NOTE ON THE WEATHER BUREAU ACN PROJECT

J. NEYMAN and E. L. SCOTT
UNIVERSITY OF CALIFORNIA, BERKELEY

1. Introduction

The purpose of this note is to provide information on the Weather Bureau ACN Cloud Seeding Project relevant to the discussion in our main paper [1], pp. 293–325, which is too long to be included in the paper itself. The source of the information is the article by Ferguson Hall published in *Meteorological Monographs* [2].

2. Experimental area

The project experimental area was in the states of Washington and Oregon. It was bounded on the west by the Pacific Ocean, on the east by the ridge of Cascade Mountains, on the north by the southern edge of the Olympic Mountains including the Puget Sound area, and on the south it extended a short distance into northwestern Oregon. The approximate dimensions are 200 miles in a north-south direction and about 130 miles east-west.

3. Seeding

Cloud seeding was done with dry ice dispensed from aircraft flying across the direction of the advancing winter type storms, which are usually from the west. The seeding line varied in length from 20 to 40 miles. The intention was to seed only cloud systems that were "ripe for seeding." The decision as to whether a particular storm system was to be a "test unit" was reached using synoptic data and observations made from an aircraft exploring the atmosphere upwind from the experimental area. The test units were randomized with probability for seeding equal to 2/3. A total of 141 flights of all types were made. Sixty of these were operational weather flights made in anticipation of seedable conditions. The conditions were declared seedable on only 35 of these cases and randomization resulted in 22 seeding and 13 control cases. As emphasized by Hall, and as is perfectly reasonable to expect, mistakes in diagnosing seedability are unavoidable and some of the 35 test cases did not really have much "seeding potential."

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