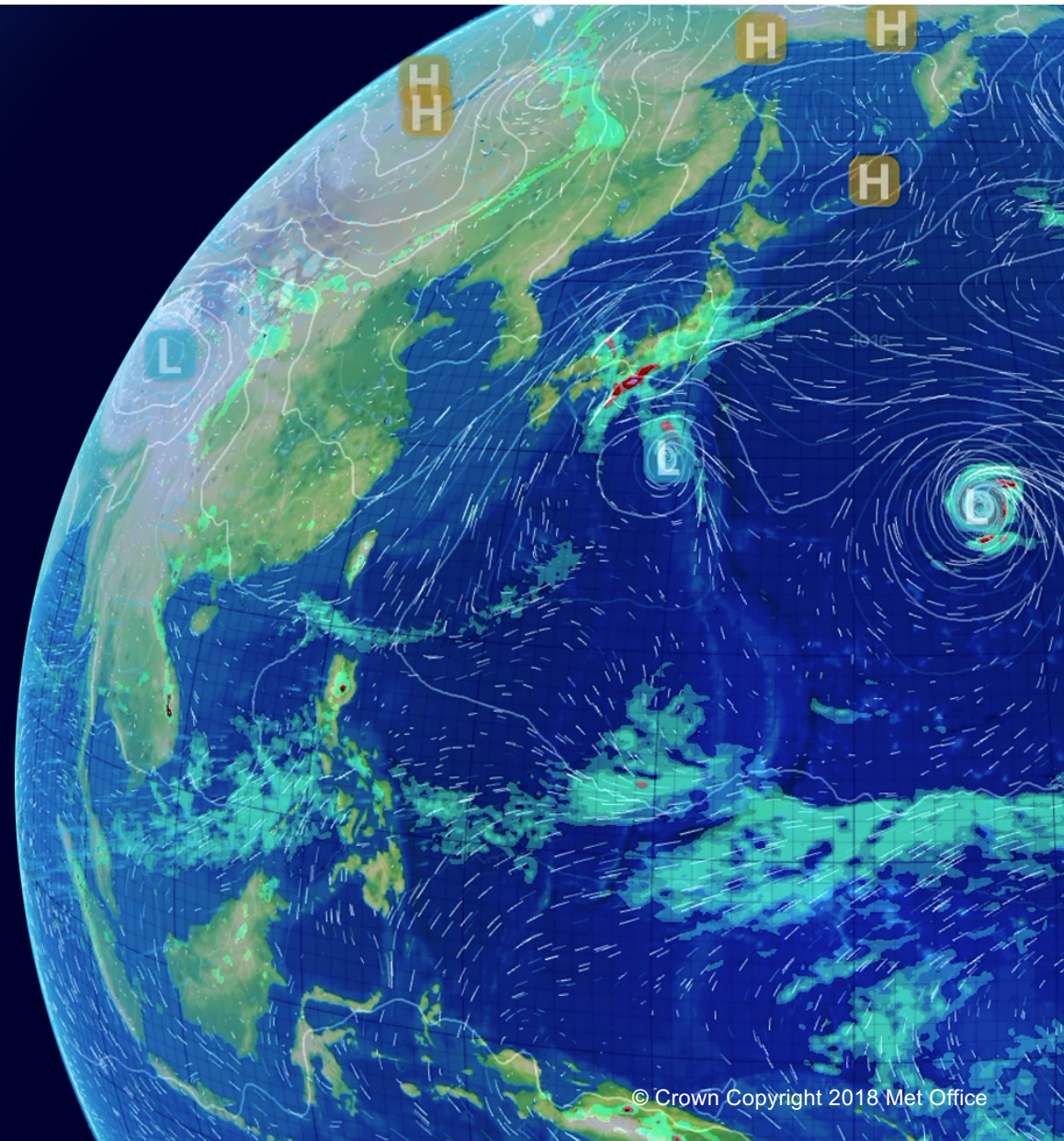


Typhoons

Development of a prototype typhoon seasonal landfall forecast - Capable of influencing Chinese user decisions.

Benjamin Harrison, Met Office

ICRC-CORDEX-2019
D7 – Climate Services



Tropical cyclone landfall and the WPSH

Landfall frequency depends on the strength of the western Pacific subtropical high (WPSH)

Enhanced WPSH

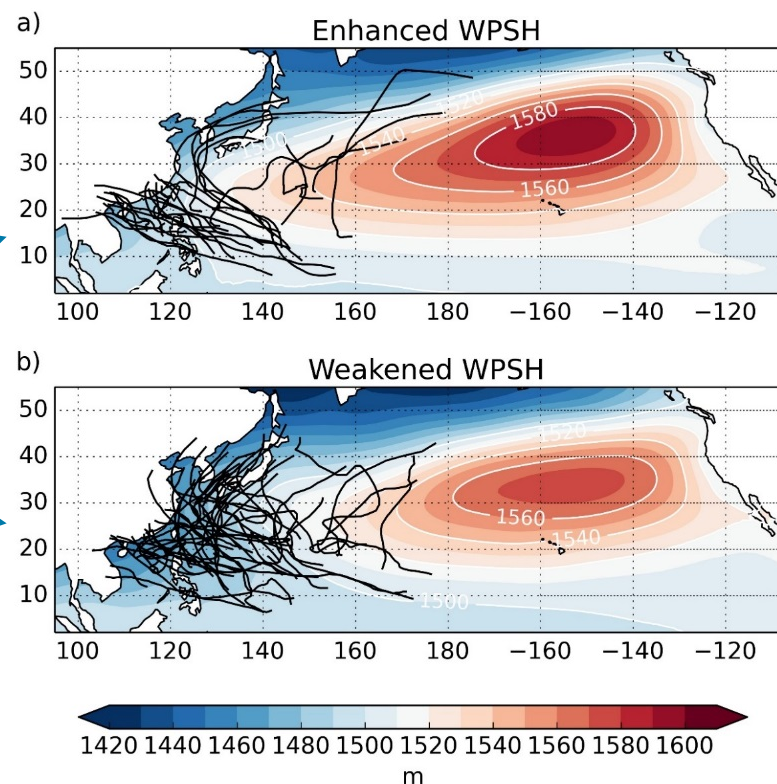
- TCs track further westward and landfall along the coasts of east China, Korea and Japan are generally reduced

Weakened WPSH

- TCs can recurve and landfall risk across East Asia is increased.

Significant relationship between ERA-Interim WPSH index and observed TC activity for JJA 1979-2016:

- TC days $r = -0.68$
- TC frequency East Asia $r = -0.58$



ERA-Interim
1979-2016

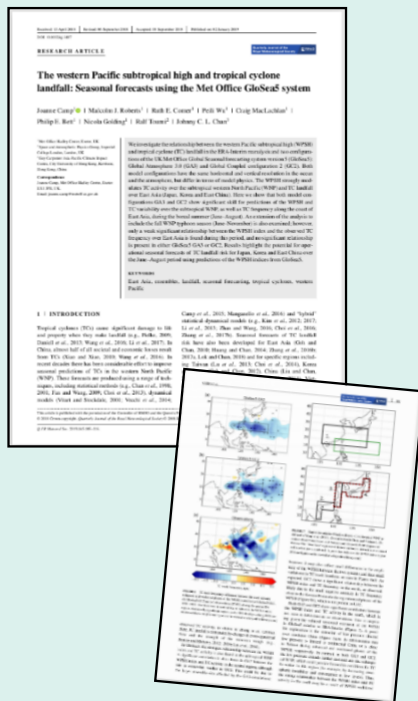
850 hPa GPH and cyclone tracks for the 4 most enhanced and weakened WPSH years in ERA-Interim (JJA 1979-2016).

Enhanced years: 1980, 1995, 1998, 2010. Weakened years: 1984, 1985, 1986, 2004.

Camp et al (2019).

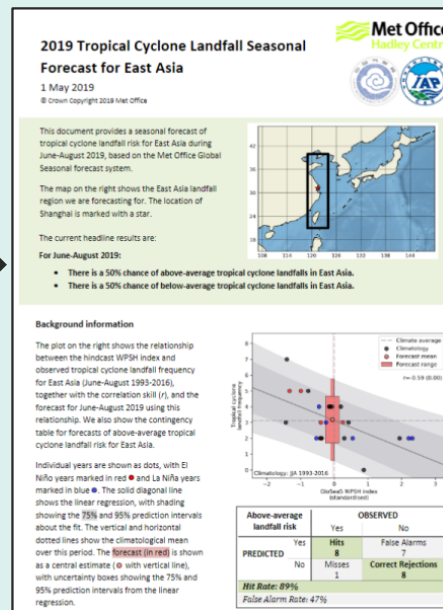
Science to Services:

Research



Jo Camp et al. February 2019

Prototype Forecast



Issued May 2019

User Engagement Visit



Shenzhen & Beijing, June 2019

What did we learn?



What next?

Co-production of a prototype typhoon seasonal forecast

We are looking for Chinese users to help us develop this prototype:

- real-world decisions
- useful regions
- adapted metrics
- style of presentation
- timing

