

Floating your chain – What is that?

<https://www.spiritofargo.com/2019/08/14/floating-your-chain-what-is-that/>

This is a very good description on how to anchor in coral. Written by Cain & April on SV Spirit of Argo. I have added our comments at the end of their write up with tips from floating our anchor chain while spending a year in the Tuamotus - Jacaranda

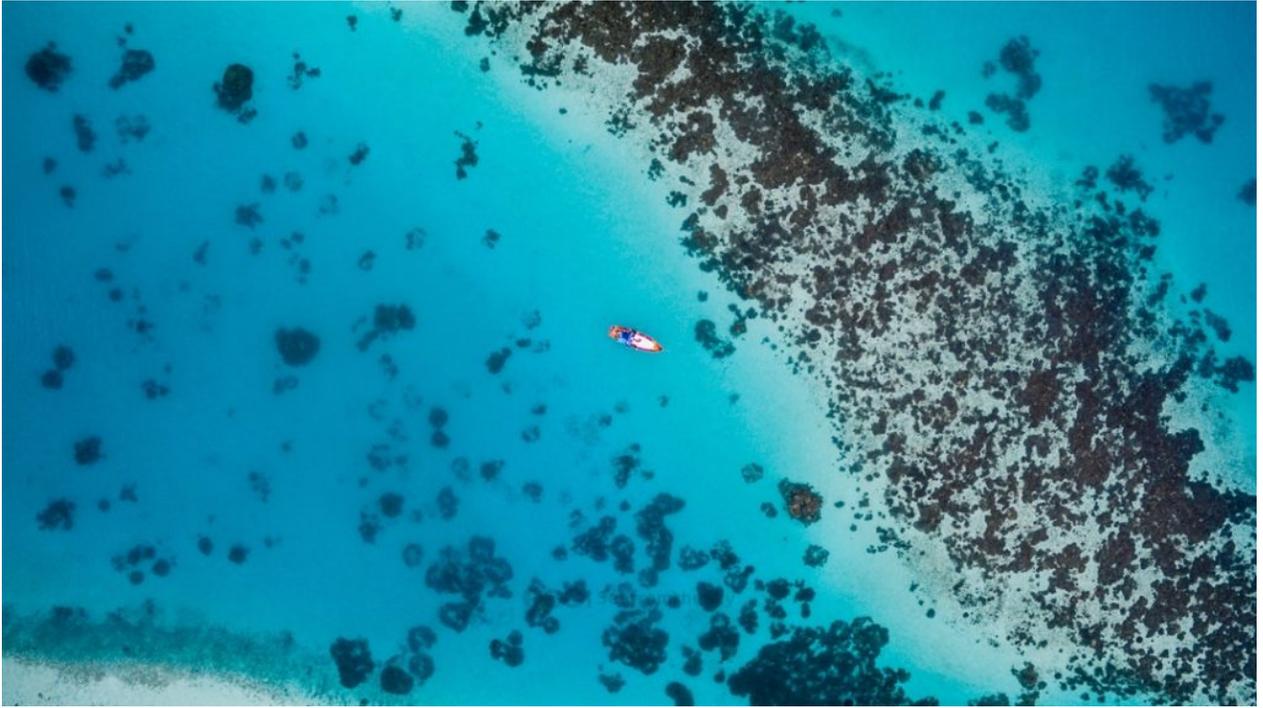
Who says you cannot teach an old sailor new tricks?!?!

We have had to do just that, to enjoy anchoring in the Tuamotu Atolls of French Polynesia. Not sure if any of you guys will get out this way, but I thought I would share some ANCHORING tips for the area. You can never stop learning! The rich waters of the lagoons of the Tuamotu Atolls produces some of the most wonderful hard corals. They grow just about anywhere they can get a hold and enough sun light, and as the waters are so clear here, everywhere is scattered with coral heads!



Great for snorkelling and diving, but a nightmare for ANCHORING. Every sandy spot , shallow enough to anchor in, is scattered with coral heads. Some are

pinnacles that reach close to the surface, some twisted forms a few metres high and others short and doomed.



If a boat anchors in 10m of water and drops 30-40m of chain they will quickly decimate hundreds of years of coral growth. If that is not enough, the 20-30m of chain on the bottom will surely get wrapped around, under and through loads of coral heads.

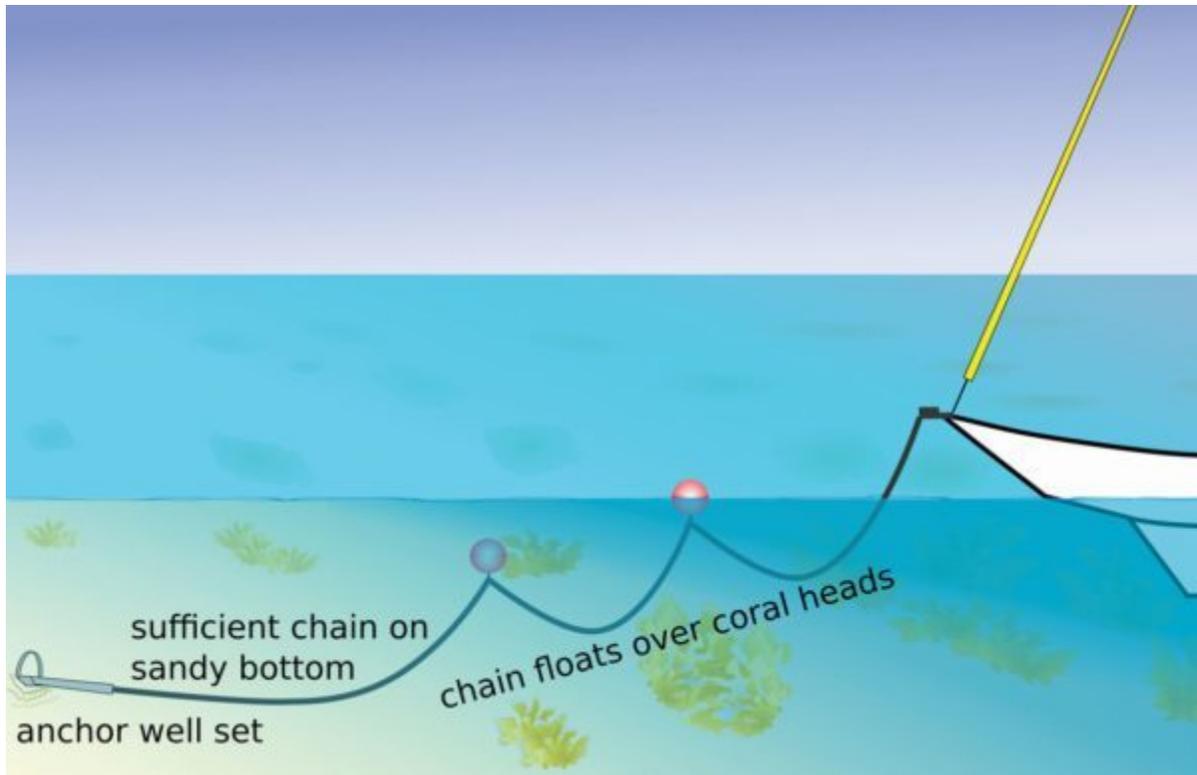


We have heard real stories from fellow cruisers that have needed divers to get their chains free. Terrible stories of boats riding out a windy spell and watching in horror as the waves get up, but the chain to their bow gets shorter and shorter with each wind shift. Some boats have run short of chain and done damage to their bows. So what can you do?

FLOAT YOUR CHAIN

As long as you have a good anchor, this is the only way you can safely anchor in most places in the Tuamotus. You just use floats or fenders to suspend the chain above the coral heads so they can not get wrapped around.

Sounds easy? But there are a few things you have to get right from the start and there are a few mistakes we made you can learn from.



FIRST STEP patience. You can not rush in after a sail and just drop the hook at any good depth. You have to have a 'look about'. The biggest shallow bommies will be obvious. You are looking for a clear sandy spot well spaced away from them. You also want to look at the margins of your sandy spot. You want to avoid any coral pinnacles or larger big tall coral clumps close by your sandy spot. Lower small coral heads are fine. It may take a little time to find a good spot, so be patient.

SECOND STEP. Drop the hook and set it with double the depth. If the water is clear, you can check that the anchor fell in the middle of your sandy spot. My humans like to jump in with a snorkel and a mask to check on the anchor, chain and coral head heights. If you are not happy, lift anchor and try some where else. You will sleep better if you know your anchored well!

THIRD STEP. Happy your anchor is set with good enough turning space? Now slowly lift back up 1/4 of the chain you dropped and hook on the first float. Then continue adding floats 5-10m apart (depending on depth) as you let out your scoop.

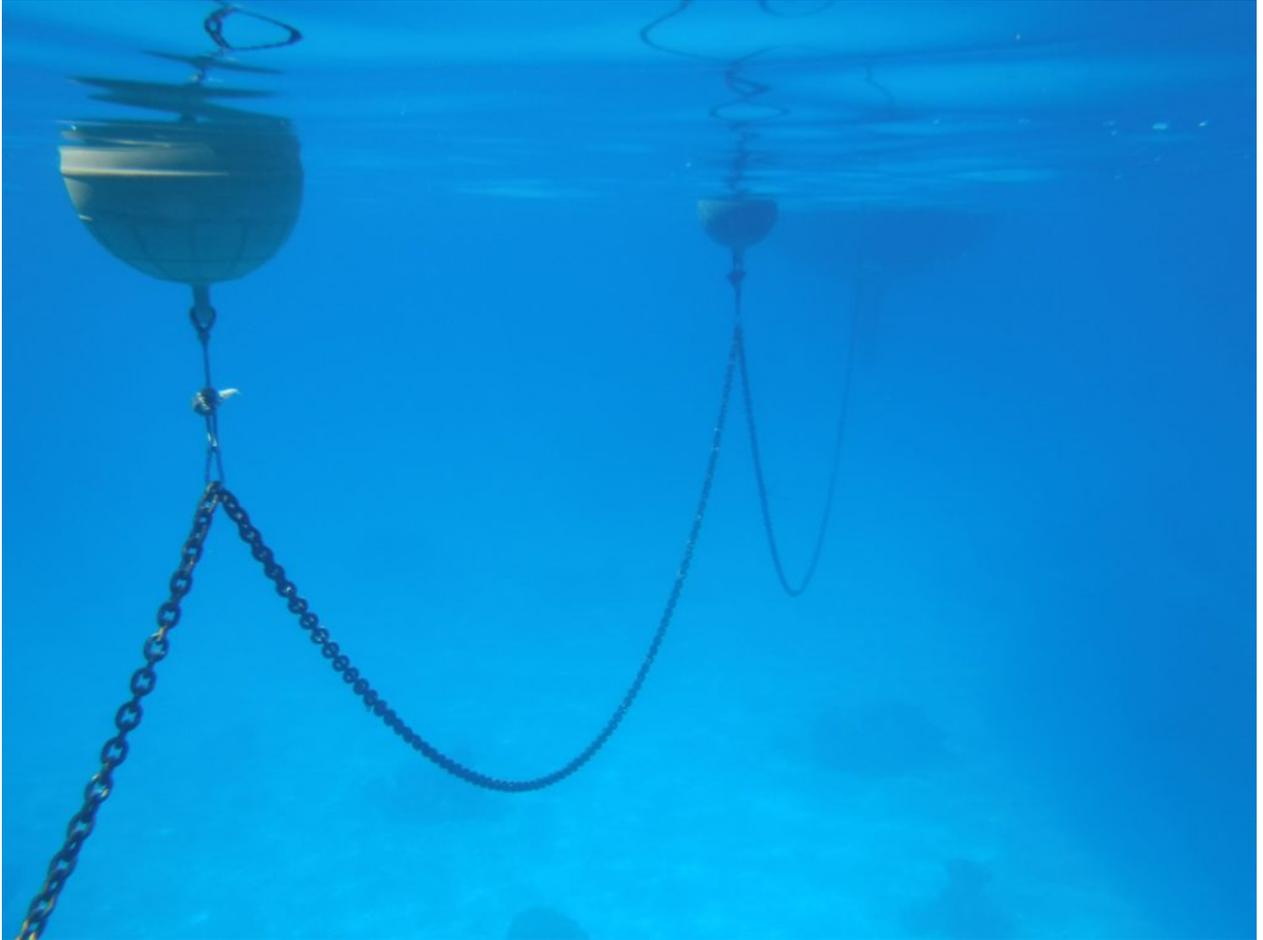
Easy and you are all safe and soundly anchored now.



TIPS WE LEARNED

First step. You have to have patience and be willing to look around to find a good sandy spot and to make sure the anchor lands in the middle. It is the hardest part!

Floats. We first used fenders, but had a few problems. First the fender lines got wrapped around the chain and were difficult to untie. We shortened the fender lines by making a loop knot and used clips that fit through the chain. The hooks were great as they were so easy to clip on and off. The fenders continued to cause problems. They were compressing under water, getting sea growth on them and a few even started to take on water. As soon as we sailed to the Tuamotus we found an abundance of pearl farm buoys on the shore lines. We swapped out our fenders for these and have not looked back.



Keep the spacing between the buoys short. Depending on the depth and how many buoys you have we try to keep them 5-7m apart. Our chain is heavy and we seem to need them that close together, especially near the anchor. The close spacing also seems to stop the chain tangling in light shifting winds. Despite the spacing of the buoys, they do sink when the wind gets up and the anchor chain is pulled tighter, giving you the angle you want to keep the anchor bedded.

Hope this is interesting for our family and friends and helps out anyone heading this way.

Additional suggestions to Spirit of Argo's great document

Jacaranda's year in the Tuamotus

We have anchored 400+ times floating our chain and did it about 99.9% of the time while in the Tuamotus, French Polynesia. A few times with some drafty conditions of 45+ knots. No issues.

This is how Jacaranda anchors in coral

For this example the water depth is 30' and we use 3 floats

1. First pick a spot that your anchor and a length of chain is clear of coral
2. Drop the anchor and back up as normal
3. Set the anchor with full power and close to full scope needed.
4. Then slowly pull the chain in with the windlass until you reach **1 1/2 times the depth** and hook a pearl float with a snap shackle or carbine. 1st pearl float would be at 45'
5. Continue to slowly let out more chain. Depending on the depth we hook another float up 70'
6. Another float at 100'
- 7 Finally the boat ends up with 120' of chain including the snubber

The key to keep in mind is clearing the coral with the chain if there is no wind and all the floats are side by side. Also if the coral is pinnacles we put the floats closer together to get more lift to the chain for example on the east side of Ahi.

In the example above with no wind - 45'-70' with both floats side by side you would have about 18' hanging straight down and about 20' of chain on the bottom.

Depending on depth not all floats will be at the surface. More wind less floats on the surface as the chain stretches out and the boat moves back.

You need to jump in the water and watch what happens as the boat moves around and pulls back. It will become very apparent where the floats need to be. Deeper water often we would hook 2 floats close together for more lifting power

Quick disconnects

We use SS caribiner or snap hooks to clip on the anchor chain and a short pennant from the chain to the hook. We use a long enough pennant to allow the clip to come over the anchor roller and be disconnected. This allows the float to either be in the water or close to it. Then we reach over and pull the float in over the life lines. Lay it on deck and clip it to a life line. Does this slow down pulling the chain in?? - after some practice it's not much extra time. It is important before purchasing the caribiner hooks to insure they will fit thru the chain link.

Deeper water

We will add fenders closer to the boat in addition to the pearl floats. This is if we are in deep water (say 70-90') and do not have enough floats to safely keep the chain up. By using the fenders closer to the boat they will not sink and compress. Most all of the floats will be below the surface due to the weight of the chain.

The boat will have a tendency to swing around much easier since there is not a ton of chain on the bottom. We often jump in and swim the circle with a hand held depth sounder to make sure you will clearly pass over any obstruction.

If we see or hear the chain hooking or grinding on coral we move immediately..

Lastly a point which is never discussed is that coral can grind off your galvanizing on the chain in very short order. Since there is NO galvanizing plant in French Polynesia and the only place to buy new chain is Papeete another reason to float chain. We recently replaced our 35 year old chain in Tahiti -- 23 years full time cruising We did have it galvanized 4 times

Some additional information

<https://www.pitufa.at/2017/05/anchoring-around-coral/> Another excellent write up on anchoring in coral from friends on Pitufa

<http://svsoggypaws.com/files/Tuamotus%20Compendium.pdf> Section on floating chain

<http://svsoggypaws.com/files/Gambiers%20and%20Australs%20Compendium.pdf> Section on floating chain