

Summer weather in canada



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Summer Severe Weather Geoff Coulson Warning Preparedness Meteorologist
Environment Canada Sept 11 2009 ICLR Friday Forum 1 Contents - - - -
Ontario Storm Prediction Centre Forecasting Technology Watch/Warning
Program A closer look at August 20th tornado outbreak 2 Ontario Storm
Prediction Centre Toronto 3 Radar data... 4 Weather Technology 5 Satellite
Data... 6 Computer Models... 7 Forecast Area of Responsibility 8 Scale of a
Summer Storm 9 One storm covering part of a county Scale of a Winter
Storm Snow L Heavy Snow Freezing Rain X Rain Showers One storm covering
thousands of square kilometres 10 Severe Weather Lead Times - Summer
Severe Weather (severe thunderstorms, tornadoes etc..) minutes to hours -
Winter Severe Weather (heavy snow, freezing rain, strong winds etc..) —
hours to days 11 Weather Watch vs. Weather Warning - Weather Watch
means there is the potential for severe weather --- Be Alert Weather Warning
means that severe weather will soon occur or is occurring --- Take Action Ron
Gravelle - 12 Severe Thunderstorms — A Breed Apart - 5% of Ontario
thunderstorms are categorized as severe each year... - Severe thunderstorm
has one or more of the following characteristics — Wind gusts of 90 km/h or
more — Hail of 2 cm diameter or larger (size of a nickel or larger) — Flooding
rains — Tornado(s) 13 By the Numbers - On average around 120 summer
severe events in Ontario each season (late April to early October) — — — —
70 due damaging winds 20 heavy rain/flooding 20 hail 11 tornadoes 14 Fujita
Wind Damage Scale - F0 — winds up to 115 km/h — Shingle, siding damage -
F1 — winds 120 to 170 km/h — Numerous shingles, partial roof removal - F2
— winds 180 to 240 km/h — Roof removed from well-built home - F3 — winds
250 to 320 km/h — Roof and some exterior walls removed - F4 — winds 330
to 410 km/h — 2 storey brick house left with only a few walls remaining - F5

— winds 420 to 510 km/h — Brick house destroyed to foundation 15 Tornado Characteristics - Duration - 5 minutes to 120 minutes - Speed of Motion - 30-70 km/h - Path length - Less than 1 km-150 km - Path Width - 10's of metres - 2 km - Direction of travel - Usually southwest to northeast - IMPORTANT — Appearance of Tornado NOT an indication of its strength Ontario Tornadoes - Vast majority are either F0 or F1 - 1 F2 every year or so - 1 F3 every 8 years or so — Last confirmed Ontario F3 Violet Hill, April 20, 1996 — OVERDUE! - 1 F4 every 15 years or so — Last confirmed Ontario F4 Barrie and Grand Valley tornadoes, May 31, 1985 — OVERDUE! - No confirmed F5's in Ontario — OVERDUE? 17 Tornado Warnings - Strong evidence on radar — Rotation at multiple levels in storm...however... — “ hook" echo - Credible Eyewitness/Video Report — CANWARN trained spotter — Police/Fire/Municipal Official — Multiple public reports/videos...right place at right time 18 CANWARN Storm Spotters 19 Project OPPortunity 20 CANWARN/OPP reports important... - Ground-truth info from radars, lightning detector and satellites - Help protect members of the affected community and communities where storm may be headed - Information could be used to issue/update Watches and Warnings 21 August 20th 2009 Tornado Outbreak Jeff Scheper 22 23 24 25 26 Staying on Top of the Weather Media Internet Weatheradio Cell Phone/PDA 27 Time to React - May be a few minutes or less - Not all storms will have a watch/warning - Not all storms will be easily visible — Haze — Rain — Surrounding hills or trees - Preparation before event is key — Check weather before going out...keep an eye on the sky — Where is my best shelter? — React... 28 Ways Forward - How do you alert people for the most significant of events? — National Alert System? - Red banner on TV - Interrupt radio broadcasts (syndicated programming?) — Cell <https://assignbuster.com/summer-weather-in-canada/>

phone alerting? - Liability for cell phone companies if system unable to handle all the alerts that need to go out? — Reverse 911? — Sirens? - Education — If caught outside do.... 29