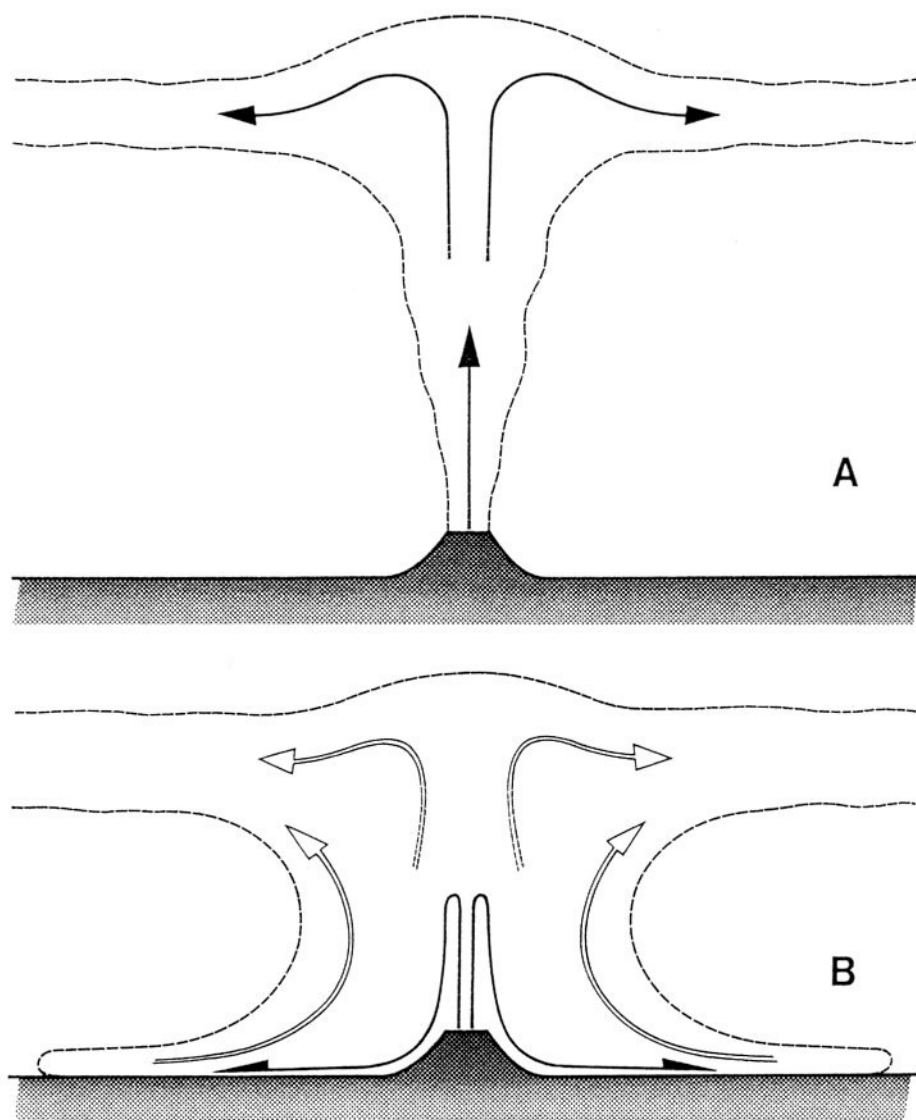
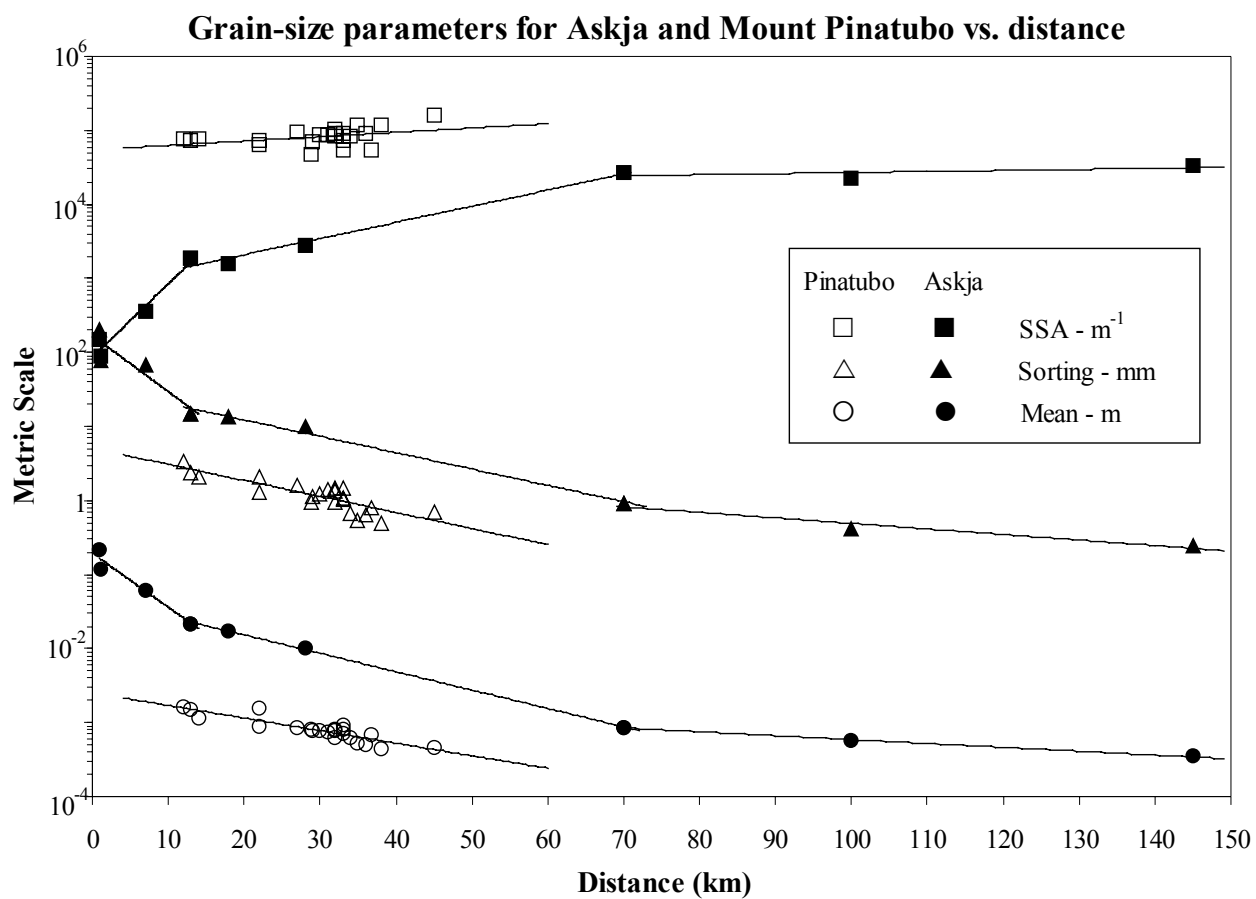
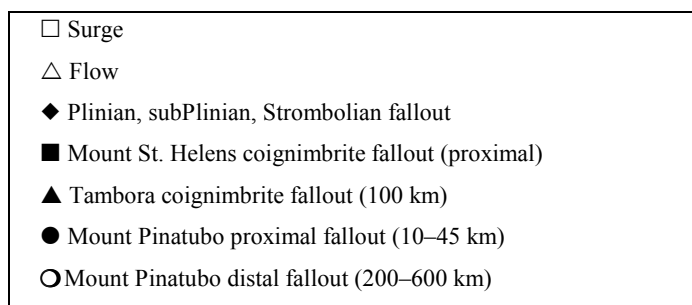
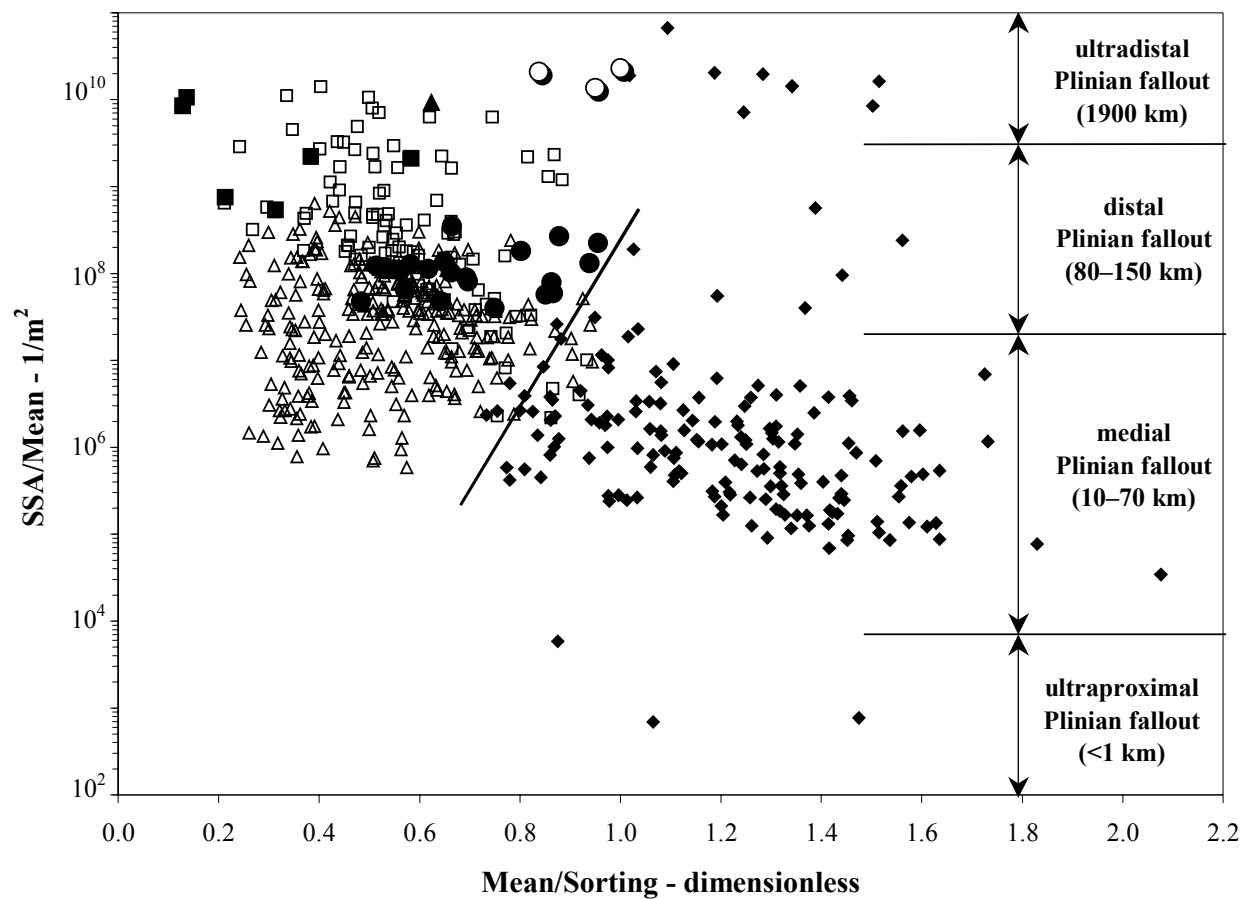








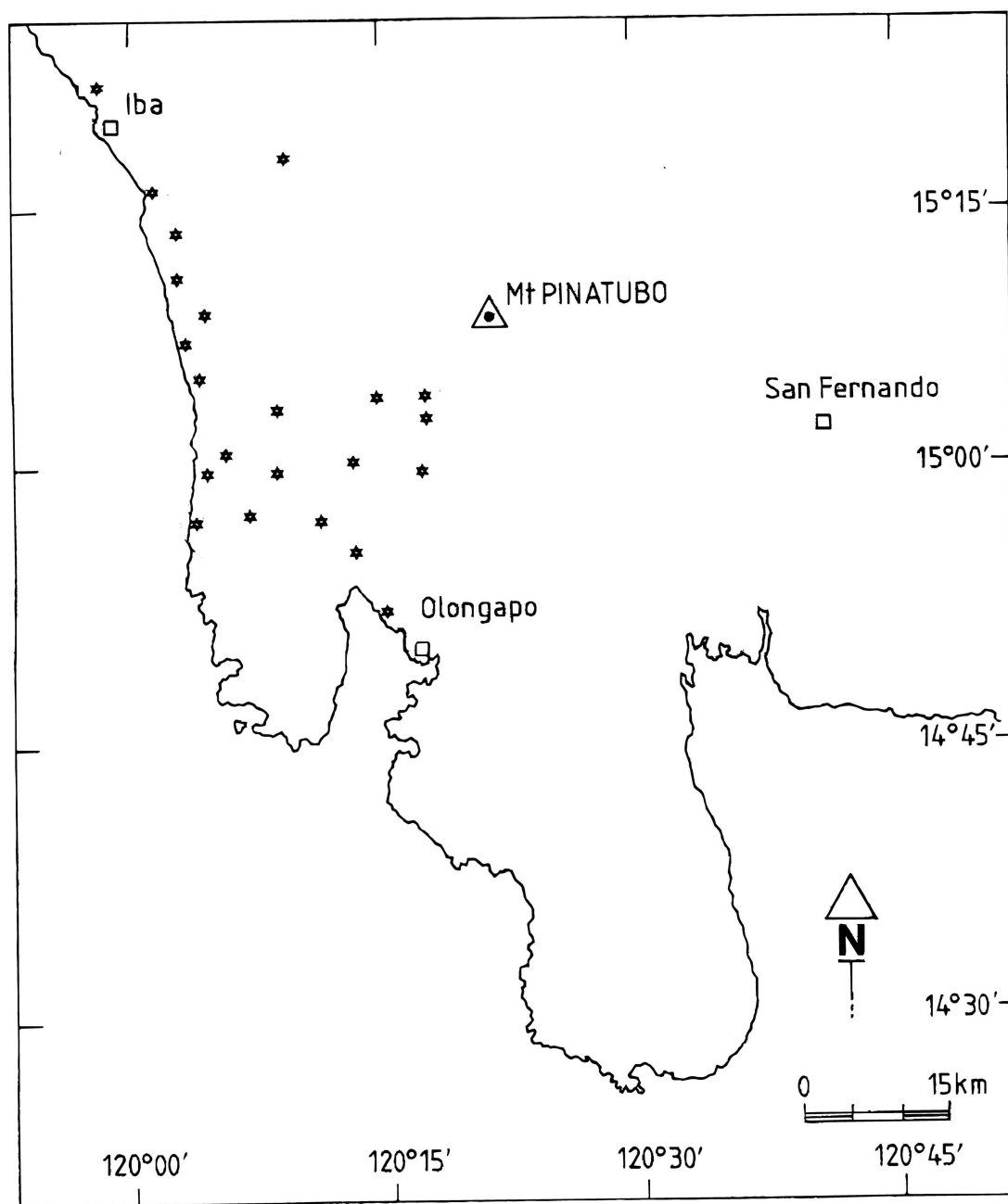
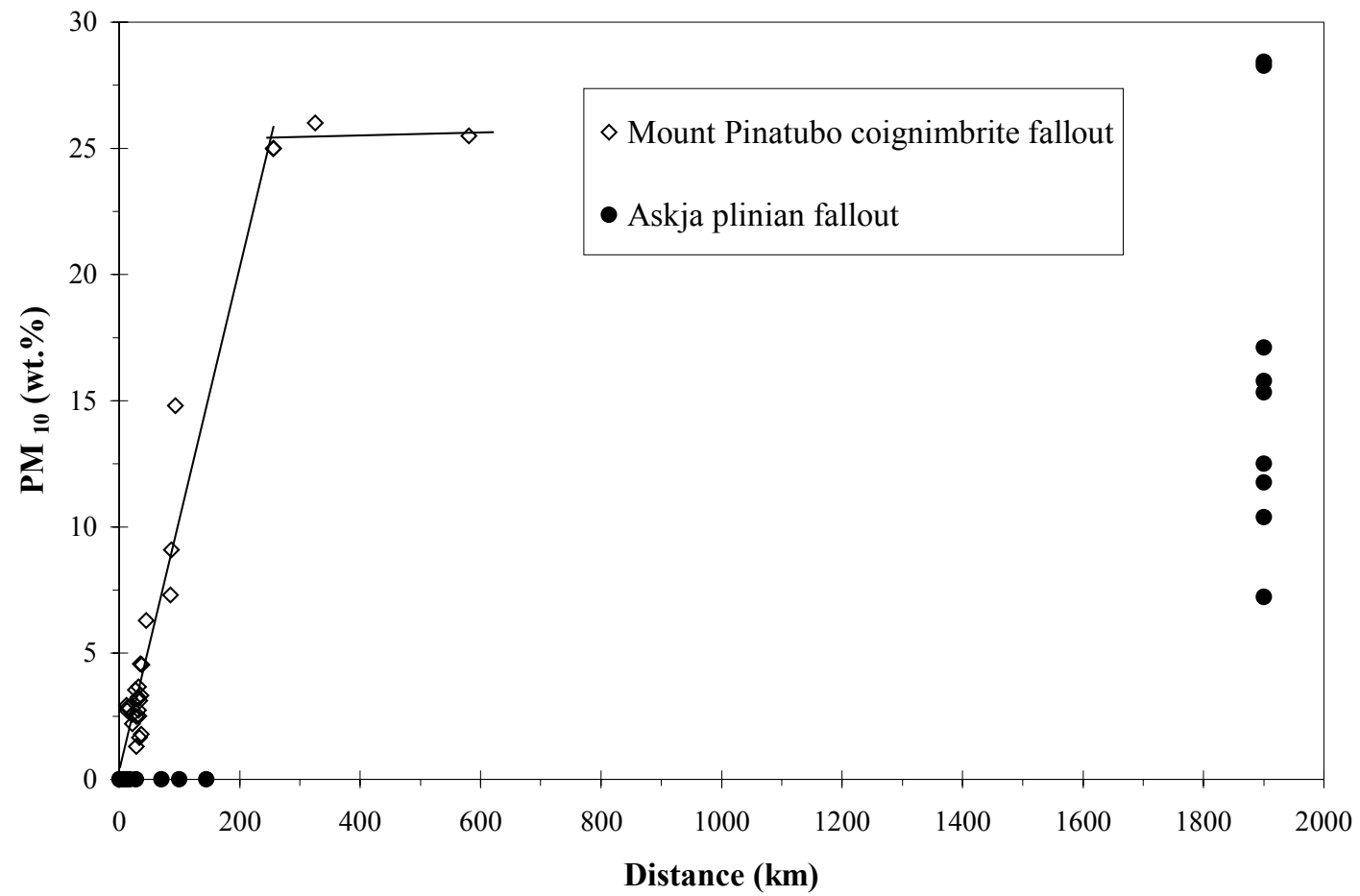
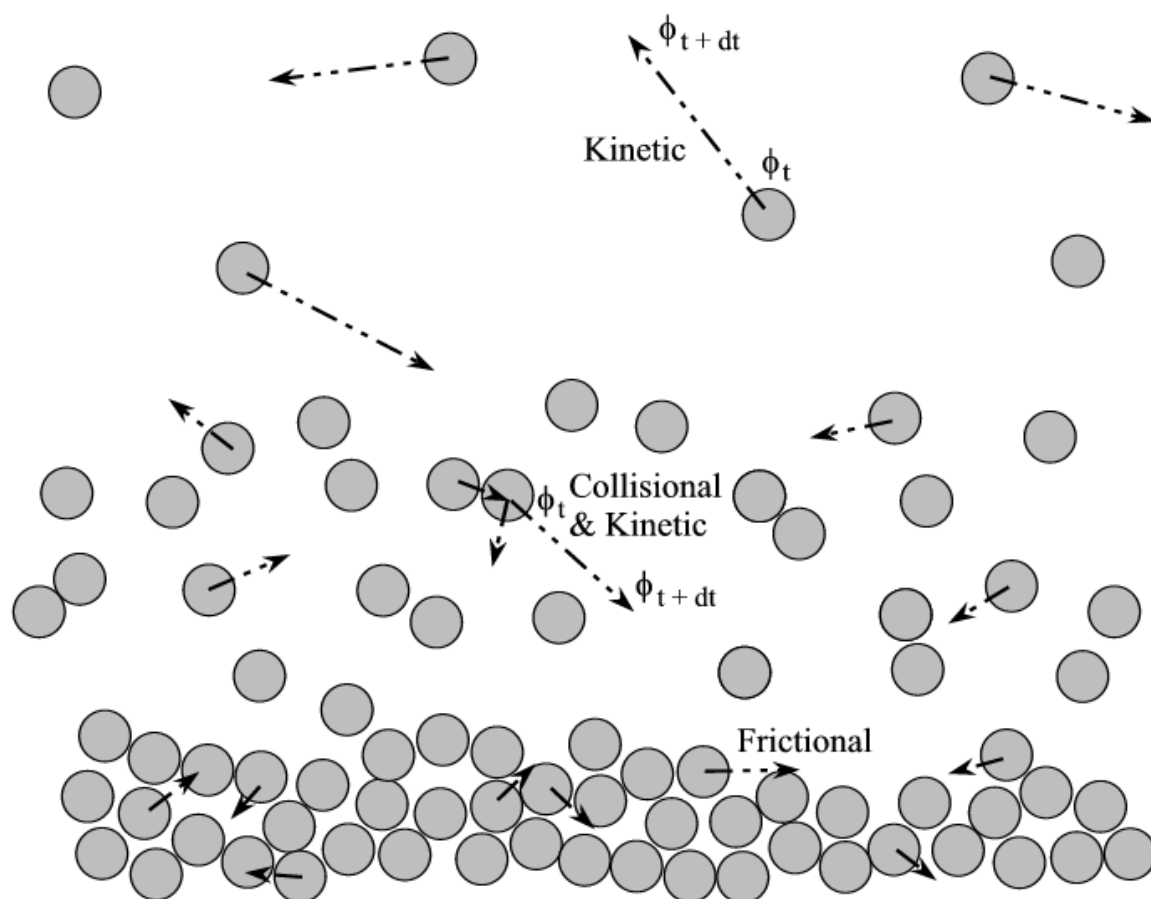
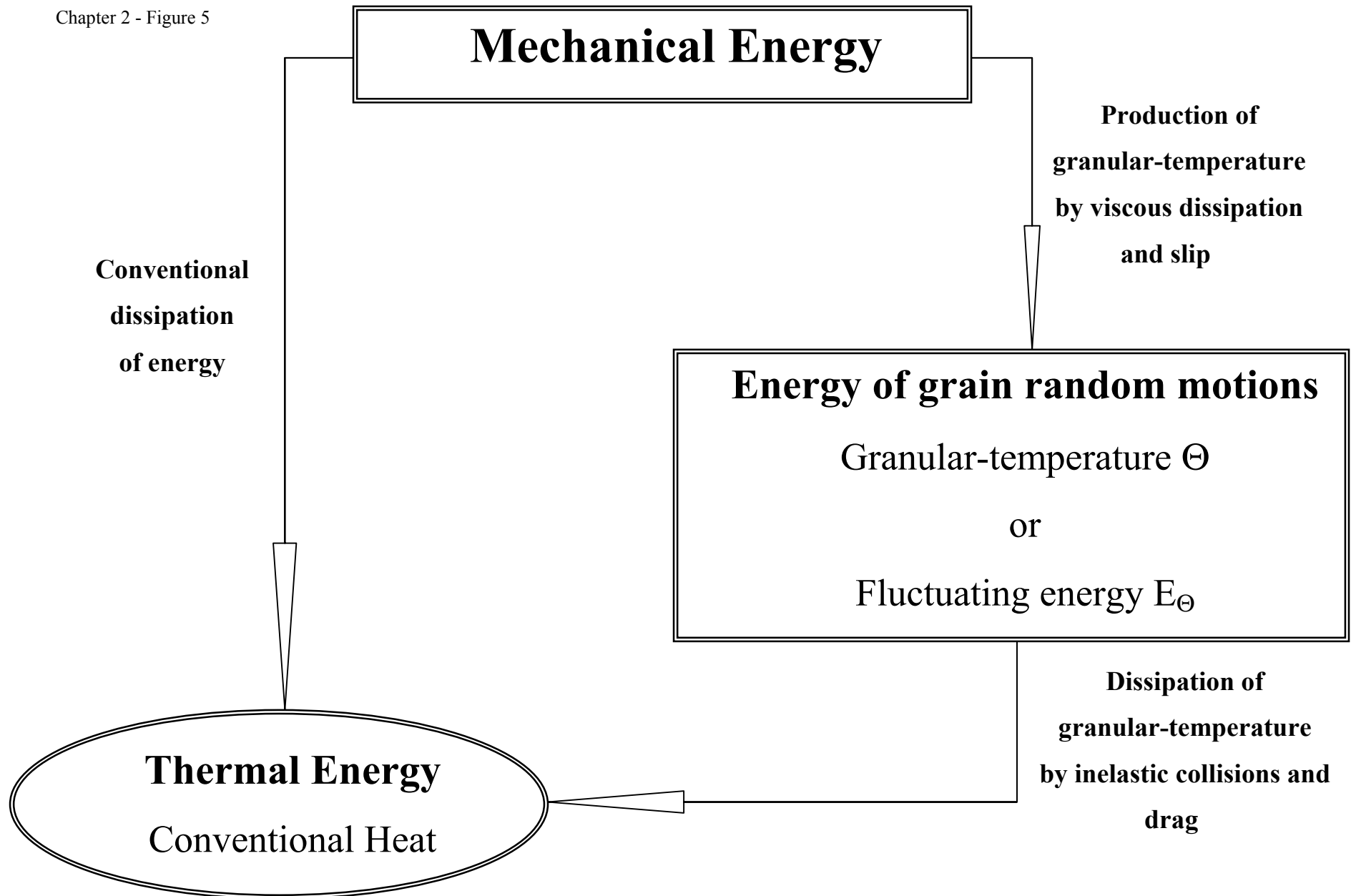


Figure DR1. Location (represented by a star) of all our samples collected around Mount Pinatubo volcano and used in this manuscript.

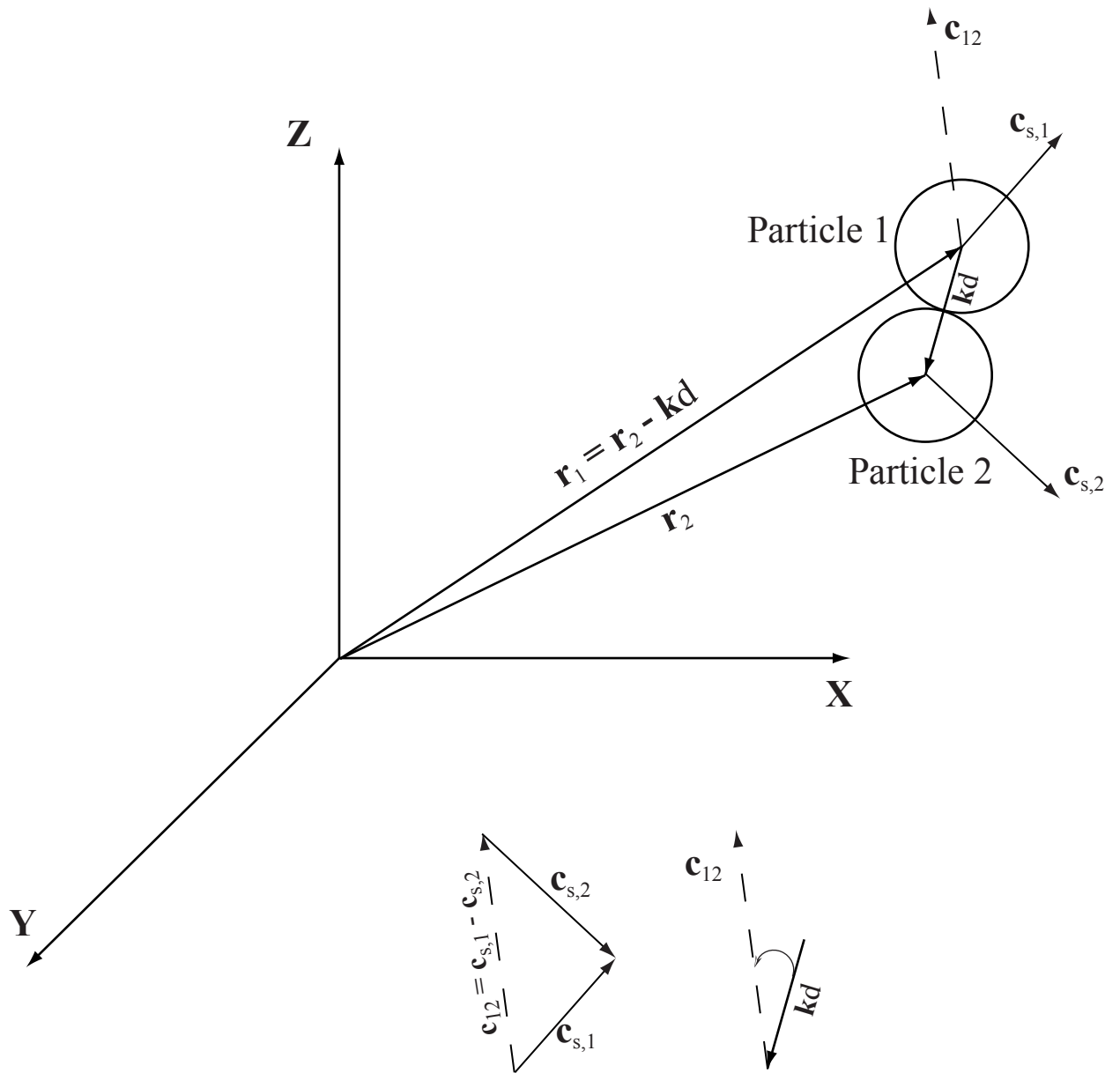
Chapter 1 - Annex 3: PM₁₀ variation vs. distance from source







Chapter 2 - Figure 6

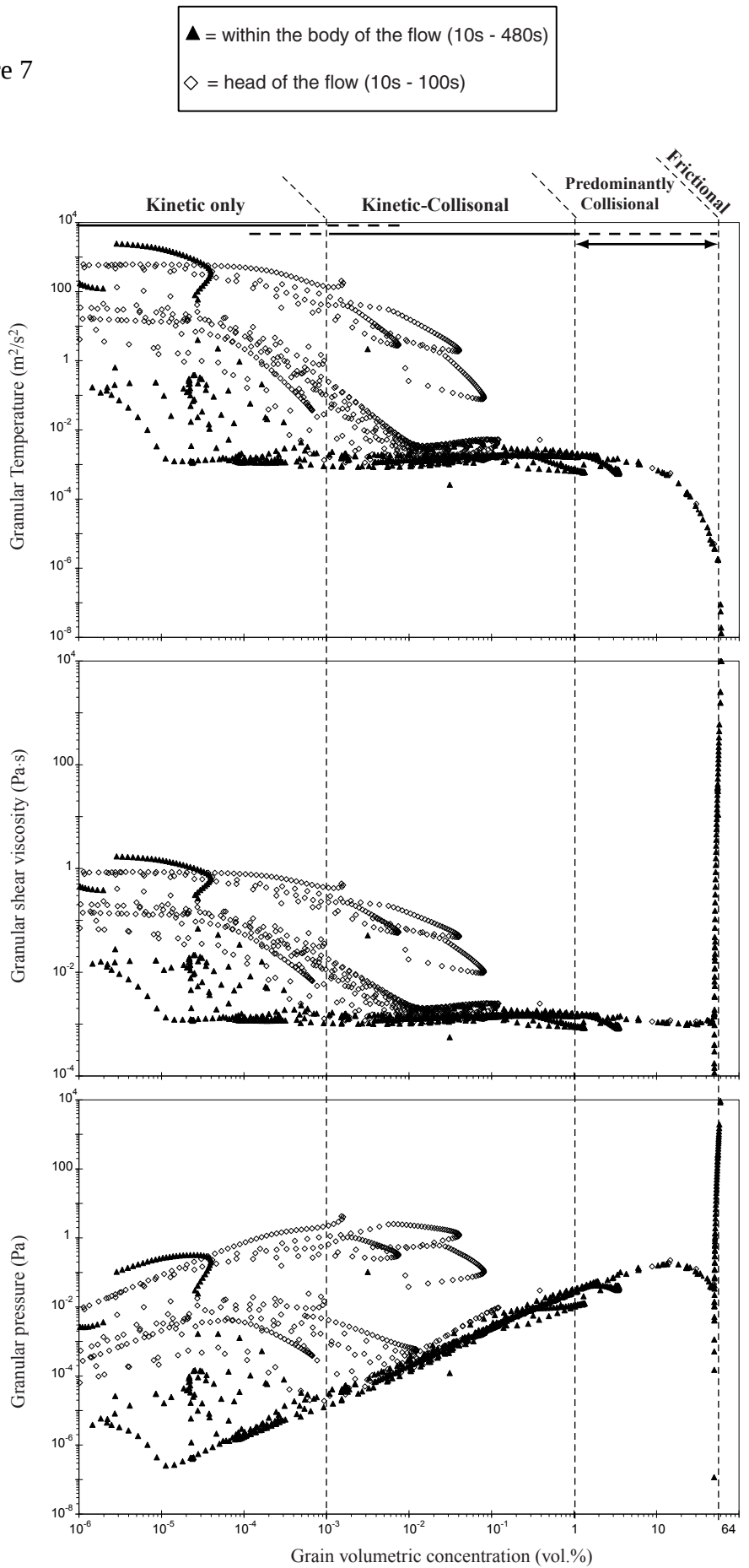


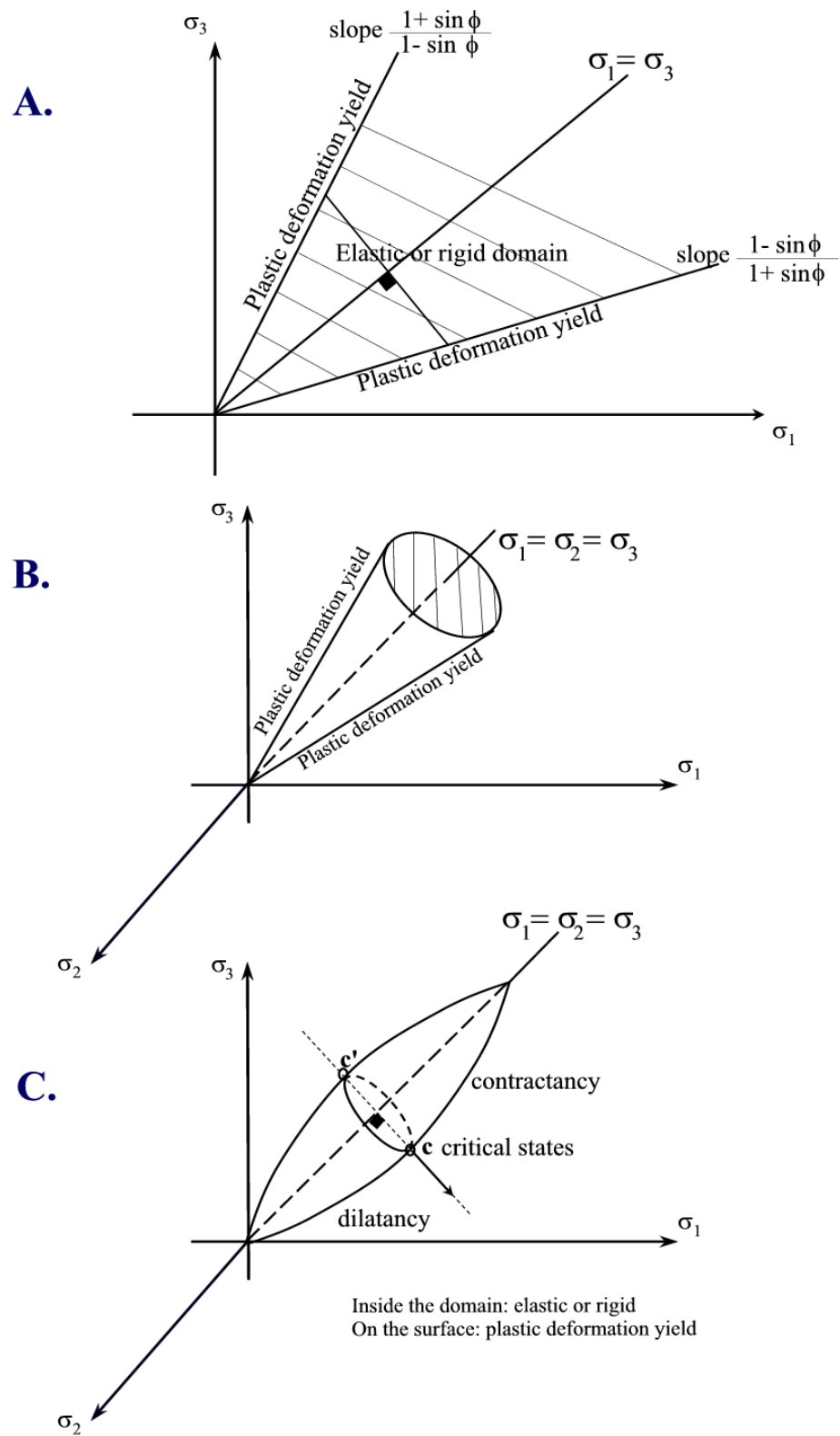
Chapter 2 - Figure 7

A.

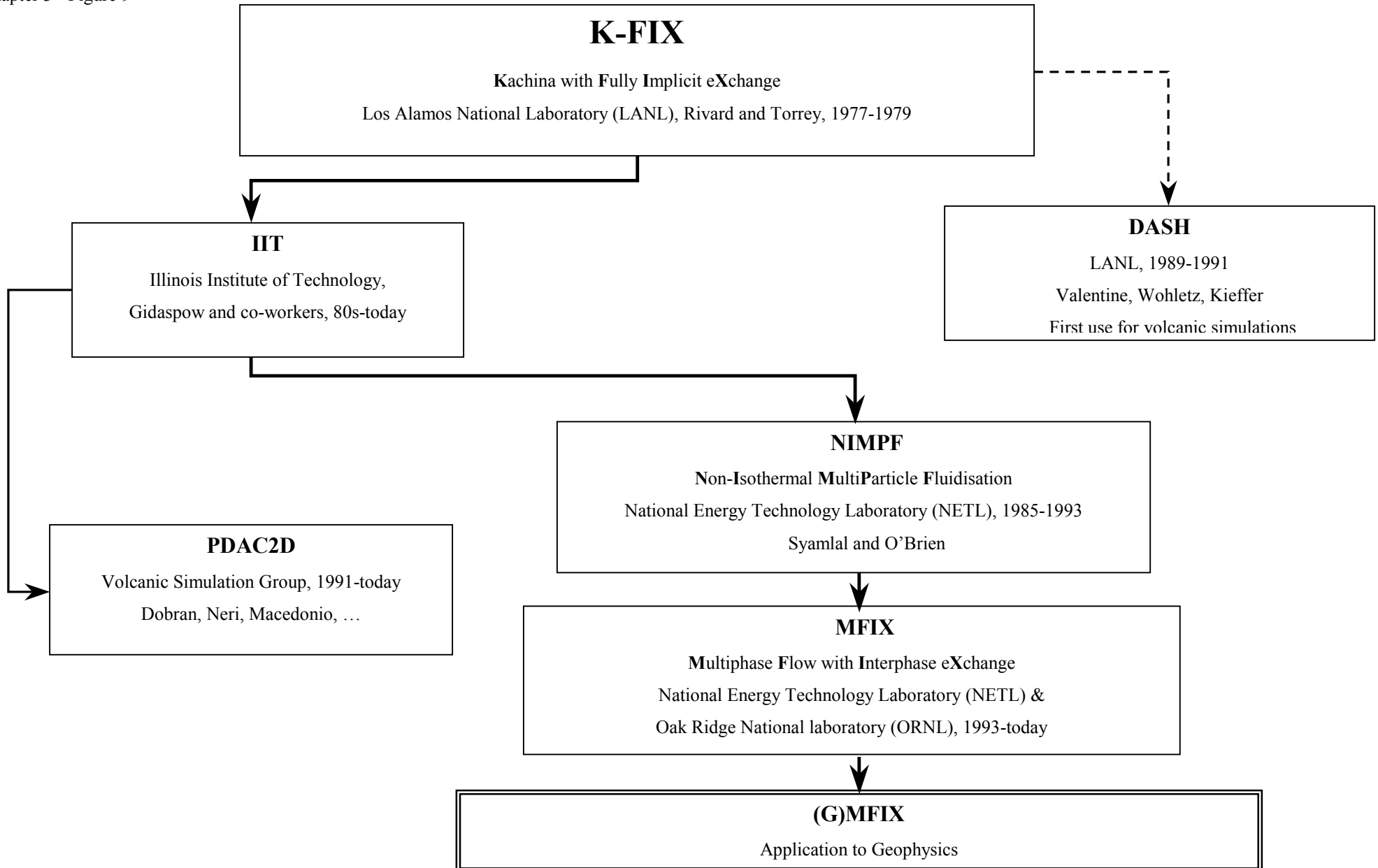
B.

C.

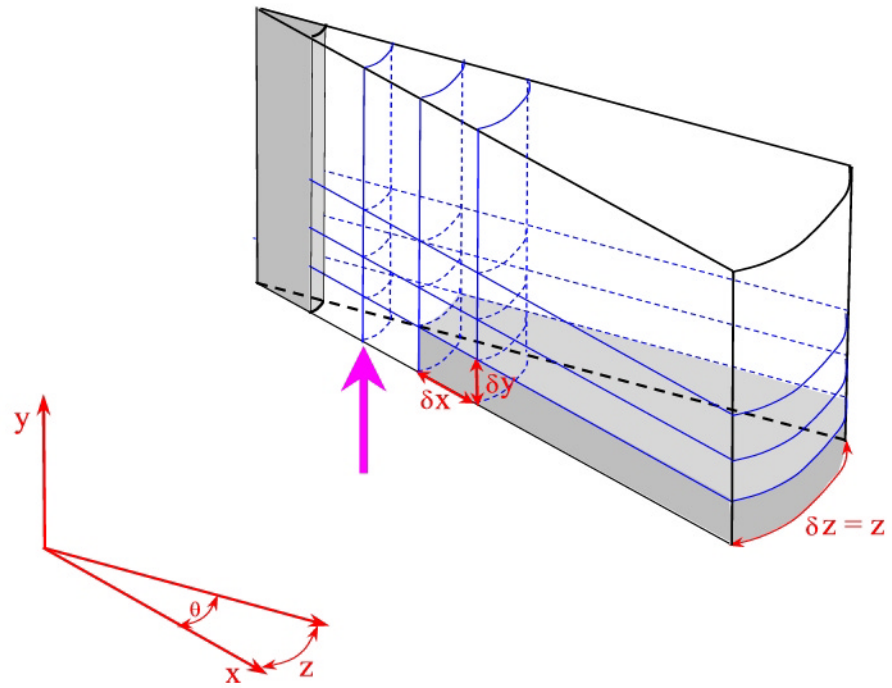




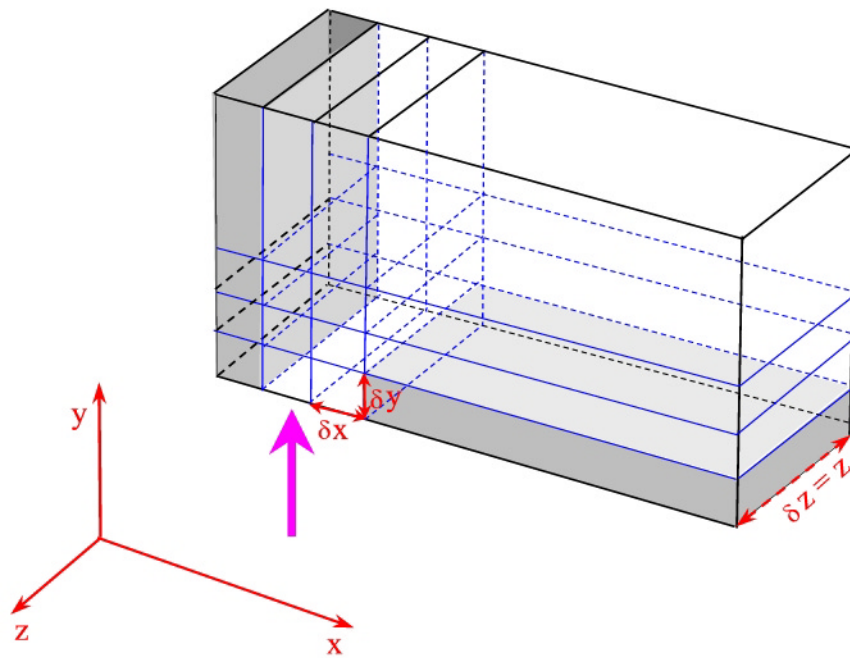
Chapter 3 - Figure 9

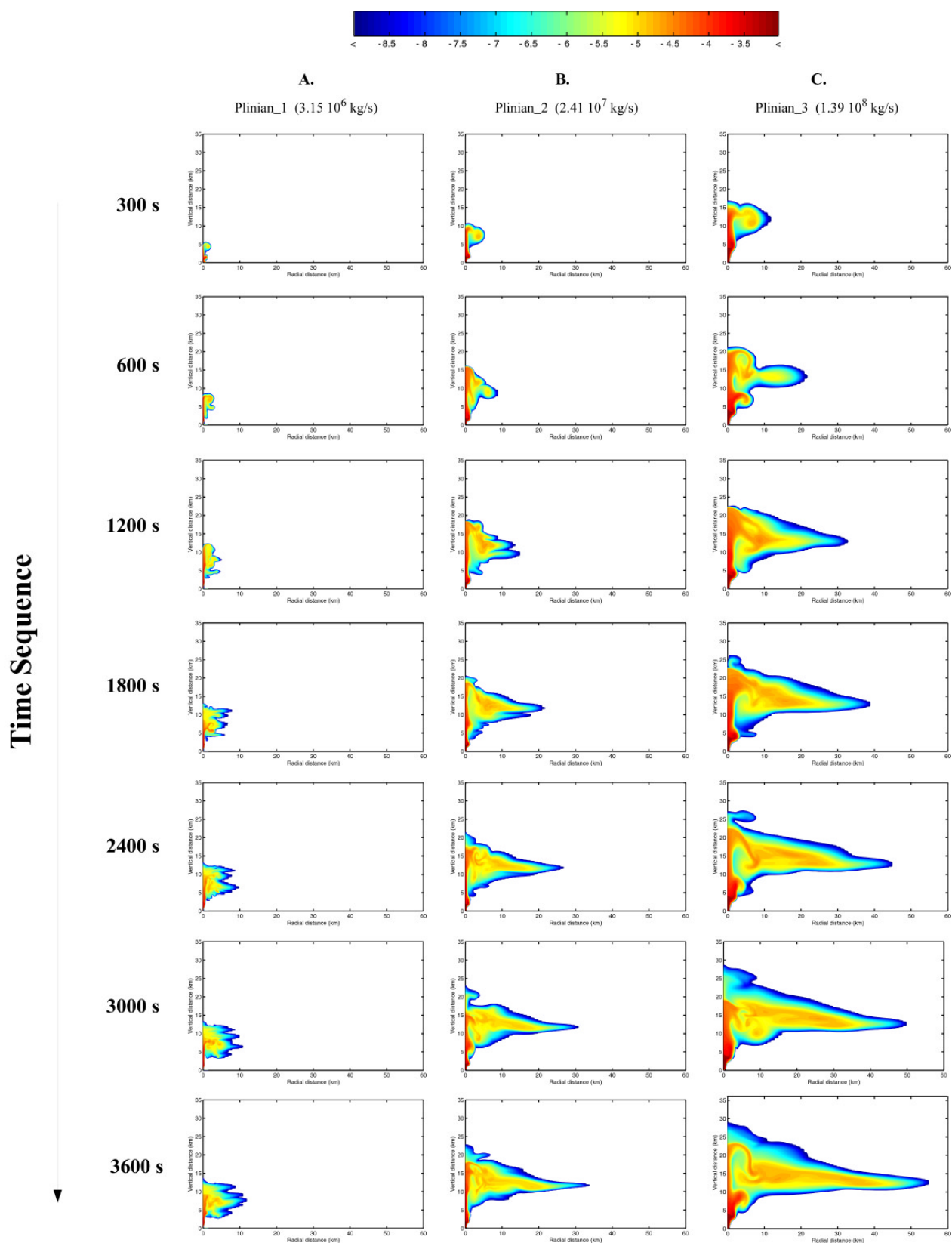


A.

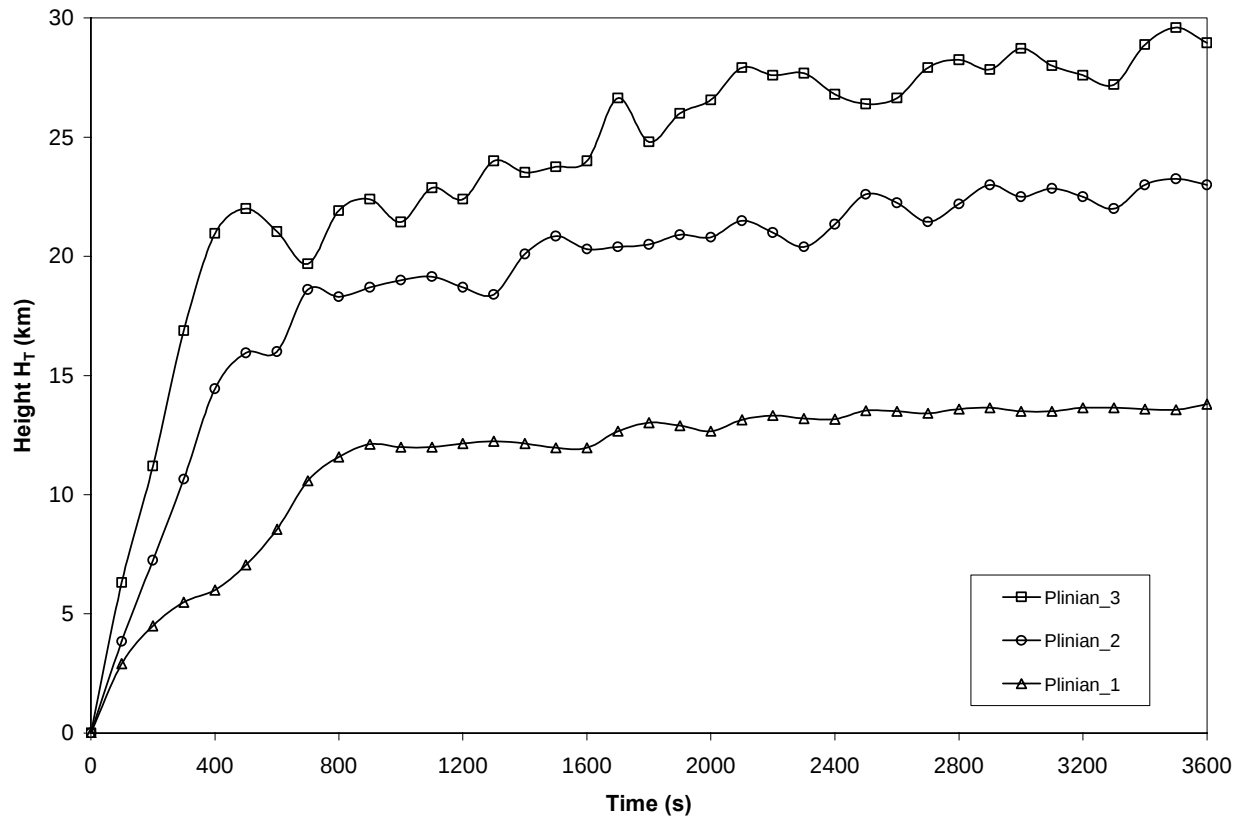


B.

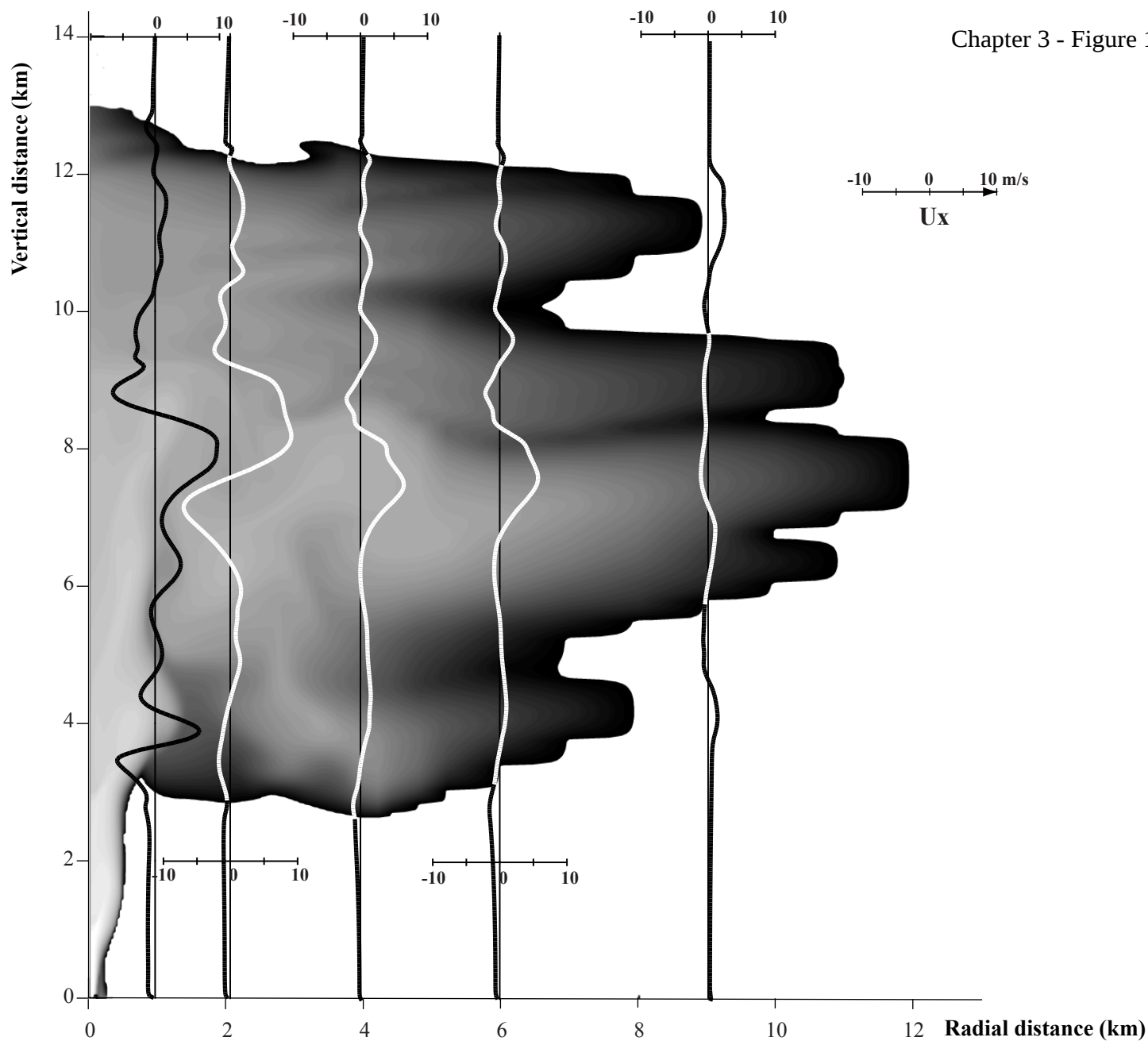




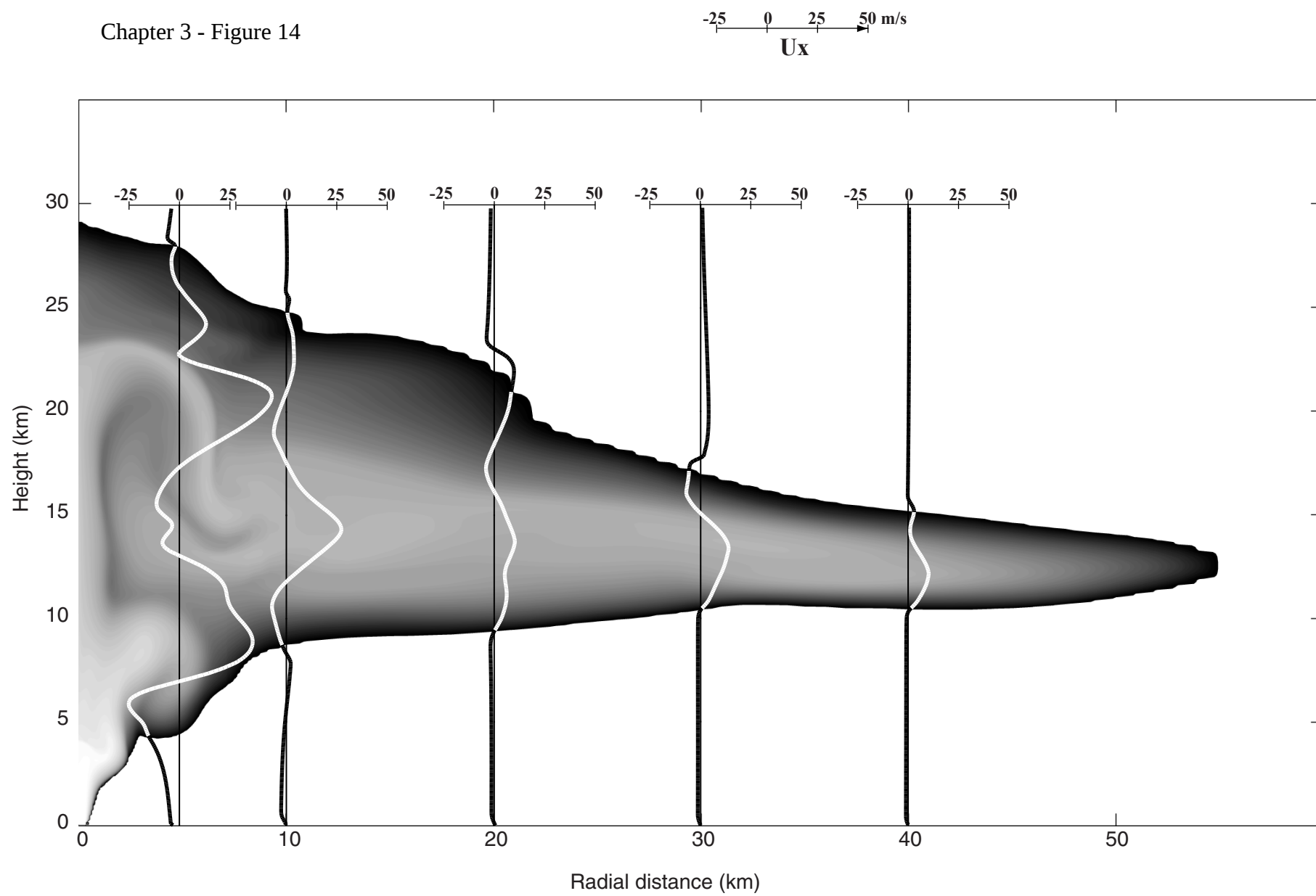
Chapter 3 - Figure 12



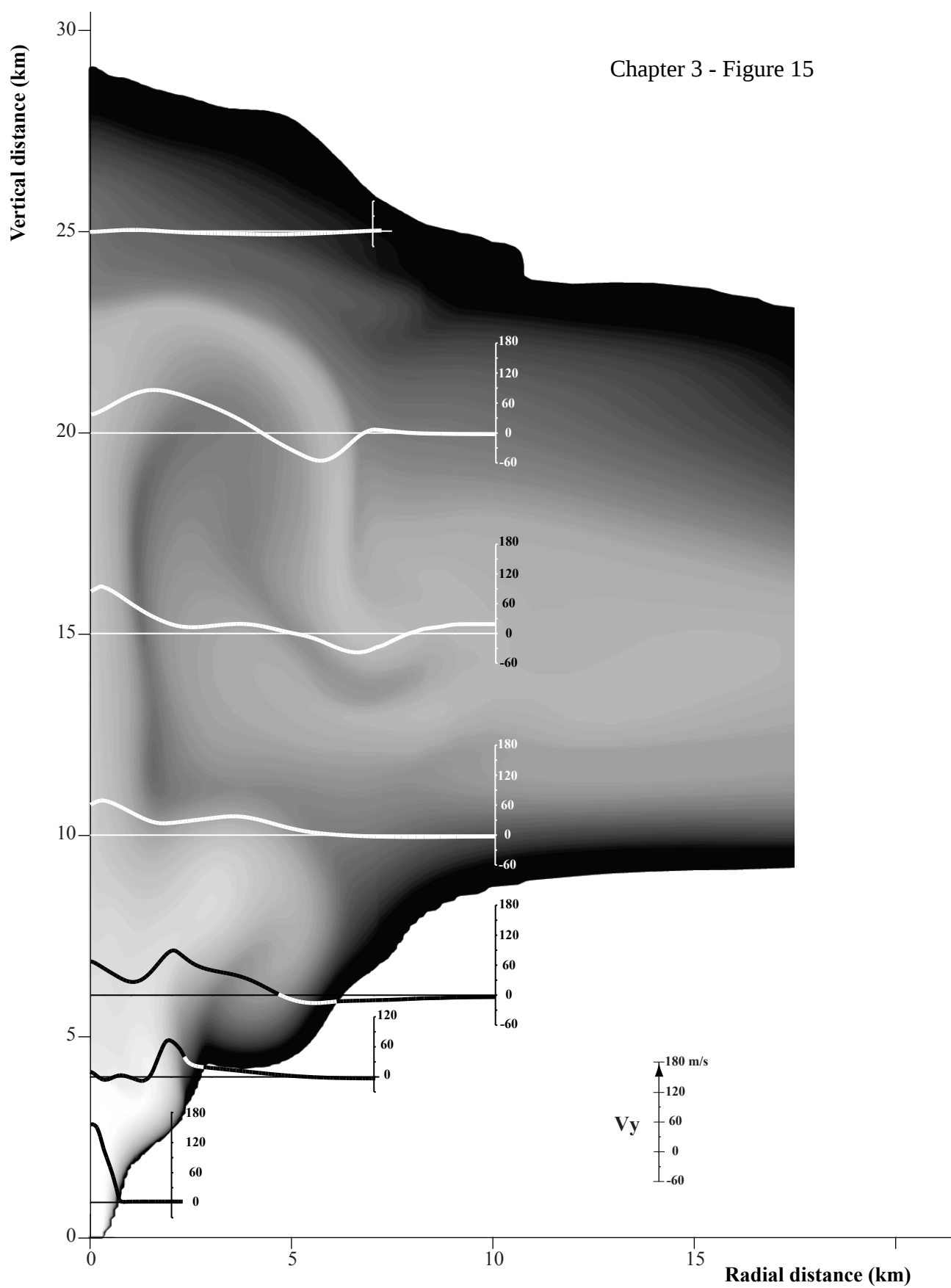
Chapter 3 - Figure 13



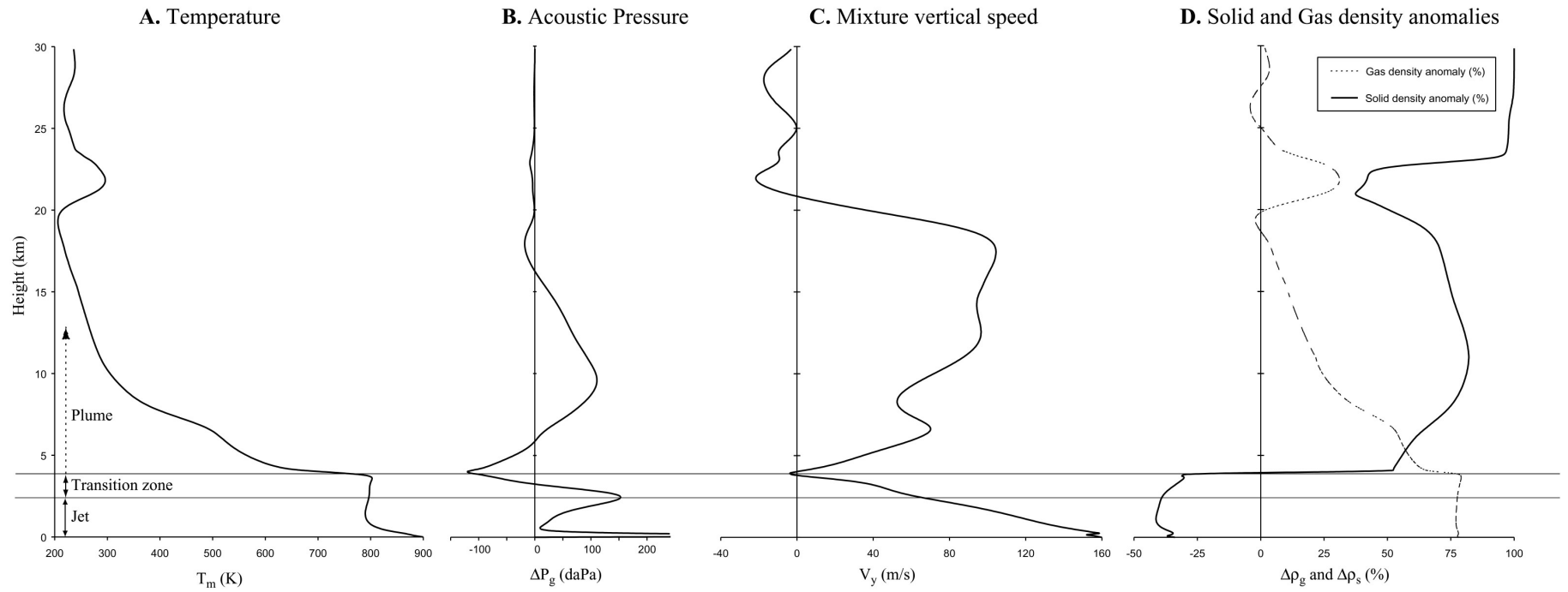
Chapter 3 - Figure 14



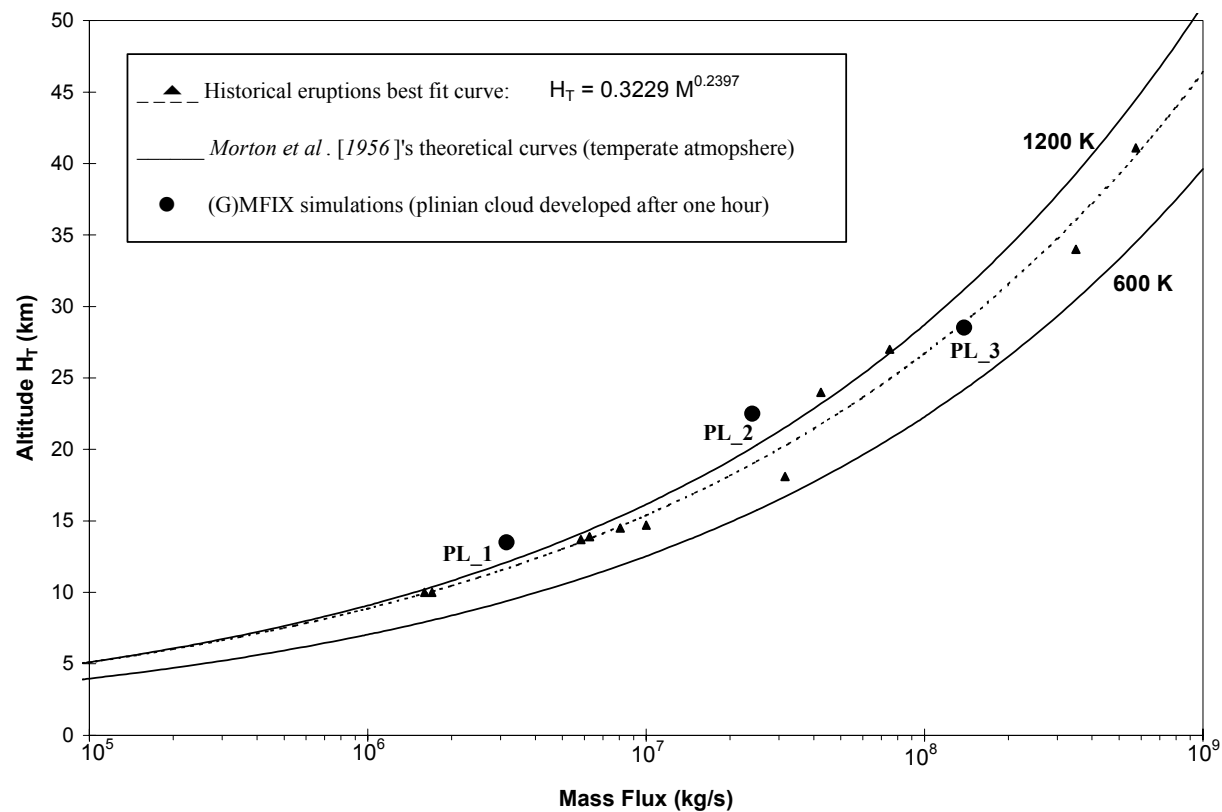
Chapter 3 - Figure 15



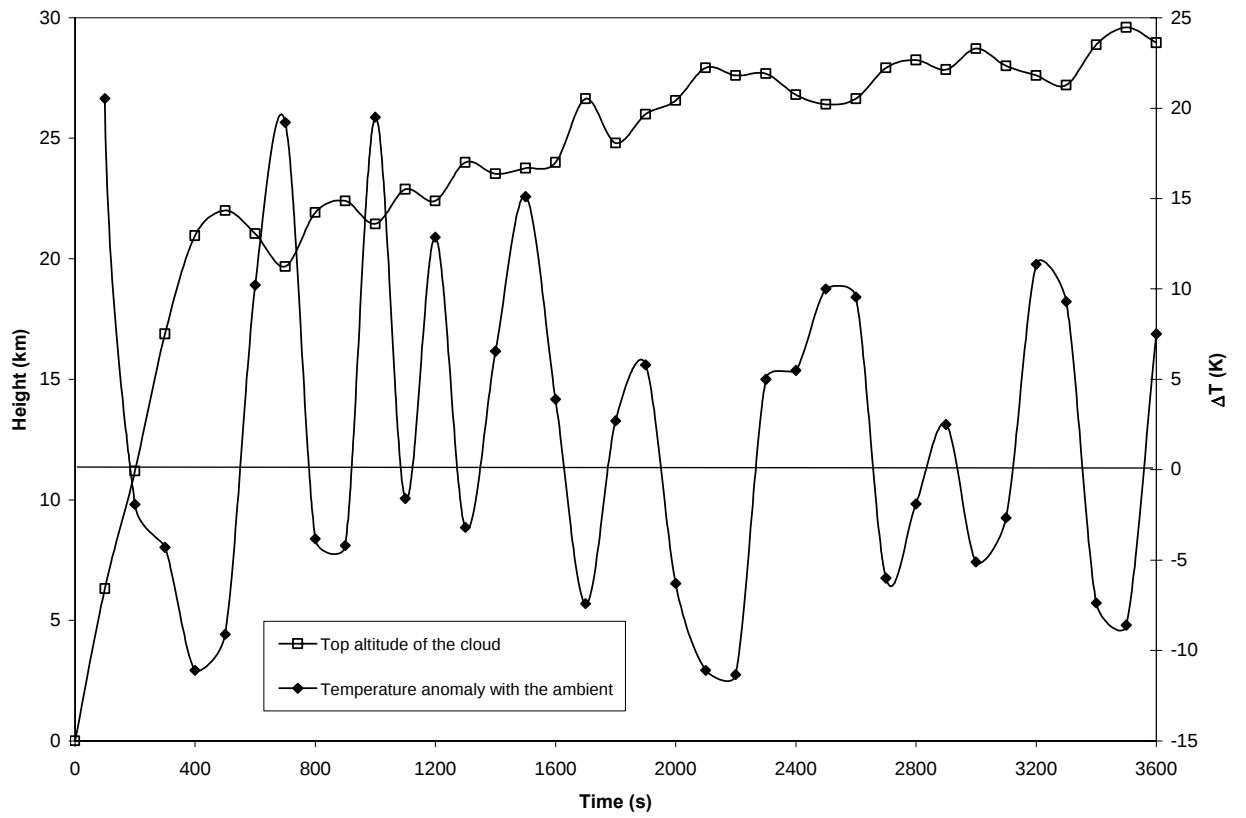
Profiles in the plinian column PL_3 at 3600 s



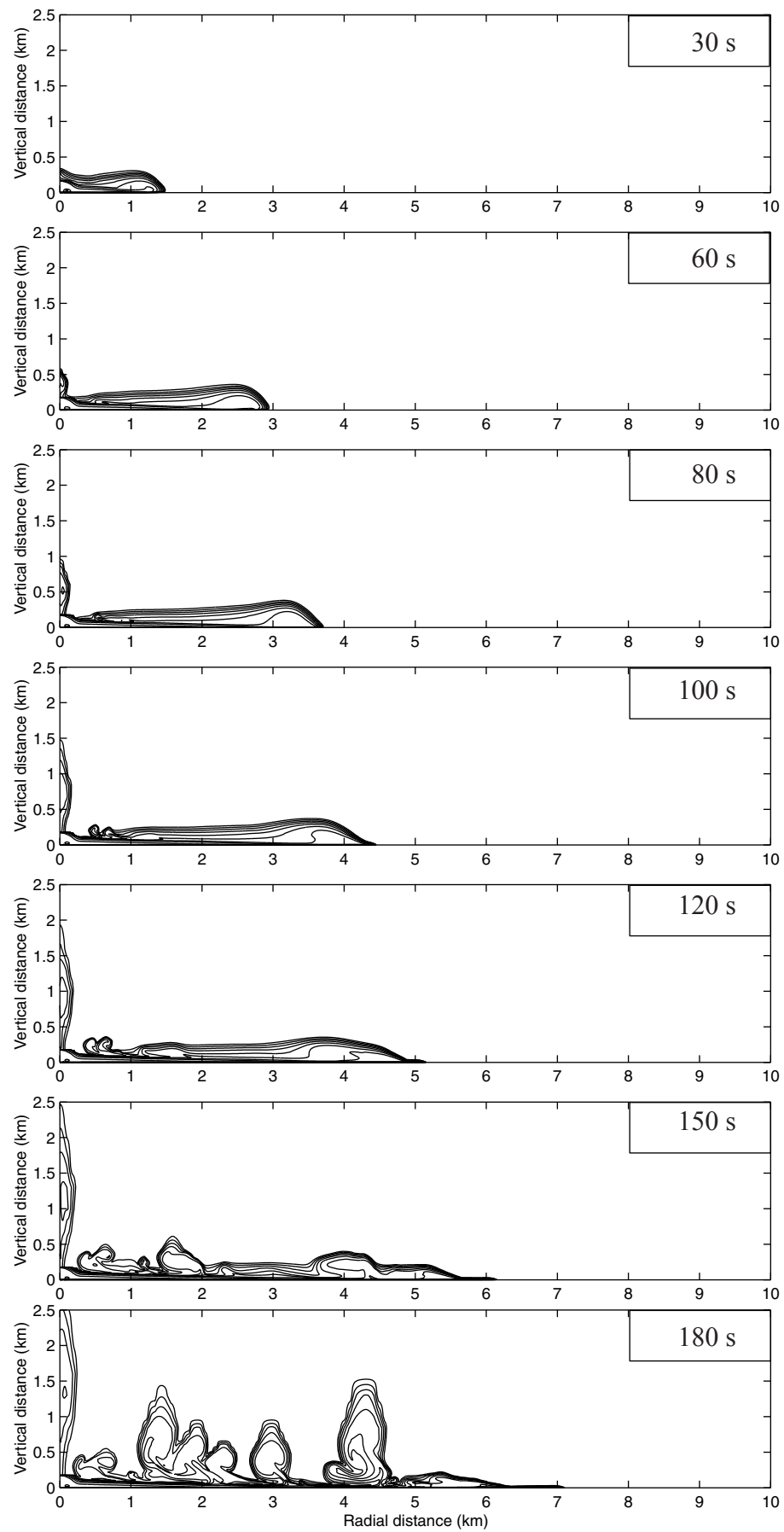
Chapter 3 - Figure 17



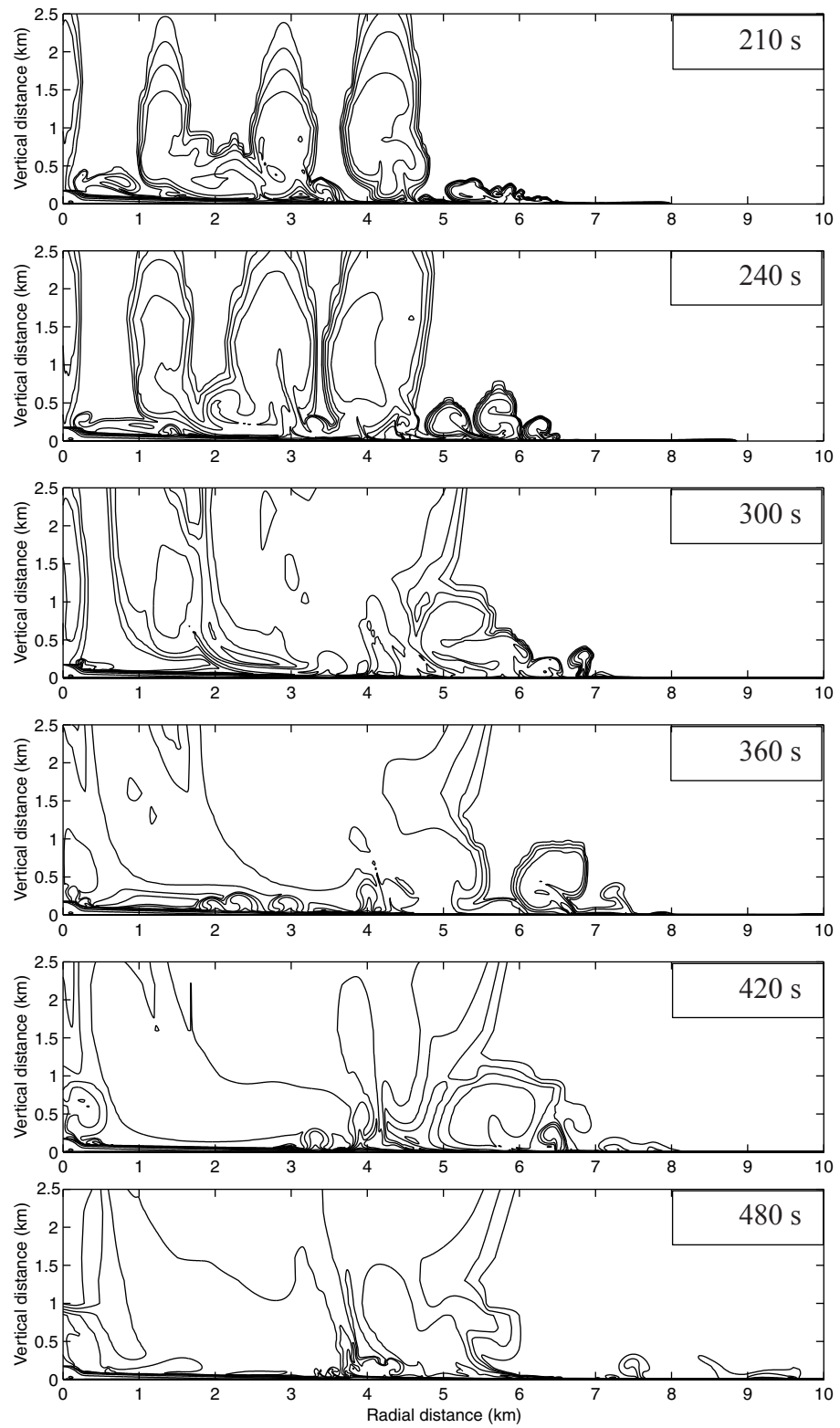
Chapter 3 - Figure 18



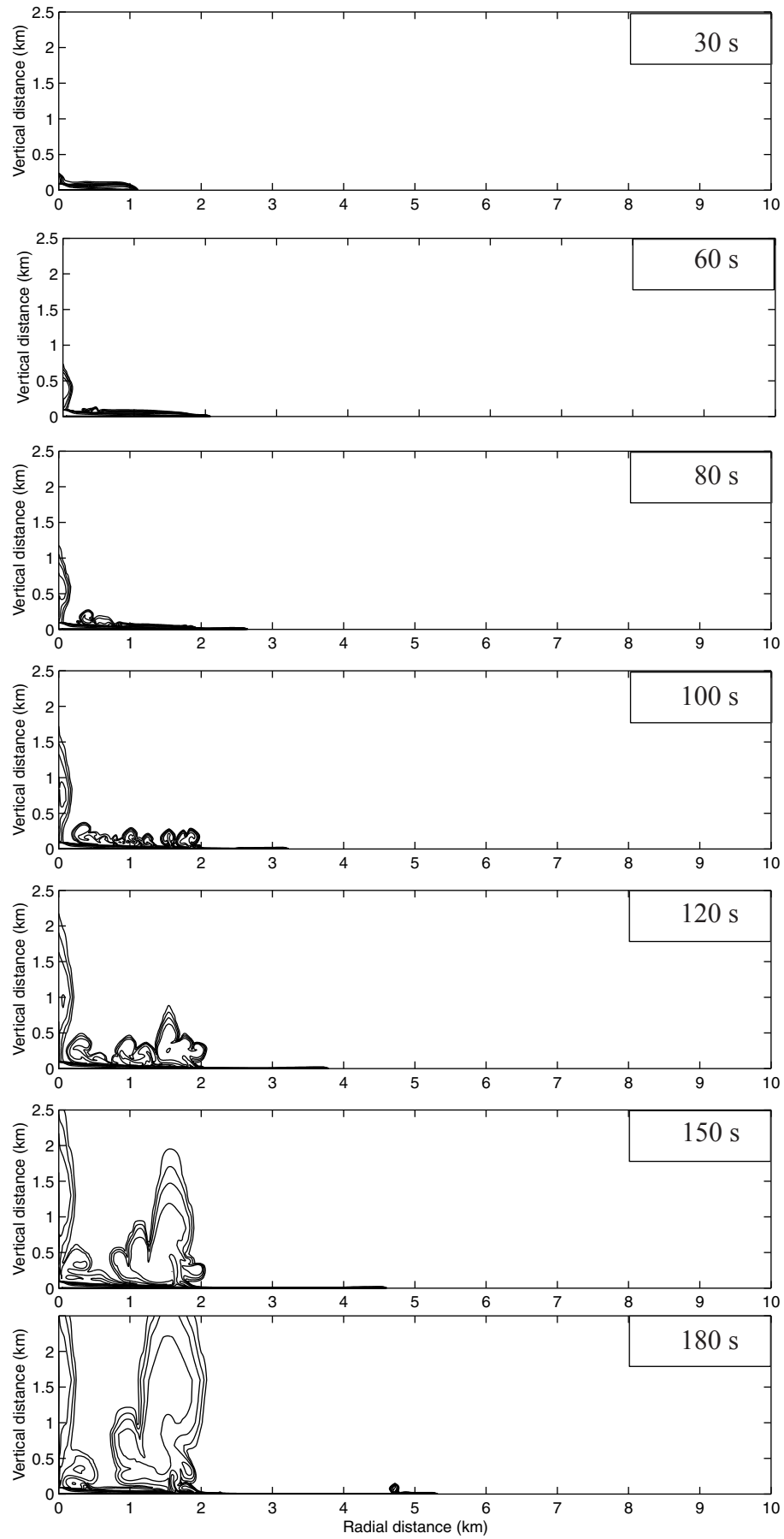
Chapter 3 - Figure 19A



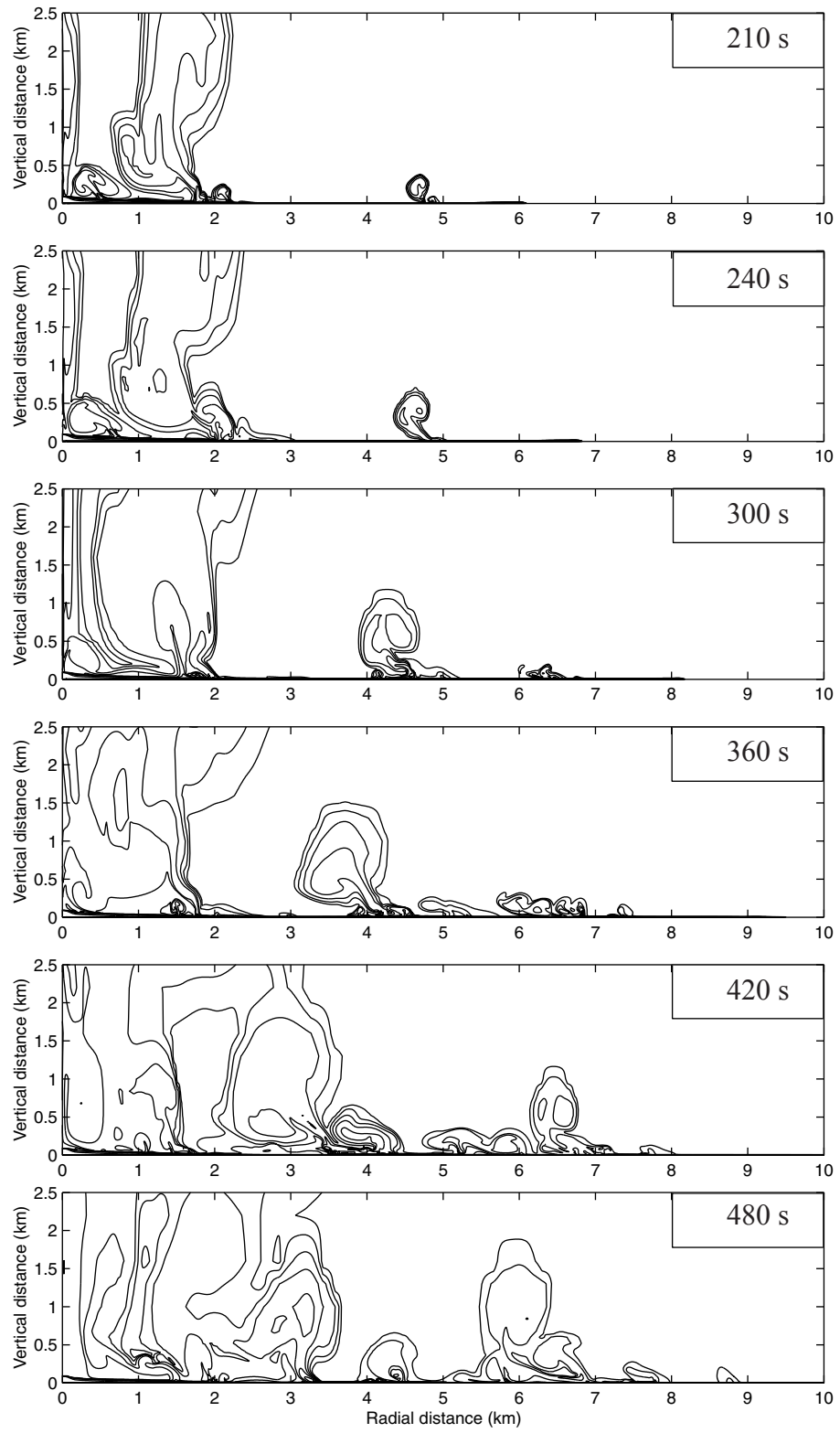
Chapter 3 - Figure 19B



Chapter 3 - Figure 20A

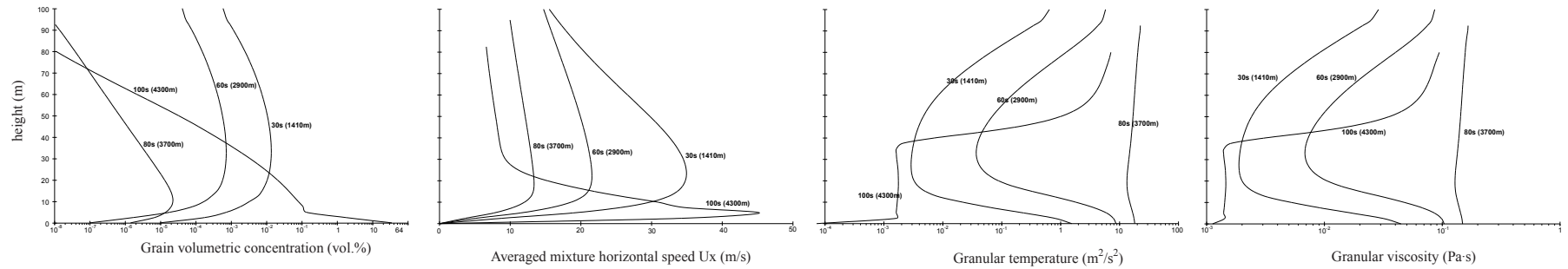


Chapter 3 - Figure 20B

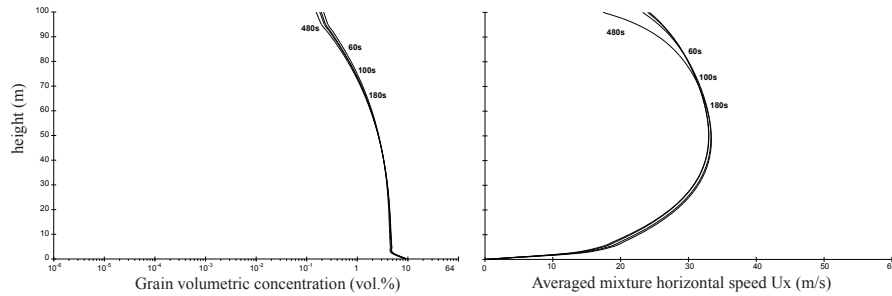


Chapter 3 - Figure 21

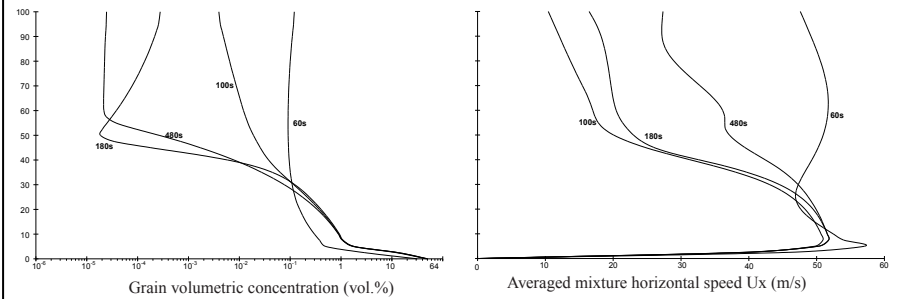
A. Variable position and time sampling within the head of the flow:



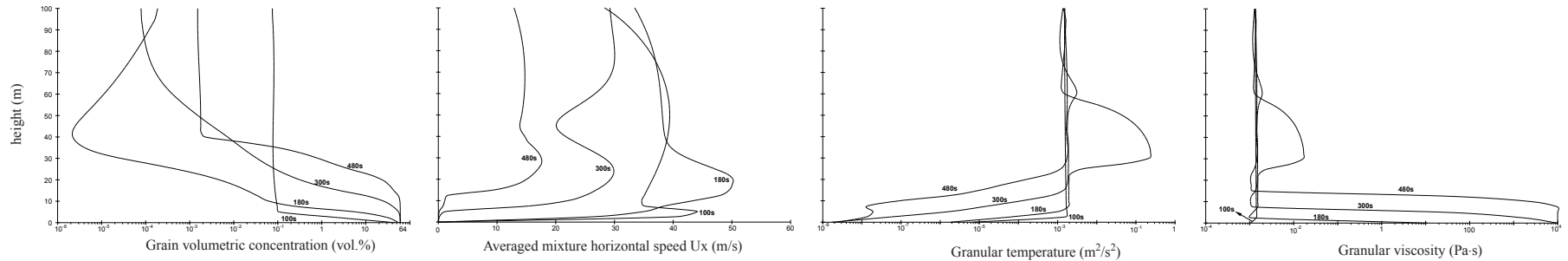
B. Fixed position sampling at 0.25 km from source:



C. Fixed position sampling at 2.5 km from source:

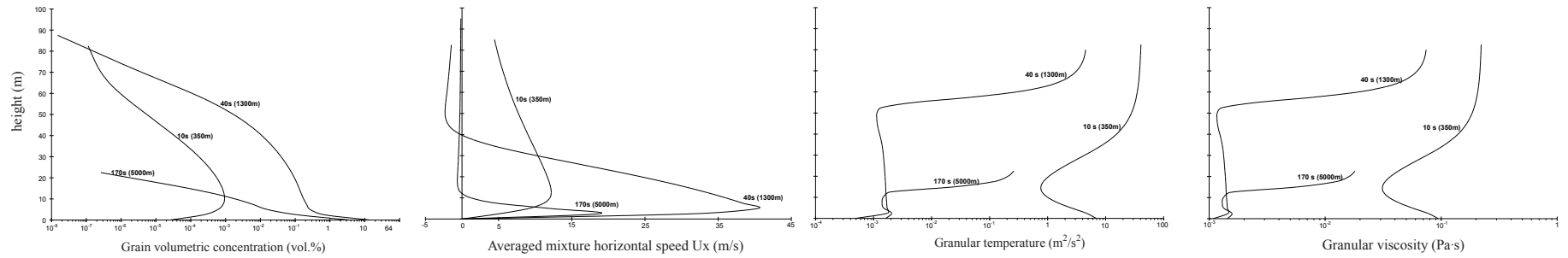


D. Fixed position sampling at 4 km from source:

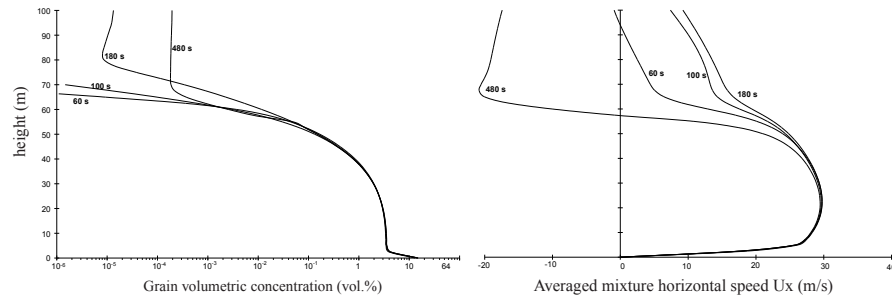


Chapter 3 - Figure 22

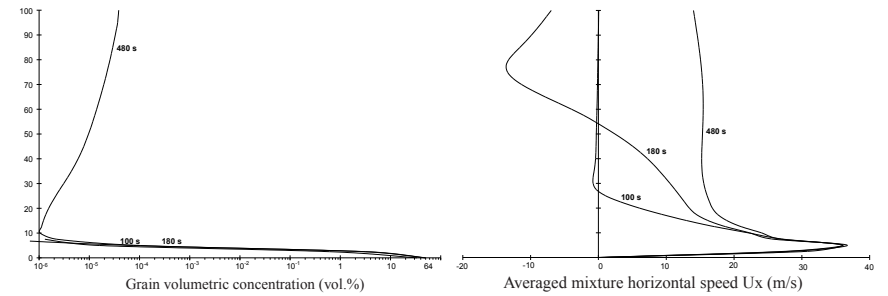
A. Variable position and time sampling within the head of the flow:



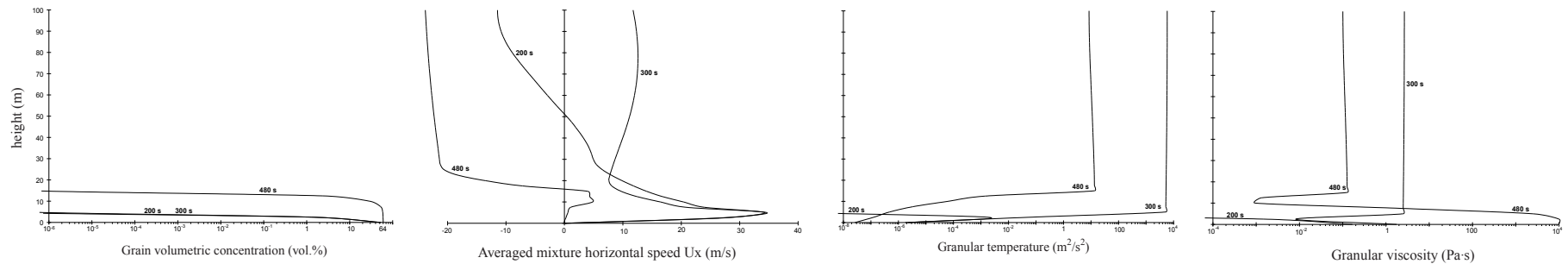
B. Fixed position sampling at 0.25 km from source:



C. Fixed position sampling at 2.5 km from source:



D. Fixed position sampling at 3.7 km from source:

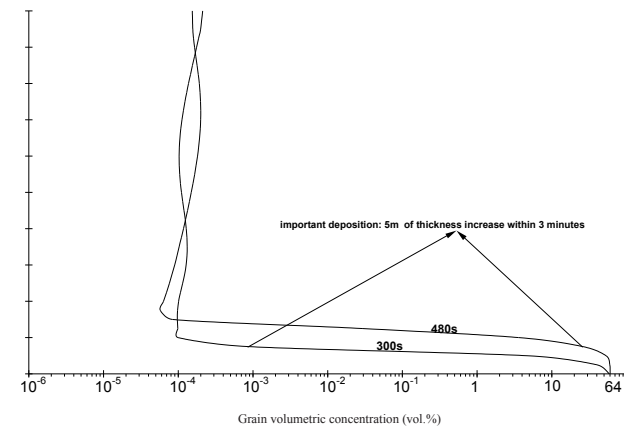
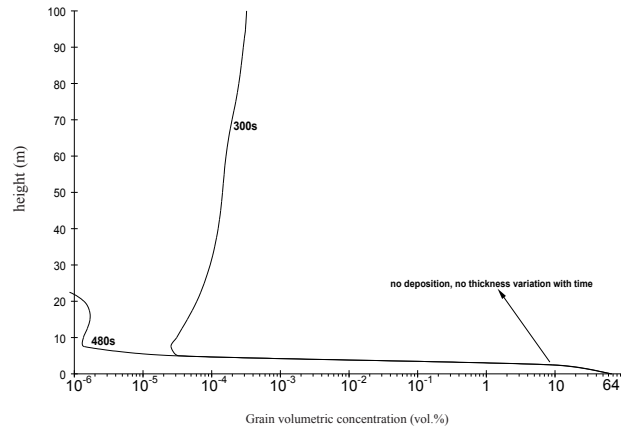


Chapter 3 - Figure 23

Inviscid Flow Model
PF_3

Kinetic-Collisional-Frictional Flow Model
PF_1

A. Volumetric grain concentration sampled at 5.2 km from source



B. Averaged mixture horizontal speed sampled at 5.2 km from source

