- 4. DO be aware that your ground speed is faster when going downstream in rivers.
- 5. DO ease the throttle near the completion of 180° quick turns at high speeds to prevent racing the engine.
- 6. DO check your intake screen regularly, especially in debris laden waters.
- 7. DO throttle back when going slowly in shallow water.
- 8. DO remember to avoid the use of Neutral and Reverse unnecessarily in shallow water.
- 9. DO remember to throttle back before shifting.
- 10. DO remember not to turn sharply in shallow water.

## VIII. SUGGESTIONS FOR OPERATION IN SWIFT SHALLOWS, ROCKY

## STREAMS AND WHITE WATERS

This section was authored by C. W. F. Hamilton, designer and builder of the first Turbocraft. In his native New Zealand, Mr. Hamilton has become an authority on jet boat operation on rivers and over rapids. Many of his points brough forth are repetitive as to the foregoing part of this manual, but we strongly feel them well worth taking.

A Turbocraft is so easily handled and gives such a feeling of safety that the novice helmsman is inclined to become over confident after the first few runs. This is where trouble can occur and boats may be damaged. It takes considerable experience before one can be reasonably sure of not hitting some submerged rock or snag. It is for this reason that I give the following advice and information:

The principle we have adopted for shallow water work is to use a V-bottom planing hull, thus keeping as much weight on top of the water as possible. Propulsion is by marine jet units which have no obstructions whatsoever under the hull.

Weight: The hull draws the most water when stationary or going slow, and almost as much when going 8 to 10 miles per hour. At higher speeds the hull lifts reducing the draft considerably. With a planing hull the power/weight ratio is most important. The greater the power and the less the weight the better will be your performance, and the less the draft. Be weight conscious. Do not carry more weight than you think absolutely necessary.