SUMMARY OF RESULTS OF A RANDOMIZED CLOUD SEEDING PROJECT IN ARIZONA

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During the summers of the four year period 1957 to 1960, a series of randomized cloud seeding tests was conducted over the Santa Catalina Mountains in southeastern Arizona. The design of the program has been described by Battan and Kassander [1]. Briefly, one of two succeeding pairs of days was seeded according to a suitable randomization procedure. Silver iodide seeding was carried out by means of an airborne generator of Australian design. The aircraft was flown at an altitude where the temperature was about $-6°$ C along a line perpendicular to the wind at that altitude and located upwind of the mountain target.

A network of 29 recording raingages was distributed as shown in figure 1. The seeding runs ranged from two to over four hours in duration, starting at

TABLE I

SUMMARY OF MEAN RAINFALL PER STATION DURING THE PERIOD 1300 TO 1800 MST ON SEEDED AND NOT SEEDED DAYS—1957 TO 1960

Year	Number of Pairs	Seeded Days	Not Seeded Days	$\frac{S}{NS}$
1957	16	0.067	0.059	1.14
1958	16	0.059	0.041	1.44
1959	20	0.026	0.094	0.28
1960	17	0.0175	0.034	0.51
All data	69	0.041	0.059	0.70
With August 17–18, 1959 excluded	68	0.042	0.045	0.93

about 1230 MST. Effects of seeding on rainfall were sought by examining the rainfall during the period 1300 to 1800 MST.

Details of the preliminary analysis have been given in [2]. Table I summarizes the rainfall data by year and also shows the number of pairs involved.

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