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## Radiometric Dating of Pennine-Type Nappes in the Northern Appalachians

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### SUMMARY

Dating of large pennine-type nappes in the central metamorphic belt of the northern Appalachians indicates a very abrupt onset for Acadian deformation terminating a long period of relatively quiet geosynclinal deposition. Little if any of the deformation of the nappes occurred prior to deposition of Lower Devonian rocks which are incorporated in the synclinal folds of the nappes, although heat (the nappes are associated with middle- and high-grade regional metamorphism) may have been building up gradually. An intrusive body (the Prescott Complex) of gabbro, quartz diorite, granodiorite, and quartz monzonite crosscuts the limbs of the nappe. Preliminary Rb-Sr whole-rock data indicate the granitic rocks in this complex were emplaced  $385 \pm 20$  million years ago. These data provide a minimum age for emplacement of the nappe which is very close to the maximum age indicated by the stratigraphic data.