



# **CYCLONE ABIGAIL: MARCH 2001**

## **MORNINGTON ISLAND**

### **Post Impact Survey**

## **POST DISASTER STUDY-MORNINGTON ISLAND**

Eddie McLachlan, a PhD student with the School of Indigenous Australian Studies and the Centre for Disasters Studies at James Cook University, carried out a brief post-cyclone study on Mornington Island between 19<sup>th</sup> and 23<sup>rd</sup> of March this year.

The purpose of this trip was to make initial contact with local people on Mornington Island and conduct a questionnaire survey in the community. The questions in the survey were in relation to cyclone Abigail which passed over the island and the main township of Gununa, on Monday 26<sup>th</sup> of February 2001. It was hoped data from the survey would provide information about what action local residents and authorities took before and after the cyclone struck. Also as the survey was being undertaken, it was hoped that the student could establish contact with local community identities in anticipation of further work within the community later this year.

This fieldwork will ultimately form part of a larger PhD research project, and it is hoped if appropriate, data from this report will be incorporated into the student's thesis. The project entails examination of the qualities and virtues of survival and endurance that form a part of the preparedness and recovery in remote communities during times of disaster. The experiences, attitudes and cultural values of the indigenous people are of primary concern in identifying and improving appropriate educational, preparation, shelter and evacuation strategies. The previous experience and history of the cyclone impact is as important a part of the study as the recording and measuring of awareness and preparedness for future events.

### **Mornington Island**

Mornington Island is an isolated community, located in the Gulf of Carpentaria, approximately 125km north west of Burketown, 200km west of Karumba and 444km north of Mt Isa. It comprises an area of about 700 square kilometres, and is the largest of the twenty-two islands which form the Wellesley group in the Gulf. Located in the southern half of the Carpentaria Gulf, reasonably close to the mainland, at a glance geographically, the island appears to be in a relatively sheltered position. However this is not the case as over the years Mornington has felt the direct effects of numerous tropical cyclones and has been consistently exposed to extreme weather conditions from cyclones in the vicinity. The reason for the island's vulnerability is that its location is in an area that is subjected to the forces of the seasonal monsoon activity that occurs in the north of Australia during the annual wet season period. The island is also flat, there are no mountain ranges or other significant geographic features to take the full force of strong weather conditions. Located on the south side of the island, Gununa is sheltered somewhat by the island's landmass from the winds of northerly storms, and Denim Island offers some protection from winds blowing from the south. However, the town would be extremely vulnerable to a cyclone coming in from a westerly direction. The island has a population of about 1200, most of who are indigenous and reside in the main township of Gununa which is on the southern side of the island.

Since the early part of this century, Mornington Island had been managed under the provisions of the Queensland Aborigines Act by the Uniting Church. A Presbyterian mission with a school was established in 1914, and four years later a dormitory system was set up for the children attending school. A few of the missionary buildings are still standing, the

guesthouse is in fact the old missionary's residence and a community library is housed in what was the old church building.

After protesting against the Queensland Government's decision to adopt control of the island in 1978, the community, with support of the Commonwealth government, reached an agreement with the state government for self-government via a local authority later that year. Under this self-autonomy, the community developed a series of enterprise activities including cattle farms, bakery, handicrafts and a guesthouse. These days there are many community services which were initiated and are managed by locals and provide employment to a number of residents. Public utilities in Gununa are well developed with reticulated power, water, sewerage and storm water drainage. Education to junior secondary level is available, but there is no access to TAFE or tertiary education. The majority of people are employed in tertiary (community services) areas. The Momington Shire Council provides the bulk of the work for most of the men, through general labouring jobs and other specialised services such as machinery operators and truck drivers.

### **Cyclones**

Stories from elder residents attest to cyclones being a frequent event, and they have become regarded as a part of the natural cycle of the Momington lifestyle. Indeed, the elder residents who took part in the survey spoke of past cyclones and pointed out that Abigail was not one of the most destructive that has hit the island. According to the elders and others, the last relatively recent cyclone to cause significant damage was Ted in 1976.

Queensland Bureau of Meteorology records showed that on 16<sup>th</sup> December 1976, cyclone Ted developed in the northern reaches of the Gulf of Carpentaria. It moved south-west, then changed direction to south-east which put it on a course to hit Momington Island on the afternoon of Sunday 19<sup>th</sup>, and then crossed the coast near Burketown that evening. Extensive property damage estimated at about \$8 million, was caused at the Momington and Burketown communities. Although 700 people on Momington were left homeless, fortunately no-one lost their lives or sustained serious injuries. Houses in the old village that was situated along a low sandy shoreline section of the settlement were constantly subjected to annual flooding. As a result, new residential buildings were built on the higher ground where they now stand today.

### **Cyclone Abigail**

On Saturday 24<sup>th</sup> of February this year at around 10am, cyclone Abigail formed 60km east-northeast of Cairns in the Coral Sea off the north Queensland coast. It proceeded westward and crossed the coast as a category 1 Cyclone 30km northwest of Cairns at approximately midday on the 24<sup>th</sup>. After reaching land, Abigail weakened into a rain depression and moved westward overland as a low until it reached the waters of the Gulf of Carpentaria about twelve hours later. Once it reached the warm waters of the Gulf, the low system intensified, and at 5am on Sunday 25<sup>th</sup> of February, Abigail reformed into a category 1 cyclone 120km northeast of Momington Island and was observed by weather authorities to be heading towards the island. Before it reached Momington it deepened further into a category 2 storm, and at around 7pm that evening, the eye of tropical cyclone Abigail passed over the island township of Gununa. Shortly after it passed Momington, the cyclone rapidly intensified once again to a category 3, but when it crossed the coast near the Queensland-

Northern Territory border at about 2am, February 27<sup>th</sup>, it had weakened to a category 2. After reaching land, Abigail decreased to a rain depression and moved further inland to the Northern Territory and eventually dispersed. A couple of residents noted that after the eye of Abigail had passed over Gununa, the winds coming from the opposite direction appeared to be noticeably stronger. This was confirmed later by weather authorities as their instruments showed that almost immediately after crossing Mornington, Abigail rapidly deepened to a category 3 cyclone. Those who did notice the increase expressed some concern that perhaps the official warning system had underestimated the cyclone intensity.

### **Warnings**

Mornington Island receives advice on natural disaster procedures from the District Manager's office of the Queensland Counter Disaster and Emergency Services, which is based in Mt. Isa. The office covers most of the area in the lower Gulf of Carpentaria, including Burketown, Doomadgee and Mornington Island, and over the years a system of disaster preparedness and recovery, with Mt. Isa as the base, has been established. State, and local governments, as well as the local community councils are involved.

The majority of the residents received information and warnings about cyclone Abigail from household radios and television, and these people also informed family and relatives who did not have these facilities about the cyclone's movements. Most people interviewed said that not enough local information was given in the official warning messages before the cyclone impact period. However, the ratings for television and radio warnings broadcast by the Bureau of Meteorology were rated mainly fair to good, as were the emergency services during the storm.

### **Preparations/ Previous experience and length of residence**

Due to local knowledge, most residents expected a cyclone to either pass by or hit Mornington this year, while those not from there, mainly non-indigenous workers, expected it because of the physical location of the island. Consequently, the majority of people had made some pre-cyclone preparations but there were some who waited until it was certain that Abigail was heading towards the island before they reacted, and implemented disaster precautions like buying tinned food and candles, storing water and cleaning yards of loose rubbish. Those people who felt their houses would not be safe, moved into relatives whose buildings were considered more secure for the duration of the storm, then returned home after Abigail had passed.

Most long-term residents did not expect a storm surge to affect the town, because the cyclone approached from the opposite side of the island. It was felt by some with local knowledge that when cyclones and storms approached from the north, their winds do lose some strength on initial impact with the coastline, and is further weakened as they move across the island's landmass. Given these circumstances it would also be logical to assume that the sea surges caused by cyclone winds primarily affected the northern shores and would have little if any, impact on the southern parts of Mornington.

### **Cyclone Damage**

None of the residential houses in town suffered any serious structural effects. The most damage reported was confined to rooftops, where breeze-catchers and aerals were blown off, and some solar panels were broken. The most common damage to most properties was trees in the yards losing leaves and branches and in some cases being blown over, and there were several houses where water was blown under doors and through windows causing problems with electrical goods and floor coverings. There was one building which suffered fairly extensive damage, but it was a public facility, and fortunately at the time it was not occupied, as everyone were in their homes. It appeared to have been the subject of a freak gust of wind, which can happen during cyclones.

All the residential houses lost power and water for some periods of time, ranging from a couple of hours, to in some cases, two days. Few of the residents complained about the unavailability of electricity because they perceived it as a normal event during the cyclone season.

The estimated damage for property was placed at approximately \$245,000 for Momington Island, and fortunately there were no lives lost or serious injuries reported. From surveys, most people would have evacuated their homes if told to by authorities. Most would have preferred to move into a relative's place that was in a safer location, or to a recognised evacuation centre. One non-indigenous worker expressed a wish to be flown to Normanton on the mainland, if the cyclone was particularly strong and people were asked to evacuate.

Most residents agreed that cyclone Abigail tended to bring the community together, especially family groups. For various reasons some residents stayed with relations to sit out the storm and that time gave them the opportunity to talk and generally catch up with family

### **General comments and observations**

Due to its geographic position and climatic conditions, Momington Island is always going to be affected in some way by major weather disturbances in the Gulf of Carpentaria. This circumstance applies especially during the summer months- November to April- when the monsoon activities are prevalent in the northern part of Australia. Records show that Abigail is not the only tropical cyclone that has struck Momington after crossing the Cape York Peninsula from the eastern coast. There have also been occurrences when the circumstances have been reversed, with cyclones forming in the Gulf and heading over to the Coral Sea. The island itself is in a vulnerable position, but the main township of Gununa is relatively protected by its location. Local people say that strong winds associated with storms or cyclones lose some of their initial power when they reach the settlement site, if they approach from the north, more so especially from the northeast.

In times of need such as those caused by the effects of a cyclone, people tended to rely on each other, and this becomes prominent in the Momington community where indigenous family groups and kin ties are maintained. People moved into kin's houses that were considered sturdier, and they felt safer when gathered in the one place as a family group or people they are related to.

In conversation, an elder of the Aboriginal people who was born and raised on Momington expressed a desire that perhaps someone should record traditional stories and experiences of the older indigenous people on the island. Further talks established that the person had experienced a number of cyclones while on Momington, and cyclones were talked about as a way of life on the island. The elder also related stories about times that were spent as a youngster living on the island when the mission was established. This person's memories of events and places were quite clear, as the site of the old mission vegetable garden was pointed out, and other details were provide, w

shape, designed to cope with local weather conditions while at the same time fulfil its primary function as a storage centre for displays of traditional Mornington cultural artefacts and records.

The longer people live in a place, naturally the more they adapt to the natural surroundings. The people born and raised on Mornington Island know that every wet season there is the likelihood

elders and record their narratives. This information could be stored in the cultural centre mentioned above, so it is kept in the community for local reference, and if permitted, may also be displayed for public viewing as part of the history of Mornington Island.

A resident raised a theory that perhaps the sea grass in shallower dugong feeding waters around the island may have been subject to some removal by rough sea conditions from cyclone Abigail, and consequently a shortage of this traditional supplementary food source. There was speculation whether this may have caused a change in the diet of the



## **SUMMARY OF MAJOR IMPACTS**

Most residents got information and warnings about cyclone Abigail from radio, television and family.

When it became clear that the cyclone was going to strike the town, people tended to gather in family houses that were seen as the strongest construction-wise. They may have been crowded, but they only had to stay until the cyclone blew over-two to three hours at the most.

Through experience, all local people expected a cyclone to either pass by or hit Momington this year, while those not from there, mainly non-indigenous workers, expected it because of the physical location.

Because they were expecting a cyclone, most residents had made some preparations but some waited until it was confirmed it was heading towards the island before they brought tinned food and candles, stored water and cleaned yards of loose rubbish.

From experience, most residents did not expect a storm surge to affect the town, because the cyclone approached from the opposite side of the island. In fact the state of the tide had more to do with it.

None of the houses in town suffered any serious effects. Minor household damages were reported such as losing breeze-catchers and solar panels. The major damage to most properties was trees in the yards losing leaves and branches and some being blown over.

All the houses lost power and water for some period of time, ranging from a couple of hours to two days.

From surveys most people would have evacuated if requested to, preferably to an evacuation centre.

Most people said that not enough information was given in the official warning messages before the cyclone impact period

The ratings for the warnings put out by the Bureau of Meteorology were rated mainly fair to good, as were the emergency services during the storm.

Most residents agreed that the cyclone tended to bring the community together, especially during the clean-up afterwards. People helped each other clearing yards and generally talked about how they fared when the storm struck.

**BUDGET**

**Cost of airfares----- \$1063.23**

**Cost of accommodation - \$225**