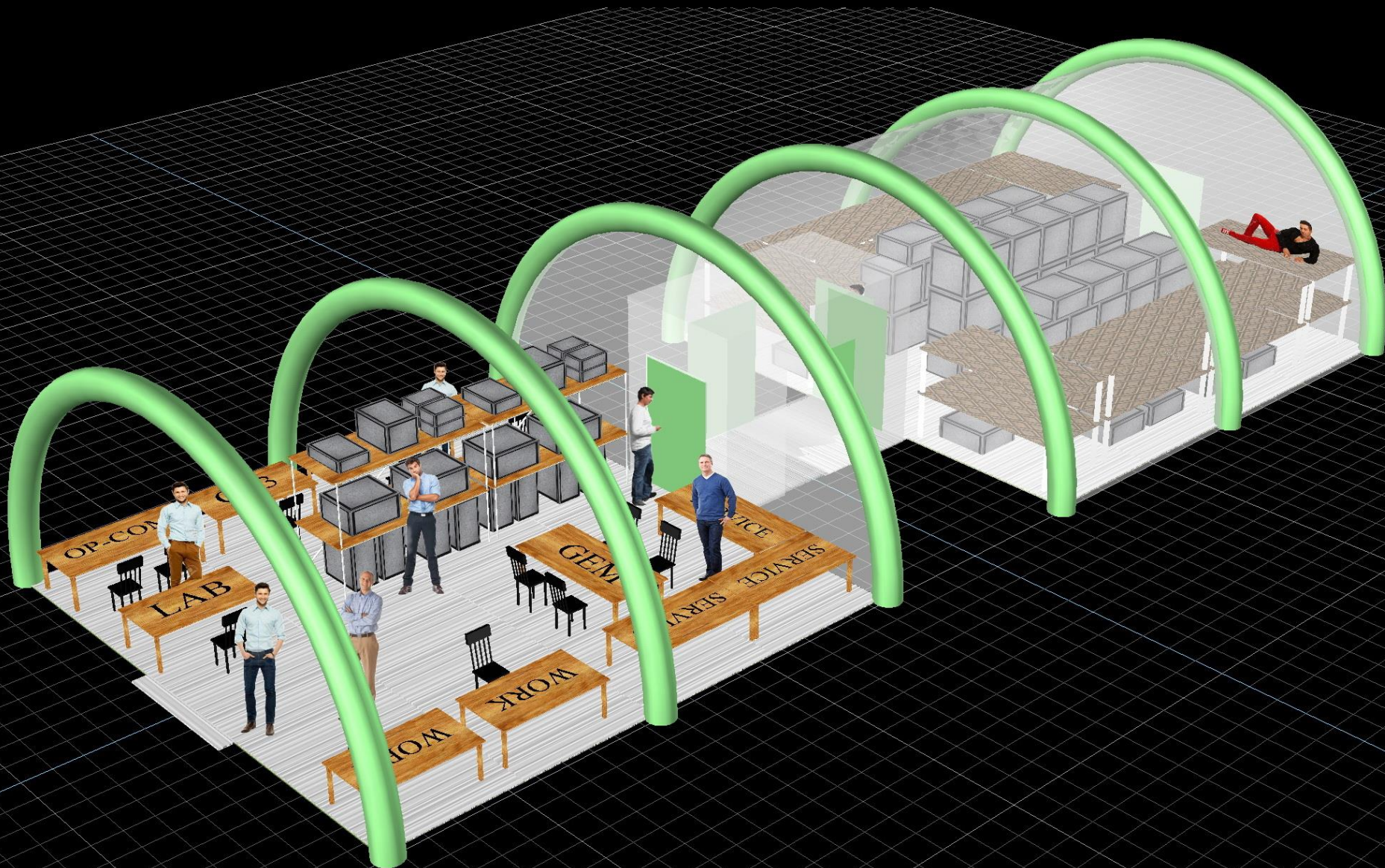


Dormitory, including storage

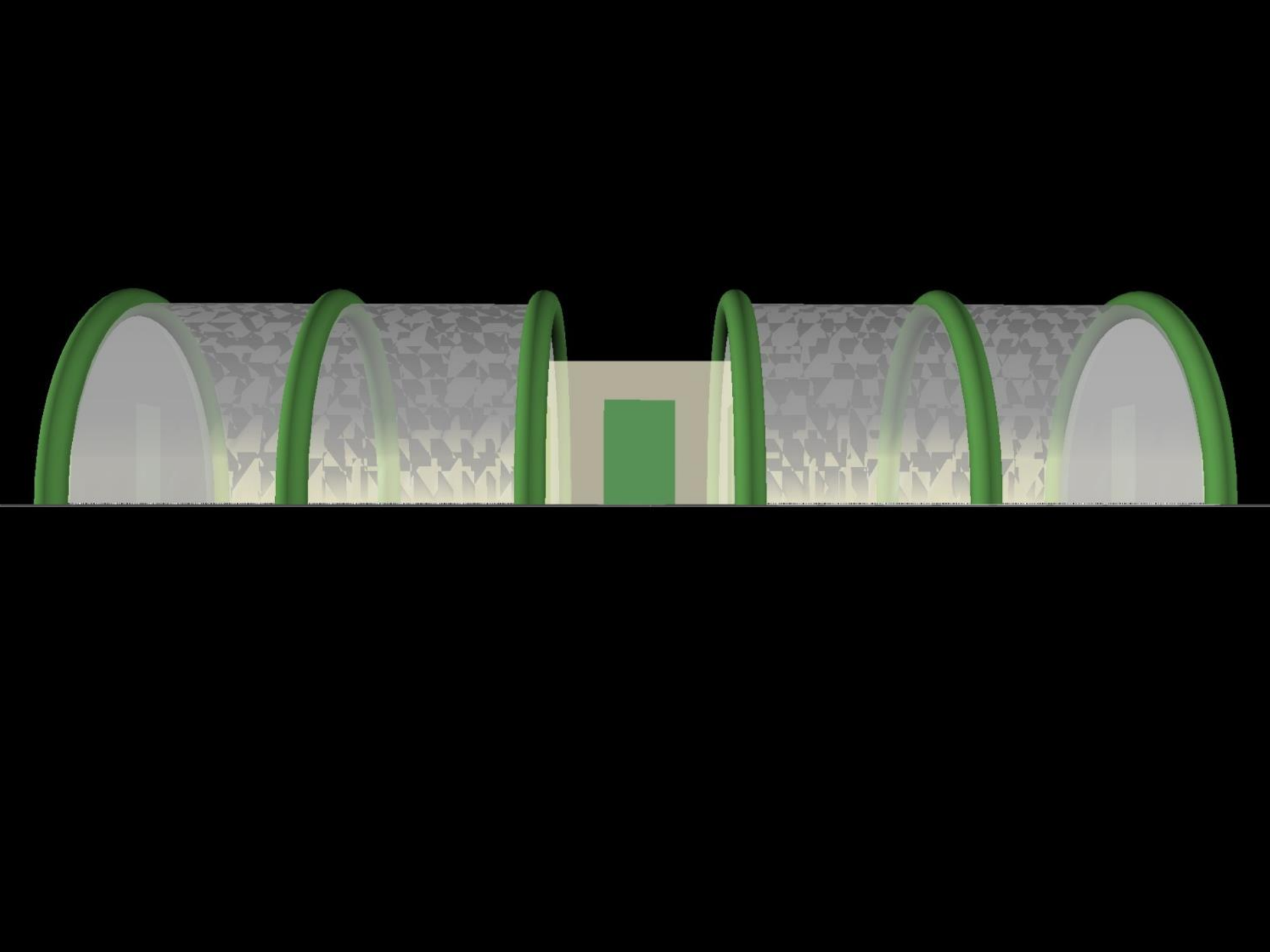
GEM

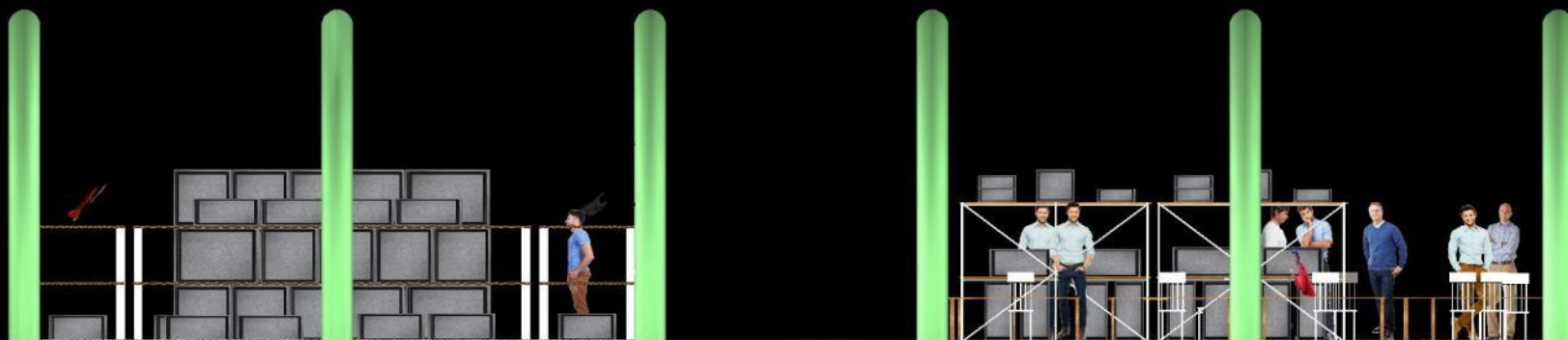
Greeting, Eating, Meeting
...and working

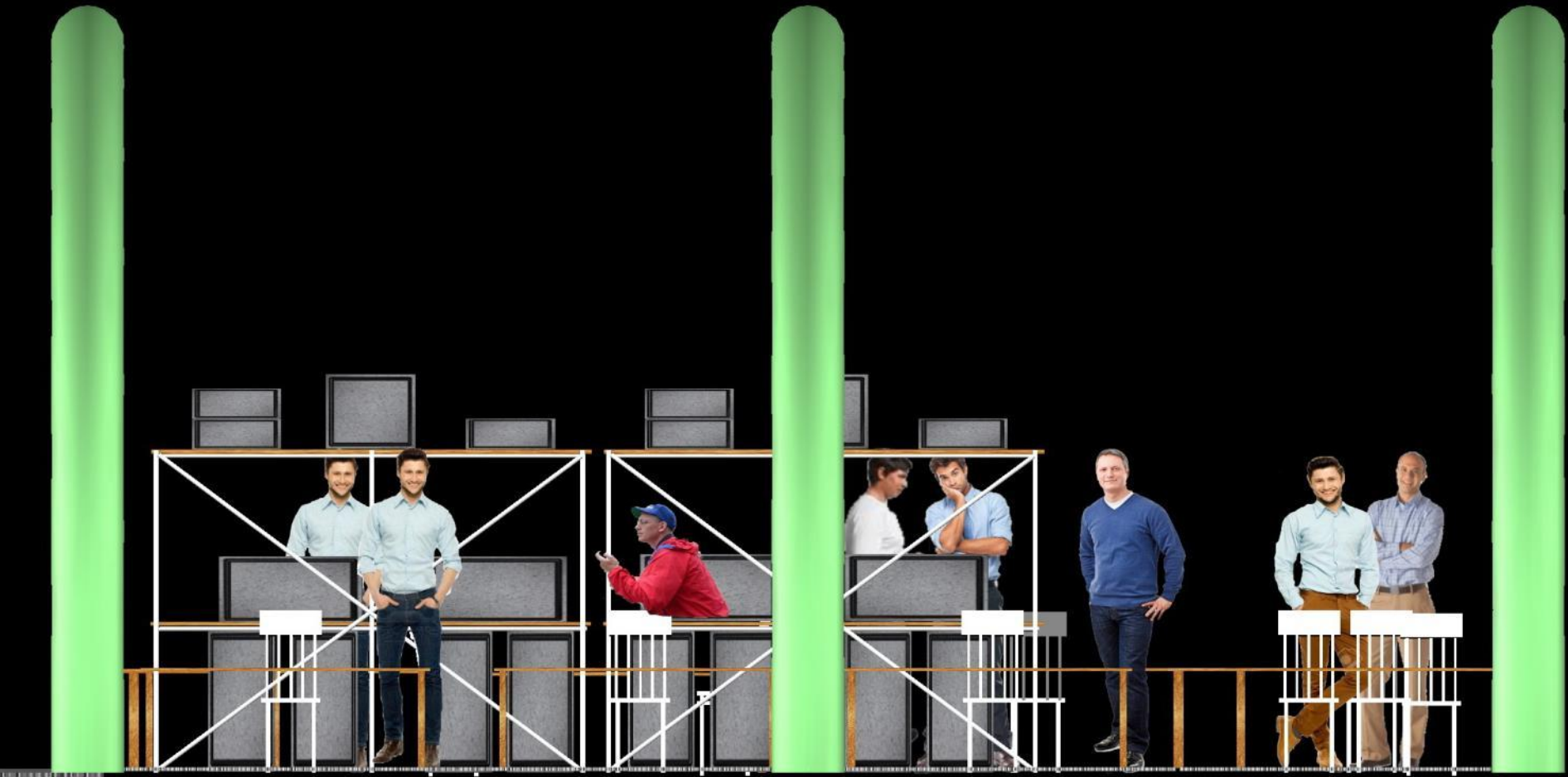




The main VKØEK campsite

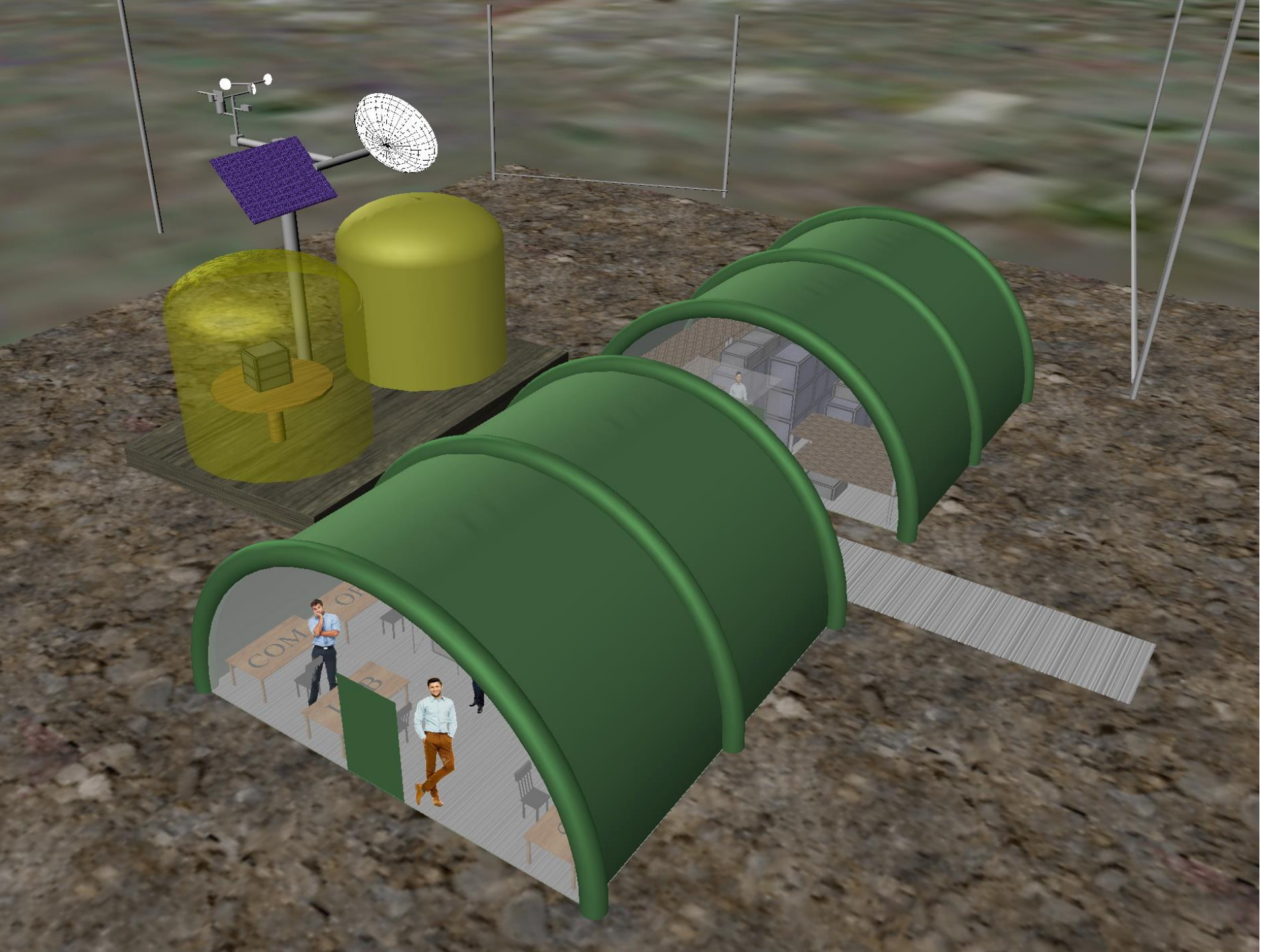




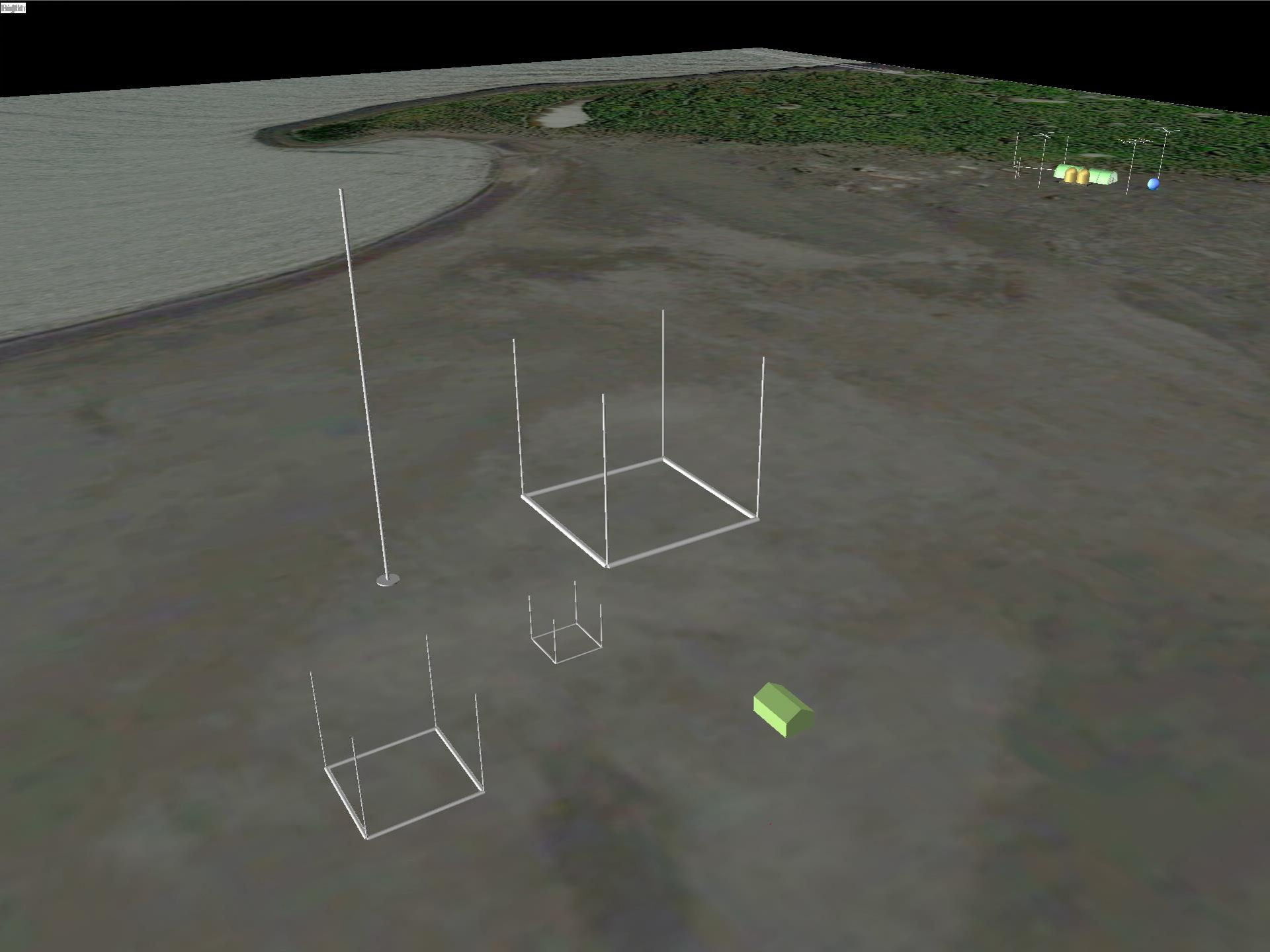


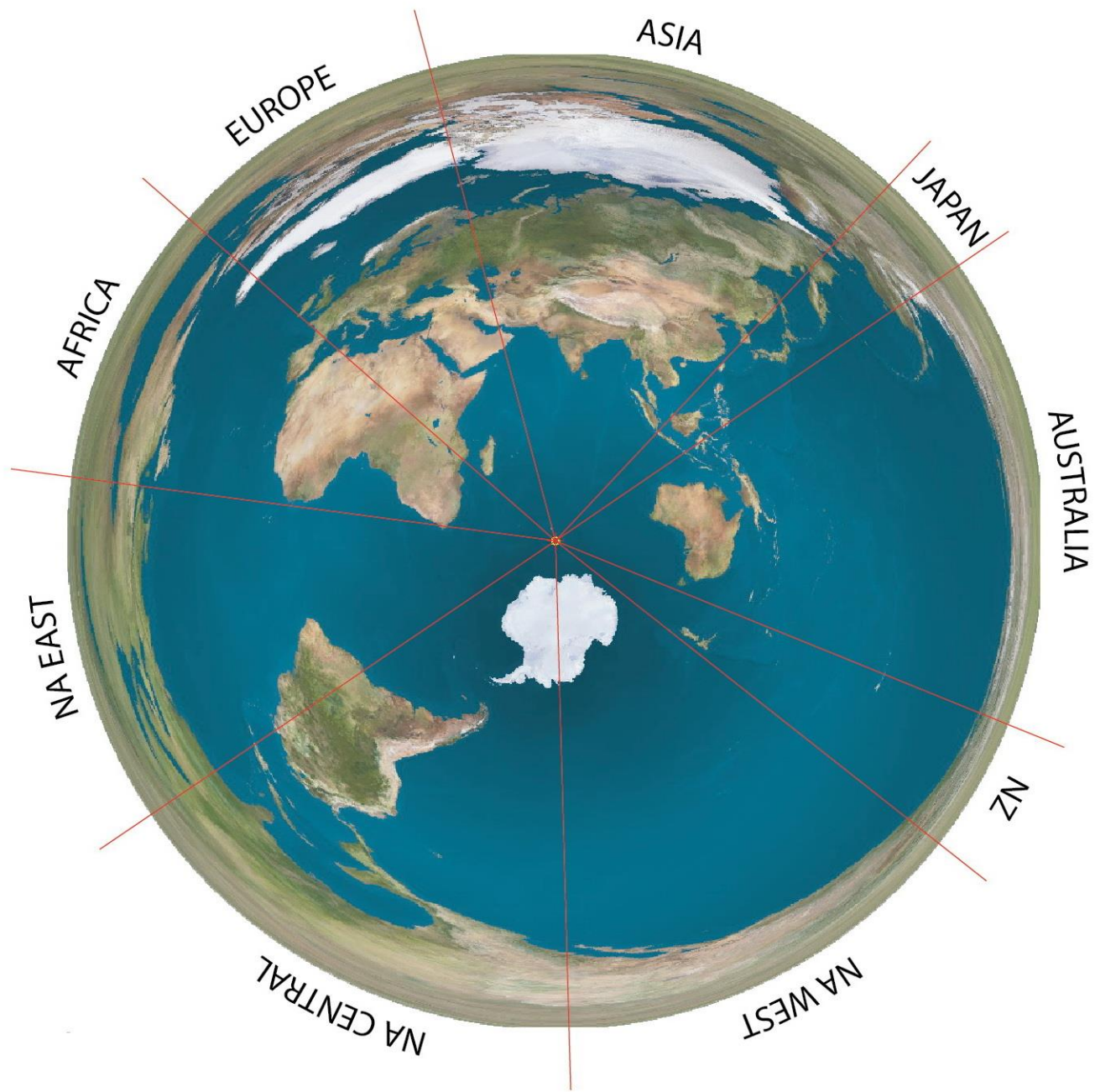






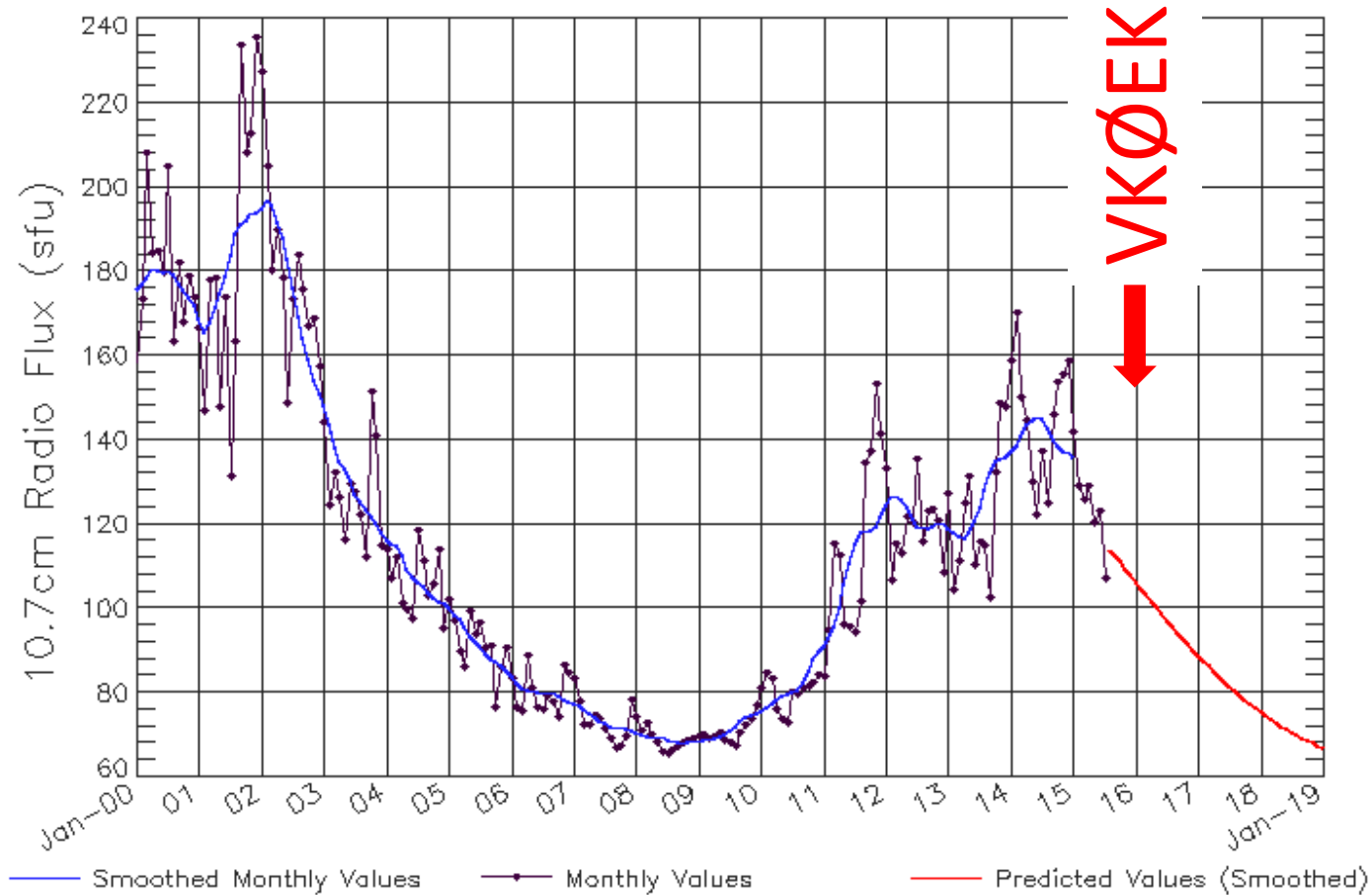






ISES Solar Cycle F10.7cm Radio Flux Progression

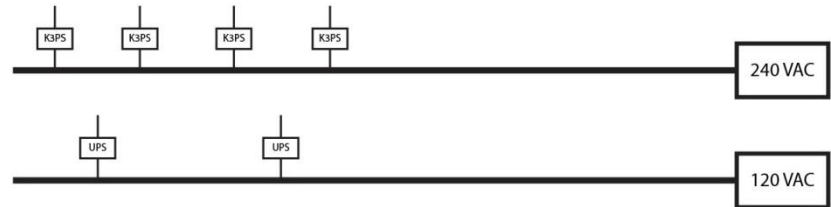
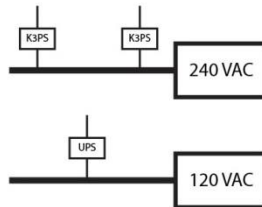
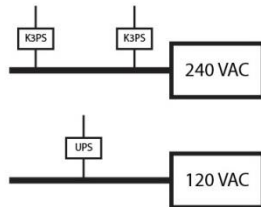
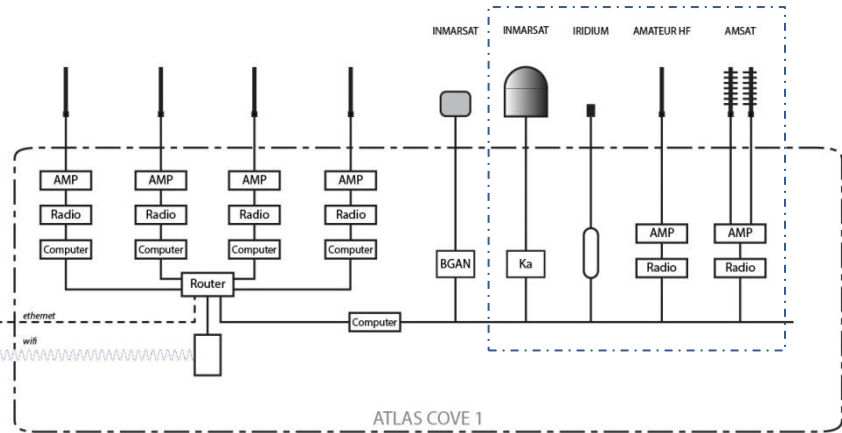
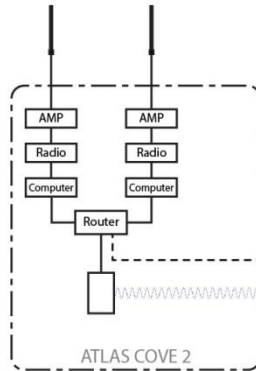
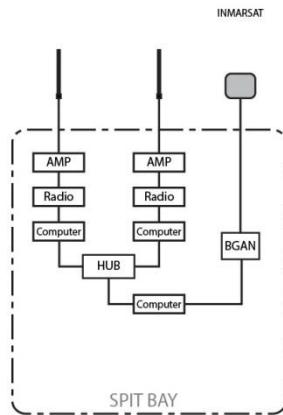
Observed data through Jul 2015



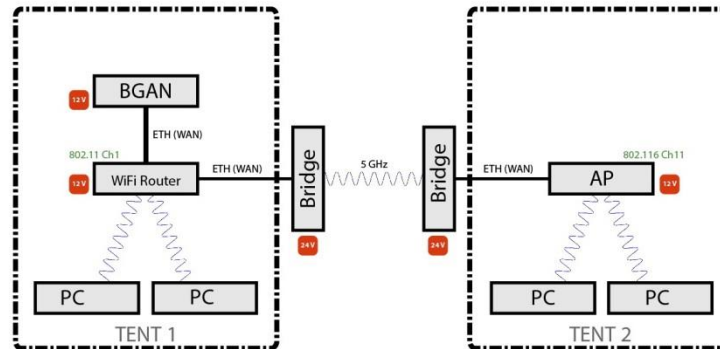
Updated 2015 Aug 8

NOAA/SWPC Boulder, CO USA

Basic wiring diagram for VKØEK



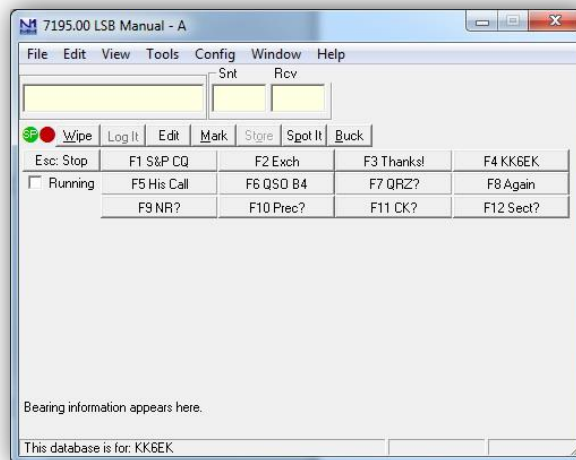
WiFi



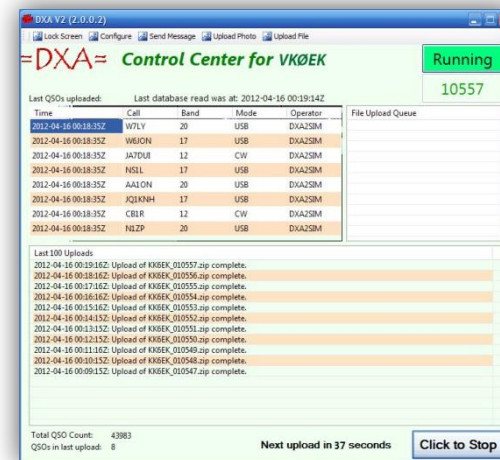
Stations



Elecraft K3S



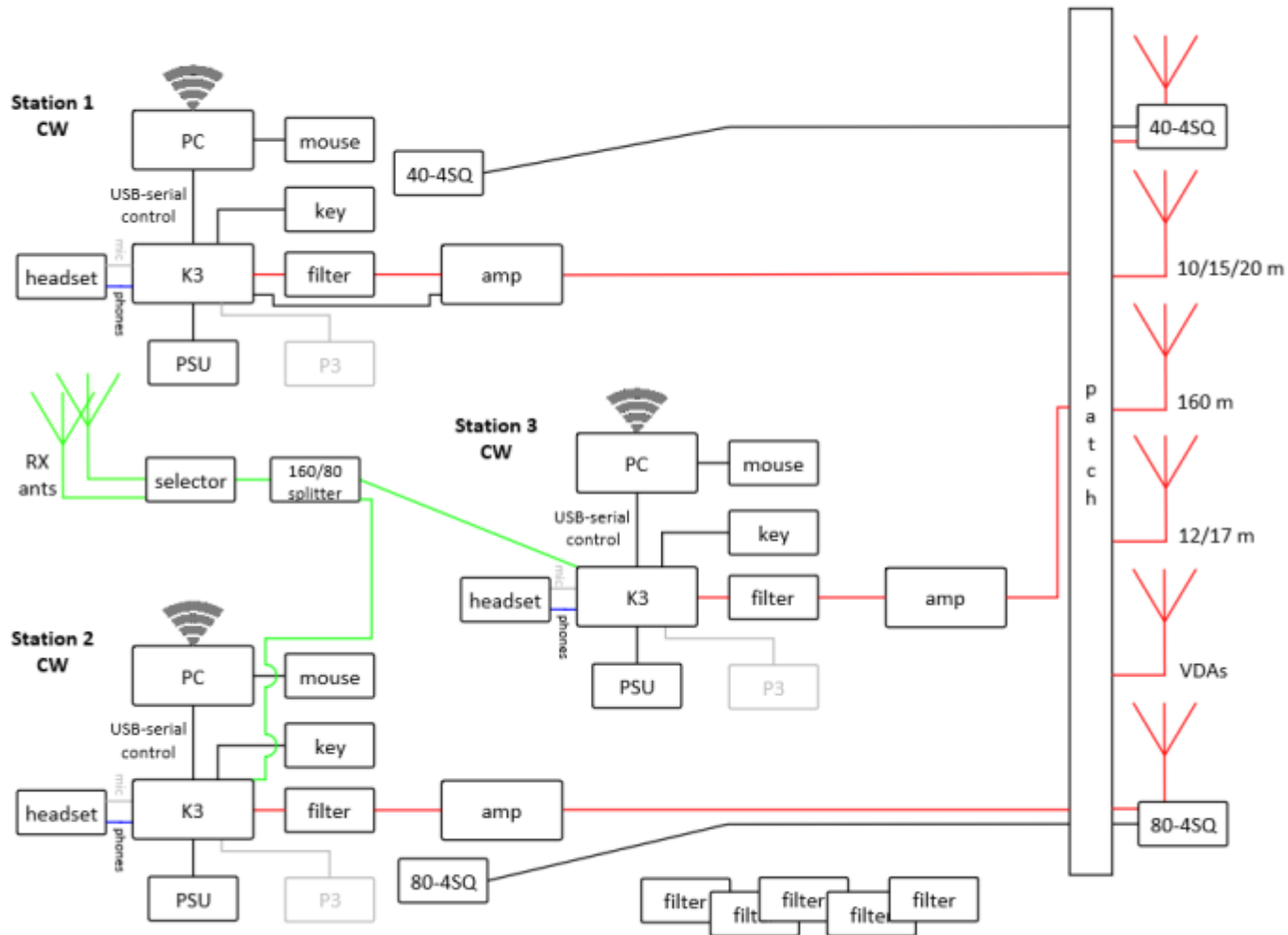
N1MM+



DXA3

Heard Island - Atlas CW Stations

VK0EK Atlas Cove: CW stations

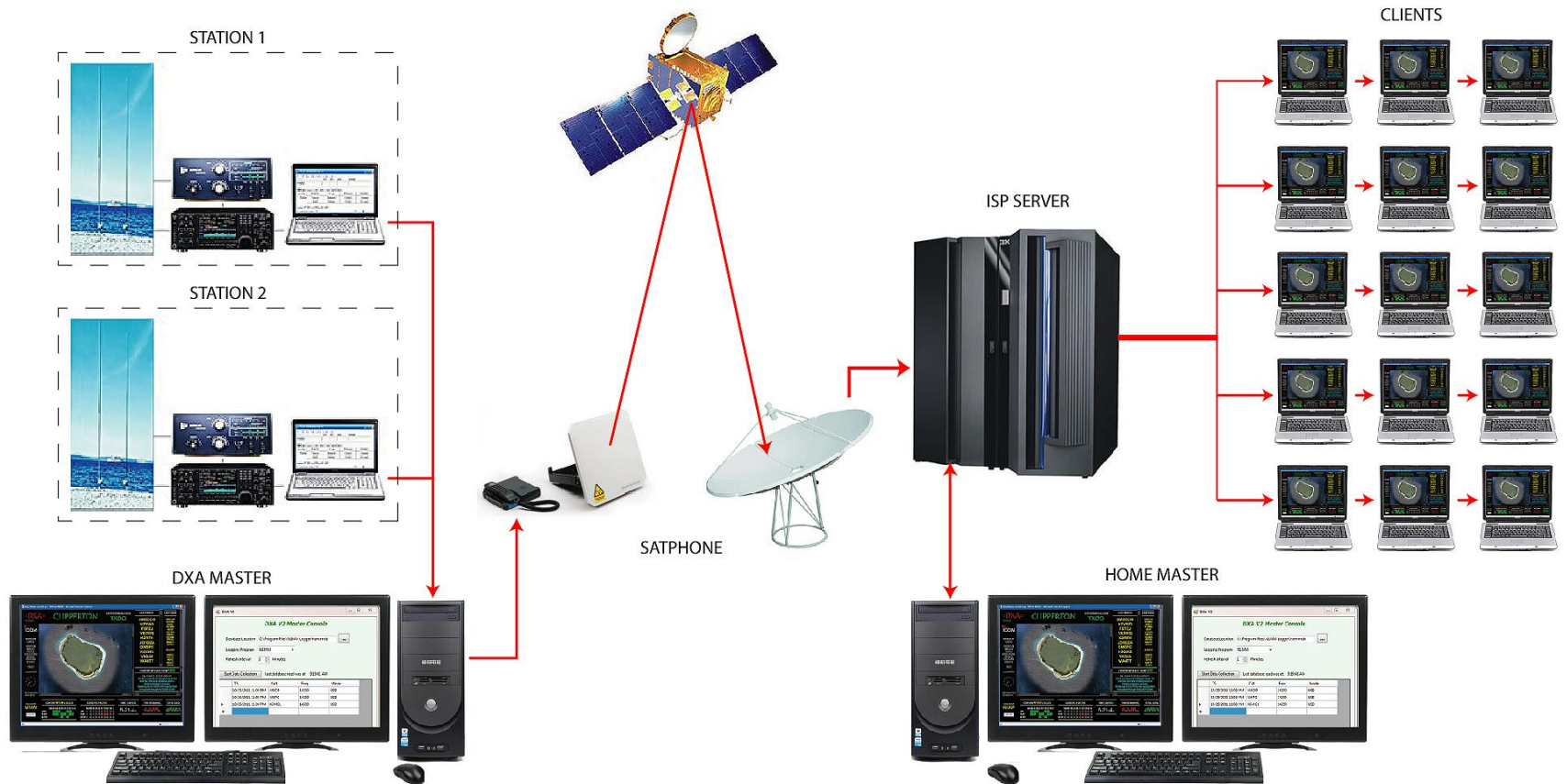


Antennas

Coming soon...



DXA - The Online Radio Log Server



Heard Island

Satellites

Internet



DXA - The Online Radio Log Server

<http://www.dxa3.org>

DXA3

dx2.org/dxa3dev/

=DXA=
Version 3

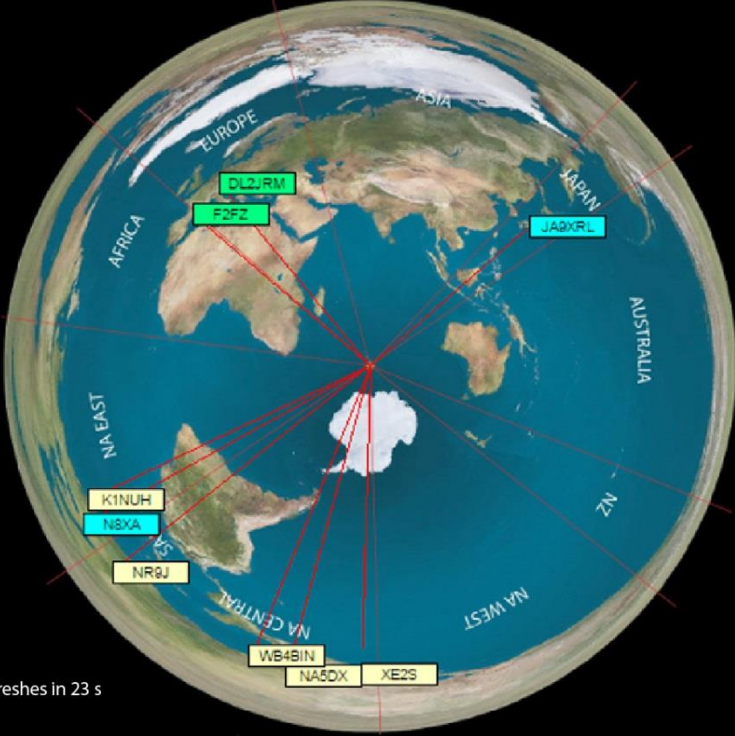



☐ Pause
Select map
Toggle data

Order QSLs
E-mail VKØEK

HELP
Quick tips
About
Privacy

VKØEK Heard Island 2016



Refreshes in 23 s

Just Logged
DL2JRM
JA9XRL
N8XA
F2FZ
NA5DX
K1NUH
XE2S
WB4BIN
NR9J

Worked
1339 UTC
F4ENK
KB0MH
JA9RA
W9JA
DK6IM
1339 UTC
JA1QOA
JA3KVT
AD1C
JA1CLZ
NX0X
JH9KVF
JG1ULJ
W4DKS
JA5NNS
1339 UTC
NGAKI
DF8AN
DK2OY
WSEK

Message from VKØEK




Spit Bay operation will commence on March 27 at 0000Z. Two stations will operate the strongest bands. We anticipate giving priority to NA West Coast for about 1 week, then opening to all stations worldwide.

QSO SEARCH

Please enter...
W1AW
...a valid call sign



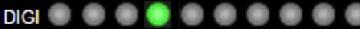
CONFIRM LOGGED

160 80 40 30 20 17 15 12 10 6

CW 
SSB 
DIGI 

CURRENTLY WORKING

160 80 40 30 20 17 15 12 10 6

CW 
SSB 
DIGI 

TIME REMAINING

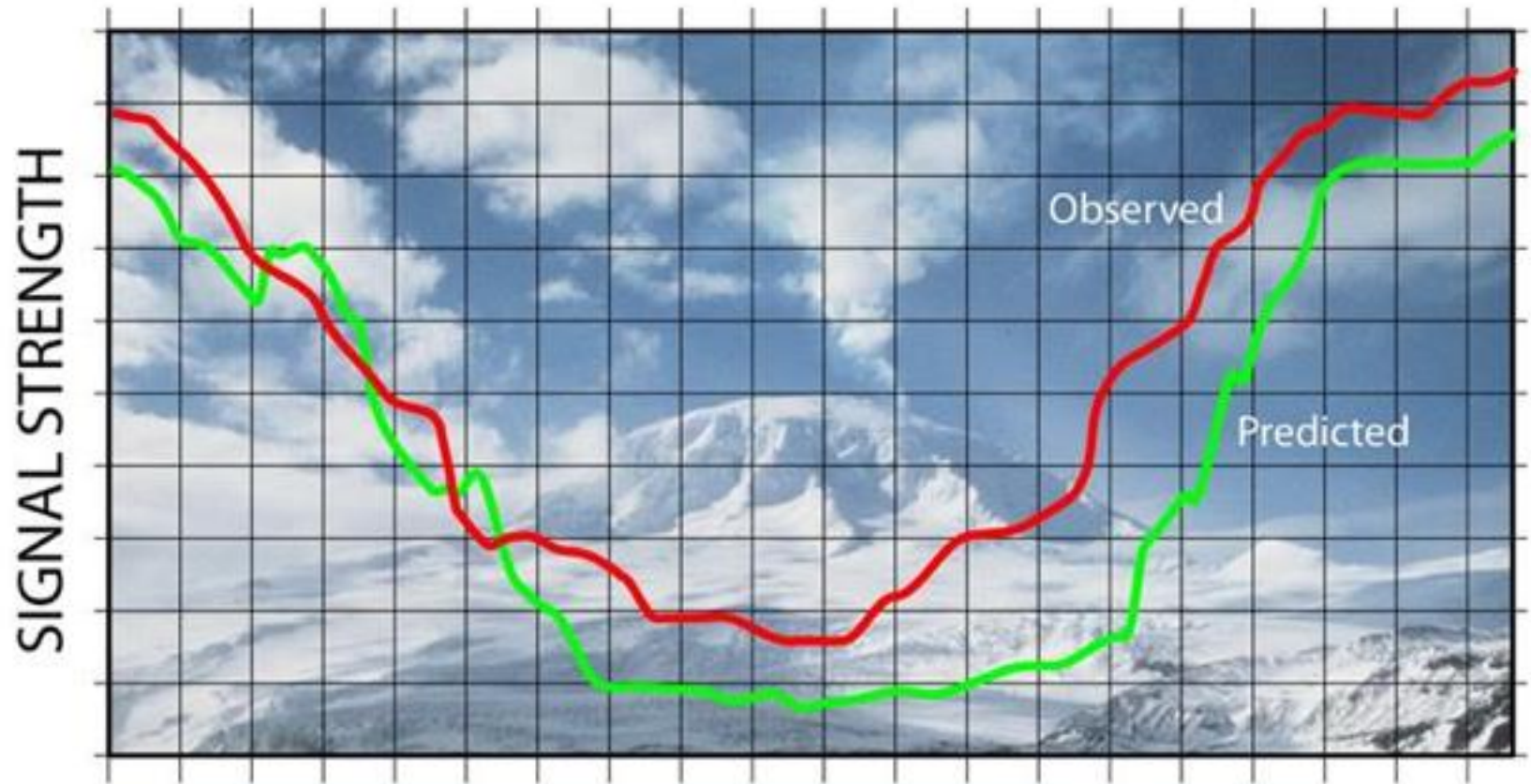
7d16h19m
Fri, 10 Jul 2015
13:40:33 UTC

TOTAL QSOs

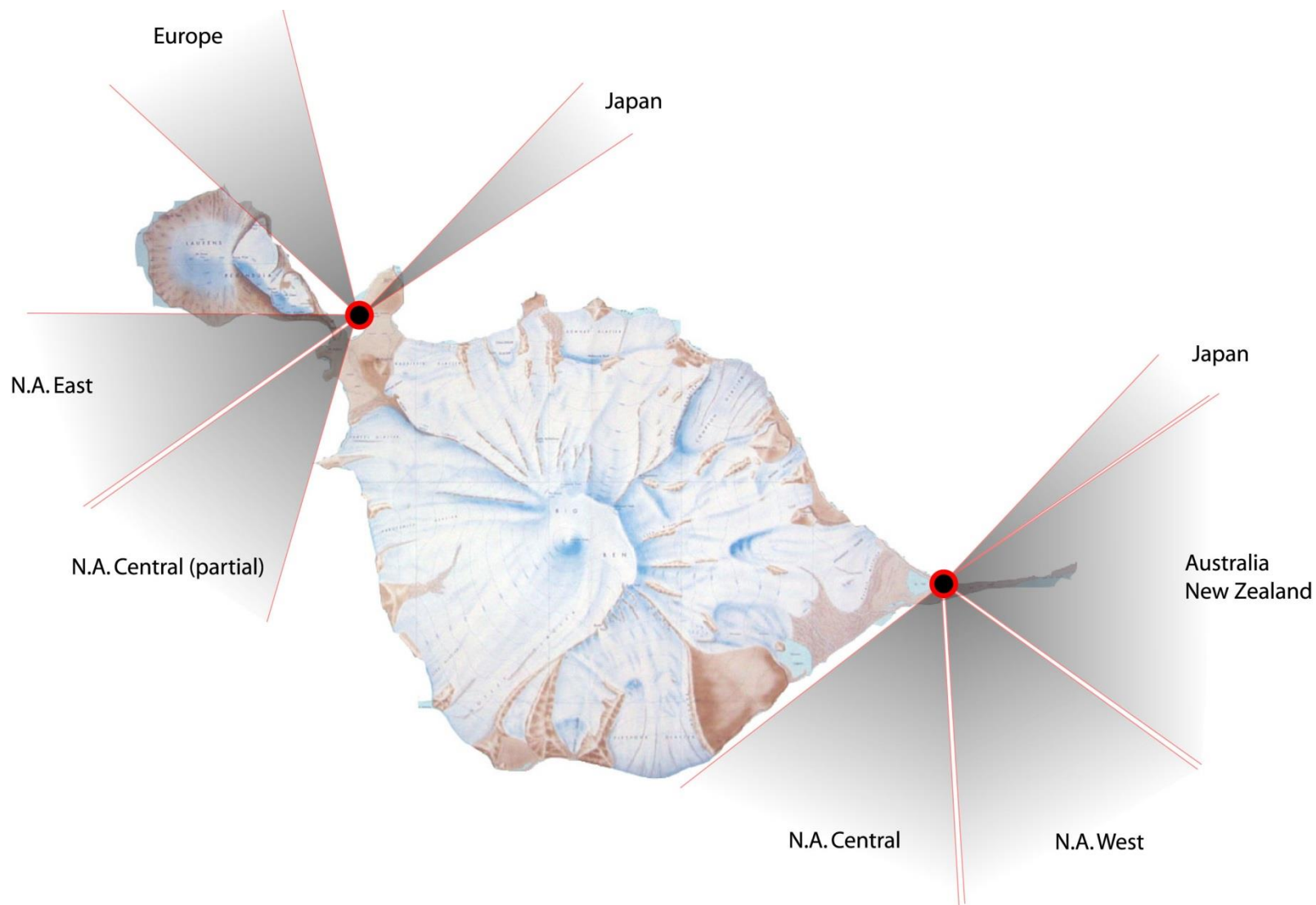
106856
CW SSB DIGI
56024 42685 8147



Heard Island - Geography



Radio paths to/from Heard Island



2014











Scientific research

Goal:

- Obtain new observations and data relating to the effects of global climate change

Means:

- **Collections of specimens** to identify unknown species of plants and animals
- **Photogrammetry** to measure changes in glaciers, lagoons, and land, especially recently deglaciated land
- **Photodocumentation** of new geologic features such as emergent streams and plumes, eruption and venting, weather and atmospheric phenomena

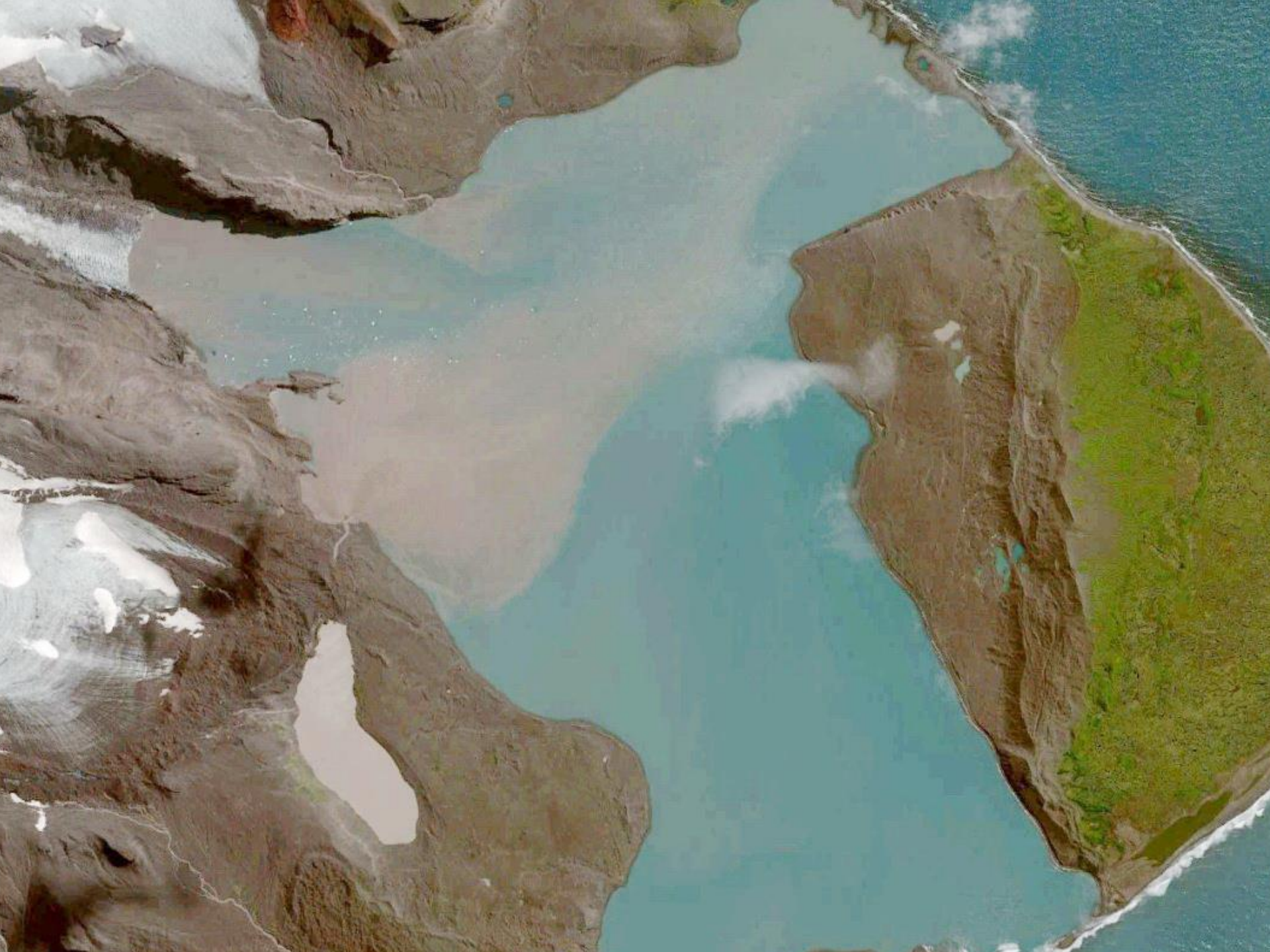


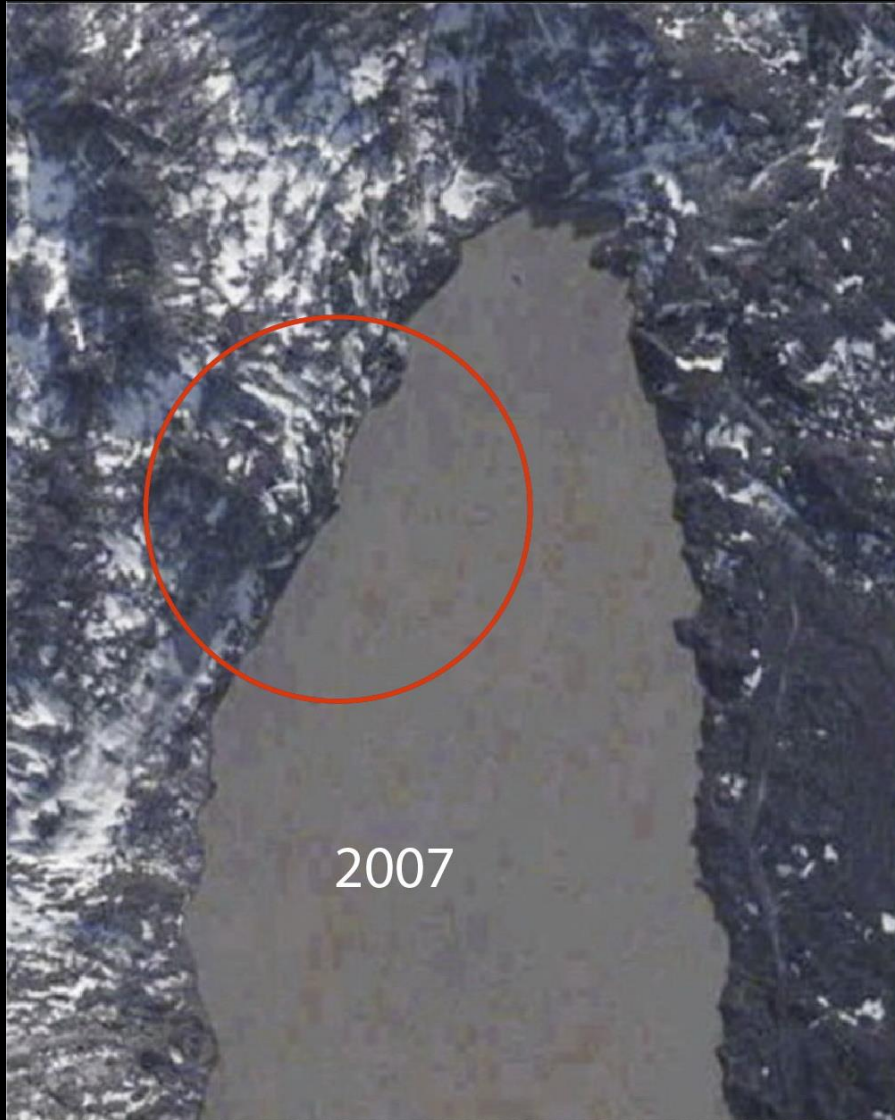


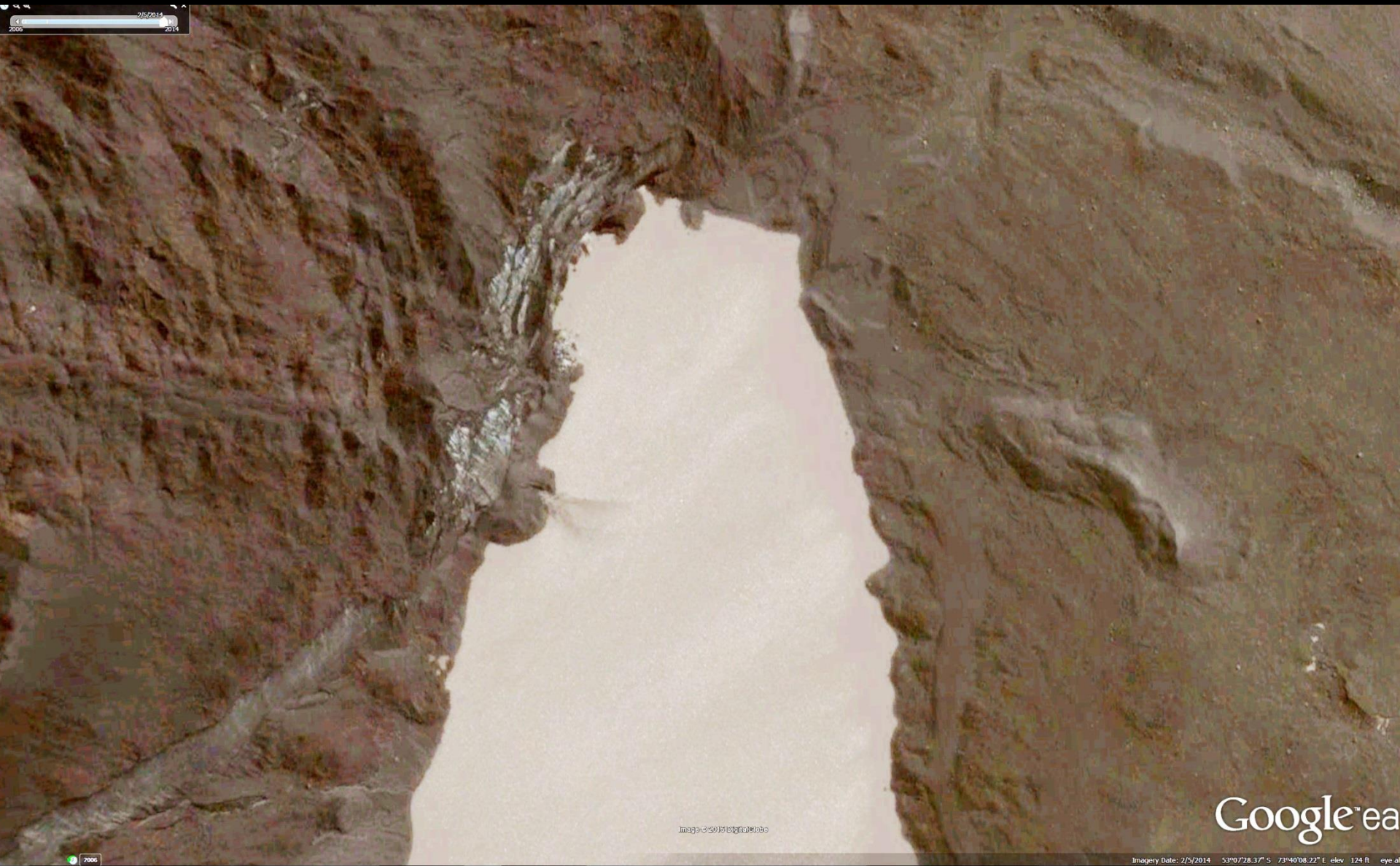
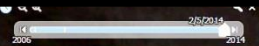
Image © 2015 DigitalGlobe

Google earth

2006

Imagery Date: 2/5/2014 53°07'39.66" S 73°40'27.40" E elev 111 ft eye-alt 6653 ft





Imagery © 2014 DigitalGlobe

Google™ Earth

2006

Imagery Date: 2/5/2014 53°07'28.37" S 73°40'08.22" E elev 124 ft eye alt

2/5/2014







Aerial images using remote airborne cameras



Multicopter (drone)



Flyable (kite-borne) camera

Search for new species as particulates in water and air



Waterborne



Wet-dry vac



Anderson Impactor



"Next-Generation" Impactor

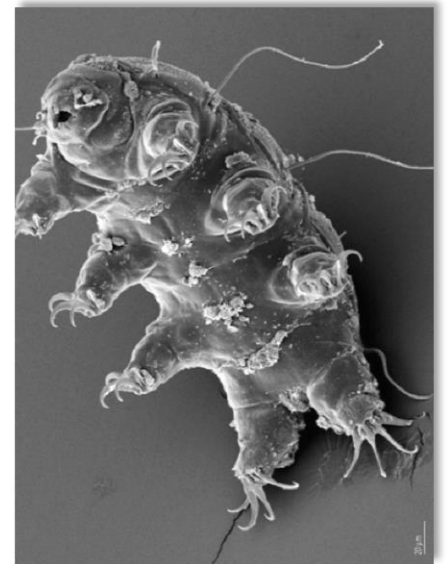


Airborne

Digital microscope to image microscopic organisms



Foraminifera



Tardigrada

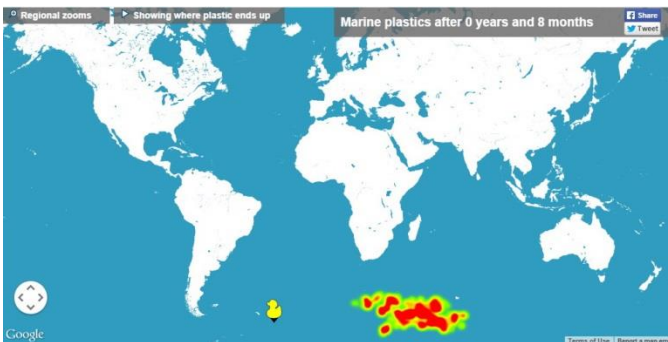
Photo-documentation of environmental debris



Plastic

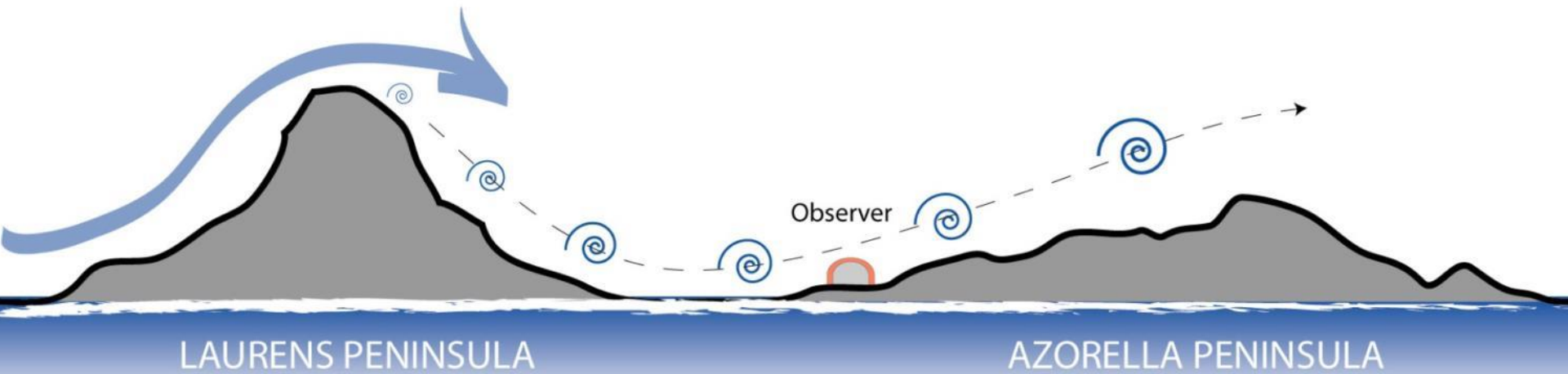


Bonal



Heard Island
receives floating
debris directly from
South Georgia

Roller vortices shed from mountains affects biota

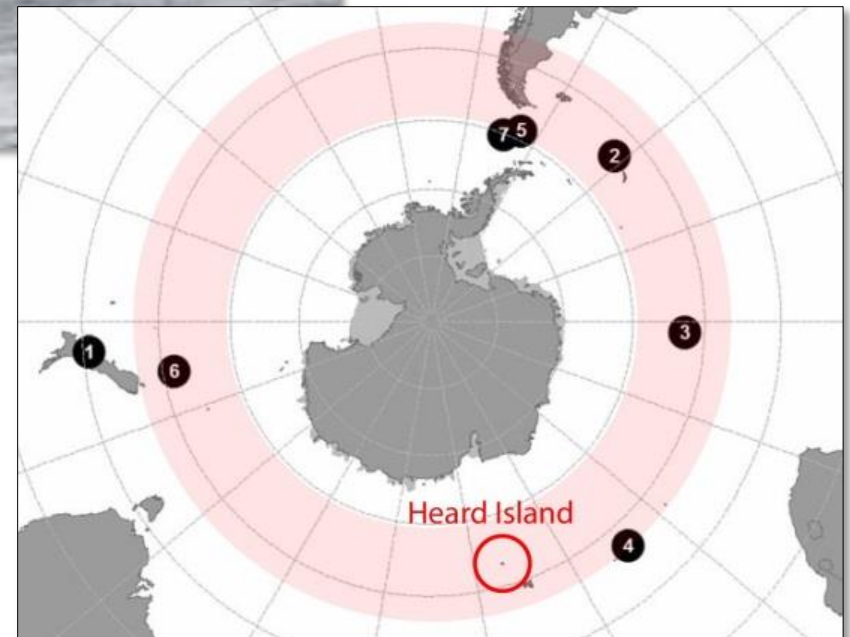


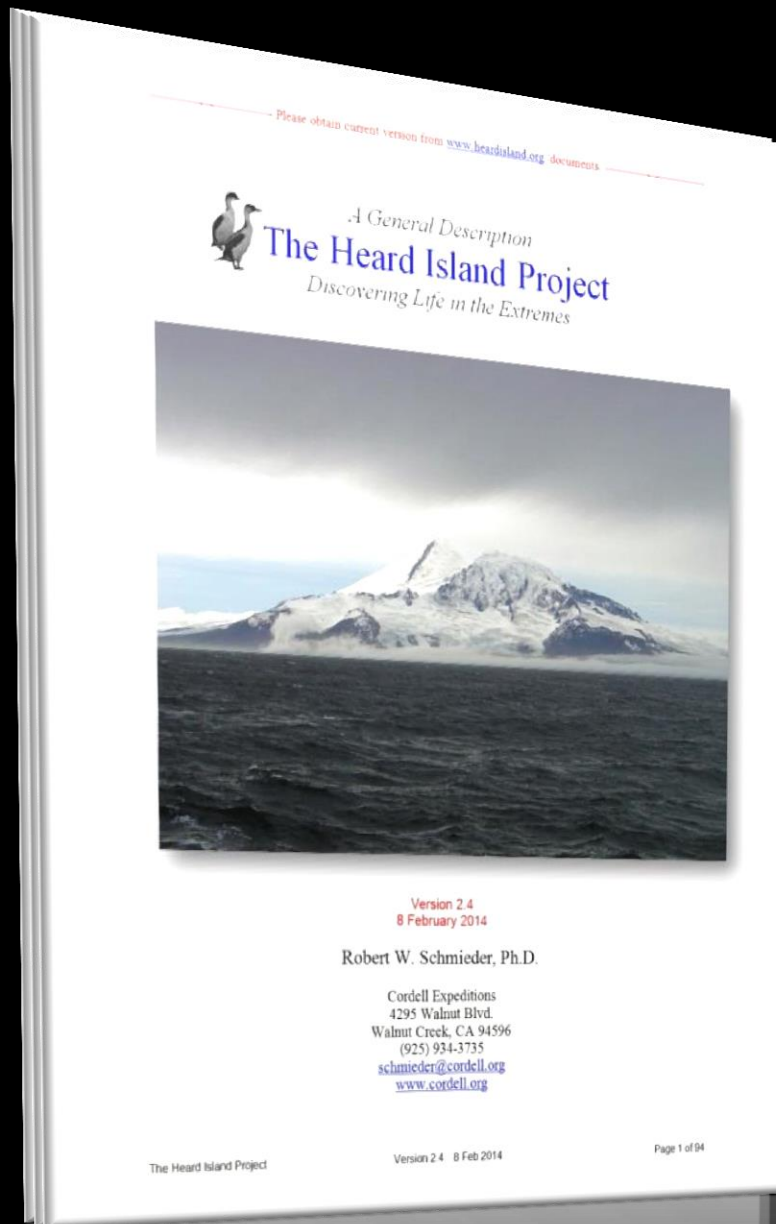
A remote automatic station could record wind data over a year

e



Search for the
reported
new Type of
killer whale





Full Project Plan:
www.heardisland.org/DOCUMENTS/

The 1997 Expedition that broke all the records and
defined a new spirit of collective pride in Amateur Radio.



VKØIR

VKØIR

Heard Island

ISBN: 0-9626013-7-3

Cordell Expeditions
4295 Walnut Blvd.
Walnut Creek, California USA 94596

by KK6EK

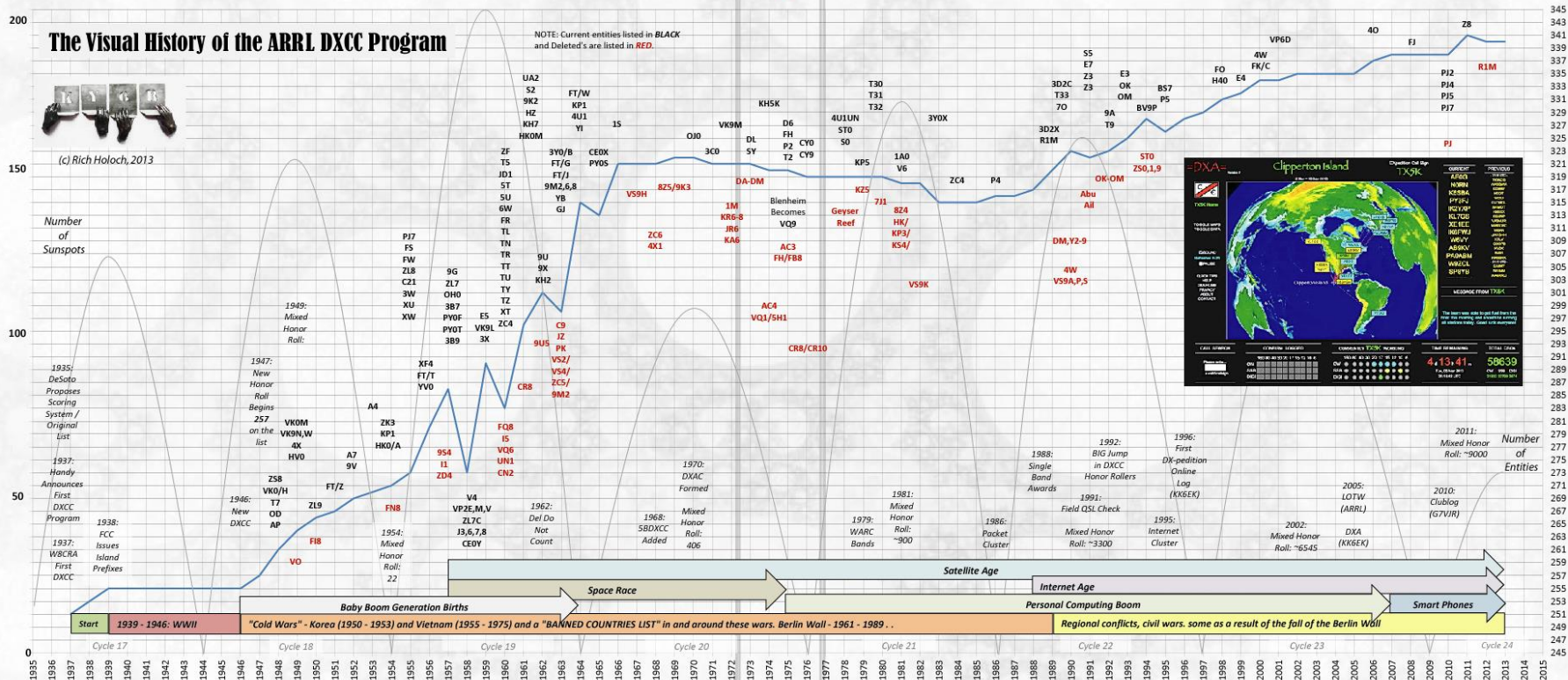
Free download at
www.heardisland.org


$$=DXA=$$
$$=DXA=$$

The real-time online radio log server

(c) Rich Holoch, 2013

NOTE: Current entities listed in **BLACK**
and Deleted's are listed in **RED**.



Cordell Expeditions
4296 Walnut Blvd
Walnut Creek, CA 94596

KK6EK

by KK6EK

ISBN 0-9626013-7-5

Available from KK6EK

The Heard Island Newsletter

Free (electronic) subscription at:
www.heardisland.org/NEWSLETTER/

GOAL FOR RADIO OPERATION: 100,000+ CONTACTS

"Thank you! QZL..."
 "WAAW"
 "WAAW, Five and nine."
 "Also five and nine."
 "Thank you! QZL..."

So it goes, hour after hour, day after day. Hundreds, thousands of times. Ten thousand. Fifty thousand. Passing One hundred thousand.

This is the routine for logging calls from amateur radio stations worldwide, seeking the goal of confirming a contact with perhaps 30,000 different stations. For most, this is their very first contact with Heard Island. And it might be the last. The island is so rarely activated that the next time may be far in the future, and perhaps never. The last radio operation from Heard Island was in 1977, when it

reced 83,000 contacts were made. This time the team plans to exceed that record.

To do this, the team will use at least four stations operating around the clock.

Contact the radio Team Leader Dave Kjell at kjell@heardisland.org

"The goal is to maximize the number of all-time new contacts with Heard Island for the radio operators. There will be tens of thousands of them."

PARTNERS WITH HDT GLOBAL

used to announce that we have parties, as well as military chemical, biological, radiological, and DT Global as a major sponsor. The shelter (CERN) air filtration systems and protection systems. It struck in a meeting on May 15, 2015. The company also offers robotic systems for commercial, health care, underwater, and military applications. Its products are used to meet the specific needs of command posts, hospitals, military barracks, emergency medical treatment units, CERN decontamination facilities for first responders, and command and control operation centers.

In addition, the company provides engineering designs and product development, application engineering and systems integration, logistics support, product training, and other sales support services.

Its products are used by the U.S. and allied military units, homeland security, civilian government, contractors, and commercial customers in the United States, Sweden, Canada, Japan, the European Union, the United Kingdom, Chile, and Australia. The company is based in Solon, Ohio.

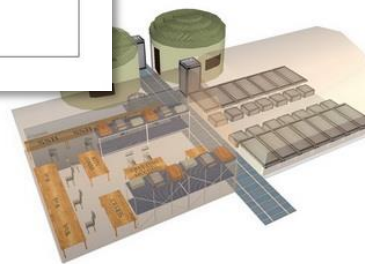
Contact HDT at www.hdtglobal.com



The shelter shown above is the 20' x 21' Air Beam shelter. It can be erected by two men in about 15 minutes using an air compressor. The walls and ceiling are insulated, and there are various feedthroughs for electrical connections and ventilation.

and manufacture shavers, generators, robotics, and other engineered heavy test shaver systems, command auxiliary energy products, various industrial products, military power generation, specialty vehicles, and accessories.

3D CAMP SITE DESIGN USING AIR BEAM SHELTERS



Heard Island Expedition Newsletter Vol. 1 No. 1 June 1, 2015

Conceptual design for the main camp at Alca Cove on Heard Island. The camp consists of two Air Beam shelters joined at their ends. One shelter is the dormitory and the other is the GEM (Greening, Eating, Meeting) shelter. The walkway between the shelters provides access to the shower, toilet and kitchen. Circular base spaces in the GEM shelter are provided for food and crew, eating, computer, and science lab. Total floor space is about 107 sq. ft. The two circular shelters are built permanently installed by the Australian government. They are available only as redies.

Dr. Robert Schmeider
schmeider@heardisland.org

Co-organizer
 Rich Holoch KYLE
 Diablo DXers
richholoch@gmail.com

Radio Team Leader
 Dave Lloyd Kjell
kjell@heardisland.org

MAKE IT HAPPEN...



to put on a great presentation in the advent. We want you to feel like the team, which Heard Island is not. We want of the excitement, a satisfaction from the

Heard Island is among the very destination in the the violent weather and (fleeing safe and timely) arranging safety and make a trip to Heard Island, and expectance from the 1977 on is well prepared to this most difficult project, it cannot be done positive support from organizations like and from individuals (DONORS) page on our website.

"Contributions are tax-deductible according to the code governing 501(c)(3) nonprofit organizations."



Heard Island Expedition Newsletter Vol. 1 No. 1 June 1, 2015

The
HEARD ISLAND
 Project

Discovering Life in the Extremes

Cordell Expeditions

EXPEDITION SCHEDULED FOR MAR- APR 2016



Newsletter Vol. 1 No. 1
 June 1, 2015

INSIDE THIS ISSUE

- Radio operations.....2
- DCA Real-time.....2
- Yellow-green algae.....3
- Partnership with HDT Global.....3
- Campsite layout.....3
- I HELPED MAKE IT HAPPEN.....4

Wednesday, 13 May 2015. Today Cordell Expeditions signed a contract with Nigel Jolly, owner and operator of the Braveheart (above), for the expedition to Heard Island, and moved the project schedule to March-April, 2016. The ship will depart March 8 from Cape Town, South Africa, proceed directly to Heard Island, and finally to Fremantle, Australia on April 22. The stay at Heard Island will be nominally March 18-April 10.

The nominal 21-day stay at Heard Island will enable amateur radio operations, using the call sign VK0EK. While the radio operation is the primary goal, the team will also carry out a limited scientific program, including a search for new species that can enhance our understanding of biodiversity and the effects of climate change.

This will be the first private visit to the island since 1977 and the first scientific project there since the Australian

government expedition of 2003. The island is very near the top of the world-wide most-wanted list for radio operations. Scientists have predicted that perhaps 200 species remain to be discovered there. In addition, the team will document plastic debris on the beach, and the penguins, seabirds, and marine mammals. The team will also look for microscopic forms of life, especially those never seen before.

Heard Island is about 20 km top-to-top, with a 9000-ft live volcano at the center. Campsites for 2016 will be at the points marked A and S.

For further information, please contact the Expedition Leader, Dr. Robert Schmeider, schmeider@cordell.org.



Heard Island Expedition Newsletter Vol. 1 No. 1 June 1, 2015

The 2016 Heard Island DXpedition

the On-Island Team

Adam Brown	K2ARB
Alan Cheshire	VK6CQ
Arliss Thompson	W7XU
Bill Mitchell	AEØEE
Carlos Nascimento	NP4IW
Dave Farnsworth	WJ2O
David Lloyd	K3EL
Fred Belton	WM4MXD
Gavin Marshall	VK2BAX
Hans-Peter Blattler	HB9BXE
Jim Colletto	N6TQ
Kenneth Karr	NG2H
Robert W. Schmieder	KK6EK
Vadym Ivliev	UT6UD

The W4DXCC Angel Match



The Heard Island Angel Matching Fund

Total Angel matching funds as of 7 July 2015: \$28,523



The Original Angel Match

We are extremely pleased that an anonymous donor established a special limited-time fund of up to \$50,000, as matching gifts to benefit the Expedition. The Fund is administered by Dr. Anders Jepsen, who can be reached at AJViking@aol.com.

The fund was aimed at encouraging individuals and organizations not already part of the fundraising program to make significant contributions to the Project. Minimum donation was \$1000. For details about this extraordinary gift program, please [click here](#).

The deadline was March 31, 2015, and has now passed. However, if you or your organization is interested in possibly participating in this program, please contact Dr. Jepsen.



[GM DX Group](#)

\$1000 x 2 = \$2000



[German DX Foundation](#)

\$7335 x 2 = \$14670



[Central Texas DX & Contest Club](#)

\$1925 x 2 = \$3850



[Clipperton DX Club](#)

\$1000 x 2 = \$2000



[Northern California DX Club](#)

\$1000 x 2 = \$2000



[European DX Foundation](#)

\$1000 x 2 = \$2000



[Danish DX Group](#)

\$1000 x 2 = \$2000



[Oceania Amateur Radio DX Group](#)

\$1564 x 2 = \$3128



[Steve Hammer K6S6H](#)

\$1000 x 2 = \$2000



[Rich Holoch KY6R](#)

\$1000 x 2 = \$2000



The Friedrichshafen Angel Match

As noted on the NEWS page, the Angel authorized a matching program for donations made at HAM RADIO, Friedrichshafen, Germany, June 26-28, 2015.

We are happy to report that one DX club and 15 individual donors contributed \$1152. The Angel Match doubles the total to \$2304.

We thank each of these donors for their generosity, and also the Angel for providing the incentive for these donations.

PDXC	Passau DX Club	\$214
DJ9ZB	Franz Langner	\$50
N2WB	William Beyer	\$45
I4EAT	Fausto Minardi	\$18
IK4WMA	Enzo Proni	\$18
OE3GCU	Guenther Schoedl	\$18
PB8DX	Florian van der Wagt	\$5
DL3TU	Roman Brunel	\$18
DL6DH	Henning Folger	\$100
LA5HE	Rag Otterstad	\$18
DH0GHU	Ulrich Hilsinger	\$23
OE3HWC	Markus Schieder	\$18
DJ8NK	Jan Harders	\$222
K5GS	Gene Spinelli	\$80
W2LK	Les Kalmus	\$105
Callsign withheld	Name withheld JP	\$200

Total Donations		\$1152
Match	\$1152 x 2 =	\$2304

Donations made at the
W4DXCC Convention will
be doubled by the

VKØEK Angel

Please see team member
Fred Belton KM4MXD
or
Dave Anderson K4SV

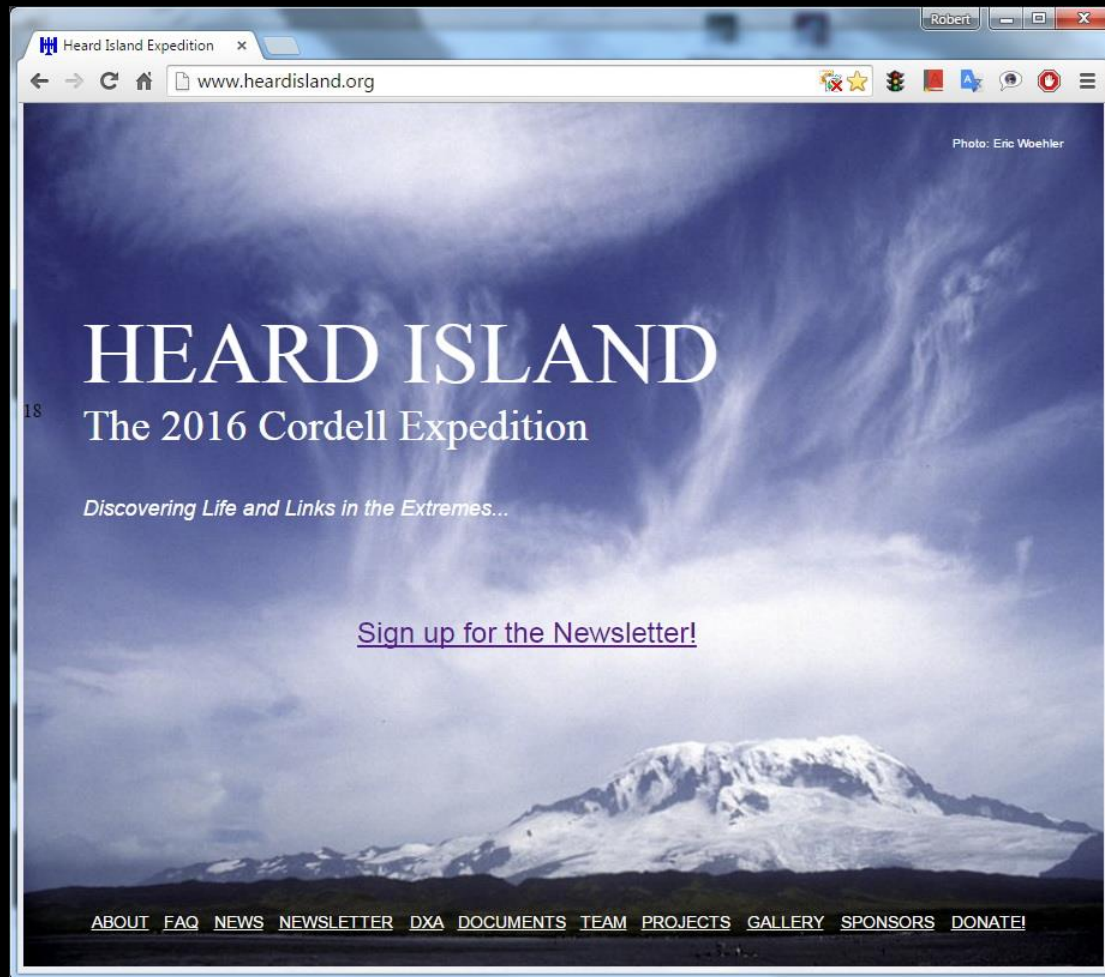
Dr. Robert W Schmieder
KK6EK

Cordell Expeditions
4295 Walnut Blvd.
Walnut Creek, CA 94596

Phone:
(925) 934-3735

e-mail:
schmieder@cordell.org

Website:
<http://www.cordell.org>



www.heardisland.org