ENERGY AND AERIAL INSPECTION

Montréal: when to plan a six-hour power-line inspection?



19–25 November 2026

Generated illustration. Fictional operation and line location; this is not a record of an actual flight.

Helicopter inspection · 765 kV line

Montréal local time, EST, UTC−5

THE MAIN FINDING

Consider Saturday 21 November first.

This is a starting point for further planning, based on weather at one point, not permission to fly.

Saturday 21 Nov

07:45–13:45

4.4–11.2°C | gusts up to 20.9 km/h

0.0 mm precipitation · 6 daylight hours

Preferred option: no precipitation, temperatures above freezing and an earlier date.

Wednesday 25 Nov

10:00–16:00

–2.4 to –0.8°C | gusts up to 12.6 km/h

0.0 mm precipitation · 6 daylight hours

The lightest wind among the windows compared, but freezing temperatures and a longer forecast lead time.

The trade-off	Saturday combines above-freezing temperatures with an earlier date. If wind alone is the priority, Wednesday is preferable.

SEVEN DAYS AT A GLANCE

Each window covers six continuous hours.

We compare windows starting every 15 minutes between sunrise and sunset. Transit flights and repairs are not included.

Day	Local-time window	Gust at 10 m	Wind at 80 m	Visibility*	Temperature
19 Nov	No full 6-hour window	—	—	—	—
20 Nov	10:15–16:15	27.7	20.7	22.5 km	7.8–10.4°C
21 Nov	07:45–13:45	20.9	16.6	20.1 km	4.4–11.2°C
22 Nov	09:00–15:00	22.0	20.0	17.5 km	6.4–12.0°C
23 Nov	07:15–13:15	33.5	30.0	19.4 km	6.4–7.9°C
24 Nov	07:15–13:15	31.3	33.9	27.8 km	-2.1 to -0.8°C
25 Nov	10:00–16:00	12.6	14.2	27.0 km	-2.4 to -0.8°C

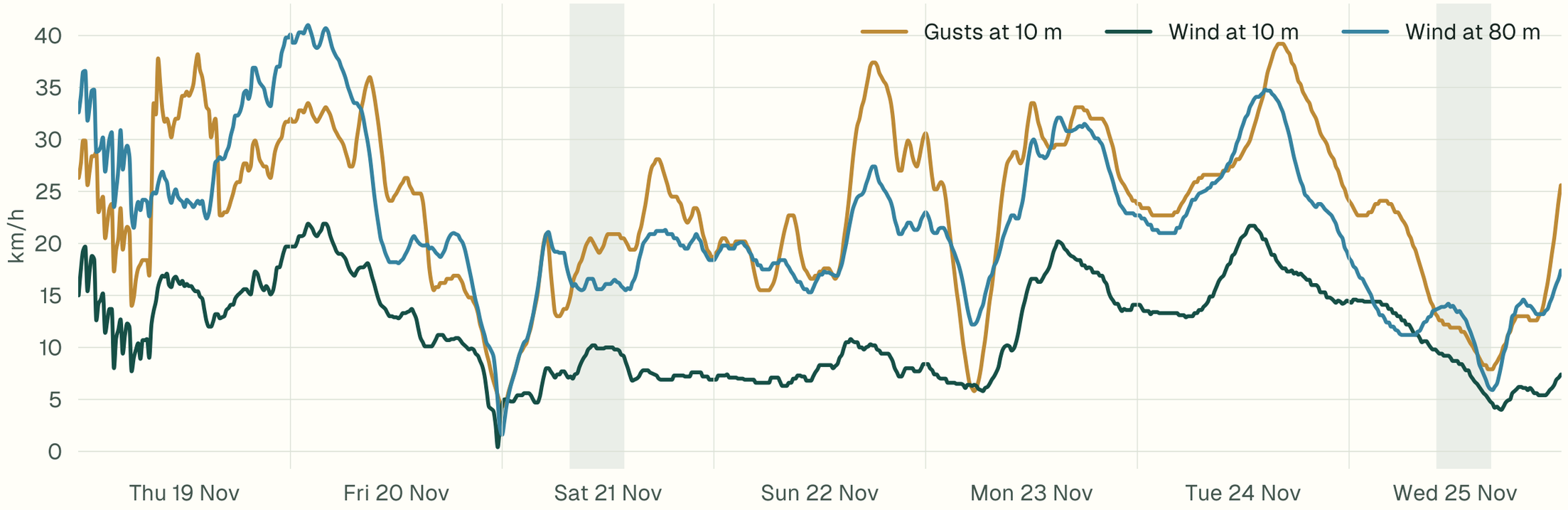
Wind and gusts: km/h. Precipitation 0.0 mm, fresh snow 0.0 cm. *Synthetic visibility, for illustration only; see page 6.

On 19 Nov, less than six hours remain from the request time (10:48) to sunset at 16:20. The past morning is not proposed.

WIND THROUGHOUT THE WEEK

The lightest wind is on Wednesday 25 November.

Green shading marks Saturday 07:45–13:45 and Wednesday 10:00–16:00. Data every 15 minutes, local time.



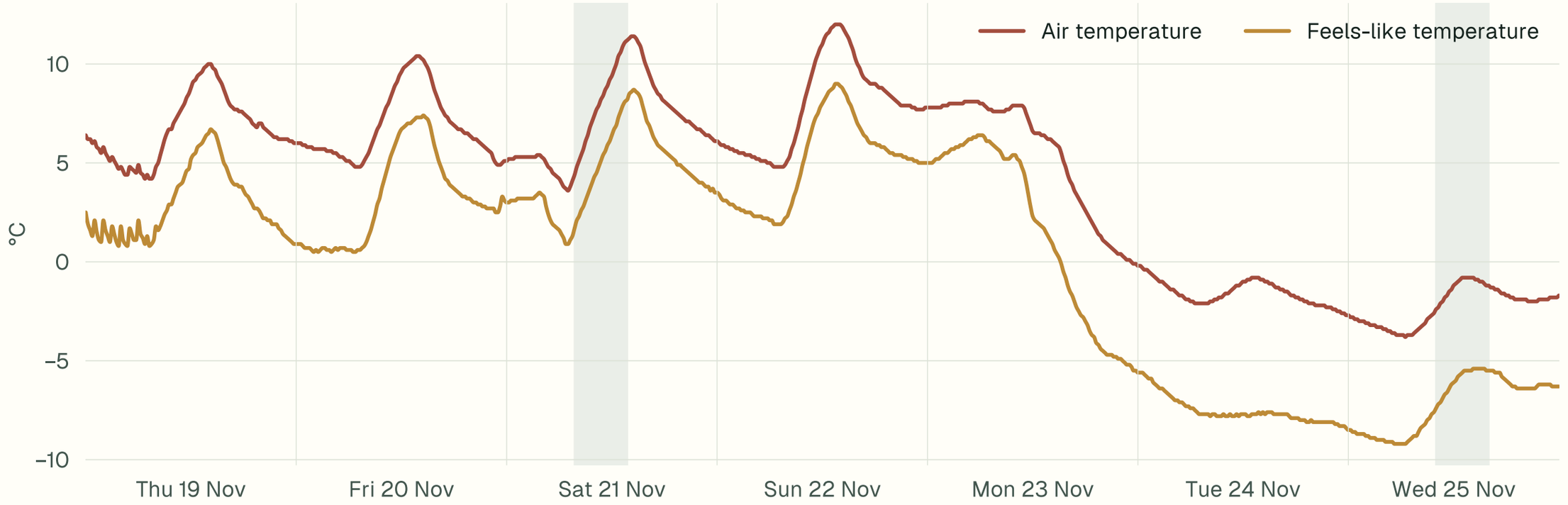
Two heights

Wind speed at 80 m is not a gust or a measurement at the actual flight altitude. It does not replace route-specific turbulence analysis.

TEMPERATURE AND PRECIPITATION

Freezing temperatures arrive later, despite dry weather.

For each full local day, 19–25 Nov, the data show 0.0 mm of precipitation and 0.0 cm of fresh snow.



Icing is not assessed

Sub-zero temperature alone does not establish icing, and dry weather does not rule it out. Helicopter and insulator icing have not been assessed.

VISIBILITY · SYNTHETIC DATA

The visibility series is for illustration only.

The entire series on this page was created for this example. It is neither a forecast nor a measurement.



Synthetic data every 15 minutes, Montréal local time. The curve passes through every value without introducing new extremes.

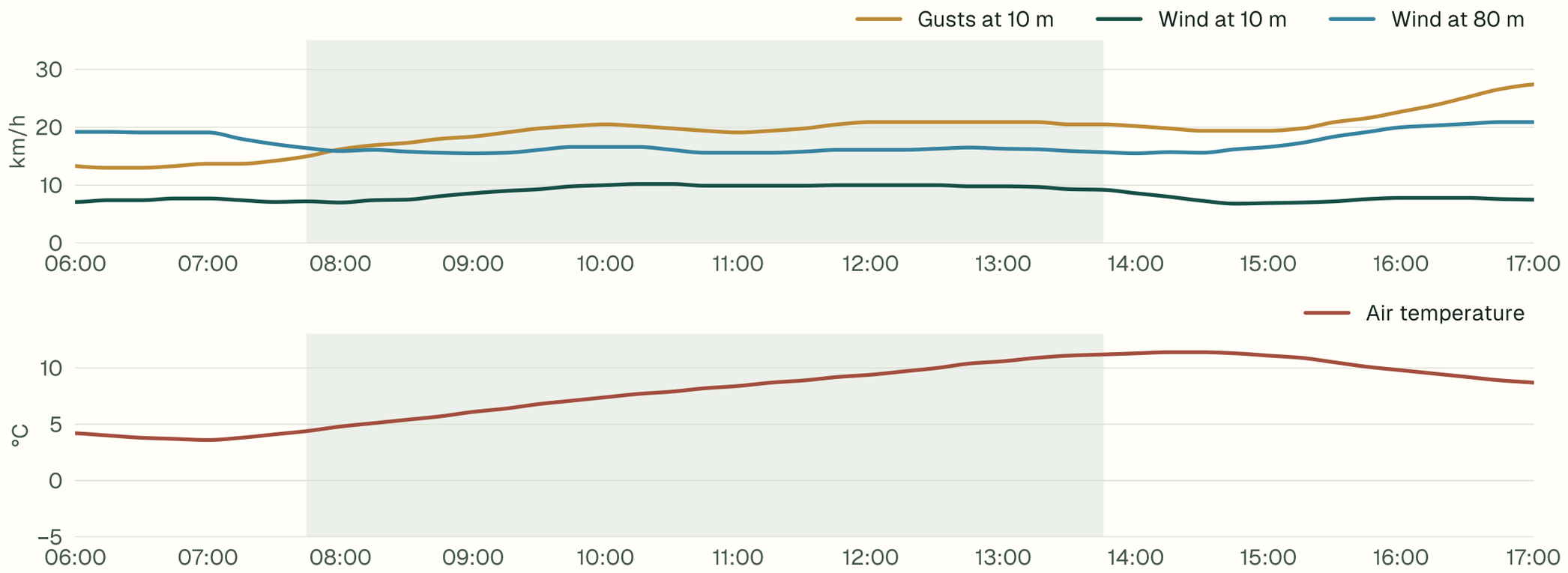
Not for flight decisions

Synthetic visibility was not used to select the windows. Before flight, actual visibility, cloud base and conditions along the entire route must be checked.

PREFERRED OPTION · SATURDAY 21 NOV

Six dry hours with temperatures above freezing.

Shading marks 07:45–13:45. Sunrise is at 07:01 and sunset at 16:18.

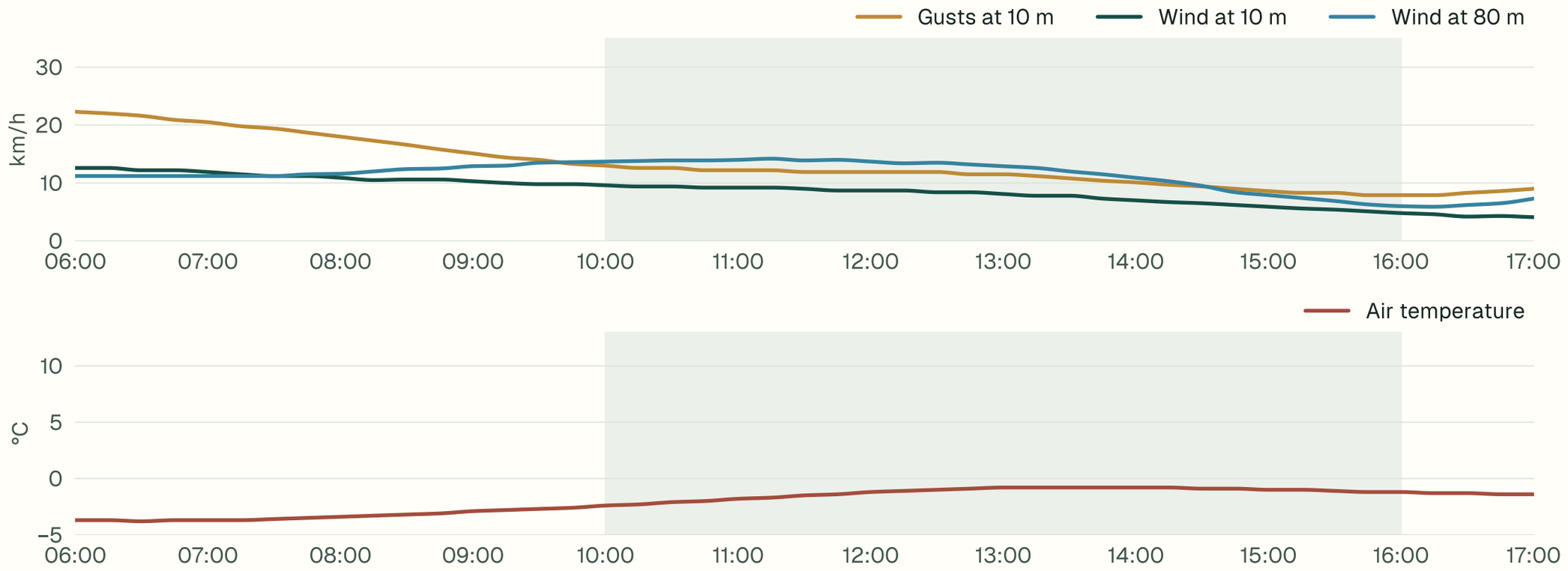


Window conditions	Gusts up to 20.9 km/h; wind up to 10.2 km/h at 10 m and 16.6 km/h at 80 m. Temperature 4.4–11.2°C; synthetic visibility at least 20.1 km (illustrative).

ALTERNATIVE · WEDNESDAY 25 NOV

Wind is lighter, but temperatures stay below freezing.

Shading marks 10:00–16:00. Sunset at 16:15 leaves only 15 minutes after the inspection ends.



Allow for transit flights

Gusts up to 12.6 km/h; temperature −2.4 to −0.8°C. The window excludes outbound and return flights. The schedule needs a separate check.

INSPECTION IS NOT REPAIR

Six hours of inspection is not six hours of tower work.

Any replacement of insulators is a separate operation requiring its own conditions and procedures.



Helicopter in Gaspé, Québec. Photo: Anthony Desrochers / Pexels.
Illustrative photo, not the client's aircraft or operation.

Aerial inspection

We compare weather for six continuous hours of inspection. The helicopter type, flight altitude and route are unknown.

Work on insulators

We assume neither live-line work nor an outage. We do not specify approach distances or select a work method.

The operators make the decision

The aviation operator and grid operator must separately confirm conditions, procedures, authorisations and the actual work arrangements.

SCOPE AND COMPARISON METHOD

A starting point for planning, not an aviation weather briefing.

Data point: 45.49902°N, 73.59793°W. The actual route and locations of the line sections have not been specified.

How the windows were chosen

Full six-hour daylight windows starting every 15 minutes were compared. On 19 Nov, starts before the request time were excluded. Within each day, the ranking prioritises less precipitation and snow, lower peak gusts at 10 m, then lower peak wind at 80 m. Ties favour the earlier start. Saturday also stands out for above-freezing temperatures and an earlier date. Visibility in the table and chart is synthetic, for illustration only. It was not used to select windows or assess flight conditions.

What the report does not replace

Before the operation, current aviation information for the route, an on-site weather assessment and the minima for the operator and specific helicopter are needed. The freezing-level altitude is not treated as an icing forecast. Insulator condition and ice cover have not been assessed.

Why the distinction matters

Transport Canada describes the difficulty of seeing wires. NAV CANADA distinguishes visibility, clouds, icing and turbulence. CNESST requires a separate assessment of electrical risks.

References: Transport Canada, Flying near power lines · NAV CANADA, Aviation Weather Services Guide · CNESST, Électricité.

LEGAL NOTICE AND SCOPE OF RESPONSIBILITY

The report supports planning, not permission to fly or work.

This demonstrates weather analysis. It is not an operational document for an actual inspection.

This report presents example weather analysis for a fictional power-line inspection. The data are labelled as examples. The entire visibility series is synthetic and describes neither actual nor forecast weather. The report does not guarantee particular weather, a successful operation or freedom from loss.

It is not an aviation briefing, safety certificate, official warning or permission to fly or work on the line. It does not confirm compliance with operator minima, helicopter airworthiness, grid condition or the safety of insulator replacement. A hazard not assessed may still be present.

Authorised persons decide whether to carry out, change or stop the flight and work after checking current information, conditions on site, applicable rules and the procedures of the aviation operator and grid operator. Synoptar remains responsible for the proper performance of its own service.

The analysis covers one point, not the entire route. Changes in location, timings, equipment, forecast or conditions may require a new assessment. The report is not updated automatically and does not issue alerts unless monitoring has been agreed separately.

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