

# Volcanic Dust Cloud obscures Mauna Kea Sky

Since early April of this year a cloud of volcanic ash has been visible from Hawaii. This cloud is the result of an eruption of the Chinchonal volcano in Mexico in late March. By late May the dust layer extended from 24 to 30 km altitude. It produced extinction at the zenith of 0.05 to 0.15 magnitudes, but at its densest in early April it exceeded 0.5 magnitudes!

Scattering is the main astronomical

problem from this cloud. It is currently 20 to 50 times stronger in  $B$  than normal Rayleigh and aerosol scattering at 4000 m. Otherwise clear Hawaiian skies appear white within  $60^\circ$  of the sun. The scattering is essentially gray from the UV to the near infrared. Observers concerned about sky brightness should note that conditions will be adverse when any moon is up. This condition is likely to prevail for quite a while yet, possibly to the end of 1982 or later.

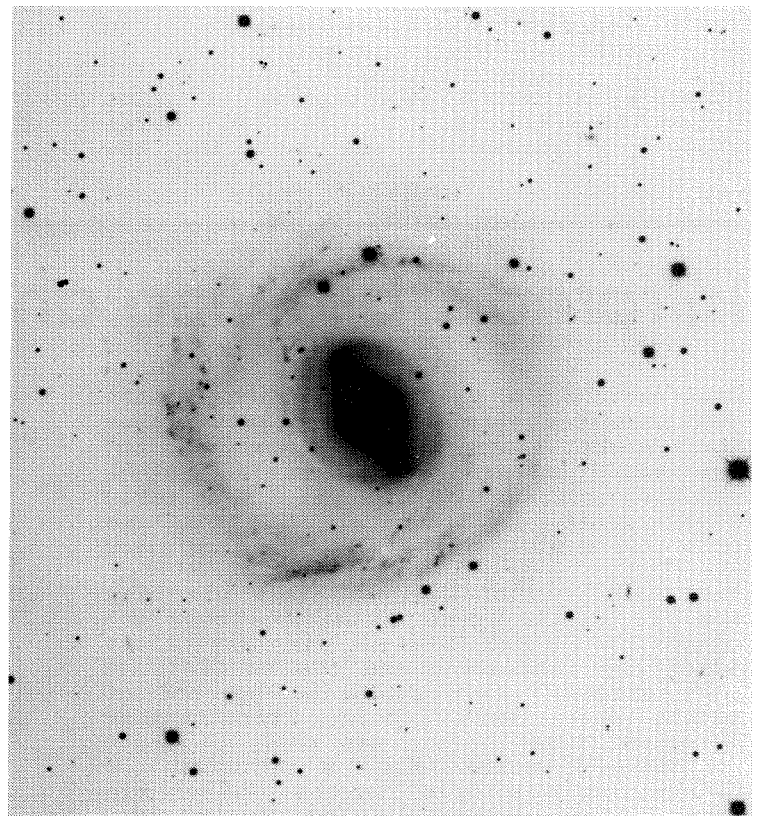
## Prime Focus Observing

All CFHT observing, including prime focus work, was severely hampered by weather in the first three months of 1982. A series of winter storms repeatedly caused the summit road to be impassable due to snow, and produced a variety of technical problems with the dome, cooling floor, and telescope electronics. Despite these difficulties, many observers were able to obtain plate material at the prime focus.

C. Impey started the year's observing using the gress on 1-3 January. Although one night was lost to bad weather, he obtained a number of plates which will be scanned in search of high redshift QSO's. Continuing their searches for globular clusters in galaxies, W. Harris and S. van den Bergh attempted to obtain plates with the WFC on January 18-22. Unfortunately, a severe storm blew up, and only a few plates were obtained. At the beginning of the next run, P. Massey and D. Crampton joined René Racine for a strenuous hike up the last 1.5 miles of the summit road, which had been blocked by snow. A few plates were taken before fog forced an end to their observing run. W. Harris returned to Mauna Kea to observe with S. Demers to study dwarf irregular galaxies. This run was followed by another of 3 nights, in which they proposed to study distant globulars in the galactic halo. Despite drifting snow and technical difficulties, Harris and Demers were able to expose a few plates for their programs.

Once again, C. Turon benefited from a short clear spell when G. Lelièvre obtained astrometric plates for her in good seeing on 3 February.

Following another week and a half of inclement weather, the telescope was reopened on 16 February for E. Athanassoula and A. Bosma. Once the dome and telescope were cleared of ice, the observers enjoyed several good nights, obtaining direct plates for their program



*Prime focus plate of barred spiral galaxy NGC 2217 obtained by E. Athanassoula and A. Bosma. This 80 minute exposure was on IIIaF emulsion with an OG 550 filter.*

to study the structures of ringed and barred spiral galaxies.

L. Thompson followed on 22-23 February to investigate the morphology of galaxies in clusters located at moderate  $z$ . He was able to acquire plates on his first night, but clouds moved in the second night. This new storm subsequently caused J. Gallagher and D. Hunter to lose all three of their nights, intended for studies of star formation in irregular galaxies.