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Brief Communication: Freaque wave occurrences in 2013

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NHESD

2, 7017–7025, 2014

**Freaque wave
occurrences in 2013**

P. C. Liu

Title Page

Abstract

Introduction

Conclusions

References

Tables

Figures



Back

Close

Full Screen / Esc

Printer-friendly Version

Interactive Discussion



Abstract

Documenting freaque waves when they occurred around the globe in 2013 is based here on news reports on the internet. It was found that there were a total 22 cases of freaque waves in 2013, based on those reported in clearly-defined physically specific environments. There were three cases in the deep ocean, six in nearshore areas, seven on sandy beaches, and seven on rocky shore areas. Note that most of the academic research has been on freaque waves in the deep ocean, which accounts for 13% of all occurrences. The majority of reported occurrences, 87%, are in the nearshore areas or along the beach area. Geographically, these cases are also fairly evenly spread around the globe. As of now, there is no general knowledge regarding the frequency of occurrence of these freaque waves, so that one may assume that 2013 was a customary year for freaque wave occurrences.

1 Introduction

A freaque wave occurrence is always interesting to observe because it is unpredictable and unexpected, and no one knows where, when, how, or why a freaque wave happens. Whenever one does happen, it is usually newsworthy, at least locally. By way of the internet, local news is readily accessible worldwide. Didenkulova et al. (2008) and Nikolchina and Didenkulova (2012) pioneered the use of internet information search in their studies. In this paper, I attempt to track the various occurrences of freaque waves in 2013 around the globe, mainly from news reports on the internet. Using this method, I found a total 23 cases of freaque wave occurrences in 2013. Among them, based on the happenings in clearly-defined physically-specific environments, there were three cases in the deep ocean, six in nearshore areas, seven on sandy beaches, and seven on rocky shore areas.

Note that most of the academic research has been on on freaque waves in the deep ocean, which account for 13% of all occurrences. The majority of reported

NHESSD

2, 7017–7025, 2014

Freaque wave occurrences in 2013

P. C. Liu

Title Page

Abstract

Introduction

Conclusions

References

Tables

Figures



Back

Close

Full Screen / Esc

Printer-friendly Version

Interactive Discussion



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5 Maybe if we can start to track yearly occurrences, it might be possible to develop more accurate statistics on what to expect regarding freaque wave occurrences in a given year.

2 A chronology of the 2013 freaque waves occurrences

Let me first present chronologically all the cases that had happened in 2013. They are mainly based on news reports that are available on the internet from various local or global news providers, that can be found readily through search engines. The Freaquewaves Blog, <http://freaquewaves.blogspot.com/>, has been particularly useful for this compilation.

15 *1 January 2013 Point Reyes Beach* (north of San Francisco), CA: a man died when he attempted to save his dog after it was swept out to sea by a rogue wave while they took a walk on the Point Reyes Beach, north of San Francisco.

13 January 2013 NE Taiwan: a group of six fisherman were stranded when growing wind and waves along with raising tides occurred. One 60 year-old man was swept into the ocean by a large wave and disappeared.

20 *25 January 2013 Kauai*: two men from the San Francisco area were exploring the rocky coast of Hawaii's Kauai island with several friends when a rogue wave knocked down one of them, who was swept into the water off South Kalihiwai Point and dragged out to sea. One of his friends jumped into the choppy waters to save him, but he was also drowned.

25 *29 January 2013 North California*: a woman from Shelter Cover, Northern California, drowned after a freak wave swept her out to sea. She was on the rocky shore beach near her home as she was walking on the beach with her boyfriend and dog when she

Title Page

Abstract

Introduction

Conclusions

References

Tables

Figures

◀

▶

◀

▶

Back

Close

Full Screen / Esc

Printer-friendly Version

Interactive Discussion



was pulled into the ocean. Her body was found after a 45 min search by rescue boats and a helicopter. Ms Archer's boyfriend was injured when the wave threw him against rocks. The dog was pulled into the water but was able to swim to safety.

5 *1 February 2013 Portosole, Italy:* a security camera at the harbor dock in Portosole, Italy captured a freak wave that came over the sea wall and took out the parked cars and a motorcyclist.

10 *5 March 2013 Nova Scotia, Canada:* Nova Scotia fishermen encountered a freak wave that "just came out of nowhere and just picked us right up and threw us down". Two crew members were sent overboard and then miraculously were thrown back on the deck.

17 March 2013 Mexico: a giant wave is being blamed for the death of an elderly woman who was walking with a companion on a beach in Mexico when the wave broke on the shoreline, sucking her and her companion out to sea.

15 *17 March 2013 Ireland:* a Polish man who had been living in Ireland for a number of years died after being hit by a freak wave while on a fishing trip with friends. The 55-year-old fisherman, who was married and had been living in Ireland's Co Kildare, was drowned when the wave dragged him off the rocks into the sea at Mullaghmore Head, Co Sligo.

20 *21 April 2013 Galveston, Texas:* four fishermen were lost when their boat was destroyed by a freak wave in the Gulf of Mexico, southeast of Galveston, Texas.

27 May 2013 NE Australia: a strong wave surge was blamed for killing a 60-year-old woman while she was walking along Shoal Bay Beach in Port Stephens, northeast of Australia.

25 *8 June 2013 Australia's North Territory:* three brave fishmen swam almost 1 km to the shore of Australia's North Territory's remote island, in crocodile-infested waters, after a freak swell swamped their 4.5 m aluminum boat.

26 June 2013 Australia's Gold Coast: a freak wave struck a fisherman's dinghy as he and his friend were returning from a fishing trip late one afternoon, leaving him with

NHESSD

2, 7017–7025, 2014

Freak wave occurrences in 2013

P. C. Liu

Title Page

Abstract

Introduction

Conclusions

References

Tables

Figures

◀

▶

◀

▶

Back

Close

Full Screen / Esc

Printer-friendly Version

Interactive Discussion



two dislocated shoulders and a dislocated hip. He was saved by his friend who made an epic three-hour swim through freezing waters off the Gold Coast for help.

10 July 2013 North Pacific: while filming the TV show “*Deadliest Catch*” the boat encountered a 50 foot rogue wave that washed over the bow.

5 *21 September 2013 Tampa Bay, FL:* six friends set out for a day of fishing, they never expected to be the ones who were fished out of Tampa Bay. They saw the storm Approaching and thought they could get to shore in time. It was a little rough, and then a rogue wave came out of nowhere and rolled the boat over.

10 *7 October 2013 Ireland:* in an area in Ireland known as the Fisherman’s Climb, at Ailladee, in Co Clare, a Roscommon-based fisherman was washed off the rocks into the sea. Intense rescue efforts were unsuccessful.

21 October 2013 Victoria, Australia’s Mirboo North: a resident died after being swept off rocks near Inverloch. He was standing with friends on a rock shelf at Eagles Nest, east of Oaks Beach, when a wave swept the group into rough seas.

15 *5 November 2013 Wales:* A freak wave hit the seafront in Aberystwyth, Wales at the height of the weekend’s storms – and nearly cost a photographer his life who was there taking wave photos.

20 *10 November 2013 NE Taiwan:* a 26 member group from Shulin Community University was visiting the Longdong Geopark Saturday to attend an outdoor learning course when they were swept out to sea by a rogue wave while walking on the coastal pavement. Eight were dead and eight injured.

17 November 2013 Southern Ocean: during Race 4 of the Clipper 2013–2014 Round the World Yacht Race, the UK crew encountered an “all of a sudden out the blue” big massive wave that knocked some of them down and sent everything flying.

25 *30 November 2013 Off coast South Africa:* another case of the Clipper 2013–2014 Round the World Yacht Race in which a yacht was hit by a “monumental” wave off the coast of South Africa. A British woman was injured and had to leave the race.

12 December 2013 Trinida: a Mayaro, Trinidad fisherman was suspected to have drowned, after a rogue wave capsized his boat off Point Galeota, Trinida.

Freaque wave occurrences in 2013

P. C. Liu

Title Page

Abstract

Introduction

Conclusions

References

Tables

Figures



Back

Close

Full Screen / Esc

Printer-friendly Version

Interactive Discussion



16 December 2013: Portugal: seven students were on Portugal's Moinho de Baixo Beach in Alfarim when they were washed into the sea by a wave. One was found dead, one survived, and five were still missing.

3 Sorting the cases

5 Looking through the chronology of the cases that occurred in 2013 reveals that, while they are quite varied according to their locale and/or circumstances, they basically happened in three broad settings: the deep ocean, the nearshore, and the beach area (the beach area consists of sandy beaches and rocky shores). Based on these subdivisions, the 2013 occurrences are divided among them (see Tables 1 and 2).

10 Geographically, these cases are scattered all around the globe in the north and south Atlantic ocean, in the west, north, and east Pacific ocean, in the Gulf of Mexico, around Australia, and in the south Indian ocean.

4 Discussion and concluding remarks

First some caveats:

- 15 – These results are basically eyewitness accounts, not direct measurements.
- They are not exact scientific data, they are observations that may be regarded as circumstantial information.
- They have not been subjected to quality control, but just relying on the general descriptions of the people involved in the incident.
- 20 – Certainly these cannot claim to include all occurrences – only those that can be found through internet searches.

Freaque wave occurrences in 2013

P. C. Liu

Title Page

Abstract

Introduction

Conclusions

References

Tables

Figures

◀

▶

◀

▶

Back

Close

Full Screen / Esc

Printer-friendly Version

Interactive Discussion



In reality, however, we don't know where, when, why, or how they happen. When they do, they usually happen at inconvenient times and/or unlikely places – all are unexpected!

The unexpectedness is an essential characteristic of freaque waves. They just happen when they happen! No one can make them happen or stop them from happening!

What is presented here is only a glimpse of what has happened in the real world out there in the oceans during 2013.

These occurrences are clearly parts of the physical ocean processes, but we just do not have enough knowledge to readily discern them from the familiar classic ocean wave formulations.

A single year, or even a few years, of information on the number of occurrences is not sufficient to make any conclusions about the frequency of occurrence of these cases.

One fact that needs to be pointed out here is that currently, the bulk of academic research in freaque waves studies has been mainly focused on deep ocean occurrences, which account for only 18% of the occurrences in 2013.

It cannot be over-emphasized that there is a great need for research and measurements in nearshore and ocean beach areas where most freaque waves occur.

The study of freaques is still at the starting gate! We have much to learn!

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NHESSD

2, 7017–7025, 2014

Freaque wave occurrences in 2013

P. C. Liu

Title Page

Abstract

Introduction

Conclusions

References

Tables

Figures

◀

▶

◀

▶

Back

Close

Full Screen / Esc

Printer-friendly Version

Interactive Discussion



NHESSD

2, 7017–7025, 2014

Freaque wave occurrences in 2013

P. C. Liu

[Title Page](#)

[Abstract](#)

[Introduction](#)

[Conclusions](#)

[References](#)

[Tables](#)

[Figures](#)



[Back](#)

[Close](#)

[Full Screen / Esc](#)

[Printer-friendly Version](#)

[Interactive Discussion](#)



Table 1. 2013 yearly occurrence cases according to local settings.

Deep ocean (DO)	4
Nearshore (NS)	5
Beach area:	
– Sandy beach (SB)	8
– Rocky shore (RS)	5

**Freaque wave
occurrences in 2013**

P. C. Liu

Table 2. 2013 monthly occurrence according to local settings given in Table 1.

	DO	NS	SB	RS	No. Cases (Casulty)
Jan			II	II	4 (5)
Feb			I		1
Mar	I		I	I	3 (2)
Apr		I			1 (4)
May				I	1 (1)
Jun		II			2
Jul	I				1
Aug					0
Sep		I			1
Oct			II		2 (2)
Nov	II		II		4 (8)
Dec		I		I	2 (6)
Total	4	5	8	5	22 (28)

Title Page

Abstract

Introduction

Conclusions

References

Tables

Figures

I◀

▶I

◀

▶

Back

Close

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

