

# QUEENSLAND

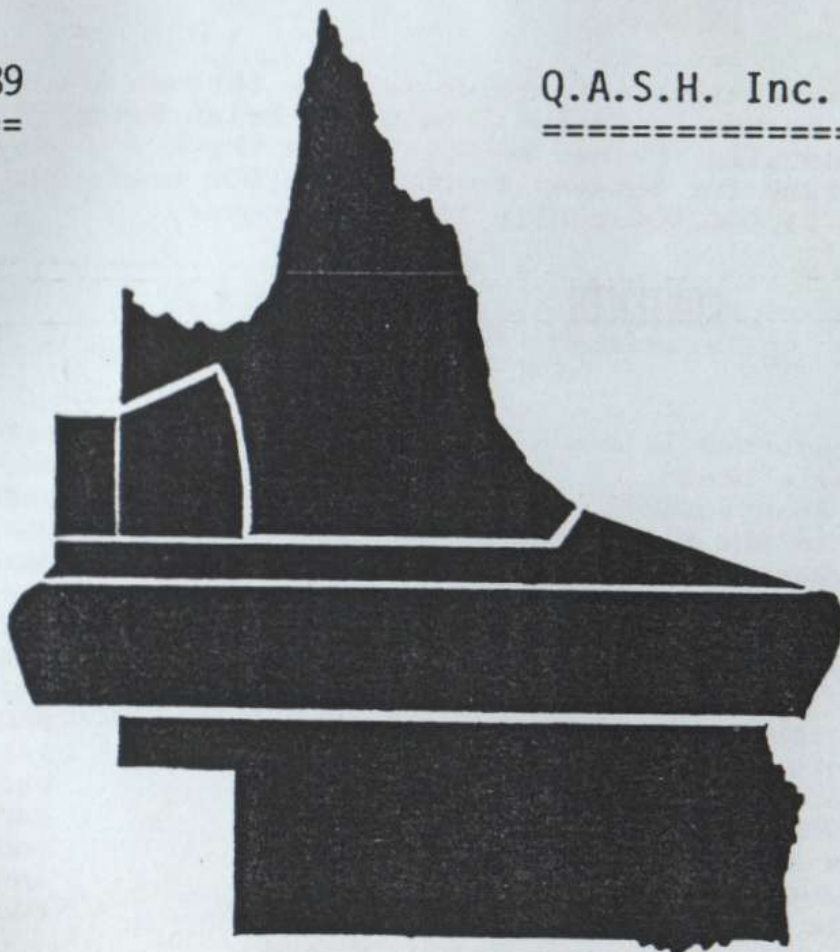
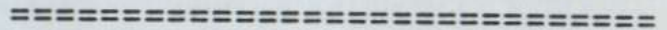


# SPORTING HOVERCRAFT

JUNE 1989



Q.A.S.H. Inc. 25th EDITION



Q.S.H.

# QUEENSLAND SPORTING HOVERCRAFT

c/o 52 Utrecht Street,  
Loganholme, Qld. 4129

## COMMITTEE of MANAGEMENT

=====

President : Mark Dobson 15 Daisy Hill Rd., Daisy Hill 4128  
ph 8084395  
Vice President : Des Goss 43 Luprena St., Mansfield 4122  
ph 3499743  
Secretary : Steven Odgaard 52 Utrecht St., Loganholme 4129  
ph 2098498  
Treasurer : John Russell 35 Camlet St., Mt.Gravatt East 4122  
Chief Race Marshal : Kyle Kerr ph 2072653  
Craft Scrutineer : Phillip Audsley ph 071 459268

Annual membership \$30-00 Associate Member \$15-00

Queensland Emblem on front cover designed by John Rapley.

## INSURANCE

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Private insurance is available for club members through the Victorian Association. Apply to the Victorian Treasurer; Brian Watts  
Ph 03 7231964 for details. Prices advertised in the H.A.V. newsletter vary between \$107-\$250 for between \$4,000 - \$10,000 craft and trailer coverage including \$1,000,000 public liability cover.

## CONTENTS

=====

July cruise to Stradbroke Island by Steven Odgaard	page 1
Photograph of 18 mile beach	page 2
Helpful Hints by John Russell	page 2
Sunshine by Wind in the Willows	page 3
Willy Winnet by guess who? ( near Nambour )	page 4
Racing News by Mark Dobson	page 5
Preparing to Race	page 6
Photos of John Rapley's Quatro Ventura	page 7
Club Promotions	page 8
Fan Blade Pitch Selection by John Russell	page 8
Graph of fan diameter versus fan rpm	page 9
Series on hovercraft skirts No 8.	page 10
Notice of ANNUAL GENERAL MEETING	page 11
Calendar of events	page 12
Photos from the Houseboat trip May Day weekend	inside back page
Cabbage Tree Pt. to Jumpinpin Bar. Where is it ?	back page.

## QUEENSLAND SPORTING HOVERCRAFT

Dear Air Cushion Vehicle enthusiast,

The next club rally, to be held at Cabbage Tree Point at 10am on Sunday 16th July, apart from being just a good time to skim over shallow bar waters and white sandy beaches, will be a practice and feasibility study to determine if the planned trip to Point Lookout in November will be safe enough for the average family man in his homebuilt hovercraft.

To reach our destination in November ( a counter meal at the Anchorage Village Beach Resort Hotel at Point Lookout ) our small fleet of hovercraft will need to travel east to the Jumpinpin Bar and then north along 18 Mile Beach.

For those who travelled from Inskip point to Rainbow Beach on the Fraser Island Trips; that surf beach is greatly sheltered by Double Island Point the distance was only 8 kilometres.

By contrast the North Stradbroke surf beach has absolutely no protection from the fierce South East Tradewind and the distance will be an agonizing 32 kilometres of sandblasting to the face, fan blades and skirts.

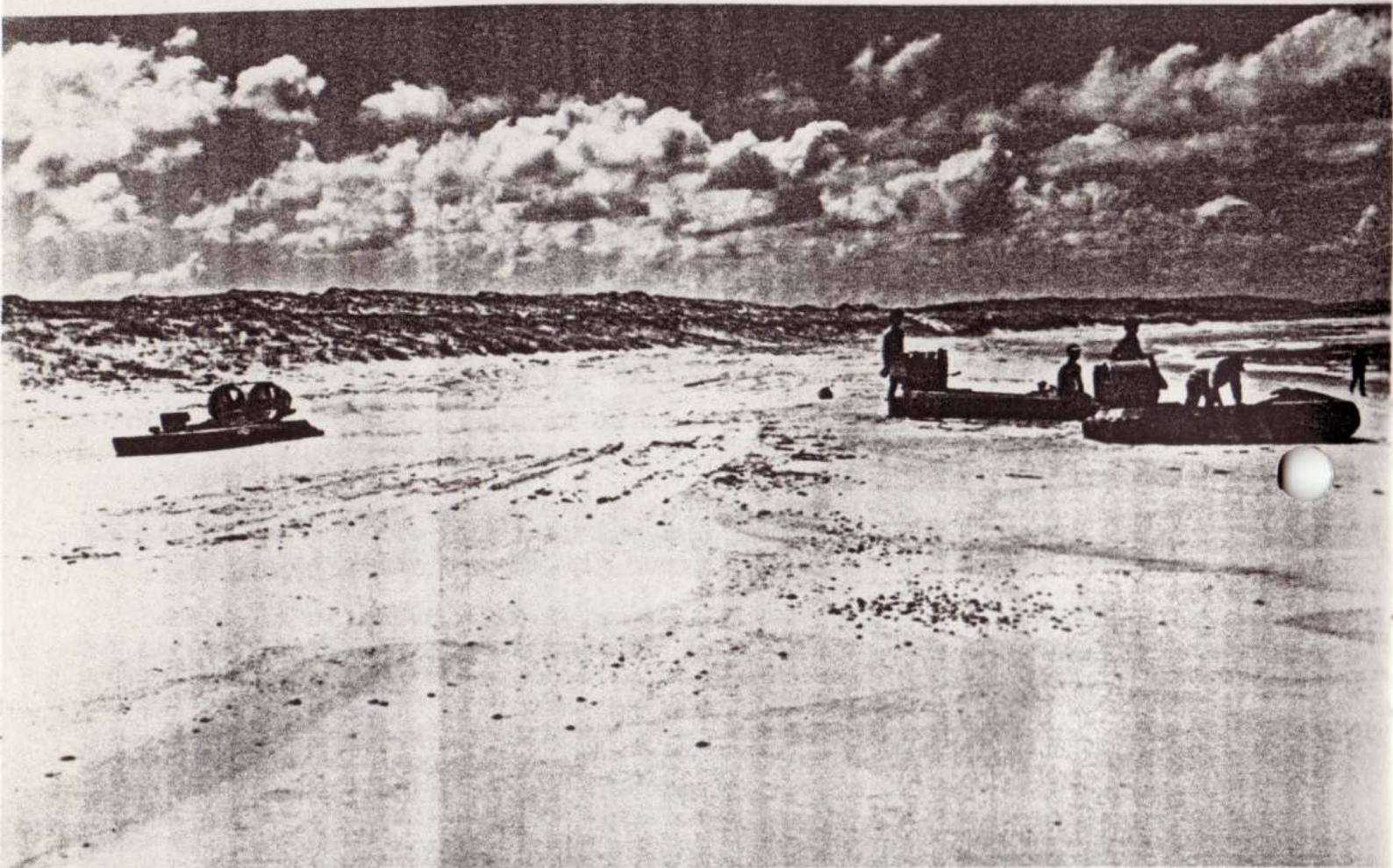
An interesting feature for hovertravel along 18 Mile Beach is that the steepness of the beach varies depending on where the gutters lie and it has been found that the steepest sections often occur near sheltered gutters while the flatter beach always has crashing surf very near to the waters edge. One advantage of having a consistently stiff sea breeze when travelling along a surf beach is that the hovercraft can literally be held on the sloping sand without requiring excessive vectoring to stay clear of the breakers. As Peter Venn once discovered, craft with pure bag skirts must be cautious of the transition over the rapid runout from a large wave and the smooth moist sand. For some unknown reason, these skirts have a tendency to loose lift air and stick to the moist sand like a suction cup does to glass. This can result in the driver leaving his craft without intention. As a safety point of view and to minimize complaints, the hovercraft should stay clear of anglers, beachcombers and 4WD vehicles by at least 30 metres.

Several attempts have been made at this trip in the past, but none have ever succeeded owing to such excuses as not enough fuel, not enough daylight and on one occasion, being bombed out by a huge breaker seemed like a fairly good reason to go no further. This can be a very disturbing occurrence when one considers the expense of ferrying a 4WD and trailer across to the island to rescue a drowned hovercraft.

For this trip in July, we won't be attempting the surf beach run, however there is a good spot to have lunch on the inland side just ten minutes south from the Jumpinpin bar and it's called the Tippler's Bar.

If you have a sea-worthy hovercraft in good working order and you would like to participate in this next rally, please contact Des Goss ph 3499743. Please remember that in Queensland, craft operating in waters under the jurisdiction of the Harbours and Marine shall be registered as private pleasure vessels and shall exhibit an all-round flashing yellow light, a fire extinguisher and life jackets shall be carried and the operator shall have either a private air cushion vehicle masters certificate, a commercial masters certificate or a permit from the Marine Board Secretary.

## QUEENSLAND SPORTING HOVERCRAFT



### " HELPFUL HINTS " by John Russell

Guidelines - Technical or operating hints etc.

- Only two hints to be put in each newsletter edition
- Hint can be only one line or up to a maximum of 2 paragraphs
- To have your hints included in this column, write to the Sec.

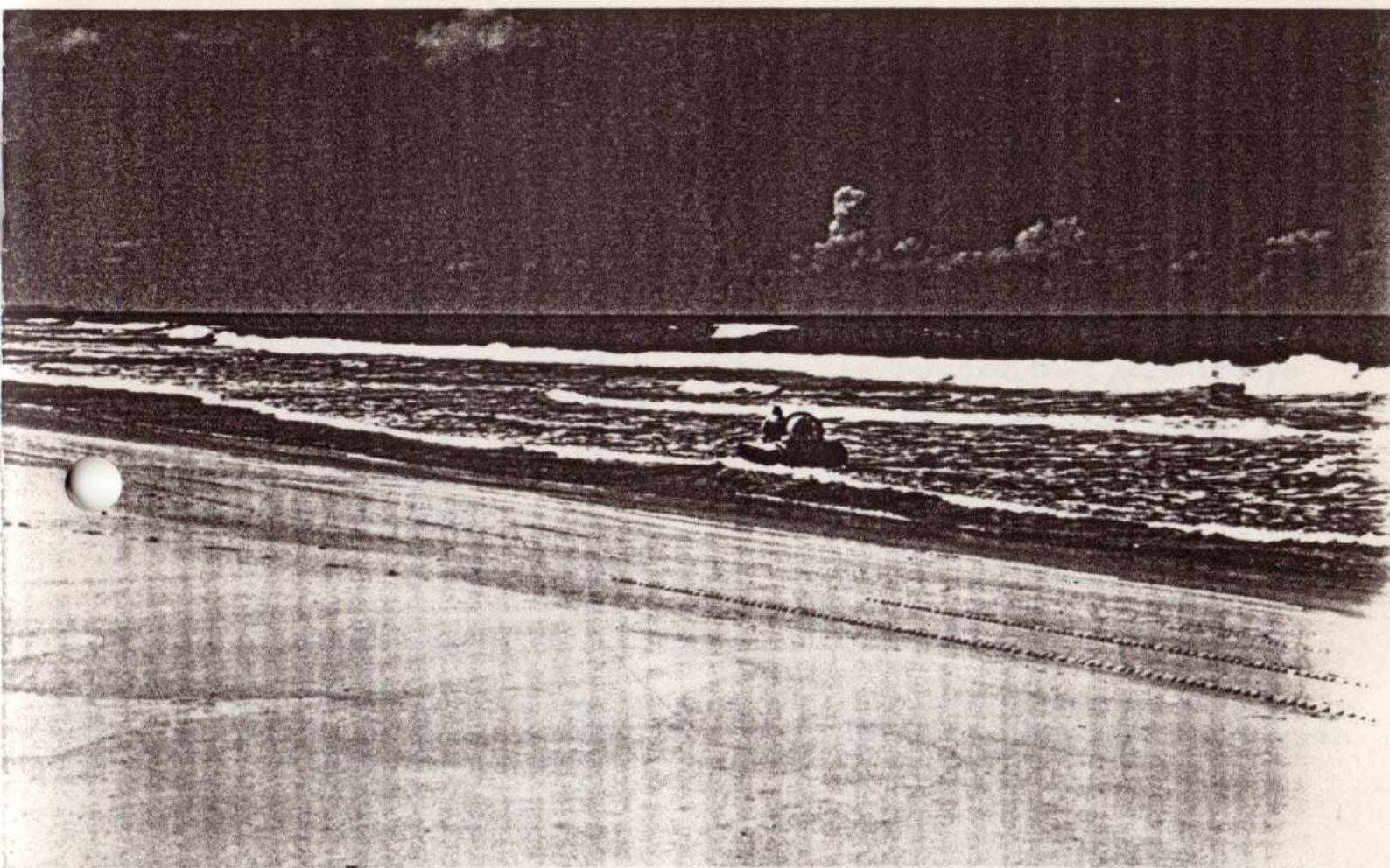
1. With the PE485 engine, the rear seal is actually an internal seal, not an external one. It is assumed that it has been set up like this to drive through an oil filled gearbox etc. The result with our pulley belt drive system is that the small wire spring in the seal is exposed and subject to corrosion.

Resultant failure gives a loss of crankcase pressure and power. The solution is to either convert the seal or at least liberally coat the seal spring to preserve its life.

2. Most of our hovercraft engines are alloy due to the low weight requirements. Operation in marine conditions quickly leads to the white alloy corrosion hampering heat transfer and making bolts grow to the alloy etc.

Washing the engine with fresh water after each salt water use pays dividends in a much cleaner engine with less electrical / mechanical problems later.

## QUEENSLAND SPORTING HOVERCRAFT

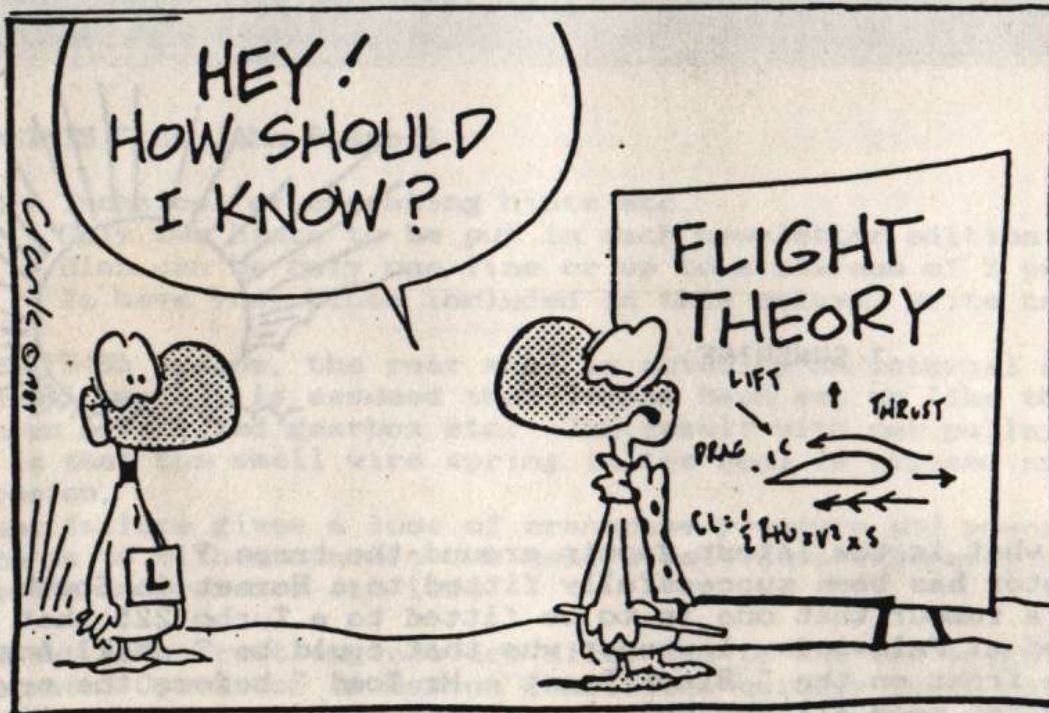


" SUNSHINE "



Hi everyone, what is the latest gossip around the traps ?  
The Subaru motor has been successfully fitted to a Hornet in South Australia but there is a rumour that one is to be fitted to a Turbo 225 that is usually parked at Palmwoods. I wonder who that could be ? Will Angus put an anti-ploughin front on the " Black Beast - Mr Toad " before the next race meeting. He might need all the help he can get with everyone getting their act together. As was mentioned in this column in the last issue about hovercraft being used in the Noosa area, the human being ( and I use the term very loosely ) concerned, had a quiet little chat with one of our members, but still reckons that they are dangerous.

# QUEENSLAND SPORTING HOVERCRAFT



WILLY WINNET

PROFESSOR HARRY VON HOVER

QUEENSLAND SPORTING HOVERCRAFT

RACING NEWS

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Well on May 21st, we had our first meeting at the Carbrook Race track, in conditions you would normally find south of the border. Adding to the bad weather conditions, we had only a couple of craft that were in appreciable racing order and it also didn't people saying they were going to turn up and then not turn not.

As a result of these problems, the committee has decided that an entrance fee of two dollars must be paid prior to or at the general meeting before the next race meeting. Failure to do so shall result in the fee being doubled.

Something which must be done is to have an initial scrutiny prior to your first race meeting which can be done by contacting Phillip Audsley.

PLEASE TAKE NOTE OF THE ABOVE.

Because of the afore mentioned problems, there were only two heats in between the showers with Angus Kerr winning the first heat and Tony Thatcher coming in at second place.

The second heat was again won by Angus Kerr, a surprise second placing went to Danny Venn, Steve Koncz came in third followed by Steve Odgaard in fourth place.

THE POINTS TABLE AFTER THE FIRST MEETING IS:

FORMULA ONE

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NAME	POINTS
----	-----
TONY THATCHER	20
STEVE KONCZ	20
DEN ODGAARD	17

FORMULA TWO

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NAME	POINTS
----	-----
ANGUS KERR	40
DANIEL VENN	17

## QUEENSLAND SPORTING HOVERCRAFT

### Preparing to race.

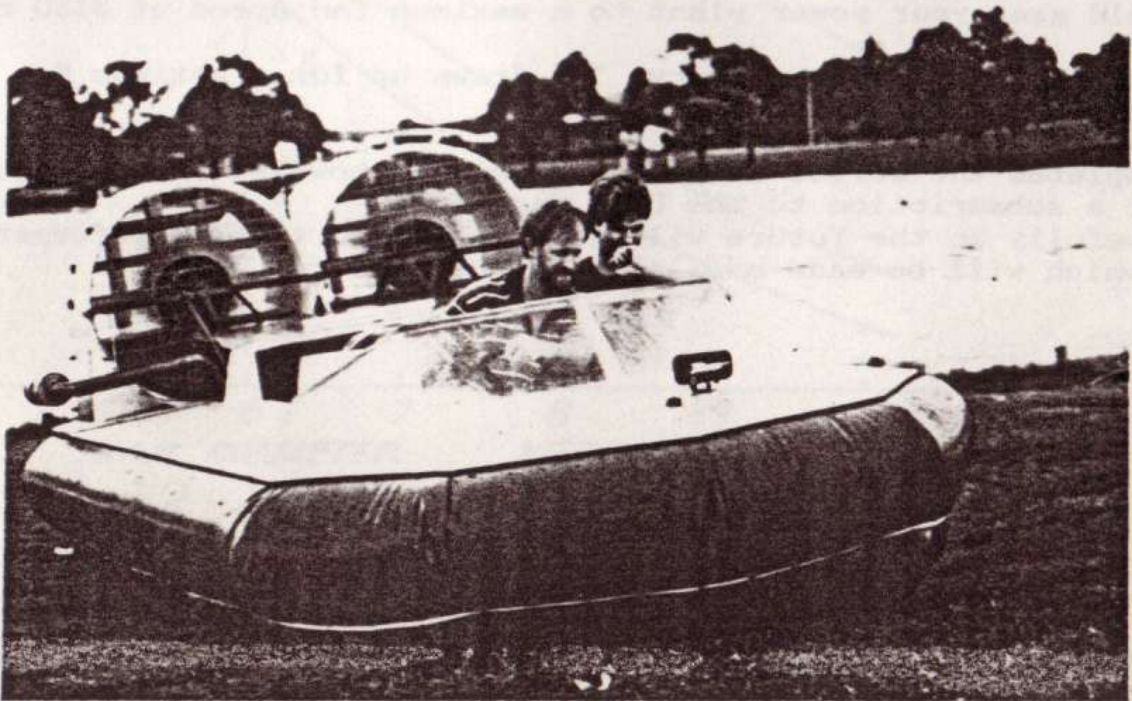
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1. Once unloaded in the paddock, take your hovercraft to be checked at the scrutineering point during the time stated in the programme. The scrutineer will require to see your log book, life jacket and crash helmet.
2. If your craft and equipment is satisfactory, you will be " passed " and the scrutineer will endorse your log book and return it to you.
3. If there is a fault with your craft, the scrutineer will either :-
  - a. record the fault in the log book and insist it be corrected for the next meeting or
  - b. require the fault to be corrected before you operate at the event in which case your log book will not be endorsed until such is rectified and the craft rechecked.
4. You should now attend the Race Director's briefing, the time of which be in the event programme. At the briefing, you must sign the " signing-on " sheet to the effect that you have read and understand the competition rules.
5. If you miss the briefing, you must report to the Race Director before operating and then sign the sheet or you will not be allowed on the race grid.
6. With all the " paperwork " completed, you are ready to practise at the stated times in the programme under the direction of the race marshals.

Anyone wishing to acquire a copy of the competition rules and driver's handbook, please contact Mark Dobson ph 8084395.



" Uncle John's new hovercraft is alright, Eh Franco !! "



QUEENSLAND SPORTING HOVERCRAFT

Club Promotions

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1. Ipswich Mall Static Display

Date and time to be arranged.

Contact : Wayne Summerhayse ph 2812668

2. Victoria Point / Coochiemudlo Island Carnival

Date and time to be arranged.

Contact : Mark Dobson ph 8084395

3. Information Package on Light Hovercraft by Dave Wilson.

Members are invited to send articles and photographs of their hovercraft escapades for inclusion in a booklet soon to published in Australia.

Closing date : 31st July 1989

Write to : Dave Wilson,

P.O. Box 84

Clermont, Qld. 4721

Part 4. Fan Blade Pitch Selection

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by John Russell.

An unintentional mistake is what I call the incorrect plotting of curve "D" in part 3's graph for the 800mm duct. See April's issue of Q.S.H. The upper point marked at 44hp should also be at 233lbs thrust and not at 213 as drawn. This will bring the curve more in line with the other three. I thought something looked wrong!

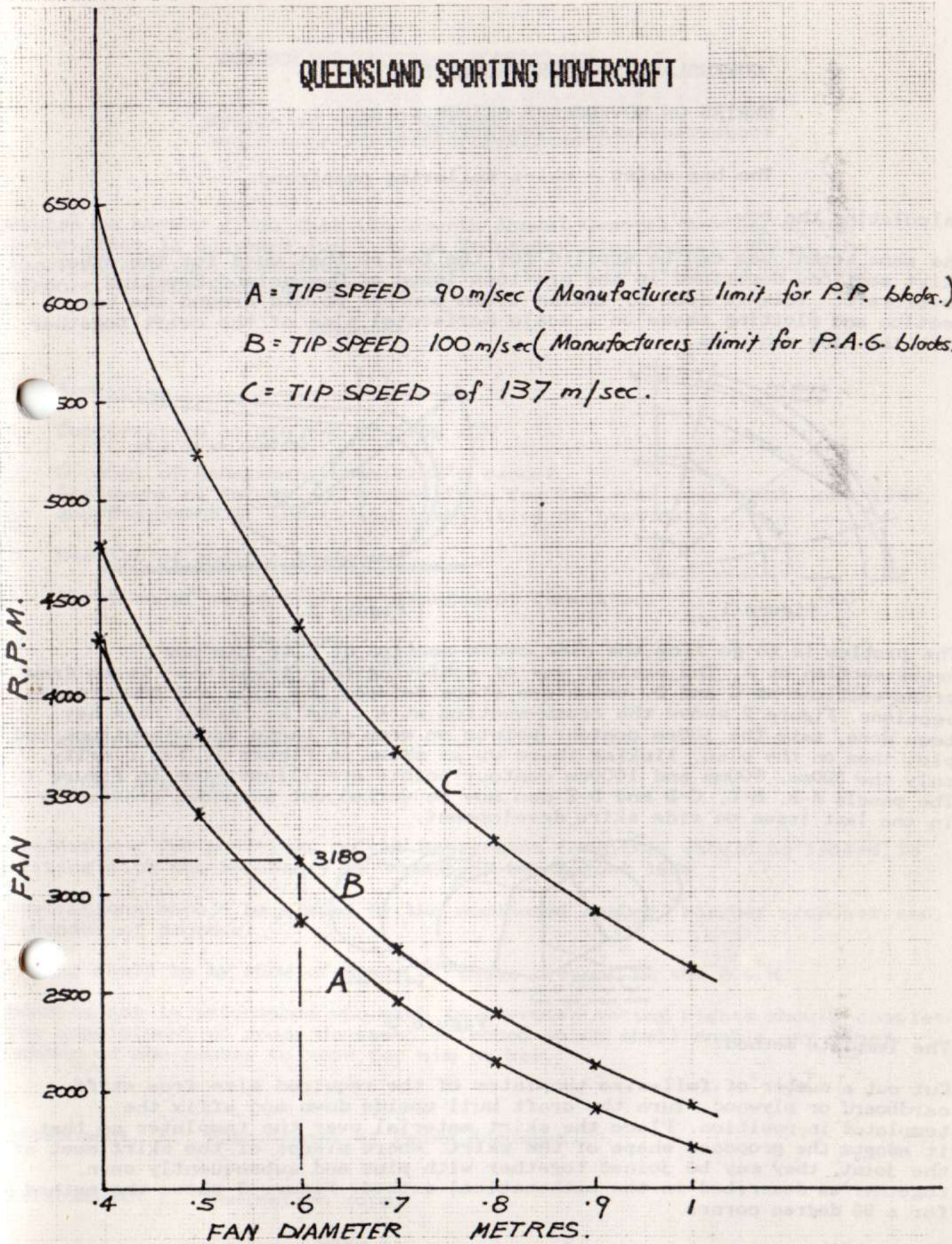
The one graph shown here gives a quick guide for the maximum fan revs for a given duct size. For example, if you are using 600mm ducts and PAG blades at the Australian manufacturer's tip speed - a limit of 100 metres per second, you should gear your power plant to a maximum fan speed of 3180 rpm.

Also given for your use, is curve "C" drawn up for a maximum fan tip speed of 137 metres per second.

This completes the series on pitch selection, however the club has recently paid for a subscription to the U.K. magazine. This hopefully in the future will give us access to more information on this matter which will be made available to our members.

# QUEENSLAND SPORTING HOVERCRAFT

A = TIP SPEED 90 m/sec (Manufacturers limit for P.P. blades.)  
B = TIP SPEED 100 m/sec (Manufacturers limit for P.A.G. blades.)  
C = TIP SPEED of 137 m/sec.



# QUEENSLAND SPORTING HOVERCRAFT

## SERIES ON HOVERCRAFT SKIRTS No 8.

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The bag skirt - skirt tailoring continued.

Calculating the bow.

The same techniques can be applied for the bow as that used for the other skirt sections described in the previous issue of Queensland Sporting Hovercraft. This is done by taking 100mm contour points around the bow section and plotting these on a scale horizontal plan of the craft together with the side contours.

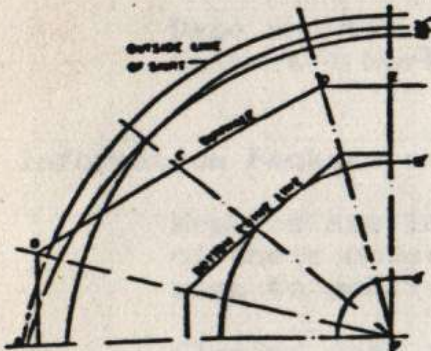


Figure 1

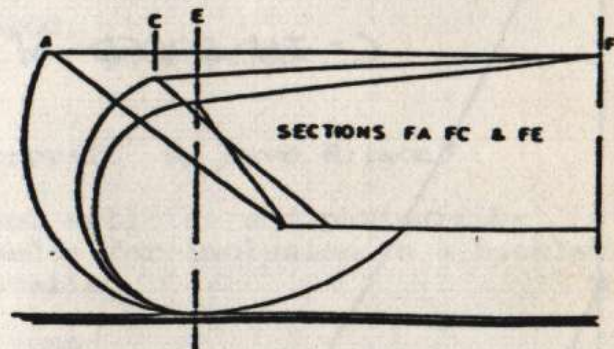


Figure 2.

The problem is to go from the side cross-section at E to the bow cross-section at A. The easiest way of achieving this transition is to draw cross-sections at C and D, which are steps between the side and bow cross-sections. Figure 2 shows the cross-section at A, C and E. After this has been done, take the 100mm contour points on each of these cross-sections and plot them on the plan, linking these up as shown in Figure 1. For clarity, only the 300mm, 900mm and 1000mm contour points are illustrated in Figure 1. The panels A-B, B-C, C-D and D-E can now be worked out as shown previously in the last issue on side skirt development.

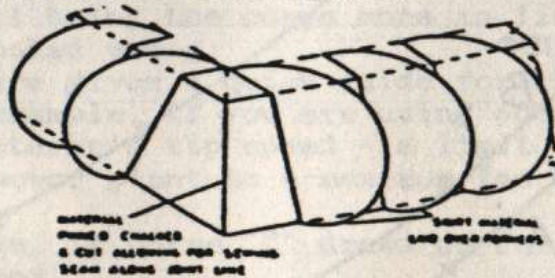


Figure 3

The Template method:

Cut out a number of full-size templates of the required size from stiff cardboard or plywood. Turn the craft hull upside down and affix the templates in position. Place the skirt material over the templates so that it adopts the proposed shape of the skirt. Where pieces of the skirt meet at the joint, they may be joined together with pins and subsequently sewn together as described in the mathematical method. Figure 3 shows the method for a 90 degree corner.

**QUEENSLAND SPORTING HOVERCRAFT**

**Notice of ANNUAL GENERAL MEETING**  
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Notice is hereby given that the fourth Annual General Meeting of the Association is convened for 7:30 pm Wednesday 23rd August 1989 at the Sporting Aircraft Association of Australia Club building, Archerfield Airport, Beatty Road, Archerfield.

**Business**

1. Apologies
2. Confirmation of minutes of 1988 AGM
3. Receipt of Management committee's report, Statement of income and expenditure for the year ended 30th June 1989, and Statement of assets and liabilities at that date.
4. Receipt of Auditor's report.
5. Election of members of the Management Committee:-  

President  
Vice President  
Secretary  
Treasurer,
6. Appointment of Auditor
7. Other business

Nominations for positions on the Management Committee should be lodged in writing with the Secretary by Wednesday 9th August 1989.

Nominations should be signed by the nominated member, his/her proposer and seconder of proposer.

Voting shall be by show of hands of those present at the A.G.M.

Members not in attendance who wish to exercise voting rights should complete the appointment of proxy document attached which shall enable any other member or non-member to vote for him or her.

Attachment 1. Appointment of Proxy document.

Attachment 2. Nomination form.

## QUEENSLAND SPORTING HOVERCRAFT

Proposed events for the coming months:

Sunday 25th June	Carbrook
Sunday 16th July	Cabbage Tree Pt to Jumpinpin
Sunday 23rd July	Carbrook
Saturday 19th August	Kholo Bridge - Brisbane River
Sunday 27th August	Carbrook
Sunday 17th September	Maroochydore - Eudlo Ck Junction
Sunday 24th September	Carbrook
Saturday 21st October	Toorbul Pt to Caloundra
Sunday 29th October	Carbrook
Sunday 19th November	Cabbage Tree Pt to Pt Lookout
Sunday 26th November	Carbrook
Sunday 17th December	Carbrook ( Qld Championship )

The 5th race meeting is scheduled for Sunday 25th June 1989 at Carbrook.

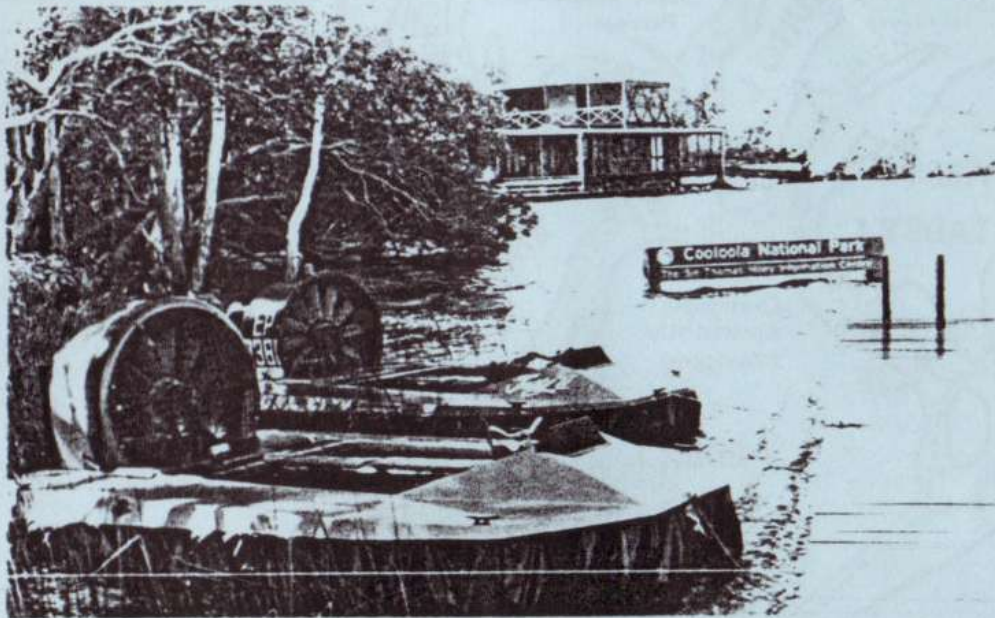
The 4th Annual General Meeting has been set for Wednesday 23rd August 1989.

The 23rd general meeting is convened for 7-30pm Wednesday 21st May 1989 at Archerfield Airport in the S.A.A.A. building.

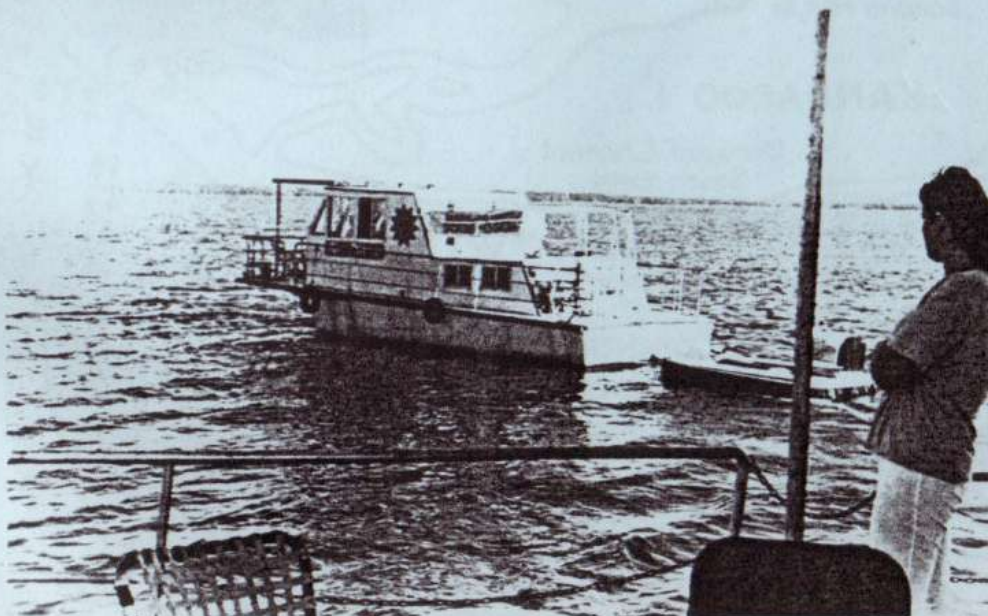
Steven Odgaard  
sec.



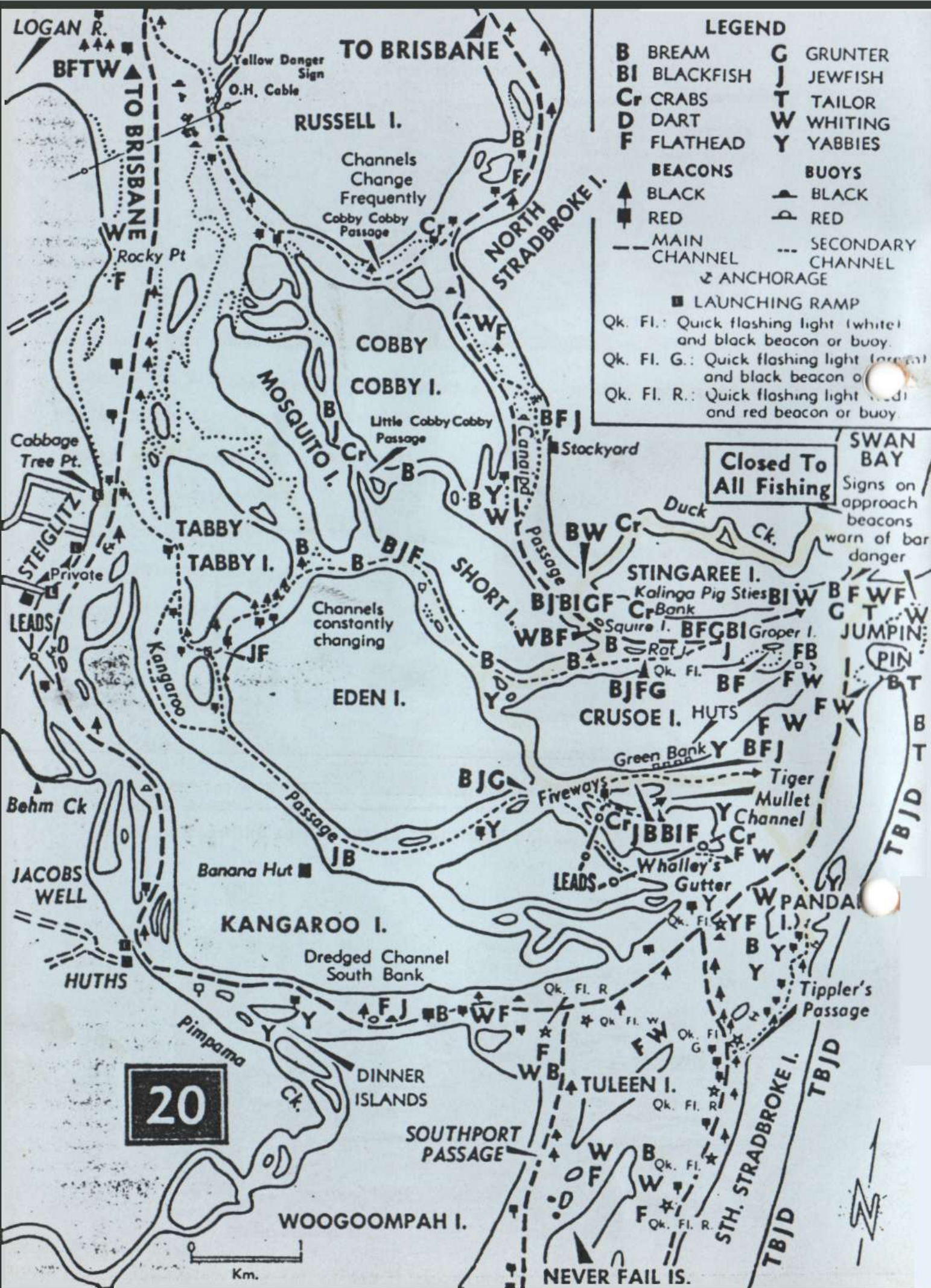
Q.S.H. near Boreen Point - Lake Cootharaba 29th April 1989.



Geoff and Grahame's Turbo 240 hovercraft at the Kiniba Information Centre.



Sharlene watching the River Princess as it begins the slow trip home.



**LEGEND**

- |   |                       |
|---|-----------------------|
| <b>B</b> BREAM  | <b>G</b> GRUNTER      |
| <b>BI</b> BLACKFISH   | <b>J</b> JEWFISH      |
| <b>Cr</b> CRABS   | <b>T</b> TAILOR       |
| <b>D</b> DART   | <b>W</b> WHITING      |
| <b>F</b> FLATHEAD   | <b>Y</b> YABBIES      |
| <b>BEACONS</b>  | <b>BUOYS</b>          |
| ▲ BLACK   | ▲ BLACK               |
| ■ RED   | ▲ RED                 |
| — MAIN CHANNEL  | --- SECONDARY CHANNEL |
| ⊕ ANCHORAGE   |                       |
| ■ LAUNCHING RAMP  |                       |
| Qk. Fl. : Quick flashing light (white) and black beacon or buoy.    |                       |
| Qk. Fl. G. : Quick flashing light (green) and black beacon or buoy. |                       |
| Qk. Fl. R. : Quick flashing light (red) and red beacon or buoy.     |                       |

**Closed To All Fishing**

Signs on approach beacons warn of bar danger

**20**

Km.

