#### **1. INTRODUCTION**

The Jet-Ski is also known as "personal water craft" and "Aqua bike". The Jet-Ski was first invented by Mr. Clayton Jacobson from Arizona in USA.

Bombardier was the first company who built the first model jet-ski "Sea doo" in 1968 for commercial purposes. The company known as "Kawasaki" then started building jet-ski, and over the years it has become the common name for the product.

Jet-Skis come in various sizes and power ranges. There are "stand up machines" which is for single persons and are mainly used for racing and performing various acts, like jumping, slaloming etc. The 'Sit Down' Jet-Skis are also known as 'Runabouts' are in various sizes up to three seaters. The Jet Skies are powered by two or four stroke petrol engines with horsepower vary from 60 HP to over 300 HP.

The engine provides power to the Jet-Pump which sucks in water through an open grate at the bottom of the jet-ski hull, pressurizes the water by an inner turbo system and then expels it out at high speed through the nozzle at the rear of the ski. This nozzle is directional and thereby provides the steering ability. The moment a jet-ski is started, the jet pump is functional and will start to propel the jet-ski forward or backwards according to the position of the gear lever.

# 2. BASIC OPERATING PROCEDURE / GUIDELINE OPERATIONS

# **2.1. OPERATIONS**

- a) A detailed weather check has to be conducted & displayed before commencing any activity.
- b) All activities must begin with a detailed safety briefing. The briefing must highlight the equipment used, do's and don'ts, demarcation of the boundary for the activity, rescue and emergency procedures & current weather conditions.

All participants must sign a liability waiver form prior to the commencement of the activity clearly highlighting the risk involvements.

Participants with any medical condition making them unfit for participation in the activity must be informed prior to the commencement of the activity and not allowed to participate.

a) Boat rentals should be done only to experienced independent paddlers who can paddle with a liability waiver signed.

b) The minimum age for most paddle sports is 8 years of age. Depending on the ocean and wild water condition, and the type of boat, this limit should be 12 years of age. In this event, the parent or guardian must sign a liability waiver form, clearly highlighting the risk involved prior to the commencement of the activity.

# **2.2. INSPECTION AND MAINTENANCE PROCEDURE**

- a) To maintain Daily Pre-Operations and Post Operation Check List and signed by the operator and the supervisor.
- b) The hull, jet pump and the steering nozzle should check and maintained daily. Engine, ski hull, deck and trailer should maintain annually.

# 3. MINIMUM STANDARDS TO RECIGNITION OF OPERATORS

- a) Before using a jet-ski the participant should be made to sign an indemnity form.
- b) The participant should also sign a registration form with relevant personal details including address, phone number, whom to inform in case of accident etc.

#### 4. MANDATORY EQUIPMENT

- a) Jet-Skis with a proper kill-switch
- b) Suitable life jackets with
  - i. Adequate Buoyancy
  - ii. Correct sizes
  - iii. Straps and buckles in working order.
- c) Suitable floating, soft foam rubber inserted helmets.

# 5. SAFETY AND RISK MANAGEMENT

# **5.1. RISK MITIGATION**

- i. Adhere to Basic Navigation Rules
- ii. Follow weather reports and tides Charts
- iii. Safety instructions
- iv. Carry emergency flares, marine VHF Radio or Mobile and anchor

## **5.2. SAFETY BRIEFING**

All instructors must have an in-depth knowledge of the Risk Assessment and Normal Operation Procedure (NOP) and Emergency Action Plan (EAP) and brief participants accordingly.

Rules and regulation for operation of Jet-Skis.

- 1. A clear map of the area should be displayed at the water-sports center with following details.
  - a) Any underwater obstruction that could pose a danger to jet-ski operations, eg. Rocks, pylons, sand banks, reefs etc.
  - b) The special area demarcated where the jet-ski is allowed to operate, preferably visible from the water-sports center.
  - c) Any other special places that a jet-skier should be aware of e.g.
    - i. Areas demarcated for swimming
    - ii. Area where amphibious aero planes land
    - iii. Area for snorkeling activities.
- 2. All danger sports areas should be indicated using red buoys and appropriate Signs.
- 3. Before hiring out a jet-ski participant should be instructed regarding the route rules, especially overtaking, and crossing situation.

When two jet-skis are on a collision course, i.e., heading towards each other, both should change course to starboard or the right (green) side, so that they pass each other on their port (red) sides. This changing of course should be done leaving ample time and should be clearly visible to each other.

# 5.3. EMERGNCIES AND RESCURS

- a) All instructors should hold a valid award or International Surfing Association (ISM/International Life Saving Association (ILS) Aquatic Safety Award as minimum requirement award.
- b) All instructors / guides and any employee involved in the activity must have an in depth knowledge of all Emergency Action Plans, Normal Operating Procedures and Risk Assessments.

# 6. GENERAL INFORMATION

# **6.1. TRAINED MANPOWER**

It is imperative that personnel responsible for conducting Jet Ski lessons are certified Jet Ski operators with water awareness skills.

Instructions with high level of skills in conducting lessons rescue and life saving techniques power boat handling and First Aid/Cardio Pulmonary Resuscitation (CPR) is important.

- a) Before hiring out a jet-ski there should be a detail briefing where markings on the area map clearly.
- b) Before hiring out a jet-ski the user should be instructed on the operation of the Jet Ski.Specially starting and stopping procedures, the safe distance for slowing down on returning, the wearing of the kill switch and emergency stopping procedures.
- c) Before hiring out a jet-ski it should be checked that the user is wearing a suitable lifejacket and a jet-skiing helmet with straps secured with buckles in working order.

## **6.2. GUIDES/INSTRUCTORS**

- a) Instructors for Jet Skiing should, hold the following minimum qualifications.
- b) Qualification from a Recognized National or International body for Jet Skiing and a certificate from the operator that the individual "has experience of 3 years in assisting in the particular activity and is independently capable of teaching, assisting, leading trips and carrying out rescue operations".
- c) A logbook/e-book containing authenticated records of Jet Skiing lessons.
- d) A valid first aid/ Cardio Pulmonary Resuscitation (CPR) certificate provided by a recognized and qualified provider.
- e) A powerboat license certificate provided by a recognized and qualified provider.
- f) An open water lifeguard certificate provided by a recognized and qualified provider.

# **6.3. MEDICAL CONCERNS**

- a) Instructor must ensure that the participant can swim in open waters comfortably.
- b) Instructor must ensure that the participant is medically fit to learn or participate in the activity.
- c) A signed declaration from the participant is essential, if there is any suspicion of prior injuries or medical concerns.
- d) Participant with a weak heart condition, epilepsy, spinal issues, recent surgery, or any other medical condition of concern should not be taken for Jet Skiing.
- e) Expecting mothers should avoid Jet Skiing.