

**From:** [NSW Government](#)  
**To:** [Flood Inquiry](#)  
**Subject:** Floods Inquiry  
**Date:** Friday, 24 June 2022 9:10:46 AM  
**Attachments:** [CROFTON Inquiry Submission re Tinnie Army.docx](#)

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## Your details

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## Submission details

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| <b>I am making this submission as</b>    | An academic/researcher                                  |
| <b>Submission type</b>                   | I am making a personal submission                       |
| <b>Consent to make submission public</b> | I give my consent for this submission to be made public |

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## Share your experience or tell your story

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## Terms of Reference (optional)

The Inquiry welcomes submissions that address the particular matters identified in its [Terms of Reference](#)

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## Supporting documents or images

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**Attach files**

- [CROFTON Inquiry Submission re Tinnie Army.docx](#)
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# Flood Inquiry Submission

By Shannon Crofton ESM, CF

To: Professor Mary O'Kane AC and Michael Fuller APM

Thank you to your commitment to this inquiry and to the NSW Government for an independent professional review.

My submission relates to an area where civilians in private boats provide assistance and rescue during major emergencies. In the Lismore floods the media termed them 'The Tinnie Army'.

## Disclosure.

I am a volunteer of the NSW SES since 1989 and a firefighter with Fire and Rescue NSW (FRNSW) since 1997. I am an Instructor and Assessor for Land Based and In Water Flood Rescue with both organisations. My submission to the Flood Inquiry is made as a personal citizen and may not be the views of any government organisation.

## Background.

I have been a part of flood rescue since its inception in Australia. I have travelled the world and sought best practises on multiple occasions and studies and witnessed flood rescue practises globally.

I have completed study in the USA with many courses including the *Management of Water and Flood Incidents* course, and worked with multiple agencies worldwide.

I completed a Churchill Fellowship into the study of Helicopters for Flood Rescue and have trained and reviewed capability locally and abroad including United States, Philippines and Middle East.

The United States based, Higgins and Langley organisation has recognised me for Outstanding Achievement for the development of flood rescue in the NSW SES and later for development of training programs for FRNSW.

## Emergency Management

Emergency management outlines that significant events can overwhelm local emergency resources and a structure response program is used to bring in extra resources, be it out of area, interstate or other agencies. These are supported by various emergency doctrine within NSW. Some agencies such as NSW Police, RFS and Fire and Rescue NSW have training for managers about how to escalate in a large emergency. An example is Urban Search and Rescue training by FRNSW. This training and its use of exercises, provides tiered response to local, interstate and international level events.

## The Tinnie Army.

The Lismore floods saw a large response to community need by members of the public in private boats.

This submission in no way criticises the work of these community members, in fact this discussion highlights potential better usage and recognition of their actions.

Locals who witness any emergency, whether it be an injury at a motor vehicle accident or witness to flooding, often will step in and help. It is natural human nature and proudly, the Australian way.

At such a large scale, this submission looks to discuss how this tinnie army can be utilised better, more efficiently, managed, controlled to facilitate better outcomes.

### Cajun Navy

The use by residents during large scale floods is nothing new globally. An example of how a non government local approach has now been formalised into a structured capability is the 'Cajun Navy' in the USA. Over multiple emergencies this community group has grown to provide a structured capability to the USA.

### Issues Highlighted.

It has been reported that the tinnie army were told not to put their boats in the water. It was later reported that they were told they could place their boats in and rescue people. Confusion and ad hoc arrangements leads to delays of rescue and diversion of trained rescue resources.

There are also reports of delays as an agency wanted paperwork to be undertaken which potentially delayed rescues.

The SES has an availability for community members to be a part of emergencies, termed 'spontaneous volunteering'. This report is not to discuss this program in Lismore rather to highlight areas for discussion.

General concerns relating to the use of civilians in private boats (the Tinnie Army) can include;

- Overall control
- Communication
- Level of skill and training for civilians operating in floodwaters
- Levels of skill and training of civilians for conducting rescues
- Safety of persons being rescued
- Registration and collation of persons rescued (Disaster Victim Identification)
- Seaworthiness of vessels used
- Checks of safety equipment or personal protective equipment (ie lifejackets)

Some other concerns highlighted may relate to the civilians now involved in the rescue process, such as health, fitness for task, criminal records, working with children etc.

An uncontrolled approach also may allow risk to the Tinnie Army themselves;

- Support for mental health post incident
- Insurance for injuries sustained during rescue work
- Coverage for damage to vessels during rescue work
- Lack of recognition in national recognition and awards processes

### Flood Rescue in NSW

Flood rescue can be one of the most dangerous disciplines of all rescue types. Seven agencies in NSW are trained to undertake flood rescue via the NSW State Rescue Board (SRB). The SRB sets the minimum levels of training, equipment and response for these

agencies to respond to flood rescues and has an accreditation process which provides authority to these agencies for levels of flood rescue.

'On Water Flood Rescue' is the use of powered boats to rescue persons in NSW and is covered within the NSW State Rescue Policy and managed by an accreditation process.

### Floodwater

Floodwater is described in flood rescue training as powerful, relentless and (somewhat) predictable.

Floodwater is dirty, hides underwater dangers, carries disease, and poses many risks apart from its power.

There are multiple records of fully equipped and trained professional rescuers who have died attempting rescues worldwide in floodwater.

### The Tinnie Army discussion.

A tinnie army is a collection of generally local persons with access to a boat. Regulations for boats in NSW require a boat to be registered, carry a level of safety equipment and the driver to be licenced. There is no checking or inspection of boats.

Different sizes and construction of boats provided different benefits and levels of safety in floodwater.

### Locations of a Tinnie Army

The Tinnie Army would be located where there is flood risk and risk to population. They would need to be (relatively) local and there would need to be a level of commitment from these members to the training day(s).

### Training and membership

Training and membership should not be seen or used to discourage or create red tape. It should be used to provide basic knowledge of rescue operations, communication areas and techniques and a level of skill to work in this area.

A local area may, say, have two training days per year. Membership requires attendance at one of these days where professional rescuers provide some basic skills and training for working and surviving in floodwater.

Boats can be checked for worthiness during the training day and on completion an identifier, such as the decal or red letter 'N' is provided.

Details of membership are captured by the controlling authority.

Basic usage of UHF radio is undertaken.

Any checks that the controlling authority may feel is required, such as criminal history, working with children etc is conducted.

Checks are undertaken that the member has sufficient extra lifejackets for people who they may rescue

Instruction provided by professional rescuers regarding fitting lifejackets to children, dangers of floodwater, boating skills etc can be addressed.

Consideration for Tinnie Army members, when activated, to work in teams of two for safety.

Flood Rescue Awareness is an online course available to professional rescuers. Tinnie Army membership would allow access this online awareness training.

Pre incident planning and awareness via training days or online membership page would provide knowledge and direction of dangerous areas (ie electrical substations) and also provide visibility and knowledge of access points to launch boats prior to a flood.

### Improved Control

Being a part of the Tinnie Army should be aimed at minimising 'red tape' but making the most use of the memberships boats, availability and also providing basic skills and knowledge for their safety and those they are assisting.

Local Emergency Management Committee's (LEMC's) form part of the State Rescue Policy in NSW. These Committee's look at local risk and rescue resources to cover them. The LEMC's have authority under the NSW State Rescue Board and could be the local management area for Tinnie Army members.

During incidents, control of Tinnie Army can be delegated, via doctrine such as NSW State Rescue Policy or local sub plans, to a senior police officer or Local Emergency Management Officer (LEMO), who already forms part of emergency response in NSW.

Control in rescues sits with NSW Police. Another consideration that this control be delegated to the local SES, or local maritime rescue authority such as Marine Rescue NSW representative.

By having one controller for the Tinnie Army they will be better utilised and place into areas of greatest benefit whilst maintaining a level of risk management.

### Visibility by Incident Control

The Cajun Navy uses apps that show the location of its resources. During activation this app can provide visibility to a controller or incident command centre, but will also allow 'following'.

Following is maintaining contact with people during an event for safety. Each crew is assigned a time to 'radio in' they are ok. If a person or team goes missing a search is initiated faster.

Consideration that a local SES volunteer is placed into a Tinnie Army boat to improve agency communication, act as an in area commander, and provide safety and activity advice and oversight. This approach can also be used if a Tinnie Army member arrive without a second member.

### Improved Communication

Tinnie Army membership may require having a marine UHF radio as aprt of your boat. Alternatively, portable UHF radio's may be kept by the local controlling officer in a cache for dispatch during emergencies.

There may be ability for an app to be downloaded that allows you phone to also become a two way radio. Further investigation required.

Operational Commination to the Tinnie Army can also include weather updates and river height changes.

### Identification.

Identification of a Tinnie Army member may include;

- The letter 'N' on their boat registration is coloured red instead of black, or
- A coloured decal attached next to their boat registration number. Each year has a different colour and will signify to authorities who is current in their membership requirements
- A distinct fluorescent shirt which is worn when training and active

### Improved Access

During floods, normal boat ramps are overcome with water and certain roads are used as access and staging points. During rescues these become congested with public. The identification of Tinnie Army members via their boat and/or shirt will allow authorities to restrict access to general public and allow access to both professional rescue crews and Tinnie Army.

Access points such as these may also be the staging point for the Tinnie Army controller. This controller can also be the registering officer for evacuees or victims of disaster.

The access point may also be an area where fuel stores are provided for Tinnie Army to access along with food and water, sanitary etc.

### Incident Oversight

When activated, the Tinnie Army controller can communicate with members and provide updates to the overall Incident Controller.

This control and information will provide;

- Direction to Tinnie Army where they are needed most
- Restriction to Tinnie Army where there is too much risk or danger
- Better utilisation of professional rescue teams for more dangerous rescues
- Diversion of other boat rescue teams to more specific rescues

### Benefits of Tinnie Army membership

Like most volunteers in Australia, the benefits include assisting and helping your local community. However Tinnie Army members will enjoy better control, better use of their skills and boats, knowledge learned of floodwater and boating, access to fuel during emergencies, safer passage of victims, information about access to waterways, recognition of efforts during the emergency and camaraderie.

Formal benefits may include discounts to boat registration and/or licencing each year they attend and pass the membership requirements.

The membership and time commitment to the Tinnie Army would be much less than other boating rescue agencies. The Tinnie Army is not intended to take away from normal rescue response and the response to emergencies by professional rescue agencies. Its intention is a little better control and structure, at a local level, for locals who can provide immediate support and also long term assistance when professional agencies are overwhelmed.

It is understood, and hoped, that a Tinnie Army would never have to be used again. However, it is a way to empower a local community, and recognise the benefits of community involvement.

Community involvement is not new to professional emergency services. FRNSW has an extensive 'Community Fire Unit' program, the Rural Fire Service has the 'Farm Fire Unit'

program, and many agencies are part of 'Community First Response' where volunteer responders attend medical calls where ambulance responses may be long.

The diverse nature of Australia, vast geography, population spread, the increase in 'off grid' living and severe weather events all contribute to considering further empowerment of our local communities within the flood space.

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