

# **Intro Course**

## **Introduction to Sea Rescue**



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# 1. Learning outcomes

By the end of this module, you will:

- You will have a good idea of the NSRI Structure and be familiar with its History, Role and Requirements.
- You will also be familiar with the background knowledge needed to have a successful NSRI career.

## 2. History and development of the NSRI

In 1966 at Stillbaai on the East coast, just below Mossel Bay, 17 fishermen drowned after three fishing boats sank in a terrible storm. A Miss Patty Price of Simon's Town wrote a letter to the Cape Argus and said that it was about time that a Sea Rescue Service was formed in South Africa. Captain John Payne, a member of the Society of Master Mariners proposed at the annual conference that the Society attempt the formation of a rescue service.

The proposal was accepted, and a meeting of interested parties was called in Cape Town where a steering committee was formed. At the first meeting, two volunteers stepped forward as crewmen. They were Captain Bob Deacon and Ray Lunt, and the South African Inshore Rescue Service, as it was called, came into existence. The name was later changed to the National Sea Rescue Institute of South Africa and on the 29th May 1967, was officially registered as a non-profit organisation and recognised by the Department of Transport as a sea rescue service.



**Figure 1:** Capt. Bob Deacon & Ray Lant the original members of the South African Inshore Rescue Service.

The NSRI has expanded and currently has 35 stations on the South African coast, and 4 on inland waters. The Institute's rescue craft and stations are manned by over 1000 volunteer crewmembers from all walks of life, who share a common goal:

To save lives in S.A. waters.

The NSRI is a member of the IMRF (International Maritime Rescue Federation), and plays a major part in coastal rescue as a member of the South African Search and Rescue Organisation (SASAR).



**Video:** [How the NSRI Started](#)

Browse it at: [www.nsri.org.za/2014/02/how-the-nsri-was-started/](http://www.nsri.org.za/2014/02/how-the-nsri-was-started/)

## 2.1 Vision

Our vision is to be the most admired and trusted rescue organization in South Africa, inspiring volunteers to join and stay, ensuring that funders are proud to be associated with us and building national pride.

## 2.2 Mission

Our mission is Saving Lives on South African Waters.

## 2.3 Values

A survey of sea rescue personnel and volunteers tell us that the core values of Sea Rescue are:

**Altruism** - we love the sea and combine this love with our commitment to help others

**Family** - we have strong family values as individuals, as stations and as an organization

**Caring** - we care about people. The medical care that we provide extends this value to the people we rescue

**Pride** - we are a proud organisation. Proud of the service we deliver, proud of each other and proud to be South African.

**Accountability** - we are accountable to the people who we serve, for the service that we deliver and to each other for support

**Safety** - we value the safety of our crews and that of our patients above everything. And we don't compromise in ensuring their wellbeing at sea.

## 2.4 About us

We are a registered NPC Company and Non-Profit Organisation (NPO) with the Department of Social Development, which delivers maritime rescue services along the coast and on inland navigable waters in South Africa.

We also deliver advocacy and preventative programs which target drowning, particularly in children.

Services are delivered directly to the citizens of South Africa both in a rescue and educational context. Patients rescued include medical evacuations from the 12 000 ships that dock in South African ports every year, recreational boaters (sailors and ski-boaters), subsistence fisher folk, recreational kite boaters and windsurfers and the formal fishing industry as well as bathers rescued from the surf.

We enjoy excellent working relationships with other emergency services around the country and we believe that it is through team effort that lives are saved.



**Figure 2:** Volunteer Crew members.

We estimate that there are more than 2 000 South Africans that drown every year and many more that are injured and suffer permanent disability making drowning a significant cause of injury and death which helps us focus and believe in our mission.

### **3. Structure of the NSRI**

We are managed by a core group of executives supported by personnel who are accountable to the membership (Volunteers) (1300) in General Meeting and the Governance Board (9).

We operate from a central head office in Cape Town and forty-one rescue bases (41) and 5 satellite stations, which create a geographic footprint of services along a coast of almost 3 000km (and 1 300km on inland dams).

**In 2019 / 20 there were 1300 volunteers, 96 rescue craft and 44 rescue vehicles.**

The Chief Executive Officer (Dr Cleeve Robertson - CEO) is responsible to the Governance board for the “day to day” operation of the organisation. He is assisted in this regard by the staff at Head Office which includes the Executive Directors of Operations (Mark Hughes), Finance (Mark Koning), and Executive Director Fundraising (Janine Van Stolk).

The key functions of Head Office are Marketing, fundraising, budgeting, accounting, licensing, insurance, maintenance, procurement, training facilitation and general administration, amongst other things. Only the staff employed at Head Office receive salaries.

The Operational Board determines and sets standards of infrastructure, boats, vehicles, equipment, safety, manning and training.

This Board meets every second month and is made up of operations board members and executive directors. The chairman sits on the governance board.

Operational Board members are elected by station commanders and have a two year term of office. The directors and crewmembers are all unpaid volunteers.

### **3.1 Regions**

Stations are grouped into 7 regions, which have an Operations Board Member who answers to the operations director for the stations within his/her region.

## **4. Ways of serving at Sea Rescue-** **(see NSRI Career Path 2020 for more details)**

### **4.1 Sea Rescue Water Safety Program**

The Sea Rescue Water Safety Program is the educational initiative of Sea Rescue, with a vision to proactively prevent drowning tragedies in or near water. Sea Rescue Water Safety Program changes the lives of children by giving water safety lessons, teaching peer rescue and basic CPR on the school premises at no charge.

According to the Medical Research Council those most at risk of drowning are children from poor communities – peri-urban and rural. The highest incidence of drowning is in fresh water, farm dams and rivers, and as such the focus is on learners between the age of 9 and 14.

**To date 2,7 Million children were taught water awareness, self-rescue and basic CPR, 81 976 in January and February of 2020 alone.**



## 4.2 Pop-up Survival Swimming:

The Pop-up Survival Swimming program is looking for volunteers to run Pop-up Survival Swimming courses around the country. This is an opportunity for those who would like to volunteer for Sea Rescue in their communities but who want to do so at specific times and do not want to go out in rescue boats.

If you think that you would like to join a Survival Swimming Squad and volunteer to teach children how to control their breathing, orientate themselves in water, float and propel themselves to safety in a controlled environment please contact

We will provide the training, manuals, required equipment, command and control structures and advise on when and where to teach!

## 4.3 Pink Rescue Buoys:

If you would like to be involved with Sea Rescue but don't want to go to sea ... and only have a few hours a week to spare ... how about volunteering to manage the Pink Rescue Buoys in your area? If this is something that you think you can help with, please email [andrew@searescue.org.za](mailto:andrew@searescue.org.za)

So far these emergency flotation devices have saved 56 lives, we need you to join us and take pressure off sea going volunteers by managing the Pink Buoys in your area.

## 4.4 Coastwatcher's

Coastwatchers are trained in NSRI operational rescue procedures, and are the “eyes-on-call” to assist on, or even initiate a rescue operation. Typically they operate from home where they have a good clear view of the sea (or dam / lake). Their exact location is permanently marked on the station chart as a waypoint. Their function will be to report to the NSRI emergency number any flare sightings or other signals of distress, or any other situation where person/s or vessel/s appear to be in distress.

**The Station Commander or Coxswain of the responding NSRI station may contact Coastwatcher's to observe and report on targets to assist during the course of an operation.**

Each coastwatcher is issued with a pelorus direction indicator. This device enables the coastwatcher to take a fairly accurate bearing of the target. Passing this on to the ops room, the sighting can be plotted as a line on the chart, originating from the coastwatcher's position; out along the bearing they report. This gives a single bearing line-of-position, and the target position along that line can be estimated. However, as more sighting reports come in from other watchers, the plotted bearings will converge on the chart giving a relatively good indication of exactly where the target is.

Information from watchers is vital in both indicating where the casualty is and eliminating where it is not. This greatly assists in planning resources and time margins. It also helps in reducing the costs of abortive calls, wasted response time, sea time and distances covered.



Training is continuous and the relationship of trust and reliability that develops helps Coxswains to gain a clearer picture of the rescue mission ahead.

## 4.5 Lifeboat circle

The Lifeboat Circle is the NSRI's Society of Retired Persons and Bequestors. The Lifeboat Circle was formed to ensure that the NSRI's efforts to save lives on South African waters continue in perpetuity, by encouraging supporters to leave a bequest or legacy to Sea Rescue in their Will, rather than make monthly payments from their retirement savings.

## 4.6 Shore crew

Those who don't wish to go to sea or have reached the age limits are able to continue serving as shore crew. They are able to serve as rescue vehicle operators, base radio operators, plotters and control room operators. Those with specialised knowledge who are prepared to donate their expertise for maintenance, repairs, training and administration – are also more than welcome to join as shore crew. shore crew is the collective name for everyone who serves in a way that is not sea going crew.

## 4.7 Sea crew

Crew who meet the requirements and live within an appropriate travel time to the base and are fortunate in terms of work and available time on weekends to train and volunteer – are able to serve as sea-going crew.



**Figure 3:** Volunteer Sea-going crew during training

## 4.8 Donor of time and funds

Not all people are in a position to serve in the above roles due to location, time or work commitments, however they are still able to contribute with funding or via a service, in the form of rescue base maintenance and upkeep, or servicing (inboards, outboards, vehicles), and in the many needs our organization has.

Service in the form of time and money is best achieved where a potential donor actually invoices us for a service, and donates the money back – so that BEE certificate and Tax letter can be provided.

Donors receive certificates (Section 18A status) which make donations tax deductible to them. Corporate donors whether donating in cash or gift-in-kind can acquire points towards their BBB-EE scorecard under the SED (Socio Economic Development) category (since more than 75% of our beneficiaries are “per definition black”).

## 5. Funding and financial matters

The policy of NSRI is to raise funds for its development and operation by public subscriptions and to operate through the services of volunteer personnel. The NSRI's income is derived mainly from donations received from companies, individuals and trusts. The Government also provides a small (less than 2% of our annual income) but very welcome grant.

The operating budget in the 2018/19 cycle was R96m.

Income generated was from Individual Donations (62%), Fundraising Activity (1%), Membership (1%), Legacies (2%), Investments (0.6%) and Government Funding (2%).

The institute operates in a challenging economic environment (limited growth at 3.8%) where funding is almost entirely dependent on philanthropy from individual and corporate donors, with a small percentage of funding coming from Government.

The Institute provides a public service to the value of more than R200m a year to the public of South Africa (51 million people) and visiting tourists (estimated 14 million) at very low cost to the taxpayer but funded by the generous giving spirit of almost 60 000 donors. No competitive or complementary service, other than that of the South African Lifesaving services, which perform surf rescue at limited locations and periods, exist.

The fuel price and exchange rate of foreign currencies directly impact on the cost of operations because of the major cost drivers, particularly fuel and imported outboard/ inboard engines.

Boats are manufactured locally. In 2019 R24m was invested in the local boat building economy.

The organisation operates with no tax relief other than the fact that Valued Added Tax (VAT) is recovered.

## 6. Rescue bases

Each rescue base (usually referred to as a “station”) is under the control of a station commander, assisted by a deputy station commander and a committee. Bases are established where there is a need, and where there is a community of volunteers and supporters to make it happen.

The committee is made up of senior members of the station and will typically include the chief controller, station secretary/treasurer, station PRO, the training/personnel officer, and appointed Coxswains.

Monthly station committee meetings are held generally followed by official crew meetings (business meetings) that enable all crewmembers to air their views and listen to the ideas and views of others.

## 7. Selection of crew

The Institute does not impose any gender or racial limitations in the selection or appointment of crew. However, the Organisation reserves the right to appoint members based on the acceptance criteria and his/her continued performance on the station as crew.

NSRI crewmembers give their services voluntarily and receive no payment or allowances. Crewmembers are required to indemnify NSRI against claims in the event of an accident.

Where the crewmember is less than 18 years of age, parents or legal guardians must sign the indemnity. No one under the age of 16 is permitted to join a NSRI station, and no one under the age of 18 is permitted to proceed to sea on a rescue operation.

The Station Commander will make the final decision as to whether or not a Coxswain or crewperson may proceed to sea on active duty.

### 7.1 Insurance policy

The NSRI has an insurance policy for accidental injury or death to volunteers on duty or commuting to duty (“duty” includes NSRI related meetings, maintenance work parties, training, and rescue operations on land and in the water).

**The accidental death benefit is currently set at R1 M.**

The current policy will cover up to R100 000 for medical treatment per volunteer per incident. The policy may also cover a part pay-out for loss of earnings and disability depending on the nature of the disability.

Should an injured person have their own medical cover, then the NSRI’s insurance cover will only be activated when this cover is exhausted. If a volunteer then depletes their personal medical aid benefit due to an “injury on NSRI duty” claim and there are insufficient funds left to

cover subsequent claim/s on for themselves or family, then the NSRI will “top up” their fund to the maximum amount that was claimed for the “injury on NSRI duty”.

If the volunteer does not have a medical aid or a hospital plan and is injured, the Station Commander or duty coxswain should immediately contact an Executive Director or the EOC to arrange authorization for hospital admittance. In such instances, treatment in a private hospital will be covered up to the insured maximum of R100 000. However, additional costs in a “state hospital” will be covered by the NSRI.

The NSRI is required by its underwriters to ensure that serving crewpersons are medically and physically fit to withstand the rigors of a rescue mission under inclement weather conditions.

## 7.2 Medicals

Proceeding to sea on a rescue vessel in extreme conditions can be very physically demanding. It is therefore an absolute requirement that volunteers undergo a medical examination upon joining and at prescribed intervals thereafter. These examinations are in the interests of the crewperson, but also fellow crewpersons, the rescue mission and our underwriters.

In the event of an accident, underwriters will repudiate an insurance claim if it is discovered that the claimant is not in possession of a valid medical certificate of fitness, or out of the acceptable age range.

Shore Crew (Non-seagoing members of the station), will be required to have an NSRI medical on joining, and every 5 years thereafter.

Provision is made on the NSRI medical form for colour vision testing – especially in the green and red spectrum. Where for any reason this is not done, it is in the interests of the applicant to have his/her colour vision tested, as a person suffering from deficiencies in the perception of certain colours will be precluded by the SAMSA regulations if they ever wish to apply for a day/night Coxswain certificate.

### 7.3 Readiness to serve



**Figure 4:** An effective crewmember has a balance of experience, skill and fitness.

- **Experience** includes maturity and judgment. This includes the courage to “call it in”, or “turn back”. It also calls on the consideration & wisdom to weigh the Potential “Reward” of a Rescue vs. the Risk to the vessel and crew. This also means having the correct attitude and value system of a volunteer rescuer. (Does one support the aims and visions of the institute and brand? Are they aware that they are part of something bigger than themselves?)
- **Skill** includes the theoretical knowledge, as well as the practical ability to helm the vessel and lead a rescue. The theory side is covered by well-designed, relevant and engaging manuals, and on-line training courses. The practical ability is achieved by extensive and “value-for-time” sea-going training activities.
- **Fitness** is essential. If one cannot save themselves – they are a risk to themselves and their fellow crew. It is a requirement of the institute to create, maintain and implement measures to prevent willing but unable volunteers to be a risk unto themselves and the crew they serve with.

Beyond this – personal commitment and family support are the two most essential factors to be a successful volunteer.

## 7.4 Fitness (sea-going crew)

All new applicants undergo a fitness assessment prior to being allowed on a rescue vessel. All current crew must be able to meet these requirements at all times and are measured routinely to retain “currency”.

- **Swim:** 200m in 10 minutes. (I.e. 2.5 minutes per 50m length in pool). Time is achievable for a non-swimmer if they commit to a course of training and effort. Must be done without a lifejacket.
- **Tread Water:** 10 mins. Either wearing an NSRI wetsuit with hands on head, or with no wetsuit (hands anywhere). Must be done without lifejacket.
- **Water exit:** Get out of the water into the class of vessel on which applicants choose to serve – within a 1 minute time period. No stepping on engine out mounts / skegs. Fitted ladders may be used on vessels over 9m. Lifejacket and normal sea going kit must be used.

## 7.5 Age requirements

NSRI ensures all crew (sea going or not) from the ages of 16 – 74 (74 years and 365 days). Over this age they would need to self-insure, and have a letter specifically stating this.

## 8. Training

Training takes place both ashore and at sea, but trainees are not permitted to proceed to sea on a rescue mission. The trainee period is a minimum of 6 months.

Where a trainee crewperson can provide proof of acceptable sea service on vessels other than rescue vessels, such sea time will count towards qualifying for crew status provided that at least 20 hours sea-time is served on the largest vessel on that station.

Where sea-time is served on more than one vessel class, then the proportion shall be: 20 hours Class I, and 30 hours Class III; or 15 hours Class II, and 15 hours Class III.

The station commander has the prerogative to increase the minimum hours where more practical experience is needed before achieving crew status.

Despite extensive sea-going experience – a candidate will still require time to become accustomed to the NSRI protocols. In a rescue – more so than in sport - team work is vital and part of the time served is to become familiar with your team. All sea-time must be recorded on the log sheets provided.

Note that sea-time as a trainee will not count towards qualifying sea-time for Coxswain certification by SAMSA.

Remember that training is an "on-going" function, and even when you attain full crew status; training continues. A Training Committee exists to ensure that the highest training standards are met. We are all in the NSRI for one common purpose, and that is to **save lives**. Comprehensive training is of paramount importance.

## 9. What will be expected of you as a station crew member

NSRI Rescue Stations are disciplined, but not regimented structures. Nonetheless, you will be expected to conform and obey all station specific and national requirements.

### When at Sea - the Coxswain's orders are Law

Alcohol may never be carried or consumed aboard an NSRI rescue craft or rescue vessel (or when in uniform).

The general public do judge our conduct and appearance in all aspects and tend to hold us in the highest esteem.

Prospective crew accept that along with the exhilaration of going to sea on a high-speed rescue boat, goes the regular routine of maintenance and cleaning.

"Enthusiasm" and "self-motivation" are a must.

### 9.1 Confidentiality

In the course of your NSRI duties you may come into possession of information of a confidential nature. It is important that a crewmember does not divulge to the media, or for that matter anyone else, any details of an operation. Nor should they advance their own opinions of what could have or should have happened.

A process has been put in place to keep the media informed and any inquiries should be directed to the station commander and/or the media liaison officer (082 3803800).

### 9.2 Duty

The duty period is normally one week depending on your station's policies. The off-duty period will depend on the number of crews that your station has. During the duty period the crewmember will respond to an sms or What's app call out system – and as such is required to ensure he/she is fit and ready for duty if called upon – at any time during that week.

The duty crew usually takes the rescue boat to sea for practice during their week of duty, as well as undertake maintenance work on the station.



NSRI uniform should be worn during training and when on duty. Life jackets and protective clothing such as wet suits and helmets are provided by the Institute.

NSRI is a voluntary organisation and there is no monetary reward for services rendered. Some of the rewards you can look forward to is the satisfaction of undertaking vital work of a humanitarian nature, and the enjoyment of *esprit de corps* and the camaraderie of your fellow crewmember. You can expect to be called out on search and rescue missions in both fair and foul weather and to submit, in some instances, to considerable physical discomfort during these missions.

You can expect to spend more than just one Saturday and one Sunday a month at the station maintenance sessions. Crew are expected to respond cheerfully to extra calls being made on them in respect of time and effort as the occasion warrants.

## 10. The rescue fleet

### 10.1 Class 1 vessels



Figure 5: A Class 1 vessels

These craft vary between 10 to 14 metres in length and carry a crew between four to six persons. They are fitted with a cabin and are capable of staying at sea for up to two days. They have in board diesel engines.

## 10.2 Class 2 and 3 vessels



**Figure 6:** Class 2 and 3 vessels.

These are high-speed twin-engine inshore rescue vessels, which include 5.5m; 6.5m; 7.3m, 8.5m, 8.8m and 10m in length vessels, capable of speeds of up to 35 knots. They are RIB's (Rigid Inflatable Boats) and have the advantage that they may be moved on road trailers to a suitable launching site near the scene of the incident. They have outboard petrol engines. Those equipped with Radar are designated as Class 2 vessels. The fleet is in the process of being standardised so that it will consist mainly of 6.5m, 8.8m and 10m RIB's.

### 10.3 Class 4 vessels



**Figure 7:** Class 4 JetRib

These are the smaller single-engine vessels; which include 4.7m; 4.2m and “Rescue Runners” (Jet skis). They operate close to the surf line during daylight hours only.

### 10.4 Rescue vehicles



**Figure 8:** Rescue vehicles.

The majority of NSRI stations operate 4 wheel drive rescue vehicles as mobile NSRI control centres and coastal search units. RVs are invaluable in liaising with other Search and Rescue units ashore such as the SAPS, emergency medical services, coast watches, and members of public. They are also used to tow the smaller rescue boats and Quad Bike/Rescue Runner combos to suitable coastal launch sites rather than launch from the station base. Also, they can

be used as a first aid centre. It must be noted that they are not mobile ambulances, nor extreme off-road vehicles.

Tractors are used on some stations for the launch and retrieval of vessels on the beach. Quad bikes are used to tow the Rescue Runners on their trailers to areas where access is difficult but may not be used on public roads.

## 11. Communications

- **Policy changes via Operations Memos** are sent to Stations and discussed at crew meetings.
- **Incident Bulletins** are sent to Stations as incidents and accidents, as well as near misses happen – so other stations can learn, and preventative measures put in place.
- **Operational Capabilities Manual** – listing assets and areas of operation along South Africa's coast.
- **SharePoint** – all stations have a shared online link to the SharePoint folders that the head office staff update with all the financial, training, operations and marketing information.

### Additional resources:

- Website – [www.searescue.org.za](http://www.searescue.org.za)
- NSRI SharePoint for all crew to access information
- NSRI Station Facebook sites.
- Videos on website (watch us in action).
- NSRI Annual Report (yearly).  
<http://www.nsri.org.za/publications/>
- Sea Rescue Magazine – Issued three times a year, with a readership of 60 000.
- *For Those in Peril*. (Coffee table book)



## 11.1 Sea rescue brand

The Sea Rescue Brand and Reputation is one of our strongest assets and something that underlines all activities within the organization. Donors readily identify with it, members wear it with pride, companies proudly associate with it, bequests have confidence in it and water users depend on it.

We have become a household brand, proudly South African, displayed daily in the media and even on a fridge magnet in people's homes.

Protecting the Brand and Reputation is therefore important to us and we respond almost as quickly to reputational issues as we do to emergencies.

Our Brand is clearly distinct, starkly graphic and unapologetically ethical.

