

**CYCLONE JUSTIN.  
IMPACT AND  
COMMUNITY  
RESPONSE IN CAIRNS,  
MAREEBA AND  
INNISFAIL**

**HOUSEHOLD SURVEYS  
CONDUCTED BY THE DISASTER  
STUDIES CENTRE OF JAMES  
COOK UNIVERSITY OF NORTH  
QUEENSLAND, ON BEHALF OF**

# **THE BUREAU OF METEOROLOGY**

**CAIRNS, MAY 1997**

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**RESEARCH METHOD**

results as anything other than indicators. For example (table 1 below), it is correct to state that 60% of the respondents believed that the weather was less than they had expected, and to infer that the people in Cairns considered this so, but it is incorrect to state that 60% of the households of Cairns considered the weather to have been less than expected, although the structuring of the survey aimed to make this sample representative, such that therefore the response is a reasonable indicator of community reaction. Problems are increased if the responses are broken down by other categories, so that generally cross tabulations have not been used. Because of the difference in size of the surveys, percentages have been used to allow an easy summary and comparison of the communities. It should be borne in mind that small percentages are insignificant and that differences between towns of up to 10% are also not significant. One person in Cairns is only 0.5% of the survey, while one individual in Mareeba or Innisfail makes up 3.3%. Graphs have been produced for a number of the questions, but only for the Cairns data.

## **RESULTS**

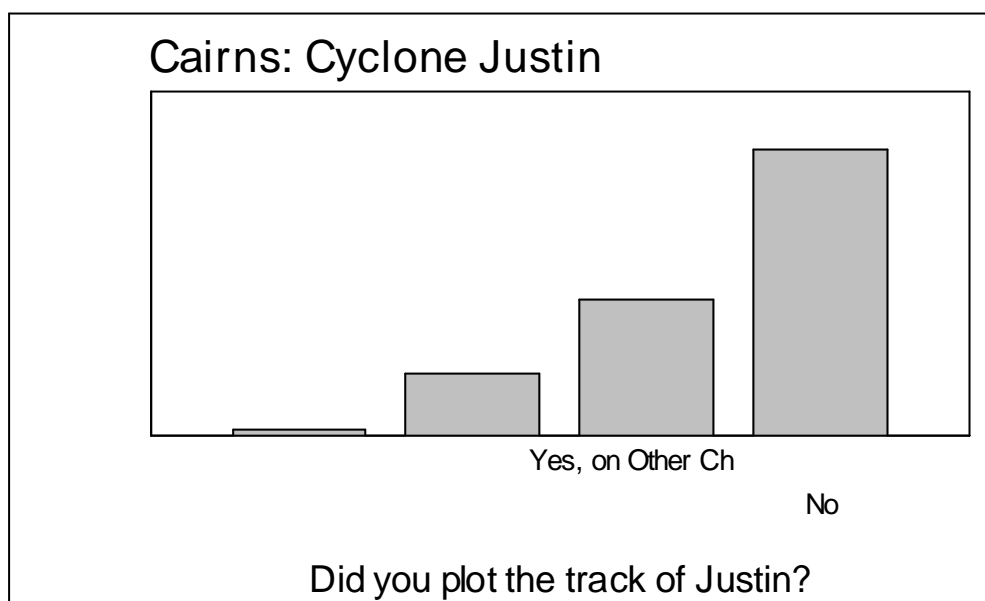
### **Weather and Plotting**

The weather impact of cyclone Justin was definitely not more than was expected from

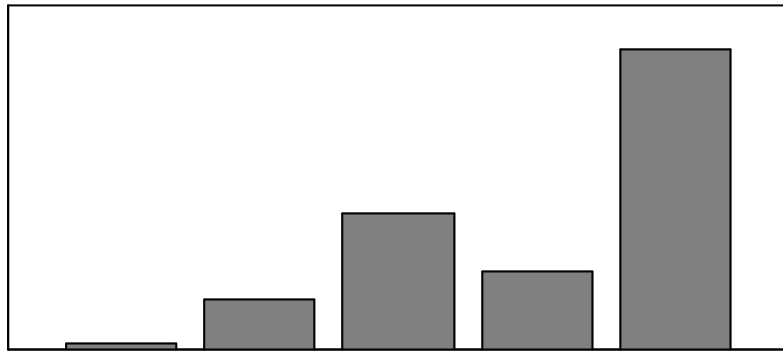
Most people did not plot the track of cyclone Justin. This is not altogether surprising given the amount of time it was out there, but the response in Cairns, Innisfail and Mareeba was very similar to that in Townsville following cyclone Gillian. Reliance on television maps is probably the main cause of the lack of interest.

**Table 2. Did You Plot the Track of Cyclone Justin ? Figures in Percentages.**

	<b>Cairns</b>	<b>Innisfail</b>	<b>Mareeba</b>
<b>Yes, from the telephone book</b>	13	6.7	13.3
<b>Yes, from another chart</b>	28	23.3	16.7
<b>No</b>	59	70	70



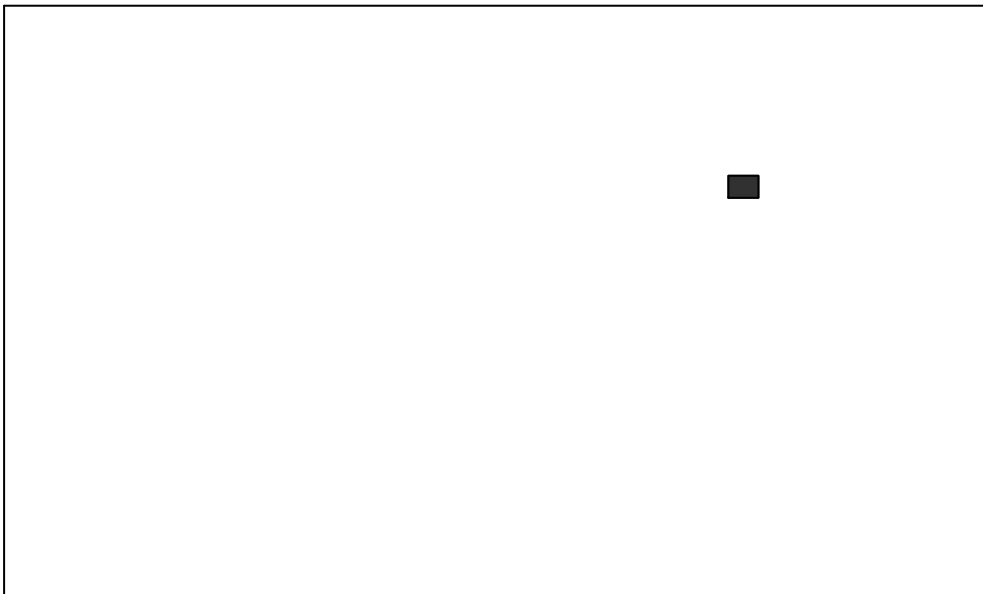
## Cairns:



**Table 5. Source of Information on Updates During Cyclone Justin. Percentages**

	<b>Cairns</b>	<b>Innisfail</b>	<b>Mareeba</b>
<b>Channel 10</b>	3		16.7
<b>103.5 FM</b>	2		
<b>4CA</b>	55.5		6.7
<b>ABC Radio</b>	15	20	26.7
<b>ABC TV</b>	1		3.3
<b>Channel 7</b>	3.5	6.7	3.3
<b>Employer</b>	0.5		
<b>Fax or Internet</b>	0.5	3.3	
<b>Friends and Relatives</b>	1.5		
<b>Hot FM</b>	13		3.3
<b>Triple J</b>	0.5		
<b>TV - generally</b>	0.5	3.3	3.3
<b>Visual Inspection</b>	0.5	3.3	
<b>WIN</b>	1	6.7	10
<b>None</b>	2		
<b>4AM</b>			26.7
<b>4KZ</b>		50	
<b>Other Response</b>		3.3	
<b>Police Scanner</b>		3.3	

The graph below breaks down the information source used during the approach of the cyclone, against the source of updates during its passage overhead. The expectation was that the same source would be used both before and during the cyclone. Clearly this is not the case, although it appears that ABC users may have been a little more loyal.



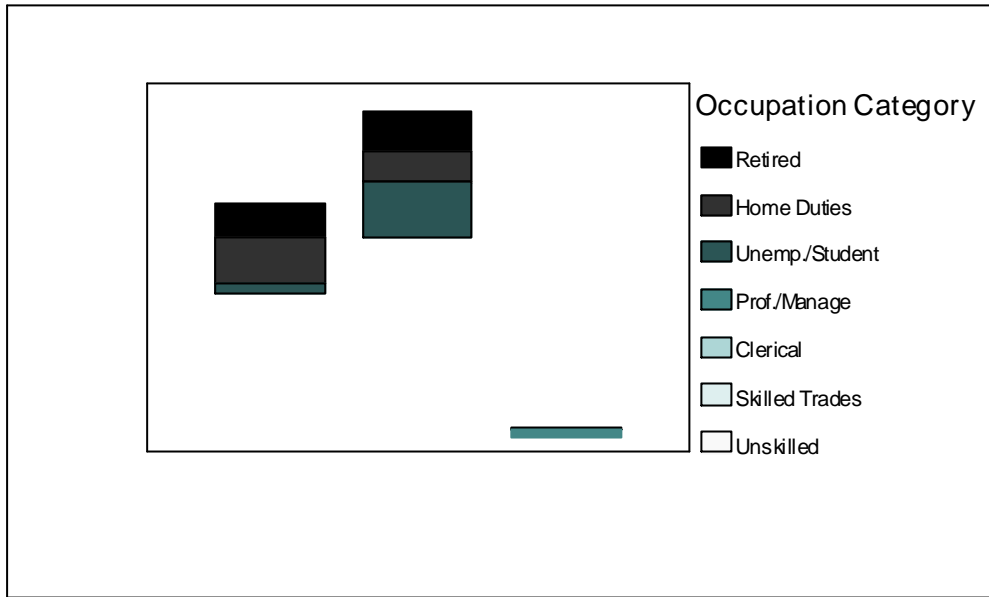


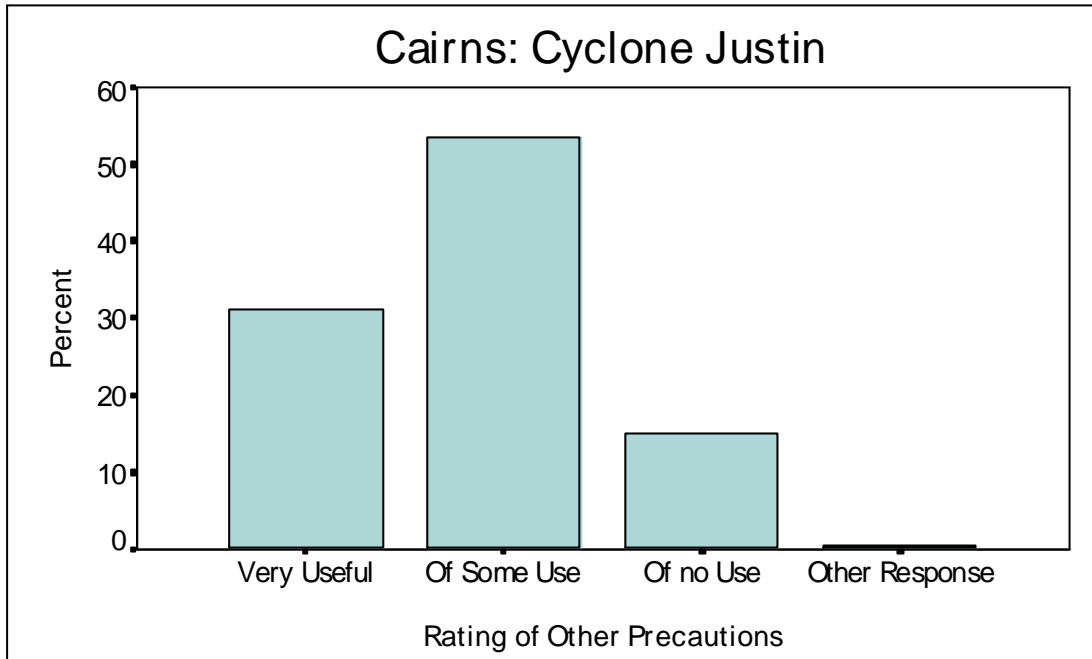


Cleaning the yard was practised by most respondents. All other preparations before the cyclone were responded predominantly in the negative. On Saturday morning, just before the cyclone crossed, the majority of the respondents made no extra preparations, although this is only just over 50%. For most specific activities only a small proportion did anything further. This implies that only one additional preparatory activity was carried out by most of the households that responded that they had done something. Unfortunately we were not able to tell whether or not the food and other supplies that were purchased had anything to do with the imminent approach of the cyclone.

**Table 9. Perceived Adequacy of Preparations. Responses in Percentages.**

	Cairns	Innisfail	Mareeba
Very adequate	40.5	73.3	

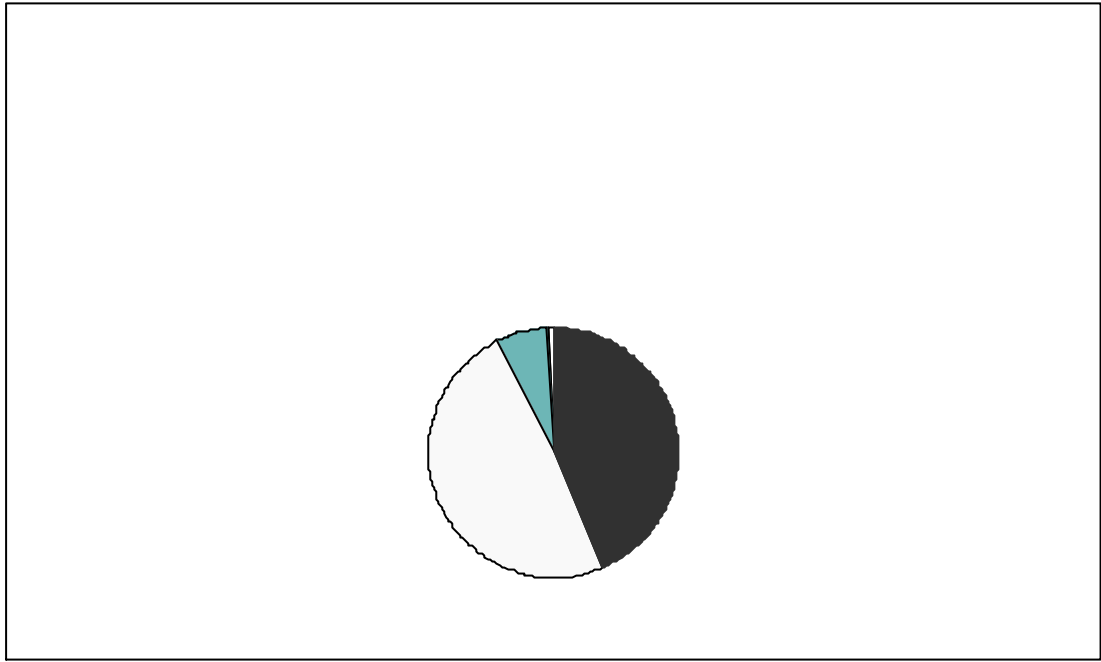




The Bureau of Meteorology warnings are rated highly. This result is the same as in the cyclone Gillian survey of Townsville.

**Table 11. Rating of Weather Bureau Warnings. Responses in Percentages.**

	<b>Cairns</b>	<b>Innisfail</b>	<b>Mareeba</b>
<b>Very Good</b>	43.5	43.3	43.3
<b>Good</b>	49	53.3	46.7



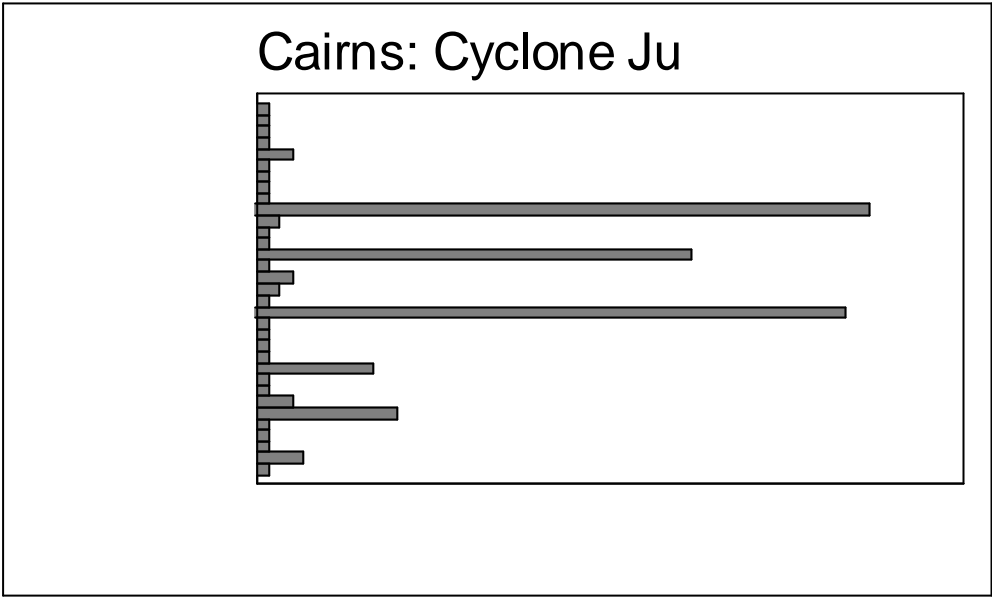
### **Cairns. Comments on BoM Warnings**

Delay time when it passed over. Get rid of siren noise. Info. on shelters needed. Storm surge threat. Info on shelters. More info needed as it gets closer. More frequent updates. Get the story right. Time delay on flood updates. Say where it is relative to Cairns. More frequent updates plus news on restoration of power. Report updates slow. Bit more accuracy about where eye was. More precise location details. Unsure of location. Don't like sirens. More technical info required. Distribution of the effects of a cyclone through the season. Confusion with technical data direction. Clarification of terms. eg. severe??. More frequent. Greater accuracy. Greater accuracy in reporting. Exaggerated warnings. Warning too early went on too long. Contradictions and mistakes in broadcasts. Need a more local source of Met Bureau info. Contradictions and exaggerations. What is the grid ref of Cairns? Over dramatised. More accuracy on wind strength. Contradictory advice on different media sources. Over exaggerated wind strength. Contradictions on eye position. A lot of fuss over a storm. Siren is horrible. Inaccuracies in wind speed. Too often. More regular update. Not enough on TV. Too much. Too much hype. Exact location unclear. Would prefer info from bureau reps not radio people. Not updated often enough. Earlier warnings for passengers at airport. Not always accurate. Lost track of eye at one point. Size exaggerated. More frequent updates. Increase

**Table 13. Other Cyclones Experienced By Respondents. Numbers of People.**

<b>Cairns 1997.</b>	
<b>Other Cyclones Experienced</b>	<b>Number</b>
1956 Joy	1
1956, 1970, 1993	1
1957 1918 1927 Innisfail	1
Agnes	3
Agnes Winifred	1
Althea	1
Avis	1
David	1
Hurricane (USA)	1
Joy	53
Joy Agnes	2
Joy Charlie Althea	1
Joy Winifred	36
Joy Winifred 1956	2
Joy Winifred Althea	3
Joy Winifred Charlie	2
Lena Joy	1
No	48
Tracy	1
Tracy Joy	1
Tracy Winifred Joy	1
Typhoons in Philippines	1
Winifred	10
Winifred Joy Agatha	1
Winifred Joy Peter	1
Yes	18
Yes in WA	1
Yes In Caribbean	1
Yes. Can't remember	4
Yes. Not in Qld.	1
Grand Total	200
<b>Innisfail 1997.</b>	
<b>Other Cyclone Experienced</b>	<b>Number</b>
Alfred	1
Althea	1

Yes. Can't remember	7
Grand Total	30



**Table 15. Characteristics of Respondents: Age/Sex. Responses in Numbers of Persons.**

	<b>Cairns</b>		<b>Innisfail</b>		<b>Mareeba</b>	
<b>Age/Gender</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
<b>Under 30 years</b>	26	26	3	3		7



**Table 17. Cyclone Damage. Responses in Percentages.**

<b>Experience of Cyclone Damage</b>	<b>Cairns</b>	<b>Innisfail</b>	<b>Mareeba</b>
<b>Yes</b>	53	23.3	16.7
<b>None</b>	47	76.7	83.3

**Table 18. Type and Extent of Cyclone Damage. Responses in Percentages.**

	<b>Cairns</b>	<b>Innisfail</b>	<b>Mareeba</b>
<b>Environmental Damage - None</b>	55	80	90
<b>Moderate</b>	43.5	20	10

**Sf**

## **APPENDIX**

### **Survey Instrument**