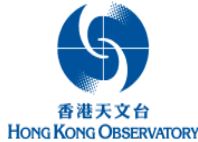# 2018 Common Alerting Protocol (CAP) Implementation Workshop
31 October - 1 November 2018 in Hong Kong, China

The 2018 Common Alerting Protocol (CAP) Implementation Workshop will be held 31 October and 1 November, in Hong Kong, China. The Workshop is hosted by Hong Kong Observatory (HKO). In the same venue, CAP Training will be all day on 30 October and a Filtered Alert Hub Workshop will be all day on 2 November.

Everyone interested in emergency alerting is welcome: managers, technical staff, media, etc., including those in government, non-governmental organizations (NGOs), and commercial organizations. There is no charge to participate.

The Workshop this year is co-sponsored by the International Association of Emergency Managers (IAEM), the International Federation of Red Cross and Red Crescent Societies (IFRC), the International Telecommunication Union (ITU), the OASIS standards organization and the World Meteorological Organization (WMO). These Workshops focus on emergency alerting as enabled by the CAP standard, ITU-T Recommendation X.1303. At the Workshops, implementers of CAP and other associated organizations discuss common issues and how best to leverage the expanding adoption of CAP.

There will be about 30 presentations at the Workshop, on a wide range of topics and presented by experts from every part of the world. The following are examples of likely topics.

CAP "alert hubs" have been a recurring topic. An alert hub simplifies access to copies of alerts by aggregating alerts from many different feeds into one URL. A free and open source example is the "Filtered Alert Hub" (see http://alert-hub.org). This supports the WMO Alert Hub now being realized at HKO and other centers worldwide. As noted above, on 2 November there will be a one-day session focused on the Filtered Alert Hub.

A broad range of national systems have been presented at CAP Implementation Workshops. This year, Brazil's National Institute of Meteorology (INMET) will present their CAP implementation work. We will also hear about CAP work at Brazil's National Centre for Monitoring and Early Warning of Natural Disasters (CEMADEN). Experiences in Canada's CAP implementation will be a presentation topic as well.

China's National Early Warning Release System (NEWRS) is a CAP-based multi-hazards warning system on very large scale, comparable in scale to the United States Integrated Public Alert and Warning System (IPAWS), which aggregates over 1,000 CAP alert feeds nationwide. These and many other CAP-enabled systems also leverage "Cell Broadcast", which is another recurring topic.

The MeteoAlarm system, used extensively throughout Europe, has been another recurring topic, MeteoAlarm is now hosting about 40 publicly-available CAP feeds at national level. An update on Italy's extensive CAP system for fire fighters will also be presented, and the prospects for such CAP alerting becoming European-wide.

In addition to its national CAP-enabled alerting system, Mexico will present on how CAP is used in its Earthquake Early Warning system. In such a system, warnings triggered on detection of an earthquake are sent electronically to warn people before destructive ground motion arrives. With only seconds of warning time, Earthquake Early Warning messages must be pushed to user devices immediately. CAP alerts pushed to the WMO Alert Hub can help with these and other immediate threats such as tsunami and tornados.

There will be a presentation on the support of CAP in the 40-country Regional Integrated Multi-Hazard Early Warning System (RIMES).

Various commercial weather services have presented in detail on how their systems use CAP, including AccuWeather, The Weather Company, and Météo France International.

Multiple presentations have shown use of CAP in the emerging "Internet of Things". For instance, CAP is emitted by sensors in buildings for real time floor-by-floor earthquake damage alerting.

Google and others have presented freeware tools for creating and publishing CAP alerts. IFRC has also presented on its free Universal App Program. This includes not only the CAP-enabled Hazards App but apps for finding shelters, giving first aid, and making emergency preparedness kits.

IFRC will update on its 'What Now' service developed in partnership with Google. This data feed uses the IFRC Public Awareness and Public Education (PAPE) messaging. Paired with CAP alerts, such trusted and field-tested messaging helps better inform people on what actions to take.

This year, WMO will likely present on how Impact-Based Forecasting (IBF) ststems can assure that IBF messages align with CAP, which has

implications also for the "Weather Ready Nations" international initiative. Integrating CAP in Flash Flood Guidance Systems around the world should be a topic of great interest, as well.

Pinkerton's has presented on its impressive use of CAP, including the Trusted Information Exchange System (TIES). TIES is also key to Microsoft's CityNext tools for emergency management.

At the 2016 Workshop, the World Health Organization (WHO) presented its work on early warning for biological/infectious disease hazards.

Sahana Software Foundation has presented a number of CAP implementations operational or in progress that use Sahana Software Foundation tools. Sahana researchers are also studying the effective use of symbols in emergency alerting.

The ITU Development Bureau (ITU-D) usually presents on its role in CAP implementation. This year, ITU-D may also discuss how CAP could be addressed in the planned 2019 Global Forum on Emergency Telecommunications (GET-19), and how CAP will feature in the Guidelines on National Emergency Telecommunication Plans, which ITU-D is currently developing.

Participants will hear from the OASIS Emergency Management Technical Committee (EM TC) about efforts to seek consensus on common CAP "event" terms and criteria to distinguish those highest priority CAP alerts that should be sent immediately to all people in an affected area. During the CAP Workshop, the OASIS EM TC will meet with its usual call-in arrangements.

CAP Training on 30 October covers: the basics of CAP and how it serves interoperability; getting and displaying CAP alerts from alerting authorities and aggregators; making and validating CAP; and, disseminating CAP via traditional methods, the Internet, and new media. A survey of other CAP implementations now underway or newly launched, as well as new developments in some of the existing CAP implementations is included (see status report: CAP Implementation by Country). The CAP Training includes hands-on installation of the new version of "CAP Editor", freeware for creating and publishing CAP alerts.

CAP Implementation Workshops are technical meetings conducted in English without interpretation. These meetings do not set policy; they are intended solely for information sharing among experts. Accordingly, participants represent themselves and need not be formally associated with organizations. Registration is strongly encouraged for administrative and planning purposes. Participants from a WMO Member agency should note the WMO announcement Letter sent on 26 February.

All Workshop and associated events will be in or near the HKO Headquarters (see Information Note for details).

Further information will be posted to the 2018 CAP Implementation Workshop website. Material from previous CAP Workshops is at these links:

- 2017 Rome, Italy
- 2016 Bangkok, Thailand
- 2015 Rome, Italy
- 2014 Negombo, Sri Lanka
- 2013 Geneva, Switzerland
- 2012 Montréal, Canada
- 2011 Geneva, Switzerland
- 2009 Geneva, Switzerland
- 2008 Geneva, Switzerland
- 2006 Geneva, Switzerland

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