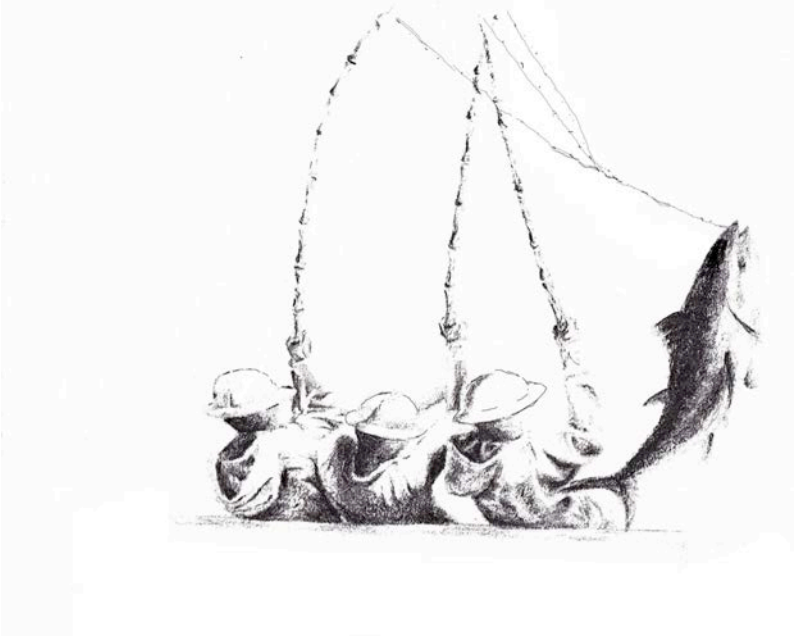
MFV Tacoma

and the

HALDANE FAMILY



commercial fishing industry

PREFACE

In this narrative I have collated all the available information available, in as near to chronological order as possible. Some of the extracts from newspapers are in full, and others in part only, so as not to repeat the information thereby making it a little boring.

I must thank the Haldane family for their generous support in the writing of this what will be historical document in later years. This is compiled firstly for the recording of information for the Axel Stenross Museum, which in turn is trying to record valuable histories of the local fishing fleet. I trust this sample will be of use and or interest to those who read it.

In doing this project, I have tried to give the background of the family, and the lead up to the building of this great boat. In the year 2001 the MFV *Tacoma* is 50 years old. The condition of the boat is a credit to her builders and owners who have always kept her in tiptop condition. The younger generation is carrying on in the tradition of their parents and grandfather who started this off working on the River Clyde.

John E Plevin
March 2000

BEFORE MFV *Tacoma* CAME ONTO THE SCENE

The Haldane family origins start in Scotland. Hugh Haldane Senior learnt his trade as a shipwright on the River Clyde. There he worked on many ships, some well known.

Hugh came to Australia on a paddle steamer called the *Weeroona*, on her maiden voyage. The ship was built by Ingles Boat Yard on the Clyde. The *Weeroona* was used as a pleasure boat on Port Phillip Bay, and along the coast. During World War 11 she was used as a hospital ship in New Guinea. After the war she was laid up in Sydney Harbour, and later she was taken out the Heads to deep water where she was scuttled. Hugh's wife to be came out separately with her brother on another ship, and in time had five children - William, Agnes, Alan, Hughie and Peggy.

After leaving school, William (known as Bill) was apprenticed to be a carpenter and joiner. To further his qualifications he also went to night school. Alan and Hughie went fishing with other fishermen after leaving school, as it was now in the days of the great depression.

Left: Bill Haldane and the *Petrel*

In the early days the boys used to go fishing together in dinghies. Their first boat was a 23ft couta boat. Seventeen, eighteen and twenty three – they were the ages of Hughie, Alan and Bill Haldane when they first set sail from Port Fairy in their home made cutter, the *Amaryllis*, and entered into the precarious occupation of shark fishing. That was two and a half years ago on, but they were still the youngest crew of the shark-fishermen on the Victorian coast (probably in all Australia) to sail their own boat.

Until nine years previously, they were like hundreds of other youths in Melbourne: contemplating taking up some occupation that would probably keep them anchored to the land. But strong in their veins ran the love of the sea, inherited from their father, Hugh Haldane. So when their father was appointed Harbour Master at Port Fairy, they came to live on the island at the mouth of the Moyne, with unlimited miles of continent to the north, and unlimited ocean to the south.

Hughie was still at school when Bill and Alan first went out 'couta' fishing. He sailed away before dawn each morning with the picturesque sailing fleet of more than thirty vessels, returning during the morning to their haphazard little jetties to send their catches to Melbourne. But Melbourne had found it liked flake - the clean white, boneless flesh of the shark - so the three brothers decided to take up the industry. Their little boat would have been useless for shark fishing, even in those days when ample catches were obtained less than twelve miles out. A much bigger boat had to be procured. "Why not make one? Dad used to be in the trade, and he could help us. All we'd have to do would be to…" Which is what they did. Plans were obtained and reconstructed to suit the requirements of shark fishing

It took the three boys a year to build the *Amaryllis*, a 40ft cutter carrying some 700 square feet of sail. Bill supervised the whole of the building, Alan and Hughie going out after couta in the mornings. Huon pine, brought from Tasmania, was used for the deck and the planking, and the interior was lined with Tasmanian hardwood.

The *Amaryllis* was more than just the biggest boat engaged in shark-fishing in Port Fairy – she was built by the men who were going to use her, men who knew the value of close attention to detail. Workmanship that could not have been bought was put into the tiniest detail. Even the pulley blocks were made in the workroom on the island. Her £650 diesel engine brought her value to over the £1 500 mark.

Bad luck dogged the early efforts of the three brothers, but after months of disheartening hauls, they began to fill their boxes. Only by going out with the shark fishers of Port Fairy can one gain an impression of how hard is their day's[1] work. Fifteen solid hours relieved only by occasional patches for a bit to eat.

Extract from the 'Port Fairy Gazette' 26 August 1935

Boat Building at Port Fairy

New 40ft Fishing Craft Launched. Youths' Enterprise Rewarded

To the enterprise and ability of very few young men can be recorded an accomplishment such as that now to the credit of Mr William Haldane, a son of Mr and Mrs H Haldane, of Port Fairy lighthouse.

On Wednesday afternoon last, (*Wednesday 21st August 1935)* he had the well-deserved pleasure of witnessing, amid the perfect surroundings of the bay at Griffiths Island, the launching of his new deep-sea fishing boat.

For conspicuous merit and exemplary aptitude in an undertaking of such a stupendous nature, culminating in a triumph over many difficulties, it would be difficult to imagine a more exacting task than the construction of this craft, and when it is stated that this youth is only 22 years of age, the merit becomes all the more pronounced.

There was not one of the very large crowd of experienced fishermen present at the ceremony who begrudged this youth his pleasure, and none of these men whose critical eyes soon detect any defect could have been more sincere in congratulating the builder.

Although Mr William Haldane shouldered the lion's share of the formidable task, due credit must be given to his two brothers – Messrs Hugh and Allan Haldane – who, throughout the initial stages of construction and until the completion of the craft, assisted in every way to make this deft and snug-like boat a "thing of beauty and a joy forever".

Ruskin has written that "Work is only done well when it is done with a will," and it is no idle boast that, behind the piecing and construction of every section of the vessel there was a pride in the task and the desire to win through. The three youths have truly carried on the fine tradition of pioneer ship- builders of this and other ports.

[1] The 'day' lasting from five in the morning until eight at night.

The new boat has been named "Amaryllis" (from the lily by that name), and this cognomen was selected from a book, which narrated the adventures of an English officer who voyaged round the world in a craft of a similar name. (May the youths one day see the realisation of an ambition and travel far in her).
Nearly 40ft long, with a beam of 13 feet and a draft of 5ft 6 inches, she was designed in Tasmania by Mr P Coverdale, of Hobart, to specifications prepared by Mr William Haldane, whose acquired knowledge of draftsmanship stood him in great stead. Construction was started on 10th September 1934, and although it was only a spare time task, involving considerable night work, she was ready for launching on 19th August of this year. Built of Huon (Tasmanian) pine, with an iron bark keel and jarrah stern posts and stern, she is to be equipped with a 35hp "Thornycroft" engine, and in about 6 weeks' time will be able to take her place (a foremost one) in Port Fairy's cray fishing and deep sea fishing fleet.

There are many outstanding improvements and features in "Amaryllis" and among the principle ones are a cray fishing well fitted with patented valves through which the water can be let out when necessary with the minimum amount of trouble, and a self-bailing cockpit which enables the water to make a quick getaway. The whole of the woodwork is caulked (an intricate task), and her joggled deck is built for strength. She has a steel centre plate and a built bulwark similar to a yacht. When finally completed, she will be equipped with three bunks, electric light having been installed. A teak dashboard, on which compasses, clock, etc will be placed, adds to her appearance.
Of course, the launching of such a spic-and-span craft could not be carried out without the Scottish custom of a "launching drink." Mr H Haldane Senior. a justly-proud father, dispensed hospitality to the assembled gathering, and hearty congratulations were showered on the designers and builders who were wished the greatest measure of success with their attractive and useful vessel.
And here's hoping that they reap the reward, which is unquestionably due to them!

Extract from Melbourne 'The Herald' January 1936

Lady Julia Percy Island, 23 miles off Portland, which is being visited by a party of Melbourne scientists. The party sailed on the Amaryllis; the 17 ton 40ft sloop-rigged deep sea fishing craft which took them out to the island. The craft is owned and worked by Messrs Haldane Brothers, the eldest (William) being only 23 years of age.
18ft SHARKS. SCIENTISTS
Port Fairy, Thursday, expedition to study wild life and rock structures.
Although the weather has been hot none has ventured into the water for swimming, as the party has been warned by the fishermen that 18ft man eating sharks are cruising about. There are in addition many dangerous currents round the island.
Arrangements have been made for the party to light a beacon on the heights of the island in case of serious emergency. This will be seen by the lighthouse keeper at Port Fairy, and a launch will set out from the mainland immediately.
Tomorrow a party will leave Port Fairy by launch about 5am to watch the scientists at work. They will take with them the expedition's rapidly accumulating mail, newspapers, fresh provisions and water.
The cost of the expedition is expected to be about £200. Three parties of 10 will continue observations for six weeks.

Extract from the 'Port Fairy Gazette' - Julia Percy Expedition

Remaining Members Leave Island
Last Thursday saw the return of the remaining five members of the McCoy Scientific Expedition (Messrs Blackburn, Tubbs, Hingston, Smith and Edmonds), after a six-week survey of Julia Percy Island.
Messrs Haldane Bros, in their auxiliary craft, "Amaryllis" left Port Fairy at 9 o'clock on Thursday morning, and after a good trip arrived at the island and set about the rather formidable task of transhipping the gear and equipment to the Amaryllis. It was by no means a light task, but Messrs Haldane with the usual initiative rigged up a "flying fox," and after some six long arduous weeks task was completed, and the craft set out on its return to Port Fairy. When the boat did not put in an appearance at nightfall, there was slight anxiety that all was not well, but when the 'Amaryllis' came alongside the wharf shortly after 9 p.m., everyone agreed that all those concerned had carried out the huge task of breaking up camp and leaving the island in record time.

The boat carried the unlucky number of 13 passengers on the return trip, and even though the passage home was rather rough, only 5 or 6 of those on board had the unpleasant experience of being seasick.

The much-talked-of black rabbit, "Percy," came back to Port Fairy with the travellers, and he will, no doubt, be a constant reminder to the members of the Society of their trip to the Island. One member of the Society stated that the animal life on the Island was most interesting, and especially the seals. He said he would like to return to the Island in August next for observations.
Members of the McCoy Society spent a day or two in Port Fairy before returning to the city. And so ends a venture that will prove of lasting scientific benefit and which has been the means of giving considerable prominence to Port Fairy.

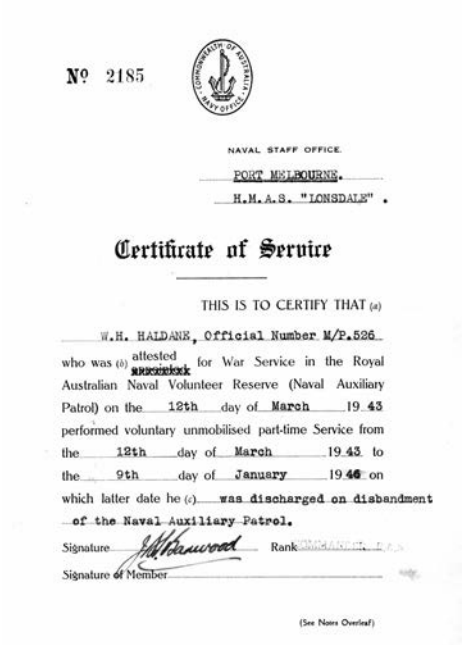
Dolphin 1939

New Boat Being Built Locally

Left: *Dolphin* with square stern. *Amaryllis* was double ended.

Recently a party of children from The Port Fairy HES visited the Island and were enabled to see a new fishing craft, being constructed by Haldane Bros – Messrs Hugh, William and Alan Haldane. Rex White, a pupil at the school, gives his impressions of the visit and the boat as follows: "The new boat has a length of 40ft, and when completed will draw 4ft 10 inches of water. Five different kinds of woods are being used in the construction. They are: 1. Oregon pine from USA; 2. Huon pine from Tasmania; 3. Jarrah from WA; 4. Spotted gum from NSW; 5. Hardwood from Victoria. The boat has 140lbs of copper nails in her; it will have a diesel engine, a mast 40ft high, and will take about 6 more months to complete.

The brothers will dry dock the boat four times a year so as to clean the sea weed and other marine growths from her bottom. The propeller has a pitch of 25 inches and a diameter of 31 inches. The seams are stopped with caulking cotton sealed with putty. The young men make their own putty from whiting, raw oil and tallow. The tallow is added to the putty to stop it from cracking and falling out when the wood expands in the water. Wooden plugs called 'dowels' are used to plug the outside nail holes in the boat. The Haldane Bros cut their own timber in their workshop which contains a lathe for making the dowels, a Ford engine to drive the lathe and a band saw which cuts the timber into the required widths."



Nº 2185

NAVAL STAFF OFFICE.
PORT MELBOURNE.
H.M.A.S. "LONSDALE".

Certificate of Service

THIS IS TO CERTIFY THAT (a)

W.H. HALDANE, Official Number M/P.526

who was (b) attested for War Service in the Royal Australian Naval Volunteer Reserve (Naval Auxiliary Patrol) on the 12th day of March 19 43 performed voluntary unmobilised part-time Service from the 12th day of March 19 43 to the 9th day of January 19 46 on which latter date he (c) was discharged on disbandment of the Naval Auxiliary Patrol.

Signature J.H. Harwood Rank

Signature of Member

(See Notes Overleaf)

GO WEST, YOUNG MEN

During the time the brothers were fishing for shark, they saw large schools of salmon, and wished they had a big enough boat to go out and catch them in the deep. Also, from time to time, tuna were being caught by trawling a line astern. They became interested in the possibility of catching tuna on a commercial scale. They had heard of the industry in USA, so in 1944 they sought guidance from the Western Boatbuilding Company, in Tacoma, Washington State, USA for the required specifications. Only a few details were obtainable of a purse seiner type vessel as those used extensively in the tuna industry of the pacific coast of America. However, with these meagre plans and determination, they set out to what was the start of a new industry in Australia. The firm who supplied the plans etc was a father and five brothers who got interested in the dreams of the Haldane brothers. They were of great help with advice while the boat was being built. Because of this friendship, the Haldane's decided to name the boat *Tacoma.*

After going over the plans, they decided that they would make a start, on what was to be a long task ahead of them all. They went to the Otway forest in southwestern Victoria, to specially select blue gum trees to be felled, which were needed for the keel, and main beams of the vessel. As this was during the Second World War, the usual personnel were not available in the forest, as they were serving overseas.

While waiting for the logs to arrive, they decided to build a net boat for catching salmon off the beach. Also it would be used with the *Tacoma,* and it was put to good use in Kangaroo Island later on. The design was from an early Bondi surfboat and 22ft long.

The logs were duly felled, then one day they got the phone call from the railway station "Your logs have arrived". The date was September 18th 1944. From then on all the hard work was about to begin.
There were six logs in all, the longest being 70ft long for the keel and weighing eight tons; all up they weighed 25 tons. Cranes were not available to the brothers in those days, so all work had to be done the hard way. Heavy lifting frames were constructed to take pulley blocks etc, and with the use of hand winches, the logs were moved about and into the yard where the boat was to be built.

Keel logs alongside the Moyne River, Port Ferry (Vic)

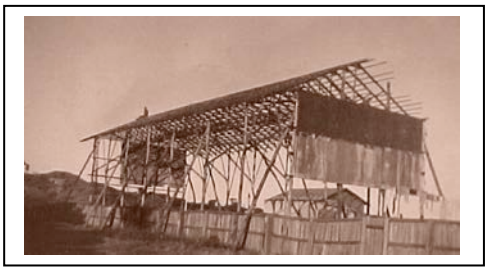
Moving keel logs

A bed was laid, which would eventually be part of the launching slip. A shed was built, out of bits and pieces to keep out of the weather, which was duly covered with malthoid, which in turn was secured with battens to keep it from blowing away.

Left to right: Bill, Alan and Hughie; drilling the keel logs by hand auger

The first job was to square up these massive timbers. The job was done all be hand, with crosscut saw and adze, a daunting task, but the Haldane's were made of stern stuff.

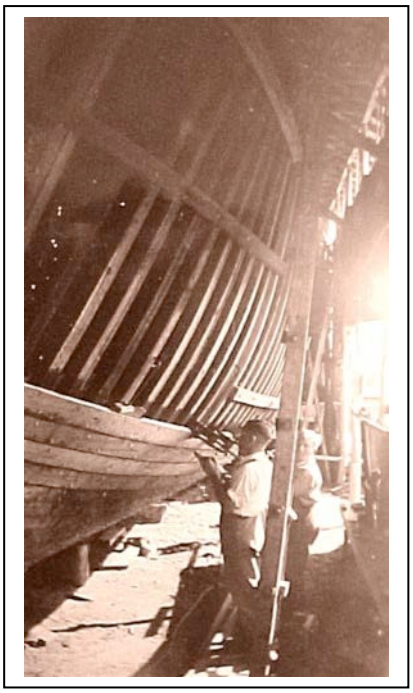
The keel was laid in 1945.



Skeleton of the shed

As can be expected with a task of this magnitude, many hours were spent in just cutting and shaping all the timbers to the required sizes. Slowly over the next 7½ years the vessel began taking shape - cutting, shaping, planing, boring, screwing, sanding down, painting etc.

Completed shed

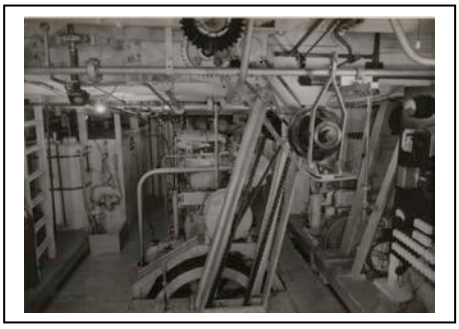


Alan and Bill Haldane
Bending the steamed hull planking

The brothers had their own workshop, with the usual saws, lathes, drills etc. There were many delays waiting for materials to arrive, such as the deck winch, motor (which came from government disposals) the tailshaft which had to be imported from USA and at the time was the longest monometal to be imported into Australia. Other fittings also had to be imported - it all took time.

Many of the boat fittings had to be cast in a foundry to the specifications of the plan. During all this time the boat became a thing of wonder, and at times, scorned by the neighbours. They said “You’ll never get it finished!” As the years went by, the neighbours gave up asking about it altogether. All this time, the Haldane's were working full time, so the boat was a spare time job. Also, the three of them had married, and had young families to look after.

Eventually the time came to put the ‘Atlas’ motor in. Herein came a problem: how do you lift a 19-ton motor into a vessel without a crane? An engineer came up with an idea, which was ok, but would cost a mint. Then someone else said “All you have to do is pull the motor to pieces, and put it in, a bit at a time.” This was duly done, but first the crankcase had to go in. Here the heavy lifting frames came into their own. The crankcase weighed in at 8 ton.



Atlas engine – centrepiece of the modern engine room

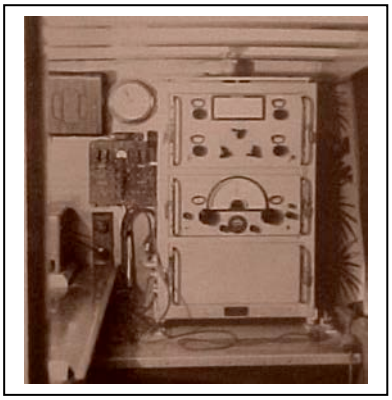
With much care it was lifted to the required height, then heavy beams fitted underneath onto the frame, and across to the deck of the vessel. The motor was pulled to the required position over the hold, then carefully lowered into its position on the engine bed. Over time the motor was reassembled.

It was a long painstaking task for the brothers, who took advice from their father, Hugh Haldane Senior[2] who had learnt his trade as a shipwright and helped when he had some spare time. When it came to the fitting out of the deckhouse, attention to detail was again never stinted. Accommodation for a crew of eleven persons, plus up in the wheelhouse, and a bunk for the skipper. The finish of the cabin etc was done out in Queensland Maple ply, with polished silky oak timbers, all screwed and plugged for an excellent finish. Each bunk was fitted out with electric light, and had specially designed hand blocked linen curtains to give the person privacy.

The galley was fitted out with stainless steel work tops and sink. The cooker was an *AGA* slow combustion stove, which also kept hot water on tap. There was a freezer to keep their food in good condition on long trips. Venetian blinds kept the hot sun out. This vessel was well appointed, certainly quite a bit above the normal fishing boat of her time.

AGA slow combustion stove

Fire safety was taken into careful planning. A bank of CO^2 (carbon dioxide) cylinders was fitted in the deckhouse directly over the engine room. Automatic sprinkler type fittings fitted throughout the engine-room. If a fire were to erupt, the glass would break, an alarm would go off, and then the engine-room hatch would be closed thereby isolating the engine from the rest of the vessel. Being sealed off the CO^2 would then have the best chance of snuffing out a fire.



The original radio receiver: AWA Superheterodyne Rx The original AWA transmitter in position, with the receiver just visible on the bottom left of the picture. This equipment is a far cry from what is used today.

The original plan was for the finance to come from their fishing. But before they were half finished, inflation got the better of them and they had to apply for a loan. As Bill Haldane said: “We’d hoped that the hull at that stage would be sufficient security against which to borrow the remainder of the finance through normal banking channels.” But after several years of negotiations with private and Commonwealth banks and then with the Victorian and Commonwealth Governments, financial assistance was refused. The Commonwealth Bank’s reason was the ‘experimental nature of the venture’ and the Commonwealth Governments: there was no *defence* value in the boat”.

[2] Hugh Haldane Senior was the Harbour Master and Lighthouse Keeper in Port Fairy at that time.

South Australian Chief Inspector of Fisheries, Frank Moorhouse, heard of the plight of the Haldane brothers and looked into the project, as he was keen to develop the tuna fishery in South Australia. He contacted Premier Tom Playford who, in turn, asked the Industries Assistance Commission to investigate. After some months the brothers received a letter from the South Australian Government saying that they would support the venture. Several loans totalling £20,000 were then made to complete the boat, on the understanding that it would operate from a South Australian port and would be used 'to develop the fishing industry generally, particularly purse seining'.

The original binnacle that was mounted on the outer deck of the bridge. This was used in conjunction with the external steering position.

The Haldane brothers had given careful consideration to the design and size of their vessel. They had settled on the American tuna clipper design because of its versatility. The original plan had been to fit out with long-lining equipment to catch shark so that the boat could become self-supporting immediately, and then when the opportunity came, to set up for fishing for tuna or other pelagic fish. "We told the Industries Assistance Commission of this plan" said Bill, "but also agreed that if a purse seine net was provided, we would be guaranteed against loss during the experimental period; and if an experienced tuna fisherman was brought out from USA (which had a big successful tuna fleet), we would be willing to tackle the experimental work of tuna fishing at the start of fishing operations." That is what basically what happened, with one serious omission: no experienced tuna fisherman came out to teach them about tuna fishing. So they went a further £5,000 into debt for the working capital. This latter was instead of a guarantee against loss during the period of experimental fishing. Looking back, Bill Haldane said the acceptance of these two loans, amounting to £10,000, with the conditions attached to them, was their first big mistake, as they had much to learn before worthwhile catches could be made.

Meanwhile when all the haggling with banks and government was going on, the Victorian Government sat up and took notice when the Haldane's got their loan from the South Australian Government.

Extract from 'Herald' September 7th 1948

SA Money to Victorian Fishermen

Adelaide Tuesday - South Australia's Secondary Industries Committee has agreed to advance some thousands of pounds to three Victorian brothers to help them set up a big fishing industry in this State.

The money is being advanced to the Haldane brothers, of Port Fairy, to enable them to complete an 85ft boat which is to cost £25 000.

The Haldane brothers, who will come to Port Lincoln with their families, must operate in South Australian waters and market their fish here. The Chief Inspector of Fisheries (Mr. Moorhouse) said today that the decision to help the Haldane marked a new phase in developing the South Australian fishing industry.

They will use a purse seine net with which the Canadian and American fishermen have caught more than 1,000 tons of fish in one haul. Such a catch in South Australia would be worth £50,000. Mr. Moorhouse said the Haldane's would probably fish for tuna, sardines, tommy ruffs, garfish, mackerel and salmon.

Extract from 'Warrnambool Standard' September 11th 1948

Move to Keep Haldane Brothers In Victorian Industry

The Acting Premier, Mr McDonald said in Melbourne yesterday that an officer of the Department of Labour and Decentralisation would be sent to Port Fairy next week to discuss the Haldane Brothers' proposed removal to South Australia with a view to retaining them in the Victorian fishing industry.

Reports that they would take their £25 000 boat, when completed, to Port Lincoln in South Australia were confirmed be the Haldane brothers at Port Fairy yesterday. Thus not only the Port Fairy fishing industry, but also Victoria seems certain to lose the biggest boat of its type ever constructed in the State. The Adelaide report states that the South Australian Secondary Industries Committee will finance the brothers to the extent of some thousands of pounds on condition that they live at Port Lincoln with their families, operate in South Australian waters, and market their fish locally.

The Victorian Acting Premier (Mr McDonald) said in Melbourne yesterday that no approach had been made to the State Government by the Haldane brothers for financial assistance in the construction of their 85ft fishing boat. Mr. McDonald said the matter had been taken up with the Department of Labour and Decentralisation.

The organising secretary of the South Western Victorian Development League (Mr A V Clutterbuck) said yesterday that the Haldane brothers had told him an approach for finance had been made to the Cain Government when it was in power. Mr. Clutterbuck went to Port Fairy on Thursday to discuss the matter with the Haldane brothers.

Three Experienced Fishermen

Not only was Port Fairy and Victoria losing a valuable industry, but also it was losing three experienced fishermen who had lived in Port Fairy for the past 20 years, said Mr. Clutterbuck. With them would also go their families.

The Haldane brothers told a' Standard' reporter yesterday that they expected to complete the boat, which is of the purse seiner type, within 12 months. It is the first of its type to be built in Australia by private enterprise. The brothers said they were not going as boat builders, but as fishermen.

Extract from 'Port Fairy Gazette' Monday May 9th 1949

£25 000 Company Registered by Port Fairy Residents

In the last issue of the Australasian 'Post' the following paragraph from South Australia appears: "Three Haldane Brothers of Port Fairy (Vic) have registered a £25 000 company in

Adelaide to exploit purse seine fishing in SA waters. With large deep-sea boats and nets capable of catching 1 000 pounds of fish at a single cast, the brothers are expected to revolutionise SA fishing. They will settle at Port Lincoln.

As can be seen from the above extracts, nobody wants to know you in business circles, unless of course there is something in it for them. This sadly was the case of the Victorians. But when someone else turns up, and says "Yes, we will help you", then it is a different story. But the horse had bolted by then, and South Australia was to gain immensely, as was to seen in later years. As in the saying: 'Nothing ventured, nothing gained'.

The Haldane brothers ventured, had trials and tribulations, but in the end gained - not only in fishing, but also in the respect of other fishermen. They have not been frightened to try and improve in methods and equipment where required. Somebody had to try, and try they certainly did, and succeeded.

A young Robin Haldane with the wheel prior to fitting on the *Tacoma* bridge.

TIME TO LAUNCH

During the building of the *Tacoma*, the wives and the Haldane sisters used to help where possible. This was a family affair, so all were involved in one way or another. Living nearby were two young boys who used to spend a lot of time helping where they were able. These were the Bellamy twins, Keith and Jack. At the age of ten they started to come around, because to small boys this was a big adventure. Now as the time for launching was approaching, the two boys, now eighteen years old, were to become part of the permanent crew.

The finishing touches were being put together. The Haldane sisters and the wives were a great help. They did a lot of the painting, of which with a boat of this size, there was plenty. One might ask how an 84ft vessel, three feet at the stern, could be lowered so as to make it on the same level as the slipway: the weight of the boat gradually compresses the sand, hence the keel rests on the blocks again. This procedure was repeated until the boat had been lowered the required 3ft. Next was a trip to the local butcher to get tallow, which was obtained in a forty four gallon drum. This was used to smear all over the timbers, which made up the slipway.

Following text as recorded by Mrs. Clara Haldane

Finally came the job of making the slipway. The boat had been built back 56ft from the Moyne River. It took two months to dig a channel to the river. Then the slipway itself had to be constructed. The slipway into the river presented difficulties as under a short depth of sand there was solid bluestone, and they were not able to fasten the sleepers down. So they dug channels in the mud, then put sleepers in the channels and fastened the slipway onto the sleepers with bolts.

The slipway

MFV *Tacoma* exposed to the elements, ready for launching

The men worked hard finishing the job on Saturday night and they were all set to launch about 2am on Sunday morning. The towns people became suspicious when they saw all the activities and lights burning where the men were working, and then the fence came down and the electric light wires along the path being taken down confirmed their suspicions and many people gathered on Saturday evening outside out fence. The men finished up with the low tide and everything was in position to slip her in on the high tide early on Sunday morning.

When the tide started to rise the water lifted the timber out of the mud and they had to go and get railway irons from the island and put them on the sleepers and sink them down again. It was decided not to launch as they were afraid that the sleepers may have got out of alignment; they did not know what may have moved as by this time the water was 3ft over the lower part and they had to wait till the next low tide on Sunday evening to set it all right again. On Sunday the men got more iron and as soon as the tide fell at 5.30pm they got on with the job of bedding down the slipway again. This was finished at about 10pm. It took over two tons to keep the timber down. This time they made sure of it.

Once again the crowd gathered; some people had stayed on. We all lay down till after 1pm waiting till the tide came up again, but it was impossible to sleep as the people were making so much noise, singing and cheering etc… and cars up and down the road all night.

Monday 5th November: At 1am I lit the fire and put the kettles on. The men looked at the tide. It was coming up nicely and promised to be a good one. At about 3.15am we all went out and took up our positions ahead of the bow. The tide was at its peak and the night was quiet and perfect. Alan had lights festooned all around the yard and the boat lights were on. lan, Hughie, Peter, Alan Kearney and the twins were the only ones on the boat.

Mum Haldane had a bottle of seawater from Port Lincoln covered with blue and white ribbon. Soon after 3.30am everything was ready. Mum Haldane broke the bottle on the bow. Stan Norman, Vic Hartley and Bill turned the jacks that started her off and almost as soon as Mum broke the bottle she started to slide.

She's in!

She just slipped away so quietly you could hear a pin drop, and within a few seconds she was in the water (3.38am) and the crowd started cheering. She just floated like a big swan and was manoeuvred round to the landing with ropes and the motorboat. We all went round to the landing and stepped aboard amidst congratulations.

Stern view at ease on the mooring

Left to right:
Alan, Bill, Hughie and Grandp
Haldane

As the day wore on the weather got worse, and after lunch it really began to blow a gale – a Nor'West wind, one of the worst gales I have ever been in. The glass fell to 29.2 inches (or 984hpa here) and the lowest glass ever recorded was registered in Adelaide. However, the men tied up the boat with extra ropes and by night the wind had fallen – no rain, just a gale. As you can imagine, we were all tired that night and glad to get to bed. People have been coming and going all day long. The news has been on ABC Adelaide and local news services. Alan has fixed a gate across the landing and Wolf spends his days aboard now instead of underneath, and seems very much at home. Indeed, he does not like being left in the yard now, so I do not think any unauthorised persons will step aboard.

Now there was two months of cleaning up, making good the land where the slipway was, repair the fence etc. In the meantime the women had the task of preparing all their goods and chattels ready for the big shift to Port Lincoln, while the men finished off the final bits and pieces on the boat, and loading all their tools and equipment.

The Tacoma was tied up at out landing and the final work on the engine tackled[3], and the initial starting and testing. We were fortunate to obtain the engine through 'Disposals'. This make of engine is in one of the Geelong Harbour Trust tugs and we were fortunate to obtain it and have Alf Pritchard, the Chief Engineer of the Geelong Harbour Trust, who is married to Chris's cousin, to assist the men in doing the final checking and the initial starting of our engine – a labour of friendship.

The operation went off without any unforeseen hitches, though one little incident made us laugh after the event. Alf had returned to Geelong, and the men were planning to start up the engine for the first time. To them this engine of 240hp and weighing 19 tons was quite a monster after being used to working a 37hp motor in their small 40ft boats. After carefully going through the procedure step by step, they overlooked shutting down the decompression valve, and when the compressed air lever was pulled to start the motor, the air escaped through this valve making a loud explosion, and frightening the life out of everyone in the engine room. There was a frantic and hasty retreat of all bodies up the ladder and through escape hatches. After realising what had happened, and enjoying the joke, they returned to start the engine with trepidation, but success.

[3] The coupling up and lining up of the tail shaft to the engine.

Shortly after this Alan and I were asked by our landlord to leave the house, and he wanted us to be out of it by the next morning, so we took what we needed onto the boat, and packed everything else into boxes to be stowed into the hold, and with toddler Andy we moved into the Tacoma to live for the few weeks until we were ready to leave Port Fairy. Our furniture was covered with tarpaulins and bags and tucked away under the shiny leaf bushes and hedges in Hughie's yard.

During December we were all busy packing our worldly goods into fish boxes and getting them aboard the boat. It was a difficult time as holiday makers stood on both sides of the pathway just filling in their time and being amused watching us carrying all our possessions, both good and bad, and stowing them aboard. You can imagine the picture: old beds, tables, chairs, couches etc., that don't look too bad tucked away in their places in the house but when taken out of their corners and carried topsy turvy out into the sunlight – embarrassing. Blanche was very ill at this time, and while she was lying in bed feeling thoroughly wretched, everything in the house was packed up and carried away until only the bed and Blanche were left. Also at this time Grandpa was due to retire from his position as Harbour Master, and so he, Grandma, Agnes and Peg were packing their accumulation of twenty three years of living at the lighthouse quarters on Griffiths Island to load into the boat too. When Grandpa finished with the Harbour's Board he, Grandma, Agnes and Peg were to drive to Port Lincoln towing the trailer with the remainder of their effects. An old friend had kindly given them the use of his holiday cottage at West Beach to live in until they were ready to leave later in February.

They left the lighthouse quarters on the Island with feelings of deep emotion and sadness, and some relief at not having to cope any longer with the difficulties of living there. It was the end of an era where, as a complete family, they had sat round the fire planning their fishing operations and the building of their boats, to the sound of the wing and the waves of the southern ocean breaking on the rocks outside the house.

Port Fairy Lighthouse

The morning after they left, Alan happened to look over to the Island and saw that something was missing and realised that the signal mast had gone. The family too stood looking, amazed and unbelieving that it could have happened just at that time – it seemed to be symbolic. Alan later investigated and found it lying on the ground.

This flagpole was one of the highest signalling masts in Victoria. It consisted of two sections, the lower part 84ft, and the top section 68ft high. The two pieces together went to a height of 132ft. Only the bottom section remained standing when the Haldane's arrived there in 1929, and was used to signal the depths of water in the Moyne River for the steamers, which ran between Portland, Port Fairy and Melbourne.

These signals were in the shape of a cone, a drum and a ball made of cane for daylight signals, and kerosene

lamps were used at night with white, red and green signals. The lighthouse quarters were never occupied again, as the new Harbour Master was to have a house built on Battery Hill on the mainland.

It is hard to draw a picture of our feelings at this time, and of just how much work there was to be done before we could get away: the family moving from the island, Bill, Alan and Hughie attending to all the details on the boat, packing up all the tools and equipment in the workshop and loading aboard and into the hold, which by this time was filling up with possessions and furniture of four families. On the deck were fastened four small boats, nine bicycles, and various other items too numerous to mention. For the part of the womenfolk, the houses had to be left clean and in good order, plus the daily routine of looking after our families.

The Tacoma was finally ready for her sea trials. As there was a sandbank between the place where the Tacoma was launched and the open sea, we had to have a channel dredged through the sandbank to get her out. This event is very clear in my mind. We had to have a very high tide and this occurred somewhere around 10pm on a dark night. The Tacoma seemed so big in the narrow river with its bluestone banks so close on either side, and it was a very different experience for Bill, Alan and Hughie to be taking an 84ft boat of 200 tons through a very narrow shallow channel, steering by an hydraulic steering system, with slow response at slow speed, after so many years of working in a 40ft boat of about 15 tons by direct steering with a tiller and rudder. Grandpa escorted in his motorboat.

There were some very anxious moments, when the boat veered one way towards the shallow water outside the channel, then back into the deeper channel and away towards the opposite rocky bank as the wheel was turned, with no room to manoeuvre and not much water under the keel. We finally turned the bend in the river successfully and glided along to the lighthouse landing and threw the ropes to Grandpa; Grandma, Agnes and Peg who were waiting there, and I think we all gave a sigh of relief. The next morning she was taken out into the bay for sea trials.

Now the scene was set for our departure. Stores were bought and stowed away, and the remainder of our belongings was brought down the river by dinghy. Bunks were made up for all: Bill, Chris and their three boys, Clyde 7¼ years, Roger 6 and Ross 4½; Hughie and Blanche with Robin 7¾ years, Rowena 5½ and Rhonda 4, and Alan and I and our eighteen month old Andrew; twins Keith and Jack Bellamy, who had their 18th birthday while we were in Adelaide. Keith and Jack had followed the building of the boat from its beginnings, and were very happy when their parents consented to their joining the crew, and finally, Tom McDonald, who was the cook.

Added to this compliment was Hughie's Alsatian Wolf, our faithful watchdog during the building of the boat, a cat belonging to Bill and Chris and our grey Manx cat with the powder puff stump of a tail.

EXODUS

As recorded by Mrs. Clara Haldane

Sunday 6th January 1952: A pleasant enough sunny morning. We were all aboard and Grandpa had brought some of the family members to the island, all waiting to wave farewell as we set sail for Adelaide. Instead of its being a quick decisive affair, without time for too much sadness our departure was delayed until 6pm that evening. The fuel was not getting through the fuel line to the engine, and it took us those hours to find and rectify the fault. Finally we got underway and headed west in a fresh Sou'Wester. We rolled on through the night, passing our old boat the Dolphin fishing out of Beachport on the south east coast of South Australia at 9am the next morning, Monday the 7th, and waving happily to Maurice Corigliano, the new owner. We continued our way along the southern coast all day, arriving into Backstairs Passage and then the quiet waters of the Gulf of St Vincent at approximately 1am on Tuesday morning the 8th. How marvellous it felt to escape the constant rolling of the boat, and how quickly the nasty feeling on seasickness left us. The men called us and the children from our bunks at 2am to see the spectacle of porpoises, covered in phosphorous, playing in the bow wave, like some fairy tale creatures.

It was a perfect day when we reached Outer Harbour at 10am. The engine was 'shut down' and we spent some hours tidying and cleaning the ship from stem to stern and at the arranged time of arrival we berthed at Port Adelaide looking spic and span, shining and new with our full compliment plus a batch of kittens which had been born on the trip.

Arrival at Port Adelaide (SA)
Top row left to right:
Chris, Clare, Andrew and Blanche
Bottom left to right:
Robin, Clyde, Roger, Ross, Rowena and Rhonda

On the wharf to give us a very sincere welcome were Mr Edmonds MLC, a member of the Industries Development Committee, Mr Moorhouse of the Fisheries and Game Department and several other interested people. After reading about out arrival in the newspapers, many kind South Australians came along the wharf to welcome us, bringing with them gifts of peaches, apricots, grapes and tomatoes from their gardens, and many offers to show us their beautiful city and the surrounding countryside. We were overwhelmed.

In spite of all the much appreciated friendliness and kindness, it was not an easy period. As you can imagine Bill, Alan, Hughie and the crew were very much occupied attending to all the practical business of the boat. Chris, Blanche and I had our children to look after, which was a constant task in such a dangerous and confined situation as a boat. The weather was very warm so on a number of occasions we took them to the beach, returning towards the end of the day sunburnt and weary. Blanche's cousin and her husband were a great help to us all at this time.

For much of the time of our ten days stay in Port Adelaide, we were tied up at the stern of a coastal steamer called the Balarr. The stern of the ship seemed to tower over us, and in the evening the crew would lean over their rail, drinking their cups

of tea, to watch the performance of Hughie rounding up the kids for their daily showers. Rowena would go into the shower room, and thoroughly enjoying it, wouldn't want to come out, and didn't until Hughie's patience was exhausted, and he was pushing the next one under. When it came to Clyde's turn he would scramble up the mast, thinking it was all a great joke with Hughie waving and shouting to him to come down. When it came to Rhonda, Roger and Ross it was a chase, with much laughing and squealing, round the deck and amongst the dinghies and bicycles to catch them. Andy was too young and was bathed in the basin. The crew told us they thoroughly enjoyed the 'circus' each evening. After tea we'd all go for a walk along the wharf to see the big ships.

Deckload from Port Fairy with skiff, surfboat and dinghy; at Port Adelaide (SA)

Time passed and on Wednesday 16th January the men loaded aboard the big purse seine net which belonged to the CSIRO. There was also another lampara type net put aboard which had been made by personnel of the Fisheries and Game Department from camouflage netting left over from wartime days. The Department wanted the men to use this net to catch garfish, pilchards and tommy ruffs.

After ten days at Port Adelaide we were ready to leave. At noon on Thursday 17th January we sailed for the last leg of our journey to Port Lincoln. The next morning the 18th, Blanche's birthday, on a perfect flat calm warm summer day, we approached the town. The Harbour Master, Captain Norman Carr, and the head clerk, Mr. Len Bice at Fanny Point, in the launch Captain Townsend, met us. We were escorted to a berth on Brennan's Jetty, where we were welcomed to Port Lincoln.

New problems faced us. We had not been able to get the services of a truck to carry out goods and furniture to the 'trust houses' which had been made available to us, until a Good Samaritan appeared in the form of Mr Eddie Hall, who owned the butter factory. He came walking along the jetty and asked us what was the problem. When told, he kindly offered us the use of one of his trucks if we had a driver. And so the unloading began – the nets taken off first onto the wharf, miles of nets then out came the boxes and furniture and load after load to the new homes.

At present we are sharing the house with Hughie and Blanche as our own is not yet completed, but should be ready in about two weeks' time. In the meantime we are all crowded into the one house, without things and the stuff from the lighthouse; the family's gear, packed onto the verandah and wherever we can find a niche for it, and each night we are eaten alive from mosquitoes as the wire window frames have not been put up yet. By the end of the month we will be more or less settled in our houses, and the boat clear of all gear not required for fishing. The men have put down permanent moorings for the boat off the Town Jetty. Gavin Scott has arrived and joined the crew and they are all getting the fishing gear ready for the first trip.

THE START OF FISHING

As recorded by Mrs Clara Haldane

With the unlucky start to the 1952 season (the net was badly torn the second time it was set), money became a serious problem. The government's big mistake was in not bringing out an experienced tuna fisherman. This they realised a few years later and rectified.

With the net badly torn and repair materials difficult to obtain, the financial resources of the three families were at a low ebb. After six weeks the net was repaired but weather conditions were too rough for purse seining for tuna and few sightings were reported. The brothers then tried catching salmon with the purse seine net. To the surprise of the local residents, who must have begun to think the *Tacoma* was something of a white elephant, they caught seven tons by encircling a school after waiting four days for it to move away from the rocks. However, the use of the big net to catch salmon was not often possible as the fish were frequently too near the rocks or would hear the net being set and escape.

MFV *Tacoma* tuna fishing wit bait tanks and ranks on stern

Following the first catch of salmon caught off the rocks, there were many times when things did not go to plan. So the brothers turned to the only other fishing gear they had - an old beach seine net that they had used at Port Fairy. They found themselves worse off for gear than they had ever been since starting fishing twenty-five years before. They gradually acquired further nets and made good what they had. During this period it was hard times; the catches of salmon paid just enough to pay the interest and insurance premiums and draw 'bare living wages', without being able to reduce their overdraft. To make matters worse, the local cannery was only able to cope with 20 tons of fish total per week. With other boats catching salmon as well, it was a very difficult situation.

A good haul of salmon

June 19th 1952 the *Tacoma* caught 38 tons of salmon, of which 31 tons was canned, and just less than 3 tons had been converted into fishmeal. The balance had to be buried with a loss of more than £300. The burying of the salmon was followed by a statement made by the Minister of Agriculture Mr. Christian, that there was a need in South Australia for a greater intake of fish suitable for canning. "In the past seven months the Haldane brothers had lost about £1 000 through their fish not being processed", said the spokesman for the cannery.

At the commencement of fishing operations the Haldane brothers had an overdraft of approximately £27 000, which included £20 000 on the *Tacoma*, £5 000 for the purse seining gear, and £2 000 already gone out of the £5 000 working capital for interest, insurance and other expenses. The government held a debenture over all the company's assets, and that interest on the loan is at the usual 4¾%.

Another point that was very disturbing was the government considered the cost of bringing an experienced fisherman out from America too high, and we would therefore have to proceed by the very costly trail and error method. This was despite the warnings given to them by the Haldane brothers that much had to be learned before any worthwhile results could be achieved.

Extract from 'The Standard' Thursday June 16th 1955

"If money had been made available at the start of operations to bring personnel skilled in tuna fishing from America, and if gear had been available for test fishing, we are sure our story would have been different today. We would know by now whether tuna fishing in South Australia is a commercial proposition, and what method of catching is the most economical. As it is we still know nothing about the tuna and financially we are a lot worse off," the Haldanes said.

The South Australian Government decided some months ago to finance a scheme to bring two of America's top tuna fishermen to carry out experimental fishing in the Port Lincoln area.

The *Tacoma* was to have been used in this work, but an accident to one of the American's boats had caused a postponement of the tests until next year.
The Haldanes offered the following comments in regard to commercial fishing –

1. Before any experimental work is undertaken, sufficient funds must be available, preferably from the Commonwealth Government, to ensure that such work is not handicapped by lack of the right personnel or equipment.

2. Any test fishing undertaken with less than the best equipment and guidance is courting failure before it is started.

3. Finance should be made available for the building of suitable boats for tuna and other fishing and for shore plants with modern processing equipment.

4. Since the fishing boat is the most important piece of equipment in the industry, the necessity of building properly designed boats cannot be too strongly stressed.

1952 – 1953 SEASON

The following season they again attempted to catch tuna with the purse seine net. Senior Inspector of Fisheries, Alf Frinsdorf, acting as Chief Inspector, was appointed fishing master on the *Tacoma* during the exploratory fishing. Alf and two Inspectors of Fisheries joined the vessel early in December, together with their dinghies, outboard engines and beach seine nets, to assist in finding tuna and salmon. Tommy ruffs and salmon were caught off the West Coast and Kangaroo Island but no tuna. Then on Wednesday 25th February 1953, just two days after the departmental party had left the boat; the crew of *Tacoma* ran the purse seine net around a small school of tuna at the northern end of Boston Bay. They captured approximately ten tons: the FIRST Southern Bluefin tuna to be captured in Australian waters using a purse seine net.

At this time, there were three boats fishing for tuna, using different methods. *Tacoma* was purse seining, *Fair Venture* was using the poling method and the *Wandra* was trolling for tuna.

Although there were plenty of sightings of Bluefin tuna in 1953, most fishermen preferred to go after shark, which was bringing one shilling and three pence per pound compared to only sixpence per pound being paid for tuna by Port Lincoln Fisheries. That year the cannery began selling canned tuna to the Star Grocery in Hindley Street, Adelaide labelled '*Tonno Fish*' for the Greek and Italian immigrant communities. The tuna was canned in olive oil, which the Star Grocery sent to Port Lincoln in barrels.

While the problems of exploratory tuna fish were being faced, the *Wandra*, *Tacoma* and *Fair Venture*, together with other fishing boats, using trolling gear, and, occasionally, a beach seine net, landed and marketed: 42 785 pounds (19 tons) of tuna in 1952 and 67 000 pounds (30 tons) in 1953.

1955 – 1956 SEASON

In the latter part of 1955, plans to get the Jangaard Brothers from America eventually came into being, sponsored by the South Australian Government. But not before a delay in the USA had delayed their arrival due to an accident with one of their boats, early in 1956.
Plans and specifications on how to build bait tanks, and racks to hang on the outside of the hull to fish from etc. Also there was the setting up to be able to catch the live bait (pilchards or anchovies) which had to be netted without damage, and live after being transferred to the bait tanks.

Tuna poling on racks

There was the making up of the tuna poles, with lines and barb less hooks, the pouches that the poler wore around his waist to put the pole in, all had to be made up to a sample sent over earlier. All had to be completed in a short period of time. There was also the breaking in of 'green' crews with no previous experience in this type of work.

Haldane and Jagaard brothers on deck at sea

The night before a trip, the boat goes out to catch the live bait. A bright light is lowered over the side until it is just above the surface of the sea, thereby lighting up the water. The boat is steamed along, with the echo sounder searching for schools of bait. When a school is found, the boat is stopped and the light is put out.

If successful in getting the fish to rise, a fine net is put out around the fish and drawn up underneath them slowly, so as not to spook them. From then on the fish are transferred by a dab net into the bait tanks, which have a continuous flow of water circulating to keep the oxygen level up for the bait to survive. In the hold a large quantity of ice has previously been stored, this will keep the fish fresh until they can be unloaded.

The only problem, is the space required for ice, reduces the space available for fish. With refrigeration the holding capacity would be greatly increased.

The Haldane brothers, having completed the modifications on the *Tacoma* to make her suitable for pole and live bait fishing, and following ballasting, testing of the bait tanks and searching (unsuccessfully) for bait, with the Jangaard brothers aboard set sail for the first survey on Saturday 18th February 1956.

Some tuna were found on a trip to Coffin Bay but bait was the problem until, on their return to Port Lincoln, a big school of pilchards was netted in Boston Bay. They then made some catches of tuna, the best being on Thursday 15th March, when the Premier of South Australia, Tom Playford, was onboard. Seventeen tons were taken.

During the thirty six hour expedition, US experts Cris and Sverre Jangaard hauled in 25 tons of tuna worth about £1 400. The largest fish caught weighed in at 122lb, but the average weight of the catch was 30-35lb. The Premier helped to land a tuna weighing 110lb.

Mr Playford said one of the Jangaard brothers would go aboard one of the other vessels based in Port Lincoln. In turn he would demonstrate methods of tuna catching to captains of other craft who would take it in turns to become members of the *Fairtuna*'s crew. When they made port next day, Sverre transferred to the *Fairtuna*, owner/skipper Bert Wilson. This boat, a converted cargo boat, 75ft vessel, steel hull, could carry 58 tons of fully refrigerated fish in her four wells and two tanks.

During the remaining three and half weeks of the survey thirty men on board the *Tacoma* and *Fairtuna* gained practice in the pole and live bait method of fishing for tuna. The survey ended on Friday 13th April, due to bad weather, *Tacoma* having caught 95 tons and *Fairtuna* 65 tons. The Port Lincoln cannery purchased all the tuna caught for £56 ($112) a ton (or sixpence per pound).

HALDANE BROTHERS GIVE FAREWELL DINNER

The American tuna fishing experts, the Jangaard brothers, brought to Port Lincoln by the South Australian Government two and a half months ago to teach local fishermen the pole and live bait method of fishing, left the town last night en route for their fishing fleet at San Diego, California. They will fly from Sydney to USA on Saturday.

Last Tuesday they were tendered a farewell dinner by the Haldane brothers at the Hotel Boston, which was attended by members of fishing interests, the Mayor (Mr P L Puckridge) and councillors, and a cross section of local business enterprise. A feature of the menu was baked seasoned tuna.

Mr W H Haldane said the Jangaards had accomplished their mission. They had caught 93 tons of tuna, proving that there are ample stocks of tuna to establish a fishing industry here. Through their hard work, the experiment would cost the government nothing. They had been good teachers, free with their expert knowledge, and had retained no secrets. He thanked the government and private enterprise for much assistance in the Jangaard experiment.

Mayor's Comment
Concurring with the comments of earlier speakers, the Mayor said he had been impressed by the Americans' approach to their job. They had proved that the prospects are extremely bright for a big industry here. Inasmuch as Port Lincoln was badly placed for other industries, it was most important that we should later have a flourishing fishing industry. The Haldane brothers had pulled their weight and worked hard to establish the present success in tuna fishing. Nineteen members of the Haldane family are now living in Port Lincoln, thus displaying their confidence in the town and in its future.

Jangaard speaks
Responding to toasts, Mr Sverre Jangaard said he did not think so many nice things could be said about a man who was still alive. He added that with live bait easy to catch in Boston Bay, and the tuna grounds only a few miles away, Port Lincoln fishermen should be able to catch tuna economically. Selling tuna would be the biggest problem. There was always the danger of Japanese competition, but with certain advantages native to Port Lincoln local fishermen should be able to give the Japanese a run for their money.

Report to Premier
In his report to Premier Playford, Mr Sverre Jangaard said the major fishing ground extended at least from Flinders Island to the Neptune Islands, and was capable of supporting a tuna industry of reasonable size. Last week the tuna schools were the closest to Port Lincoln they had experienced, although it was possible that at other times of the year tuna might be found further west in the 'Bight'.

Mr. Jangaard said there was ample cold storage at Port Lincoln for the time being. The tuna here was chunkier than those caught off the West Coast of America, giving a better yield with less waste.

Mr Playford said the Jangaard brothers had told him that the South Australian Government should persevere with investigations into a pilchard industry.

There were undoubtedly large numbers of sardines in South Australian waters. Investigations would be made to see if full size sardines or pilchard was also available in big numbers.

No action would be taken against the Jangaard brothers for overstaying the permitted sixty days in Australia, the Chief Migration Officer (Mr Edson) said yesterday. Mr Edson said many reputable people, including tourists and businessmen of other nationalities, were permitted to stay for sixty days without taking out registration papers.

POTENTIAL DANGERS

T-u-n-aaaaa! Up goes the cry from Alan Haldane who is in the 'crows nest'. The boat is plunging around in a stiff swell, several miles off the coast. He points over to starboard, where hundreds of birds, gulls, terns and gannets can be seen wheeling and diving on to the school of pilchards.

You can see the tuna 'breezing' the surface of the water, hungrily feeding on the pilchards. Aboard the boat there is a rush for action stations. There is a clatter of crockery as the cook frantically makes all safe in the galley, and grabs his favourite 'squid' - the barbless hook with feathers attached to make it look like a fish. Bill Haldane leaps out of the pilot room, Alan gets down from the crows-nest, somebody yells, " get the racks out". The Bellamy twins struggle with the steel racks, on which the fishermen will stand when they area pulling in the slippery tuna. The engine is cut and the boat swings broadside to the swell, then a member of the crew starts to toss pilchards over the side to entice the tuna. Within seconds the first fish strikes, it's jaws snap on to the squid and is swung aboard by Hughie. A 40lb fish is aboard and the barbless hook falls out of its mouth, which is quickly swung over the side again. With half a dozen men working in the racks, it is a scene of feverish activity. As an observer remarked "Spear and shark fishing are kindergarten stuff beside this".

As Stewart Cockburn (a well known columnist) reporting for his paper said "A big hungry school of tuna bite voraciously. I saw them hurled into the ship at the rate of one of every fifteen seconds, for more than an hour. In another furious orgy of biting, we got one every ten seconds – just on a ton in ten minutes.

Sometimes, three and four tuna will glitter and twist through the air simultaneously in their hooked flight to the deck. Occasionally, a big one gets away and as the pole man finishes his heave, the hook whips overhead to hit the canopy protecting the 'chummer' with a crack like a rifle shot.

It is a miracle that the flying hooks have not yet seriously jagged South Australia's new pole men. Experienced pole men, equipped with steel helmets, are reasonably safe. But the Haldane crew is learning the technique with only Sou'Westers to protect them.

There were several minor injuries last week. A Fisheries Department inspector aboard Tacoma had his scalp opened by a whizzing hook. Hughie Haldane was hit by another hook just above the left eye. A 50lb tuna smacked into the midriff of a third crewmember as another pole man yanked it out of the sea. The victim was winded and nearly toppled out of the boat."

Over the next few years, the fishing fleet gradually got the feel of the industry. More boats joined in from New South Wales. As time went on, it was found to make it a more viable industry, 'spotter' planes were introduced. The Haldanes' got the assistance of Mr John Doudy, with his *Auster* in the earlier days. But as time wore on, it was realised a plane with greater range was required. John and other operators bought larger machines, which were capable of staying aloft for several hours at a time.

In the very early days when the pilot spotted a school of tuna, the only way to communicate was to write the information on a piece of paper, put it into a bottle, seal it then drop it into the sea near the boat. Those days the planes did not have radio communication with the boat. It was a crude way, but it worked.

The size of the tuna varied quite a lot. Sometimes, only small fish would be about, then other times, the fish were very big. At one stage there was a trophy for the largest tuna caught in a season.

The pioneers of the industry accepted only five pence per pound with no hope of a bonus, in blind faith that things would eventually get better. Their faith was justified, but like many pioneers they earned gratitude without necessarily getting it. It would be true to say that the established salmon market considerably helped the tuna industry in the early stages, tuna rode on the salmon's back. That position however was reversed later.

In the early days, the storage of tuna was a problem. A lot was sent to Port Adelaide. The State Bank leased the cannery to SAFCOL from February 1957 for five years, with an option to buy.

The price of eight pence per pound for tuna landed at Port Adelaide ceased and the landings all reverted to Port Lincoln.

The tuna catch the following year (1958) was also good, with a marked increase in production. On Thursday 6th February, tuna made FrontPage headlines in the *Port Lincoln Times* newspaper:

> ***Tacoma's Record Tuna Catch – Weekend Haul Worth £5 200***
> Confidence in Port Lincoln's fishing industry was confirmed this week when the tuna clippers *Tacoma* (Haldane brothers) and the *Fairtuna* (Mr Bert Wilson) brought in a joint catch of 88 tons in two days. The haul is valued at about £5 200.
> The manager of SAFCOL cannery (Mr. Keith Hill) said the two boats had landed 128 tons of tuna and 18 tons of salmon in the past fourteen days, a total of 146 tons of fish.
> On Sunday morning the 2nd February 1958, the *Tacoma* landed 63 tons of tuna at Kirton Jetty. For ten hours trucks shuttled between the jetty and the cannery where the tuna was stored for processing. The 63 ton haul is an Australian record. About 46 tons was landed from one school and Mr W Haldane said he believed this is possibly a world record. The *Tacoma* caught the fish in two days off Greenly Island, sixty miles southwest of Coffin Bay.
>
> *Fish clutter deck.*
> Tired after their battle with tuna, the hands of the *Tacoma*'s four fishermen were chafed and bleeding from continuous handling of the tuna poles.
> The *Tacoma* could have landed 80 tons if the boat had been equipped with refrigeration instead of ice, which takes up much valuable potential space for tuna. The hold was packed tight with tuna averaging 30lb each. As fishermen landed the tuna at a rate of about nine a minute the deck became piled high.
>
> Four poles were fished, but because the fish cluttered deck hampered the fishermen the number of poles was reduced to two in order to free crewmembers to clear the deck.
> Looking appreciatively at the record catch spilling over the *Tacoma*'s deck, Mr. Hugh Haldane Senior said, "I was always confident the boat would do the trick".
>
> *Cannery can cope*
> The chairman of SAFCOL's Port Lincoln branch said "The installation of a new brine tank completed only one month ago has saved the situation as regards the disposal of the monster catch. The entire haul is being deep frozen and cold stored".

> It was learned this week that the cannery could cope with all contingencies. The set up seems to be the cannery can all the fish the boats can catch. The tuna outlook looks bright this season. The weekend catch has been widely publicised and has provided Port Lincoln with another selling point.

It must be pointed out at this stage, that due to the distances that sometimes had to be travelled, and the area that the fish were in, it was essential that large sea going vessels be employed in the industry. There were times when the boats fished right out on to the edge of the continental shelf. Out there you have to be able to cope with the weather conditions that apply. If a bit of heavy weather comes up, you are a long way from shelter. Further north, shelter can be obtained at Greenly Island. At times, even though the weather is fine, there is a big swell running out there. One trip out near Greenly Island the *Tacoma* was fishing with a fairly big swell running. When fishing in these conditions, the pole men are frequently submerged up to their waists in the sea.

Standing in the racks, which only come up to just below the knee, there is a lot of the body exposed to the potential danger of sharks, and there is always a certain amount of blood water about going back into the sea.

On one such day, the men were poling tuna, a large hammerhead shark started to get very interested in the proceedings. As he was getting a bit too close, fishing was suspended while a large hook with a chain attached was baited with a chunk of tuna was attached by rope to an oil drum and put over the side. It was not long before the shark was hooked, and pulled out of the water. It was approximately 10ft 7 inches long, with about 3ft between the eyes. There is a train of thought as to which sharks are dangerous, but in the interest of safety this was the best way, a hungry shark is not to be messed about with. Fishing resumed again.

There was another good season the following year (1959) although not for all the boats.

The *Tacoma* had tanks with trunks through the deck, which had refrigeration coils inside, which chill the water to keep the tuna fresh.

Tacoma and *Fairtuna* continued to make good catches - 263 and 322 tons respectively. But three other boats from New South Wales only poled 80 tons between them.

Other events in 1959 included the completion of the slipway at Porter Bay, Port Lincoln, at a cost to the government of £75 000. This included a boat building shed as well as the slip. Next was the first death in the tuna fleet.

Fisherman Lost at Sea

A large tuna is believed to have dragged 25 year old Port Lincoln fisherman, Keith Bellamy, to his death near Rocky Island, about 22 miles north west of Coffin Bay, on Friday afternoon. Bellamy and his twin brother Jack were handling lines aboard the tuna fishing vessel *Tacoma.* It is understood a huge tuna grabbed the single line with one hook fastened to the two fishing poles they were using. The Tacoma was under way when the tragedy occurred.

An unsuccessful search was made for the missing man. Full details of how Keith Bellamy was drowned will not be known until the *Tacoma* berths at Port Lincoln and eyewitness stories are given. News of the accident was first revealed late on Friday afternoon when Mr Ken Bassham, operator of limited coast radio station VH5BA at Port Lincoln, while contacting fishing boats on the 5pm schedule, received a message from the *Tacoma.*

The message stated that a member of the *Tacoma*'s crew had been lost overboard. They don't come gamer than young Port Lincoln fisherman Keith Bellamy, dragged to his death by an outsize tuna off Coffin Bay at the weekend. Keith didn't weigh much more than 10 stone. But he was so expert at pole fishing that he often used to haul aboard fish nearly as heavy as himself.

Extract from 'Port Lincoln Times' Thursday 5th March 1959

***Tacoma* Fisherman's Death**

The story of the tense three minute drama aboard the tuna fishing vessel *Tacoma*, when 25 year old Keith Bellamy of Port Lincoln, was dragged overboard by a tuna and disappeared at sea one mile off Rocky Island, 22 miles NW of Coffin Bay, on February 20th, was revealed by Detective EW Plevin of Adelaide last Saturday.

Detective Plevin, a former member of the Port Lincoln police force, who spent his annual holidays aboard the *Tacoma*, submitted his report of the tragedy to the local coroner (Mr R Durbin) on Saturday.

The *Tacoma* returned to Port Lincoln on Friday night with 20 tons of tuna. Detective Plevin, on board the *Tacoma* was instructed by radio last week by Inspector L Hansberry, officer in charge of the Western Division at Port Lincoln, to furnish relevant statements from the crew when the *Tacoma* returned to Port Lincoln.

Sad Crew

Only sketchy radio messages last week gave an inkling of the tense moments when young Keith Bellamy disappeared overboard. When they returned to Port Lincoln last Friday evening, members of the *Tacoma*'s crew were obviously affected by the tragedy. In deference to their missing mate the *Times* man did not interview them.

Detective's Report

In his report, Detective Plevin said "The man overboard" alarm was given at 2.30pm on Friday 20, when the *Tacoma* was one mile off Rocky Island, about 22 miles NW of Coffin Bay. "Keith Bellamy was standing on the stern starboard rack, fishing with his twin brother Jack. The *Tacoma*'s crew had finished fishing a tuna school and the boat was moving at five to six knots to another school.

"Keith Bellamy remained on the rack as the boat was moving. With his brother Jack, he was holding dual poles to which a trace line with a lure was attached. This was contrary to normal practice. It is usual to stop fishing while a boat is under way."

Tuna Struck
"Some tuna stragglers were following the boat. One struck the lure and pulled Keith Bellamy overboard. Keith held on to his pole and his brother Jack held on to the other one. Jack gripped the tip of the second pole while another member of the crew tried to help him.

As Keith was being towed in the wake of the *Tacoma*, it is assumed he swallowed seawater. Jack lost his grip on the pole, as he released his hold, so did his brother Keith.
Keith Bellamy appeared to be all right, and he was treading water. The Tacoma was put about on the port tack. As it approached Keith, he was seen to disappear."

Skipper Dives Overboard
The *Tacoma*'s skipper (Mr. W Haldane) immediately dived over the side. He could not recover the body as it sank in many fathoms of water. "These waters were shark infested. On the previous trip, a 10ft 7 inch vicious hammer head shark was hooked and shot from the boat."

As he was completing his report at sea, Detective Plevin said a 15ft shark was cruising astern of the *Tacoma*. When the boat's bilges are flushed, the bloodstained sea attracts marauding sharks.

Boyhood Background
When Keith Bellamy was dragged overboard, his fishing clothes handicapped him. He was wearing short rubber boots over canvas waders (bib type), which reached to his chest. He also wore a leather jacket and a plastic helmet with a chinstrap.

The death of Keith Bellamy breaks a 25-year link with his brother Jack. When they were schoolboys together at Port Fairy, Victoria they watched the *Tacoma* being built by Bill and Alan Haldane. Seven years ago, when they were 18, they signed up as regular crewmembers when the *Tacoma* came to fish at Port Lincoln in 1952.

After this tragedy, belts were created that had springs attached to the boat, so that falling overboard was not possible.

Around this time, the Haldane's fitted six tanks in the hull, with trunks through the deck to store the tuna. These tanks were fitted with refrigeration coils, which was a great improvement. The tanks were filled with water, and then the tuna are introduced into the tanks from the deck hatches. This eliminates damage to the fish.

For the next few years, the tuna catches were good. Then about the mid 1960s the catches started to taper off. In March 1968 there was major concern by the fishermen that there was a very poor tuna haul that season. Various theories have been advanced to explain this, but the one finding the most favour with the fishermen concerns the seismic surveys being conducted by oil exploration companies on the Continental Shelf.

THE CHANGE TO PRAWNING

With the tuna industry declining, the Haldane brothers decided they would enter the new prawn fishing industry. So in 1967, they proceeded to make the change over from tuna to prawns.

This entailed the removal of the racks, bait tank etc. New gear had to be made and installed: the sorting table on the stern, booms to hold the nets when they are trawled, paravanes to keep the boat stable, otter boards to spread the nets which had to be made, and the list went on. Tanks in the hold with trunks coming above the deck for outside access were fitted, when fishing for tuna. They have refrigeration coils in them to chill the water down now keep the prawns in good condition.

After the changeover was complete, the *Tacoma* sailed to the prawning grounds for the first time on Saturday 9th March 1968. In the early days of prawning, prawns were caught and put into the tanks to keep until they were unloaded in ports. It was a slow method at first, that is until they started putting the prawns in net bags, which were easy to get out of the tanks, and not by 'dab netting' them out.

The catch was sometimes unloaded at Cowell and at times at Ardrossan, depending on the area allowed and/or where the prawns were. It was uneconomical to steam all the way back to Port Lincoln, so the catch was transported by road to be processed. Some of the catch was cooked on board some of the boats, so there was a variation in the processing. The biggest drawback with road travel was that the prawns got damaged in transit, due to the ice they were packed in. It used to cut into the prawns thereby rendering some unfit for processing. Which was why later on, the Haldane's decided to process the prawns onboard.

Extract from Paper, March 1968

Safcol in Port Lincoln is gearing up to handle 15 000-20 000 lbs of prawns a week and could employ up to 40 women in this new industry. Safcol's expansion plans were discussed at the latest Safcol Board meeting when the Board discussed what they expected to be the capacity demand by the new industry, at present being pioneered by a handful of trawlers with sensational success.

The degree of confidence with which Safcol views the potential of the new fishery is indicated by the visit to their Port Lincoln plant this week of three food processing experts who specialise in prawn packing.

A Safcol spokesman said today that prawns were coming in "in heavy supply". He declined to reveal specific figures, but said that as an indication, 3 000 lbs of prawns were treated by Safcol yesterday. Fishermen establishing the industry are loath to publicise the bonanza hauls they have been landing, because they fear an uncontrolled influx of interstate boats into the new fishery in a prawning 'gold rush' and subsequent 'mining' and depletion of the fish stocks.

Prawn fishermen want Govt advisory Committee
The State Government will be asked to establish a prawn fisher advisory committee. The request stems from the annual meeting last week, of the Western Waters Prawn Boat Owners Association.

Attending the meeting were the Director of the Department of Fisheries and Fauna Conservation (Mr. Olsen) and representatives of state prawn processors.

At the meeting association members said there was an urgent need to ensure the preservation of prawn stocks in South Australian waters.

The re elected president of the association (Mr. Joe Puglisi) said today members realised that if prawn catches fell below an economic level their large investment in boats and equipment would be in jeopardy.

“Consequently a motion was passed to the effect that we strongly recommend to the Government that a prawn fishing advisory committee be set to enable the practical experience and knowledge of fishermen to assist in the establishing a sound management policy for the utilisation of its stocks”, he said.

At the meeting Mr. Palmer was elected secretary and Mr. Dinko Lukin and Mr. Roger Howlett vice presidents. Mr. Gobin, Mr Bill Haldane, Mr. Anton Lukin, Mr. John Hood and Mr. W Gordon were elected to the committee.

Bight Fisheries formed
A consortium of local fishermen decided to form their own cannery, with the idea of getting better prices for their product. By forming their own company, they would be shareholders thereby make a better profit. This was started in 1967-68. Mr. William Haldane of the *Tacoma* was on the board of Directors.

Factory’s First Prawn Export
The first export shipment by Port Lincoln’s new fish factory has been made and further consignments to countries throughout the world are planned. As a prelude to their official opening ceremony tomorrow, the Australian Bight Fishermans’ Society made their first export shipment on Monday.

The factory only commenced production recently, and the shipment is hailed as a significant step by the Society in what they predict will be a successful future in the export market. The first export consignment of Bight brand prawns was dispatched from the factory on Monday and was loaded aboard the vessel *Coonawarra* at Port Adelaide on Tuesday. Described as a small trial consignment it is destined for Canada.

Three larger shipments are planned for export to England, Japan and the USA in the near future. The chairman of Bight Fishermen Society (Mr. Joe Puglisi) said today that regular shipments were planned and depending on the availability of shipping a refrigerator van would be sent to Port Adelaide at least once a week.

Tuna Down
A gloomier side to the local fishing picture is the low catch so far in the tuna season. 70 tons were landed Tuesday, but the season’s catch now totals only a meagre 2 000 tons. Only 12 boats are still operating for tuna – about half of the number at the start of the season – and all skippers are interested in switching to prawn fishing.

There was a possibility of a late ‘flare-up’ in the tuna season as happened last year and tuna skippers are adopting a ‘wait and see policy’. Apparently there is no legal reason at present why tuna boats cannot go prawn fishing in SA, where there is no legislation covering this new fishery. Some of the first prawn boats were issued with permits to fish in shallow waters where netting was prohibited.

The Safcol spokesman said those entering prawn fishing “were more or less warned they could do it for a while, but might be stopped later. The whole thing has been handles wrongly by the Fisheries Department, apparently under the pressure of other important developments,” he said.

Unrest in fishing industry
While the very encouraging potential of a new prawn fishery unfolds and inspires confidence in Port Lincoln, the local fishing industry is racked with uncertainty and unrest. Many fishermen are perturbed at the implications of some of the new regulations and controls introduced by the Director of Fisheries, most are appalled at the slump in the tuna season, and there is an undercurrent of friction between some Australian and migrant fishermen. Some migrant fishermen are said to be concerned at what they consider discriminatory clauses in the SA fishing licence application forms.

Following representations made by the MP for Flinders, Hon G G Pearson, on behalf of several fishermen, the Director of Fisheries, Mr Olsen will visit Port Lincoln, possibly on April 5th to discuss the new fishing regulations with the fishermen. Mr. Pearson said that different fishermen had expressed concern to him about certain features of the regulations and he thought it advisable that Mr. Olsen should come to Port Lincoln to discuss any problems with fishermen at first hand.

Fisheries Director to meet Fishermen
Following requests by the Member for Flinders (Hon G G Pearson MP) and reports of unrest in the fishing industry here, the Director of Fisheries Mr. Olsen will visit Port Lincoln on Friday.

'Port Lincoln Times' April 4th 1968

Government ban on prawns
A fisherman using a trawl or "any device" to catch prawns in South Australia is liable to lose his boat and gear by confiscation. The complete ban on prawn fishing in South Australia was proclaimed in the Government Gazette last Thursday.

The proclamation announced the prohibition of prawn fishing from that date. Anyone netting for prawns now could forfeit their boat and equipment. An officer of the Department of Fisheries in Port Lincoln today would not comment on the ban.

Licenses
The 'Times' understands the ban is the prelude to the granting of prawn licences. The position will be clarified by the Director of Fisheries, Mr Olsen at a meeting of fishermen at Port Lincoln on Friday night. A similar method – banning fishing for a week or so and then allotting permits – was the method used to licence the abalone industry recently. The banning move at the time came under strong criticism from some abalone divers, who were irked at being forced to stop fishing for more than a week.

Welcome
However Port Lincoln prawn fishermen, appear, in general, to welcome the ban because it heralds the licensing they have been urging. Meanwhile Safcol has had to lay off about 20 women who were employed packing the prawns in Port Lincoln.

***Tacoma* re-motors**
To improve their ability to trawl prawns better, the Haldane brothers decided to put a new motor in the *Tacoma*. Since its beginning the vessel was powered by an American Atlas Imperial diesel, 240hp (179Kw) running at 275rpm, with a speed of 8.5 to 9 knots per hour. It was proving to be underpowered. The new motor is a Grenaa, from Grenaahaven Denmark; 500hp (366Kw) developing 4 ton bollard pull (4.06 tonnes) running at 500rpm, with a speed of 10 knots per hour.

The 4½ inch (114.3mm) propeller shaft and prop were removed, which is now in the *Byron Star*. The shaft was replaced with a 5.31 inch (135mm) one, with a change of propeller. To be more efficient, a variable pitch propeller is now in use. For prawning the motor revs are set, and the speed is controlled with the pitch of the propeller. Also the steering is now upgraded, the normal wheel is no longer used, instead the vessel is controlled electronically. This all was done during the winter of 1971.

PRAWN TRIP ON MFV *Tacoma*, April 1st 1980

Life on a prawn trawler operating in Spencer Gulf from Port Lincoln, South Australia

by John E Plevin

Normally prawns are trawled, sorted then put into tanks and chilled in water for two to three days, then taken to port for transport to Port Lincoln for processing. In this case, the prawns are trawled, sorted and graded, then fully processed and frozen then packed on-board the boat ready for the export market. The boat MFV *Tacoma*, length 84ft, beam 21ft 6 inches, weight 129 ton gross, twenty seven years old and as good as new. Motor *Grenaa* 500hp at 500rpm and develops 4 ton bollard pull. Variable pitch prop. Two booms, one on each side. Fuel 4 000 gallons, water 2 000. Freezer holding room operates at 30° C below 0° C. Plate freezer capacity 1 584 lbs in 3 hours. Sorting table on stern 12ft x 6ft above waist height. Lighting for deck, two quartz halogen on mast, and two smaller on end of boom above the table. Navigation lights when trawling. Port (red) starboard (green). White above the wheelhouse with green on top of the mast. Trawling speed 3-4 knots per hour.

The prawn trawlers have 'booms', which protrude out from each side of the boat to separate the trawl nets. The nets are anywhere from 40-50ft across the mouth of the net tapering back into the bag, which catches the prawns plus anything else that may be there at the time. To hold the nets open, a board called an 'otter' is attached to each wing of the net, which pulls the net open to the desired width to catch the prawns. In addition to these, there are the paravanes that hang off the extreme end of the booms. The reason for this is that when lowered about 12ft into the water they stabilise the boat when the sea gets rougher which enables the fishermen to work in much rougher conditions with less difficulty.

The trip I went on started at 11pm local time, to give enough time to proceed to the trawling grounds above Cowell. This area had been closed off to trawling for some time to enable the juvenile prawns to grow. Tuesday April 1st was the day that the official opening of the Gulf was to take place at 6pm local time. We had an uneventful trip up during the night, and arrived on location at about 11.30am. Time for a spot of lunch. The rest of the afternoon was spent getting all the gear in order. Nets slung and all in readiness for the start at 6pm. Early tea today, then it was like a countdown. Now try to visualise 38 boats an a calm evening milling about waiting to cross the demarcation line set by the Department of Fisheries.

At about 5.30pm all the boats put out their nets over the side, and they hung there off their boards ready to go. It was almost like the start of a yacht race, with boats jockeying for position to get a good start to trawl the banks where the prawns lie. At the appointed time you could see the puffs of exhaust smoke as power was applied to the engines, and the nets lowered to the bottom then the boats opened up their throttles to take the strain of the trawls. Seeing that this was the first time nets had been set in this area, hopefully the prawns should be thick. As prawning is normally conducted in the dark, the first shot of the nets were not expected to be too heavy.

The boat proceeded north at about 3-4 knots for fifty minutes. The skipper gave the signal to bring up the nets. The big winch located in the middle of the deck aft of the cabin house is then started up and the nets start to come in. First up comes a long length of single cable, and then it divides into two cables called the bridle.

The bridle is attached to the pair of otter boards on which the net is attached. This applies to both sides of the boat. When the boards get to the boom the winch is stopped. One of the crew then uses a long pole with a hook on the end. This is a 'gaff' - his job is to lean over the stern of the boat (the back end) and to hook on to the 'lazy line', which is a rope stretched between the two nets on to another rope, which in turn is attached to the bag of the net. The lazy line is lifted up and the main line is then attached to a rope coming from the winch via another boom over the deck to facilitate the lifting of the net from the water. This operation is duplicated on the other side of the boat. But in this case only a short gaff is needed as the lazy line is now up close to the stern of the boat.

On the stern of the boat is a large table to sort out whatever comes aboard from the nets. When the net is swung inboard and the net is lowered to the table, a trip line which secures the bottom of the bag (net) is pulled and out comes all the 'goodies' plus all sorts of other things - some good and some definitely bad news. For example, 'good' things include edible fish, such as an odd whiting, snapper, flathead, ling and squid. Some other edible fish are caught but not kept either because they are too small or not wanted. So they are the 'bad' news, as they take time to sort. The rest of the list that was caught on this trip in various sets of the nets; red mullet, tiny trevally by the dozen, and plenty of little leather jackets too.

These are a nuisance, as the horn on the top of them spear into the prawns and damage them. Small tooth flounder, box fish, globefish (and as the name implies, these are about 10 inches across and a greenish colour with white underside and long spikes all over. He blows himself up like a globe and is hard to pick up because of the weight and the spikes, so the easy way is to roll him like a ball on to the chute, which fits on the side of the sorting table and goes over the side also.). Other 'beasties' caught were a few stingrays, many fiddlers and Port Jackson sharks - in one net 14 were caught on the one shot of the net!

Several shovelnose rays (also known as guitarfish) were caught, and of the last 3 species they came in many sizes. 1 shark ray, 1 anglerfish, 1 cat shark, also cuttlefish were fairly numerous and are a nuisance with the ink they let go in the bag staining everything black. The cuttlefish ink stains very badly, so if you get it on your clothes it must be washed off straight away as it is like Indian ink. A few shells were dredged up, some of them very nice. Some Whites seahorses came up and were put aside to dry.

Sea urchins, brittle stars, mantis shrimp or prawn killer, a few carpet sharks known as wobbegong came up, but they were all small except one. This brute was 5ft long and about 20 inches around the girth. A very nasty customer if you get too close to the front end - he can bite! Needless to say he was Number 1 priority to go over the side. There were other things like southern tongue sole, common bulls eye, Morton Bay bugs (or flap jacks) sponges, gravel, and small rocks. One night the net on the port side, that is the left side, was very heavy and in it was a very large rock. All went well until the bag was bumped into the side of the boat. Then rrrrrrip - the net had a rip about 10 feet long. So until that net was mended it was out of action and was replaced. More wasted time.

At this time of the month the moon was coming up early, and when it comes up the prawn catch drops off, and in turn the blue crabs take over. On this trip they were bad at times. When the nets are emptied on to the table all you can see is a mass of crabs jumping around snapping their claws, which in turn chop prawns into two or more pieces, rendering them unfit for export. There are also other things, which come up that are not very nice. Stargazers - a fish which lies on the bottom and when viewed from above looks a bit like a bulldog face, only he is looking up to the stars, hence his name. His claim to fame are two very nasty spikes at the top rear of his head, which in the specimens we caught were at least three quarters of an inch long. Numb fish - a flat fish something like a cross between a flounder and a ray - can deliver a nasty electric shock if you jab him. When amongst the prawns, for quite a way around they jump. According to the South Australian Museum, it has been recorded when 12 persons were holding hands; the last person can feel an appreciable shock.

I have left the best until last: we have two very nasty characters - small gurnard and a goblin fish. Firstly the gurnard: usually only about 2½ inches long, bright pink in colour with eyes that shine up bright blue under the strong lights which light up the deck in the dark. The goblin fish is the worst of the two of them. These are about the same size maybe a little longer and fatter. They are a biscuit colour with dark brown camouflage patches, so is hard to see if in a shadow or among the prawns stained with squid or cuttlefish ink. Their claim to fame is the spiky dorsal fin, which is the fin running from the head to the tail along the back. If one gets a jab in the finger for example from one of these nasties, you can suffer the most excruciating pain imaginable. The pain goes up your arm rendering it useless, possibly for a few hours in a very bad case. Not pleasant - so when you sort prawns, you are careful.

After the prawns are sorted from the rubbish they are placed on a vibrating grader, which feeds the prawns along some bars where they fall through when the gap is wide enough to pass the prawns. At this stage they fall down a chute into baskets and are roughly graded ready for the process room below deck. All the time the prawns are on the grader and in the baskets, they are being washed with jets of water to remove any sand or ink from them. When enough prawns are in the basket, it is removed and placed into a tank to which a chemical has been added to ensure that they remain clean of a type of fungus called ‘black spot’, which can form very quickly due to bacteria in the prawns and render them unfit for human consumption. After this they are put down another chute down to the deck below into the processing room. There they are weighed into 10kg lots and evenly distributed into waxed cartons. The cartons are then closed and filled with fresh water. Next stage is to put all the cartons, which are now in aluminium trays, into the plate freezer which fast freezes the prawns into a solid block of ice. The prawns are then in the condition in which they remain until the person buying them at the other end thaws them out to cook them. After about three hours the trays are removed from the plate freezer and the cartons are knocked out the trays and then packed into master cartons. These cartons are branded with the size of the prawns that are in the smaller cartons inside. After boxing they are put into the holding room along side where the temperature is -30° C, so special clothing must be worn in there at all times.

In between shots of the nets, if any time over about five minutes is to spare the crew (with the exception of the skipper) get their heads down and try to get all the rest they can. At times you just get off to sleep then the light goes on and the skipper says, “Ok guys its time to get up again”. After a few times you start off getting into your wet weather gear somewhat like a zombie. This goes on until daybreak for the last shot of the nets. After the last of the prawns have been sent below for processing, all the baskets and gear have to be thoroughly washed and the deck cleaned up, then you can knock off. Lastly, hang up any wet clothes to dry and get ready for breakfast.

Early one morning one member of the crew mentioned to the cook that it would be nice to have some crab on toast for breakfast. As you might know, blue crab tastes very nice. It is a sweet flesh and very tasty. Well, when the fore mentioned crewmember came in to sit down for his breakfast, there, sitting on his plate was a medium size uncooked crab, with a nice splotch of tomato sauce on its back. Needless to say much fun was had by all. The cook remarked to the crewman that he did not specify cooked crab.

Usually breakfast is over and dishes washed up so you can get into your bunk by 8am. Trying to sleep in the daytime when you are not used to it takes some getting used to. To make it worse the weather was fairly warm, about 31° C, plus the heat that was coming up from the engine room.

It is time to get up again to start work at about 2.15pm. Usually, a cup of tea or coffee gets your wits about, and you are ready to start at 3pm. Down in the processing room the plate freezer is opened up and the boxes removed from the trays, then packed away in the holding room. Tea is about 5pm, while the boat anchor is raised, then steaming to the area where the next lot of trawling is to take place. The first shot is put down just before dark. When possible, you try to have a feed about midnight in between shots just to keep your strength up - you do get hungry after awhile.

The weather was exceptionally good. Only the first two days we had a bit of slop. At one time the waves were about 6-8ft, which made it a little difficult to bring in the net onto the table, but you just get wet and get used to it, the rest of the time it was not even cold. The last night at sea you could stand around in shirtsleeves at 1am in the morning and not even feel cold - like summertime. It was during the last night that we had a school of porpoise following us and picking up any fish that went through the net. They are just beautiful to watch. The porpoises love red mullet and small trevally. So as you can guess, we were hand feeding them right alongside the boat. Next morning we went into Franklin Harbour at Cowell to unload. It is an awkward place to get into with large boats. When the tide is low a sandbar just inside the entrance creates problems. Yes, we cleaned the bottom of the boat on it.

Well, that's how prawns are caught and processed in Spencer Gulf. I hope you enjoyed the yarn.

NOTE
As will be seen later, the grader and the sorting table were greatly improved, to the advantage of having better grading also. The better handling of the prawns with fewer prawns damaged hence better quality control.

A NEW *Tacoma* 1977

As recorded Mrs. Clara Haldane

Now after twenty-five years, *Tacoma* is undergoing very big changes to make her into a processing and fishing unit. It is turning out to be a very much bigger and longer job than anyone anticipated, and there are still weeks of work to be done before fishing in February. Although work hasn't stopped there is some delay waiting for a condenser from Adelaide - ordered in June - which is holding up other jobs that derive from its installation. Today Andy is fibre glassing the ceiling of the processing room. Alan, working on valves and pipes with Rob and Jack putting in the new radar. The other one has been repaired so now they have two, which is most essential, as these complex electronic pieces of equipment are very often out of action. The rolling and vibration of the boat doesn't help, so two are needed in order to always have one in action - which is important for prawn trawling - to keep position in the gutters where the prawns are mostly found. This has to be done by keeping position in relation to the land.

The prawn grader has arrived from Denmark and this has to work in conjunction with Andy's prawn sorter.

16th December 1976

The boys are working so hard trying to get that marathon job finished. On Tuesday night they went up onto the slip**,** mainly to put on the new propeller blades and to paint the bottom and do one or two other jobs regarding inlets and outlets - pipes for overflow - and so on. They got off just before tea; there was just enough tide for them otherwise it would have been another 'middle of the night' job. The back of the job is broken really, now there's just pipe work and drawing together all the threads, fibre-glassing the deck, the winch to replaced back on deck etc. I don't expect they will be ready to go fishing before the end January or the beginning of February.

It's hard to believe that it's just about an eight month job six men working from 7am to 7pm six days a week. If they had not been able to do it for themselves it would have been impossible cost wise. The cost for material plus some work they had to have done like demitting steel and pipes and steel lathe work, is in the order of $80 000. And that is without any labour costs. With wages for engineering work and plumbing work etc, the cost could be in excess of $200 000. The plate freezer from Western Australia alone cost $10 000**,** and there were new auxiliary engines, condensers etc. Much of the piping and. material and bits and pieces we had stored in boxes in the workshop. The desalination plant from Sydney cost $3 000. This is to give us fresh water from seawater to wash the prawns. So you can see it's a big job and the *Tacoma* will be a very valuable boat when it is finished.

Extract from Paper. Thursday February 24th 1977

> South Australia's first fish catching and processing vessel underwent trials on Boston Bay this week.
>
> The MFV *Tacoma*, which pioneered the South Australian tuna fishing industry twenty-five years ago, will once again become a leader in the fishing industry.

During the last eight months the prawn trawler has been refitted and is now capable of processing, packing and snap freezing her catch while at sea. This is expected to result in a variety of boats operating economies and a better quality product. The *Tacoma* is owned and operated by the Haldane family.

"Because of the steeply rising costs of processing a vessel's catch ashore, coupled with increasing operating costs, particularly for fuel when a boat has to make regular trips to port to unload, it was decided to become a processing vessel," family spokesman Mr. Bill Haldane said yesterday.

Better Quality
"By processing aboard we expect to improve the quality of the catch and consequently its value. We will pack whole green prawns for which there is a considerable market demand, particularly if the fish is frozen promptly after being caught." Mr. Haldane said they would now only unload every week or two.

"To pack the catch aboard, the *Tacoma* had to have additional refrigeration equipment installed and a packing and holding room built. The vessel had to be fitted out for its new role in a way which met Commonwealth Department of Agriculture requirements for an export establishment, and the *Tacoma* is now registered as such."

The boys are now out fishing, their second trip, on 26th February. Rob, Andy, Jack, Alan, Cyril and Mr Plevin went on this trip. The weather was very fresh Sou'Easterly - so hard for them all, especially after being away from the fishing side for eight months. All were worried as to how it would run and morale was very low, coping with all the extra workload. Cyril got off at Wallaroo on the Tuesday. He said he was all right except for the seasickness. He went to Adelaide and dashed round and got the box makers to make up another size of master carton as a sample for us to try. Then he went to the insurance company for Bill and arrived back at Port Lincoln at 6.50pm. That night he had a good talk with Bill and Hughie and also Nook, our new crewmember. They found it absolutely necessary to have at least one new permanent crewmember. Nook is Rob's brother in law, married to Lenny's sister. He is Dutch, a good worker, so both Rob and Andy are happy.

We are all very relieved that the refrigeration system has worked well. They were concerned that the holding room temperature might not go down low enough. Anyway, they have found that it goes down to minus 45°. Cyril says minus 3O° is enough, so they have to turn it off. The plate freezer too is a great success, thumps the boxes down to minus 25°-30° right through in two and a quarter hours. I think it takes 60-70 boxes at a time. When they are ready they loosen the boxes from the freezing plate, put lids on and mark on a space on the side of the lid the size of the prawns. Then they are packed into a master carton, seven at a time, and so 14 kilos to the carton. The size is marked on the master carton, which is packed in the holding room ready for export. Cyril said that the set up and arrangement is perfect. The Department of Primary Industry man, who is over from Adelaide, said they were the best prawns in Australia. The only criticism he had was about the grading - but not to worry, that would come with practice. They have a grader on board which was imported at great expense from Norway, but will probably have to make adjustments to this to cater for the bigger prawns - probably it is a shrimp grader. There is no doubt that it is labour intensive work.

The sorter Andy invented is a great success and we are very happy about it. It gets rid of rubbish, washes the prawns, which are so nice and clean when they come up on the belt**,** Alan says, "from this machine they drop into the grader.

We are just doing the preliminary steps to apply for a patent". This morning Bill has been making a drawing, and Alan, Yo and I are going to write the story of its uses etc, then Norm Growden is going to take it over to the Patent Office for us. At this stage we just apply for a 'patent pending' seal, which gives twelve months protection. During that time Andy would have to get a mechanical draughtsman to draw a detailed picture of the machine. But the main thing just at this stage is to get the protection of the 'patent pending'.

A very unpleasant thing, which has caused us unnecessary worry and disgust really more, than worry, is the length to which some people would go to hurt us. After the first trials and a bit of publicity, an opposer and two others flew to Adelaide and had a meeting with the Minister of Agriculture and Fisheries, followed by a short article in the paper by the Minister, Brian Chatterton. This was silly, because the Department gave approval at the beginning, and this approval had to be obtained before we could get money from the Bank. At the end of the same week, the opposer called an executive meeting in Adelaide of the South Australian Branch of the Australian Fishing Industry Council (APIC) to try to get their support to apply pressure on the Fisheries Department to cancel our prawn license, and also to consult unions and suggest putting a boycott on us unloading. But the meeting told him he was trying to use AFIC for a personal vendetta against us and didn't give their support. In fact he was told it was our business what we did with our own fish and catch. Cyril says "Congratulations on obtaining your independence."

Extract from 'Port Lincoln Times' March 3rd 1977

> **Government against on board processing**
> Processing prawns at sea did not have the support of the South Australian Government, the Minister of Fisheries (Mr. B A Chatterton) said this morning.
>
> He was commenting on the refitting of the trawler *Tacoma* to allow the vessel to process and pack its own catch. Mr. Chatterton said the State Government supported the management principle of fishing units being owned and operated by individual fishermen, with processing being undertaken ashore. "We feel the best interests of the prawn industry are served if prawn catches are processed in shore based facilities," Mr Chatterton said.

Because of all the politics and bad feeling by certain persons, the Haldane's withdrew from Bight Fisheries and went on their own, with Cyril Lee as their agent. Cyril Lee had been General Manager of Bight Fishermen's Society and had resigned the previous year to run his own company, Oceanic Fisheries Pty Ltd; importing and exporting fish products.

28th April 1977

Today, just after midday the boats arrived home after a long trip – twenty-one days. They left the day before Easter Friday (7th April) and today was Andy's first meeting with his daughter who is weeks old yesterday. Andy did not get home until teatime as he had an electrician down to do some work on the

generator, and he had to have the refrigeration going to get the temperature down so that he could shut it off while he went home for tea. Then he came back, started it up again. Alan and I went down after tea, and we are going to stay on the boat for the night. Andy went home after he had started the auxiliary engine and the refrigeration. Alan will put it off at about 1am tonight. That will keep the temperature down in the holding room till Andy gets down in the morning.

There are 562 master cartons now in the hold, each master carton has 11kg (30.8lbs) in 7 x 2kg boxes, so a very valuable cargo. Each small box has 2 kg of prawns plus 1kg weight of ice, so total weight of the master carton is approx. 21kg.

Tomorrow the refrigerated van will be down at 9.30am and all the boxes will be loaded into that and taken to Adelaide, put into Port Adelaide cold storage and held till the container arrives. Cyril said last night on the phone that there would be a container over on the 10th of May. He said the 3rd or 10th, but they would only be arriving in Adelaide on the 3rd. Anyway, it may be possible to obtain a container before the 10th.

After the fish are taken from here and put into cold store in Adelaide, Cyril takes over and arranges for the container and the shipping to Japan. The Department of Primary Industry Inspector will be here tomorrow to watch the unloading, and they take one box for inspection in each sizing to check on grading. They do that either here or in Adelaide. The fellow in Adelaide says it is OK to do it here, but the man here doesn't want the responsibility and wants the DPI in Adelaide to do it. Talk about passing the buck!

I take a tally of the master cartons as they come out of the holding room and P1ev (quote from Mrs C Haldane "Plev was a very handy person to have when he came on his holidays. He could fill in just about anywhere from fishing to giving the cook a spell.") takes another tally as they are loaded into the van, so there is a double check. For my job I have a special little gadget, which just hooks on your finger, and it counts just as fast as you can press the button - the sort of thing they use for counting sheep. This one came from America - the Jangaard brothers gave it to us when they left.

In each master carton there are seven 2-kilo boxes, not including the ice in which the fish are enclosed. When we have used up all the master cartons we now have, we will be changing to a smaller master carton, which will hold six 2-kilo boxes - this will not be so heavy for the boys to handle.

They unload into a steel basket with pipe frame and heavy mesh on three sides with the fourth side open. This can carry sixteen master cartons at a time. Alan made two baskets so that while one is up unloading into the refrigerated van the other is being loaded in the holding room for the next lift.

Last Friday we didn't start unloading until 11am, as we could not get a berth at the wharf. It was 2pm before we finished. Then the boys had to clean up and

scrub all the trays, etc, so it is quite a big job cleaning out the processing room, the holding room and so on. Robin and Andy are the ones who work in the holding room packing boxes into baskets. It is very cold - 30°-34° below zero.

Cyril bought special gear for them as used in cold stores: padded and quilted trousers and jackets, balaclavas, leather fleecy lined mittens and gloves. The hands and feet are the parts that worry them most. We put the oven onto 200° and have two pairs of gloves warming so they get a warm change when their hands begin to ache. We do the same with their socks and that is a big help. The plastic gumboots they have been wearing are no good either as they freeze hard, so we thaw them out in a bucket of hot water and give them a change. While in Adelaide this week Rob was going to look at airmen's boots, which I think are fur lined, so they may be the answer.

We are learning all the time but this point is very important: during the first unloading one of Andy's fingers got a bit of frostbite. It went dead, hard and white when he got home he soaked it in hot water, and Yo (Andy's wife) massaged it and kept on going and eventually the circulation returned as we could tell by pressing the nail. But the ball of his finger was still hard and white and eventually that part all came off - the layers of skin were all dead and pushed off. With the knowledge we have gained we are now able to keep them fairly warm.

On Monday**,** 3rd May our prawns arrived in Adelaide and were put in cold storage in Port Adelaide. On Tuesday Cyril oversaw them loaded into a container and they went to Melbourne to await shipment to Japan. On Tuesday, Wednesday and Thursday there was a lot of talking and figure work done and valuable calculations; the operation is now flowing along very efficiently with the combination of Cyril Lee and us.

A feature of the *Tacoma*'s new equipment is the sorting hopper on her afterdeck. Designed by the *Tacoma*'s engineer Mr Andrew Haldane the machine eliminates hand sorting. The catch is released from the trawl net on to a vibrating grid over the hopper. Prawns and smaller items caught in the net fall through the grid into the bottom of the hopper. A conveyor belt carries the prawns to a grading machine from where they travel below decks to the packing room for weighing into two kilo blocks and freezing.

The blocks are subsequently packed, placed in cartons and stored in the adjacent holding room. Forward of the packing room is the refrigeration machinery space. Existing and new machinery has been laid out to a new and more efficient design. Fibreglass has been used extensively in the vessel to permit quick and effective cleaning of machinery and processing areas. A contact freezer will initially freeze the prawns in their two-kilo moulds. The catch is then ready for export. The product will be marketed under the title 'Tacoma King Prawn' and display on the pack the words 'Frozen, whole, uncooked prawns on board MFV *Tacoma*'.

The year 1978 - these were changing times. It was when one of the original crewmembers of the *Tacoma* decided he wanted a change. Jack Bellamy, the surviving twin of the earlier tragedy, signed off after twenty-six years on the one boat. For some of that time he was the assistant engineer.

Around this period the senior Haldane brothers gradually retired from the work of fishing, although they still went out now and then when the workload was heavy, such as the opening of a new season when you can expect some heavy nights for possibly the first trip. Robin Haldane, Hughie's son, had been groomed to take over as the skipper, and Andrew, Alan's son, was the engineer.

There were times when the catches of prawns were not as good as could be. The size of the prawns were getting too small (juveniles) so the government put a ban on to give the prawns a chance to grow. After a period of time, the ban was lifted. This was a seasonal ban.

Extract 'Port Lincoln Times' Thursday, January 26th 1978

Fisherman Act to Save Gulf Prawn Resources

Skippers and crews of Port Lincoln based trawlers decided at a meeting yesterday to impose their own bans on trawling in northern Spencer Gulf to replace that which the government lifted last week.

Sixty men attended representing 20 of the port's 24 trawlers. Some were unable to attend owing to the short notice given of the meeting. The decision to voluntarily close the areas was unanimous. Those present expressed the belief that the action of the Department of Agriculture and Fisheries in opening the areas would drastically affect their livelihood.

In addition to voluntarily readopting the seasonal closing of the area normally closed between January 15th and March 15th, the meeting unanimously decided that the former permanently closed area of the gulf be closed again forthwith.

The meeting was told that all boats fishing in the newly opened area over the past week were alarmed at the number of small snapper and undersized whiting killed in the nets. They said they were concerned for the future of other fisheries as a result of the department opening the areas.

Ineffective

A spokesman for the crews and skippers said they felt the Fisheries Department had been totally ineffective in the past six years and had failed to accept recommendations from the industry. The meeting decided to send a petition to the government asking for reimposing of seasonal and permanent bans.

The Port Pirie based prawn trawler operators a week earlier decided on a similar petition.

The Port Lincoln meeting also decided to call for a total closure of the Gulf to prawn trawling over a period yet to be decided early in 1979. Mr. Michael Thomas, President of the South Australian Branch of the Australian Fishing Industry Council, chaired the meeting.

Adelaide News

Crews agree to ban prawn fishing

Port Lincoln prawn fishermen have agreed among themselves to ban trawling in northern Spencer Gulf. Their decision follows the opening by the Department of Agriculture and Fisheries of January 12th of the previously closed area. The assistant director of the fisheries section of the department (Mr. I R Kirkgaard) said last night that the bans had been difficult to enforce.

The president of the Western Waters Prawn-boat Owners Association (Mr. B Delongville) said from Port Lincoln last night that the fishermen were unhappy about the department's passing of the responsibility for fisheries management to them. "They are asking us to do their job – it is their job to manage fisheries," he said.

The unanimous decision by the skippers and crews of Port Lincoln's 26 prawn boats not to fish the area north of a line from Shoal water Light, Middle Bank Light and Port Broughton was made at two meetings on Wednesday. The fishermen expect the skippers and crews of 10 trawlers operating from ports on the eastern side of Spencer Gulf to join them in the ban.

Mr Delongville said the decision had been taken to protect young prawns in a vital stage of their life cycle, between January 31st and March 15th. "Its only logical to leave them" he said. "By catching them later when they move to deeper water you can double or treble your catch weight. Mr Delongville said that although there was almost no market for small prawns this season he expected some fishermen would break the agreement.

The fishermen had asked Mr. Blacker, the Country Member for Flinders, to raise the matter when Parliament meets in February. The fishermen had asked the department to police the bans for the past three years. "We are not prepared to take the chance of fishing in the area, especially when the industry is in decline," he said. Mr. Kirkgaard said fishermen's opinions in the past year had varied from total closure of the area to complete opening. "We are confident no permanent damage to fisheries will result from the opening," he said. "In the past four years returns have fallen by up to 40%."

Around this time the fishery in St. Vincent's Gulf was having trouble for the very same reason. There were too many boats for the size of the resource.

'News Tribune' (Washington, USA) October 20th 1978

Fish boat *Tacoma* is 'down under' by Bruce Johnson

Her name is the *Tacoma*. But the closest this tuna seiner turned prawn dragger has ever come to Tacoma is the southern coast of Australia. That's where the 84-footer was built to plans supplied by the former Western Boat Building Company of Tacoma. And it's where the *Tacoma* has been operating during all of her 27 years.

The unusual story of how this "Down Under" fishing boat got her Tacoma name was told here yesterday at the home of Hervey Petrich Senior, Western Boat founder. Visiting Hervey is Bill Haldane of Port Lincoln in South Australia; the oldest of three brothers who built and operated the *Tacoma*, and Sverre Jangaard of San Diego, a retired tuna man who helped make the *Tacoma* a successful fishing boat. It was in 1944 when Western Boat received a $2,000 cheque in the mail from the Haldane brothers. The Haldanes had seen a trade publication article on Western Boat and it was mentioned that boat plans could be ordered for $2,000.

It was a shock when the Haldane cheque arrived at Western Boat. It was a shock for a very good reason. “We didn’t have any plans.” Petrich conceded yesterday. “Putting in that requirement for $2,000 is how we avoided getting requests for the plans.”

Western wanted to build its own boats, not peddle plans for boat construction elsewhere. But Harvey corresponded with the Haldanes and it was determined that the brothers wanted the plans only for themselves rather than going into competition with Western. Full scale layouts of a Western seiner were taken off the floor in the firm’s loft and reduced down to a size that could be sent to Australia.

And the $2,000 cheque was returned at the same time. The Petrich family was so pleased with the Haldane brothers being interested in Western’s seiners that the plans were provided free of charge.

The Haldanes were so appreciative that they named their boat – Australia’s first purse seiner – the *Tacoma*. Western Boat’s benevolence paid off in another way for the City of Tacoma. Eight years ago when the Haldanes converted their boat to prawn catching, the brand name ‘Tacoma’ was selected for marketing those prawns in Japan. “The *Tacoma* brand is looked upon as the finest prawns going into Japan,” said Haldane.

Those prawns are so fresh because they are quickly processed and frozen aboard the *Tacoma*. The Haldane boat is the Australian prawn fishery’s only combination catcher-processor.

The four-man *Tacoma* was converted to prawn fishing because “the tuna fishing took a nose dive and had some lean years,” said Haldane, who is visiting the United States for the first time.

The tuna fishery has revived but the Haldane brothers (actually, their sons now run the family business) have stayed with prawns. Going into prawns was the second conversion for the *Tacoma*. The boat was converted in 1956 from a tuna seiner to a tuna bait boat because waters off southern Australia often are too rough for purse seining. Helping the Haldanes make that switch was Jangaard, a Norwegian born fisherman who had worked waters from Alaska to South America.

Jangaard’s conversion was successful because the San Diego man had done the same thing with his own boat, the *North American* – a product of Tacoma Boat building Co. The North American had been built as a sardine seiner. But that fishery took a nosedive and Jangaard switched to halibut fishing.

The boat was really too big for that type of fishing though. So, Jangaard converted the *North American* to a tuna bait boat operating out of San Diego.The *North American* and a later Jangaard bait boat, the *Cape Falcon*, were so successful that Jangaard’s concepts and Jangaard himself were incorporated into tuna boat-building Campbell Industries. Jangaard eventually became the San Diego firm’s president.

Jangaard is retired but he still dips an oar into tuna fishing waters. He’s intrigued with an increasing popular of tuna fishing in the South Western Pacific. Instead of setting the nets on porpoises schooling with the tuna, some fishermen are setting their nets around logs and other floating debris attracting bait fish. This method is called ‘log fishing’. Jangaard thinks the technique will help American fishermen to further reduce the accidental drowning on air breathing porpoises.

THE 1980 TUNARAMA FESTIVAL

MFV *Tacoma* leading the Port Lincoln fishing fleet's sailpast

Extract from 'Port Lincoln Times' January 24th 1980

Tuna fishing pioneer to open festival

The nineteenth Tunarama Festival is to be officially opened on Saturday by one of the men instrumental in developing the tuna fishery, Mr. Bill Haldane. Mr. Haldane has played an important role in the development of the tuna fishery after which the forthcoming festival has been named. Bill Haldane with his brothers Hughie and Alan built their well-known fishing vessel *Tacoma* at Port Fairy, completing her in 1951 and sailing to Port Lincoln in January the following year carrying their families.

Early experiments purse seining for tuna were unsuccessful and in 1956 the Haldane's brought from San Diego, America, the Jangaard brothers who in three months of trails aboard the *Tacoma*, proved the suitability of the pole method which ensured the commercial success of tuna fishing in State waters.

An increasing number of vessels entered the fishery, reaching a peak level in the mid 1960's.

Subsequently the Haldane family undertook research into prawn fishing participating in their last tuna season in 1969 before entering the prawn fishery permanently. "A lot of work had to be done when we first came to Port Lincoln to establish the best tuna grounds, the habits of the fish and other necessary factors," Mr. Haldane said. "This was done without the aid of spotter aircraft, radar or radio. Navigation aids were poor and we pushed for the erection of lights on both Williams and Taylor Islands, which markedly improved navigation for the fleet.

Experimental tuna fishing placed a heavy drain on our financial resources and during the first six years we supported our families by salmon and shark fishing. The early tuna boats also had to bear the heavy cost of establishing the cannery and of marketing promotion, tuna being a virtually unknown commodity then."

Excerpts from conservation writer, Kym Tilbrook

The economics of prawn fishing are taking a heavy toll in some sections, with fishermen having to take small prawns in an attempt to make ends meet. It's a backward step, which further depletes the fishery. In St Vincent Gulf, according to prawn boat skipper Maurice Corigliano, some vessels have suffered losses over the past few years. It costs about $150,000 a year to run a boat. In 1977-78 had only got $113 000. In 1978-79 it had been $96,000 and in 1979-80 it had risen slightly to $98,000.

“Because of this the fishermen were forced to take small prawns which they know is self destructive,” he says. “By 1980 it was evident that the fishermen could nor economically survive in 1981. They had used up their reserves and were facing disaster.”

Mr. Corigliano says that during the past four years fishermen have constantly warned that the St Vincent Gulf prawn fishery faced extinction.

As was later proved, there were too many boats in that fishery, and a buy back scheme was put forward to try and alleviate the situation. After a long closure, there is now prawn fishing in the Gulf but with a much reduced fleet.

Spencer Gulf Fishery
Advice given to the Western Waters Prawn Boat Owners Association (WWPBOA) from a public accountant on the economics of the industry is not good. In a review of the past three years the accountant says “results clearly show a drop in viability”.
It has been proved that the only way the fishermen can improve is to curb their costs. While they were still catching the small prawns, they were reducing the stock in the fishery.

To be able to improve, they had to leave the juvenile prawns to grow, thereby getting better prices for their catch. But because of the increased rise in costs, with the drop in revenue, it placed the fishermen who had borrowed heavily to enter the fishery in considerable financial trouble.

One of the problems, some of the fishermen would like to give the prawns a rest, but as they said looking at what others were doing, “If I don’t take them, the other fellow will”. On the catching side fishermen do likewise saying” if he is catching them, I am going to get my share.”

Mr. Mick Puglisi, president of WWPBOA, warns that the catching efficiency of the fleet has increased dramatically, and its capacity to reduce the stocks to a dangerous level needs to be monitored very carefully. Mr. Puglisi says prawn size is very important to the fishermen, because bigger prawns give the maximum value possible. At the top of the Gulf prawns are getting smaller and smaller, but with new management measures fishermen now left the top area as long as possible before harvesting. This allowed prawns to reach the biggest possible size and to drop as much spawn as they could.

Because of problems with small prawns the Minister of Fisheries, Mr. Olsen, recently announced a four-month closure in Spencer Gulf. He says the closure is necessary to ensure sufficient spawning stock for next season.

Mr. Olsen warned “Recruitment of small prawns in the top end of Spencer Gulf in 1981-82 was very low and has been associated with intense target fishing on potential spawners. “The stock of large prawns had been significantly reduced…and the majority of prawn populations left are small and are of relatively low value. Therefore, further intensive fishing by the fleet will be wasteful considering the benefits gained in growth during the October-November period.”

Mr. Olsen says the Government is looking at the industry as a farming venture. Seasons were being structured so that prawns were taken when they were ready to be harvested.

"This is what it is about," he says. Mr. Olsen says SA still has a prawn industry that can be sustained and viable provided effective management policies are implemented on research data. He also warns the management policies will be strictly enforced. Anyone who breaches the policies will suffer severe penalties.

Asked how many boats the industry can support and whether boat numbers should be reduced he says " I believe at the moment the research we have done indicates that at this stage it could not stand an increase in effort."

SECONDARY DEVELOPMENTS

After a period of time working with the first grader, Andy Haldane was working out how to make the system more efficient. He set to and designed a new pattern of grader and sorting table.

They proved so successful the fleet nicknamed the *Tacoma* the 'ghost ship' because there hardly seemed to be any crew working on deck. What had happened was the new grader, plus the new design of sorting table was so good, that the catch was processed in a very short time. This gave the crew more down time in between shots of the nets. This also had another very important result. The prawns were dropped on to a grating on the table, which had bars so placed as to only let the prawns and small fish through.

When the vibrator had shaken all the prawns through, the rubbish, e.g. crabs which used to damage the prawns with their claws, stones, sponges, rays etc, were all thrown back into the sea by lifting one side of the grating, and tipping all the contents into the sea. The balance was then sorted, and the damaged prawns with any other fish left on the table go over the side. The prawns are lifted out of the well in the table by a small elevator.

In turn, this eventually sends the prawns either to a cooker (if some cooked prawns are required) or over to the big elevator which lifts the prawns on to the top of the grader. This then washes the sand and any other muck such as squid ink off, then proceed along the bars of the grader till they come to the correct spacing and fall through into a chute that empties into a basket ready to be sent below to pack. End result: better grading, better quality and a better price. The result of much hard work had paid off again.

Word of the grader got around the local fishing fleet. First one of the other skippers came to Andy, and asked him if he would produce a grader for him. At first Andy was not interested, but after some more requests, he decided to build one for him. This was the thin end of the wedge. Eventually all the fleet had one of these graders, as it was realised the efficiency and the excellent grading of the prawns increased their quality and in turn the price gained. Also, several of the other boats in the fleet have now gone over to processing their own prawns. To date there have been forty-four graders made and sold, plus fifteen sorting tables. They have gone as far as Townsville, Cairns and to Western Australia.

There are two models. The one used most is the shorter version, which is in two levels, one above the other thereby saving space on the deck of the boat.

The other is a long version, which can be used on a bigger boat with plenty of deck space. The average cost at the time of writing is around $25,000.

Most of the graders are made of aluminium framing which is powder coated and gives an excellent finish and easy to keep clean, with plastic elevators mounted on stainless steel shafts set in fibreglass frames. All the grader is made for easy maintenance. The bars which the prawns travel along in the grader, has plastic tubing mounted above filled with water which is squirting all over the prawns to clean them. All the graders have a plate mounted on the side stating 'HALDANE GRADER Serial No……. '

HALDANE FAMLY MILESTONES

Hugh Ross Haldane (Snr) died 19.09.1970	aged 83
Rebecca Haldane died 19.10.1977	aged 87
William (Bill) Hamilton Haldane died 18.11.1983	aged 70
Hugh Ross Haldane (Jnr) died 19.08.1998	aged 80
Blanche Cameron Haldane died 10.07.2004	aged 83
Clyde William Haldane died 28.06.2005	aged 61
Alan Robert Haldane died 20.07.2006	aged 90
Christina Dorothy Elizabeth Haldane died 27.12.2008	aged 92
Agnes Haldane died 05.02.2009	aged 94
Clara Elizabeth Haldane died 18.11.2010	aged 93

Specifications MFV *Tacoma*

Fishing No.84, then L01

	Imperial Measure	*Metric Measure*
Hull		
Length	84’	25.6m
Breadth	21’6”	6.58m
Depth	10’	3.05m
Displacement to waterline	161.3 ton	164 tonnes
Displacement light ship	149.59 ton	152 tonnes
Hull	Wood	
Keel and keelson	Blue gum	
Main deck beams, frames	Blue gum	
Rib	Spotted gum	
Planking below waterline	Jarrah 2¼”	51.4mm
Planking above waterline	Oregon 2¼”	51.4mm
Deck planking	Oregon 3”	76mm
Hull lining throughout	Oregon 3”	76mm

- Wheelhouse and living quarters lined with polished silky oak and Queensland maple ply
- 11 bunks for crew, each fitted with curtains and lighting
- Galley fitted with *AGA* cooker, freezer, stainless steel tops and sink

	Imperial Measure	*Metric Measure*
Motor		
American *Atlas Imperial* diesel 4 cyl 275rpm, speed 8.5-9 knots per hour	240hp	179kw
Weight	19 ton	19.3 tonnes
Crankcase	8 ton	8.13 tonnes
Flywheel	2 ton	2.03 tonnes
Conrod and piston	750lb	31.78kg
Bore	13”	33.02mm
Stroke	16”	40.64mm
Auxiliary Motor - *Crossley*	28hp	20.8kw
Propeller shaft[4]	4½” diameter	114.3mm
	14’6” long	4.7 metres
Steering gear - *Donkin*		
Propeller - *Bruntons Ltd*	68”	1727mm
Net		
Purse seine net		
300 fathoms x 30 fathoms deep		
Weight	11 ton	11.18 tonnes
Mesh		
top two thirds	4”	101.6mm
balance	8”	20.32mm

- 6 corks in bunches three, narrowly spaced, keep net suspended at the surface. Each spaced 20ft apart (6.09M) and the whole lead is ¼lb in weight (7.08gm). The pursing rings – 6 inches in diameter (152mm).

- Valued @ £5,000 ($10,000).

[4] The shaft was the longest Monometal to be imported to Australia from the USA

	Imperial Measure	*Metric Measure*
Anchors – *Dreadnought*	2 x 8cwt each	2 x 406.4kg each
Fuel capacity	4,000 galls	18 190 litres
Storage	80-120 tons	81.28-21.9 tonnes
Turntable on stern	24'x 24'	7.3 x 7.3 metres
Communications - *AWA* transmitter & receiver	1,000 mile range	1 609km range
Echo sounder - *Kelvin Hughes*		

- Fire protection: large bank of $C0^2$ (carbon dioxide) bottles
- Bridge fitted with both internal and external steering positions, plus external binnacle

The purse seine net was loaded on the *Tacoma* in Port Adelaide on its maiden voyage to Port Lincoln. It belonged to the CSIRO and had come from Canada. It had been used aboard the Commonwealth fisheries research vessel, the *Wareen*, when doing tuna fishing research in the late 30's, and had been put in store since then. It was cotton net, and to help preserve it, the net was treated with wattle bark.

When the Haldane brothers received it, they gave it further protection as it was so hard to dry: a tin bath was bought, and they took the net to the Government Produce Department yards, where they proceeded to creosote the net - 400 gallons of it. To do so, the net was reduced in size to 5fathom lengths. This made the handling better. The creosote was heated in the bath, and then the net was dipped in it. As you can imagine it was a very dirty job. There was quite a bit of skin burn from the creosote, particularly as the weather was hot at the time. Even so it was a big job to get the net dried afterwards. The strips had to be hung out on the skin-shed racks to dry. When ready, the net was then restitched to its original form, a rather formidable job.

Tacoma remotored in the winter of 1971.

Official Number	178452
Fishing Number	P38
Class of vessel	3B

	Imperial Measure	*Metric Measure*
Makers: *Grenaahaven*, Denmark		
Main motor: *Grenaa*	500hp @ 500rpm	366kw
Developing	4 ton bollard pull	4.03 tonnes
Weight	9 ton	9.14 tonnes
Speed	10 knots	
Auxiliary motors: 2x6cyl *Perkins* diesel for alternators		
Propeller shaft	5.31" diameter	135mm
	14' 6" long	4.7 metres
Variable Pitch Propeller	59"	1 498mm
Trawling speed	3-4 knots per hour	
Plate Freezer capacity	30,864.2lbs	14 000kg in 6 hours

Communications:
- HF, VHF, UHF radios

Navigation:
- Global Positioning System and Plotter
- JRC Radar
- Echo Sounder

Haldane Prawn Grader is valued at $25,000.

After the changeover, the *Tacoma* is now steered electrically.