



Trilateral Workshop, Shefayim 03/2022

Warnings Essentials

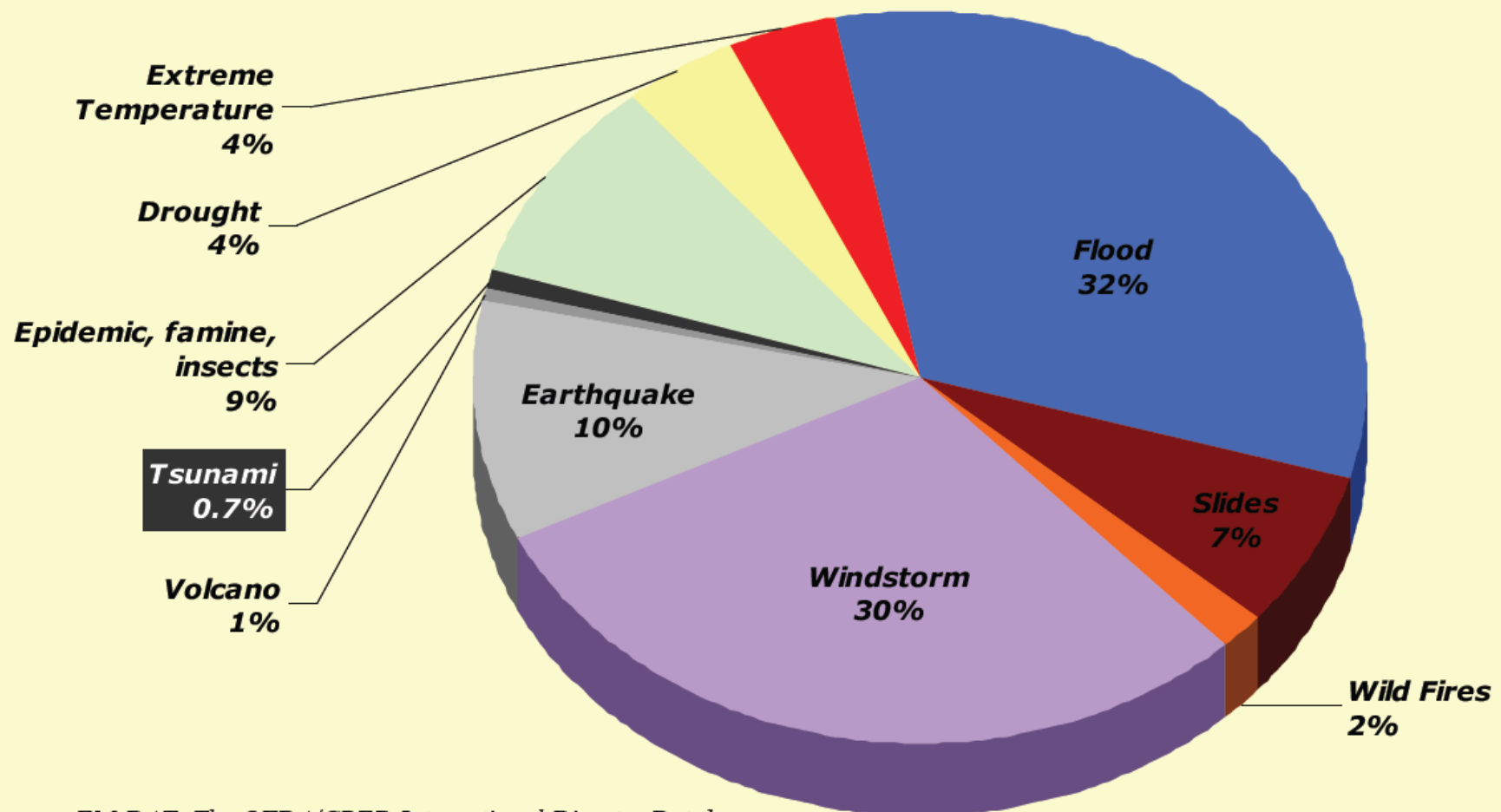
Nir Stav, IMS Executive Director



Hazardous Weather Events Risk Reduction

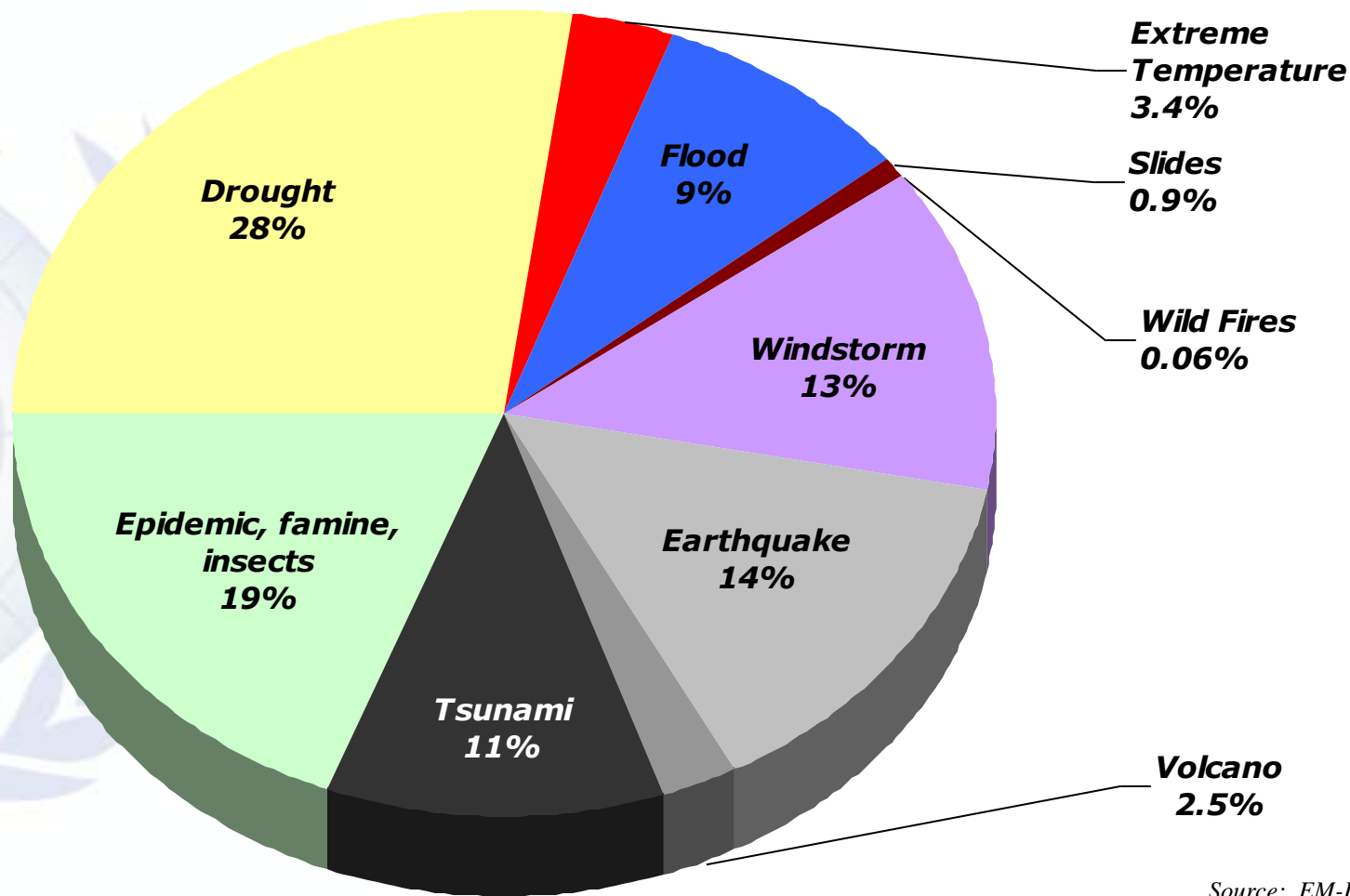


Nearly 90% of disasters are weather-related



Source: EM-DAT: The OFDA/CRED International Disaster Database

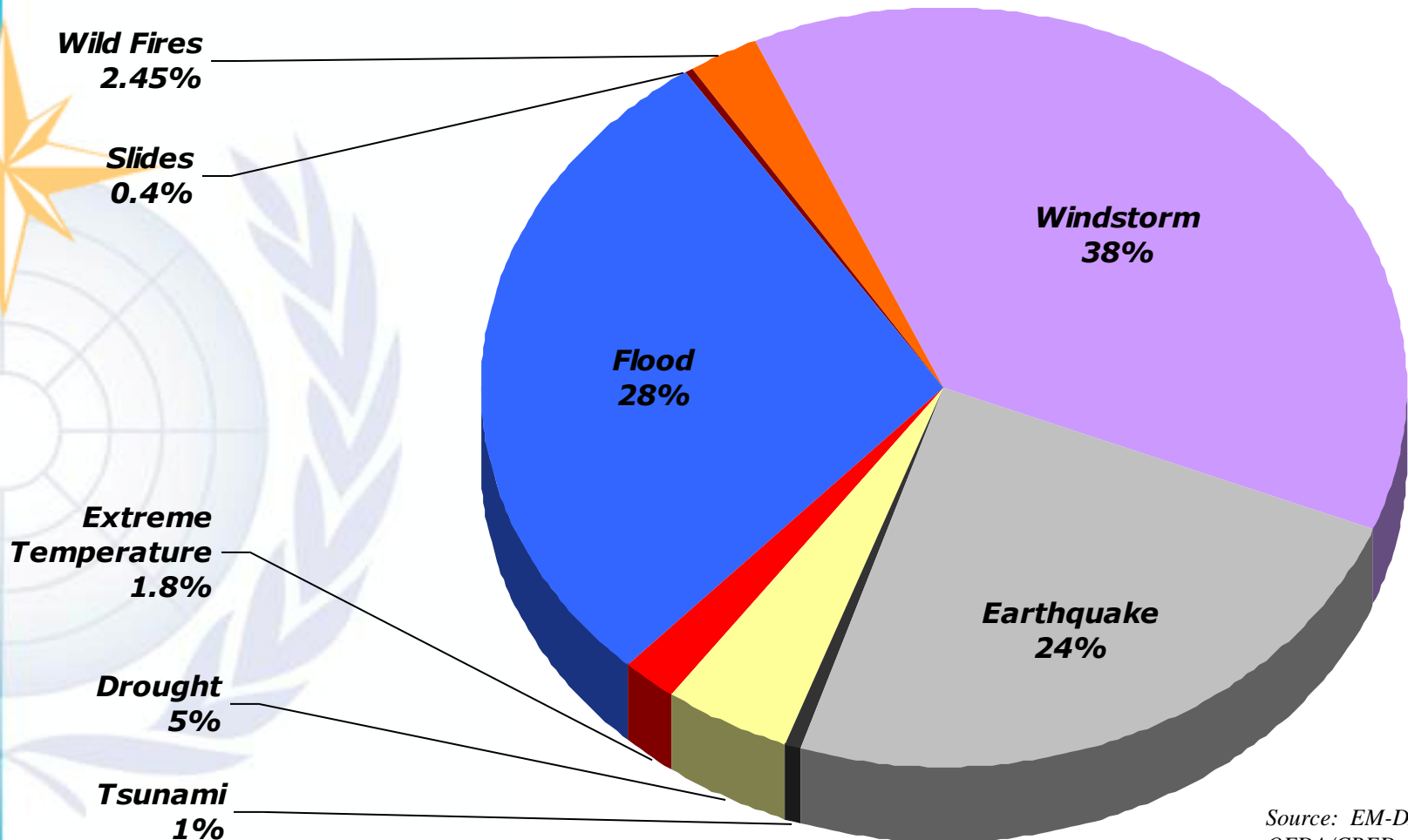
Loss of Human Life (1980-2005)



Nearly **70%** of loss of life are related to hydro-meteorological factors

Source: EM-DAT: The OFDA/CRED International Disaster Database - www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium

Economic Losses (1980-2005)



Nearly **75%** of economic losses are related to hydro-meteorological factors

Source: EM-DAT: The OFDA/CRED International Disaster Database - www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium



National Meteorological and Hydrological Services (NMHSs) have no greater responsibility than ensuring the safety of life, the protection of property and the well-being of their nations' citizens. Consequently, they must provide warnings and forecasts in a timely, reliable and comprehensive manner.

Disaster Risk Reduction





What is a Weather-Ready Nation?

- *A nation that effectively prepares for and responds to hazardous weather events.*



The holy grail of DRR...

Early warning system

An integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities systems and processes that enables individuals, communities, governments, businesses and others to **take timely action to reduce disaster risks** in advance of hazardous events.

<https://www.unisdr.org/we/inform/terminology>







Effective “end-to-end” and “people-centred” early warning systems include four key elements:

- (1) disaster risk knowledge based on the systematic collection of data and disaster risk assessments;
- (2) detection, monitoring, analysis and forecasting of the hazards and possible consequences;
- (3) dissemination and communication, by an official source, of authoritative, timely, accurate and actionable warnings and associated information on likelihood and impact;
- (4) preparedness at all levels to respond to the warnings received.

What is the difference between a FORECAST and a **WARNING** ?



Forecast for today, Monday, morning

| Region | Symbol | Weather | Temperature |
|------------------------|---|------------|-------------------|
| Ausserfern |  | light snow | Min: -1°, Max: 1° |
| Greater Innsbruck Area |  | light rain | Min: 1°, Max: 5° |
| Osttirol |  | sleet | Min: 1°, Max: 6° |
| Osttirol North |  | light snow | Min: -1°, Max: 1° |
| Tiroler Oberland |  | light snow | Min: 0°, Max: 1° |

Weather warnings: Kärnten



valid from 06.11.2017 00:00 CET **Until** 06.11.2017 15:00 CET
Snow/Ice

deutsch:
Neuschnee von 20 bis 40 cm ist zu erwarten.

english:
Fresh snow between 20 and 40 cm is possible.

Awareness Level: **Orange**



valid from 05.11.2017 15:00 CET **Until** 07.11.2017 18:00 CET
Rain

deutsch:
Regenmengen von 30 bis 70 mm sind zu erwarten.

english:
Total rain amounts between 30 and 70 mm are expected.

Awareness Level: **Yellow**



Israel forecast

Last update 09/12/2018 16:02

Weather and temperature

Wind

Relative humidity

Print

Weather and temperature in - °C °C °F

Currently, no warnings in effect to the general public



Forecast

for :

Forecast for tonight and tomorrow

Tonight: Partly cloudy with isolated showers in the coastal plain. Chance of rain in the north. Tomorrow: Partly cloudy. No significant change in temperatures. Chance of isolated rain in the northern coastal plain.

[Next few days forecast](#)

The forecast is updated twice a day, in the morning and in the afternoon. Last update on 09/12/2018 at 16:02. Additional updates will be published according to weather changes.

Legend



Weather warnings: Israel

more information:



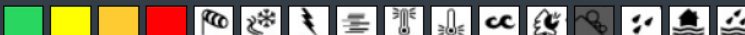
Awareness Reports - You can find detailed information about the warnings in the awareness reports issued for each area.

Coasts:

Northern Shoreline



Caption:



Weather warnings: Northern Shoreline

valid from 05.11.2017 20:00 CET **Until** 06.11.2017 08:00 CET
Coastal Event

Awareness Level: **Yellow**

english:
Warning of HIGH SEA SWIMMING DANGER in Sea - North from 05/11 21 until 06/11 09 LT. The state of sea is Slight to Moderate. The significant wave height from 110 to 150 cm, No Change.

עברית:
אזהרה על ים גבוה ומסוכן לרחצה בים צפון מ-05/11 ב-21 עד 06/11 ב-09. מצב הים גלי עד גבה גלים. גובה הגל הסיגניפיקנטי ינוע מ-110 עד 150 ס"מ, לא צפוי שינוי משמעותי.





- **WARNING** is a statement about dangerous phenomenon
- Attention, Preparedness or Action is required to protect life and/or property





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What is the difference between a
WARNING and a **WATCH**?



Traffic Light Matrix

Headline Message to Public

| | | |
|---|-------------------------------|-------------------------------|
| <p>NO SEVERE WEATHER IS EXPECTED</p> | <p>BE PREPARED</p> | <p>TAKE ACTION</p> |
|---|-------------------------------|-------------------------------|



UK: “Early Warning”

Early warnings

An early warning of severe weather will normally be issued up to several days in advance whenever the overall risk of widespread disruption in any UK region is 60% or greater.

Flash warnings

Flash warnings of severe weather are issued when confidence of an event reaching specified criteria is above 80%, and should give a minimum of two hours notice. Warnings are issued for every affected county or unitary authority.

(Be prepared)



(Take action)



USA: “Weather Watch”



Watch

A watch is used when the risk of a hazardous weather or hydrologic event has increased significantly, but its occurrence, location, and/or timing is still uncertain. It is intended to provide enough lead time so that those who need to set their plans in motion can do so.



Flash Flood Watch

Issued to indicate current or developing hydrologic conditions that are favorable for flash flooding in and close to the watch area, but the occurrence is neither certain or imminent.



Flood Watch

Issued to inform the public and cooperating agencies that current and developing hydrometeorological conditions are such that there is a threat of flooding, but the occurrence is neither certain nor imminent.



Excessive Heat Watch

Issued by the National Weather Service when heat indices in excess of 105°F (41°C) during the day combined with nighttime low temperatures of 80°F (27°C) or higher are forecast to occur for two consecutive days.



Hurricane Watch

An announcement of specific coastal areas that a hurricane or an incipient hurricane condition poses a possible threat, generally within 36 hours



USA: Weather Watch

| Watches | |
|---|--|
| <i>Conditions are favorable or expected but not occurring or imminent</i> | |
| Tornado | Atmospheric <i>conditions are favorable</i> for the development of severe thunderstorms capable of producing tornadoes. |
| Severe Thunderstorm | Atmospheric <i>conditions are favorable</i> for the development of severe thunderstorms (i.e. – producing hail at least 1" in diameter and/or 50 knot (58 mph) or greater wind speeds). |
| Warnings | |
| <i>Conditions are occurring or imminent</i> | |
| Tornado | A severe thunderstorm <i>has developed</i> and has either produced a tornado <i>or radar has indicated</i> intense low level rotation in the presence of atmospheric conditions conducive to tornado development |
| Severe Thunderstorm | A severe thunderstorm <i>has developed</i> , capable of producing hail greater than 1" diameter and/or 50 knot (58 mph) wind speeds. |

- While no immediate action on the part of the general public is required for the issuance of a **WATCH**, citizens should keep up to date on the current weather situation and be prepared to seek shelter if necessary.
- a **WARNING**, on the other hand, requires more immediate action and should be taken seriously.

<https://www.weatherworksinc.com/watch-vs-warning>



USA: Weather Watch



EAST CENTRAL PLAINS/WESTERN KIOWA GRASSLANDS ELM/ABZ-SNZ-
606 AM MDT WED MAR 19 2008

...**FIRE WEATHER WATCH** IN EFFECT FROM THURSDAY MORNING THROUGH THURSDAY EVENING...

THE NATIONAL WEATHER SERVICE IN ALBUQUERQUE HAS ISSUED A FIRE WEATHER WATCH...WHICH IS IN EFFECT **FROM THURSDAY MORNING THROUGH THURSDAY EVENING.**

RELATIVE HUMIDITY OF 15 PERCENT OR LOWER WITH SUSTAINED 20 FOOT WINDS OF 20 MPH OR HIGHER...AND HIGH FIRE DANGER ARE FORECAST TO OCCUR.

PLEASE ADVISE THE APPROPRIATE OFFICIALS OR FIRE CREWS IN THE FIELD OF THIS FIRE WEATHER WATCH.



USA: Weather Watch



349 AM EDT WED MAR 19 2008 /249 AM CDT WED MAR 19 2008/

...**FLASH FLOOD WATCH** REMAINS IN EFFECT THROUGH THIS AFTERNOON...

FLOODING OF SMALL STREAMS...CREEKS AND OTHER DRAINAGE AREAS IS POSSIBLE. **KEEP AN EYE ON THE WEATHER AND BE PREPARED** FOR IMMEDIATE ACTION SHOULD FLOODING OCCUR OR A FLASH FLOOD WARNING BE ISSUED.

BE ESPECIALLY CAUTIOUS AT NIGHT WHEN IT IS HARDER TO RECOGNIZE THE DANGERS OF FLOODING.



453 AM MDT WED MAR 19 2008

...WINTER STORM WATCH NOW IN EFFECT FROM THIS EVENING THROUGH THURSDAY MORNING...

THE WINTER STORM WATCH IS NOW IN EFFECT FROM THIS EVENING THROUGH THURSDAY MORNING.

THIS WATCH IS FOR THE ENTIRE WASATCH RANGE IN UTAH...THE WESTERN UINTA MOUNTAINS...AS WELL AS THE WASATCH PLATEAU.

TOTAL SNOWFALL ACCUMULATIONS OF 6 TO 12 INCHES ARE POSSIBLE IN THE MOUNTAINS BY THURSDAY MORNING. LOCALLY HIGHER AMOUNTS ABOVE 8000 FEET.

SNOW WILL DEVELOP LATE THIS EVENING AND CONTINUE...HEAVY AT TIMES...INTO THURSDAY MORNING BEFORE RAPIDLY DIMINISHING TO SCATTERED SNOW SHOWERS DURING LATE THURSDAY MORNING. SNOW LEVELS INITIALLY NEAR 8000 FEET THIS EVENING WILL DROP RAPIDLY AFTER MIDNIGHT.

IN ADDITION...SOUTHWEST WINDS WILL INCREASE THIS EVENING WITH GUSTS OVER 60 MPH ALONG THE RIDGES. THE WIND WILL SHIFT TO THE WEST TO NORTHWEST AND REMAIN STRONG EARLY THURSDAY MORNING CAUSING AREAS OF BLOWING AND DRIFTING SNOW.

USA: Weather Watch

A **WINTER STORM WATCH** MEANS THERE IS THE POTENTIAL FOR SIGNIFICANT NEW SNOW...POSSIBLY COMBINED WITH GUSTY WINDS. THERE IS STILL SOME UNCERTAINTY AS TO THE INTENSITY OF THIS STORM **SO CONTINUE TO MONITOR THE LATEST FORECASTS.**



USA: Warning



Warning

A warning is issued when a hazardous weather or hydrologic event is occurring, is imminent, or has a very high probability of occurring. A warning is used for conditions posing a threat to life or property.



Freeze Warning

Issued during the growing season when surface temperatures are expected to drop below freezing over a large area for an extended period of time, regardless whether or not frost develops.



Gale Warning

A warning of sustained surface winds, or frequent gusts, in the range of 34 knots (39 mph) to 47 knots (54 mph) inclusive, either predicted or occurring, and not directly associated with a tropical cyclone.



Heavy Snow Warning

Issued by the National Weather Service when snowfall of 6 inches (15 cm) or more in 12 hours or 8 inches (20 cm) or more in 24 hours is imminent or occurring. These criteria are specific for the Midwest and may vary regionally.



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What is the difference between a
WARNING and
a **SEVERE WARNING**?

Severe Warning



Severe Thunderstorm Warning

This is issued when either a severe thunderstorm is indicated by the WSR-88D radar or a spotter reports a thunderstorm producing hail 3/4 inch or larger in diameter and/or winds equal or exceed 58 miles an hour therefore, people in the affected area should seek safe shelter immediately. Severe thunderstorms can produce tornadoes with little or no advance warning. Lightning frequency is not a criteria for issuing a severe thunderstorm warning. They are usually issued for a duration of one hour. They can be issued without a Severe Thunderstorm Watch being already in effect.




| | | |
|------------------------|---|--|
| Heavy snow | Snow falling at a rate of 2 cm/hour or more expected for at least two hours. | <ul style="list-style-type: none"> ■ Increased journey times ■ Minor accidents |
| Very heavy snow | Snow falling at a rate of 2 cm/hour or more expected for at least two hours, accumulating to 15 cm or more. | <ul style="list-style-type: none"> ■ Local routes impassable ■ Local loss of power and telecommunication lines |
| Blizzard | Moderate or heavy snow accompanied by winds of 30 m.p.h. or more, with visibility reduced to 200 m or less; or drifting snow giving rise to similar conditions. | <ul style="list-style-type: none"> ■ Major routes impassable ■ Local loss of power and telecommunication lines |
| Severe blizzard | Heavy Snow accompanied by winds of 30 m.p.h. or more, reducing visibility to near zero. | <ul style="list-style-type: none"> ■ Transport infrastructure paralysed ■ Regional loss of power and communication lines |









Warning Levels


NWS Severe Thunderstorm Warnings Categories

Starting August 2nd, 2021

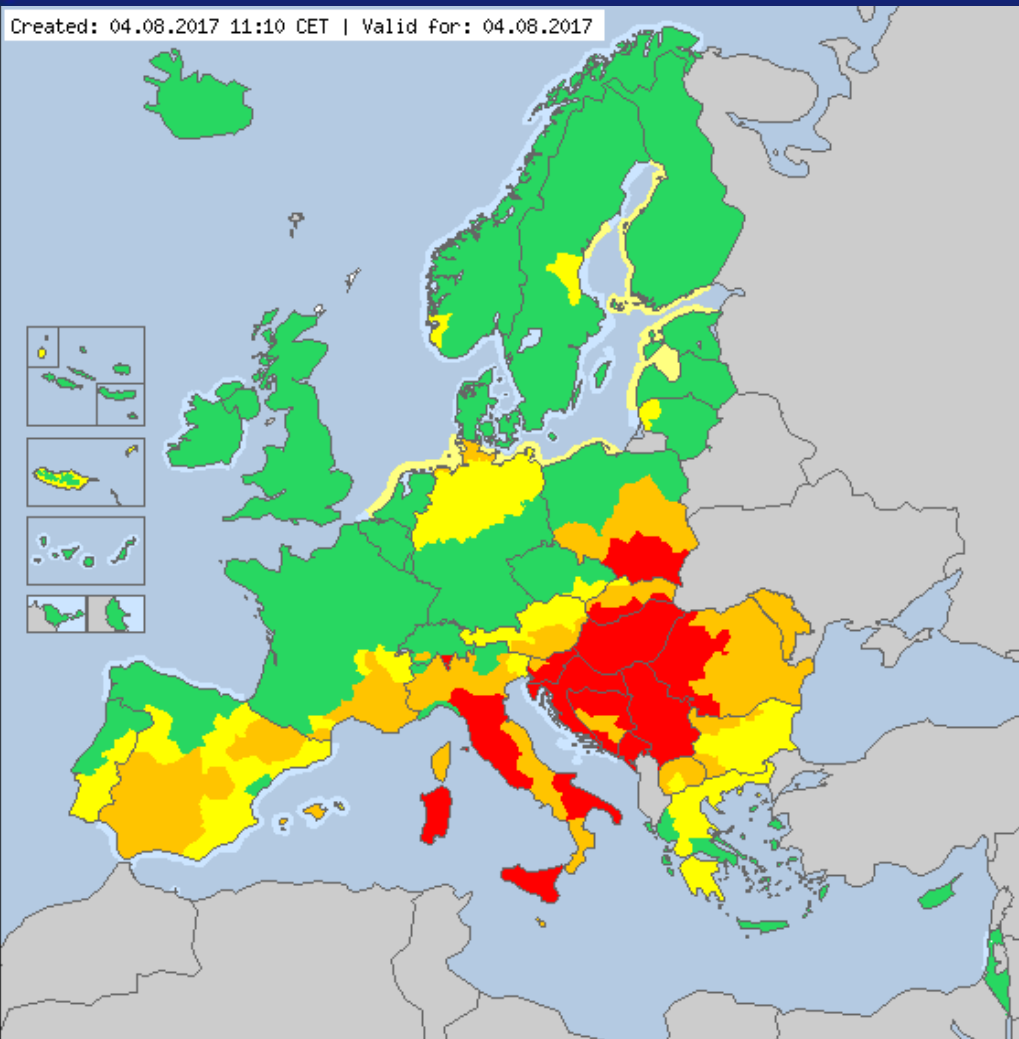


| Base | Considerable | Destructive |
|--|---|--|
|  58 MPH |  70 MPH |  80+ MPH |
| And / Or | And / Or | And / Or |
|  Q 1.00" quarter sized hail |  G 1.75" golfball sized hail |  B 2.75+ " baseball+ sized hail |

Triggers Wireless Emergency Alert (WEA) to your devices!



Created: 04.08.2017 11:10 CET | Valid for: 04.08.2017

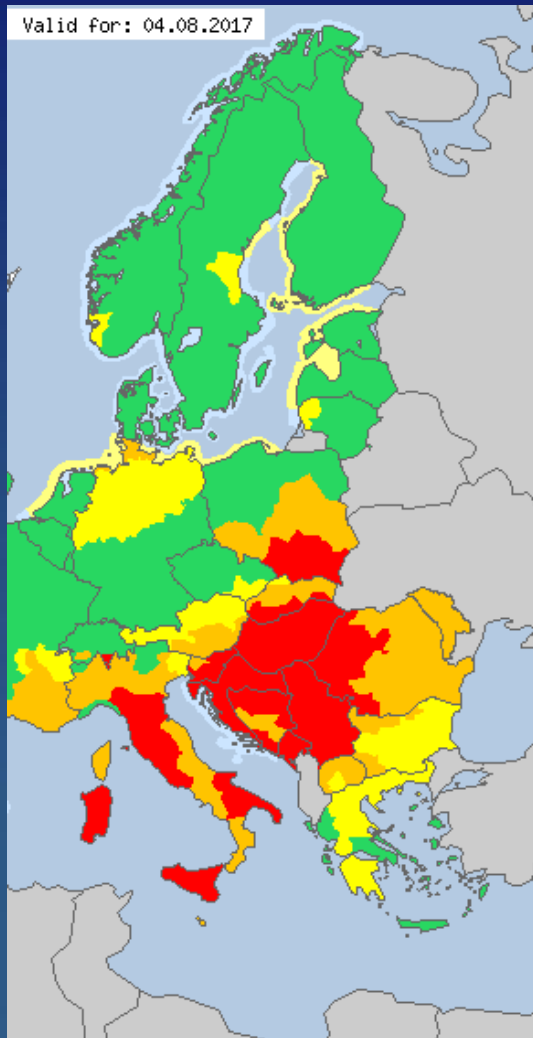


Green:

No severe weather expected, however a minor event may cause local impact.

Yellow:

The weather is potentially dangerous. The weather phenomena that have been forecast are not unusual, but be attentive if you intend to practice activities exposed to meteorological risks. Keep informed about the expected meteorological conditions and do not take any avoidable risk.



Orange:

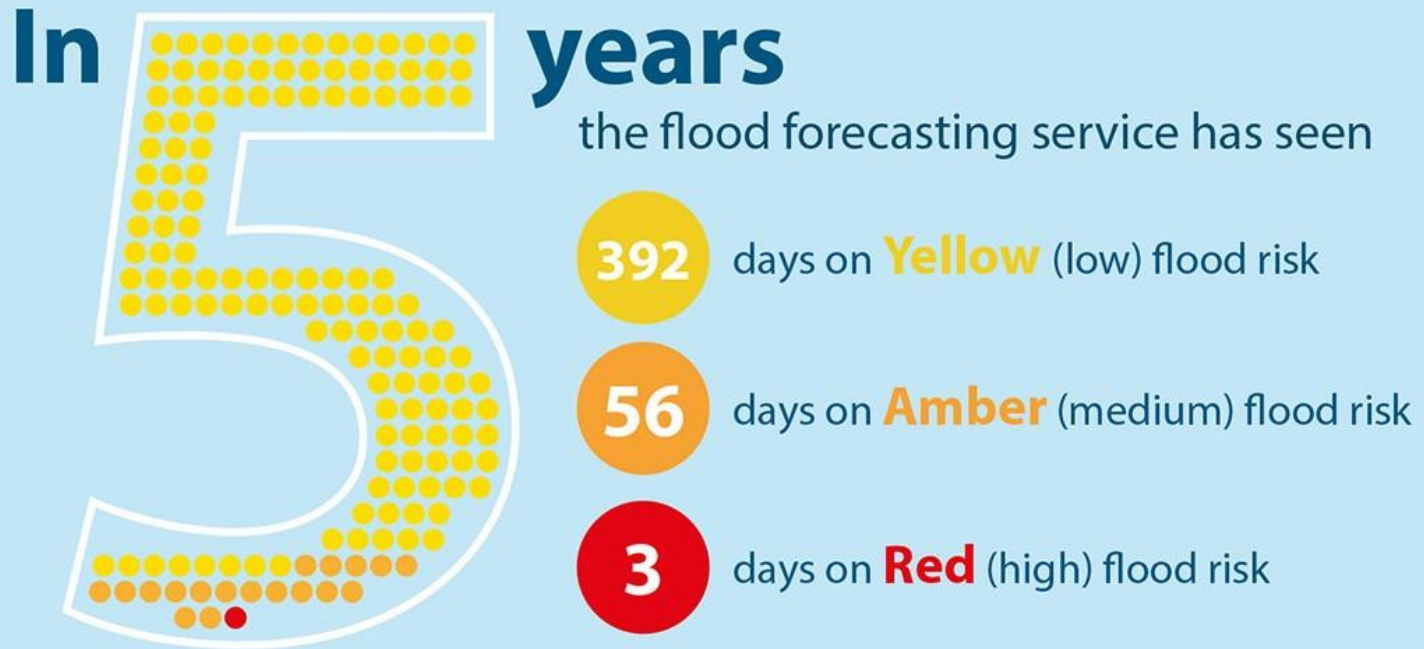
The weather is dangerous. Unusual meteorological phenomena have been forecast. Damage and casualties are likely to happen. Be very vigilant and keep regularly informed about the detailed expected meteorological conditions. Be aware of the risks that might be unavoidable. Follow any advice given by your authorities.

Red:

The weather is very dangerous. Exceptionally intense meteorological phenomena have been forecast. Major damage and accidents are likely, in many cases with threat to life and limb, over a wide area. Keep frequently informed about detailed expected meteorological conditions and risks. Follow orders and any advice given by your authorities under all circumstances, be prepared for extraordinary measures.

| | Damage / Impact | What to do? | Used how often? (per approx. 300 kkm ²) |
|---------------|---|---|---|
| Green | --- | usual phenomena | |
| yellow | exposed objects (avoidable) | caution with exposed activities | > 30 per year |
| orange | general damages (not avoidable) | keep informed in detail, follow advice of authorities | 1 to 30 per year |
| red | extreme damage and /or casualties <i>extreme damage (mostly) on large areas, threatening life and properties</i> (not avoidable, even in otherwise safe places) | follow order of authorities under all circumstances be prepared for extraordinary measures | less than 1 year <i>for large (5000km²) scale phenomena</i> |

Scottish Flood Forecasting Service:



“Graded” Warnings

- Enable the community to build up its response commensurate with the risk involved
 - Rainstorm warning



possibility of rainstorm of significant impact

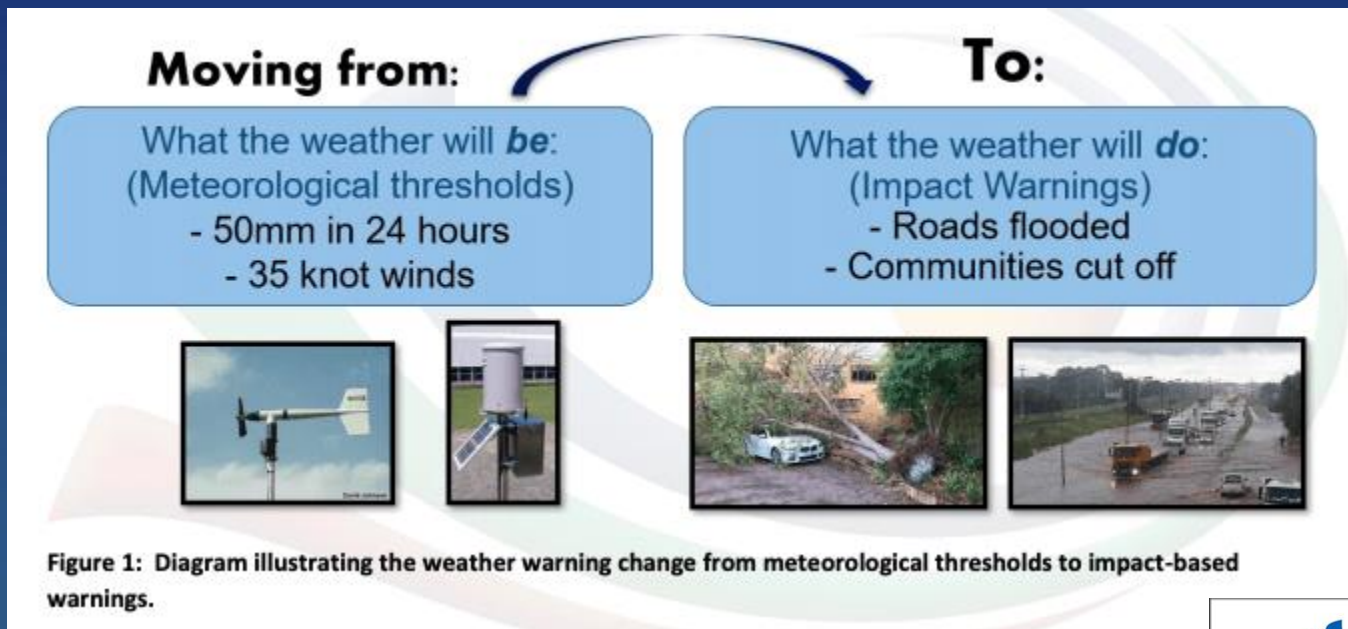


students stay put (home or school)



all stay put and outdoor workers seek shelter indoors

IMPACT BASED WARNING SCALE



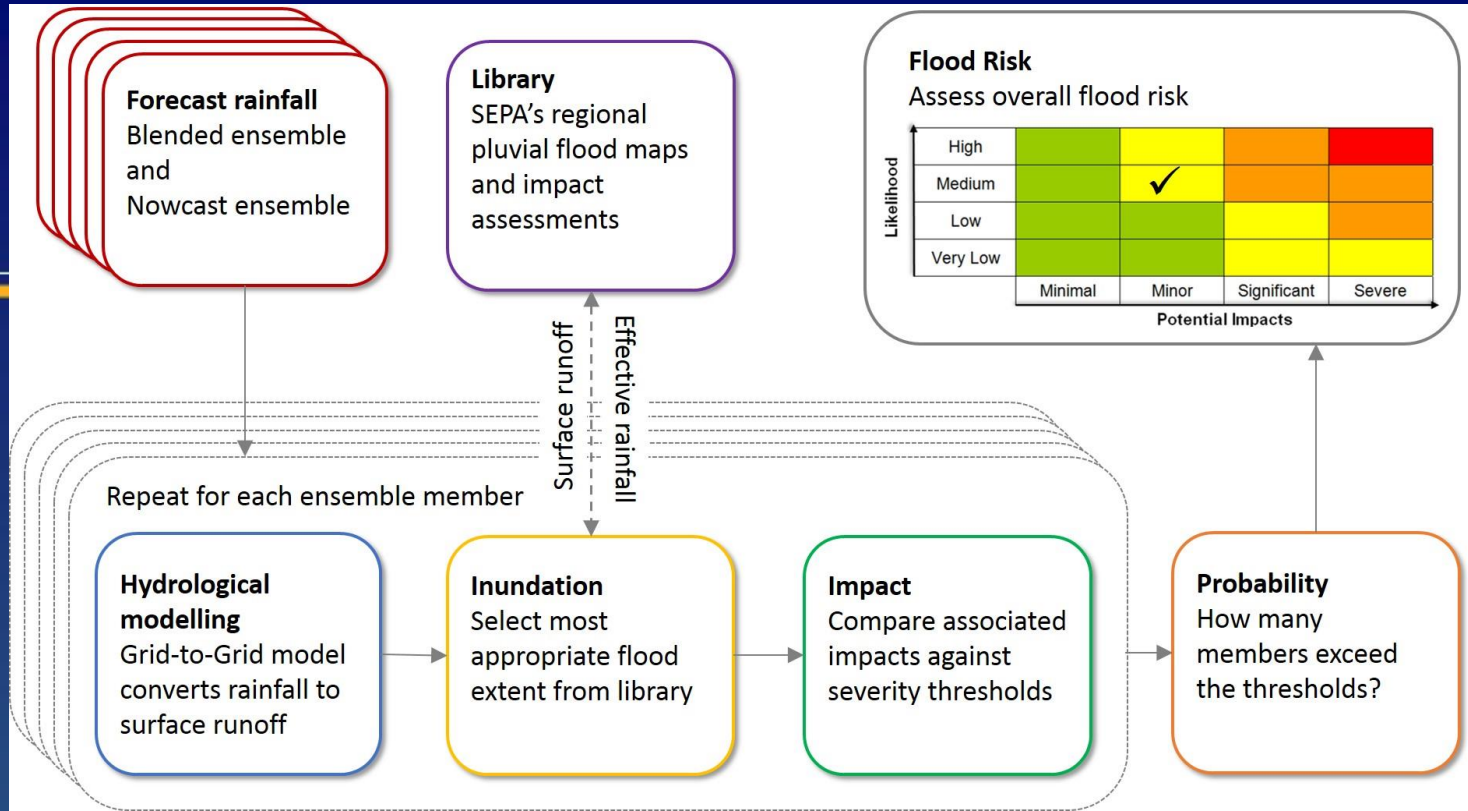
IMPACT BASED WARNING SYSTEM

An Impact-Based Severe Weather Warning System is developed to warn the general public of possible impacts that could occur as a result of hazardous weather. It is the movement from communicating “what the weather will be” to rather “what the weather will do”.

| | | | | | |
|-------------------|----------|---------------|-------|-------------|--------|
| Likelihood | High | | 2 | 6 | 10 |
| | Medium | | 1 | 5 | 9 |
| | Low | | | 4 | 8 |
| | Very Low | | | 3 | 7 |
| | | Minimal | Minor | Significant | Severe |
| | | Impact | | | |



Scottish Flood Forecasting Service:



People & Property (Overall) - Forecast T3 - T27 10:15 : 10:00



Overall Surface Water Flood Risk to People and Property during the forecast period

| |
|----------|
| Very Low |
| Low |
| Medium |
| High |

Forecast name : Blended Ensemble
Forecast time (T0): 10/06/2014 07:00 GMT

Transport (Overall)- Forecast T3 - T27 10:15 : 10:00



Overall Surface Water Flood Risk to Transport during the forecast period

| |
|--------|
| Low |
| Medium |

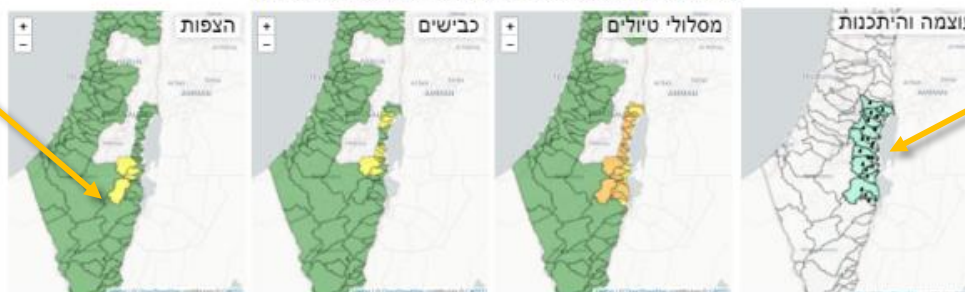
Forecast name : Blended Ensemble
Forecast time (T0): 10/06/2014 07:00 GMT

| | | | |
|--------------------------------------|-----------|----------|---------------|
| זרימה חזיה: | | | |
| קיצונית | גבוהה | בינונית | נמוכה |
| עוצמת זרימה: סיכוי: 4 = גבוה מאוד | גבוהה = 3 | נמוך = 2 | נמוך מאוד = 1 |
| אזהרות: | | | |
| סכנה חמורה | סכנה | אזהרה | אין אזהרות |

Flood warnings

Flow strength

טווח התחזית: 14:00 11/03/2022 - 08:00 11/03/2022



טווח התחזית: 20:00 11/03/2022 - 14:00 11/03/2022



Warnings

Roads

Walking tracks

Flow strength

תנאי שימוש והגבלת אחריות: כל המפורסם על ידי המרכז הלאומי לחיזוי שיטפונות (להלן – "המידע" ו"המרכז" בהתאמה) אינו מיועד לשימוש של מי שאינו מורשה לכך מהמרכז. שימוש במידע כאמור, הינו על אחריותו הבלעדית של המשתמש, על כל המשתמע מכך. המידע אסור להעברה לצדדים שלישיים הינו קניינו הבלעדי של המרכז. [למידע נוסף על הגבלת אחריות הרשות לחץ פה.](#)



Trilateral Workshop, Shefayim 03/2022

Basic WARNING ingredients



Type + Severity

Validity (start/stop)

Region Effected

THE NATIONAL WEATHER SERVICE IN MIDLAND/ODESSA HAS ISSUED A HIGH WIND WARNING...WHICH IS IN EFFECT FROM MIDNIGHT TONIGHT TO 9 AM MDT SUNDAY.

NORTHEASTERLY WINDS OF 35 TO 45 MPH...WITH A FEW GUSTS NEAR 60 MPH ARE EXPECTED TO CHANNEL THROUGH GUADALUPE PASS AFTER MIDNIGHT TONIGHT FOLLOWING THE PASSAGE OF A STRONG COLD FRONT. WINDS SHOULD GRADUALLY DIMINISH LATE SUNDAY MORNING.

Expected Weather

Expected Evolution



Type + Severity

Validity (start/stop)

Region
Affected

| Flash warnings of severe or extreme weather | | | |
|--|-------------------|-------------|-------------|
| These are issued when the Met Office has 80% or greater confidence that severe weather is expected in the next few hours. | | | |
| Local areas affected | Warning type | Valid from | Valid to |
| Highlands & Eilean Siar: Highland | Heavy Snow | 1800 Sat 22 | 0200 Sun 23 |
| Snow, heavy in places, will spread to parts of western Scotland during Saturday evening. Accumulations of 5 to 10cm are possible above 200m, with a covering of snow also possible at lower levels. Drier conditions should follow from the northwest during the early hours of Sunday morning. The public are advised to take extra care and refer to Traffic Scotland for further advice on road conditions. Issued at: 1552 Sat 22 Mar | | | |

Expected Weather

Expected Evolution



3.4.2.1 The meaning of the groups in the first line of the SIGMET is as follows:

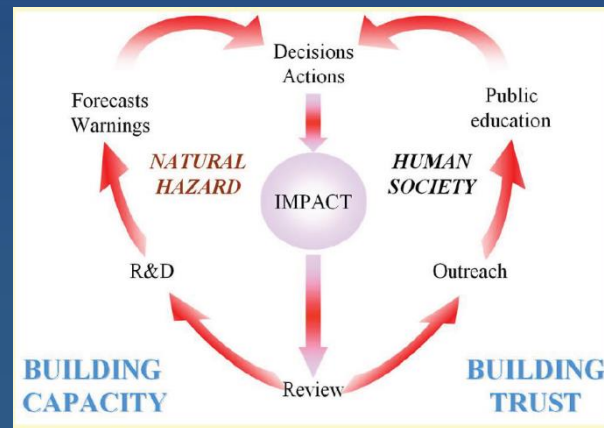
| | |
|----------------------|--|
| CCCC | ICAO location indicator of the ATS unit serving the FIR or CTA to which the SIGMET refers |
| SIGMET | Message identifier |
| [nn]n | Daily sequence number (see p.3.4.2.2) |
| VALID | Period of validity indicator |
| YYGGgg/YYGGgg | Validity period of the SIGMET given by date/time group of the beginning and date/time group of the end of the period (see p.3.4.2.3) |
| CCCC | ICAO location indicator of the issuing MWO |

Start of the second line of the message

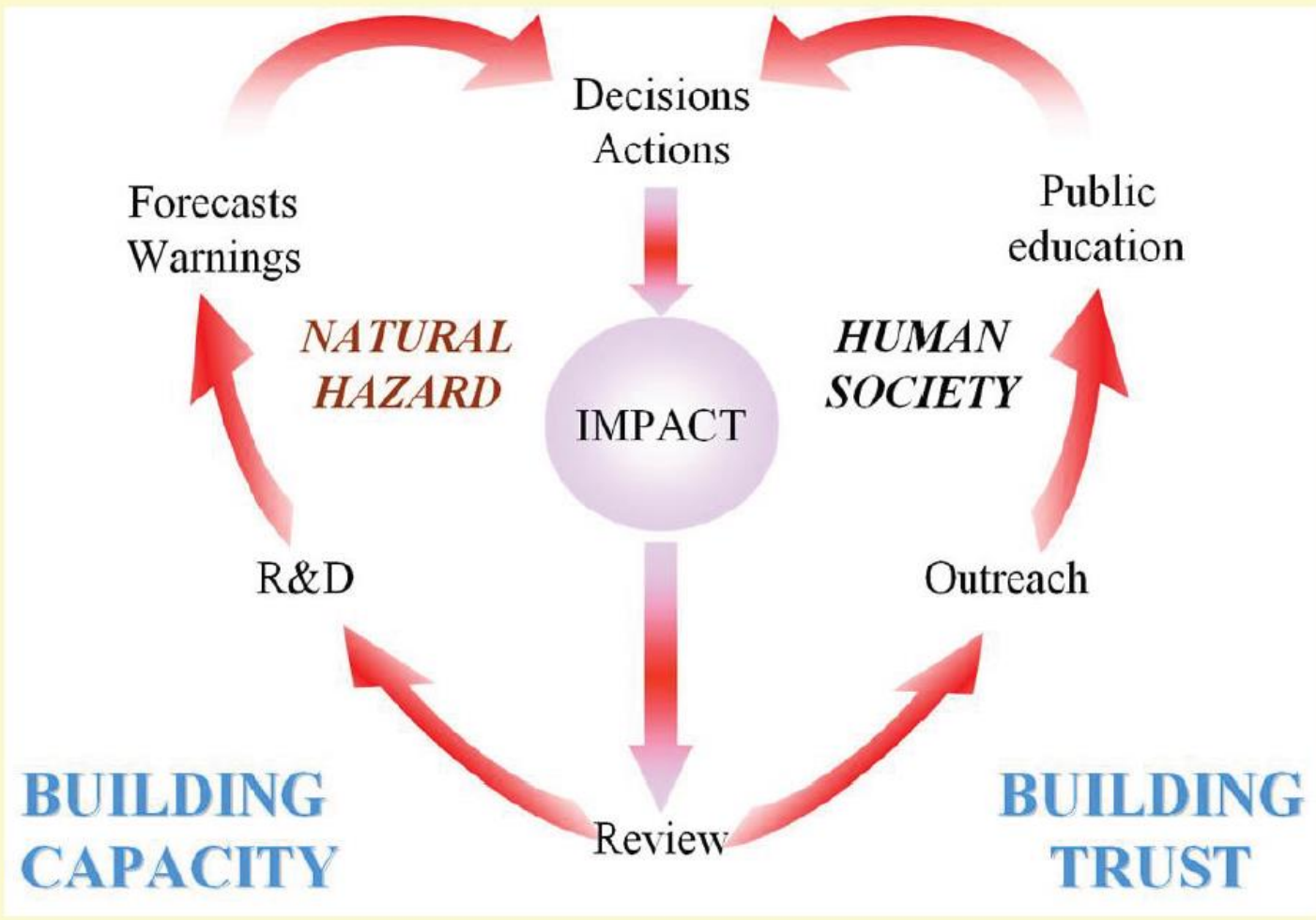
| 1 | 2 | 3 | 4 | 5 |
|-------------------------------|-------------------------------|--|--|---|
| Name of the FIR/UIR or CTA | Description of the phenomenon | Observed or forecast | Location | Level |
| <CCCC><n ame> FIR [CTA] | <Phenomenon> | OBS [AT <GGgg>Z] FCST OBS [AT <GGgg>Z] AND FCST | Geographical location of the phenomenon given by coordinates, or geographical objects, or location indicators | FL<nnn> or FL<nnn/nnn> or [TOP [ABV or BLW]] FL<nnn> |

| 6 | 7 |
|---|----------------------|
| Movement or expected movement | Changes in intensity |
| MOV <direction, speed>KMH[KT] or STNR | INTSF or WKN or NC |

WARNING text optional components



NMHSs have to work on both science and human aspects



Besides being accurate, effective weather warnings should be:

- I. Relevant
- II. Timely
- III. Effectively delivered
- IV. Capable of prompting actions
- V. ‘Graded’ to trigger matching actions
- VI. Evolving with changing needs
- VII. Trusted



Optional Components

Reference to past/future messages




Reference to past/future messages



Hazardous Winds, Flash Flooding and Damaging Surf
For people in Mid North Coast and Hunter.


Issued at 4:00 pm on Tuesday 19 October 2004



This is an update of the warning issued at 3:40 pm Tuesday.

Winds are expected to average over 65 km/h, peak wind gusts are expected to exceed 90km/h about the coastal parts of the Mid North Coast and the Hunter north of about Norah Head on Wednesday.

Very heavy rain is expected to cause flash flooding in the Mid North Coast and Hunter.



The next warning is due to be issued by 9:30 pm Tuesday 19th of October.



Reference to past/future messages



...SMALL CRAFT ADVISORY FOR WINDS REMAINS IN EFFECT UNTIL 11 PM
PDT THIS EVENING...
...GALE WARNING REMAINS IN EFFECT FROM 11 PM PDT THIS EVENING
THROUGH SUNDAY MORNING...



Reference to past/future messages



Early warnings of severe or extreme weather



These are issued when the Met Office has 60% or greater confidence that severe weather is expected in the next few days.

| Risk of disruption | Warning | Valid from | Valid to |
|--|---|-------------|-------------|
| UK regions: | Heavy Snow | 0001 Sun 23 | 1400 Sun 23 |
| 60% <u>East of England</u> | <p>There is a high risk of a severe event affecting much of northern and eastern England, parts of the Midlands and southeast England. An area of locally heavy snow is expected to reach northern England around midnight and move southeastwards during Sunday morning, clearing the southeast soon after midday. Accumulations of 5 to 10 cms of snow are possible on higher ground with 2-5cm locally at low levels. Disruption to transport networks is possible for a time.</p> <p>For areas with less than 60% risk of disruption please see Advisories.</p> <p>This Early Warning is expected to be superceded by Flash Warnings.</p> <p>Issued at: 1023 Sat 22 Mar</p> | | |
| 60% <u>North West England</u> | | | |
| 60% <u>Yorkshire & Humber</u> | | | |
| 60% <u>West Midlands</u> | | | |
| 60% <u>London & South East England</u> | | | |
| 60% <u>East Midlands</u> | | | |
| 60% <u>North East England</u> | | | |





Possible Impacts, Instructions

- Are they needed?
- Are they part of the **WARNINGS**?
- Who should issue them?



URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE NEW ORLEANS LA
1011 A.M. CDT SUN AUG 28 2005

...DEVASTATING DAMAGE EXPECTED...

..HURRICANE KATRINA...A MOST POWERFUL HURRICANE WITH UNPRECEDENTED STRENGTH...RIVALING THE INTENSITY OF HURRICANE CAMILLE OF 1969.

MOST OF THE AREA WILL BE UNINHABITABLE FOR WEEKS...PERHAPS LONGER. AT LEAST ONE HALF OF WELL CONSTRUCTED HOMES WILL HAVE ROOF AND WALL FAILURE. ALL GABLED ROOFS WILL FAIL...LEAVING THOSE HOMES SEVERELY DAMAGED OR DESTROYED.

THE MAJORITY OF INDUSTRIAL BUILDINGS WILL BECOME NON FUNCTIONAL. PARTIAL TO COMPLETE WALL AND ROOF FAILURE IS EXPECTED. ALL WOOD FRAMED LOW RISING APARTMENT BUILDINGS WILL BE DESTROYED. CONCRETE BLOCK LOW RISE APARTMENTS WILL SUSTAIN MAJOR DAMAGE...INCLUDING SOME WALL AND ROOF FAILURE.

HIGH RISE OFFICE AND APARTMENT BUILDINGS WILL SWAY DANGEROUSLY...A FEW TO THE POINT OF TOTAL COLLAPSE. ALL WINDOWS WILL BLOW OUT.

AIRBORNE DEBRIS WILL BE WIDESPREAD...AND MAY INCLUDE HEAVY ITEMS SUCH AS HOUSEHOLD APPLIANCES AND EVEN LIGHT VEHICLES. SPORT UTILITY VEHICLES AND LIGHT TRUCKS WILL BE MOVED. THE BLOWN DEBRIS WILL CREATE ADDITIONAL DESTRUCTION. PERSONS...PETS...AND LIVESTOCK EXPOSED TO THE WINDS WILL FACE CERTAIN DEATH IF STRUCK.

POWER OUTAGES WILL LAST FOR WEEKS...AS MOST POWER POLES WILL BE DOWN AND TRANSFORMERS DESTROYED. WATER SHORTAGES WILL MAKE HUMAN SUFFERING INCREDIBLE BY MODERN STANDARDS.

THE VAST MAJORITY OF NATIVE TREES WILL BE SNAPPED OR UPROOTED. ONLY THE HEARTIEST WILL REMAIN STANDING...BUT BE TOTALLY DEFOLLATED. FEW CROPS WILL REMAIN. LIVESTOCK LEFT EXPOSED TO THE WINDS WILL BE KILLED.

*AN INLAND HURRICANE WIND WARNING IS ISSUED WHEN SUSTAINED WINDS NEAR HURRICANE FORCE...OR FREQUENT GUSTS AT OR ABOVE HURRICANE FORCE...ARE CERTAIN WITHIN THE NEXT 12 TO 24 HOURS.
ONCE TROPICAL STORM AND HURRICANE FORCE WINDS ONSET...DO NOT VENTURE OUTSIDE!*



robert ricks



UK:

Advice: What to do in Severe Weather



What to do in severe weather

Keeping you safe

As the national meteorological service for the United Kingdom, the Met Office has a vital role in public safety.

We warn the community of severe or hazardous weather which has the potential to cause danger to life or widespread disruption of communications or transport through our [National Severe Weather Warning Service](#). But what should you do when we issue a warning?



Make sure you know what to do when severe weather is forecast

The first and most vital is check [local and national weather forecasts](#).

Advice during periods of:

- [Severe gales](#)
- [Heavy rain](#)
- [Heavy snow and icy roads](#)
- [Thunderstorms and lightning](#)
- [Heat and sun](#)
- [Dense fog](#)

UK:

Advice: What to do in Severe Weather



The Highway Code

Drive extremely carefully when the roads are icy. Avoid sudden actions as these could cause loss of control. You should

- drive at a slow speed in as high a gear as possible; accelerate and brake very gently
- drive particularly slowly on bends where loss of control is more likely. Brake progressively on the straight before you reach a bend. Having slowed down, steer smoothly round the bend, avoiding sudden actions
- check your grip on the road surface when there is snow or ice by choosing a safe place to brake gently. If the steering feels unresponsive this may indicate ice and your vehicle losing its grip on the road. When travelling on ice, tyres make virtually no noise



USA:

Advice: What to do in Severe Weather



LONG PERIOD...NORTH NORTHWEST SWELLS WILL AFFECT THE NORTH AND WEST COASTS OF ST CROIX THIS MORNING THROUGH THURSDAY... CREATING LARGE BREAKING WAVES ALONG THE REEFS AND BEACHES OF THE ISLAND.

THESE BREAKING WAVES WILL GENERATE STRONG AND DANGEROUS CURRENTS WITHIN THE SURF ZONE...CALLED RIP CURRENTS. THESE NARROW OUTWARD FLOWING CURRENTS CAN CARRY PEOPLE AND ANIMALS AWAY FROM THE COAST LINE AND OUT TO SEA. IF YOU BECOME CAUGHT IN A RIP CURRENT...DO NOT PANIC. CALMLY...REMAIN AFLOAT...GATHER YOUR BEARINGS RELATIVE TO THE BEACH...AND SWIM PARALLEL TO THE BEACH. YOU WILL EVENTUALLY LEAVE THE GRIP OF THIS NARROW CURRENT...AND BE ABLE TO SAFELY SWIM TO SHORE.

LOCAL BEACH GOERS...AND INEXPERIENCED SURFERS AND SWIMMERS ARE URGED TO STAY OUT OF THE WATER UNTIL THESE HAZARDOUS SURF CONDITIONS SUBSIDE. PERSONS ON THE BEACH SHOULD BE VIGILANT FOR LARGE BREAKING WAVES SURGING UPON THE SHORE...WHICH CAN CARRY PEOPLE OF ALL SIZES INTO THE OCEAN. YOU SHOULD AVOID BEING NEAR THE SHORE LINE AND STAY OFF OF ROCK FORMATIONS.



Optional Components

Charts, Graphics



Optional Components



The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.





Optional Components



Questions?

