

50th Session of ESCAP/WMO Typhoon Committee

High Level Session



ESCAP/ WMO
TYPHOON COMMITTEE

Progress in Tropical Cyclone Forecasting and Warning Services Hong Kong, China

28 February 2018

CM Shun

Director of the Hong Kong Observatory

Strengthening of observations

2011

Operational reconnaissance flight



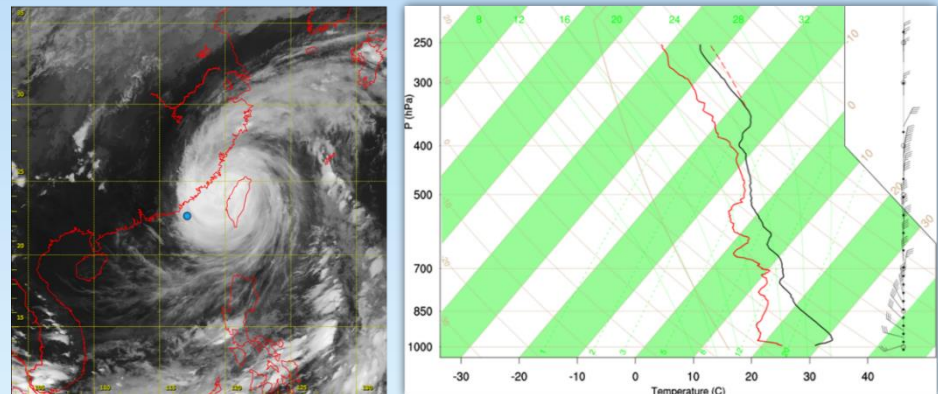
2013

Shipborne AWSs and drifter buoys over South China Sea

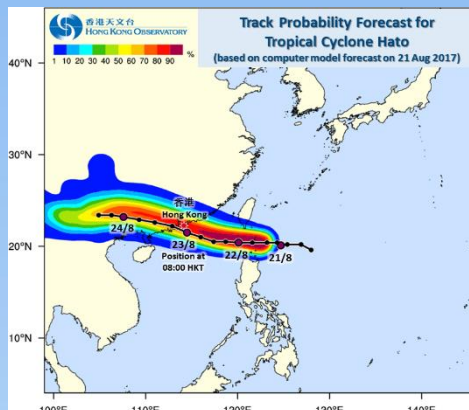
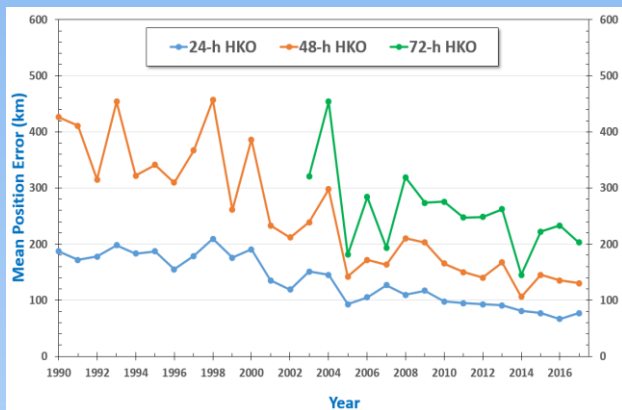


2016

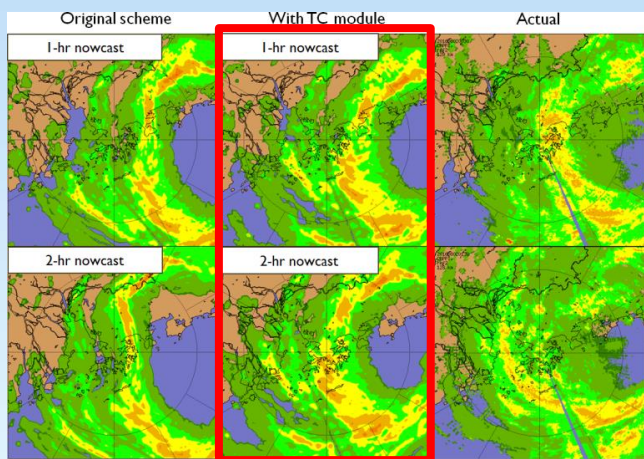
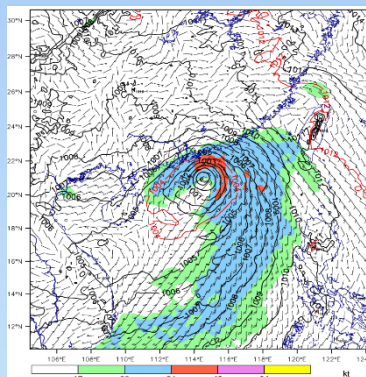
Dropsonde mission



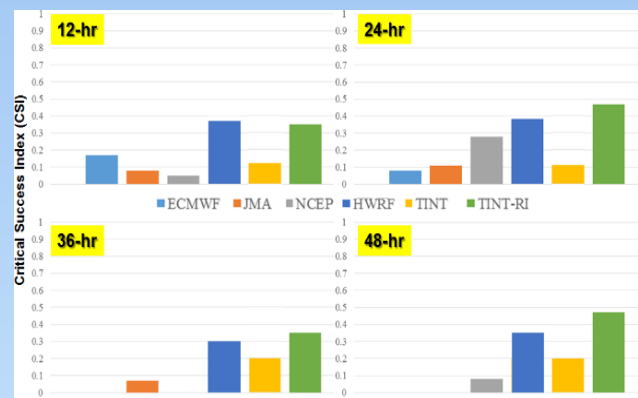
Enhancement of forecasting services



- Meso-scale NWP (AIR) forecast of TC structure



- 2015 – warning to 5 days
- 2017 – outlook to 9 days



- TC intensity forecast model with rapid intensification (TINT-RI)

- SWIRLS TC rainfall nowcast

Public & stakeholder engagement

MyObservatory mobile app + HKO website

- **167 billion** page views (2017)
- **6.7+ million** download



- **Close liaison** with government departments and stakeholders (pre-TC season)

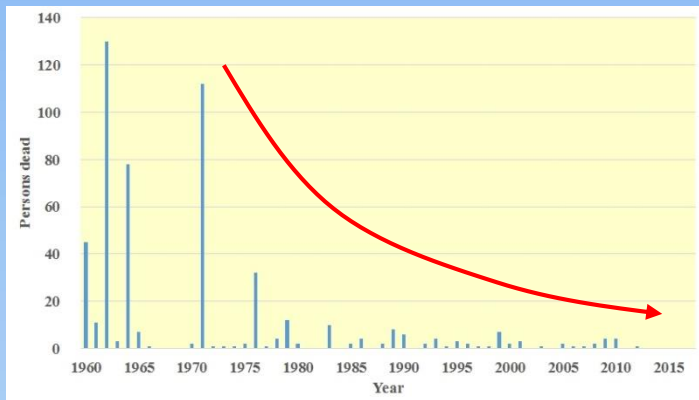
- **Weather briefings** for public & aviation community (during TC including regional)

Public engagement

- Public talks
- Weather programmes & videos
- Special publicity events



Achievement and future outlook

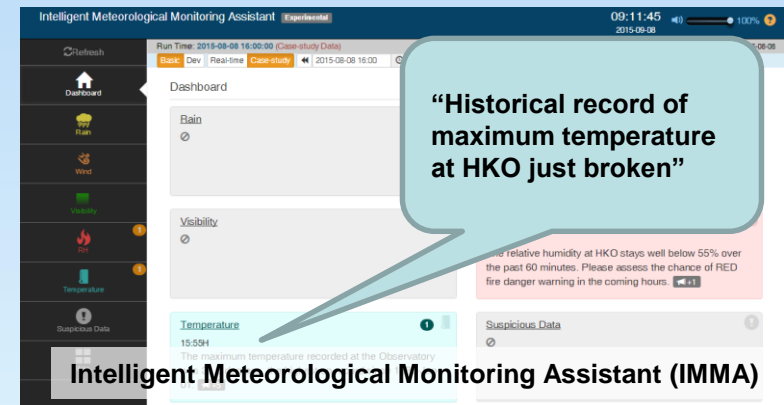
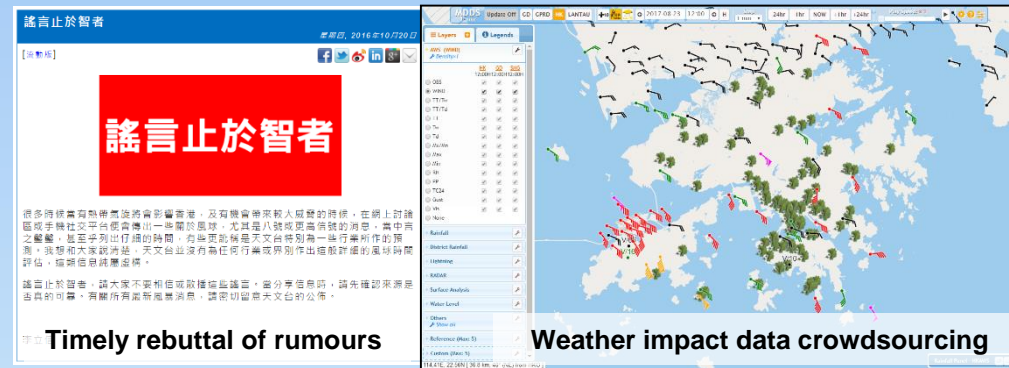


No. of deaths caused by the passage of TCs in HK (1960-2017)

Casualties and losses due to TCs have been **significantly reduced**

Outlook for the future:

- **Impact-based** forecasts & **risk-based** warnings
- Scientific **researches**
- Utilizing **social media** for public engagement
- Embracing Big Data, **Smart** City, AI & crowdsourcing



International cooperation

- Regional initiatives
 - from **SPECTRUM** (1990s) to **EXOTICCA** – transitioning research into operations
 - Global Multi-hazard Alert System (**GMAS**) – strengthening Members capacity in implementing Multi-hazard Early Warning Systems
- Typhoon Committee – **annual** regional platform
- Governance – continual **improvements**
- WMO restructuring – enhancing **relevance** to Members



Thank you