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## Abstract View

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## Variations in Aitken and Giant Nuclei in Marine Air

**Duncan C. Blanchard and Lawrence Syzdek**

*Atmospheric Sciences Research Center, State University of New York, Albany 12222*

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### ABSTRACT

During the summer of 1970, Aitken nucleus counts were made nearly every day from atop a tower on the windward shore of Oahu, Hawaii. Contrary to expectations, the counts were not constant from one day to the next but underwent slow changes of a cyclic nature. The daily averages varied between 125 and 300 nuclei per cubic centimeter. Most interesting was the finding of what appeared to be two cycles in the count, one having a period of about 30 days and the other, superimposed on this, having a period of 5–6 days. At the same time the nucleus counts were made, the mass of giant sea-salt particles was determined. This was found to vary with local wind speed in much the same manner as has been found by Woodcock.

The cyclic variations in Aitken nuclei have not been explained. Various local meteorological parameters, pressure, wind, cloud cover, time of day, etc., showed no correlation with the nucleus count. The magnitude of the count was about the same as that found in the same area by the *Carnegie* nearly half a century ago.

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Headquarters: 45 Beacon Street Boston, MA 02108-3693

DC Office: 1120 G Street, NW, Suite 800 Washington DC, 20005-3826

[amsinfo@ametsoc.org](mailto:amsinfo@ametsoc.org) Phone: 617-227-2425 Fax: 617-742-8718

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