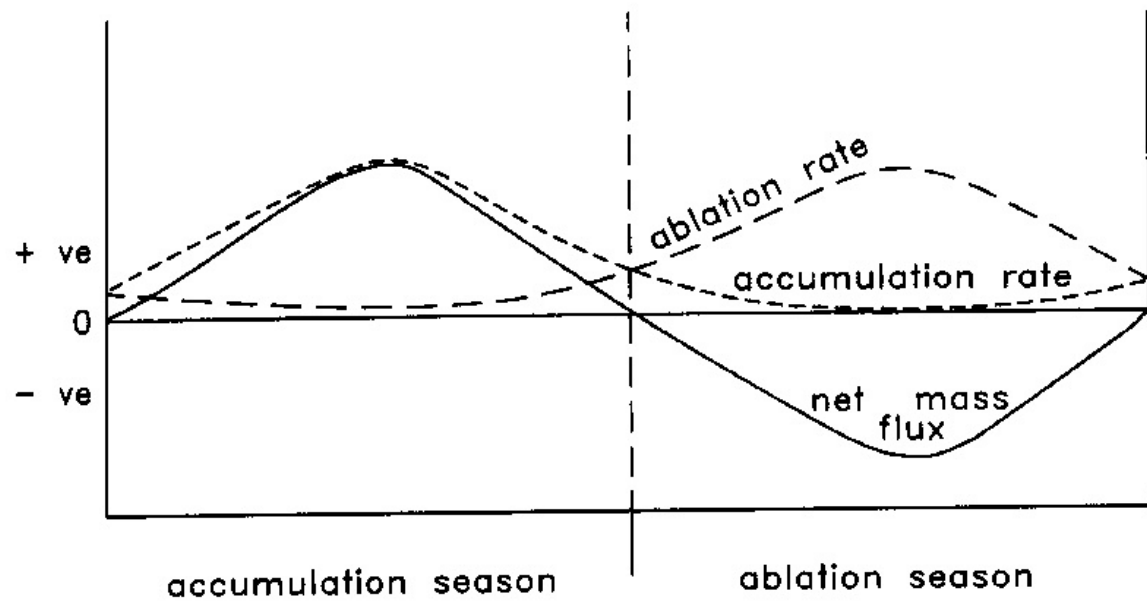
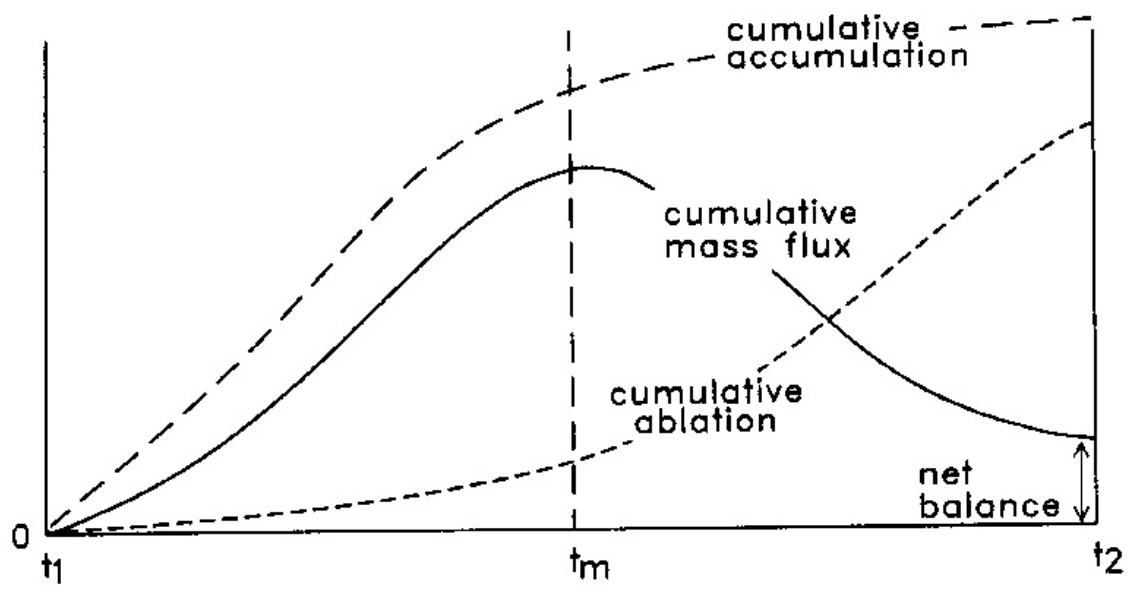
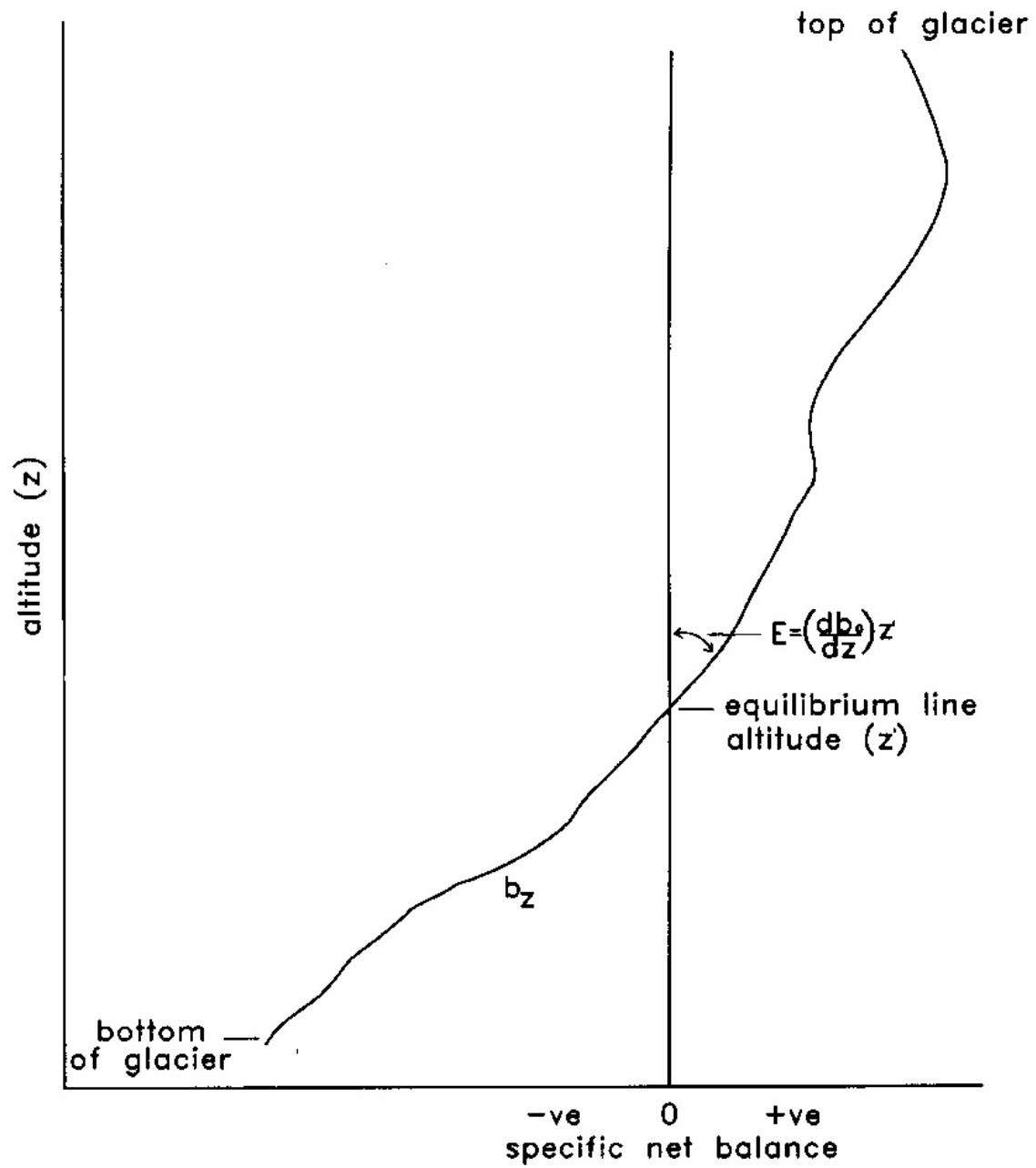


Climate, Uplift and Glaciers in Southern Alaska



← balance year →





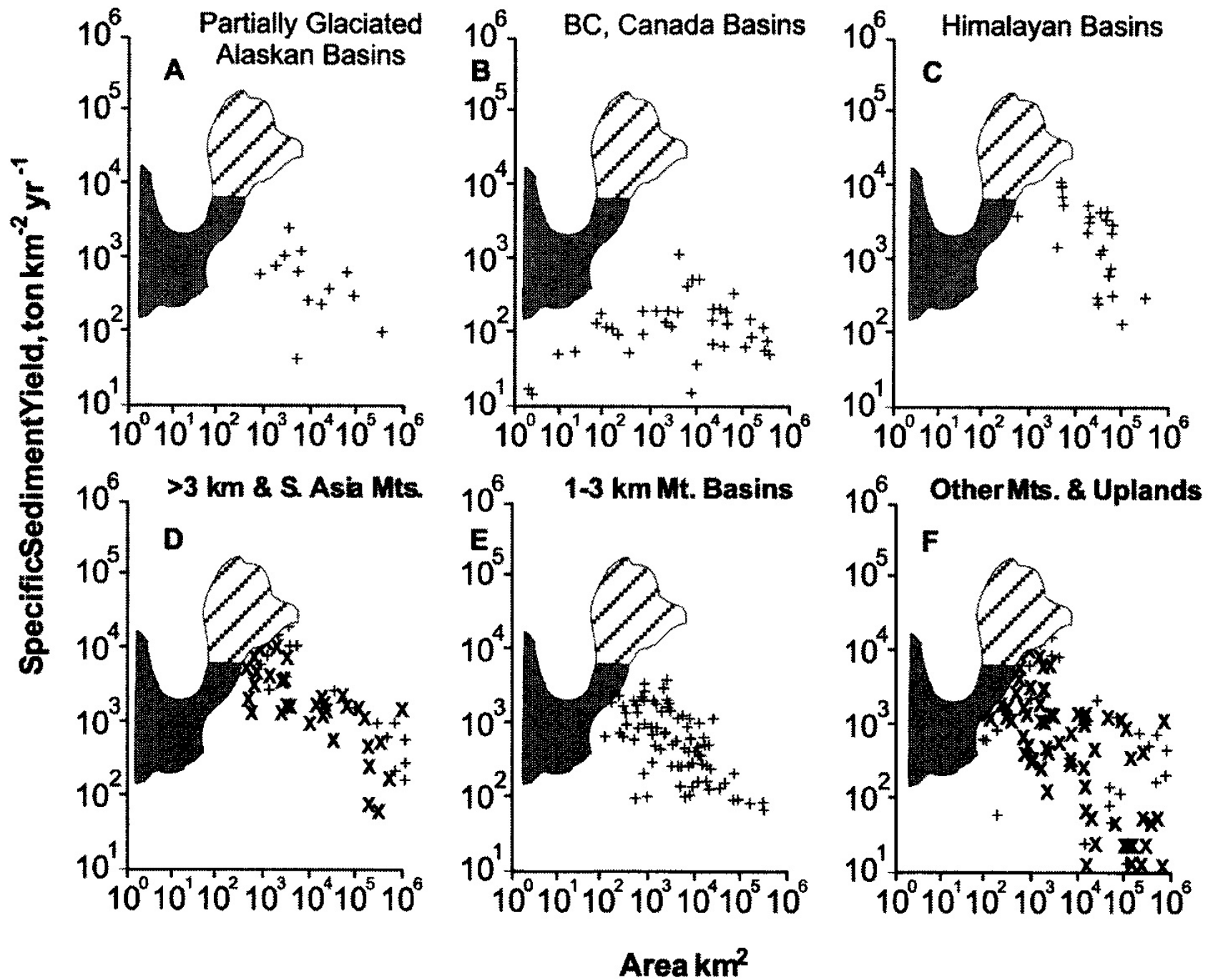
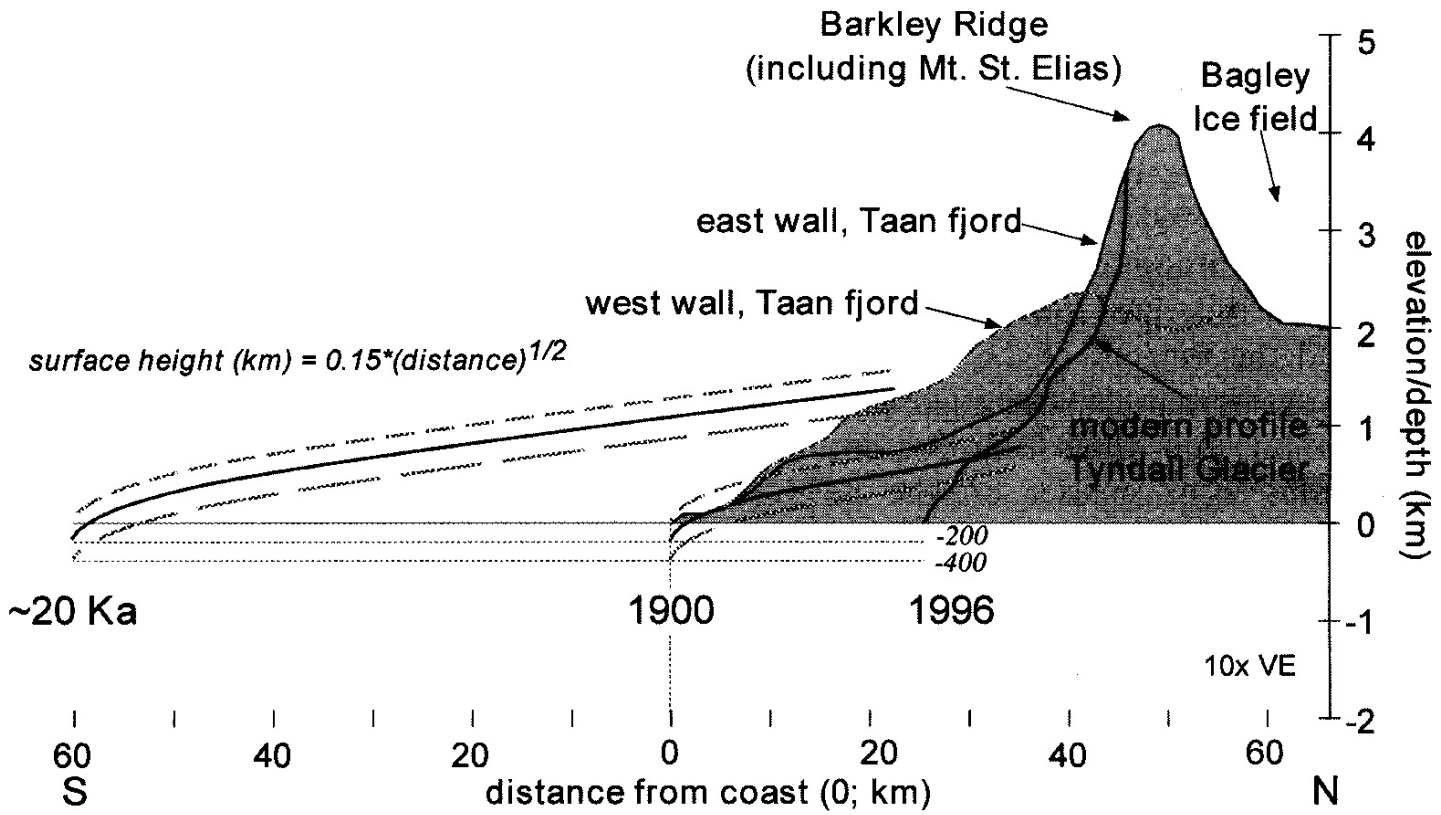
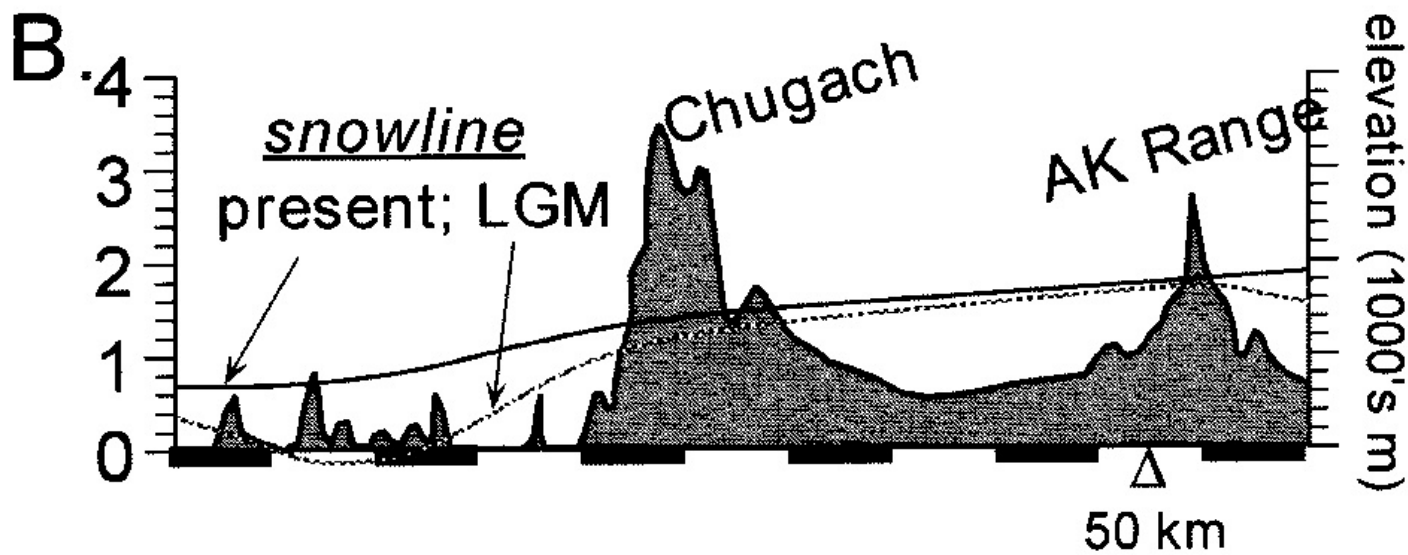
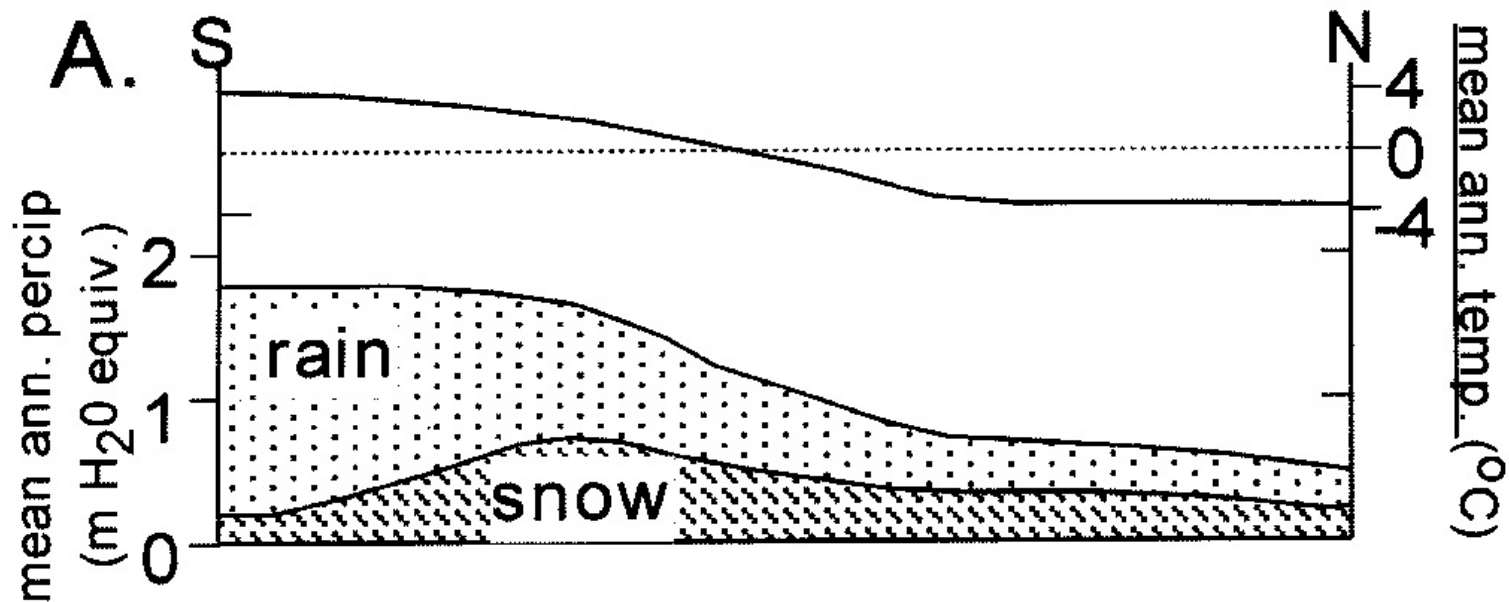
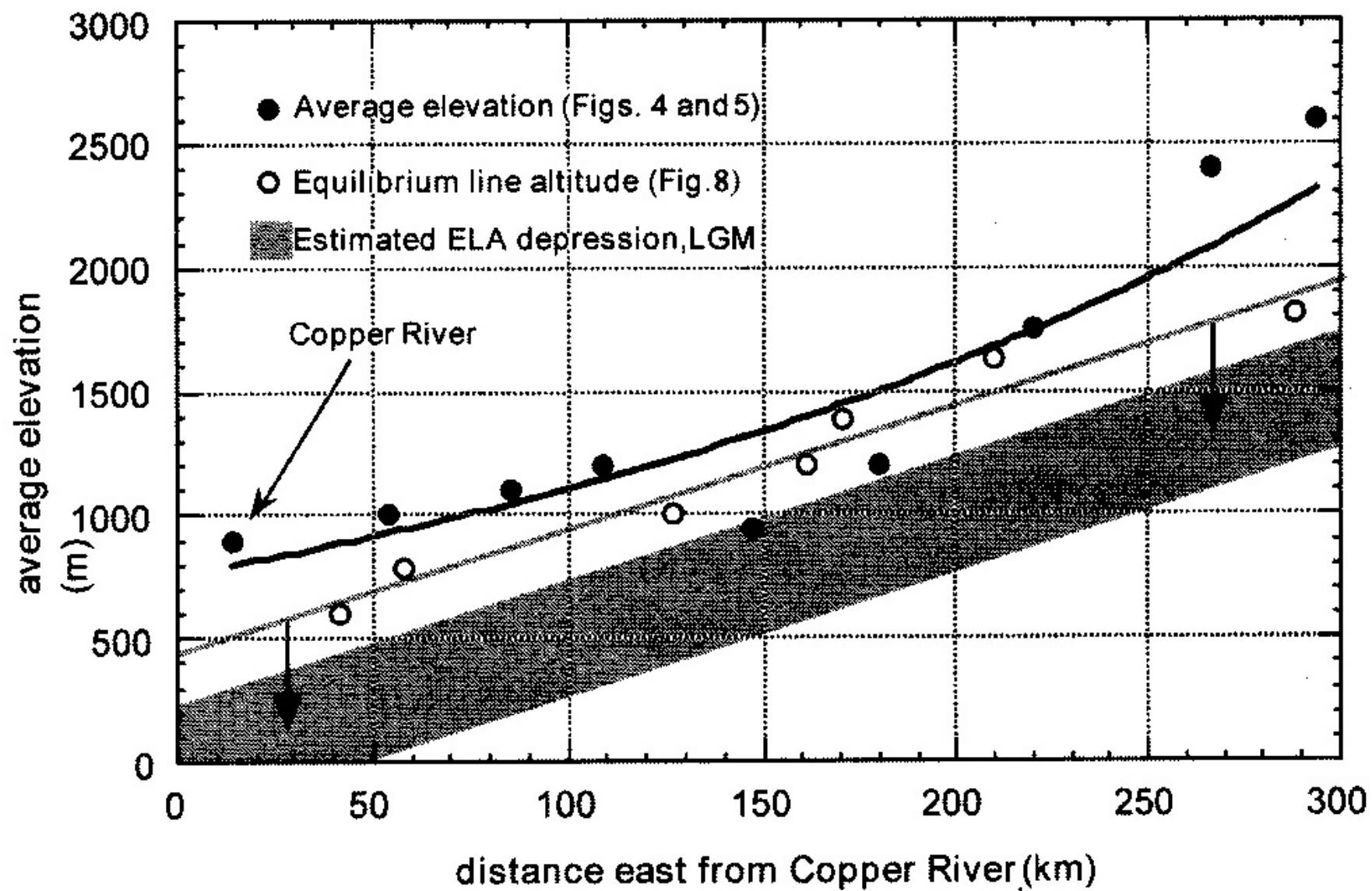


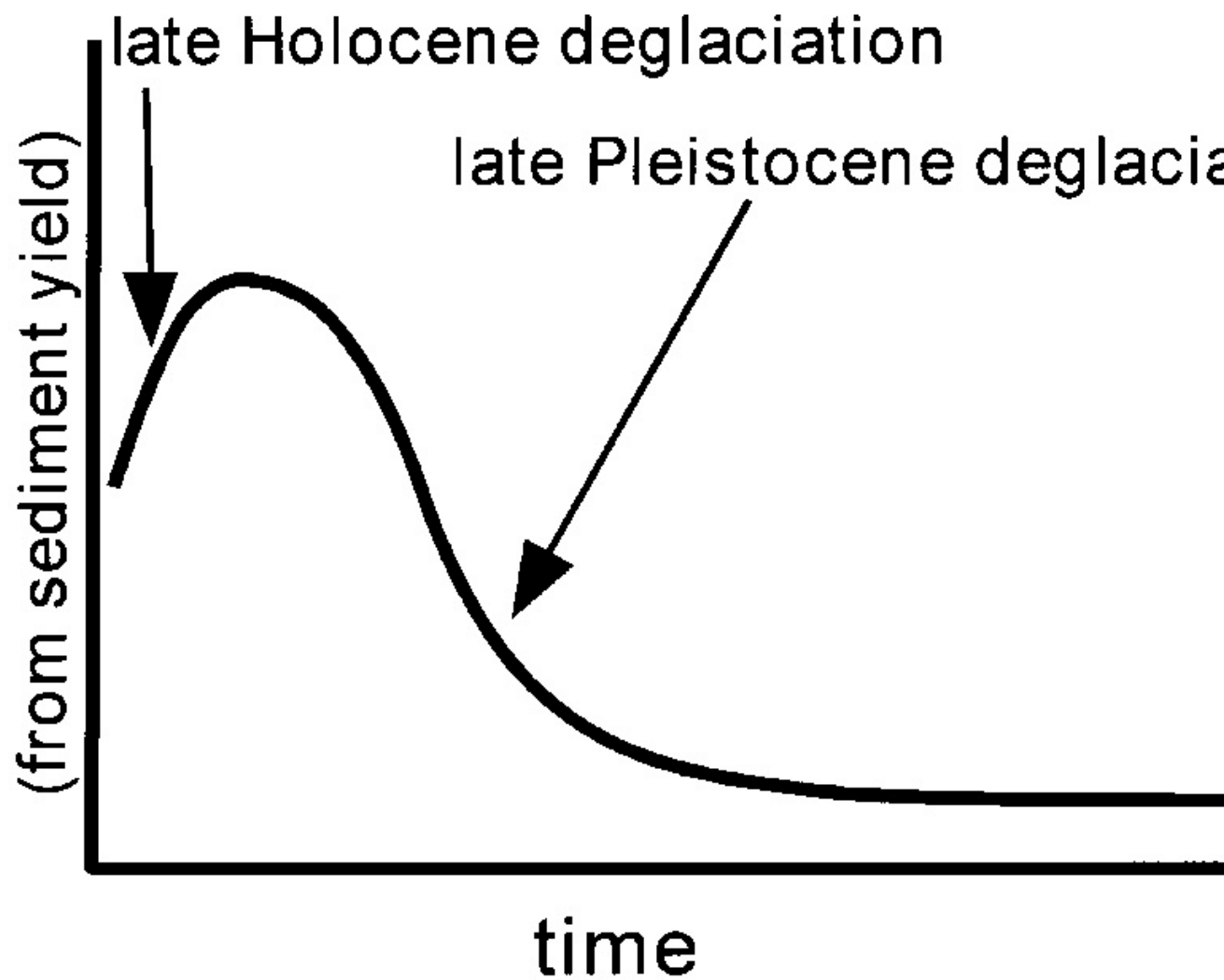
Fig. 2. Specific sediment yield from mountain basins. The shaded area is the area of the mountain basins and the hatched area is the area of the mountain basins with a specific sediment yield of 10^4 ton km⁻² yr⁻¹ or greater.

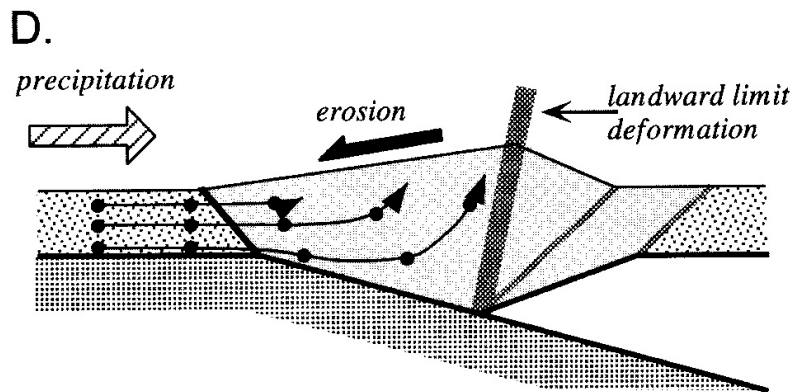
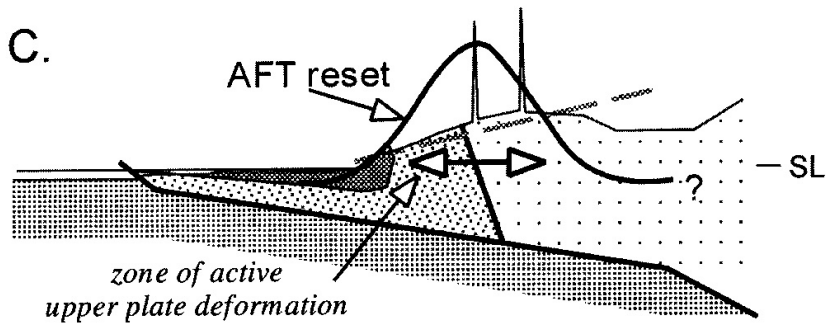
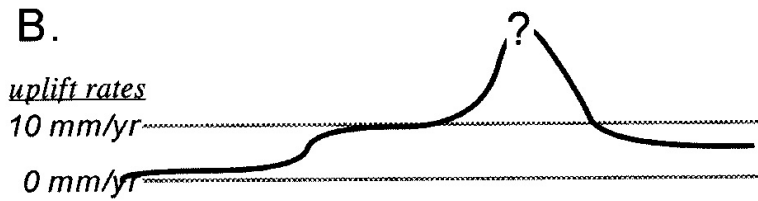
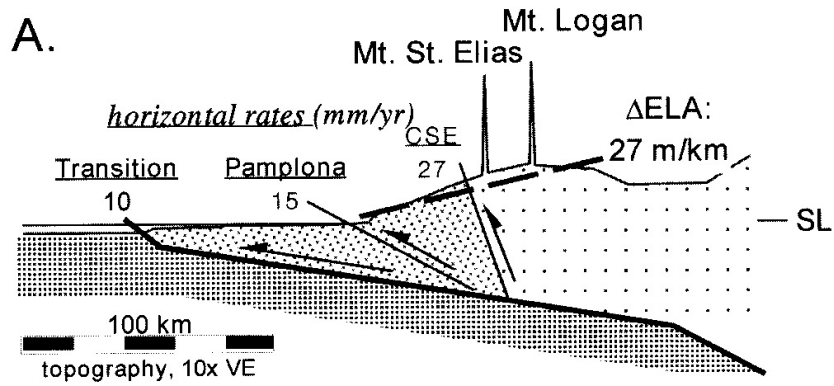


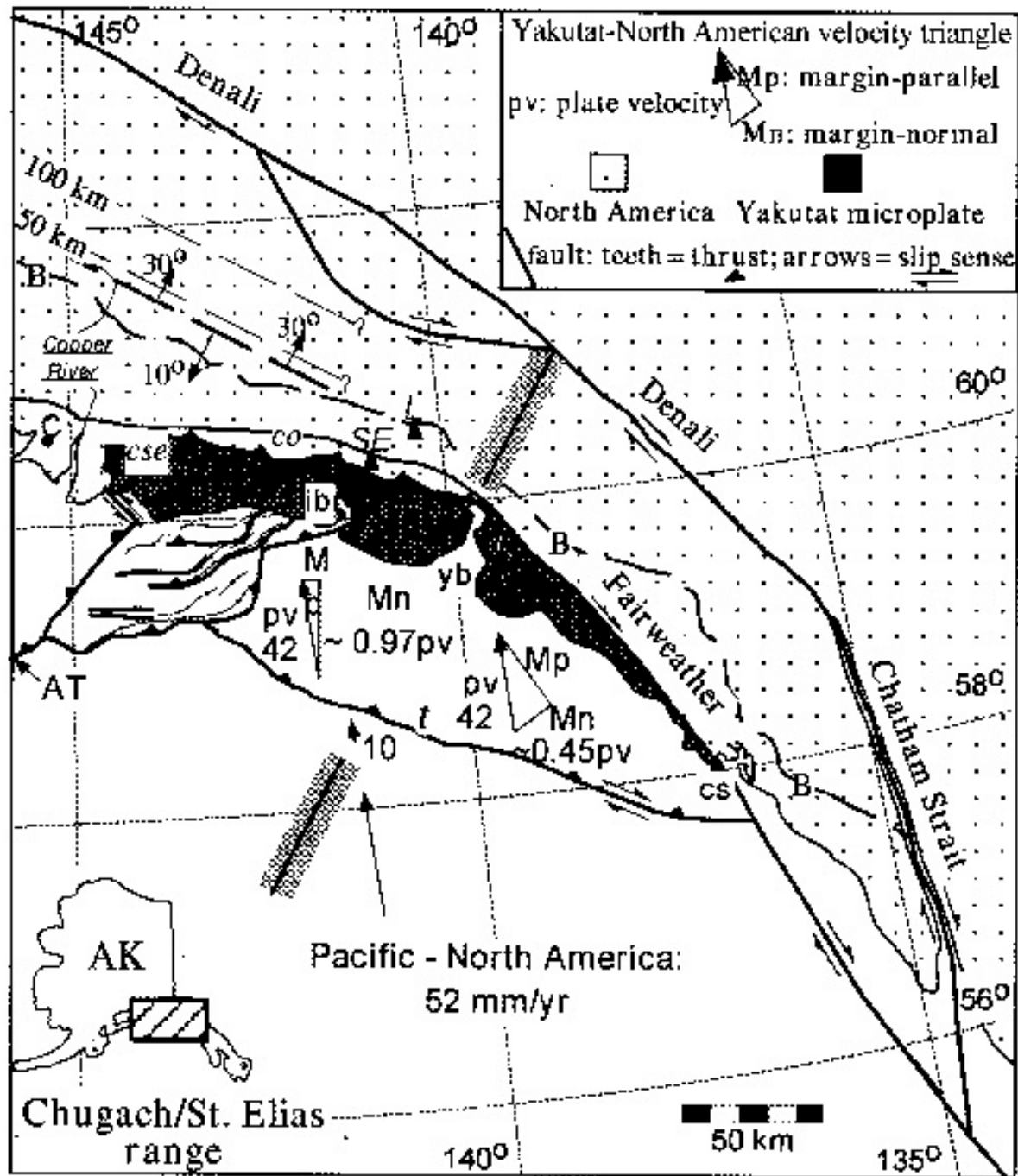




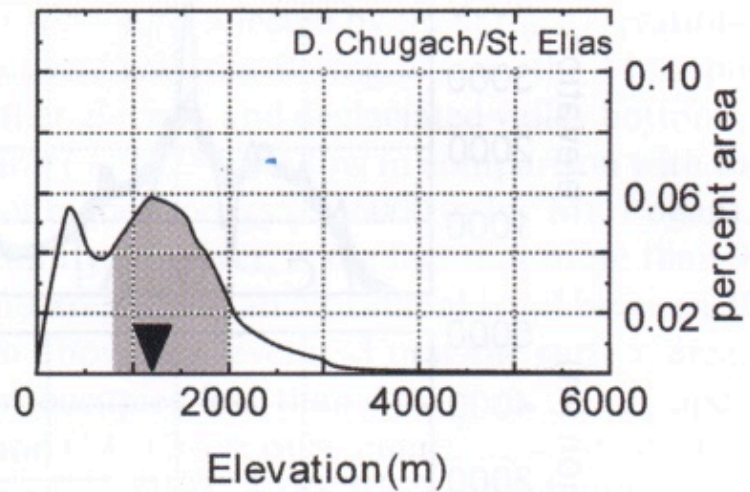
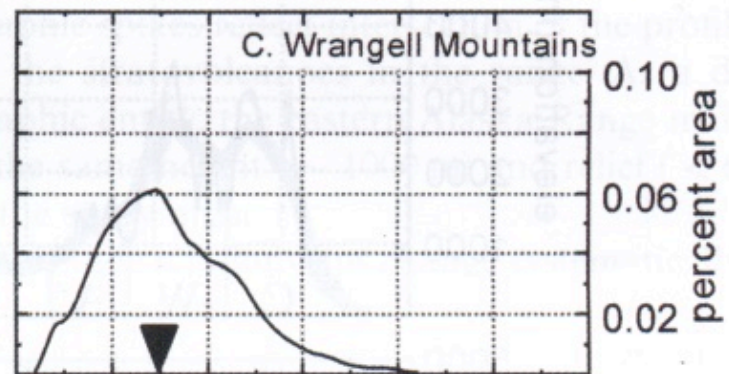
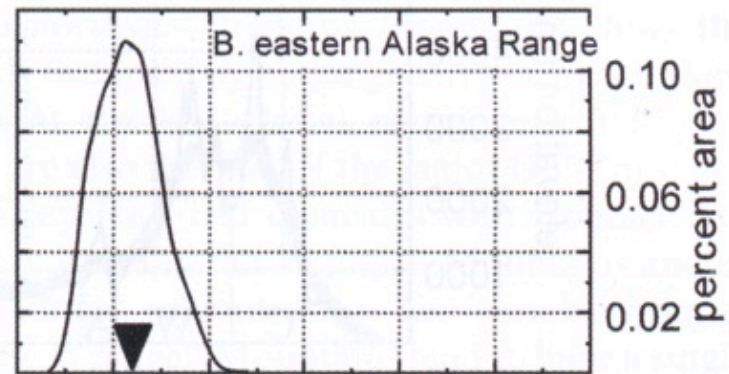
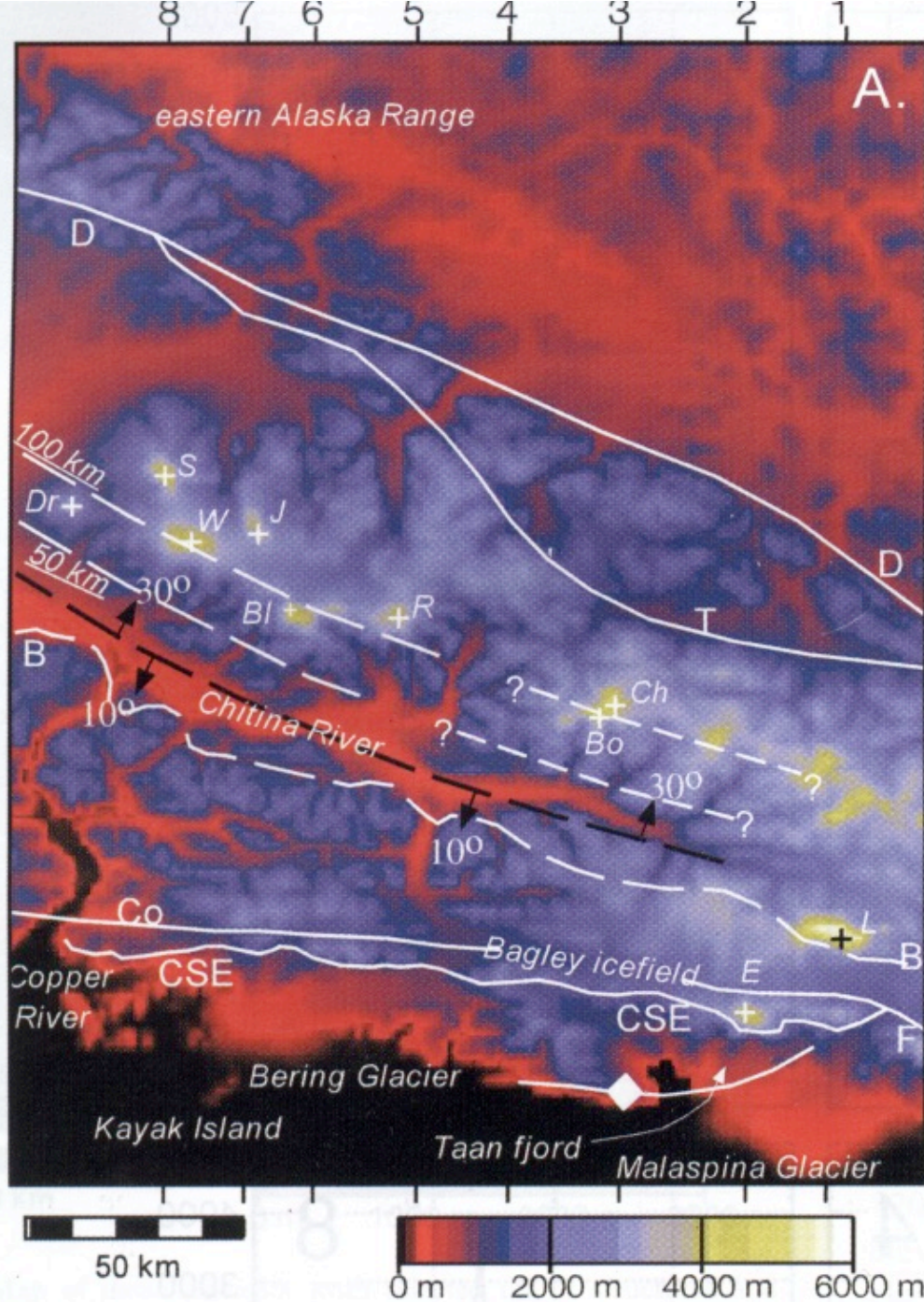
apparent denudation rate
(from sediment yield)

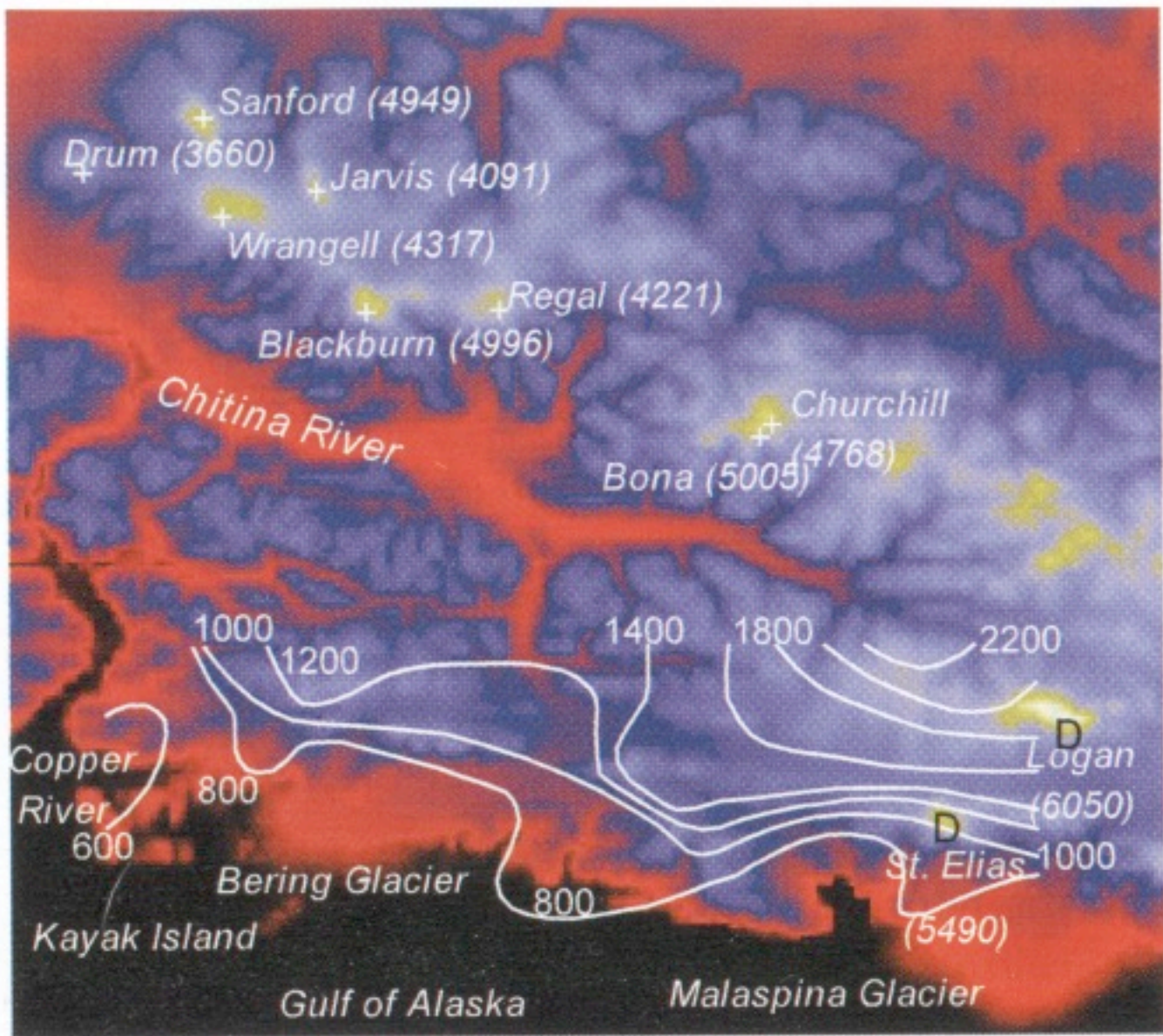




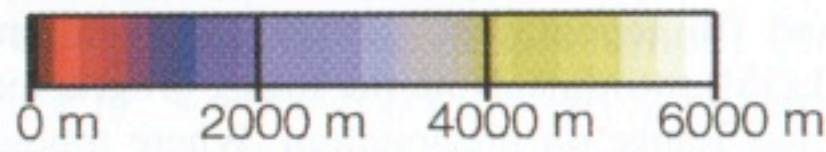


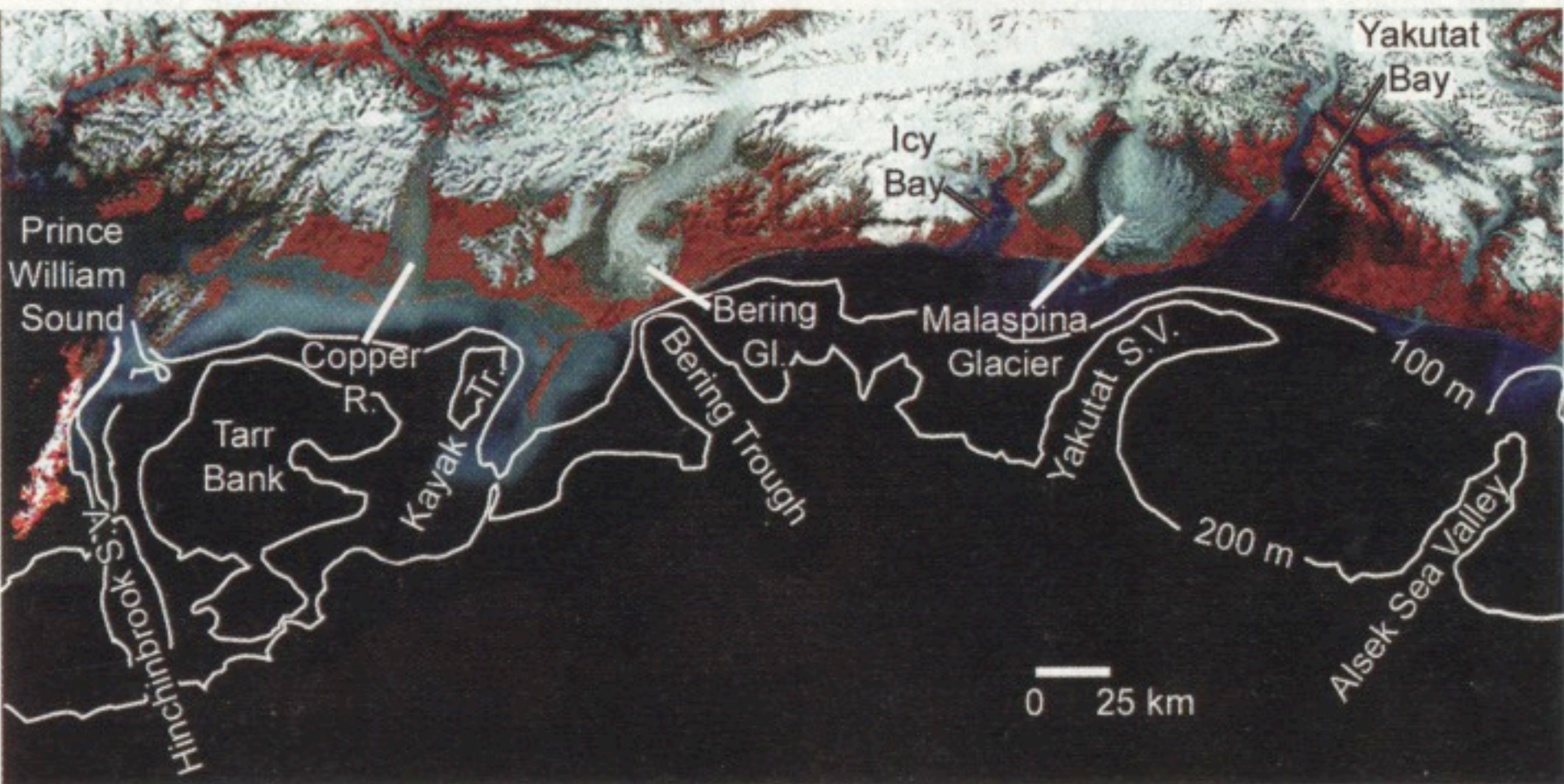


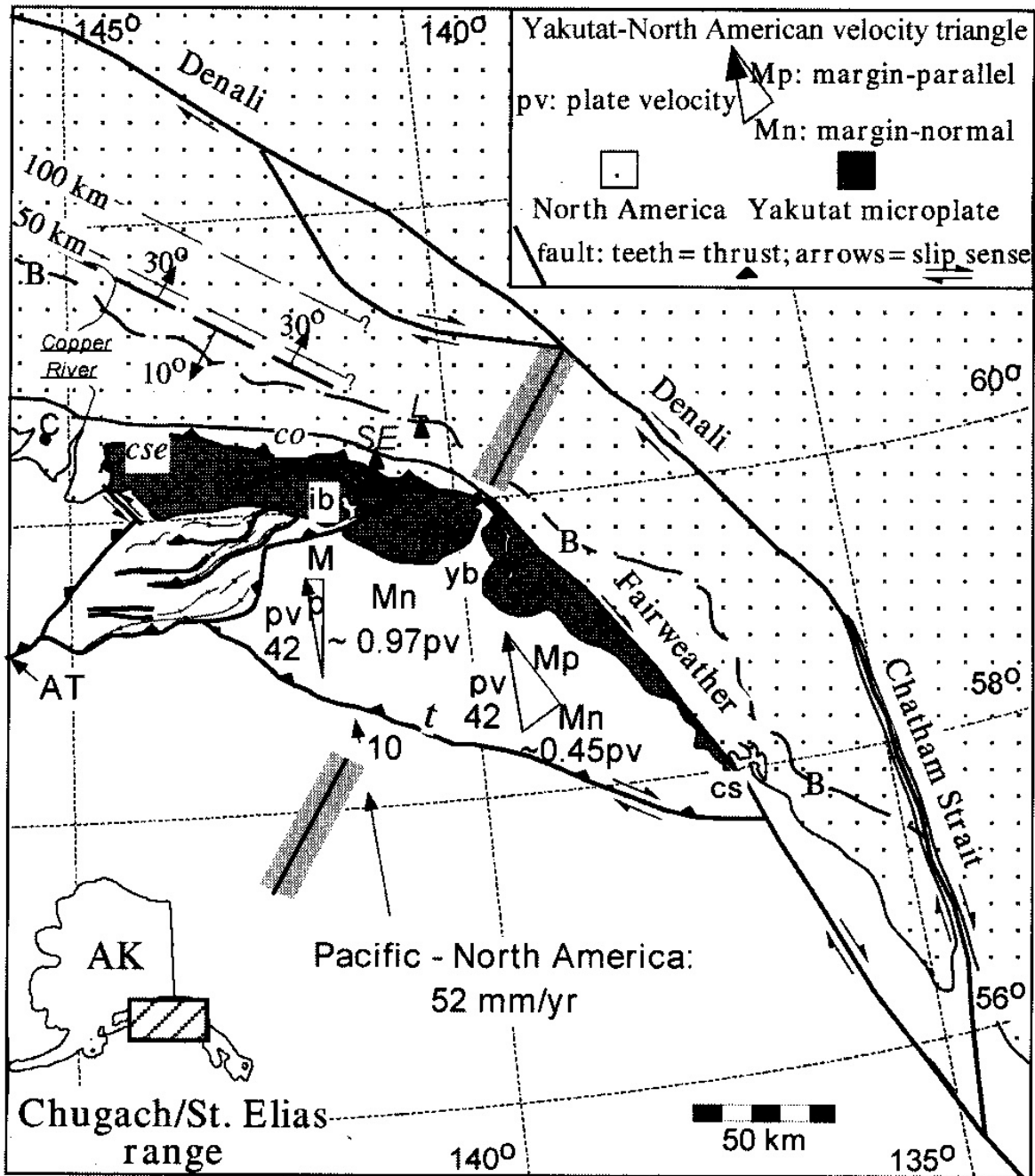


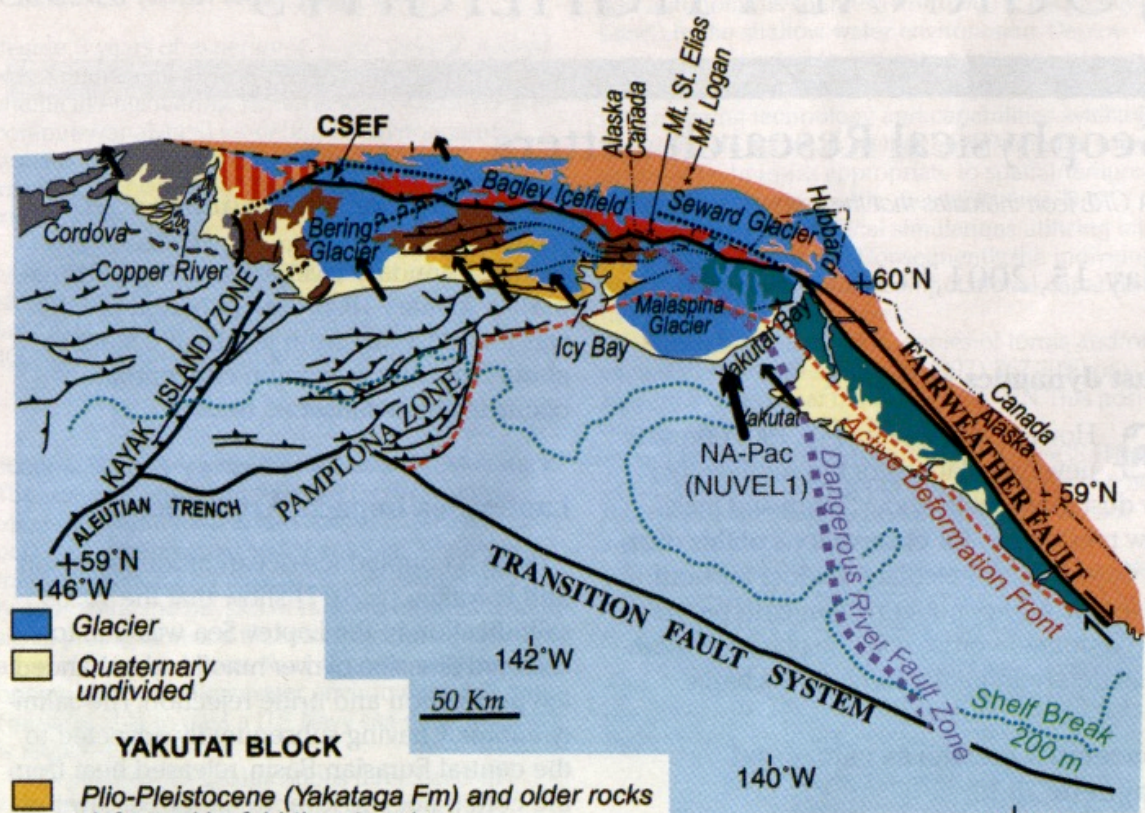


50 km









- Glacier
- Quaternary undivided

YAKUTAT BLOCK

- Plio-Pleistocene (Yakataga Fm) and older rocks deformed by fold-thrust system
- Eocene-Miocene sedimentary rocks deformed by fold-thrust system
- Yakutat Group (Late K Chugach terrane flysch weakly metamorphosed in Eocene?)

PRINCE WILLIAM TERRANE

- Orca Group (Paleocene flysch) metamorphosed at subgreenschist facies in Eocene
- Orca Group (Paleocene flysch) metamorphosed from subgreenschist facies to amphibolite facies in Eocene
- Orca Group (Paleocene flysch) exposed in the hanging wall of Chugach St. Elias Thrust Forming Coastal Ranges of St. Elias Mtns. Metamorphosed from subgreenschist facies at Waxell Ridge to amphibolite facies at Mt. St. Elias; greenschist facies near Yakutat Bay

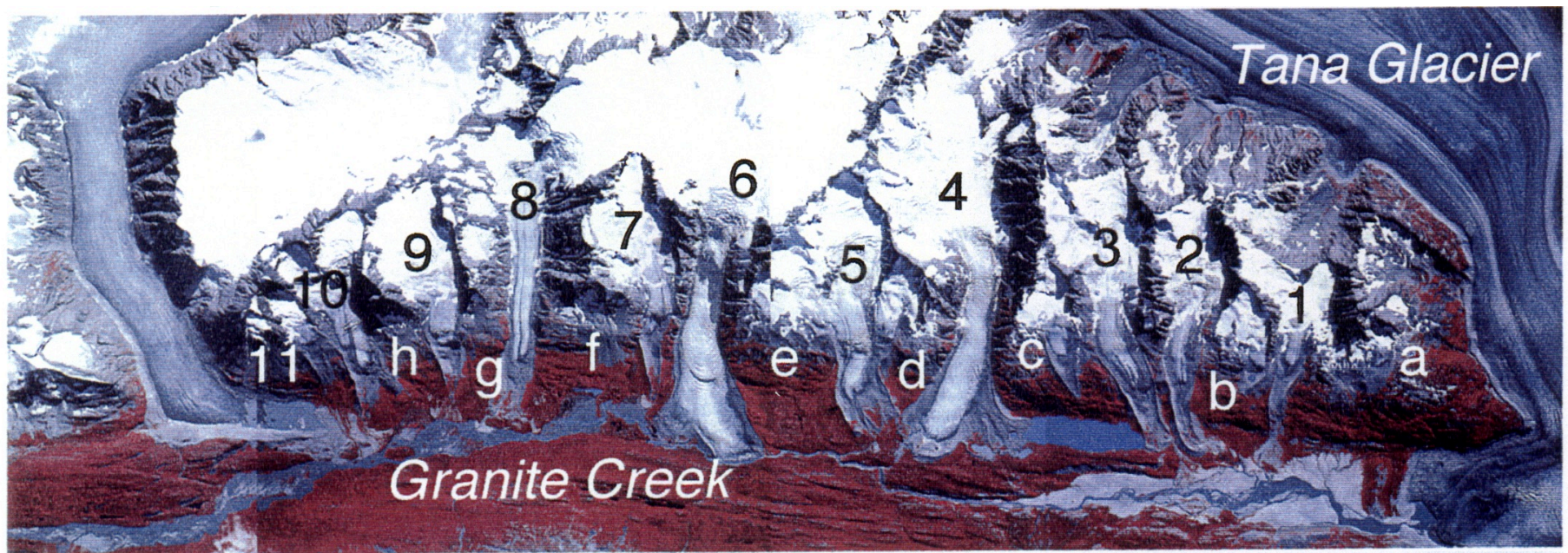
CHUGACH TERRANE

- Valdez Group (Late Cretaceous flysch) metamorphosed from greenschist to amphibolite facies in Eocene metamorphism of the Chugach metamorphic complex

50 mm/yr GPS displacement, w.r.t. Fairbanks (from Sauber et al., 1997, 2000 & Fletcher & Freymueller, 1999)

MODIFIED FROM: Bruhn et al., in review and Plafker, 1987

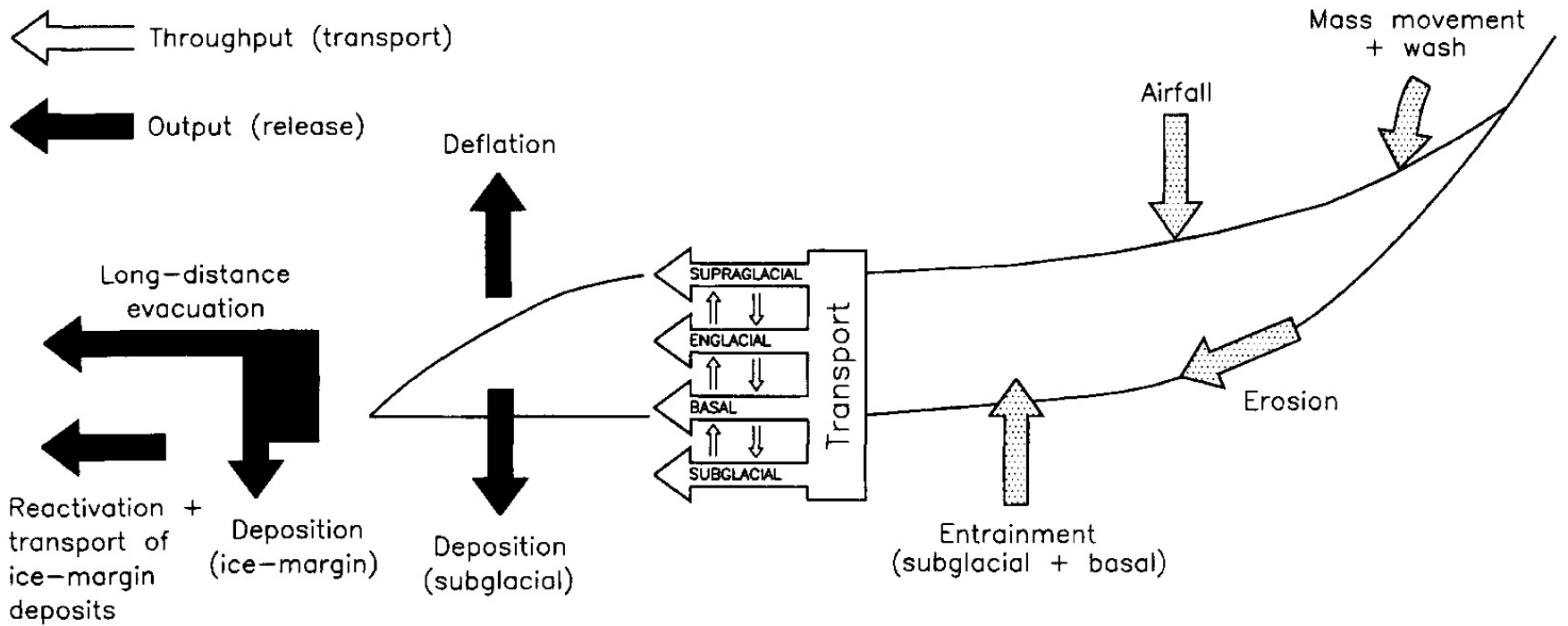
CSEF=Chugach - St Elias Fault

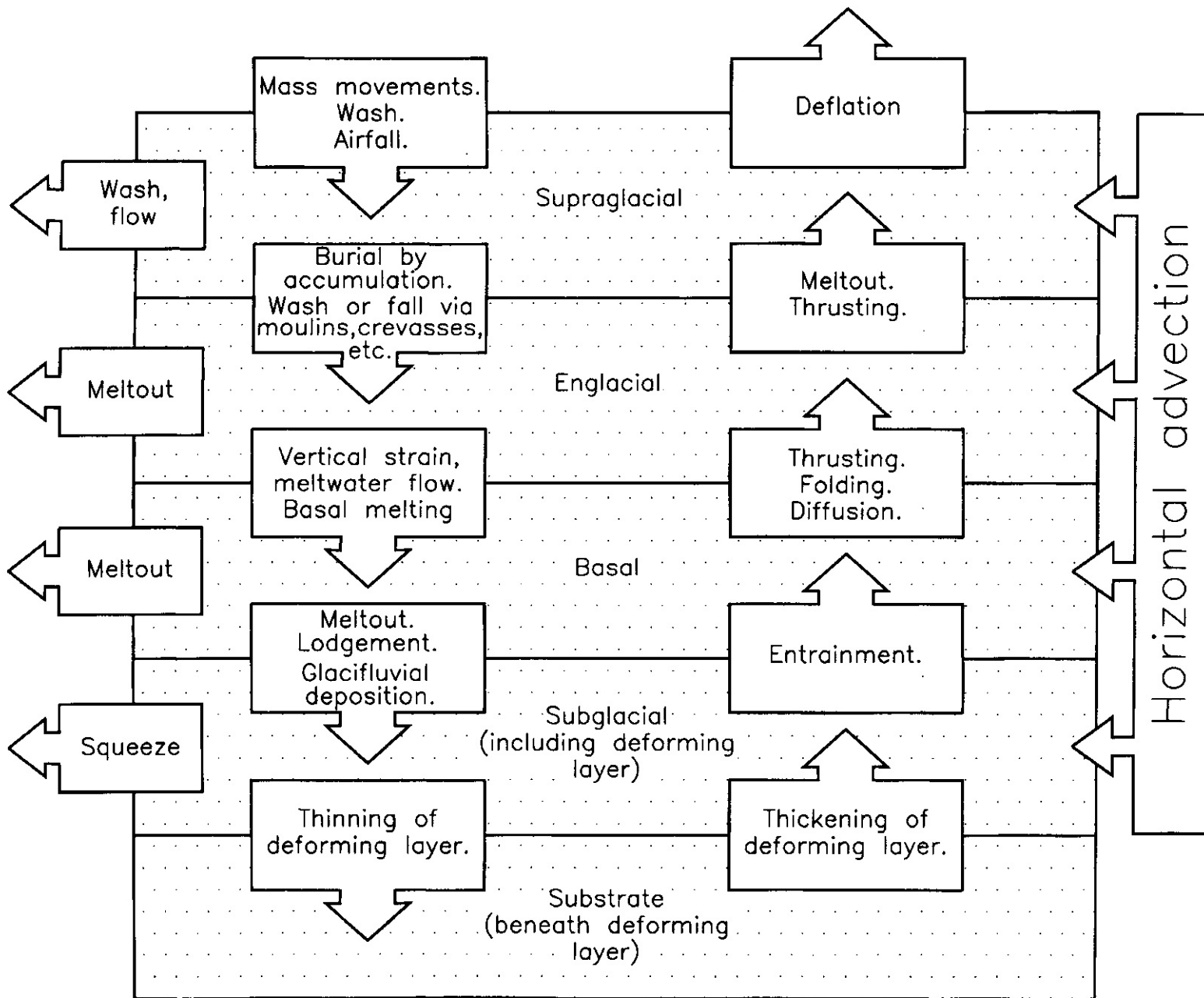


← Input (supply)

← Throughput (transport)

← Output (release)



















ALASKA EARTHQUAKE, MARCH 27, 1964

