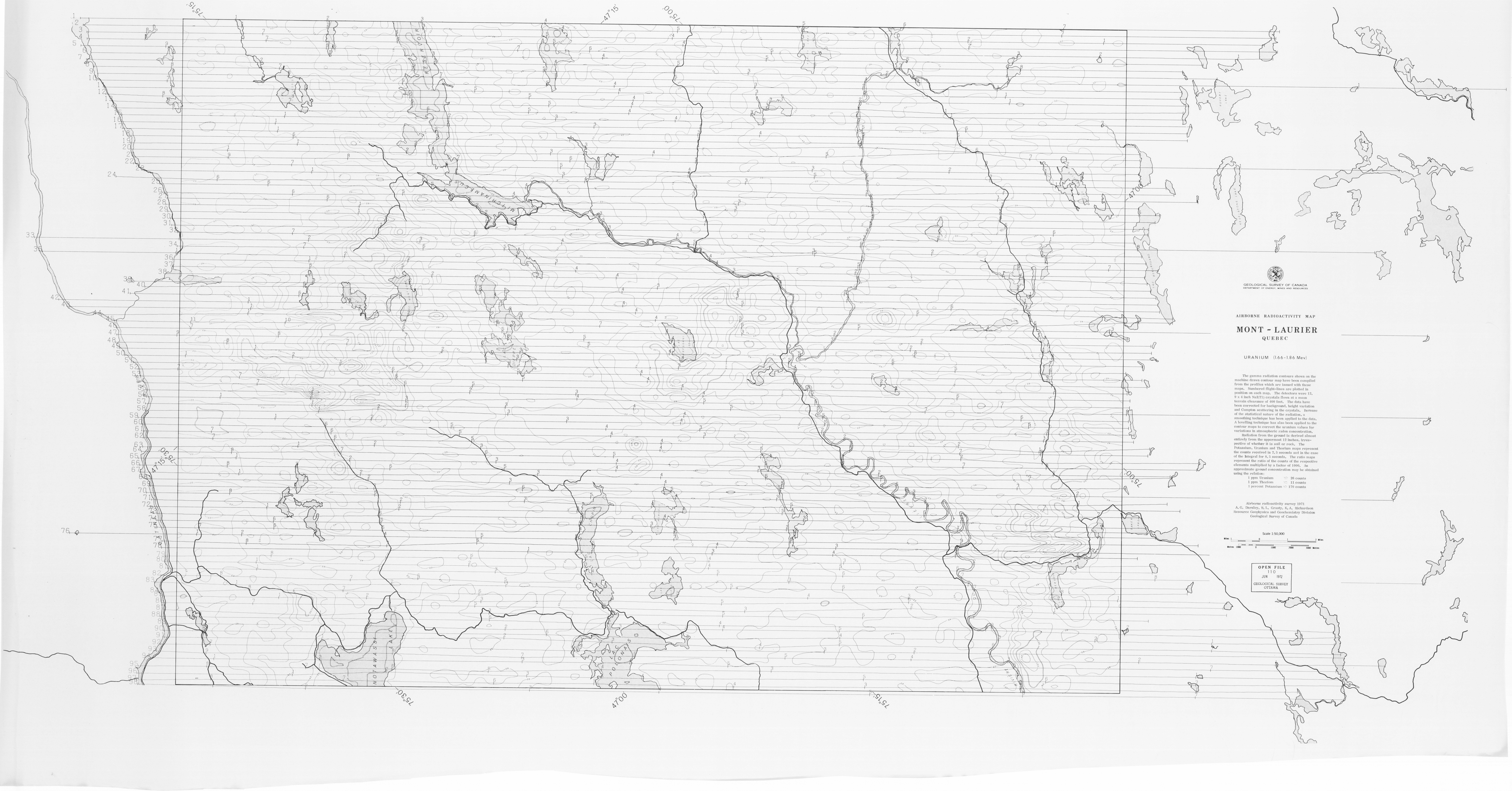
GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES
AIRBORNE RADIOACTIVITY MAP
MONT - LAURIER
QUEBEC
URANIUM (1.66-1.86 Mev)
The gamma radiation contours shown on the machine drawn contour map have been compiled from the profiles which are issued with these maps. Numbered flight-lines are plotted in position on each map. The detectors were 12, 9 x 4 inch NaI(Tl) crystals flown at a mean terrain clearance of 400 feet. The data have been corrected for background, height variation and Compton scattering in the crystals. Because of the statistical nature of the radiation, a smoothing technique has been applied to the data. A levelling technique has also been applied to the contour maps to correct the uranium values for variations in atmospheric radon concentration.
Radiation from the ground is derived almost entirely from the uppermost 12 inches, irrespective of whether it is soil or rock. The Potassium, Uranium and Thorium maps represent the counts received in 2.5 seconds and in the case of the Integral for 0.5 seconds. The ratio maps represent the ratio of the counts of the respective elements multiplied by a factor of 1000. An approximate ground concentration may be obtained using the relation:
1 ppm Uranium ≃ 26 counts
1 ppm Thorium ≃ 11 counts
1 percent Potassium ≃ 170 counts
Airborne radioactivity survey 1971
A.G. Darnley, R.L. Grasty, K.A. Richardson
Resources Geophysics and Geochemistry Division
Geological Survey of Canada
Scale 1:50,000
Miles 1 0 1 2 Miles
Metres 1000 500 0 1000 2000 3000 Metres
OPEN FILE
110
JUN 1972
GEOLOGICAL SURVEY
OTTAWA
NOTAWASSI LAKE
POLONAS
LAC
47°15'
47°00'
75°15'
75°00'
75°30'