The New Severe Weather Information Centre Website

CAP Implementation Workshop 2018

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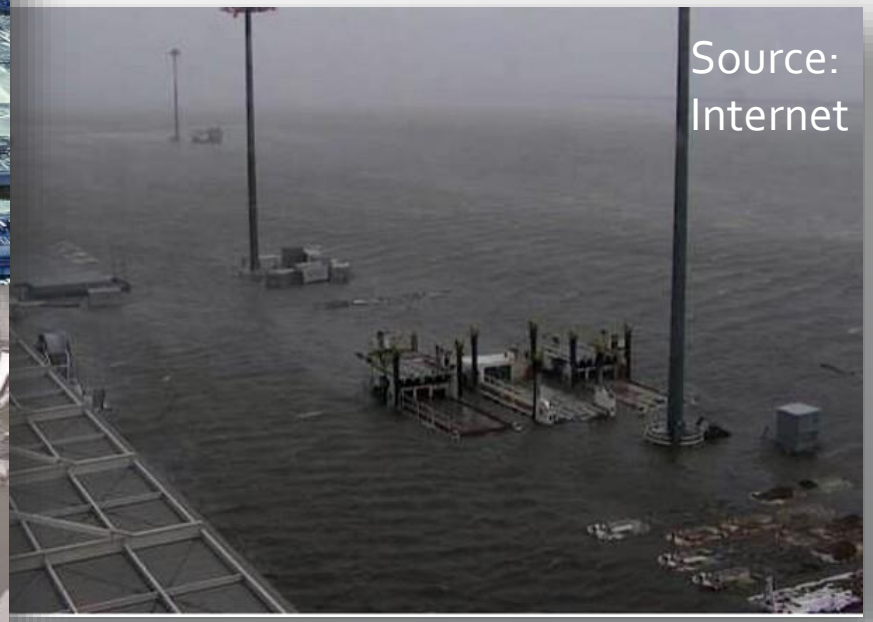
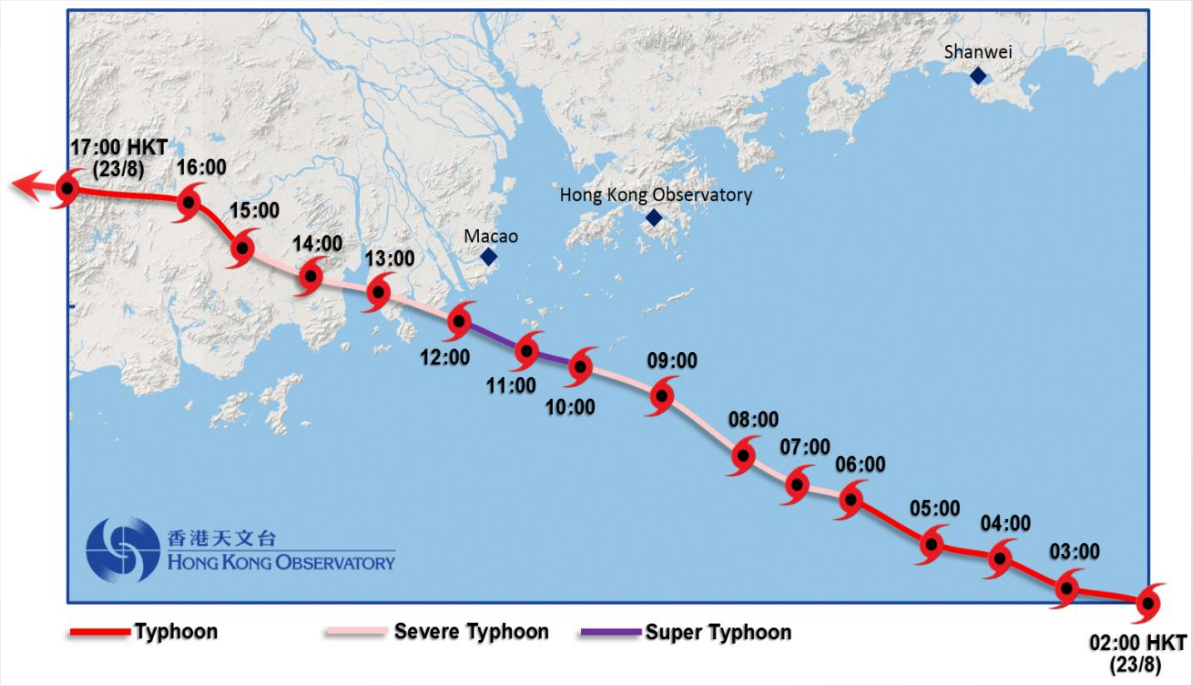
香港天文台
HONG KONG OBSERVATORY

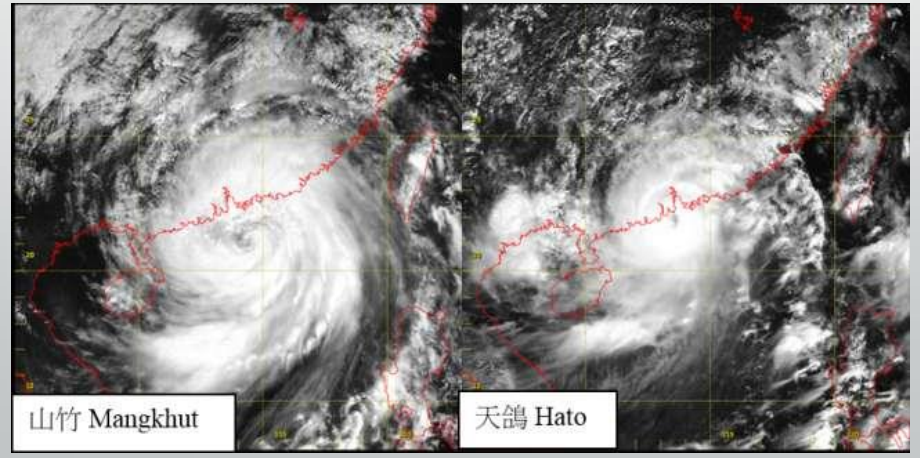
Natural Hazards

Super Typhoon Jebi brought storm surge, flooding the Osaka Kansai International Airport



Mangkhut (20180916) & Hato (20170823)





Flooding and coastal damage in different parts of Hong Kong during the approach of Hato

Siu Sai Wan
(Photo courtesy: Charmaine Mok)

Tai O
(Photo courtesy : DSD)

(Photo courtesy : Steve Lee)

Yuen Long
(Photo courtesy : Man Kam Hoo)

Shatin
(Photo courtesy : Howl Ho)

Cheung Chau
(Photo courtesy : Remington Yu)

Tai O
(Photo courtesy : DSD)

Damage of Hato in Macao

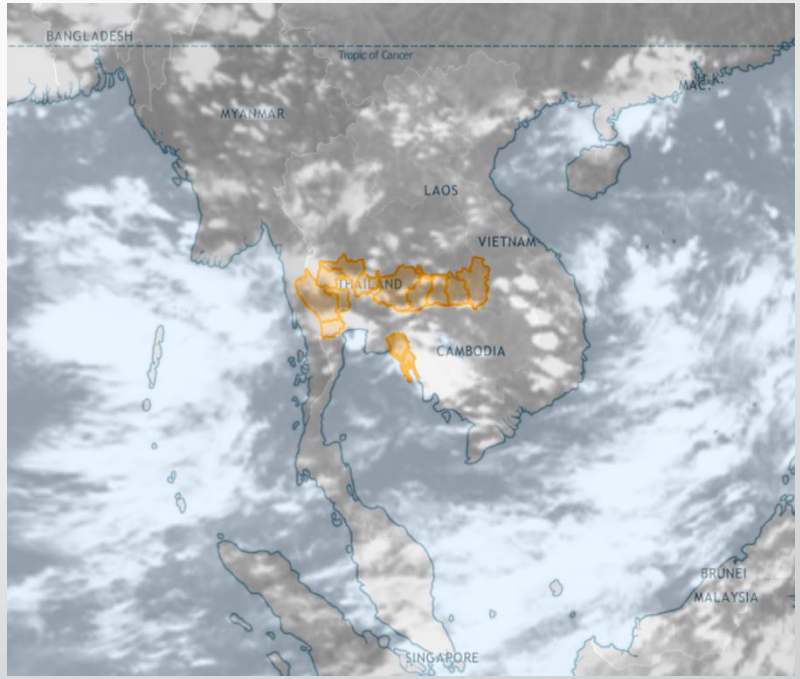
May tragedy be avoided if people, especially tourists, have been warned in advanced?

Thai tour boat tragedy: 37 bodies found amid desperate search for dozens of Chinese tourists missing in sea off Phuket

Chinese tourists make up the biggest number of foreign visitors to Thailand, their numbers surging in recent years, drawn by the growing popularity of the southeast Asian nation's islands

PUBLISHED : Friday, 06 July, 2018, 12:43am
UPDATED : Saturday, 07 July, 2018, 1:42pm

COMMENT: 1



The need

Need to achieve a **common language** for **warnings** and **alerts** on **global** / **WMO** / **UN level** what is in line with **Sendai Framework for DRR**

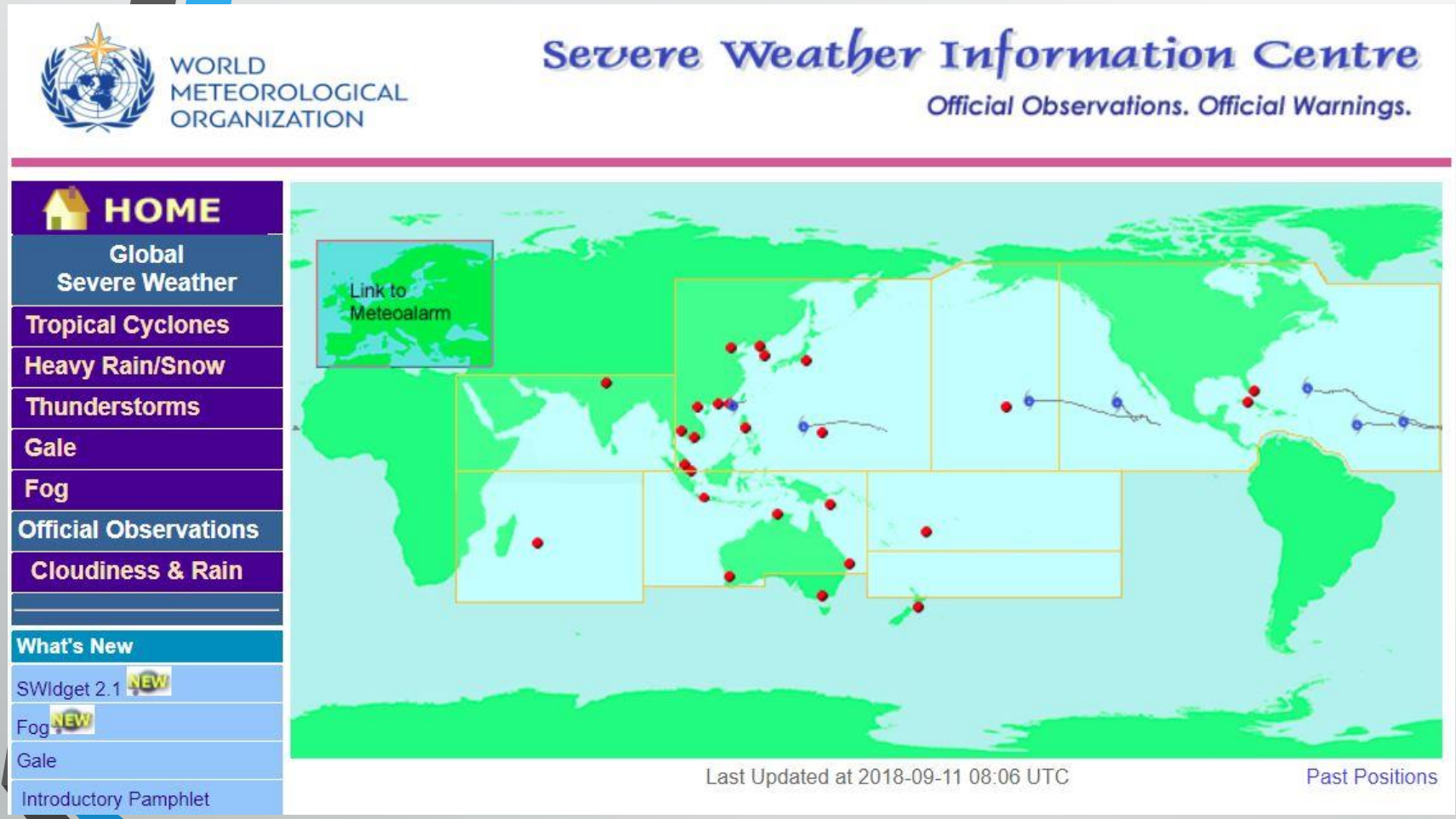
- **impact based** forecasting
  new role of forecasters as intermediators between model output and Civil Protection/Decision Makers

- exchange of **best practise between** countries
  different structures of warnings, relationship with Civil Protection/Decision Makers

- Information for **travellers** and **media**
  NGO´s in emergency situations, tourists, foreign investors and workers etc.

- **Technical standardisation**
  CAP standard - could profit from experience of applications like Meteoalarm

SWIC 1.0 (since 2005)



Challenges

- There is still a **gap** of **common homogeneity platform**
- **Inconsistent** content/format
- **Gap** of numerous hazardous *weather* **warnings coverage** on the **WMO / Sendai Framework DRR level**
- **Gap of more information for broader hazardous variables** e.g. *storm surge, droughts, hydrological-relevant events, heat/cold waves, strong UV*

https://severe.worldweather.wmo.int

WMO Global Multi-hazard Alert System (GMAS) - Background

- Decision 3.2(1)/1 (EC-69) on GMAS
- Vision
  - Recognized globally by decision makers as authoritative warnings and information related to high-impact weather, water, ocean and climate events
- Objectives
  - Provide authoritative information and advice into UN agencies and humanitarian community in both their operational and longer term decision
  - Aggregate authoritative source of information from Members

WMO Global Multi-hazard Alert System (GMAS) – Objectives

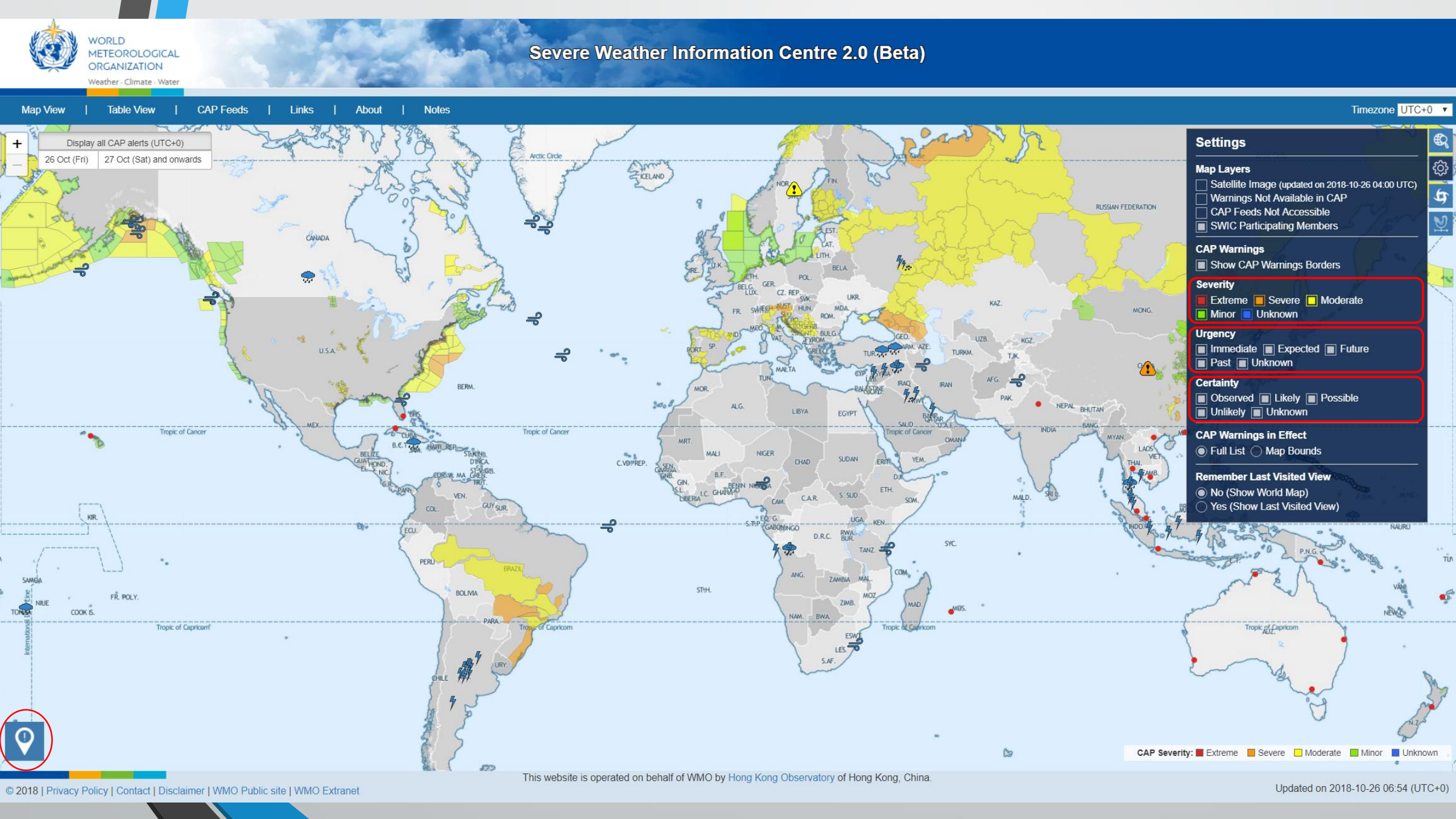
- Objectives (Cont'd)
  - Strengthen partnerships with stakeholders to deliver warnings to the general public in the most efficacious manner;
  - Raise the visibility of NMHSs at the national, regional and global scales;
  - Raise the visibility of WMO at the UN level;
  - Enhance the authoritative voice of Members;
  - Strengthen Members' capability and capacity to provide better service

WMO Global Multi-hazard Alert System (GMAS) - Benefits

- Benefits
  - Help to save lives, livelihoods and property
  - Increased recognition of NMHSs products and services
  - Increased standardization of hydrometeorological warning information among WMO Members (through utilization of CAP)
  - Increased sharing and harmonization of hydrometeorological warnings and hazard products among Members
  - Increased focus on NMHS capacity development to provide reliable, actionable, and timely warnings
  - Improved user decision-making for humanitarian agencies
  - Quick access to authoritative alerts to better inform public, media, tourism sectors, other weather sensitive sectors

Key Considerations in System Design

- Use a common “language” for warnings and alerts
- Use a standard to facilitate effective communication of impact-based forecast and warnings
- Use a standard for effective delivery to users including general public, media, decision makers
- Adopt a standard for easy understanding of warnings and alerts


WORLD METEOROLOGICAL ORGANIZATION
Weather · Climate · Water
Severe Weather Information Centre 2.0 (Beta)
Map View | Table View | CAP Feeds | Links | About | Notes
Timezone UTC+0
Display all CAP alerts (UTC+0)
26 Oct (Fri)
27 Oct (Sat) and onwards
Settings
Map Layers
Satellite Image (updated on 2018-10-26 04:00 UTC)
Warnings Not Available in CAP
CAP Feeds Not Accessible
SWIC Participating Members
CAP Warnings
Show CAP Warnings Borders
Severity
Extreme Severe Moderate
Minor Unknown
Urgency
Immediate Expected Future
Past Unknown
Certainty
Observed Likely Possible
Unlikely Unknown
CAP Warnings in Effect
Full List Map Bounds
Remember Last Visited View
No (Show World Map)
Yes (Show Last Visited View)
CAP Severity: Extreme Severe Moderate Minor Unknown
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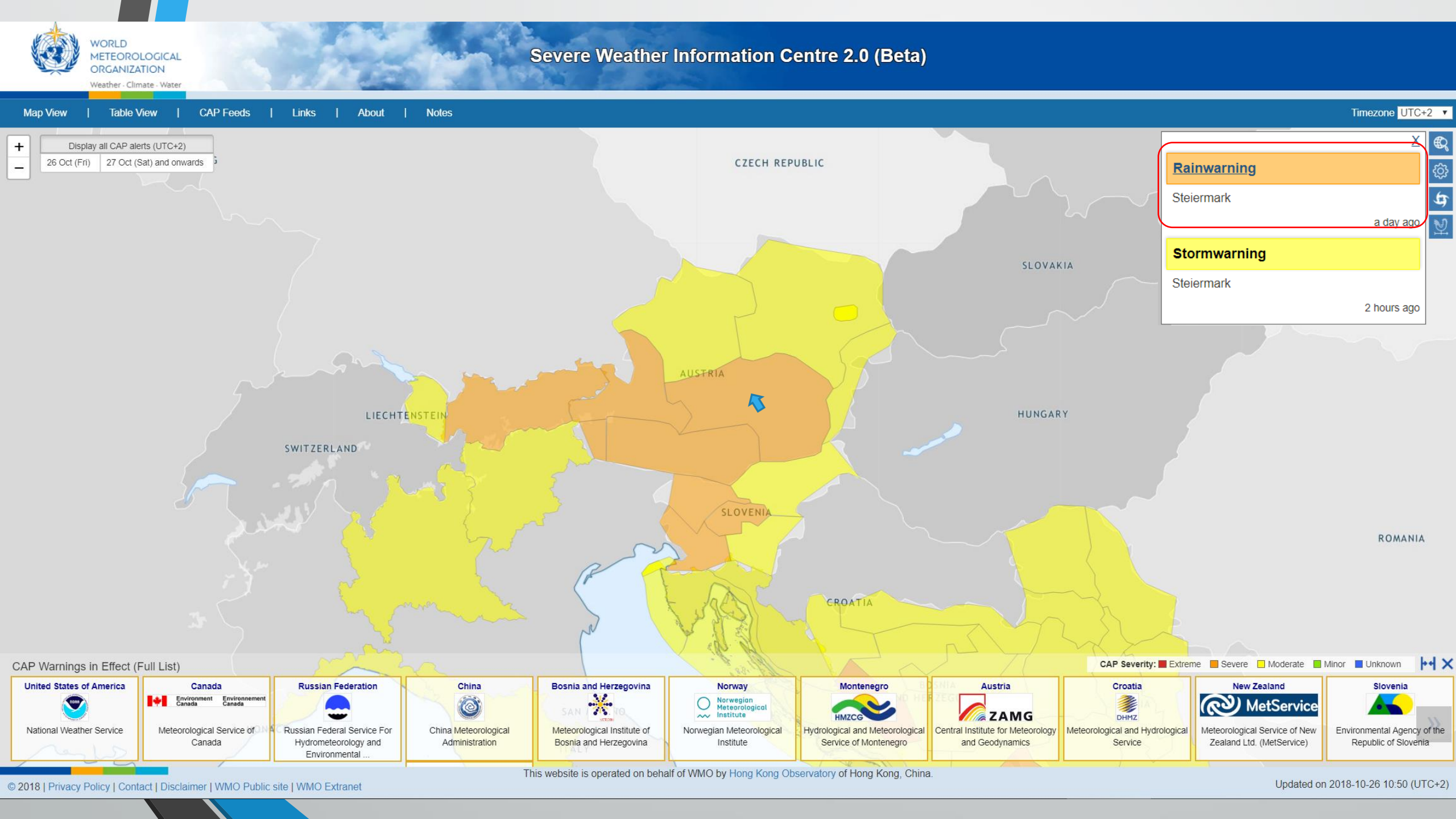
Updated on 2018-10-26 06:54 (UTC+0)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Map View | Table View | CAP Feeds | Links | About | Notes
Timezone UTC+2
Display all CAP alerts (UTC+2)
26 Oct (Fri)
27 Oct (Sat) and onwards
CZECH REPUBLIC
SLOVAKIA
AUSTRIA
HUNGARY
LIECHTENSTEIN
SWITZERLAND
SLOVENIA
ROMANIA
CROATIA
Rainwarning
Steiermark
a day ago
Stormwarning
Steiermark
2 hours ago
CAP Warnings in Effect (Full List)
CAP Severity: Extreme Severe Moderate Minor Unknown
United States of America
National Weather Service
Canada
Meteorological Service of Canada
Russian Federation
Russian Federal Service For Hydrometeorology and Environmental ...
China
China Meteorological Administration
Bosnia and Herzegovina
Meteorological Institute of Bosnia and Herzegovina
Norway
Norwegian Meteorological Institute
Montenegro
Hydrological and Meteorological Service of Montenegro
Austria
Central Institute for Meteorology and Geodynamics
Croatia
Meteorological and Hydrological Service
New Zealand
Meteorological Service of New Zealand Ltd. (MetService)
Slovenia
Environmental Agency of the Republic of Slovenia
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Updated on 2018-10-26 10:50 (UTC+2)

Yellow Coastal phenomenon Warning issued from for Spain - Costa Almería

for **Spain**

Language : Spanish; Castilian

Issued time : 2018-10-25 22:49:58 (UTC + 00)

Event : Yellow Coast Phenomenon Warning

Effective time : 2018-10-27 07:00:00 (UTC + 00)

Onset time : 2018-10-27 07:00:00 (UTC + 00)

Expire time : 2018-10-27 21:59:59 (UTC + 00)

Download

Urgency : Immediate

Severity : Moderate

Certainty : Likely

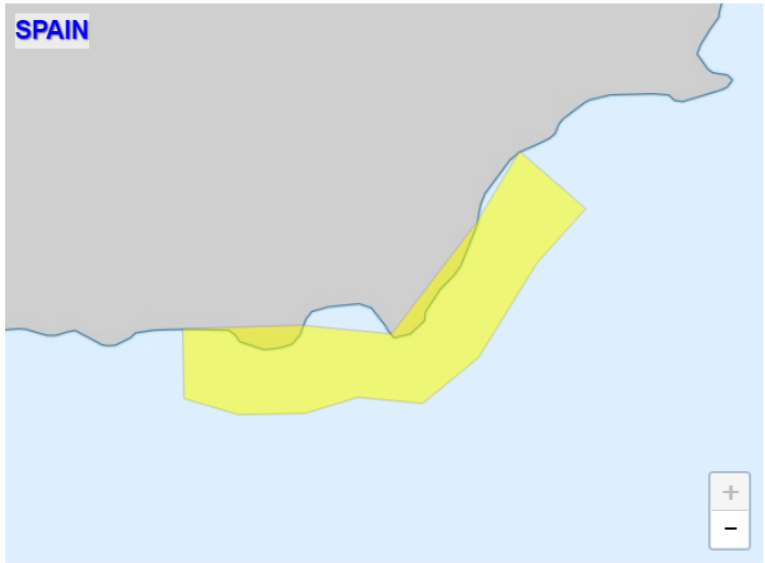
Meteorology Statal Agency

Description

ing Text !.

Instructions

BE AWARE that strong winds combined with high tides and large waves can cause local coastal flooding. Citizens are warned to be cautious when driving or walking in coastal areas.



Affected area

Costa Almeria

ISO 22324 Standard for colour-coded alerts

- Red, yellow and green (and the spectrum in between in terms of hue) should be used to express status of hazard
- **Red** is associated with **danger** and should be used to notify people at risk to prepare to take appropriate safety actions **immediately**
- **Yellow** is associated with **caution** and should be used to notify people at risk to **prepare** to take appropriate safety actions
- **Green** is associated with a **safe** status and should be used to notify people at risk that **no action** is required
- **Blue** should not be used to indicate a safe condition or any other level of hazard. Blue should be used for purely **informational purposes** that does not indicate levels of hazard

ISO 22324
Guideline for use of basic colours

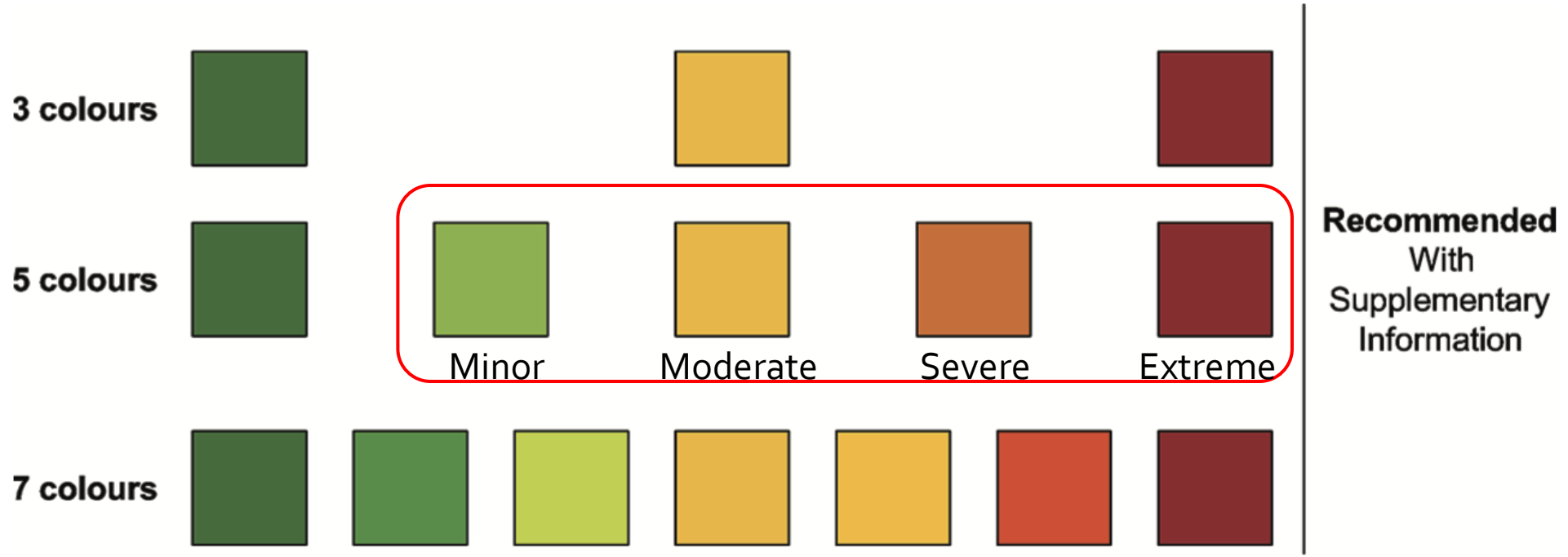
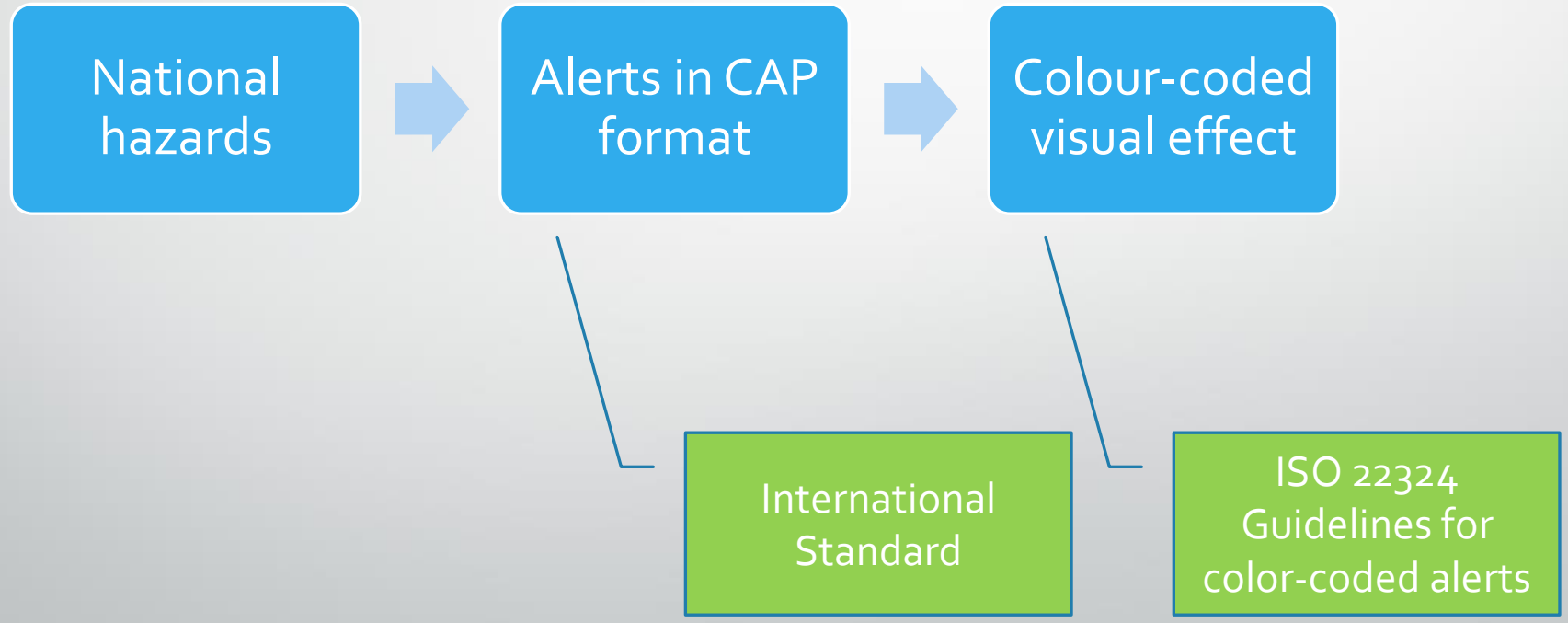
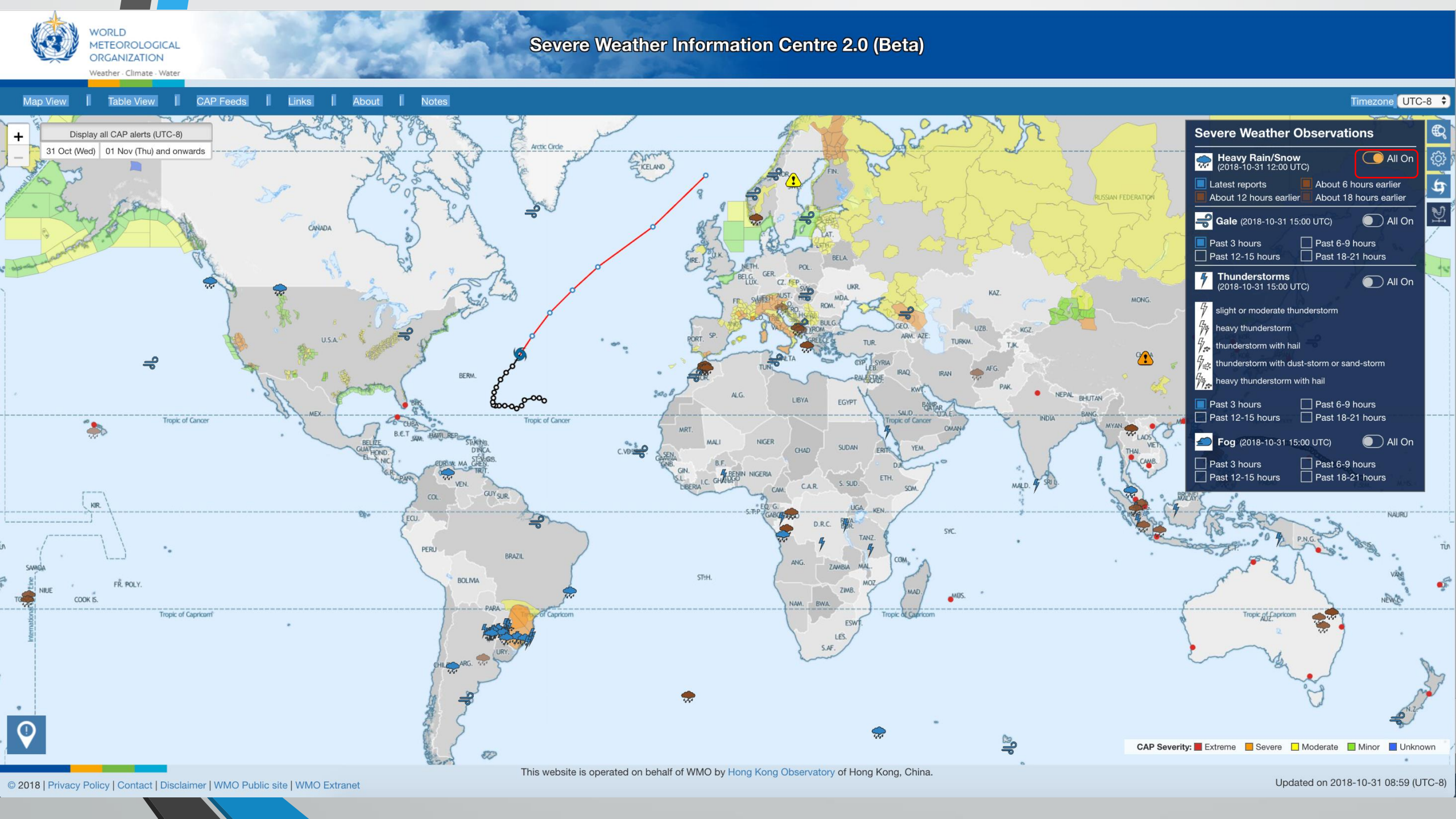


Figure 1 — Guideline for use of basic colours

CAP – Potential candidate for Standardizing Warning Presentation





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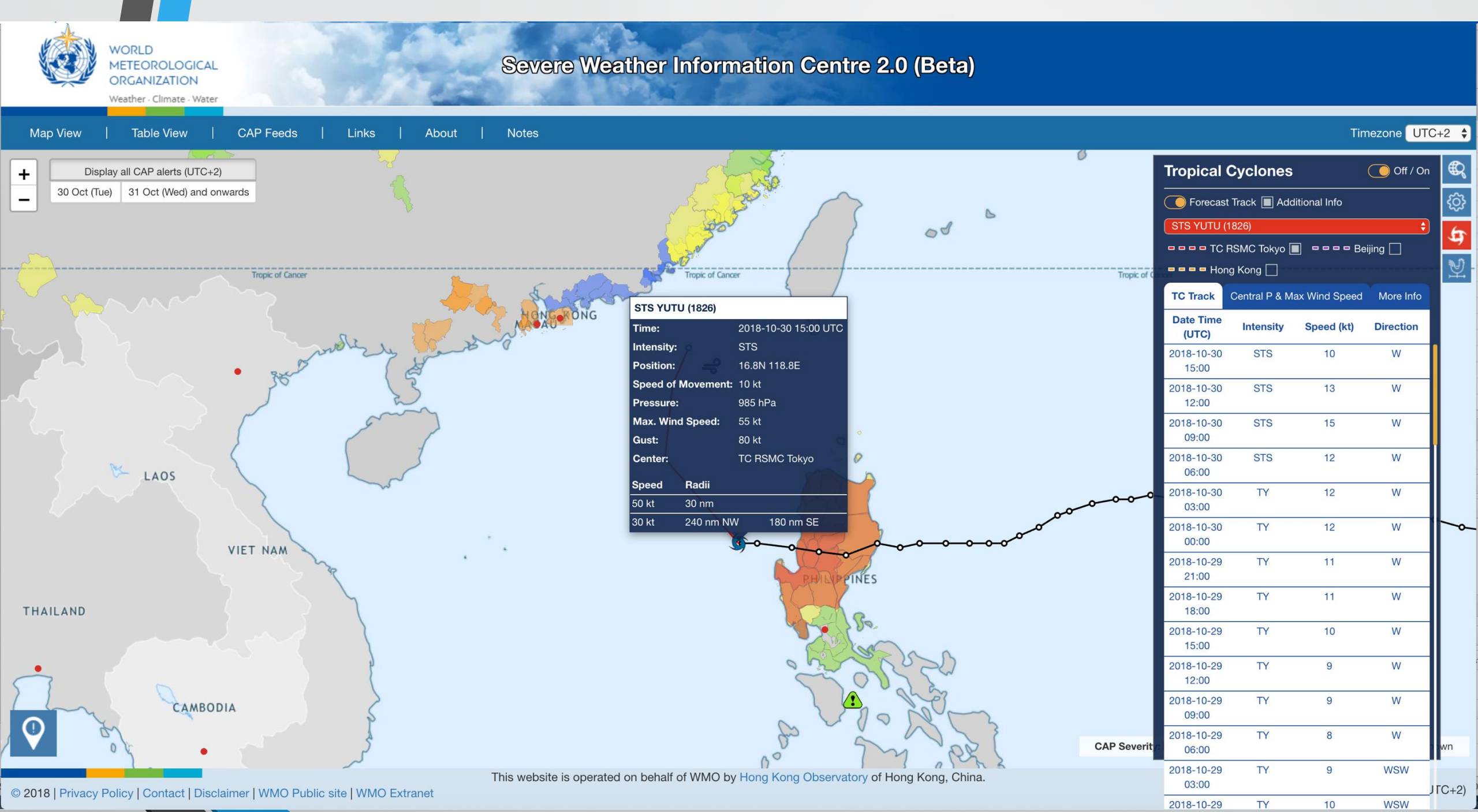
Updated on 2018-10-31 08:59 (UTC-8)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Map View | Table View | CAP Feeds | Links | About | Notes
Timezone UTC+2
Display all CAP alerts (UTC+2)
30 Oct (Tue) 31 Oct (Wed) and onwards
Tropic of Cancer
HONG KONG
MACAU
LAOS
VIET NAM
THAILAND
CAMBODIA
PHILIPPINES
STS YUTU (1826)
Time: 2018-10-30 15:00 UTC
Intensity: STS
Position: 16.8N 118.8E
Speed of Movement: 10 kt
Pressure: 985 hPa
Max. Wind Speed: 55 kt
Gust: 80 kt
Center: TC RSMC Tokyo
Speed Radii
50 kt 30 nm
30 kt 240 nm NW 180 nm SE
Tropical Cyclones
Off / On
Forecast Track
Additional Info
STS YUTU (1826)
TC RSMC Tokyo
Beijing
Hong Kong
TC Track
Central P & Max Wind Speed
More Info
Date Time (UTC) | Intensity | Speed (kt) | Direction
2018-10-30 15:00 | STS | 10 | W
2018-10-30 12:00 | STS | 13 | W
2018-10-30 09:00 | STS | 15 | W
2018-10-30 06:00 | STS | 12 | W
2018-10-30 03:00 | TY | 12 | W
2018-10-30 00:00 | TY | 12 | W
2018-10-29 21:00 | TY | 11 | W
2018-10-29 18:00 | TY | 11 | W
2018-10-29 15:00 | TY | 10 | W
2018-10-29 12:00 | TY | 9 | W
2018-10-29 09:00 | TY | 9 | W
2018-10-29 06:00 | TY | 8 | W
2018-10-29 03:00 | TY | 9 | WSW
2018-10-29 | TY | 10 | WSW
CAP Severity
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Alert Hub CAP Feeds (Demo)

ISSUING ORGANISATION	FEED URL	NO. OF CAPs IN PAST 24 HOURS	NO. OF CAPs IN PAST 7 DAYS	NO. OF CAPs IN PAST 30 DAYS
Anguilla: Disaster Management Anguilla	ai-dma-en	0	0	0
Antigua and Barbuda: Meteorological Services	ag-ms-en	0	0	0
Argentina: Servicio Meteorologico Nacional	ar-smn-es	5	2	27
Austria: Zentralanstalt für Meteorologie und Geodynamik	at-zamg-en	120	95	130
Barbados: Department of Emergency Management	bb-dem-xx	0	0	0
Belgium: Royal Meteorological Institute	be-irm-en	308	89	185
Bosnia and Herzegovina: Federalni hidrometeorološki zavod BiH	ba-fhmzbih-bs	2	25	75
Brazil: Instituto Nacional de Meteorologia - INMET	br-inmet-pt	3	52	215
Bulgaria: НАЦИОНАЛЕН ИНСТИТУТ ПО МЕТЕОРОЛОГИЯ И ХИДРОЛОГИЯ - ФИЛИАЛ ПЛОВДИВ	bg-meteo-bg	0	89	191
Canada: Alberta Emergency Management Agency (Government of Alberta, Ministry of Municipal Affairs)	ca-aema-xx	0	0	0
Canada: Meteorological Service of Canada	ca-msc-xx	37	623	2031
China: China Meteorological Administration	cn-cma-xx	320	3145	8757
Colombia: UNGRD (National Unit for Disaster Risk Management)	co-ungrd-es	0	0	9
Croatia: Državni hidrometeorološki zavod (DHMZ)	hr-meteo-hr	26	161	380
Cyprus: Meteorological Service	cy-dom-en	0	0	0
Czech Republic: Český hydrometeorologický ústav	cz-chmi-cs	0	25	48
Denmark: Danmarks Meteorologiske Instituts	dk-dmi-dk	0	0	46
Estonia: Riigi Ilmateenistus	ee-emhi-et	113	172	405
Finland: Finnish Meteorological Institute	fi-fmi-xx	97	177	604

Concluding Remarks & Possible Future's Development

- SWIC 2.0 provides meteorological and hydrological warnings and alerts for common situation awareness
- Presentation of warnings and alerts are standardized through CAP and ISO22324
- Customize CAP feeds for the cities in the World Weather Information Services (WWIS) and MyWorldWeather app
- Pushing CAP warnings to users in target cities/areas

Thank you

Questions and Comments?

yccheng@hko.gov.hk