



# Sailing in Chilean Patagonia

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To download the latest version visit - [www.tweedsworld.com](http://www.tweedsworld.com)

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# Patagonia

## Facilities

Arica to Valdivia –

Several industrial ship yards and various small marinas all with limited facilities.

There is Quantum sails franchise in Viña del Mar

Valdivia –

Alwoplast & Club de Yates Valdivia

Puerto Montt –

three marinas and basic chandlery with various artisans

Castro –

good anchorage, various artisans, but not set up for yacht support

Puerto Natales –

road access to Punta Arenas

Punta Arenas –

shipyards, efficient customs, **open roadstead & windy**

Puerto Williams –

last port before Antarctica, sheltered, air access to Punta Arenas

Ushuaia (Argentina) – City of approx. 70,000+ people, some artisans, busy yacht dock, **windy**, short hop (20 miles) from Puerto Williams, air access to the north

### Fuel

Major cities around Chiloé and further north; in the south, Puerto Aysén, Puerto Natales, Punta Arenas, Puerto Williams. *In an emergency and at a price in: Puerto Aguirre, Puerto Eden.*

# Chile Formalities

## **On arrival into Chile you have to clear with:**

- Armada de Chile – Port Captains office
- SAG – Agricultural security
- PDI – Border police – 90 day visa extendable by 90-days for a fee or renewable by a quick visit to Argentina
- Aduana – customs – the boat is automatically given one year extendable by one year.

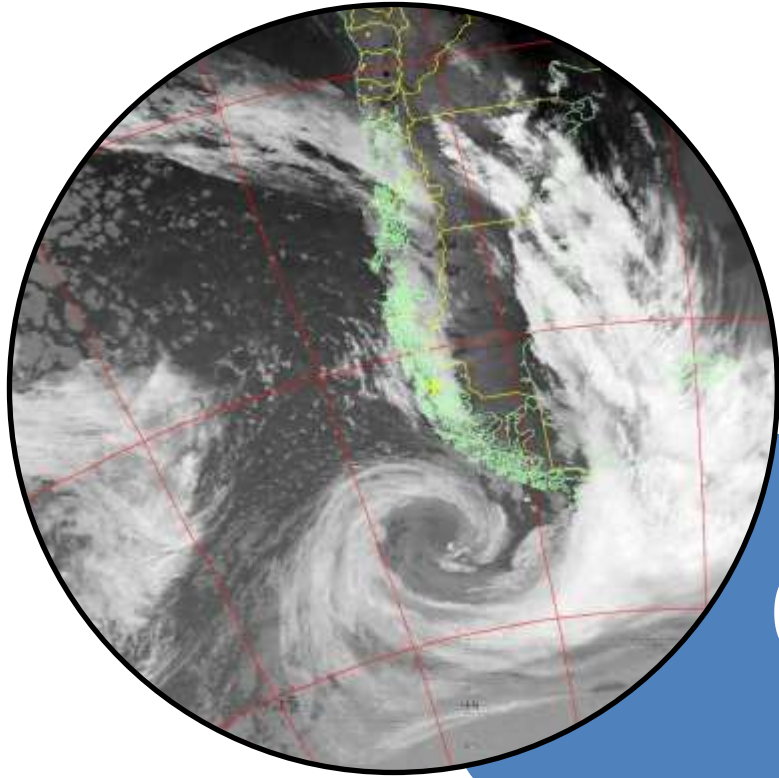
## **Boat movements in Chile are strictly controlled by the Armada**

- Every movement requires a Zarpe listing details of vessel, crew, and itinerary.
- You are required to report your position and intentions twice a day (in practice once a day keeps them happy). Reports are required by email or SSB to the MRCC and to every Alcamar that you pass via VHF.
- If you only have VHF (no SSB or satellite comms) you will only have to report to Alcamars that you pass but your 'permitted' route may be restricted.
- Your vessel may be inspected prior to the issue of any Zarpe – make sure your safety equipment is up to date.

*Note: Reporting seems onerous but it keeps the authorities off your back and once they trust you will give you no trouble. However try to buck the system and they will haunt you.*







# Chile - Weather

**The Patagonian cruising ground includes several distinct weather zones: (Summer Conditions)**

Arica to La Serena – Desert, hot, southerlies

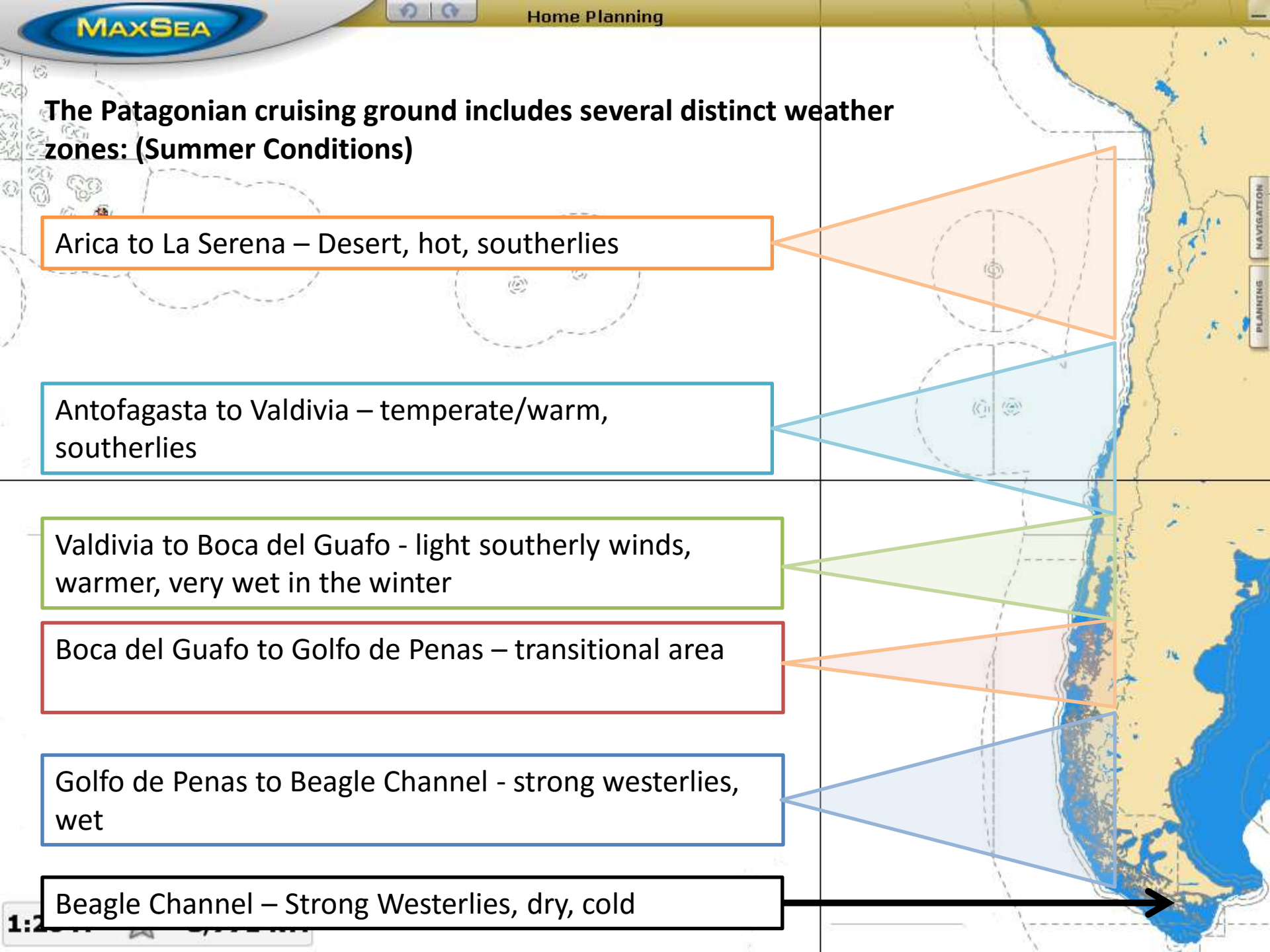
Antofagasta to Valdivia – temperate/warm, southerlies

Valdivia to Boca del Guafo - light southerly winds, warmer, very wet in the winter

Boca del Guafo to Golfo de Penas – transitional area

Golfo de Penas to Beagle Channel - strong westerlies, wet

Beagle Channel – Strong Westerlies, dry, cold



**Often in the channels the wind flow is from high to low pressure along the channels:**

- Ignore the wind direction shown on GRIB files
- Look at the isobars and relative pressure at each end of a fiord or channel.
- The wind will flow along the channel depending on the relative atmospheric pressure at each end, from high to low.
- In the summer the pressure is generally lower in the south therefore expect northerly winds.
- The greater the pressure difference (from one end of the channel to the other) the greater the wind strength.
- The same can apply to West/East channels occasionally surprising you with a strong East wind when you expect the normal westerly.

# Chile – Weather - Sources

## **Armada de Chile website** - text version for mariners

- <http://web.directemar.cl/met/jturno/indice/index.htm>
- English version <http://web.directemar.cl/met/jturno/indice/english.htm>

## **Fax**

### **PLAYA ANCHA RADIO (CBV)**

FRECUENCIA DE TRANSMISIÓN 4.228 8.67717.146,5 MHz, 120 RPM , MODO 576

### **MAGALLANES RADIO (CBM )**

FRECUENCIA DE TRANSMISIÓN 4.322 8.696MHz, 120 RPM , MODO 576

## **Voice**

**Armada radio** from Puerto Montt and Punta Arenas – 4.146MHz usb;

- ship position reports at 8am and 8pm
- weather forecasts by zone at 9am and 9pm

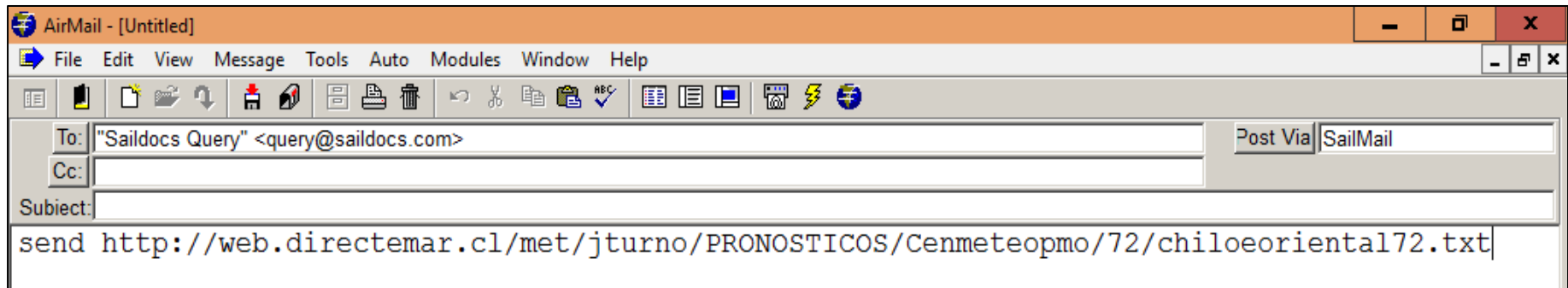
*Any Alcamar station will happily give a weather forecast and local conditions via VHF*

The Armada de Chile have this low bandwidth website especially designed for mariners.

Bookmark the links that you will need or copy and paste them into a text document for use with Saildocs.

# Retrieving webpages with Saildocs

- We were using Saildocs to retrieve the pages from the Armada's low bandwidth web page.
- To use the service send an email to [query@saildocs.com](mailto:query@saildocs.com) like this



*Tip: Save the URLs covering your route from the links on the web page to a document for easy cut and paste access*

## Forecast as retrieved via Saildocs

Sent Via: SAILMAIL.Telnet.WRD719

Date (utc): 2016/04/04 21:21:00

From: query  
To: "S/Y"  
Subject: http://web.directemar.cl...72/chiloeoriental72.txt

URL: http://web.directemar.cl/met/jturno/PRONOSTICOS/Cenmeteopmo/72/chiloeoriental72.txt  
Date: 04 Apr 2016 21:21:10 -0000  
Last-Modified: 03 Apr 2016 21:33:01 -0000

INFORME METEOROLOGICO MARITIMO AREA CHILOE ORIENTAL  
VALIDO DESDE 040800 HASTA 042000 HORA LOCAL.

## SITUACION SINOPTICA:

MARGEN ANTICICLONICO DEBILITANDOSE POR APROXIMACION FRONTAL.

## PRONOSTICO:

DE PUERTO MONTT A ISLA BUTA CHAUQUES. (CH 1):  
NUBLADO VARIANDO A DESPEJADO, VISIBILIDAD 10 KM, VTO W/SW ROLANDO  
AL SE/E 2/8 NDS, MAR LLANA EN BAHIA, RIZADA A MAREJADILLA (0.2/0.5 MT)  
EN GOLFO DE ANCUD.

DE ISLA BUTA CHAUQUES A ISLA SAN PEDRO. (CH 2):  
NUBLADO A PARCIAL, VISIBILIDAD 10 KM, VTO W/NW ROLANDO AL NE 3/9 NDS,  
MAR LLANA EN BAHIA, RIZADA A MAREJADILLA (0.3/0.8 MT) EN SECTORES  
ABIERTOS.

BOCA DEL GUAFO Y GOLFO CORCOVADO. (CH 3):  
PARCIAL A NUBLADO, VISIBILIDAD 10 KM PROBABLES PRECIPITACIONES, VTO  
SW/W ROLANDO AL NW 3/15 NDS, MAR MAREJADILLA EN GOLFO CORCOVADO,  
MAREJADA (1.5/2.5 MT) EN BOCA DEL GUAFO.

APRECIACION VALIDA DESDE 042000 HASTA 050800 HORA LOCAL.  
APROXIMACION FRONTAL, VTO W/NW ROLANDO AL NE 3/12 NDS. EN GOLFO  
CORCOVADO Y BOCA DEL GUAFO, VTO N/NE 10/15 NDS AUMENTANDO AM



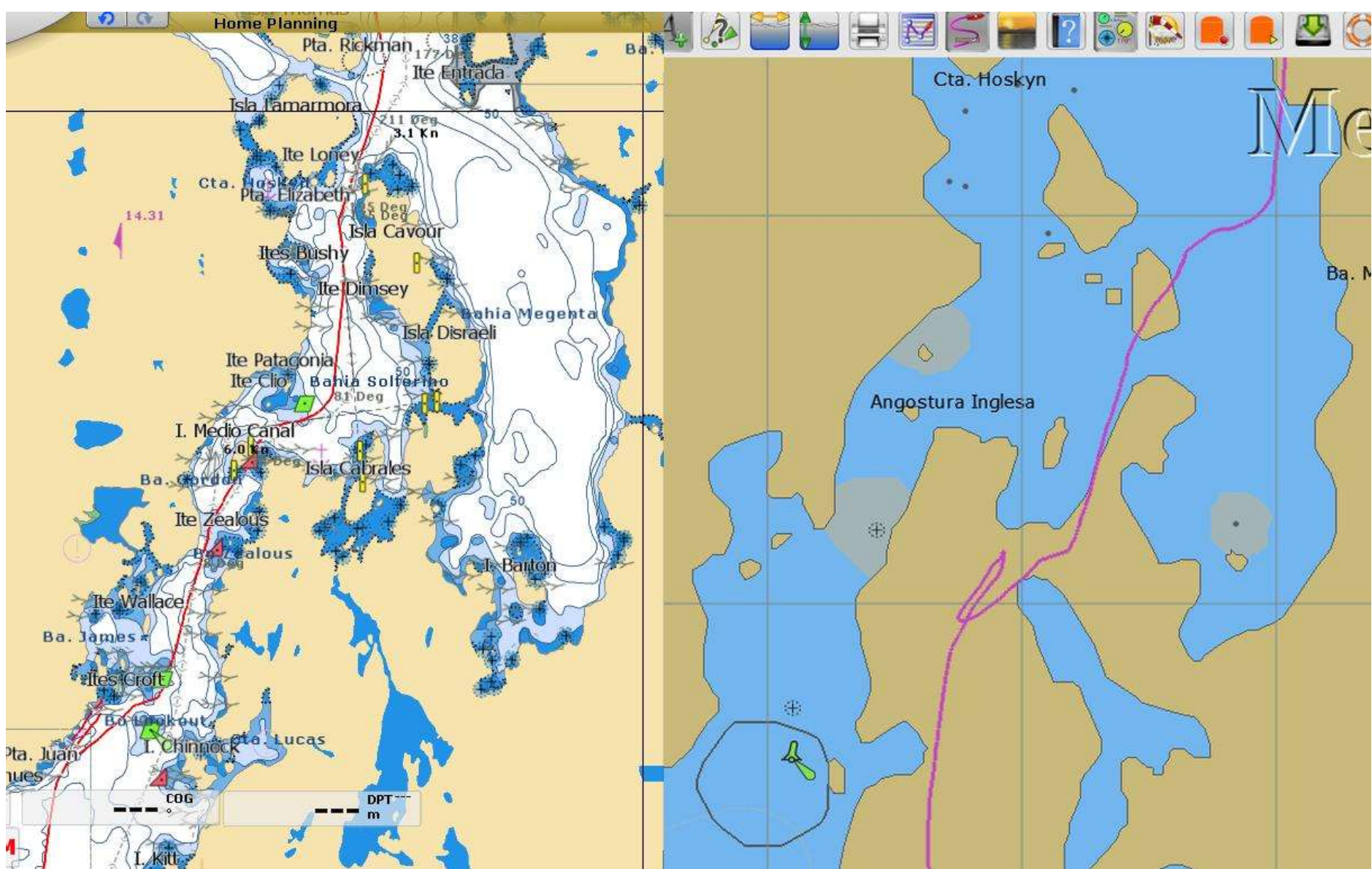


# Charts & Guides

- Armada de Chile – Chart Atlas and selected paper charts
- C-Map – pirate version in common circulation is OK, but has significant errors and lacks detail in some areas.
- We found, current, Jeppesen C-Map in MaxSea to be very accurate.
- Navionics charts are OK and good value for money on a tablet.
- Whatever system is used note that a lot of the small caletas and anchorages used are not charted.
- Charts made from satellite images can be very useful – *we made our own from Landsat images in the Chiloe area so that we had up to date information on the aquaculture infrastructure.*
- RCC (IMRAY) Chile cruising guide (ISBN 0-85288-721-3)
- Patagonia and Tierra del Fuego Nautical Guide – Giorgio Adrizzi & Mariolina Rolfo (ISBN 88-85986-34-X)

# Latest information

- Cruiser's Wiki – Chile <http://www.cruiserswiki.org/wiki/Chile> this has a lot of up-to-date information from Frank Holden of “Westerly Serenade”.
- Noonsite – Chile <http://www.noonsite.com/Countries/Chile> has a clunky update method and tends to lag but occasionally a gem appears
- Our notes from our last trip - <http://www.tweedsworld.com/destinations/>
- The RCC Pilotage Foundation occasionally published updates to its guide <http://www.rccpf.org.uk/>
- Other than that Google is your friend



Jeppesen C-Map (left) in MaxSea compared to the pirate CM93 C-Map (right) in common use.

Chart made from Landsat panchromatic image – resolution 15m



Instruments

Clock	23:01:31 UTC
Position	23 06.804 S 134 58.003 W
Depth	---
COG	266°
SOG	0.23 kts
True Wind Dir. & Speed	
True Wind Speed	---
STW	---
True HDG	---
Sum Log	---
Cursor	42 17.579 S 073 08.896 W
From Ownship	110° 3315.07 NMi

Chart made from Landsat false colour – resolution 30m



Instruments

Clock  
23:06:14 UTC

Position  
23 06.802 S  
134 58.000 W

Depth  
---

COG  
13°

SOG  
0.44 kts

True Wind Dir. & Speed

True Wind Speed  
---

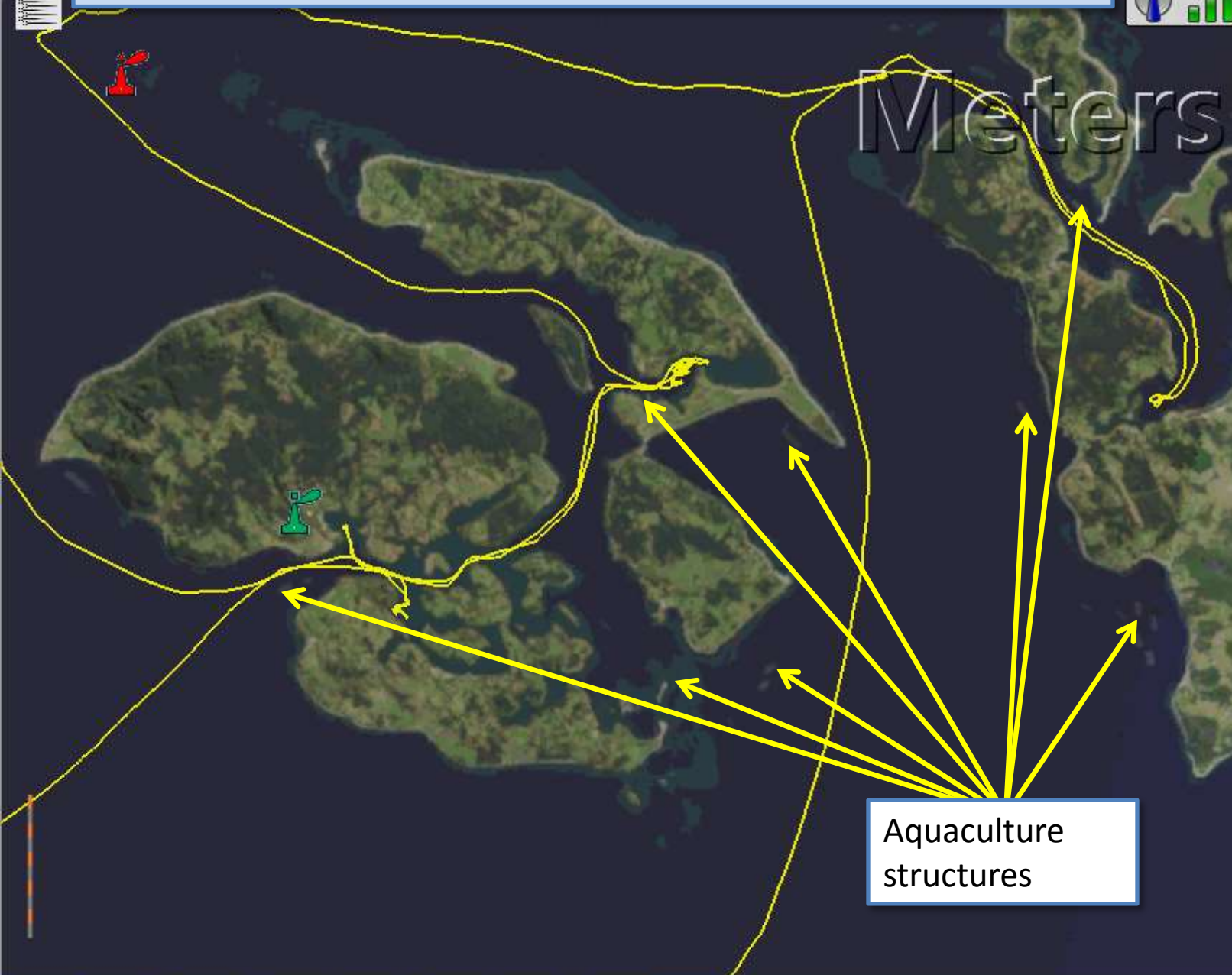
STW  
---

True HDG  
---

Sum Log  
---

Cursor  
42 19.028 S  
073 11.496 W

From Ownship  
110°  
3313.06 NMi



Aquaculture structures









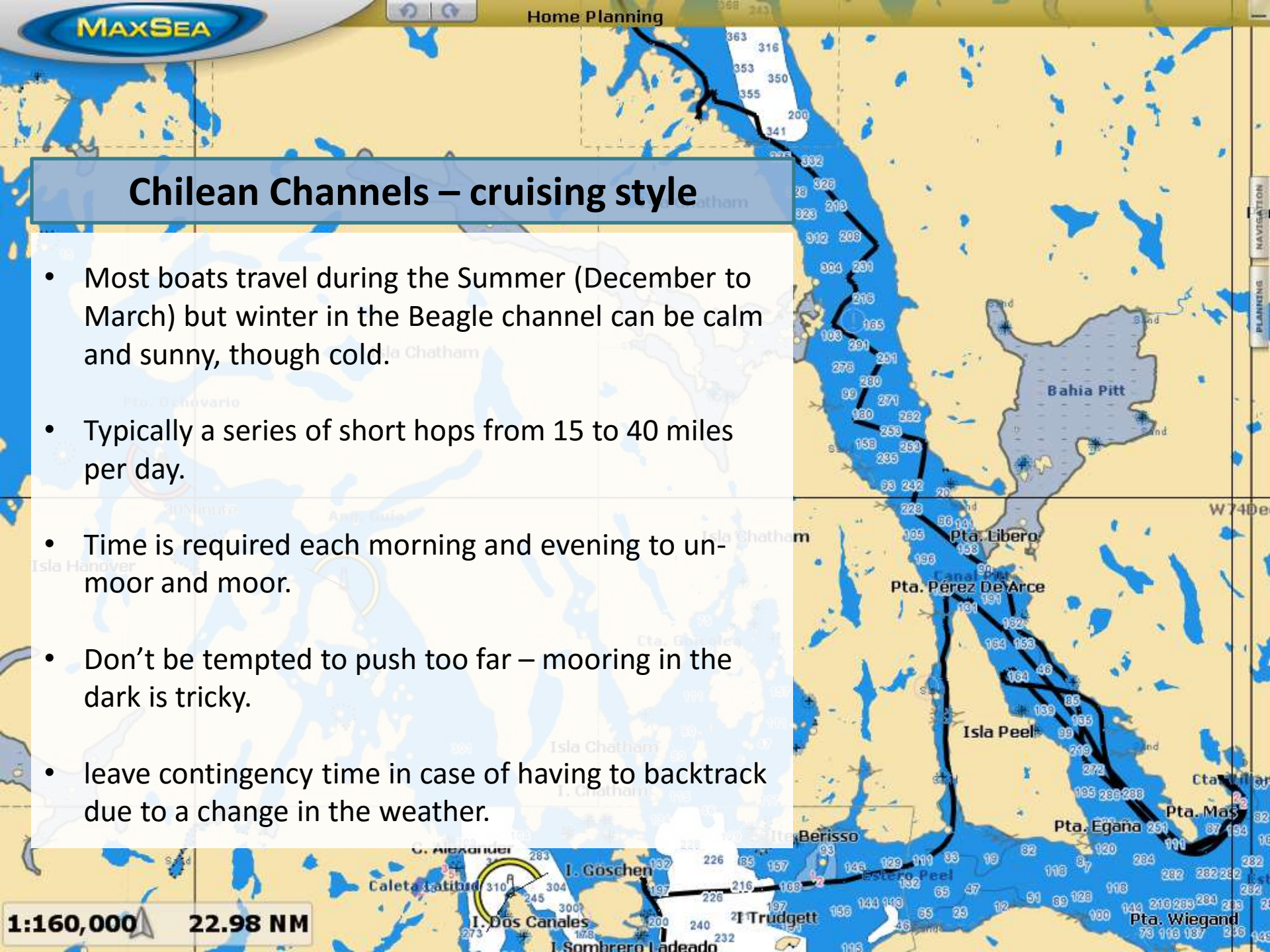
# Chile - Dangers

- The weather – always frontal and very changeable.
- Geographic isolation – the distances are big and there are thousands of channels making a search and rescue operation difficult.
- The area from Golfo de Penas to the Magellan can be considered uninhabited.

*These last two factors are part of the reason that the Armada requires the daily position reports.*

## Chilean Channels – cruising style

- Most boats travel during the Summer (December to March) but winter in the Beagle channel can be calm and sunny, though cold.
- Typically a series of short hops from 15 to 40 miles per day.
- Time is required each morning and evening to un-moor and moor.
- Don't be tempted to push too far – mooring in the dark is tricky.
- leave contingency time in case of having to backtrack due to a change in the weather.



# Going Ashore

- Always be prepared for a major change in the weather and possible stranding.
- Be very conservative in hiking routes and risk taking in general – there is no rapid-response rescue service on standby.
- Prepare a shore barrel containing:
  - First aid kit
  - Survival blankets or TPAs (Thermal Protective Aids)
  - Fire lighting kit
  - Flares
  - Tent or bivi shelter of some sort
  - Food
  - Torch (flashlight)
  - PLB (Personal Locator Beacon) – if you have one
  - VHF handheld radio
- Consider leaving a note aboard your vessel advising any searchers your intended route and your expected time back – remember to date it.

# Equipping your vessel

The primary equipment required is:

- **4x 100m polypropylene lines** (try to have two of them 120m long) – *At least one should be on a spool so that it can be deployed very fast otherwise they can be stored in bags or plastic barrels or baskets.*
- A properly equipped cruising boat shouldn't have to upgrade its **anchor** but think about whether your system is heavy enough (depths are typically about 10 - 15m at drop point).
- **Kelp knife** – The best is a sharpened garden hoe.
- **A robust tender** that you can run up the beach in a hurry.
- **Heater** – Climate is cold and very wet in the middle sections. Most boats that can afford a choice use a carburettor controlled diesel heater such as Refleks or a Dickinson. These are simple, reliable and field maintainable. A car heater can also be installed on the engine cooling circuit for free heat from the engine.
- **Insulation and double glazing.** You may not be able to do much about the insulation on your boat but you can improvise double glazing over the hatches and windows using thin acrylic, heat shrink wrap or even cling film (thermal curtains also work).
- **A drying area for your foulies** and hiking equipment is really nice to have – we have a hanging space behind the Refleks heater.
- **Protected steering position or a good dodger** (that you can leave up all the time) keeps the wind and rain off.
- **Spares for all the vital systems:** including a spare starter motor and alternator for the main engine if not already carried. Consider carrying a spare propeller (especially if continuing on to Antarctica). Spare propellers for your outboard motors.

*Note: Personal experience with forced air heaters shows that they give trouble in cold climates unless the fuel is pre-heated i.e. it must be warmer than bilge temperature.*



The “kelp knife” is used for clearing the kelp off the anchor.

Some people use a machete or a knife lashed to a pole but my preference is to use a garden hoe; the hoe is cheap and robust and easier on your arms and back, and boat!

When the anchor comes to the surface there can be a large ball of kelp hooked in it – **Do not try to lift this with the windlass** as it can weigh Tonnes!

Bring it to the surface and sever the strands of kelp that are under tension over the anchor)

Photo: The kelp knife in use - This one is a serrated knife attached to wooden handle. (this is a small catch!)

*Photo: Wolfgang Zeiler, Westerly Serenade*

# Equipping yourself

- **Good strong foulies** that can stand stones, trees and thorns when you tie the mooring lines (visit the industrial clothing stores).
- **Rubber boots** with good sole for landing to moor, we like Muckboots.
- **Fishermen's gloves** are good for line handling.
- **Mountaineering gloves/mitts** are good for general non-wet work such as steering in the cold.
- Plenty of **warm, windproof, beanie style hats**.
- **Ski goggles (or industrial safety goggles)** for steering in driving rain or spray.
- **Windproof hiking gear** – remember that the windproof fleece has not yet been invented.
- When hiking the going can be wet therefore **waterproof footwear** is good. We use the Muckboots for short/moderate hikes.

*Note: Find gloves and hats that you like, cheap industrial ones, and buy plenty. You will cycle through a few pairs (one pair wet, one pair drying, one pair on) and inevitably loose some.*

# Provisioning

- Once south of Chiloe there are no provisions to be had until you reach Puerto Williams or call at Puerto Natales or Punta Arenas.
- Water is available from waterfalls, or rain, the channels are clean so no problem for a watermaker.
- The water is cool so the bilge becomes a giant fridge.
- Fish, crab and shellfish is sometimes available by barter from fishermen (white wine in 1 litre tetrapaks), or catch your own.
- There is red tide in Chile south of Valdivia, so use caution when getting shellfish from the fishermen (if they are eating it then it should be OK) and never gather your own.
- Puerto Williams has only the basics but you can order via the shops for delivery on the weekly ferry.
- Ushuaia has everything that you need with big supermarkets including Carrefour and La Anonima



Mooring

# Choosing a mooring

- If the weather is settled **consider swinging at anchor.**
- Look at the vegetation – **tall straight trees indicate low wind areas;** which can be very restricted.
- **Look for kelp** – this marks rocks generally less than 3m deep.
- Kelp is also a great natural breakwater.
- Look again at the trees and look for easy access at least to one either from the dinghy or that is easy to walk to.
- Learn to recognise **Canelo trees** – they are very strong and well rooted, even one with a 10cm diameter trunk will easily hold a 30 Tonne boat.
- ***Only tie to live trees; check that the trunk or branch that you are tying to is indeed part of the tree that you think it is.***



# Our mooring technique

- **Nose into the caleta to check:**
  - Depth
  - Current
  - Shelter, study the trees and vegetation patterns
  - Hazards, kelp, rocks, etc..
  - Choose suitable trees to tie too.
  - Choose the anchor drop point (and remember it or mark it on your GPS)
- **Brief everybody** – anchor point, final vessel location & orientation, first line and to what tree.
- Get the tender over the side and towing alongside ready to go.
- Get the mooring lines ready to run with chafe protection in place.
- Back into the caleta dropping the anchor at the pre-chosen point and setting it firmly (ensure that the anchor is set before sending the first shore-line ashore).
- Helmsman keeps boat in position
- Crew dinghy ashore with the first stern rope and tie it.
- Tighten mooring line and relax
- Run out second stern mooring line.
- Put out bow lines if required.

*Note: the water is cold, wear lifejackets, make sure that kill cords are used on outboards. **We always tie the dinghy to the operator with a long painter and attach the mooring line to the crew.** That way if something goes wrong the crew remaining on the boat can haul the tender and crew back alongside and you won't lose your vital dinghy!*

*With the crew tied to the dinghy like this there is often no need to tie up the dinghy on reaching shore. It can simply be abandoned while the crew ties the mooring line to a tree.*













# Flora & Fauna



















Christopher James Harris



# Things to see and do

- Chiloe – palafitos, churches, thermal spas, eat curanto
- Glaciers, San Rafeal
- Puerto Eden, Puerto Aguirre, Puerto Aysen
- Follow Tillman's journey
- Puerto Natales
- Beagle – Fiords around Darwin range, hiking, eat Centolla (king crab), read Lucas Bridges, Charles Darwin, Fitzroy.





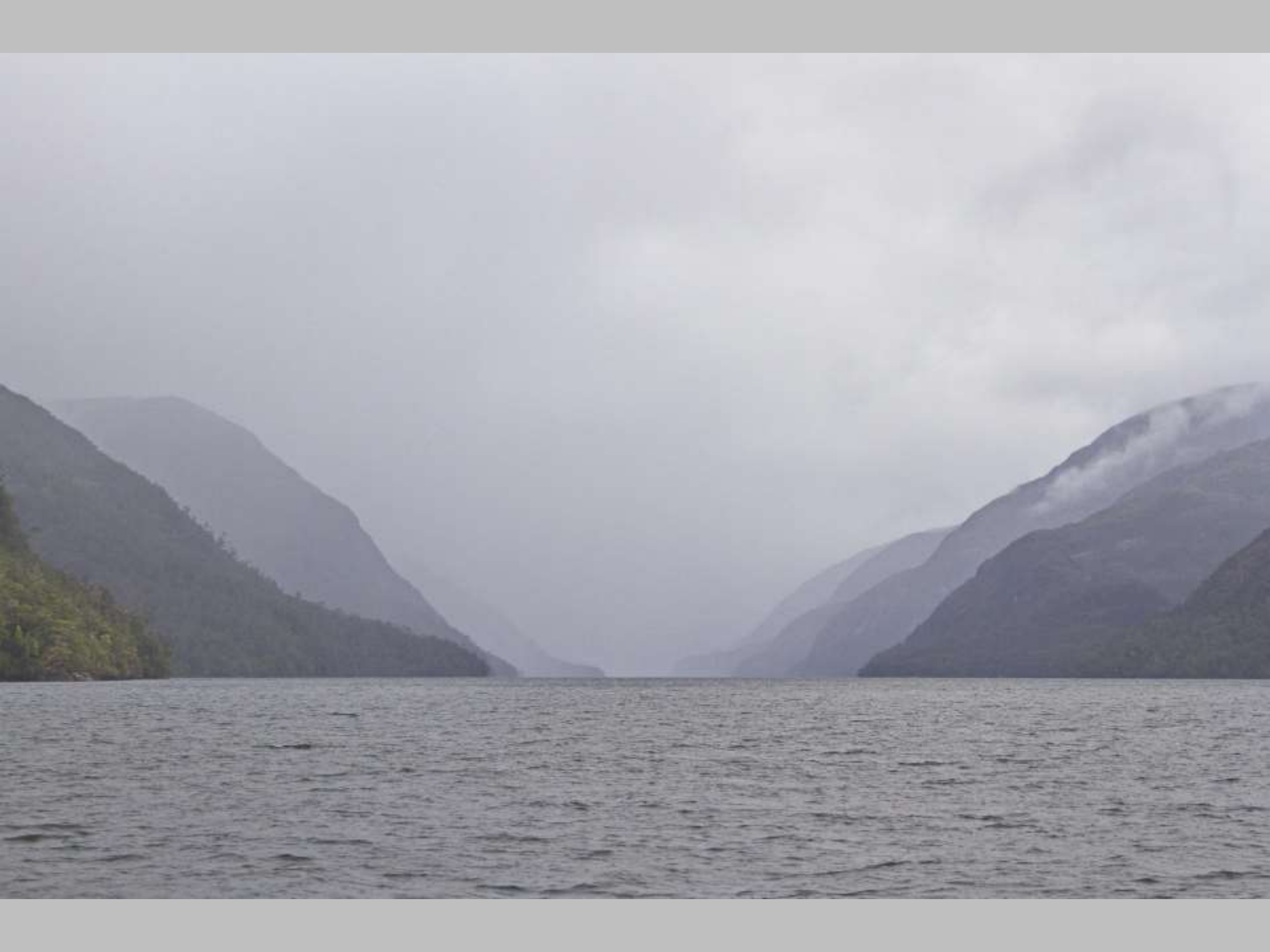




















PUNTA DE LA TIGRE "PUNTA"  
ESTE MONUMENTO COMEMORA EL PUNTO DEL  
PUNTO EN DON DON PUNTO VUELTA  
DESDE EL AÑO "COMUNISTAS" A LOS  
MEDIOS DE LA EXPEDICIÓN MARINERA  
DE DON EMERSON DURANTE LA  
ERA TIGRE, ANTANIO CUBANA,  
EL 10 DE AGOSTO DE 1910.  
DISEÑADA POR LA ARMADA A LA UNIDAD  
DE PUNTA ANTERES EL 21 DE MAYO DE 1910.







CHORITOS  
\$2000  
Kiko

MALTON  
CHAIHUIN  
\$1000  
EL Kiko

ALMEJAS  
Y JACIS  
\$1500

ERIZOS  
\$500 c/u

PICOROCOS  
\$500 c/u

CHOLGAS  
\$1000  
EL Kiko

PIURES  
ROSCOS





























# Books

- The Uttermost part of the Earth
- This thing of Darkness
- Voyage of the Beagle
- Tillmans “Eight Sailing and Mountaineering books” – Available as one volume
- Flora of Patagonia
- Birds of Chile – Helm field guide
- A Complete guide to Antarctic Wildlife



Where it all either begins or ends. The Club de Yates Micalvi, Puerto Williams, Chile. – Enjoy your voyage!