



Year in Review

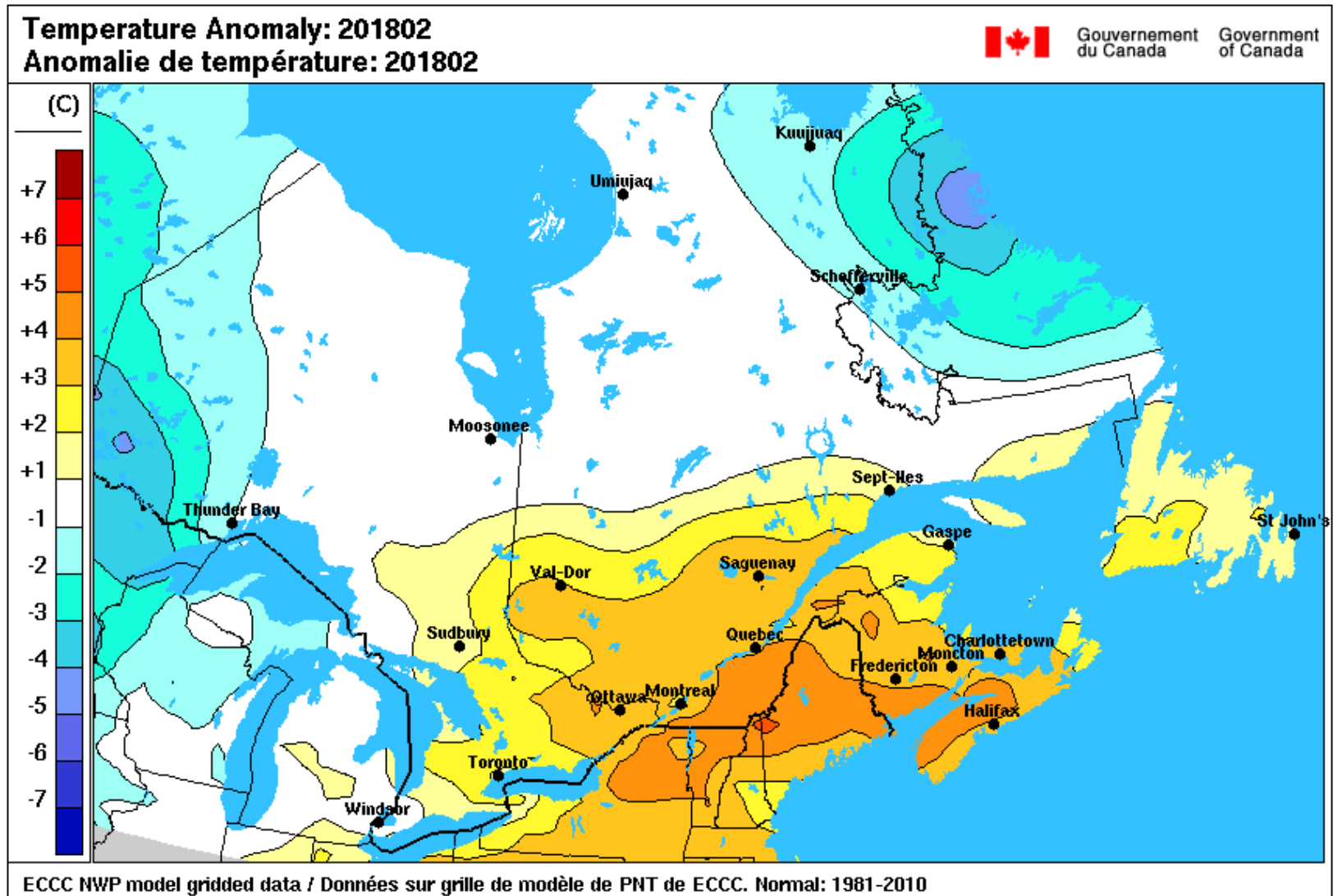
Ontario Flood Risk
Management Workshop
Toronto, Ontario

Geoff Coulson
Warning Preparedness
Meteorologist
Understudy:
Gerald Cheng

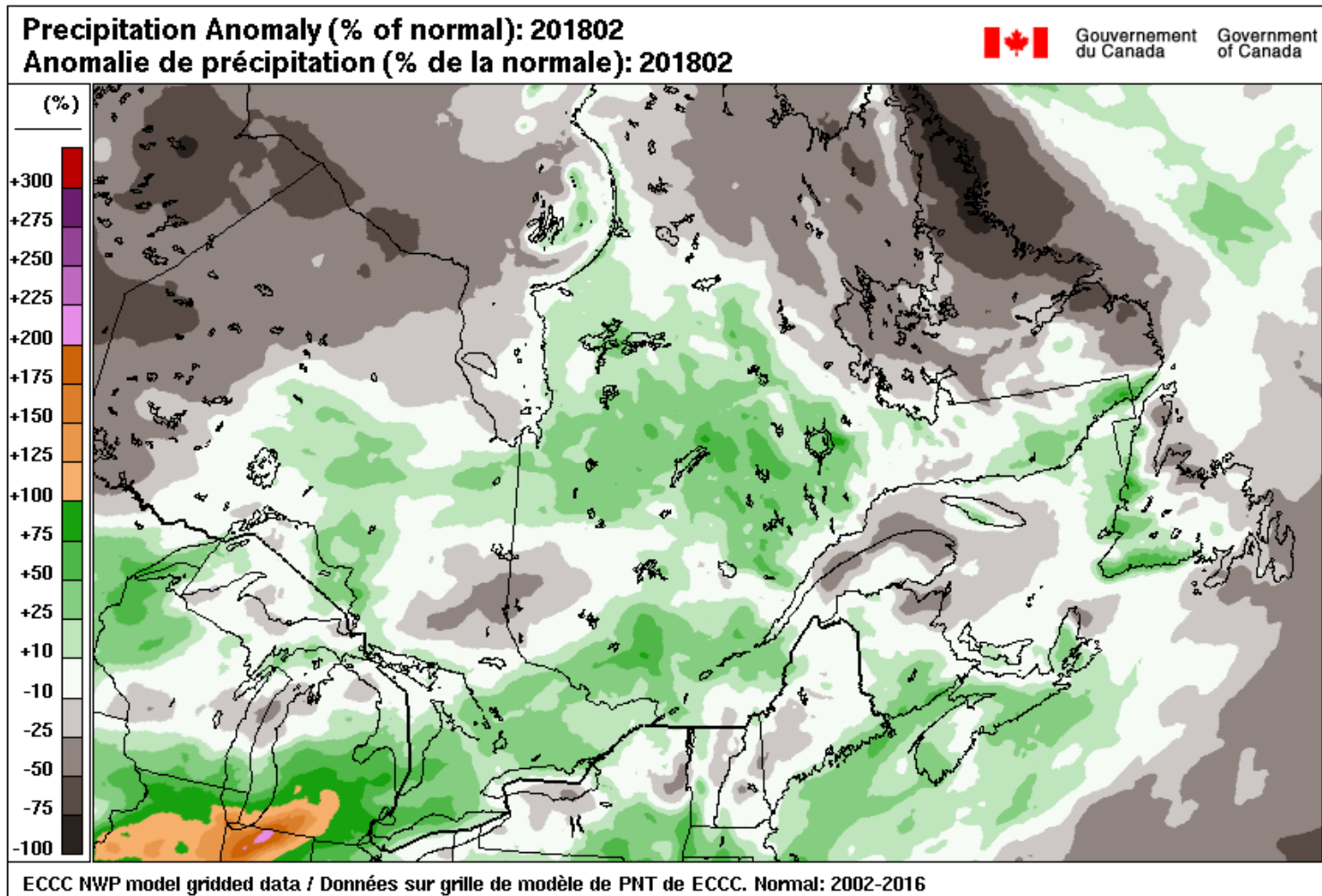
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 - 3 day significant weather emails/hazardous weather graphics
 - Wireless Public Alerting System (WPAS)
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Winter 2017-18 - Temperatures



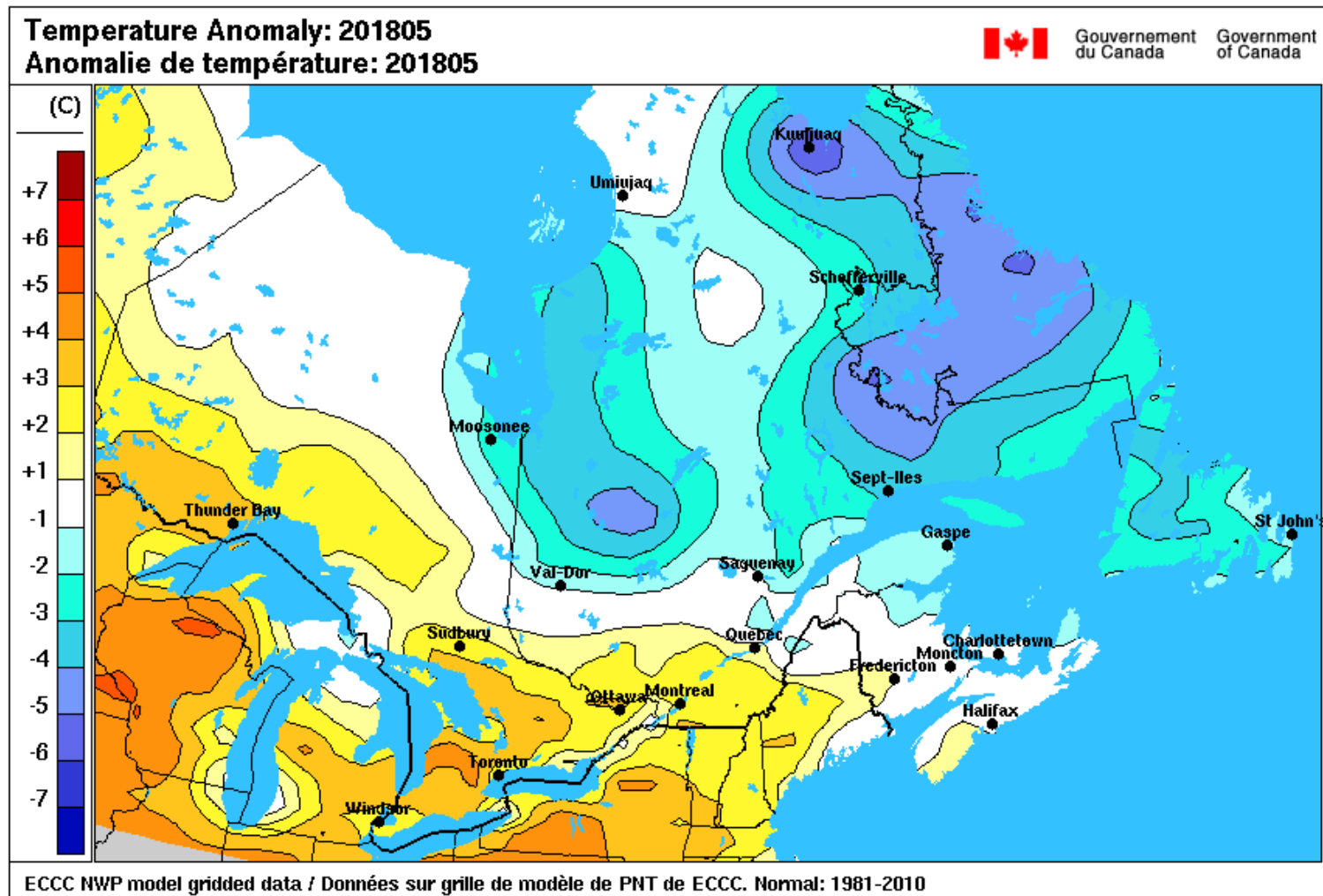
Winter 2017-18 Precipitation



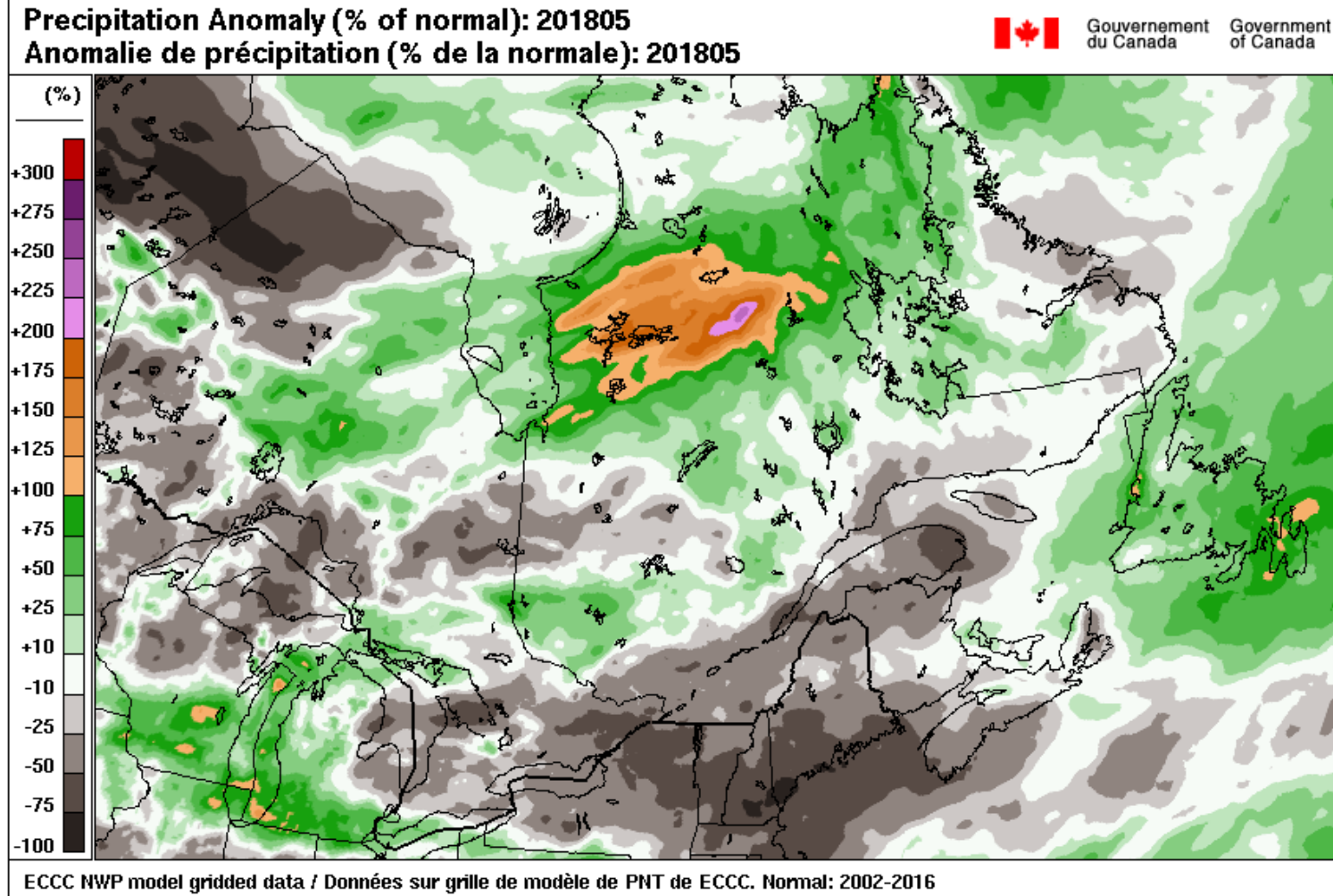
Winter 2017-18 Highlights

- Ottawa Airport sets new one year precip. record. 1348 mm of total precip., old record was 1175 mm set in 1972 and long-term average is 943 mm.
 - January 12-13 – significant cold front dumps 20 to 35 cm of snow in the Niagara Peninsula and E. Ontario
 - February 19 to 21 –
 - thaw/rain/flood event in southern Ontario. 40 to 60 mm of rain with some parts of the Southwest reporting over 75 mm
 - Large number of daytime high records broken as temperatures soar into the teens
 - Melting snowpack, rain, ice jams combine to cause flooding in parts of the Grand River and Thames River watersheds
 - Snowpack literally wiped out in southwestern Ontario
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Spring 2018 Temperatures



Spring 2018 Precipitation



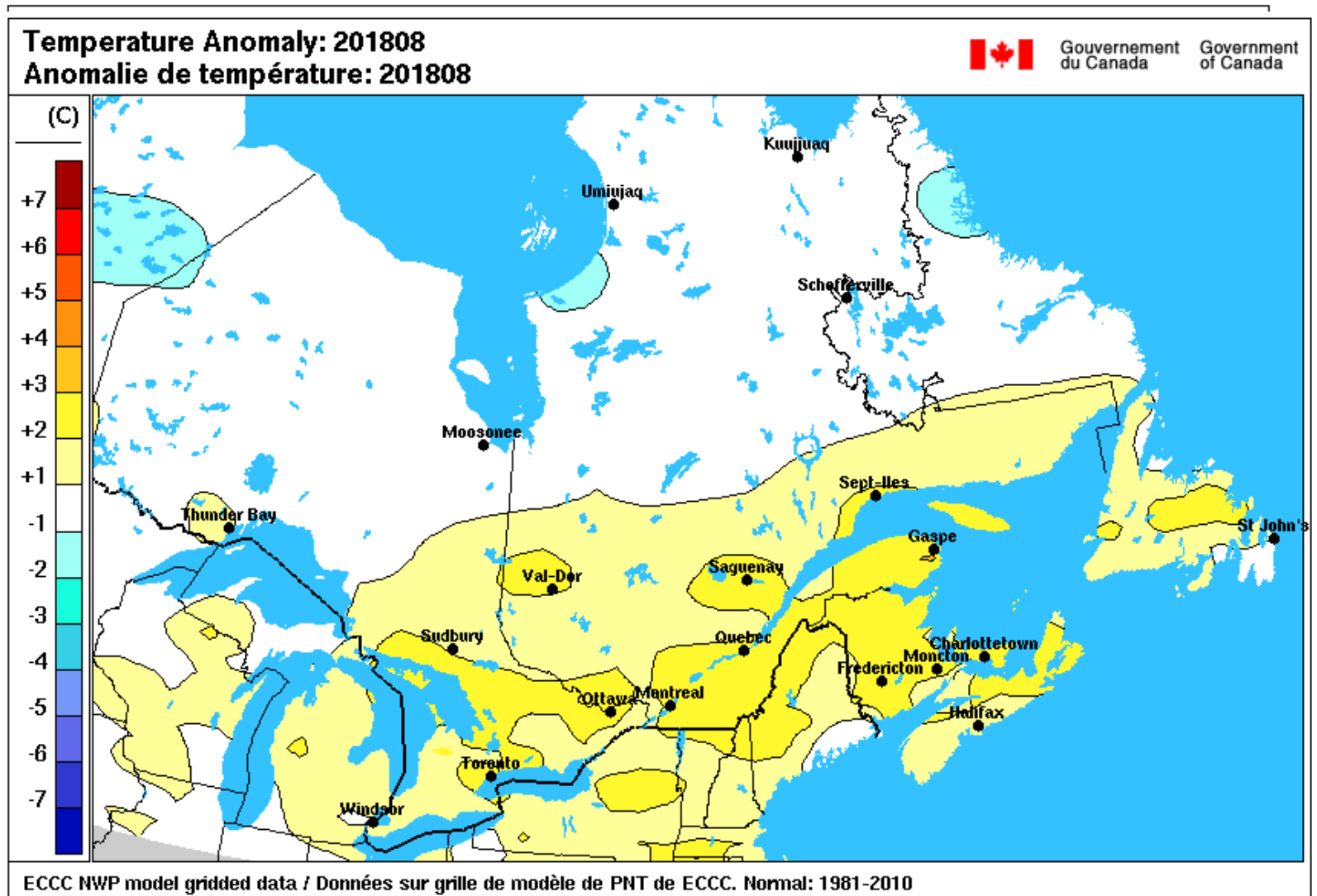
Spring 2018 Highlights

- March ends with notable snowpack east of Georgian Bay to Ottawa Valley and northwards. Parts of northeastern Ontario had 60 to 70 cm of snow on the ground.
 - Chilly April brings record snow to Wiarton (127.4 cm), Sudbury (78.1 cm), Sault Ste. Marie (72 cm), Haliburton (66.4 cm) and Barrie (48 cm).
 - Wiarton crushes previous April snow record (45.4 cm in 2003)
 - Wiarton also sets new April single day snowfall record with 39.6 cm on April 14 (then got 33.4 more on the 15th)
 - April 14 storm brings freezing rain and huge ice pellet accumulations to parts of southern Ontario (15 to 25 cm)
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Spring 2018 Highlights

- May 4 – Windstorm sweeps southern Ontario. Gusts reported as high as 126 km/h (Hamilton). Two fatalities in Milton due to falling tree, One fatality in Hamilton due to downed power line. 300,000 lose power, shingles tore off, fences down
 - May 11-13 Thunderstorms dump 58 mm in Windsor and 60 to 85 mm in parts of Chatham-Kent
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Summer 2018 Temperatures



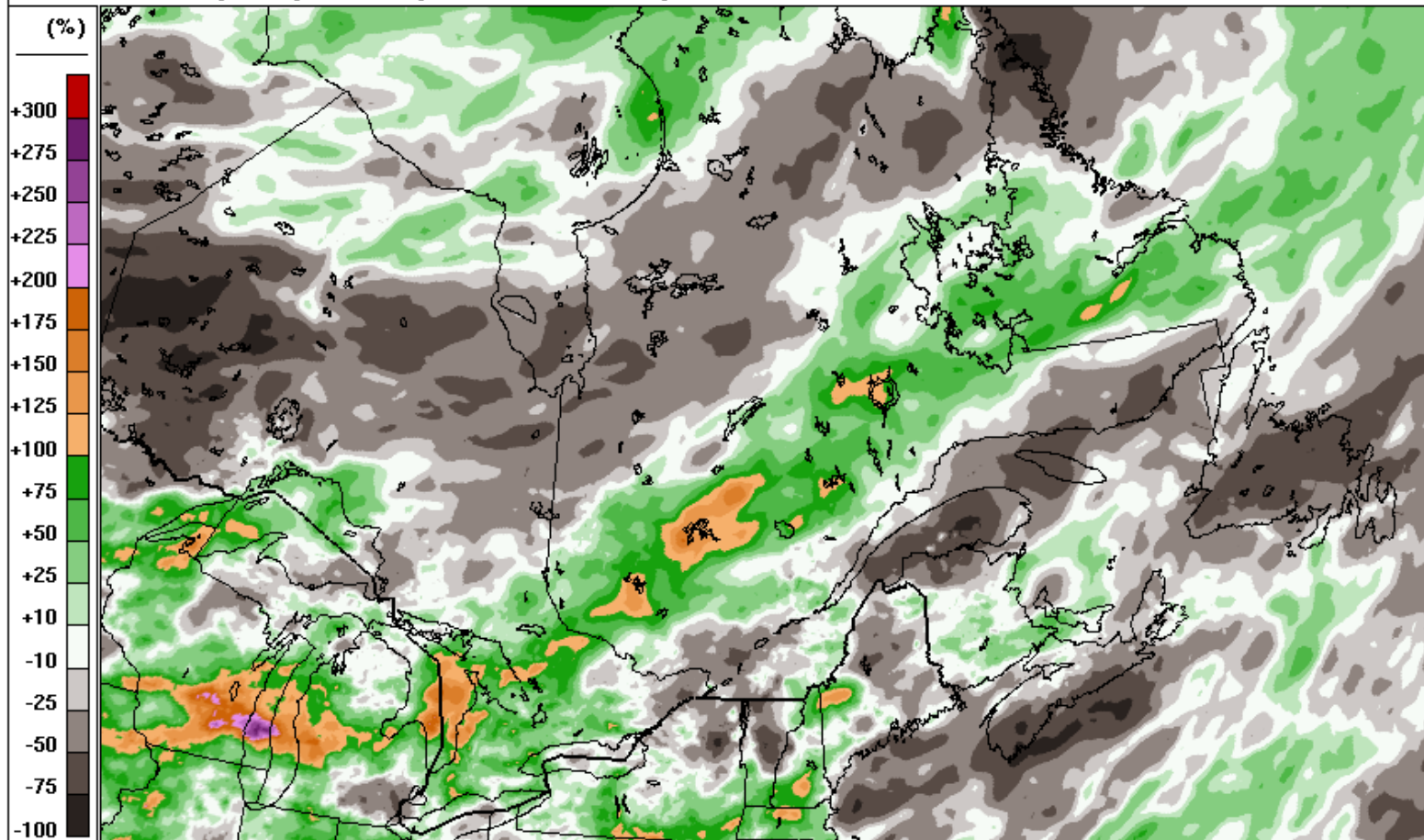
Summer 2018 Precipitation

Precipitation Anomaly (% of normal): 201808
Anomalie de précipitation (% de la normale): 201808



Gouvernement
du Canada

Government
of Canada

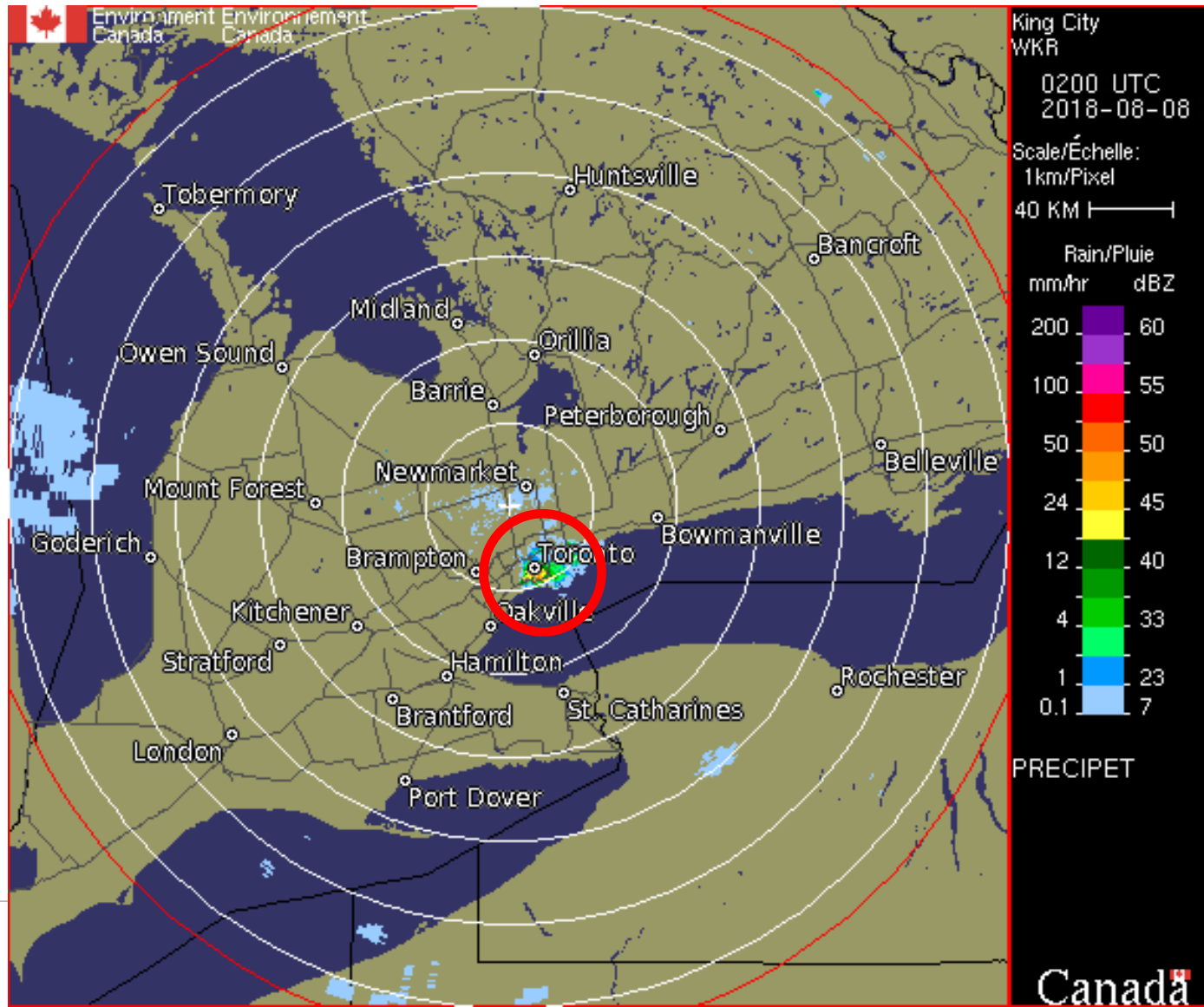


ECCC NWP model gridded data / Données sur grille de modèle de PNT de ECCC. Normal: 2002-2016

Summer 2018 Highlights

- June 29-30...thunderstorms dump 50 mm of rain in Wawa and 79 mm in Chapleau
 - Late June – early July heatwave ends with big storms...Orangeville receives 120 mm, London 70 mm
 - July 23 -25...series of thunderstorms give 82 mm to Chatham-Kent, 98 mm to Huntsville, 90 mm to Ottawa
 - July...big heat in the Northeast...warmest July ever in Kapuskasing...second warmest in Earlton and Timmins
 - Aug 7 – lake breeze-enhanced, slow moving thunderstorm dumps 72 mm in 2 hours in downtown Toronto...over 1 in 100 year event...Pearson Airport reports 6 mm
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King Radar – 10 PM August 7, 2018



Forest Fire Season Recap



- 700 forest fires on average each season in Ontario
 - 704 fires in 2017
 - There have been 1250 fires this season...fire fighters from other provinces, U.S., Mexico provided assistance
 - A number of active fires in northwestern Ontario
 - July 8-20 Temagami fire...air quality issues in Timmins, New Liskeard, Kirkland Lake and North Bay
 - July 20-August 20 Parry Sound 33 fire near Britt causes evacuation orders in French River, Killarney and Henvey Inlet First Nation
 - Air Quality Advisories for parts of the Northwest due to B.C. Fires
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Early Notification Update



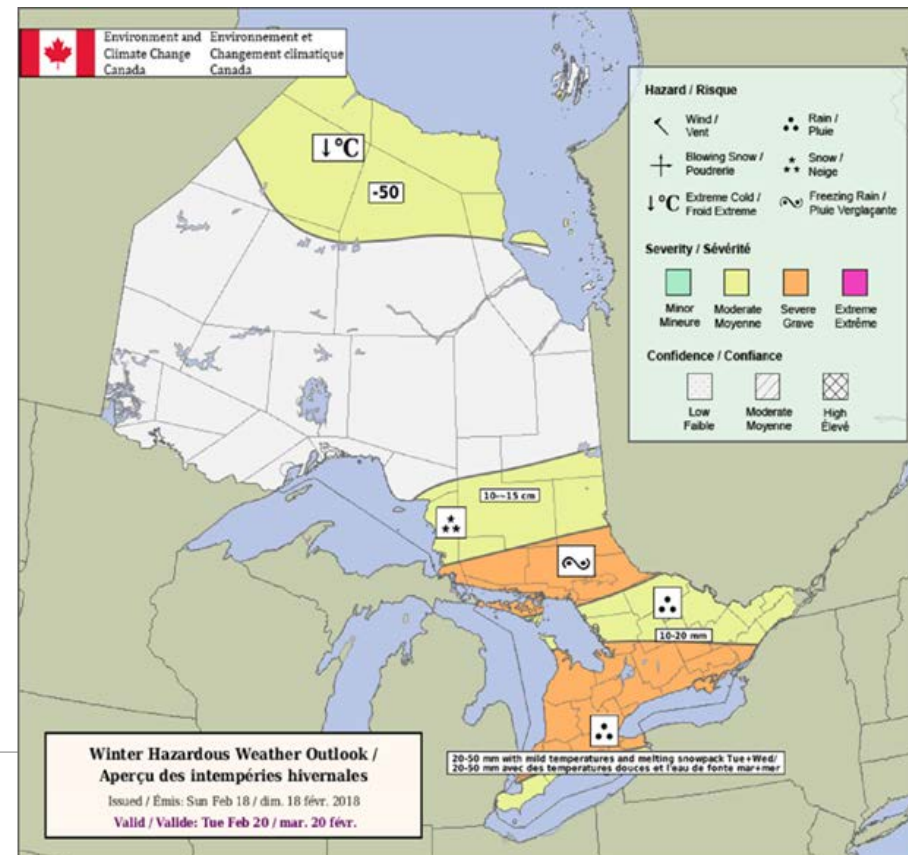
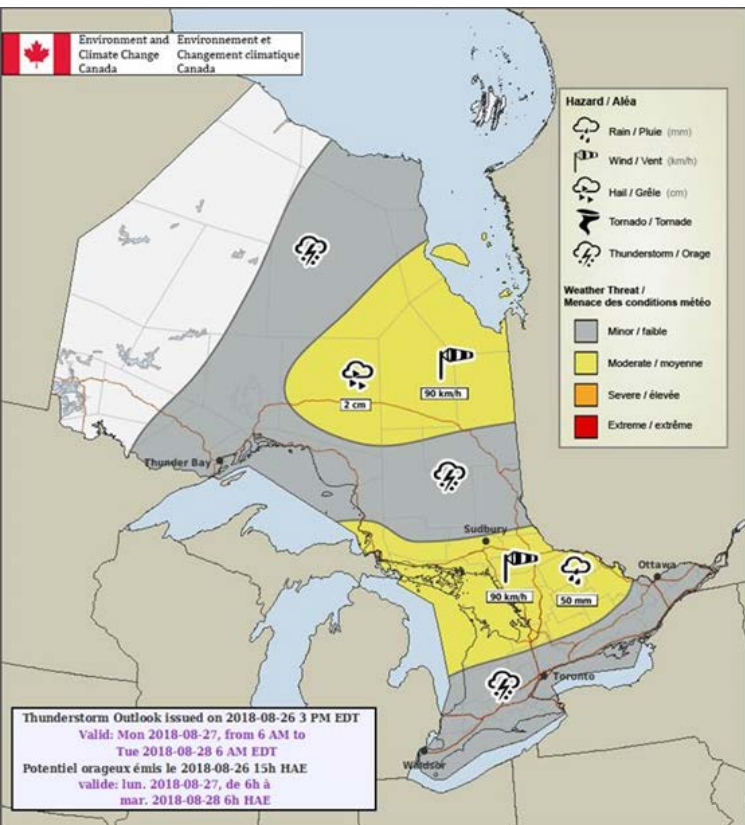
3 Day Significant Weather Email

- Sent daily by 6 AM
- Mentions notable weather across the province in the coming days
- Might reference confidence of event(s) occurring
- Intended as first “tap on the shoulder” of coming notable weather



Hazardous Weather Graphics

- Late spring to early fall – Day 1 and Day 2 Thunderstorm Potential...issued every day
- Late fall to early spring – Day 3, 4 and 5 Winter Hazardous Weather...issued as required





Fire



Natural



Biological



Hazardous Materials



Environmental



Terrorist Hazard



Civil



Administrative

Wireless Public Alerting System (WPAS)

- As of April 6, WPAS is activated for latest generation of cell phones
- Geo-referenced alerts for life-threatening conditions
- Cell phone towers within alert area will send text message to all cell phones
- Cell phones entering alert area within 15 minutes of original alert will also be sent messages
- Tornado Warnings part of system
- Select Severe Thunderstorm Warnings could also be disseminated by this method in coming years

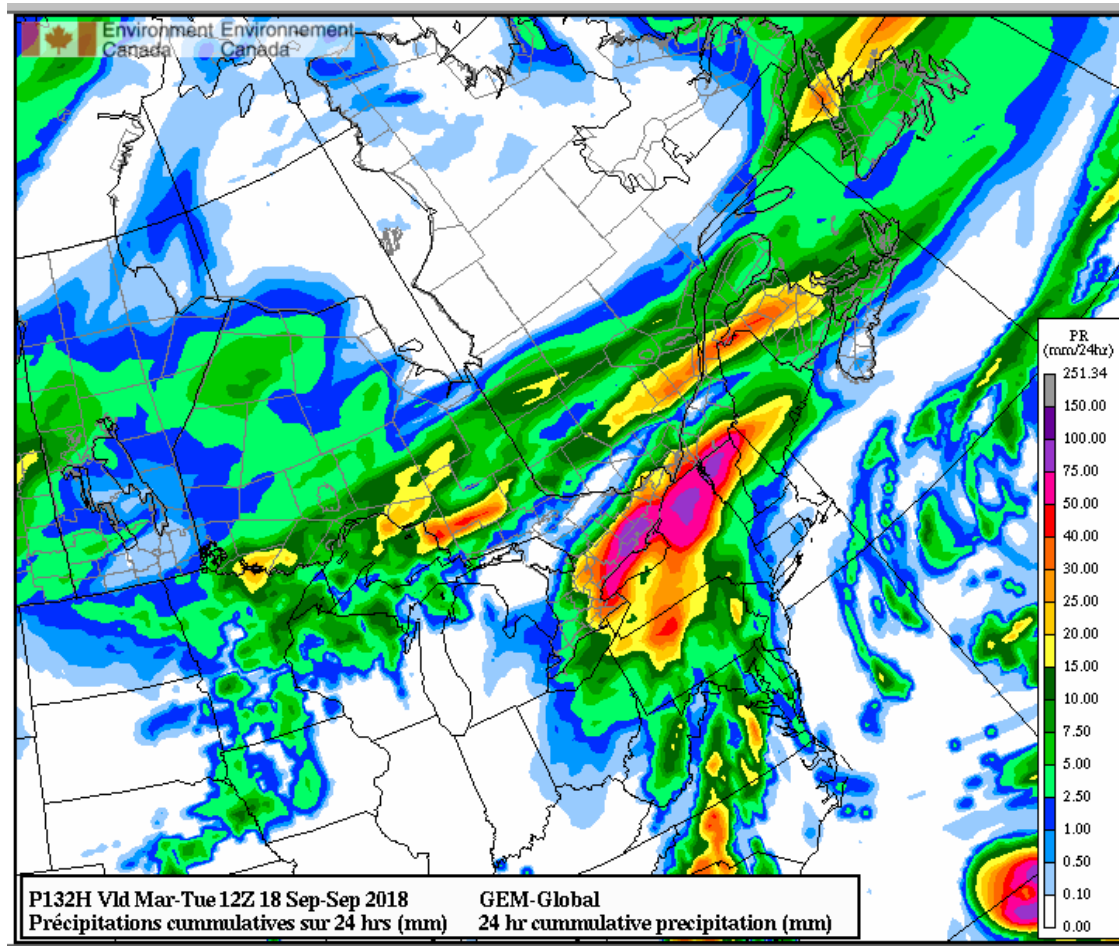


Twitter



- Twitter handle ECCCWeatherON
 - Ontario Storm Prediction Centre staff and Warning Preparedness Meteorologists will tweet
 - Currently in beta-test to determine tweet content, frequency and workload implications
 - Pre-watch/warning information → additional info about existing statements etc..
 - On quieter weather days...tweeting interesting weather facts etc...to maintain followers...
 - Tweets potentially going live this Winter
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Useful for Situations like Florence



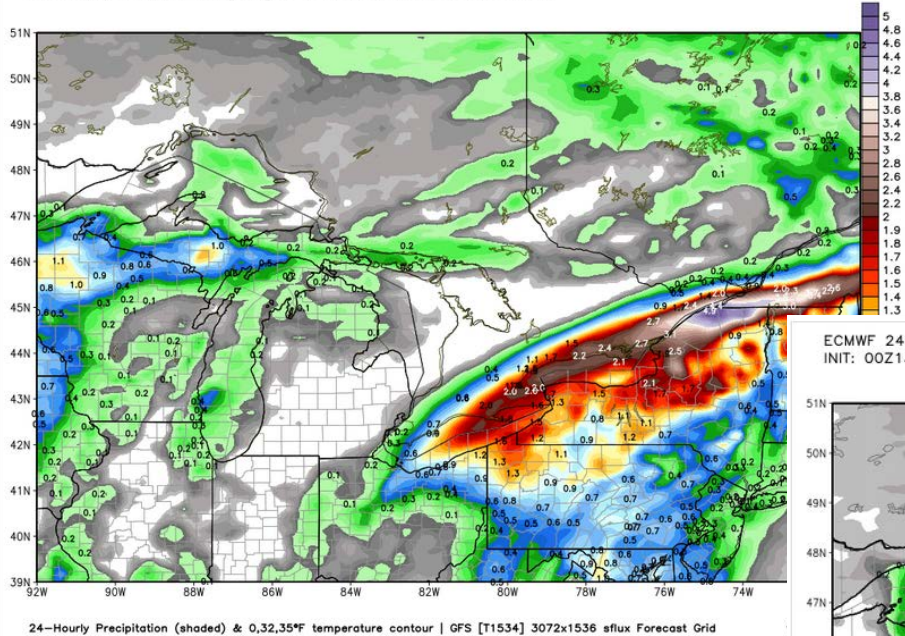
Last Thursday
forecast...

GEMGlobal

- Over 75 mm or rain
north of Prince
Edward County

Florence

NCEP GFS 24-hourly Precipitation [inches] between 12Z17SEP2018 -- 12Z18SEP2018
Init: 06Z13SEP2018 -- [126] hr --> Valid Tue 12Z18SEP2018

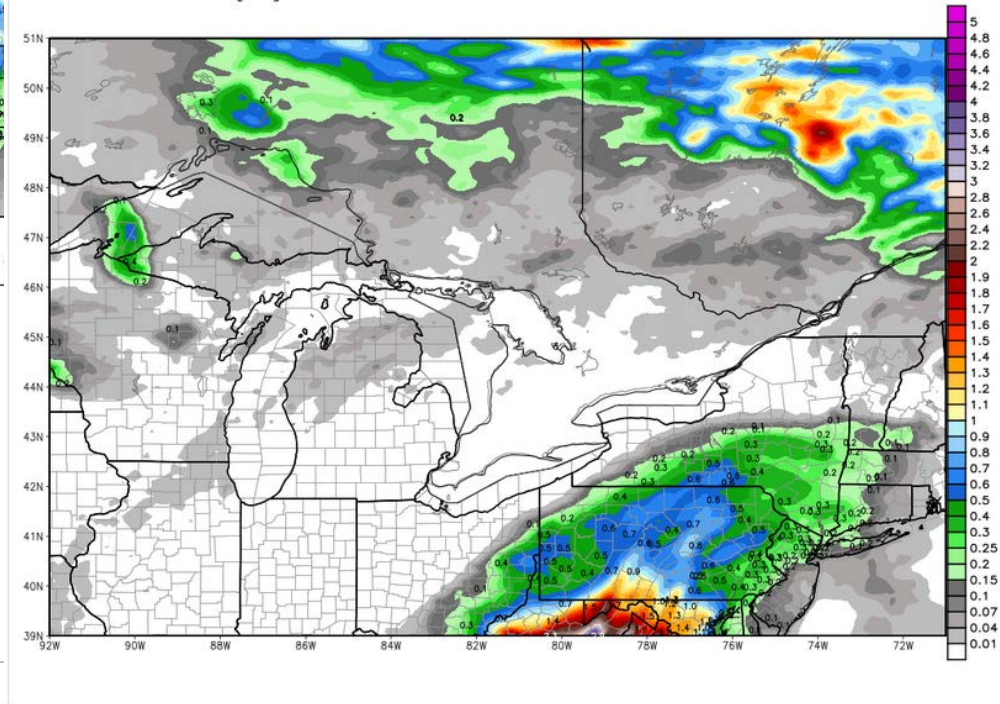


GFS

- 3.8 inches or 90 mm around Brockville

ECMWF
• No rain

ECMWF 24-hourly Precipitation [inch] b/t 12Z17SEP2018 -- 12Z18SEP2018
INIT: 00Z13SEP2018 fx: [132] hr --> Tue 12Z18SEP2018



Changing of the Guard



- Gerald Cheng(gerald.cheng@canada.ca) takes over in Toronto
 - Peter Kimbell (peter.kimbell@canada.ca) remains in Ottawa
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Thank you!

