

defined as the period when the local solar zenith angle, at the time of observation, is $< 90^\circ$. The climatic means of the average surface temperature used in computing ΔT are the same that we used for Fig. 5 of the earlier paper (Rasool, 1964).

An examination of the TIROS VII data, presented in Fig. 1 shows the same qualitative pattern of variations in ΔT which we used as the basis for our earlier interpretations of nighttime increase in cloudiness over the Southern Hemisphere.

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Particle Growth by Coalescence

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In a recent, interesting article by Twomey (1964) the whole series of equations leading to and including the fundamental equation for the rate of change of a particle size distribution due to coagulation appear to be in error by a factor of 2. The second term after his Eq. (1) is equal to twice the rate of decrease of the number of droplets, and the following term is equal to twice the rate of increase. Therefore, the right hand side of his Eq. (2) and the two preceding, and the one succeeding un-numbered equation should be divided by 2. The equation is correctly given in the *Handbook of Aerosols* (1950). It is of some importance to know whether this error found its way into Twomey's numerical computations and thus doubled his calculated rate of growth.

As a matter of custom, it would be helpful if authors of numerical computations would give in their articles sufficient information to allow the checking of their work. Twomey, for instance, could state the algebraic form of his initial distribution and the necessary

numerical information to provide its reconstruction, and could indicate in which of the several possible ways he chose to "extend" Hocking's (1959) collection efficiencies "by logarithmic interpolation."

Incidentally, a numerical integration of what Twomey calls "the statistical equations for continuous size distributions" was performed by Zebel (1958) in dealing with the coagulation of aerosols.

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