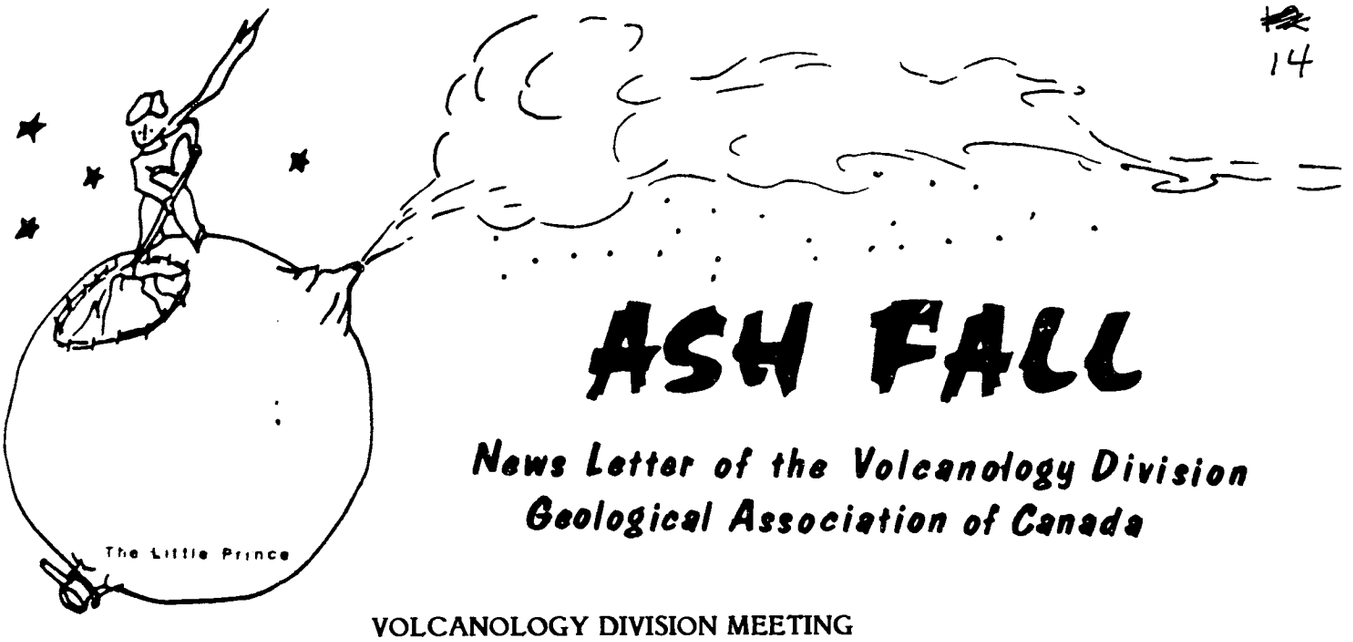

ASH FALL

News Letter of the Volcanology Division
Geological Association of Canada

VOLCANOLOGY DIVISION MEETING

WEDNESDAY, 17:30-18:30 1983

ELLIOTT BUILDING, ROOM 160

Apart from normal business, we will discuss over a light and bubbly what to do with our surplus ($1,000). Should we produce and sell guidebooks to volcanic regions? Should we support international conferences held in Canada, such as the 1985 Dyke Symposium? Should we raise fees to do more or lower them to do less?

NOMINATION FOR CENTRAL COUNCILLOR:

Dr. R.M. Easton, Ontario Geological Survey, Toronto.

Jim Nicholls will tell us about next field trip (TRANS MEXICO TOUR).

GAC GENERAL MEETING:

DON'T FORGET "THE CYPRUS PROJECT, WEDNESDAY AND THURSDAY AFTERNOON" AND THE VOLCANOLOGY SESSION THURSDAY MORNING.

REMEMBER FIELD TRIPS 1, 3, 8, 16 ARE FOR THE LIKES OF US.

SUPPORT THEM - GET THE GUIDEBOOKS.

SPECIAL SESSION ON DYKES AND SUBVOLCANIC INTRUSIONS: will be presented at GAC, 1984 in London, Ontario (contact Baragar or Schau). Please, if you work on dykes at all, consider making a map for us to hang on the wall(s); or prepare the dyke paper you've almost meant to write if you only had the opportunity. This session is practice for the 1985 Dyke Symposium.

I.....(PLEASE PRINT)

a member of the Volcanology Division of the Geological Asspociation of Canada, do hereby appoint B.N. Church, Chairman, as my proxy to vote for me and on my behalf at the Annual Meeting of the Volcanology Division to be held at Calgary during the GAC-MAC meeting being held there, and at any adjournment thereof.

Date.....1983 .....
Signature of Member

(IF PRESENTED IN PERSON, GOOD FOR BUBBLY LIBATION)

Cyprus Crustal Study Project: Update

At present, about 3.25 kms of drilling has been completed into various parts of the Troodos ophiolite and the project is on hold while additional funding is being arranged. About 500 m is in the upper part of the pillow lava sequence, about 900 m in two drill holes in a volcanogenic ore body, and 1850 m in the plutonic complex. It is too early to make a serious assessment of the results, but some preliminary observations might be of interest.

One of the ore deposit holes successfully penetrated the mineralized alteration pipe of the ore body and continued through relatively unaltered lavas beneath into a zone of dyking which could be the uppermost part of the sheeted dyke zone. Like most ore bodies in Cyprus, the mineralization is predominantly pyrite.

The plutonic hole penetrated about 500 m of sheeted dykes, then gabbros, and finally at about 1750 m reached the top of the ultramafic zone composing the lower part of the complex. The transition from nearly 100% sheeted dykes to almost continuous gabbro takes place within the surprisingly short distance of less than 100 m. Fairly uniform microgabbro spotted with felsic intrusions and pegmatitic patches comprises the upper half of the gabbro zone representing the upper part of the magma chamber. This passes abruptly downward into very coarse grained gabbro which generally persists to the base of the gabbro member. What layering is present is so subtle as to be almost imperceptible. Similarly, the ultramafic zone, at this level pyroxenites, is virtually unlayered.

The sheeted dykes are less amenable to representative sampling since they are not stratigraphically disposed. Hence, they have been mapped and sampled in a number of widely distributed road cuts with the hope of obtaining samples that are reasonably representative of the unit.

Current plans are to continue the plutonic hole to at least 2000 m, then to return to the pillow lava sequence to complete the section there to the top of the sheeted dyke zone. This will provide a continuous section through an ophiolite from the top of the pillow lavas to the ultramafic zone; virtually its entire liquid line of descent. Thus, samples from all three environments should provide a coherent picture of magmatic evolution in an ophiolite and it remains to be seen if this can be correlated with any known element of our present tectonic regime.