Northwest Sabah Overthrust System

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The NE to NNE structural trends of West Sabah change drastically on approaching the Balabac fault and the West Baram Line. Outcrops show duplex and medium to large recumbent folds in the West-East Crocker and Trusmadi formations with general NW vergence that becomes northerly in northern Sabah. In the Baram area (Brunei and north Sarawak) the regional trend is represented by several strike-slip faults that bend to become N-S near the West Baram Line. In the offshore, a large "Lower Tertiary Thrust Sheet" was mapped next to the NW Sabah Trough. The combined indicators from outcrops and subsurface offshore suggest the existence of a major overthrust sheet measuring 700 km parallel to the shoreline and about 300 km in width. This rectangular Northwest Sabah Overthrust System is boxed in by the NW Sabah Trough, the Balabac fault in the NE, the West Baram Line in the SW, while the Kinabalu Suture closes off its SE corner. The character of its remaining boundary in the south is not known. Overthrusting occurred during the transition from Early to Middle Miocene and produced the Deep Regional Unconformity. In the vicinity of its flanking strike-slip faults, the NW surging overthrust

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sheets were deformed by drag, the latter producing the prominent strike changes. The Northwest Sabah Overthrust System is planimetrically identical to the Pine Mountain Thrust Sheet at the tri-state border area of Kentucky-Tennesses-Virginia in the Appalachian Range of the United States.