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A BIBLIOGRAPHY OF WEATHER MODIFICATION EXPERIMENTS.(U)
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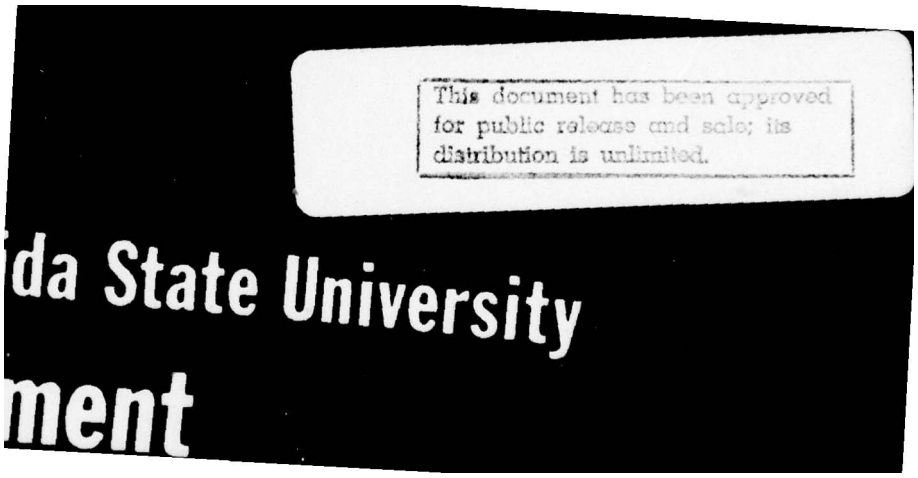
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by

(10) Morgan A./Hanson, Lawrence E./Barker, Charles L./Bach, Edward A./Cooley and Charles H./Hunter

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A BIBLIOGRAPHY OF WEATHER MODIFICATION EXPERIMENTS

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Edward A. Cooley, and Charles H. Hunter

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INTRODUCTION

This bibliography has been compiled within the Departments of Statistics and Meteorology at Florida State University as part of an Office of Naval Research sponsored investigation into the analysis of weather modification experiments. The compilation has involved a systematic search of all available relevant meteorological and statistical journals, reports of symposia, and cross checks of references in the sources. Any omissions are the result of oversight or the unavailability of relevant material.

Each experiment has been coded as follows below: (for example, 14-131-51-74 means that a crossover design was used with air generated silver iodide as the seeding agent. Rain gauges were used to measure the results, and the analysis was carried out by t-test).

Experimental Design

11 Two sample using control

12 Two sample using historical records

13 Two sample using estimate of normal rainfall from meteorological parameters

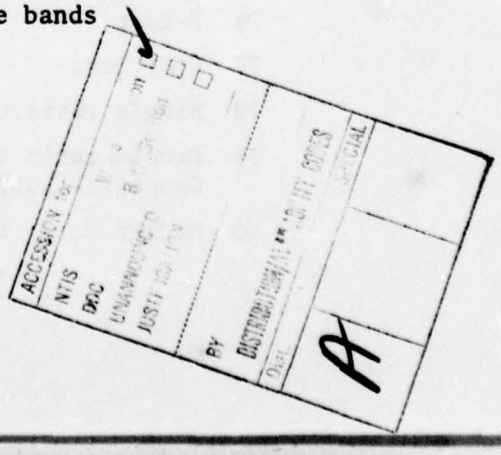
14 Crossover design

15 Single cloud seeding

16 Paired cloud seeding

17 Multiple cloud seeding, with randomly selected unseeded clouds

18 Random seeding of convective bands



19 Periodic Seeding

20 Areal Pattern recognition

21 Factorial design

22 None given

Type of Seeding

Prefix 1 - air generated

Prefix 2 - ground generated

Prefix 3 - both air and ground generated

31 Silver iodide

32 Dry ice

33 Water

34 Sodium iodide

35 Sodium chloride

36 Lead aerosols

37 Burning vegetation; urban heat

38 Gasoline engine exhaust; industrial pollution

39 Morpholine, Ethylamine

40 Portland cement

41 Ammonium iodide

42 Ammonium nitrate

43 Urea

44 Phloroglucinol

45 Not specified

Response Variables

51 Rain gauges

52 Stream flows; reservoir runoff

53 Snow measurements

54 Ice counters

55 Particle or drop collectors; Spectrophotometers

56 Radar - cloud census

57 Radar - rainfall/hail/snow

58 Radiosonde

59 Visual; photographs; photo grammetry; crop damage

60 General weather data

61 Cloud texture

62 Hail indicators

Statistical Techniques

71 Regression

72 Correlation

73 z-test

74 t-test

75 Chi-square test

76 F-test

77 C(α) test

78 Single ratio test

79 Double ratio test; Composite ratio test

80 Median ratio test

81 Multivariate analysis

82 Analysis of variance

83 Analysis of covariance

84 Pattern analysis

85 Rank sum test

86 Sign test; Signed rank test

87 Squared rank sum test

88 Rank Correlation

89 Kolmogorov-Smirnov test

90 None given

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