METEO FRANCE
Toujours un temps d'avance

METEO-FRANCE TOULOUSE, FRANCE

RSMC for Environmental Emergency Response

FAX : +33 5 61 07 80 44

Telephone : +33 5 61 07 80 42

Time : 1250 UTC Date : 18 Jul 2017

<< TEST_EVENT TEST_EVENT TEST_EVENT >>

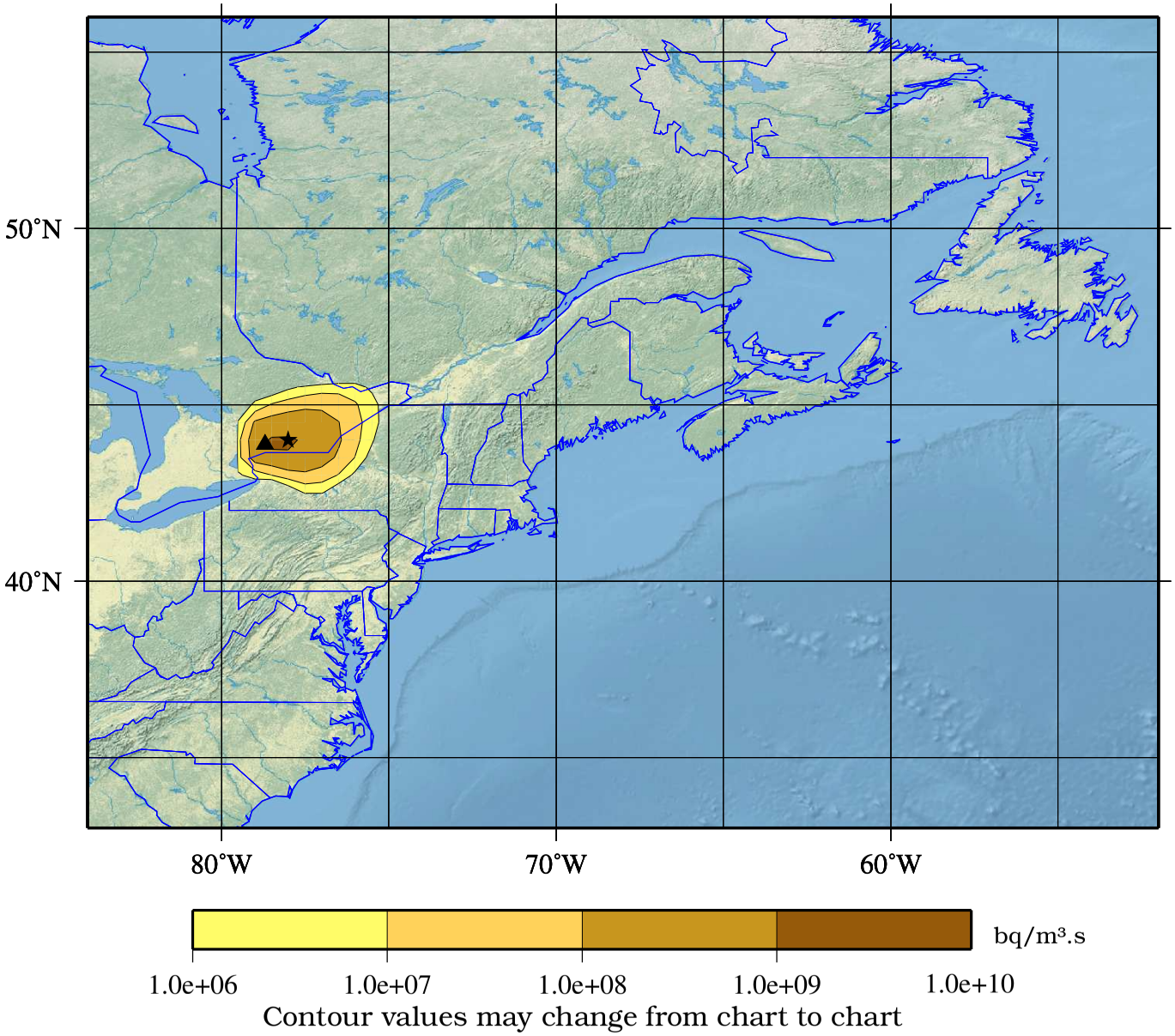
Release Time date : 09 UTC 18 Jul 2017
Release Location in decimal degrees : 43.88N 78.7W
Location name (if known) : DarlingtonNPP
Emission duration : 07h00
Emission (per hour) : 5000004000.0000 bq
Substance released : Cs-137
Vertical distribution : Uniform 0 - 500 m (AGL)
Meteorological Model : ECMWF
Dispersion Model : Mocage

Attached are 7 charts consisting of :
(1) **Trajectories of air particles** starting at 500, 1500 and 3000 metres above the ground. The plan view indicates the horizontal spread, while the side view indicates the vertical motion of the trajectories.
(2-4) Charts for three successive time intervals of the **time-integrated pollution concentration (or exposure)** averaged over the layer between the surface and 500m in units of Becquerel.seconds per cubic metre (Bq.s/m3).
(5-7) A chart of the **total surface deposition** (wet + dry) from the release time to the end of the third time period in units of Bequerel per square metre (Bq/m2)
For charts 2-7, a legend indicates the values associated with particular shadings.

Number of pages (including cover sheet) = 8

DarlingtonNPP Exercise 18/07/2017

Time integrated concentration (bq/m³.s)
for surface to 500m layer over 15 hours
valid 19/07/2017 00h00 UTC



Dispersion model : MOCAGE Accident

Meteo model : ECMWF

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RELEASE DATA

Site : DarlingtonNPP
Emission start : 18/07/2017 09h00 UTC
Release duration : 07h00
Lat : 43.88 N ; 43º52'48" N
Lon : 78.7 W ; 78º42'0" W
Emission rate : 5.0e+16 bq/h
Base : 0m
Top : 500m
Released pollutant : Cs-137

MODEL DATA

Grid resolution : 0.5º
Init for meteo data
18/07/2017 00UTC

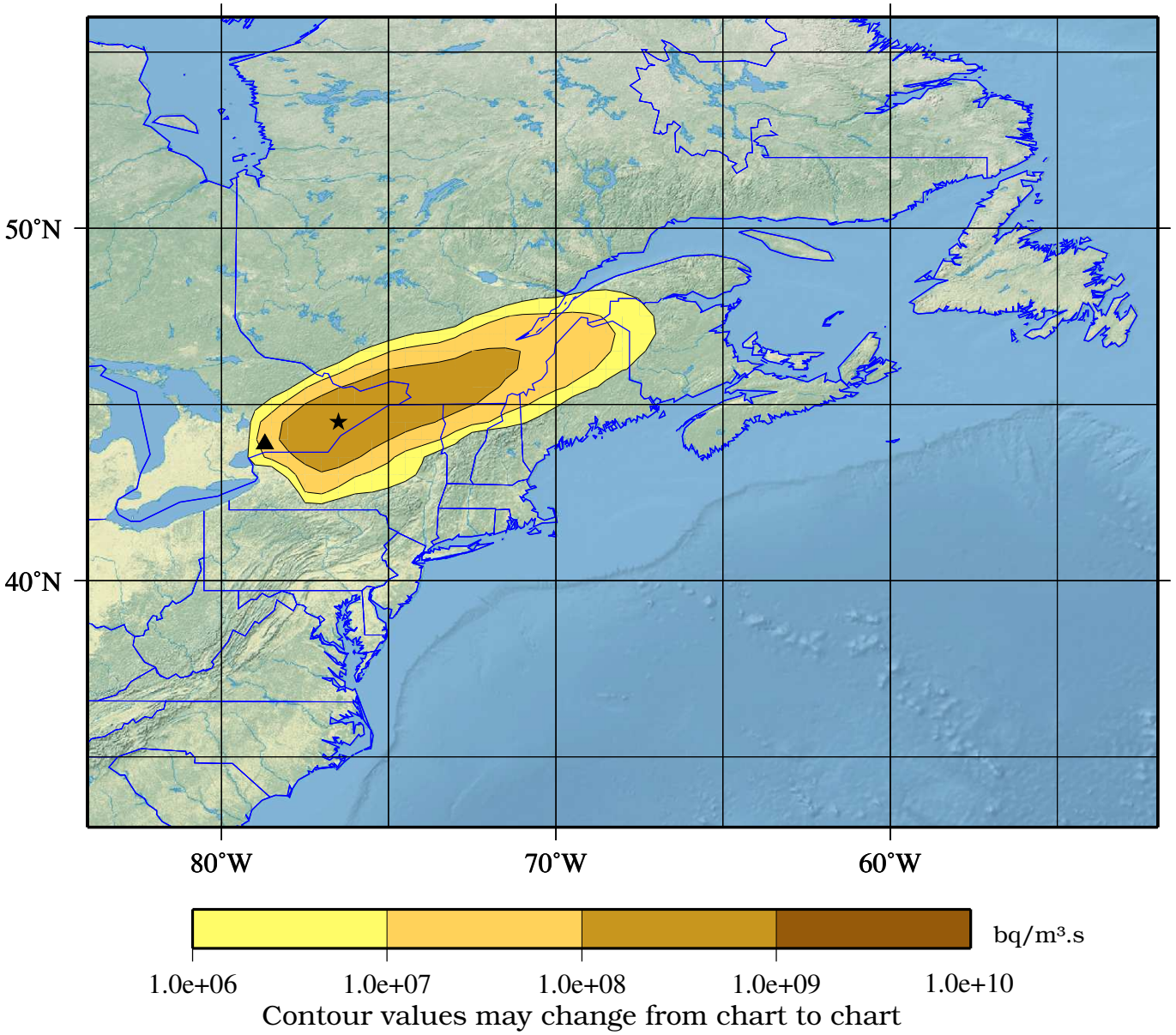
Max value for current step :
1218990000 bq/m³.s

Max position ★
Source position ▲

METEO FRANCE
TOULOUSE RSMC
Issued 18/07/2017 12:42:17 UTC

DarlingtonNPP Exercise 18/07/2017

Time integrated concentration (bq/m³.s)
for surface to 500m layer over 24 hours
valid 20/07/2017 00h00 UTC



Dispersion model :
MOCAGE Accident
Meteo model : ECMWF

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Emission rate : 5.0e+16 bq/h
Base : 0m
Top : 500m
Released pollutant : Cs-137

MODEL DATA
Grid resolution : 0.5º
Init for meteo data
18/07/2017 00UTC

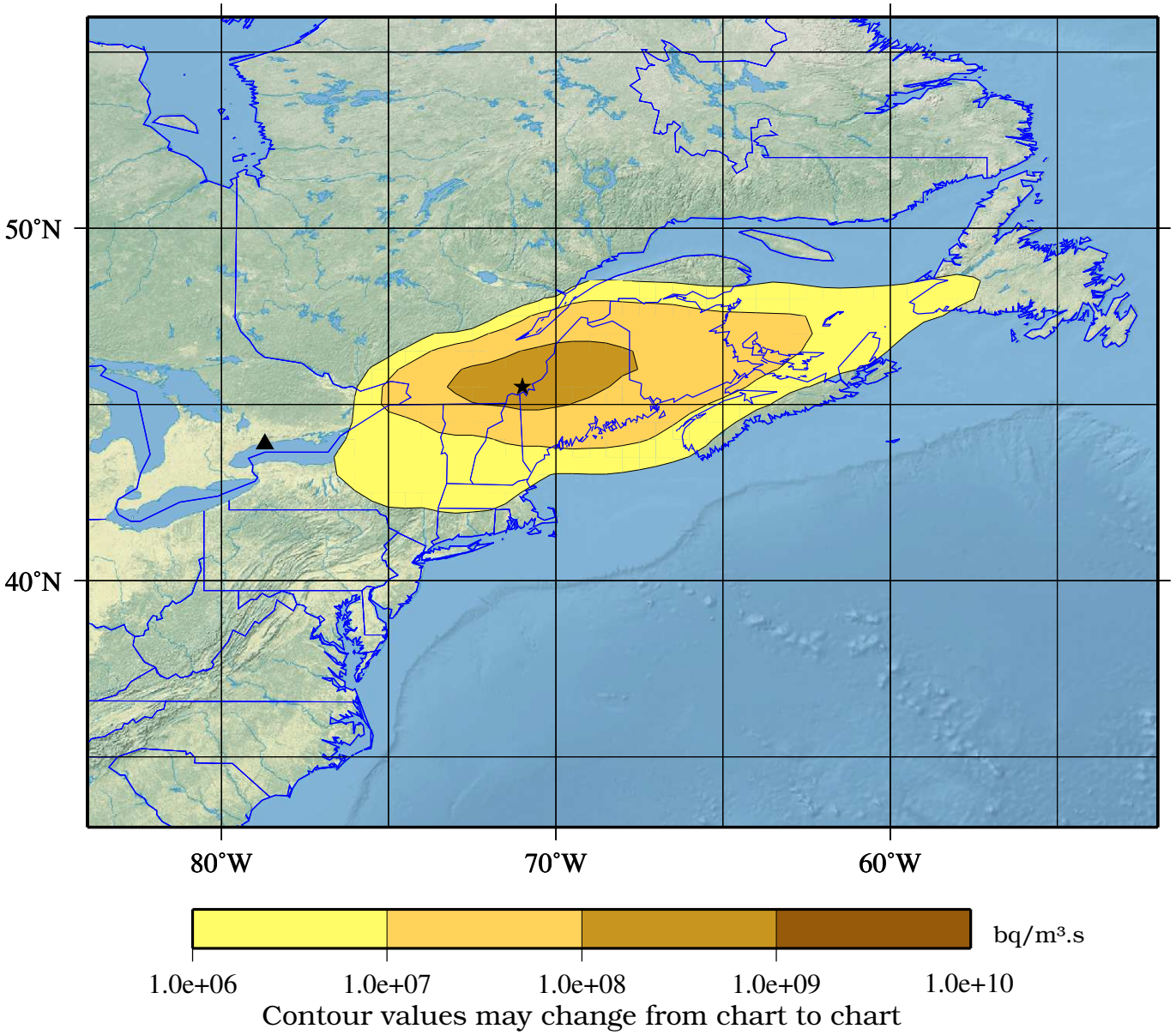
Max value for current step :
809096000 bq/m³.s

Max position ★
Source position ▲

METEO FRANCE
TOULOUSE RSMC
Issued 18/07/2017 12:42:17 UTC

DarlingtonNPP Exercise 18/07/2017

Time integrated concentration (bq/m³.s)
for surface to 500m layer over 24 hours
valid 21/07/2017 00h00 UTC



Dispersion model :
MOCAGE Accident
Meteo model : ECMWF

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Base : 0m
Top : 500m
Released pollutant : Cs-137

MODEL DATA
Grid resolution : 0.5º
Init for meteo data
18/07/2017 00UTC

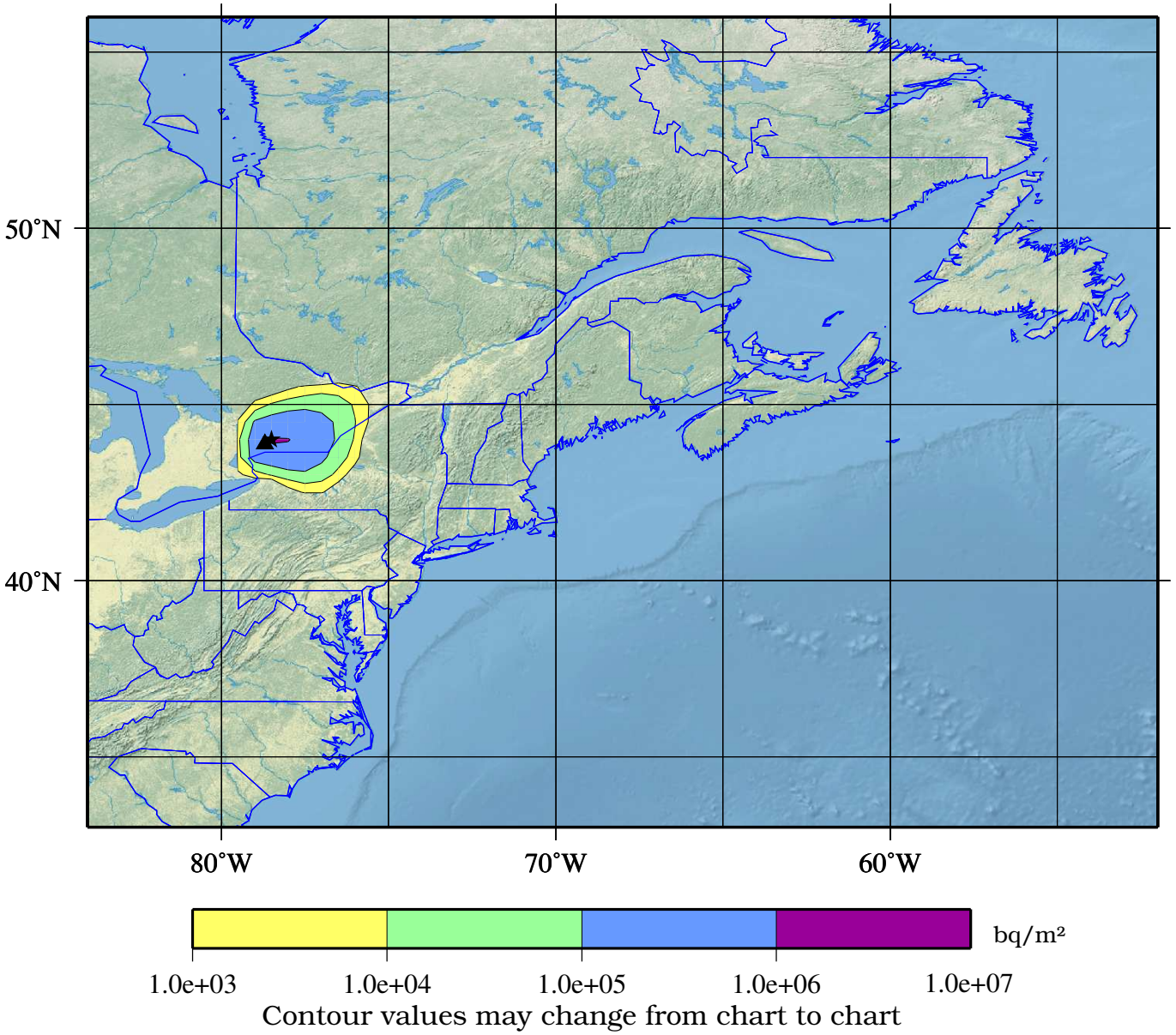
Max value for current step :
168267000 bq/m³.s

Max position ★
Source position ▲

METEO FRANCE
TOULOUSE RSMC
Issued 18/07/2017 12:42:17 UTC

DarlingtonNPP Exercise 18/07/2017

Total deposition (bq/m²)
from release start
valid 19/07/2017 00h00 UTC



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Meteo model : ECMWF

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MODEL DATA
Grid resolution : 0.5º
Init for meteo data
18/07/2017 00UTC

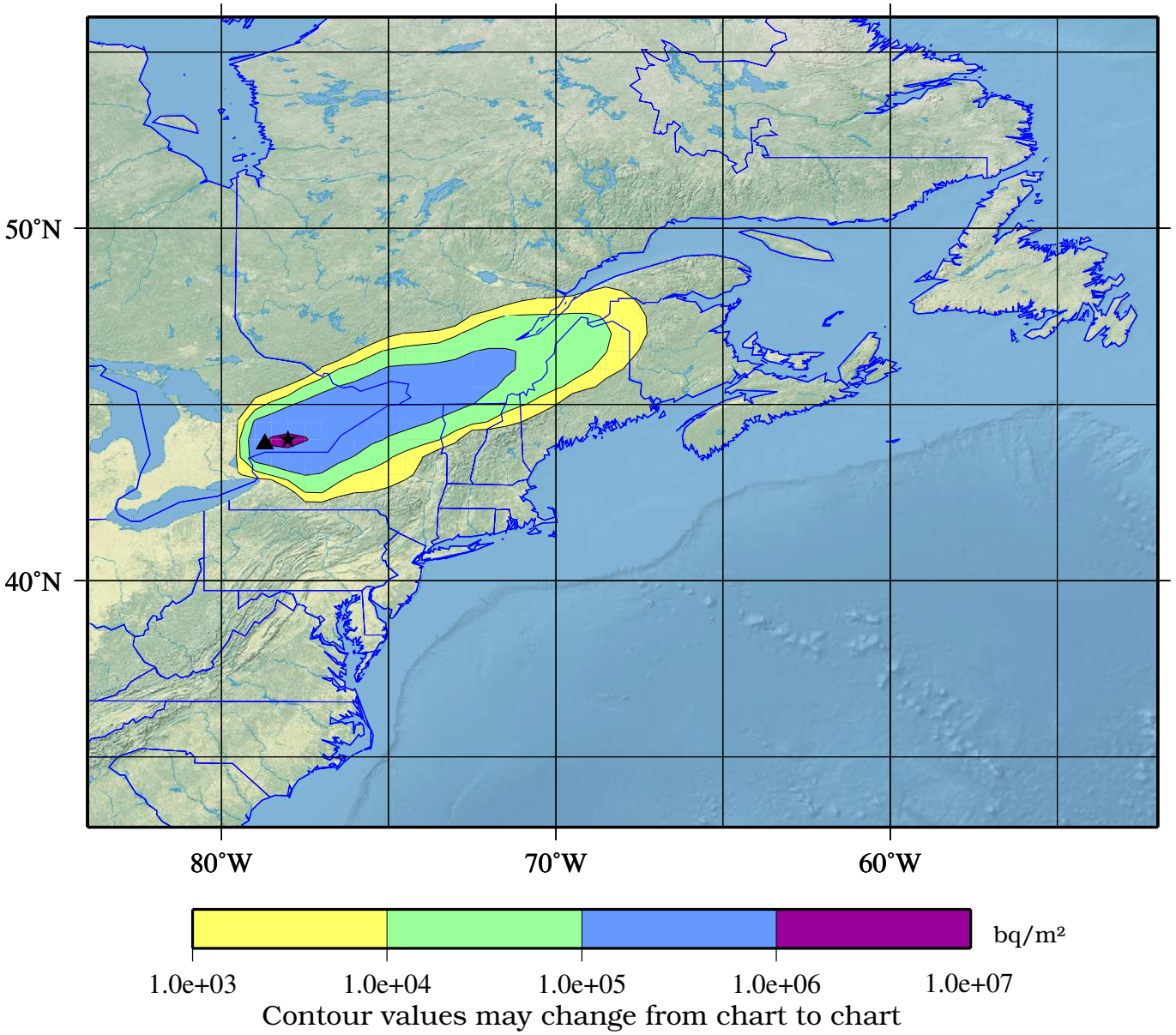
Max value for current step :
1086430 bq/m²

Max position ★
Source position ▲

METEO FRANCE
TOULOUSE RSMC
Issued 18/07/2017 12:42:17 UTC

DarlingtonNPP Exercise 18/07/2017

Total deposition (bq/m²)
from release start
valid 20/07/2017 00h00 UTC



Dispersion model :
MOCAGE Accident
Meteo model : ECMWF

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MODEL DATA
Grid resolution : 0.5º
Init for meteo data
18/07/2017 00UTC

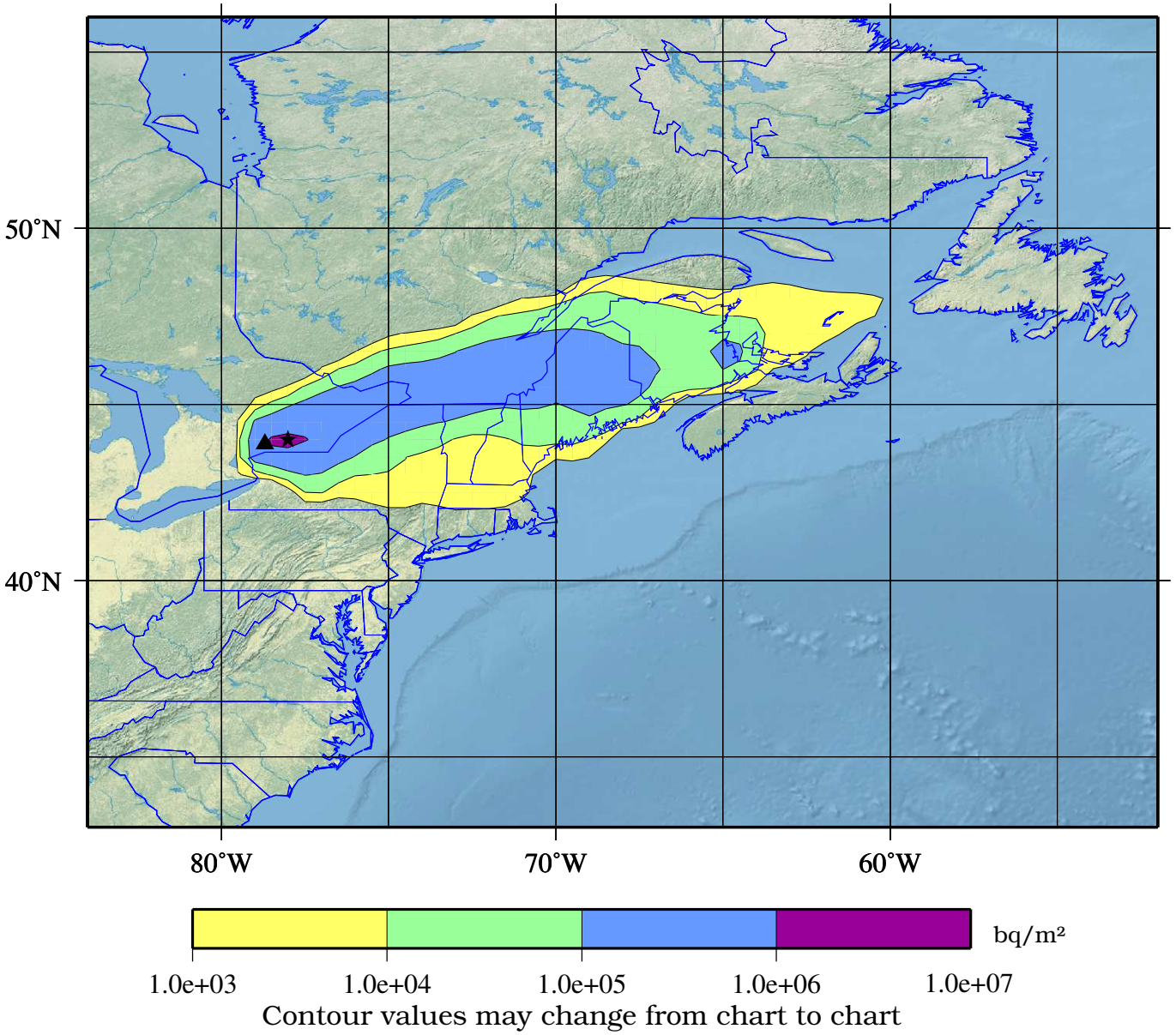
Max value for current step :
1261830 bq/m²

Max position ★
Source position ▲

METEO FRANCE
TOULOUSE RSMC
Issued 18/07/2017 12:42:17 UTC

DarlingtonNPP Exercise 18/07/2017

Total deposition (bq/m²)
from release start
valid 21/07/2017 00h00 UTC



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Meteo model : ECMWF

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Source position ▲

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