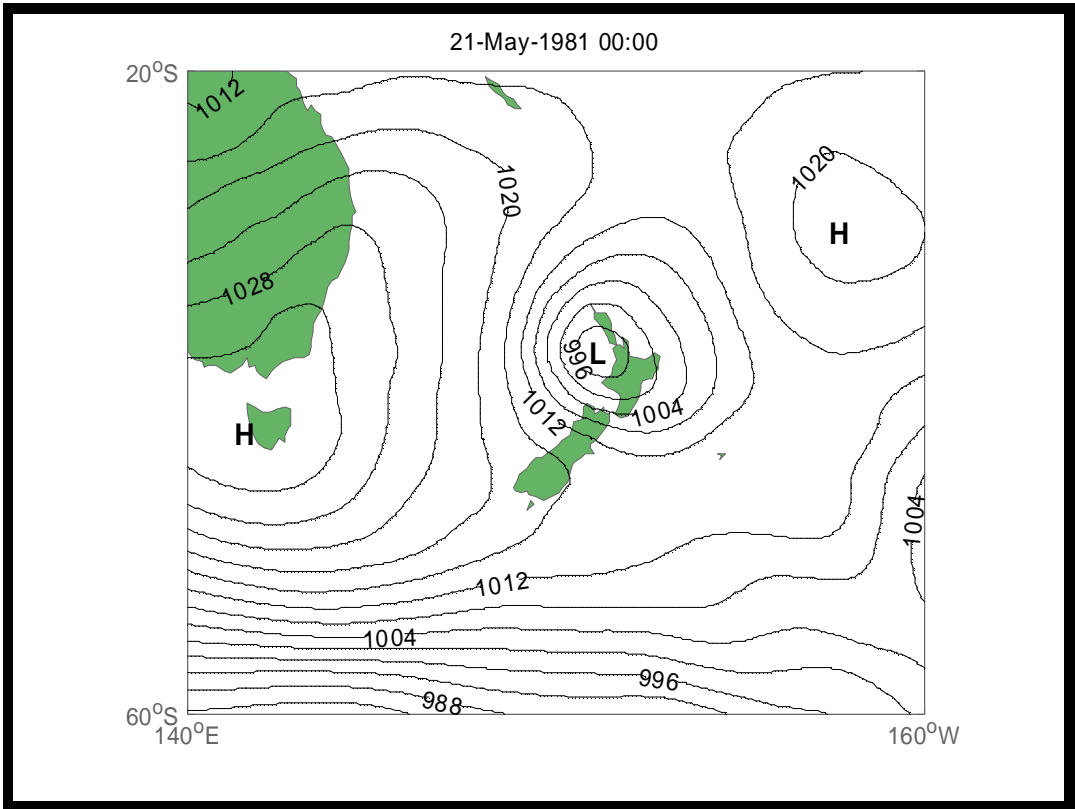


Coastal Storm Database - Event Summary

| | |
|-------------------------------|---------------------------------|
| Date: 20-23 May 1981 | Wind Direction: S |
| Event Type: Wind/Wave | Gisborne Duration (Hours): 19 |
| Location: Gisborne/Wellington | Wellington Duration (Hours): 78 |
| Origin: Tasman Sea | Pressure Gradient: E to SE |
| Type: East Coast Low | |



Synoptic Conditions

A cyclone developed in the central Tasman sea and moved eastward across Northland during which it formed into a large cyclonic system. On the 20th this cyclone was over the Taranaki coast and the strong easterly flow on its southern side swept through Cook Strait. This cyclone then moved east to northeast-ward and was north of East Cape on the 21st and engulfed the entire North Island. The southwestern side of the cyclone contained a strong SE pressure gradient that affected entire eastern North Island. A SE airstream remained over the North Island on the 22nd but the pressure gradient had weakened.

Sea Conditions

Mountainous seas off Wellington; waves estimated at 10m
Heavy seas off Gisborne

Maximum Wave Statistics

| Location | Max Wave Height (m) | Period (s) |
|------------|---------------------|------------|
| Wellington | 3.9 | 7 |
| Napier | 4.0 | 8 |
| Gisborne | 4.3 | 8 |

*Highest Significant Wave Height

Maximum Wind Gusts (kph and dir)

| | Date | Gisborne | Napier | Wellington |
|--|-----------|----------|---------|------------|
| | 20-May-81 | 33 (N) | 24 (W) | 128 (S) |
| | 21-May-81 | 100 (SE) | 89 (SE) | 126 (S) |
| | 22-May-81 | 93 (S) | 61 (S) | 83 (S) |
| | 23-May-81 | 59 (S) | 45 (SW) | 78 (S) |

Impact Area**Impacts and Damages**

| | |
|------------|--|
| Gisborne | <ul style="list-style-type: none">● Large waves pounding harbour breakwater● Maize crops flattened● Power and phone lines down around city |
| Wellington | <ul style="list-style-type: none">● Rainfall totals were heaviest since December 1976 flooding; 154mm fell over three days● Heretaunga-Pinehaven suburb of Upper Hutt isolated by flooding● Petone Beach covered in driftwood and debris● Hutt River burst banks and flooded surrounding area● Rail lines affected by surface flooding and slips● Freighter 'Pacific Charger' ran aground off Baring Head; getting pounded by heavy seas and oil leak● Cook Strait Ferry crossings cancelled● Airport closed; 34 flights cancelled● Heavy seas estimated at 10m off Wellington south coast |
| Wairarapa | <ul style="list-style-type: none">● Ruamahanga River rose 4.77m and flooded surrounding areas● Flooding in south Wairarapa led to evacuations of two families |

Data Source

- 1 Downpour top since 1976: Year Still Dry: Dominion Post, 22/05/1981, p14
 - 2 Storm Hampers Relief Team: Dominion Post, 22/05/1981, p3
 - 3 Marathon Rescue Effort Praised: Dominion Post, 22/05/1981, p3
 - 4 Crewmen Need not Stay: Dominion Post, 22/05/1981, p1
 - 5 Copter Beats Water: Dominion Post, 22/05/1981, p4
 - 6 Tragedies Recalled: Evening Post, 21/05/1981, p4
 - 7 Public Transport System Disrupted: Evening Post, 21/05/1981, p4
 - 8 District is Returning to Normal: Gisborne Herald, 23/05/1981, p10
 - 9 Power and Phones Cut as Storm Lashes Area: Gisborne Herald, 21/05/1981, p1
 - 10 Where's the Beach Gone: Evening Post, 22/05/1981, p6
 - 11 Hutt Deluge: Evening Post, 21/05/1981, p4
 - 12 Freighter Grounded, Holed, At Baring Head: Evening Post, 21/05/1981, p1
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