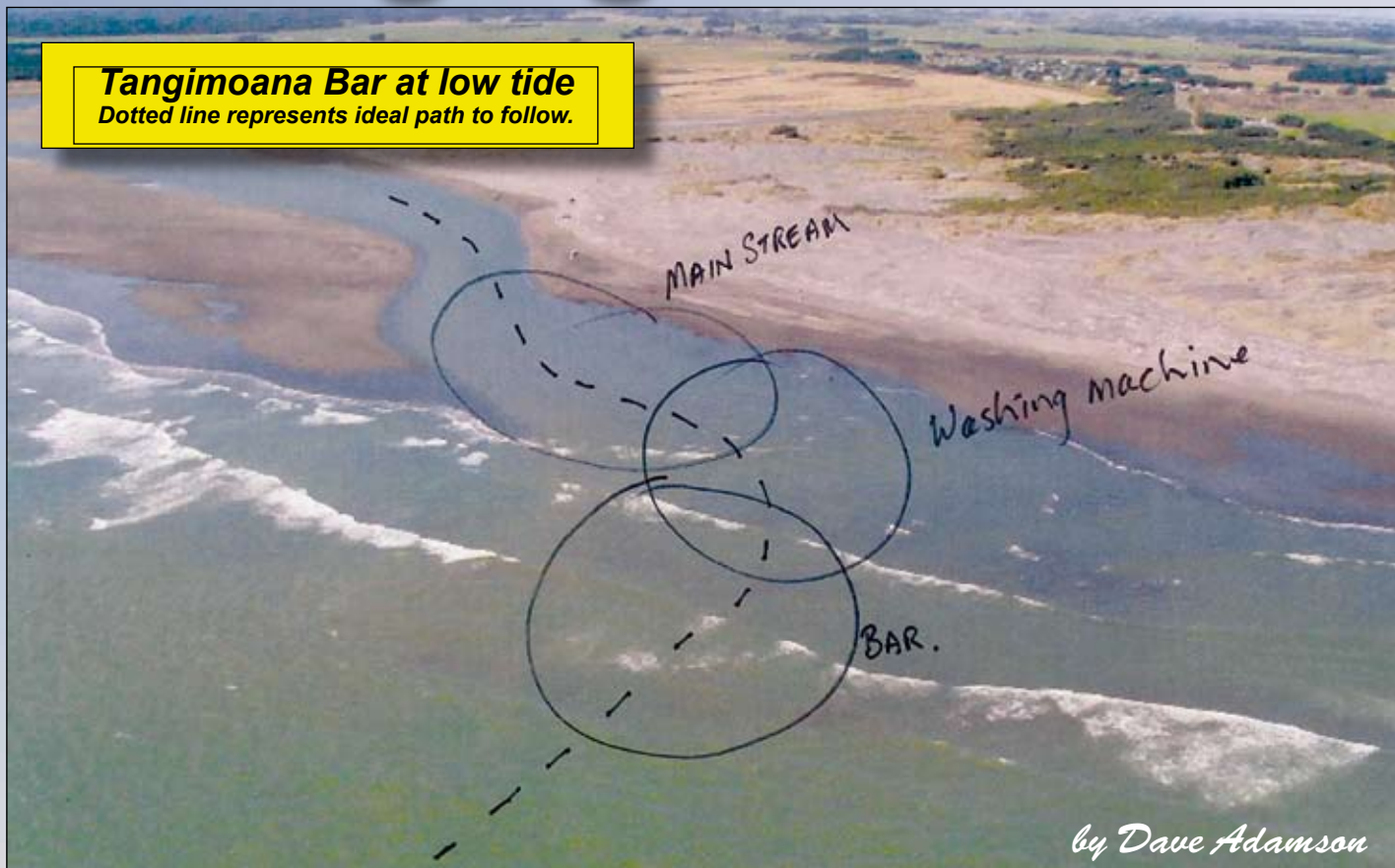


# Changing River Bars

**Tangimoana Bar at low tide**  
Dotted line represents ideal path to follow.



*by Dave Adamson*

**F**OR many, crossing a river bar can be a rather un-nerving exercise, venturing almost into the unknown. The reputation of New Zealand river bars being dangerous is not without foundation. There are many places throughout New Zealand where reasonable access to the sea for boats is via a river bar. However, with an understanding of what makes up a river bar, and using good and safe techniques, river bars can be easily crossed.

To define, 'River Bar' is the general term given to the area where a river flows into the sea. In most cases the river bar will be affected by tides, river flow and weather. A river bar is made up of three prime components, namely: the main stream of a river, an exit channel, usually formed through the natural surf line and an outer 'self' formed by washings from the river, primarily made up of silt, sand or mud.

The main stream will have a primary channel and shallow areas, snags like sunken logs are frequently found and can be a hazard to the unwary. The main stream of the river is often tidal, relatively calm and, depending on the river size, flow volume and tide have a moderate current flow. On the incoming tide the current is likely to be relatively low; however on the outgoing tide, especially from half tide to low tide, the current can be high. This again is dependant on the tide and the difference between the high tide height and the low tide height. A higher current flow will occur during spring tides and a lower flow during the neap tides. It is often a good practice to know what the tide height is before venturing out.

The 'exit channel' is the deepest part of the bar where most of the water will flow on its journey to the sea. It is also the place where we will cross and characterised by the surf being lower and less frequent and often experiencing quiet periods. During the out going tide there

will be pressure waves between the surf line and the quieter water of the river. They are waves formed by the incoming wave action from the sea fighting against the current flow of the river, they will also appear to not be moving but just popping up and down or even just sticking up and staying there. Boaties often refer to the pressure waves as the 'washing machine' a description I have always felt very apt.

The outer shelf is the bar proper, an area of water where the depth is much less than the surrounding water that protrudes out to the sea. It is not uncommon for the shelf to have a depth of water that is less than the exit channel. To me this is the most dangerous part and the most challenging. This is where you will find those nice curlers that the surfers so cherish. The larger waves on the shelf are caused by the rapid change of depth, they tend to be much bigger and far less predictable. During the off shore wind conditions they will often stand up for some time before breaking. While the waves can tend to be unpredictable there will be a pattern and there will be quiet times.

The river bar as described above will not always be the same as the speed of the river flow and the general weather conditions will cause changes. During periods of higher than normal river flow or flood the waters will want to take a straighter path to the sea. The channel may widen considerably or even take a different course. In some cases a second channel can form. During the spring tides the channels will tend to tidy up especially if the sea is up at the same time, the channel will be better defined and nicely flushed.

Many of the river bars have a tendency to change their course over time, my general advice is to have a good look at the bar from the shore prior to making any attempt to cross, it will give you a good idea of where to cross and what the bar conditions are for the day and also any changes that may have occurred since you were last there. The accompanying photo attempts to graphically show the components of a bar. The picture was taken on what we would normally describe as a quiet day. In my next piece I will describe some of the techniques I use when crossing the bar.



# Locals to the Rescue...

by Dave Adamson

**SOMETIMES wonder just how we can impress upon the younger generations, the importance of the basic safety requirements in small craft. The most vulnerable being those who are new to boating. The boat will most likely be second hand, quite old and consequently mean that the reliability of the equipment will be compromised. They will have spent every cent just to get the boat and make it float with little cash left for anything other than a few litres of fuel.**

Will the day come when a boat cannot be sold without life jackets and radio?, And what of the operator, should it be mandatory to have some basic training? And if the law is changed to accommodate these ideas will it make any difference.

One nice day in Tangimoana, the sun was shining, it was warm with an offshore wind of ten knots; the high tide was due at 10:30. Several of the locals had taken the opportunity to go out for a few hours of fishing, myself included. By 1:30pm most of the boats had made it back across the bar and as usual I was one of the last in. As I came in across the bar I saw a small vessel happily skipping out, "leaving it a bit late", I thought, however I knew that he would have an hour and he did not seem to be going far.

It just so happened that, being such a 'nice' day, it was decided we would have a jetski training session. There was plenty of time so out came the jetski and those of us who dared, had a go at getting across the bar and back as the tide fell. Several of the locals involved with our little session noticed that the small boat that had left earlier was still out there, about a mile and a half north and half a mile or so off shore.

With the jetski session over and all put away it was time for two of our locals to do a net recovery which would involve launching off the beach in a tinny. Several of us would be there to watch as its always a lot of fun. About the same time one of the group saw what appeared to be something in the water near the small boat we were keeping an eye on. A view through binoculars confirmed what we thought; there was a person in the water by the boat. The call went up immediately, the tinny

manned by two of our most experienced people, clad in wetsuits and life jackets, were called on VHF and diverted to go directly to the boat in question. SAR was notified and the jetski called for. A rush home was made to get the ski and a fuel tank. With the tide out, the ski would be the only vessel that would cross the bar. Refuelled and launched in the river it was made ready. Meanwhile the tinny had made it to the boat, the person in the water was recovered and the passenger also. The boat was left at anchor and the tinny returned to the beach with two quite distressed individuals delivered from the boat to a police reception. The jetski was then sent to tow the boat back home again to a beach landing.

So what of the two in the boat? Just one life-jacket between them, no radio or cellphone, no communications device at all. The engine that would have been 30 years old if it was a day had failed to start. Spare a thought for the man in the water, he was ambitious to say the least, with a rope around one foot and swimming toward the shore towing the boat against a 10knot wind !

And so to the real cause of the problem, how do we prevent this from happening again? Those guys were not just lucky they were VERY lucky. Education has to be the key, I for one would be an advocate for basic boating training and basic maritime law to be parts of our school curriculum.



## WARNING

The Tangimoana bar information is supplied in good faith with the proviso that you should ALWAYS check local conditions, and potential changes in the line of the bar, with experienced local operators.