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IGNIMBRITES AND PILLOW LAVAS FROM THE AZORES ISLANDS (SHORT NOTE)

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Volcanological maping of the 9 Azores islands and volcanic prediction are two of main local autorities research programs. Portuguese geological survey finished classic maping of each island and moved to Madeira; IGA (Inst. Geosc. Azores) is starting witha new applied maping project namely on pyroclastic areas.

During preliminary field operation IGA staff discovered welded ignimbrites, nonwelded ignimbrites, pillow lavas and hyaloclastites layers which changes to new geological concepts the existing information.

Welded ignimbrites are very developed on S. Miguel (Povoação, Furnas and Vila Franca ; several layers at Sete Cidades Caldeira) and Terceira (S. Lourenço, Lages and S. Pedro).

Nonwelded ignimbrites (sometimes with base surge facies) were identified at Graciosa (caldeira SE slope), Flores (central area), Faial (Ribeirinha Volcanic Complex), Terceira (Lages and S. Mateus) and S. Miguel (Sete Cidades, Fogo and Furnas Volcanic Complex).

Pillow lavas (or associated structures) are evident at Santa Maria (recovering or under Miocene age sandylimestones). At S. Miguel (close of Nordeste) and Flores (north coast) perhaps some lavas are pillow type; it is necessary detailed site investigation.

Hyaloclastites (basaltic) from the Azores are known at Corvo (2 layers), Graciosa (sea destroyed cone), Santa Maria (several layers), Flores (several layers), Fail (Costado da Nau; Monte da Guia with slumping marks) Pico (Madalena islets, Lages, etc), S. Jorge (2 like Monte da Guia cones and well stratified coast outcroups), Terceira (Brazil, Cabras, etc) and S. Miguel (Mosteiros, Capelas, Rosto de Cao; Vila Franca islet; Faial da Terra and Maia outcroups).

The present note calls the attention of several experts to the local and regional (Atlantic opening) volcanology where subaerial lavas were studied without any relations to pyroclastics and submarine formed layers.

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