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XXX XXX

Tel: X

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ial: 01202 293867

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n: [www.linkedin.com/in/drrichardwild](http://www.linkedin.com/in/drrichardwild) 22nd Septem

XXXXXXX,

***Incident***

***on:*** *Ratho (EH28 8RL) 1300*

*24th December 2013*

***eference:*** *XXXXXXXXXXXXXXX*

***erence:*** *XXXX (XX)*

**of meteorological stations utilised**

blish what meteorological conditions occurred around the surrounding area of the ti incident, I investigated what was the closest meteorological station that was operating at

sest meteorological station to the incident, at which hourly meteorological le to me, was Edinburgh, Gogarbank (1.6 miles to the east). The closest meteo

to the incident, at which daily weather data was available to me, were E nk (2.6km) and Edinburgh, Royal Botanic Garden No.2 (11.8km). Th

ological data (manned and automatic weather stations) should prove to be represe dent area (see-enclosed sheets in the appendices).

**rological reports/documents enclosed**

meteorological report from Edinburgh, Gogarbank.

eteorological report from Edinburgh, Gogarbank and Edinburgh, Royal Botani

Direct D E-mail r Web Si

Linkedi ber 2017

Dear X

***Locati Time: Date: Your R My Ref***

# Details

To esta me of the

the time.

The clo data was

availab rological

stations dinburgh,

Gogarba is daily

meteor ntative of

the inci

# Meteo

Hourly

Daily m c Garden

No.2.

# Anecdotal reports enclosed

No anecdotal reports were included.

I very much hope that the information is acceptable and please do not hesitate to call if I can be of further assistance in this or in any other case in the future.

Please note that this is a Non CPR Legal Weather Report, and this report cannot be used as evidence in a court of law as this incident has not be fully researched and only shows a snap shot of the raw daily or hourly data in the surrounding area of the incident from the nearest meteorological stations. No interpretation, conclusion and statement of truth etc. have been included. If at a later date you require a CPR Legal Weather Report (for potential court purposes) for this case which will include if required rainfall radar and modelled weather data in the research for the incident postcode itself, please contact me at the above address.

gards incerely

**hard J. Wild BSc (Hons) PhD FRMetS FRGS MAE MCSFS**

Services Commercial Manager/Senior Forensic Meteorologist, WeatherNet Limite

Kind re

Yours s

**Dr Ric**

Weather

d

*Enc.:*

**GMT**

**Air**

**Temp Humidity**

**Rain**

**Visibility**

**Sun**

**Cloud Cover**

**Wind From**

**Mean Wind**

**Max Gust**

**Weather**

0100 3.3°C 75%

0200 3.2°C 76.7%

0300 3.2°C 75.5%

0400 3.0°C 77.2%

0500 3.0°C 77.2%

0600 3.0°C 77.2%

0700 3.2°C 76.7%

0800 2.7°C 80%

0900 3.9°C 79.6%

1000 3.9°C 81.9%

1100 3.1°C 88.6%

1200 2.4°C 91.1%

1300 3.9°C 85.5%

85% 0.8mm 25km 0hr 87.5% 160° 12kt 28kt Slight rain 87.7% 0.8mm 12km 0hr 87.5% 190° 11kt 24kt Moder

86.2% 1.6mm 30km 0hr 87.5% 210° 15kt 25kt Rain

77.8% 0.05mm 30km 0hr 87.5% 210° 18kt 32kt Rain

75.5% 0.0mm 30km 0hr 12.5% 230° 14kt 28kt None

74% 0.0mm 25km 0hr 50% 220° 17kt 29kt None

74.5% 0.05mm 20km 0hr 75% 210° 15kt 31kt Rain 78.7% 0.05mm 19km 0hr 37.5% 210° 15kt 32kt Slight rain 83.3% 0.2mm 8km 0hr 87.5% 190° 16kt 29kt Moder

77.8% 1.2mm 50km 0hr 87.5% 190° 17kt 32kt Rain 81.6% 0.05mm 30km 0hr 62.5% 190° 14kt 33kt Slight rain

6.25mm 0.0hr

**emperature (°C) Rainfall (mm) Mean W**

20 60

50

15

40

10 30

20

5

10

00 00

100011001200130014001500160017001800190020002100220023002400 010002000300040005000600070008000900100011001200130014001500160017001800190020002100220023002400 010002000300040005000600070008000900

1

1400 4.9°C

|  |  |  |  |
| --- | --- | --- | --- |
| 1500 | 7.4°C ate rain | | |
| 1600 | 9.7°C | | |
| 1700 | 9.9°C | | |
| 1800 | 9.3°C | | |
| 1900 | 9.2°C | | |
| 2000 | 9.6°C | | |
| 2100 | 8.9°C showers | | |
| 2200 | 9.7°C | ate rain |  |
| 2300 | 10.0°C |  |  |
| 2400 | 9.7°C | showers |  |
| Totals |  |  |  |
|  | **Air T** | **ind & Gust (kt)** |  |

0.0mm 0.0mm 0.0mm 0.0mm 0.0mm 0.0mm 0.0mm 0.0mm 0.0mm 0.0mm 0.05mm 0.8mm 0.6mm

40km 40km 45km 40km 35km 35km 35km 30km 30km 30km 10km 18km 10km

0hr 210° 19kt 29kt None 0hr 25% 220° 19kt 30kt None

0hr 37.5% 220° 17kt 31kt None

0hr 12.5% 220° 16kt 29kt None

0hr 25% 220° 13kt 29kt None 0hr 220° 8kt 15kt None

0hr 210° 11kt 20kt None

0hr 120° 3kt 6kt None 0hr 25% 130° 4kt 9kt None

0hr 87.5% 120° 11kt 21kt None

0hr 62.5% 100° 11kt 21kt Moderate rain showers 0hr 62.5% 080° 8kt 14kt Slight rain

0hr 75% 080° 6kt 20kt Moderate rain

30

20

10

**0**

-10

0100

0200

0300

0400

0500

0600

0700

0800

0900

000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

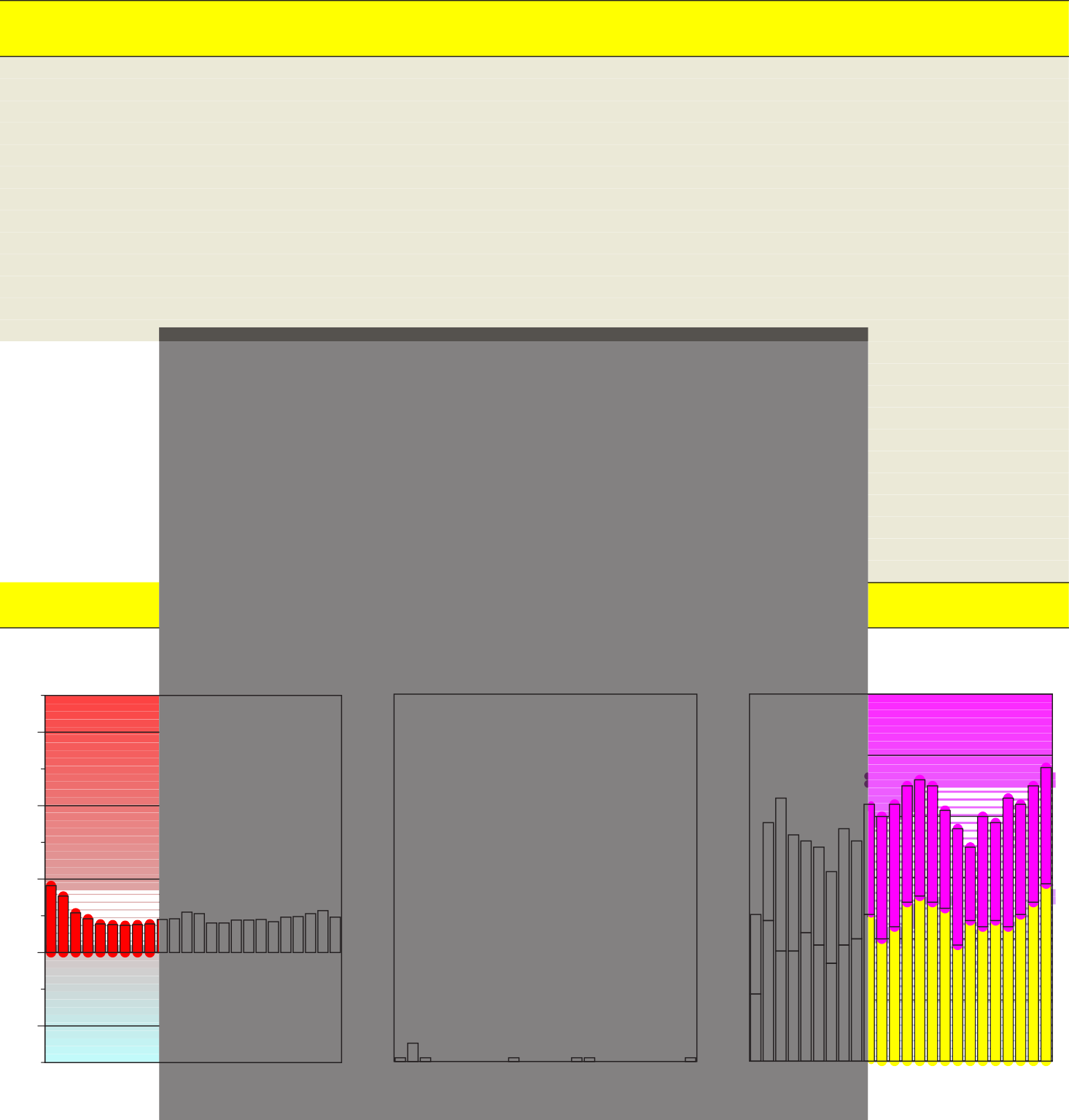
2100

2200

2300

2400

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **GMT** | **Air Temp** | **Humidity** | **Rain** | **Visibility** | **Sun** | **Cloud Cover** | **Wind From** | **Mean Wind** | **Max Gust** | **Weather** | |
| 0100 | 9.1°C | 84.9% | 0.2mm | 14km | 0hr | 87.5% | 180° | 11kt | 24kt | Moderate rain | |
| 0200 | 7.7°C | 80.7% | 1.0mm | 12km | 0hr | 62.5% | 220° | 23kt | 39kt | Heavy rain | |
| 0300 | 5.4°C | 77.6% | 0.2mm | 35km | 0hr | 62.5% | 230° | 18kt | 43kt | Rain | |
| 0400 | 4.6°C | 70.5% | 0.0mm | 30km | 0hr |  | 230° | 18kt | 37kt | None | |
| 0500 | 3.9°C | 68.3% | 0.0mm | 40km | 0hr |  | 220° | 21kt | 36kt | None | |
| 0600 | 3.8°C | 70.3% | 0.0mm | 35km | 0hr | 50% | 220° | 19kt | 35kt | None | |
| 0700 | 3.7°C | 69.3% | 0.0mm | 30km | 0hr | 25% | 200° | 16kt | 31kt | None | |
| 0800 | 3.8°C | 65.8% | 0.0mm | 26km | 0hr |  | 210° | 19kt | 38kt | None | |
| 0900 | 3.9°C | 71.4% | 0.05mm | 13km | 0hr | 25% | 200° | 20kt | 36kt | Moderate rain showers | |
| 1000 | 4.5°C | 61.7% | 0.2mm | 30km | 0hr | 87.5% | 210° | 24kt | 42kt | Rain | |
| 1100 | 4.6°C | 61.8% | 0.0mm | 21km | 0hr |  | 200° | 20kt | 40kt | None | |
| 1200 | 5.5°C | 55.5% | 0.0mm | 20km | 0.7hr | 12.5% | 200° | 22kt | 42kt | None |  |
| 1300 | 5.3°C |  |  |  |  |  |  |  |  |  |  |
| 1400 | 4.0°C |  |  |  |  |  |  |  |  |  | showers |
| 1500 | 4.0°C |  |  |  |  |  |  |  |  |  |  |
| 1600 | 4.4°C |  |  |  |  |  |  |  |  |  |  |
| 1700 | 4.4°C |  |  |  |  |  |  |  |  |  |  |
| 1800 | 4.5°C |  |  |  |  |  |  |  |  |  | showers |
| 1900 | 4.2°C |  |  |  |  |  |  |  |  |  |  |
| 2000 | 4.8°C |  |  |  |  |  |  |  |  |  |  |
| 2100 | 4.9°C |  |  |  |  |  |  |  |  |  |  |
| 2200 | 5.3°C |  |  |  |  |  |  |  |  |  |  |
| 2300  2400 | 5.7°C  4.8°C |  |  |  |  |  |  |  |  | ate rain showers | |

Totals

58.8% 0.05mm 25km 0.4hr 37.5% 210° 26kt 45kt Rain 78.5% 0.05mm 20km 0hr 75% 210° 27kt 46kt Slight rain 80.2% 0.2mm 24km 0hr 37.5% 210° 26kt 45kt Slight rain 78.5% 0.2mm 35km 0hr 12.5% 210° 25kt 41kt Rain

75.8% 0.0mm 40km 0hr 62.5% 220° 19kt 38kt None 74.7% 0.05mm 30km 0hr 12.5% 220° 23kt 35kt Slight rain 76.8% 0.05mm 35km 0hr 37.5% 210° 22kt 40kt Rain

70% 0.0mm 30km 0hr 210° 23kt 39kt None 68.5% 0.0mm 30km 0hr 220° 22kt 43kt None 66.2% 0.0mm 28km 0hr 210° 24kt 42kt None 65.3% 0.0mm 27km 0hr 50% 210° 26kt 45kt None

78% 0.2mm 9km 0hr 75% 220° 29kt 48kt Moder

2.45mm 1.1hr

**emperature (°C) Rainfall (mm) Mean W**

20 60

50

15

40

10 30

20

5

10

00 00

100011001200130014001500160017001800190020002100220023002400 010002000300040005000600070008000900100011001200130014001500160017001800190020002100220023002400 010002000300040005000600070008000900

1

**Air T ind & Gust (kt)**

30

20

10

**0**

-10

0100

0200

0300

0400

0500

0600

0700

0800

0900

000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Grass Min T Max T Rain Sun Wind Mx Gust from Sig rbank 2.6°C 3.4°C 7.4°C 2.1mm 1.9hr 30mph 54mph 230° No

Botanic 1.7°C 3.9°C 7.7°C 0.8mm N/A 11.8km

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Mon 23 Dec 2013** | Grass | Min T | Max T | Rain | Sun | Wind Mx Gust | from Significant | Weather |
| Edinburgh, Gogarbank  @2.6km | -0.5°C | 1.4°C | 10.3°C | 6.3mm | 0.0hr | 22mph 38mph | 190° None | |
| Edinburgh, Royal Botanic Garden No. 2 @11.8km | -1.5°C | 1.9°C | 10.5°C | 4.4mm |  |  | N/A | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Tue 24 Dec 2013** | Grass | Min T | Max T | Rain | Sun | Wind Mx Gust | from Significant | Weather |
| Edinburgh, Gogarbank  @2.6km | 1.9°C | 2.3°C | 6.0°C | 2.5mm | 1.1hr | 33mph 55mph | 220° None | |
| Edinburgh, Royal Botanic Garden No. 2 @11.8km | 0.6°C | 2.9°C | 6.5°C | 0.8mm |  |  | N/A | |

**Wed 25 Dec 2013**

nificant Weather

Edinburgh, Goga

@2.6km

ne

Edinburgh, Royal Garden No. 2 @

Readings are weather station observations except: ¹ Witness reports (media, press etc). ² Remotely sensed data (ATD, RADAR, satellite etc)

Values represent 24 hours commencing midnight GMT except: ³ 24 hours commencing 0900 or 0600 GMT

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Beaufort Scale

1 mph = 0.868 Knots

**Beaufort Force**

**Description**

**Mean Speed (mph)**

**Lower L**

**(**

**imit Limit State of Sea Specififcation at Sea mph) (mph)**

0 1 Calm; smoke rises vertically **Calm** Sea like a mirror

1 3 Direction of wind shown by smoke **Calm** Ripples with the appearance of drift but not by wind vanes crests

4 7 Wind felt on face; leaves rustle **Smooth** Small wavelets, still short but m

appearance and do not break

8 12 Leaves & small twigs in constant **Smooth** Large wavelets; crests begin to motion; wind extends light flag scattered white horses

13 18 Dust & loose paper raised; small **Slight** Small waves; becoming longer; branches moved

18 24 Small trees in leaf begin to sway; **Moderate** Moderate waves with more pro crested wavelets form on water horses; chance of some spray

24 31 Large branches in motion; whistling **Rough** Large waves begin to form; whi heard in telegraph wires everywhere; probably some spr

31 38 Whole trees in motion; **Very Rough** Sea heaps up and white foam inconvenience felt when walking blown in streaks along the dire against the wind

39 46 Twigs break off trees; difficult to walk **High** Moderately high waves of great against wind break into spindrift; foam blown

47 54 Slight structural damage to chimney **Very High** High waves; dense streaks of foam pots, aerials & roof slates crests of waves topple, tumble

visibility

55 63 Trees uprooted; considerable **Very High** Very high waves with long over structural damage in dense white streaks; heavy “tumbling”

64 72 Widespread structural damage **Phenomenal** Exceptionally high waves (ship

waves); everywhere the edges froth

**Upper**

**Specification on Land**

***As Used at Sea***

**Height of Waves (ft)**

1. **Calm** 0 0
2. **Light Air** 2 scales are formed, without foam 0.3
3. **Light Breeze** 5 ore pronounced; crests have a glassy 0.6
4. **Gentle Breeze** 10 break; foam is of glassy appearance; 2
5. **Moderate Breeze**

15 fairly frequent white horses 3

1. **Fresh Breeze** 21 nounced long form; many white 7
2. **Strong Breeze** 27 te foam crests are more extensive 10

ay

1. **Near Gale** 35 from breaking waves begins to be 13

ction of the wind

1. **Gale** 42 er length; edges of crests begin to 18

along the direction of the wind

1. **Strong Gale** 50 along the direction of the wind; 23

and roll over; spray may affect

1. **Storm** 59 hanging crests; foam patches blonw 30

of sea; visibility affected

1. **Violent Storm** 68 s sometimes lost to view behind the 38

of the wave crests are blown iont

1. **Hurricane** - 73 - Devastation **Phenomenal** Air is filled with foam and spray; sea completely white with drivgin 47

spray; visibility very seriously affected

Tel: 01202-296396; Fax: 01202-314064