

1/1

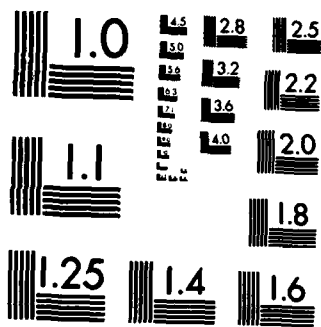
NL

L J LEVITT ET AL. MAR 84 DRSMI/RR-84-3-TR

F/G 4/2

NL

[illegible]



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

AD-A145 294

Technical Report RR-84-3

17

**JOINT PROBABILITY OF SELECTED CLOUD AND VISIBILITY
THRESHOLDS AROUND KOBLENZ, GERMANY**

Larry J. Levitt
Dr. Oskar M. Essenwanger
Research Directorate
US Army Missile Laboratory

MARCH 1984

DTIC
AUG 31 1984
A



U.S. ARMY MISSILE COMMAND
Redstone Arsenal, Alabama 35898

DTIC FILE COPY

Approved for public release; distribution unlimited.

DISPOSITION INSTRUCTIONS

**DESTROY THIS REPORT WHEN IT IS NO LONGER NEEDED. DO NOT
RETURN IT TO THE ORIGINATOR.**

DISCLAIMER

**THE FINDINGS IN THIS REPORT ARE NOT TO BE CONSTRUED AS AN
OFFICIAL DEPARTMENT OF THE ARMY POSITION UNLESS SO DESIGNATED BY OTHER AUTHORIZED DOCUMENTS.**

TRADE NAMES

**USE OF TRADE NAMES OR MANUFACTURERS IN THIS REPORT DOES
NOT CONSTITUTE AN OFFICIAL INDORSEMENT OR APPROVAL OF
THE USE OF SUCH COMMERCIAL HARDWARE OR SOFTWARE.**

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER TR-RR-84-3	2. GOVT ACCESSION NO. AD-A141 294	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Joint Probability of Selected Cloud and Visibility Thresholds Around Koblenz, Germany		5. TYPE OF REPORT & PERIOD COVERED Technical Report
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Larry J. Levitt Dr. Oskar M. Essenwanger		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Research Directorate US Army Missile Laboratory, MICOM		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Same as above		12. REPORT DATE March 1984
		13. NUMBER OF PAGES 76
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) areal probabilities of adverse weather ceiling and visibility observations		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The areal probabilities of adverse weather at a station network consisting of Cologne, Frankfurt, Hahn, and Bitburg have been determined for the period of record 1961 through 1970 (except September 1967 through August 1968). Individual and joint probabilities of adverse weather for eight categories of ceiling and visibility observations defined in a previous report (see reference 1) have been tabulated. The 9-year period was chosen due to a large amount of missing data at Cologne during the months indicated above. The identical set		

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

of tabulations for the complete 10-year period without Cologne did not reveal any notable differences in the probabilities.

For the adverse weather condition of visibility less than or equal to 1 km (fog) at 0700 (LST) the probability estimates at single stations range from 7 to 20 percent in fall, 3 to 17 percent in winter, and reduce from 2 to 8 percent in summer. The two-station probabilities are reduced from 1 to 3 percent in fall, 0.3 to 1.6 percent in winter, and 0.2 to 0.6 percent in summer. Fog occurred simultaneously at the four stations in fall with 0.9 percent, in winter with 0.1 percent.

The extensive set of tables reflects a selected number of adverse weather conditions. The reduction in joint probability estimates with increased areal coverage is evident for all adverse weather categories.

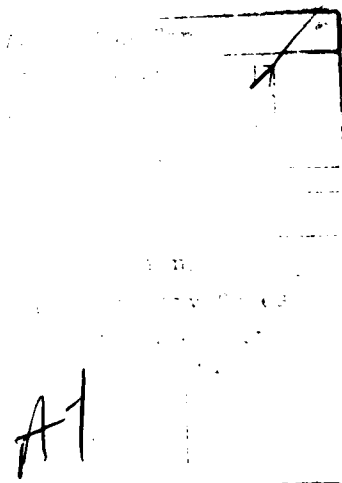
Tabulations of probability estimates at each individual station and joint probability estimates of adverse weather are listed in annual, seasonal, and monthly summaries (selected months only).

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

TABLE OF CONTENTS

	Page
I. Introduction	1
II. Data Preparation	2
III. Single Station Survey.	3
IV. Two-Station Probabilities.	4
V. Three-Station Probabilities.	5
VI. Spatial Probabilities.	6
VII. Conclusions.	6
References	7
Distribution	67



LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
1.	Single Station Probability of Adverse Weather, Annual Summary	8
2.	Single Station Probability of Adverse Weather, Sep-Oct-Nov	9
3.	Single Station Probability of Adverse Weather, Dec-Jan-Feb	10
4.	Single Station Probability of Adverse Weather, Mar-Apr-May	11
5.	Single Station Probability of Adverse Weather, Jun-Jul-Aug	12
6.	Single Station Probability of Adverse Weather, September	13
7.	Single Station Probability of Adverse Weather, October	14
8.	Single Station Probability of Adverse Weather, November	15
9.	Single Station Probability of Adverse Weather, December	16
10.	Single Station Probability of Adverse Weather, January	17
11.	Single Station Probability of Adverse Weather, February	18
12.	Single Station Probability of Adverse Weather, July	19
13.	Two-Station Probabilities of Adverse Weather, Annual Summary	20
14.	Two-Station Probabilities of Adverse Weather, Sep-Oct-Nov	21
15.	Two-Station Probabilities of Adverse Weather, Dec-Jan-Feb	22
16.	Two-Station Probabilities of Adverse Weather, Mar-Apr-May	23
17.	Two-Station Probabilities of Adverse Weather, Jun-Jul-Aug	24
18.	Two-Station Probabilities of Adverse Weather, September	25
19.	Two-Station Probabilities of Adverse Weather, October	26

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
20.	Two-Station Probabilities of Adverse Weather, November	27
21.	Two-Station Probabilities of Adverse Weather, December	28
22.	Two-Station Probabilities of Adverse Weather, January	29
23.	Two-Station Probabilities of Adverse Weather, February	30
24.	Two-Station Probabilities of Adverse Weather, July	31
25.	Three-Station Probabilities of Adverse Weather, Annual Summary	32
26.	Three-Station Probabilities of Adverse Weather, Sep-Oct-Nov	33
27.	Three-Station Probabilities of Adverse Weather, Dec-Jan-Feb	34
28.	Three-Station Probabilities of Adverse Weather, Mar-Apr-May	35
29.	Three-Station Probabilities of Adverse Weather, Jun-Jul-Aug	36
30.	Three-Station Probabilities of Adverse Weather, September	37
31.	Three-Station Probabilities of Adverse Weather, October	38
32.	Three-Station Probabilities of Adverse Weather, November	39
33.	Three-Station Probabilities of Adverse Weather, December	40
34.	Three-Station Probabilities of Adverse Weather, January	41
35.	Three-Station Probabilities of Adverse Weather, February	42
36.	Three-Station Probabilities of Adverse Weather, July	43
37.	Four-Station Probabilities of Adverse Weather, Annual Summary	44
38.	Four-Station Probabilities of Adverse Weather, Sep-Oct-Nov	45

<u>Table</u>	<u>Title</u>	<u>Page</u>
39.	Four-Station Probabilities of Adverse Weather, Dec-Jan-Feb	46
40.	Four-Station Probabilities of Adverse Weather, Mar-Apr-May	47
41.	Four-Station Probabilities of Adverse Weather, Jun-Jul-Aug	48
42.	Four-Station Probabilities of Adverse Weather, September	49
43.	Four-Station Probabilities of Adverse Weather, October	50
44.	Four-Station Probabilities of Adverse Weather, November	51
45.	Four-Station Probabilities of Adverse Weather, December	52
46.	Four-Station Probabilities of Adverse Weather, January	53
47.	Four-Station Probabilities of Adverse Weather, February	54
48.	Four-Station Probabilities of Adverse Weather, July	55
49.	Single Station Probability of Adverse Weather, Bitburg-Frankfurt-Hahn, Annual Summary	56
50.	Single Station Probability of Adverse Weather, Bitburg-Frankfurt-Hahn, Sep-Oct-Nov	57
51.	Single Station Probability of Adverse Weather, Bitburg-Frankfurt-Hahn, Dec-Jan-Feb	58
52.	Two-Station Probabilities of Adverse Weather, Bitburg-Frankfurt-Hahn, Annual Summary	59
53.	Two-Station Probabilities of Adverse Weather, Bitburg-Frankfurt-Hahn, Sep-Oct-Nov	60
54.	Two-Station Probabilities of Adverse Weather, Bitburg-Frankfurt-Hahn, Dec-Jan-Feb	61
55.	Three-Station Probabilities of Adverse Weather, Bitburg-Frankfurt-Hahn, Annual Summary	62
56.	Three-Station Probabilities of Adverse Weather, Bitburg-Frankfurt-Hahn, Sep-Oct-Nov	63
57.	Three-Station Probabilities of Adverse Weather, Bitburg-Frankfurt-Hahn, Dec-Jan-Feb	64

ACKNOWLEDGEMENTS

The authors thank Dr. Dorathy A. Stewart and Mrs. Alexa M. Mims for helpful suggestions during the development of the computer programs. Dr. Dorathy A. Stewart must be thanked for carefully reviewing our manuscript. We are also grateful to Mrs. Mona L. White for her accurate typing of the manuscript.

I. INTRODUCTION

This report discusses the second phase of a study on areal probability of adverse weather (see reference 1) for a four-station network in the vicinity of the Koblenz area in Germany. The spatial variability of visibility and cloud ceiling have been derived for the period of record 1961 through 1970 (except September 1967 through August 1968) at a four-station network consisting of Cologne, Frankfurt, Hahn, and Bitburg (see figure 1). This set of stations thus incorporates a different geographic region than in our first report. The empirical probabilities of occurrence at four single stations and their associated joint probabilities have been generated from three-hourly data for the following eight categories:

- *Visibility $\leq$ 1 km
- *Ceiling $\leq$ 500 ft
- *Ceiling $\leq$ 500 ft and/or visibility $\leq$ 2 mi
- *Ceiling $\leq$ 800 ft
- *Ceiling $\leq$ 800 ft and/or visibility $\leq$ 3 mi
- *Ceiling $\leq$ 2000 ft and/or visibility $\leq$ 3 mi
- *Ceiling $\leq$ 4500 ft and/or visibility $\leq$ 4 mi
- *Ceiling $\leq$ 8000 ft and/or visibility $\leq$ 5 mi

The selection of the time period at stations within the geographic region of interest was determined by the availability of a common period of record in our data. This period of record was 1961-1970. This period contained less missing records than 1960-1969 or 1966-1976. However, the period of record was reduced to 9 years by omitting September 1967 through August 1968, as November and December 1967 and April 1968 were found to be almost entirely missing at Cologne.

A complete set of adverse weather calculations was also performed by using the full 10-year period without Cologne, and no significant differences in the probability estimates were found. Typically, these differences were a few tenths of a percentage point, particularly in the more restrictive adverse weather categories. Therefore, it was concluded that omitting September 1967 through August 1968 from our data set lowered the probabilities of adverse weather in our annual, fall, and winter summaries insignificantly. The results from some of these tabulations have been included following the main set of tables (see tables 49-57).

The comparison of our period of record 1961-1970 with 1966-1976 has been discussed in detail in our previous report (see reference 1). For the present data sets these conclusions that the period of record 1961-1970 does not show any significant change of climatic conditions remain valid.

II. DATA PREPARATION

The procedure to fill in missing data was identical to that applied in the first phase of the areal probability study, and the reader is referred to Section III of our first report (see Reference 1) for details. Overall, considerably few observations needed to be filled in during the creation of three-hourly data for our present study.

The total percentage of missing data at Hahn was less than two percent. With the exception of five missing ceiling and visibility observations, all of these missing observations were encountered during the months of September 1966, and May, June, and July, 1970. Only four observations had been absent in the entire Frankfurt data set.

Our Bitburg climatological record contained very few observations at sporadic intervals during the months of April and May 1966, and September and October 1968. According to our detailed analysis we could replace these months by records from Saarbrücken. These substitutions may lead to a slight reduction of areal probabilities. However, for practicality, this replacement was as suitable as any sophisticated and expensive substitution of data by regression techniques or other statistical tools.

The Saarbrücken ceiling and visibility were recorded to the nearest foot and meter, respectively. These values were converted to conform to the coded values common to the other three stations. (The areal probability estimates are not affected by this conversion.)

Cologne displayed a total percentage of missing data of 8.6 percent. The months that contained the largest quantity of missing data were May, August, and September, which accounted for one-third of the total amount of observations filled in at this station. Otherwise, the missing values were distributed randomly with regard to observation time and season.

The Cologne visibility observations were recorded in tenths of a kilometer, while the other stations were reported in fractions of statute miles (4 miles or greater were recorded in whole miles). Therefore, it was necessary to convert the Cologne visibility observations to their equivalent value in the visibility code used by the other three stations. Above 2 miles, it was necessary to assign a range of visibilities from the Cologne record to the equivalent visibility, e.g., 3.3 through 3.9 km converted to $2\frac{1}{4}$ miles, 4.0 to 4.7 km converted to $2\frac{1}{2}$ miles, etc. It was also necessary to determine the ceiling from the sky cover in conjunction with the first group amount and first group height in the following manner. If the sky cover was less than or equal to four octals, then the ceiling was considered unlimited. If the first cloud group amount in the synoptic code was less than or equal to four octals, the ceiling was also considered unlimited for purposes of this study because the range of the first group is 10,000 feet. Otherwise, the ceiling was assigned the value of the first group height.

III. SINGLE STATION SURVEY

Tables 1-22 show the range of single station adverse weather probabilities generated from the four-station network. The tables are arranged to display the adverse weather probabilities in three-hourly intervals for all data pooled together, stratified by season, and for the selected months September, October, November, December, January, February, and July. The geographic region selected is small enough (about 10,000 km²) to be considered as simultaneously under the influence of the same prevailing weather pattern. These data quantify the variation in adverse weather in this area that may be due to geographical effects, the influence of anthropogenic activity, or other factors.

When considered by season, fog [condition (a)] occurs least often in the summer for any observation time. For all adverse weather categories and observation times, the highest probabilities were observed in winter, with the only exception being fog at 07^h LST, in which the highest probabilities of fog were found during fall. The lowest probability of fog at 10^h LST ranges from less than 1 percent in summer to 5 percent in winter, while the highest single-station probabilities range from 1.6 percent in summer (7.5 percent at 07^h LST) to 22 percent in winter. The corresponding range of probabilities for condition (c) at 10^h LST is 13 to 26 percent, and 20 to 49 percent for the lowest and highest probabilities, respectively.

The station with the lowest probabilities of adverse weather during the fall and winter seasons is Cologne, but certain exceptions were noted during the other seasons, as indicated by the footnotes at the bottom of the tables. Hahn is most often the station displaying the highest probabilities of occurrence of adverse weather (see reference 2), but some exceptions have been indicated during all seasons. For the fall, Frankfurt displays the highest probability estimates for condition (e) at 07^h LST (68 percent) and 10^h LST (52 percent); and Bitburg displays the highest probability estimates (74 percent and 71 percent, respectively) for condition (f) at these same observation times. In contrast, Cologne and Hahn are consistently the stations displaying the lowest and highest probabilities of occurrence, respectively, during the winter, with the only exceptions noted for the two least restrictive adverse weather categories at 10^h LST. The lowest probability of occurrence of fog in spring was often found at Frankfurt, and Bitburg or Frankfurt displayed the lowest probability estimates for condition (c). This was also evident during the summer months.

The monthly tabulations revealed some interesting characteristics of the adverse weather data. The highest probability of fog in September (15 percent) occurs at 07^h LST; at 10^h LST this percentage has already dropped to half. A similar trend was displayed by Frankfurt in condition (c), whose probabilities at 07^h LST (42 percent) and 10^h LST (22 percent) were the highest for any station in this adverse weather category. A narrow range of probability estimates (5.9 to 8.5 percent) was revealed at 13^h LST, also for condition (c), where the highest probability estimate was apparent at Cologne. The probability estimates for conditions (e) through (h) were highest at Frankfurt or Bitburg during the morning and early afternoon during September as well as October.

The highest probability estimates for conditions (a) through (c) during the month of October were found at 07^h LST. For November, December, January,

and February, the highest probability estimates of conditions (a) and (c) occur later in the morning, at 10^h LST. The reason is the later hour of sunrise in the winter months and the associated delay in warming of the lower atmosphere. During December, January, and February, the probability estimate of fog at Hahn and Cologne is higher at 16^h LST than at 07^h LST. During July, there is a dramatic drop in probability estimates from 07^h LST to 10^h LST, indicating a rapid improvement of adverse conditions in the morning hours. Several observation times during which fog did not occur in July at Frankfurt, or Frankfurt and Cologne, were noted. Although our data is limited to a 9-year period, the results are in agreement with the climatic conditions and the diurnal and seasonal trend to be expected. A longer period of record or other periods of record, although providing no identical numerical values, would not deviate significantly from our results. Thus, a small factor of uncertainty in both directions may be justified when interpreting our data.

IV. TWO-STATION PROBABILITIES

Tables 13-24 are the tabulations showing the range of two-station probabilities on an annual, seasonal, and monthly basis. As expected, the joint probabilities are less than any of the single station probabilities, but exceed the expected probabilities if assuming statistical independence (i.e., the probability obtained from the product of the two individual station probabilities).

The reduction in probabilities when considering individual station probabilities versus the probabilities of simultaneous occurrence at two stations is apparent from examining any of these tabulations. Examples from the annual summaries demonstrate this. For fog at 07^h LST, the probabilities reduce from a range of 4.5 to 13.6 percent to the two-station probabilities of 0.8 to 5.2 percent, but are higher than the independent probabilities of 0.3 to 1.5 percent. For condition (c) at 07^h LST, the probabilities reduce from a range of 21 to 35 percent to the two-station probabilities of 8 to 14 percent. However, for condition (c) at 16^h LST, the corresponding probabilities are 10 to 18 percent and 3 to 8 percent. For condition (f) at 07^h LST, the single station probabilities are 48 to 64 percent, reducing to a range of 36 to 52 percent for the two-station probabilities.

The lowest probability estimates of adverse weather on an annual basis were primarily associated with the station combination Frankfurt/Cologne for conditions (a) through (d), except at 13^h LST, when Bitburg/Cologne displayed the same or lower percentage. For conditions (e) through (g), Bitburg/Cologne or Hahn/Cologne often displayed the lowest probability estimates in these adverse weather categories. The "worst" station combination was consistently Bitburg/Hahn.

During the fall, the lowest probability estimates at 07^h LST for conditions (d) through (h) were obtained for the combination Hahn/Cologne. For the same adverse weather categories at 10^h LST during the winter, Bitburg/Cologne displayed the lowest probability estimates.

The largest range of probabilities within any adverse weather category was obtained at 10^h LST for the fall and 07^h LST for the winter, for which the respective probabilities were 42 to 69 percent and 48 to 78 percent.

The highest two-station probability estimates were observed at 07^h LST for all seasons except winter, in which the probability estimates at 07^h LST and 10^h LST were comparable.

V. THREE-STATION PROBABILITIES

The range of adverse weather probability estimates when areal coverage is expanded to three stations is listed in Tables 25-36.

For condition (c), the joint probability estimates are further reduced from 15 to 26 percent to a range of 10.6 to 15.8 percent at 07^h LST in the fall, from 13 to 29 percent to 10.5 to 19.5 percent at 10^h LST in the winter, and from 9 to 13 percent to 4.4 to 6.6 percent at 07^h LST in the spring, as an example.

The lowest and highest probability estimates were most often obtained for the combinations Bitburg/Frankfurt/Cologne and Bitburg/Frankfurt/Hahn, respectively. One particular exception was that Frankfurt/Hahn/Cologne was the "best" station combination in the morning and early afternoon during the fall for conditions (e) through (h), and at 07^h LST and 10^h LST for fog (condition [a]) in October.

The largest average range of probability estimates within any given adverse weather category was 14 percent in the fall, 19 percent in the winter, and 8 percent in the spring for condition (g). During the summer, the largest range of probability estimates was obtained for condition (h).

VI. SPATIAL PROBABILITIES AT FOUR STATIONS

The simultaneous occurrence of adverse weather at all four stations yields the lowest set of probability estimates, as expected. Estimates are listed in Tables 37-48.

The single station probability for condition (c) at 07^h LST (annual summary) ranges between 21 and 35 percent, whereas the spatial probability is 5 percent, with the seasonal fluctuations ranging between 2 and 9 percent. The single station probability for condition (e) at 07^h LST (annual summary) ranges between 30 and 50 percent, with a corresponding spatial probability of 13 percent.

The highest four-station probability of fog on a seasonal basis (nearly 1 percent) was observed at 07^h LST in the fall. It must be considered however that the highest frequency of four-station fog for any given month occurred at 07^h LST in October (2.2 percent). There were no cases of four-station fog for afternoon and evening hours in the fall. However, during December the afternoon was the only time that any four-station fog was observed. The diurnal trend in spatial probabilities is similar to that noted for single-station, two-station, and three-station probabilities. The highest probability estimates were found at 07^h LST for any season except winter, when the probability estimates were significantly higher at 10^h LST.

VII. CONCLUSIONS

The enclosed tabulations provide the probability estimates of selected cloud and visibility thresholds (from 500 through 5000 feet and from 1 km through 8 km, respectively) at a single station, and joint probability estimates for two through four stations from a selected geographic region in the vicinity of Koblenz, Germany. The set of four stations chosen for this study was Frankfurt, Hahn, Bitburg, and Cologne for the period 1961-1970. It is a 9-year period, however, because adequate data was not available for September 1967 through August 1968 at Cologne. Utilization of a 9-year period minimized the amount of data that needed to be filled in to create the completed records of three-hourly ceiling and visibility data.

The annual summaries indicate that fog occurs most often at 07^h LST, with a frequency of 4.5 percent and 13.6 percent at Cologne and Hahn, respectively. The joint probability of occurrence at all four stations, however, reduces to 0.3 percent. For the adverse weather condition of ceiling less than or equal to 500 feet and/or visibility less than or equal to 2 miles at 07^h LST, the corresponding probability estimates from the annual summary are 21 percent at Cologne and 35 percent at Hahn, reducing to four-station joint probability of 4.7 percent.

A further analysis by season provides additional data on adverse weather variations other than the diurnal trend, which is reflected in the annual summaries. For example, the frequency of fog at 07^h LST is 7.3 percent at Cologne and 20.2 percent at Hahn, reducing to a four-station joint probability of 0.9 percent. Inclusion of monthly tabulations enables the determination of the influence of each individual month on the seasonal probability estimates.

The enclosed tabulations only show the range of probability estimates at individual and station combinations. They provide an estimate of how the probability of adverse weather fluctuates even in a smaller area that is generally considered to be a homogeneous climatic region. The range of probability estimates is considered representative of this area. A refined analysis to include additional stations within this area would not yield significantly lower areal probabilities.

Qualified requesters may examine the complete set of computer tabulations if special arrangements are made with the authors.

REFERENCES

1. Essenwanger, O. M., and Larry J. Levitt, November 1983, Joint Probability of Selected Cloud and Visibility Thresholds Around Frankfurt, Germany. US Army Missile Command, Redstone Arsenal, Alabama, Technical Report RR-84-1.
2. Essenwanger, O. M., 1973, On Spatial Distribution of Visibility and Clouds in Central Europe. US Army Missile Command, Redstone Arsenal, Alabama, Technical Report 73-10, p. 63.

TABLE 1
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
ANNUAL SUMMARY IN PERCENT
(Local Standard Time)
1961-1970 (Except SEP 67-AUG 68)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	2.1 8.9	3.2 20.1	10.8 25.0	4.8 25.8	17.0 37.6	31.4 51.5	40.6 58.4	53.3 65.9
4	2.8 12.0	3.9 24.0	13.6 30.1	6.2 30.3	20.9 45.4	38.4 60.0	47.4 65.5	60.6 72.3
7	4.5 13.6	5.1 27.2	20.7 34.8	8.0 34.9	29.7 49.5	47.8 64.0	55.0 72.0	66.9 78.1
10	3.3 10.6	4.2 22.3	18.1 28.1	6.0 29.4	26.3 41.1	45.5 58.6	51.2 70.0	61.7 75.3
13	1.7 6.3	2.6 17.0	11.9 20.0	3.8 21.9	17.8 29.2	32.9 45.4	42.6 62.5	52.1 68.0
16	1.6 6.2	1.9 14.6	10.1 18.0	3.3 18.9	15.0 26.9	27.3 38.9	35.7 54.7	44.2 60.7
19	1.0 6.1	2.1 14.7	9.9 19.2	3.1 19.4	15.1 30.6	28.0 41.9	35.9 52.6	47.6 59.3
22	1.1 6.6	1.9 16.9	8.9 20.8	2.9 21.3	15.2 32.4	28.3 45.2	37.3 54.1	49.4 61.6

1. Bitburg was the "worst" station instead of Hahn.
2. Bitburg and Hahn displayed the same percentage.

TABLE 2
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
FOR SEP-OCT-NOV IN PERCENT
(Local Standard Time)
1961-1970 (Except SEP-NOV 67)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	3.7 12.1	4.3 22.2	12.5 29.7	5.7 28.5	18.2 44.2	33.8 56.9	41.8 ¹ 65.0	54.6 71.2
4	4.8 16.4	5.0 27.0	14.4 35.5	6.8 33.5	21.1 52.6	37.7 66.5	47.0 ¹ 72.4	60.8 77.1
7	7.3 20.2	6.5 30.5	23.3 ³ 39.9	8.2 37.2	30.8 ¹ 58.4	47.0 ² 74.0	55.1 ¹ 82.5	67.8 ¹ 86.6
10	4.5 15.4	5.4 25.9	19.1 33.6	6.4 34.1	26.7 ¹ 52.1	45.6 ² 71.2	50.4 ¹ 80.7	63.1 ² 84.4
13	2.1 6.9	2.9 19.1	11.7 21.7	3.8 23.7	17.0 32.2	33.9 50.4	42.0 ² 64.6	52.6 ² 71.8
16	2.1 6.7	1.3 15.8	8.3 18.8	2.4 19.7	13.6 27.1	26.6 40.9	33.5 53.2	44.7 ¹ 59.7
19	1.8 7.6	1.3 15.6	8.7 22.5	2.0 19.5	14.7 34.1	29.1 48.2	37.4 57.9	51.9 65.1
22	1.7 9.2	1.6 19.1	9.4 24.5	2.3 23.8	15.5 38.0	29.3 50.7	37.9 58.9	51.2 66.3

1. Frankfurt was the "worst" station instead of Hahn.
2. Bitburg was the "worst" station instead of Hahn.
3. Bitburg and Hahn displayed this percentage.

TABLE 3
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
FOR DEC-JAN-FEB IN PERCENT
(Local Standard Time)
1961-1970 (Except DEC 67-FEB 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	3.0 16.9	4.9 35.6	16.1 41.6	8.0 44.6	26.7 58.5	44.0 75.6	55.6 81.6	66.9 86.2
4	2.7 18.9	5.2 39.1	18.3 46.1	9.0 47.2	26.7 63.6	47.9 78.6	57.4 83.8	67.7 87.8
7	3.3 17.2	5.3 38.3	18.2 47.4	9.9 49.1	28.3 65.9	49.8 83.1	58.2 87.8	69.6 91.0
10	4.9 22.1	5.7 38.0	26.1 49.4	8.6 46.5	38.3 65.8	58.8 79.6	64.7 86.7	73.2 90.6
13	3.6 16.4	5.4 35.1	23.2 42.7	7.4 43.6	34.0 57.8	49.8 75.2	56.3 82.2	66.7 86.8
16	4.1 16.5	4.9 31.6	22.0 40.0	7.4 40.1	29.9 56.5	46.1 73.1	53.5 80.4	62.7 84.4
19	2.0 13.7	4.9 30.1	17.8 38.5	6.9 40.1	28.2 58.9	45.7 74.2	55.7 81.6	68.3 85.7
22	2.2 12.8	3.5 33.0	15.4 39.1	5.6 40.9	25.7 56.5	42.1 73.3	52.0 79.8	62.5 84.8

1. Frankfurt was the "worst" station instead of Hahn.

TABLE 4
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
FOR MAR-APR-MAY IN PERCENT
(Local Standard Time)
1961-1970 (Except MAR-MAY 68)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	¹ .7 4.2	1.9 14.9	¹ 8.6 18.4	3.3 19.8	14.9 29.5	¹ 27.5 45.7	38.3 53.3	50.0 61.0
4	¹ 1.3 8.0	2.3 19.3	¹ 11.5 23.6	4.7 25.4	20.4 37.1	35.3 53.9	44.3 60.8	58.6 68.4
7	3.4 9.9	4.4 24.3	² 21.9 31.2	7.3 32.1	32.0 46.3	47.6 59.7	54.0 ³ 68.0	66.1 ³ 74.2
10	² 1.5 3.9	3.3 16.3	² 13.2 19.6	5.8 23.8	23.7 32.6	44.1 52.9	49.0 ³ 65.9	61.1 ³ 72.8
13	¹ .2 1.8	1.3 9.1	² 5.9 10.6	2.8 13.5	² 12.7 18.5	¹ 27.8 37.1	41.6 61.6	51.9 66.3
16	¹ .1 1.5	.7 6.3	² 4.1 8.0	2.4 9.5	² 11.2 15.1	¹ 19.3 27.7	33.2 50.4	40.9 56.6
19	.2 2.5	1.6 7.5	² 7.4 9.9	2.7 10.9	12.6 19.9	¹ 24.2 30.6	33.0 45.3	43.8 49.9
22	¹ .2 3.1	1.5 9.8	¹ 5.6 12.2	2.5 13.5	¹ 11.1 22.2	¹ 23.6 36.2	33.5 46.9	⁴ 44.9 54.4

1. Frankfurt was the "best" station instead of Cologne.
2. Bitburg was the "best" station instead of Cologne.
3. Bitburg was the "worst" station instead of Hahn.
4. Bitburg and Frankfurt displayed this percentage.

TABLE 5
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
FOR JUN-JUL-AUG IN PERCENT
(Local Standard Time)
1961-1970 (Except JUN-AUG 68)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	¹ .2 2.5	1.6 8.2	5.6 11.0	2.1 10.8	8.5 18.7	19.4 28.5	³ 27.1 36.2	41.9 46.4
4	¹ 1.0 4.8	3.1 10.9	8.8 15.8	4.2 15.6	15.7 28.9	33.0 41.3	41.2 46.6	⁵ 51.6 56.4
7	¹ 2.2 7.5	4.4 15.9	¹ 15.8 21.0	5.8 21.4	27.8 36.4	⁶ 45.2 ⁷ 52.5	⁶ 50.7 ⁷ 59.3	⁶ 57.9 ⁸ 68.2
10	¹ .1 ⁴ 1.6	2.4 9.5	¹ 6.9 ⁴ 10.9	3.4 13.8	⁵ 16.3 18.4	33.7 ² 35.8	40.8 ² 51.1	49.8 ² 57.1
13	¹ 0.0 ² 1.1	0.6 5.1	⁵ 4.2 5.6	1.2 7.1	⁵ 7.1 8.9	¹ 13.2 ⁴ 19.7	30.7 46.9	37.6 ² 52.9
16	³ 0.0 ² 1.0	0.5 5.1	2.8 5.6	0.9 6.6	4.7 9.7	¹ 11.7 ⁴ 14.7	23.1 35.4	28.7 43.1
19	0.0 ² 1.2	0.6 6.0	4.4 6.3	1.0 7.5	5.4 10.1	¹ 9.9 15.3	17.9 26.2	27.1 34.5
22	¹ 0.0 1.3	1.1 6.0	4.1 7.6	1.2 7.4	7.6 13.4	14.0 21.3	⁸ 24.0 31.4	30.8 41.3

1. Frankfurt was the "best" station instead of Cologne.
2. Bitburg was the "worst" station instead of Hahn.
3. Frankfurt and Cologne displayed this percentage.
4. Cologne was the "worst" station instead of Hahn.
5. Bitburg was the "best" station instead of Cologne.
6. Hahn was the "best" station instead of Cologne.
7. Frankfurt was the "worst" station instead of Hahn.
8. Bitburg and Frankfurt displayed this percentage.

TABLE 6
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
FOR SEPTEMBER IN PERCENT
(Local Standard Time)
1961-1970 (Except SEP 67)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	¹ 0.0 6.3	2.6 10.0	9.6 16.3	3.3 14.1	13.7 ² 28.5	29.6 ² 38.9	36.7 ³ 51.1	49.3 ³ 57.8
4	¹ 3.7 9.3	2.6 15.2	12.6 24.4	3.7 19.3	18.9 ³ 39.3	35.6 ² 48.9	43.0 ³ 60.7	55.2 ³ 64.4
7	7.0 15.2	4.8 19.3	25.9 ³ 41.5	5.2 24.1	33.3 ³ 61.5	47.0 ³ 72.6	50.0 ³ 78.5	⁵ 63.7 ³ 83.0
10	3.0 7.0	4.1 14.8	14.4 ³ 21.5	4.1 20.4	19.3 ³ 41.1	37.4 ³ 58.9	41.1 ³ 68.9	55.6 ² 73.7
13	¹ 0.0 1.1	0.7 5.9	⁶ 5.9 ⁷ 8.5	0.7 8.9	13.7 ² 18.9	24.8 33.3	35.6 ² 50.7	44.4 ² 57.8
16	¹ 0.0 1.1	0.7 7.0	⁴ 4.8 8.9	0.7 8.9	7.8 14.1	¹ 15.6 22.6	24.1 37.8	34.4 43.7
19	¹ 0.0 1.9	0.4 4.4	6.3 11.5	0.4 5.9	10.7 18.5	22.2 27.4	25.6 35.2	¹ 40.4 ² 42.2
22	¹ 0.0 3.3	1.1 7.4	5.9 11.5	1.1 10.0	9.6 22.6	21.1 31.9	28.2 38.9	¹ 41.1 46.3

1. Frankfurt was the "best" station instead of Cologne.
2. Bitburg was the "worst" station instead of Hahn.
3. Frankfurt was the "worst" station instead of Hahn.
4. Frankfurt and Cologne displayed this percentage.
5. Hahn was the "best" station instead of Cologne.
6. Bitburg was the "best" station instead of Cologne.
7. Cologne was the "worst" station instead of Hahn.

TABLE 7
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
FOR OCTOBER IN PERCENT
(Local Standard Time)
1961-1970 (Except OCT 67)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	5.0 12.9	4.3 21.9	15.4 30.1	7.5 27.6	21.9 48.0	37.3 60.9	44.1 ³ 69.5	58.1 ³ 77.4
4	6.8 18.3	6.8 29.0	17.6 37.6	10.0 35.8	25.5 57.4	43.4 73.1	52.3 ³ 79.6	68.1 ⁴ 82.4
7	10.4 24.4	7.9 32.6	29.8 ¹ 49.1	10.8 39.8	36.6 ³ 66.3	54.8 ³ 80.3	62.7 ³ 91.0	74.2 94.3
10	5.7 ¹ 17.6	5.4 26.2	22.9 ¹ 36.2	6.8 34.4	34.4 ¹ 62.0	50.9 ¹ 77.8	54.8 ¹ 84.6	66.3 ³ 88.5
13	2.5 6.5	2.9 17.2	14.0 ³ 20.1	3.2 21.9	17.6 ³ 35.5	37.3 ¹ 52.0	43.7 ¹ 66.3	56.6 ¹ 73.5
16	² 1.1 6.5	0.7 12.9	8.6 ³ 16.5	1.4 15.4	13.3 ³ 25.1	28.3 ³ 39.8	32.6 ³ 53.8	44.1 ³ 60.9
19	1.8 7.9	0.7 15.0	11.1 20.8	1.4 18.3	16.5 34.8	31.9 50.5	41.6 62.0	55.9 71.0
22	2.2 9.0	1.8 16.9	11.8 23.7	1.8 21.5	18.6 39.4	31.2 52.3	40.1 ³ 62.0	54.8 72.0

1. Bitburg was the "worst" station instead of Hahn.
2. Bitburg was the "best" station instead of Cologne.
3. Frankfurt was the "worst" station instead of Hahn.
4. Frankfurt and Hahn displayed the same percentage.

TABLE 8
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
FOR NOVEMBER IN PERCENT
(Local Standard Time)
1961-1970 (Except NOV 67)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	3.3 17.0	5.9 34.8	12.2 42.6	6.3 43.7	18.9 57.4	34.4 71.9	44.4 78.9	56.3 84.4
4	3.3 21.5	5.6 36.7	13.0 44.4	6.7 45.2	18.9 61.9	34.1 77.8	45.6 83.7	58.9 87.8
7	4.4 20.7	6.7 39.6	14.1 45.2	8.5 47.8	22.2 60.4	¹ 38.9 ¹ 77.8	² 52.2 ² 83.7	64.8 87.8
10	4.8 23.0	6.7 36.7	19.6 46.3	8.2 47.4	26.3 61.1	² 48.5 ² 80.7	³ 55.2 ³ 88.9	² 67.4 ² 91.9
13	3.3 13.0	5.2 34.1	12.6 38.5	7.4 40.4	19.6 49.6	39.6 68.2	³ 46.7 ³ 81.5	56.7 85.2
16	3.0 13.0	2.6 27.4	11.5 33.0	5.2 34.8	19.6 44.8	34.1 64.1	43.7 75.6	55.6 80.7
19	2.6 13.0	3.0 27.4	8.5 35.2	4.1 34.4	16.7 48.9	33.0 66.7	44.8 76.3	58.2 82.2
22	2.2 15.2	1.9 33.0	10.4 38.9	4.1 40.0	18.2 51.9	35.6 67.8	45.2 76.3	55.2 80.4

1. Bitburg and Hahn displayed the same percentage.
2. Bitburg was the "worst" station instead of Hahn.
3. Frankfurt was the "worst" station instead of Hahn.

TABLE 9
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
FOR DECEMBER IN PERCENT
(Local Standard Time)
1961-1970 (Except DEC 67)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	2.9 17.9	4.3 39.4	14.3 44.4	6.8 49.5	24.7 60.2	42.3 77.4	55.6 83.5	69.2 87.1
4	2.9 19.0	3.6 40.1	16.1 46.2	9.7 48.8	26.2 63.4	49.8 79.2	56.6 83.9	68.5 87.5
7	2.5 18.3	3.6 39.8	15.4 47.0	9.0 50.5	25.5 64.5	51.3 83.9	58.4 88.5	70.3 90.7
10	3.6 22.9	4.3 39.4	24.0 48.8	8.2 50.2	38.0 64.5	60.9 80.3	66.0 88.9	74.9 91.8
13	2.5 17.6	4.7 39.1	21.5 47.0	7.5 49.8	34.1 62.4	49.8 79.6	55.6 84.2	70.6 88.5
16	3.9 20.4	4.7 39.8	22.2 45.2	8.6 48.8	34.1 62.7	53.1 78.9	61.3 85.0	68.8 87.8
19	2.2 15.8	5.4 34.8	17.2 42.3	6.8 45.2	29.0 61.7	46.2 79.2	55.2 86.0	66.7 90.0
22	2.2 14.7	3.2 35.1	14.3 40.1	5.7 44.4	26.9 59.9	39.1 77.1	50.9 82.8	63.1 86.7

1. Frankfurt was the "worst" station instead of Hahn.

TABLE 10
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
FOR JANUARY IN PERCENT
(Local Standard Time)
1961-1970 (Except JAN 68)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	3.9 22.2	5.7 41.9	19.4 48.4	7.9 51.6	28.3 66.0	46.6 81.0	58.4 85.0	69.9 89.3
4	2.9 23.7	6.8 44.4	19.0 51.3	9.0 53.8	26.5 68.5	48.0 79.9	59.9 84.6	69.9 88.2
7	3.9 21.2	7.2 40.5	17.9 48.8	10.4 51.3	29.8 68.1	50.2 84.2	61.3 88.5	72.8 91.8
10	4.3 26.9	7.2 40.5	25.1 52.7	10.0 47.3	38.7 68.5	59.5 81.0	67.4 88.5	74.2 93.6
13	5.0 20.8	6.8 38.0	24.7 44.8	7.9 47.0	35.8 62.4	50.2 79.6	58.1 84.6	66.7 88.5
16	6.1 22.2	7.2 34.8	23.3 45.9	9.0 42.7	29.0 60.2	45.5 77.4	53.1 84.2	63.4 87.1
19	2.9 19.4	5.7 36.9	17.6 44.8	6.5 45.5	27.6 62.0	46.2 76.4	59.5 82.4	72.4 86.0
22	2.2 16.9	5.0 40.5	15.8 46.6	6.1 49.1	26.5 62.0	44.8 77.1	55.9 81.4	66.0 86.4

1. Bitburg was the "worst" station instead of Hahn.
2. Frankfurt was the "worst" station instead of Hahn.

TABLE 11
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
FOR FEBRUARY IN PERCENT
(Local Standard Time)
1961-1970 (Except FEB 68)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	2.0 9.9	4.8 24.2	14.3 31.0	9.5 31.4	27.0 48.4	42.9 67.5	52.4 75.8	61.1 81.8
4	2.4 13.5	5.2 32.1	19.8 40.1	8.3 38.1	27.4 58.3	45.6 76.6	55.6 82.9	64.3 87.7
7	3.6 11.5	5.2 34.1	21.4 46.4	10.3 45.2	29.8 65.1	47.6 81.0	54.4 86.1	65.5 90.5
10	7.1 15.9	5.6 33.7	29.4 46.4	7.5 41.7	38.1 64.3	55.6 78.2	60.3 83.7	70.2 87.7
13	3.2 10.3	4.8 27.4	¹ 23.0 35.7	6.8 32.9	31.8 47.6	49.2 65.5	55.2 77.4	62.3 82.9
16	2.0 6.0	2.8 19.1	² 15.5 27.8	4.4 27.8	26.2 45.6	38.9 61.9	45.2 71.0	55.2 77.8
19	0.8 5.2	3.6 17.5	² 15.1 27.4	7.5 28.6	27.8 52.4	44.4 66.3	52.0 75.8	55.5 80.6
22	2.4 6.4	2.0 22.2	² 13.5 29.8	4.8 27.8	23.4 46.8	42.5 65.1	48.8 74.6	57.9 81.0

1. Bitburg and Frankfurt displayed this percentage.
2. Bitburg was the "best" station instead of Cologne.

TABLE 12
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
FOR JULY IN PERCENT
(Local Standard Time)
1961-1970 (Except JUL 68)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	¹ 0.4 1.4	1.4 6.5	3.9 8.6	1.8 9.7	9.3 17.2	⁵ 17.6 26.9	⁵ 27.2 36.9	⁵ 34.8 50.2
4	² 1.1 ³ 3.6	3.2 11.5	9.3 16.9	3.9 14.7	16.1 27.6	⁵ 29.4 41.9	⁵ 40.9 49.1	⁵ 52.3 60.6
7	¹ 2.2 6.5	5.4 15.4	² 15.8 18.3	¹ 6.1 19.0	⁸ 27.6 ³ 35.5	⁸ 41.6 ³ 50.9	⁸ 48.0 ³ 59.9	⁸ 56.3 ³ 69.9
10	² 0.0 1.4	1.4 7.5	⁵ 5.7 ⁶ 8.2	2.2 11.1	⁵ 12.5 ⁴ 17.2	⁵ 30.1 ¹⁰ 34.8	43.0 ³ 48.8	⁸ 50.4 ³ 56.3
13	² 0.0 ³ 1.1	0.4 3.9	⁵ 3.6 ⁴ 5.0	1.1 ⁴ 6.1	⁹ 6.5 ⁴ 7.5	² 12.2 ¹⁰ 20.8	² 31.9 ³ 48.4	40.5 ³ 53.4
16	¹ 0.0 ³ 1.1	0.0 5.0	1.8 ⁴ 5.4	0.4 ⁴ 5.0	4.3 8.2	⁵ 8.6 ¹⁰ 15.8	² 25.1 33.3	31.2 40.9
19	¹ 0.0 ³ 1.4	0.4 ³ 5.3	3.2 ³ 5.4	0.7 ³ 5.7	4.7 7.5	² 9.7 12.9	17.2 24.7	26.5 34.4
22	² 0.0 ³ 1.4	1.1 ⁴ 4.7	3.2 ⁷ 5.4	1.1 ³ 5.7	7.5 11.1	² 13.3 ⁶ 20.4	² 24.4 31.5	⁵ 33.0 44.4

1. Frankfurt and Cologne displayed this percentage.
2. Frankfurt was the "best" station instead of Cologne.
3. Bitburg was the "worst" station instead of Hahn.
4. Frankfurt was the "worst" station instead of Hahn.
5. Bitburg was the "best" station instead of Cologne.
6. Hahn and Cologne displayed this percentage.
7. Frankfurt and Hahn displayed this percentage.
8. Hahn was the "best" station instead of Cologne.
9. Bitburg and Cologne displayed this percentage.
10. Cologne was the "worst" station instead of Hahn.

TABLE 13
TWO STATION PROBABILITIES OF ADVERSE WEATHER
ANNUAL SUMMARY IN PERCENT
(Local Standard Time)
1961-1970 (Except SEP 67-AUG 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.2 3.2	0.6 7.4	3.6 11.4	1.2 11.1	9.4 21.8	19.9 35.7	29.3 45.0	39.9 51.7
4	0.4 4.1	0.9 8.5	5.2 14.7	1.5 13.0	11.8 27.4	26.7 43.2	¹ 36.7 52.7	¹ 48.0 59.7
7	0.8 5.2	¹ 1.2 9.7	9.5 18.6	2.1 15.0	² 19.9 32.7	35.5 51.6	44.9 60.1	57.1 67.1
10	0.7 3.9	1.1 8.7	¹ 7.6 14.4	2.0 14.2	¹ 15.8 27.9	33.2 46.4	³ 41.6 58.5	³ 51.3 64.7
13	¹ 0.2 1.6	² 0.6 5.9	¹ 4.1 9.4	0.9 9.6	¹ 9.2 17.6	19.5 32.6	30.9 51.8	40.5 57.8
16	¹ 0.2 1.6	0.3 4.9	¹ 3.3 7.6	0.8 8.2	7.6 16.1	15.9 27.7	24.4 41.8	32.4 48.1
19	0.1 1.9	0.4 5.2	² 3.3 8.4	0.9 8.1	7.8 17.2	16.8 29.1	24.8 40.1	¹ 36.0 47.0
22	0.1 2.1	0.5 6.2	2.5 9.1	0.9 9.5	7.8 17.7	17.2 30.1	25.4 39.4	35.0 46.3

1. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
2. Bitburg/Cologne displayed the same percentage as Frankfurt/Cologne.
3. Hahn/Cologne was the "best" station combination instead of Frankfurt/Cologne.

TABLE 14
TWO STATION PROBABILITIES OF ADVERSE WEATHER
FOR SEP-OCT-NOV IN PERCENT
(Local Standard Time)
1961-1970 (Except SEP-NOV 67)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.2 4.2	1.0 9.3	5.3 15.5	1.7 13.4	12.1 28.7	25.4 43.1	¹ 33.6 51.3	² 44.4 58.6
4	0.5 5.9	1.3 9.8	7.1 18.9	1.8 15.6	14.9 34.9	² 29.8 51.0	² 39.0 59.7	51.7 66.4
7	1.6 9.5	2.2 13.6	15.0 25.9	2.9 18.8	³ 23.4 41.9	³ 38.3 59.0	³ 46.4 ⁴ 69.6	³ 57.4 ⁴ 76.1
10	1.1 6.6	2.0 13.1	10.3 20.5	2.7 18.1	² 20.0 ⁵ 36.4	³ 36.5 ⁴ 56.2	42.3 ⁴ 69.0	³ 52.8 ⁴ 74.9
13	¹ 0.2 1.3	¹ 0.7 6.6	² 4.9 10.7	1.2 11.1	² 9.9 21.5	22.3 38.5	32.0 53.6	³ 41.9 60.1
16	0.1 1.6	0.0 5.3	2.4 8.1	0.6 8.4	6.5 18.2	16.7 30.5	³ 24.3 40.9	² 33.3 46.6
19	0.0 1.8	0.1 6.1	2.4 10.0	0.6 9.5	7.7 20.0	20.4 33.0	27.4 43.8	² 39.3 52.8
22	0.1 2.6	0.6 7.7	2.9 11.6	1.0 11.7	9.4 22.0	² 20.2 35.2	² 28.0 44.4	² 39.8 51.9

1. Bitburg/Cologne displayed the same percentage as Frankfurt/Cologne.
2. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
3. Hahn/Cologne was the "best" station combination instead of Frankfurt/Cologne.
4. Bitburg/Frankfurt was the "worst" station combination instead of Bitburg/Hahn.
5. Bitburg/Frankfurt displayed the same percentage as Bitburg/Hahn.

TABLE 15

TWO STATION PROBABILITIES OF ADVERSE WEATHER
FOR DEC-JAN-FEB IN PERCENT
(Local Standard Time)

1961-1970 (Except DEC 67-FEB 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.6 7.5	1.0 15.8	¹ 6.5 22.0	2.2 22.7	¹ 16.7 37.9	32.7 59.5	¹ 47.0 71.1	58.6 76.7
4	0.5 8.0	1.4 17.0	¹ 7.3 25.1	3.1 24.6	16.2 42.1	36.8 63.2	48.5 73.8	58.6 77.9
7	¹ 0.5 6.8	¹ 1.2 16.9	8.4 26.4	3.1 25.2	¹ 17.7 42.4	36.8 66.8	48.3 77.8	61.2 81.6
10	¹ 1.4 8.6	¹ 1.2 16.3	¹ 13.3 28.5	2.8 25.9	¹ 25.7 48.0	¹ 47.8 66.8	¹ 57.8 76.7	¹ 66.9 ³ 83.0
13	¹ 0.7 5.2	² 1.5 14.8	¹ 9.3 23.1	2.1 21.7	¹ 21.1 38.6	² 37.5 60.1	¹ 48.8 73.3	¹ 59.0 78.0
16	¹ 0.6 4.8	1.0 12.7	¹ 8.5 19.4	2.2 19.9	¹ 17.8 35.8	34.4 56.8	¹ 45.3 69.5	55.1 75.4
19	¹ 0.1 5.3	1.4 13.2	¹ 6.9 19.9	2.6 18.8	¹ 16.2 35.2	33.0 56.5	¹ 45.2 69.3	¹ 58.0 74.6
22	0.1 5.6	1.2 14.3	5.6 19.4	² 2.7 21.1	¹ 15.3 35.1	31.6 55.3	43.1 67.5	53.5 73.7

1. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
2. Bitburg/Cologne displayed the same percentage as Frankfurt/Cologne.
3. Frankfurt/Hahn was the "worst" station combination instead of Bitburg/Hahn.

TABLE 16
TWO STATION PROBABILITIES OF ADVERSE WEATHER
FOR MAR-APR-MAY IN PERCENT
(Local Standard Time)
1961-1970 (Except MAR-MAY 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.1 0.9	² 0.2 2.9	1.7 ⁵ 5.0	0.4 5.7	5.3 12.8	13.4 27.2	23.8 37.3	34.8 44.6
4	0.2 1.5	0.2 5.1	⁶ 3.3 9.2	0.5 8.2	8.7 20.1	20.3 36.1	31.3 47.0	³ 43.6 54.1
7	0.4 2.5	³ 0.1 5.4	8.6 12.9	² 1.5 10.3	³ 19.8 27.8	34.1 46.6	43.4 55.8	55.2 64.7
10	⁸ 0.0 0.5	0.2 3.6	³ 3.6 ⁷ 6.9	³ 0.7 7.4	³ 11.7 17.9	28.2 40.9	38.0 54.2	49.4 61.7
13	¹ 0.0 0.1	0.0 1.8	1.2 3.0	0.0 4.6	³ 4.2 8.2	13.0 21.6	28.1 49.7	37.2 56.0
16	¹ 0.0 0.1	⁴ 0.0 1.1	⁸ 0.9 2.2	³ 0.2 3.1	3.9 7.6	8.8 16.2	18.0 36.9	25.6 43.7
19	¹ 0.0 0.5	³ 0.1 1.2	⁶ 1.6 3.0	² 0.2 3.3	4.5 10.0	11.1 19.8	19.9 33.0	29.2 40.1
22	0.0 0.5	² 0.0 1.9	0.4 4.0	0.0 4.1	2.9 9.5	10.5 20.4	19.3 31.2	28.1 38.0

1. All other station combinations except Bitburg/Hahn displayed 0%.
2. Bitburg/Cologne displayed the same percentage as Frankfurt/Cologne.
3. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
4. Bitburg/Cologne displayed the same percentage as Bitburg/Frankfurt.
5. Bitburg/Hahn displayed the same percentage as Hahn/Cologne.
6. Frankfurt/Cologne displayed the same percentage as Bitburg/Frankfurt.
7. Hahn/Cologne was the "worst" station combination instead of Bitburg/Hahn.
8. Bitburg/Frankfurt was the "best" station combination instead of Frankfurt/Cologne.

TABLE 17
TWO STATION PROBABILITIES OF ADVERSE WEATHER
FOR JUN-JUL-AUG IN PERCENT
(Local Standard Time)
1961-1970 (Except JUN-AUG 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.0 0.4	0.1 1.7	0.7 3.5	0.4 3.0	2.9 8.1	¹ 8.5 13.8	12.8 20.8	⁷ 19.8 27.7
4	² 0.1 1.1	0.5 2.2	2.4 5.9	0.5 3.8	⁸ 7.6 12.8	⁴ 17.4 22.8	⁴ 25.2 30.8	⁷ 36.1 ⁶ 40.7
7	0.5 2.2	0.7 3.0	² 5.8 ⁶ 9.3	1.0 6.2	² 14.6 ¹² 19.9	⁹ 29.6 34.5	⁹ 34.9 41.8	⁹ 44.2 ¹⁰ 53.3
10	0.0 ³ 0.2	⁴ 0.2 2.1	1.2 ⁵ 3.5	⁶ 1.1 5.7	⁷ 5.7 9.7	17.0 23.0	25.4 38.3	33.2 44.2
13	0.0 0.0	⁴ 0.0 ⁵ 0.6	⁷ 0.2 ⁵ 1.3	¹¹ 0.1 1.2	⁷ 1.2 ⁶ 2.7	¹ 5.7 10.9	15.1 31.2	22.2 37.4
16	0.0 0.0	0.0 0.7	¹ 0.1 1.2	0.0 1.6	⁷ 0.9 3.3	3.9 7.9	9.2 20.7	14.7 27.1
19	0.0 0.0	0.0 ⁶ 0.6	⁷ 0.5 ⁵ 1.6	0.1 1.2	1.3 3.9	3.0 8.0	6.2 14.9	11.7 21.1
22	0.0 0.0	0.0 0.9	⁷ 0.0 1.7	0.0 1.5	⁷ 1.5 4.6	6.0 10.1	⁷ 10.4 ⁵ 15.3	⁷ 16.2 ⁵ 24.2

1. Bitburg/Frankfurt displayed the same percentage as Frankfurt/Cologne.
2. Frankfurt/Hahn was the "best" station combination instead of Frankfurt/Cologne.
3. Bitburg/Cologne displayed the same percentage as Hahn/Cologne.
4. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
5. Hahn/Cologne was the "worst" station combination instead of Bitburg/Hahn.
6. Bitburg/Hahn displayed the same percentage as Hahn/Cologne.
7. Bitburg/Frankfurt was the "best" station combination instead of Frankfurt/Cologne.
8. Bitburg/Cologne displayed the same percentage as Frankfurt/Cologne.
9. Hahn/Cologne was the "best" station combination instead of Frankfurt/Cologne.
10. Bitburg/Frankfurt was the "worst" station combination instead of Bitburg/Hahn.
11. Bitburg/Frankfurt displayed the same percentage as Bitburg/Cologne.
12. Bitburg/Hahn displayed the same percentage as Bitburg/Frankfurt.

TABLE 18
TWO STATION PROBABILITIES OF ADVERSE WEATHER
FOR SEPTEMBER IN PERCENT
(Local Standard Time)
1961-1970 (Except SEP 67)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C< 4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.0 ² 1.1	⁴ 0.0 2.6	2.2 7.4	⁴ 0.0 6.7	¹¹ 7.0 17.8	17.8 27.0	¹² 23.0 31.1	⁸ 33.7 38.2
4	0.0 ² 1.9	0.0 2.6	5.2 12.2	0.0 6.3	¹¹ 12.2 24.1	¹² 23.7 33.7	¹² 30.0 ⁵ 40.4	¹² 40.4 49.3
7	0.7 5.2	³ 1.1 5.9	13.7 ⁵ 18.2	1.1 9.3	¹² 21.1 ⁵ 41.5	¹² 32.6 ⁵ 53.0	¹² 35.6 ⁵ 59.3	¹² 47.0 ⁵ 67.8
10	³ 0.4 1.5	¹ 1.1 4.1	5.9 10.7	1.1 8.2	⁸ 12.2 ⁵ 22.2	¹² 25.2 ⁵ 41.5	¹² 29.6 ⁵ 53.7	¹² 38.5 ⁵ 61.1
13	0.0 0.0	³ 0.0 1.5	⁸ 0.7 ¹⁴ 1.9	³ 0.0 3.0	¹² 4.4 9.3	11.9 20.7	20.7 39.6	28.9 45.2
16	0.0 0.0	0.0 ⁵ 1.5	⁹ 0.4 ² 2.2	0.0 3.0	0.7 7.4	5.6 14.8	10.7 23.7	19.6 29.3
19	0.0 0.0	⁴ 0.0 0.7	⁴ 1.9 ⁷ 4.1	0.0 1.5	3.7 10.7	¹³ 11.5 16.7	⁸ 14.4 22.6	24.8 31.1
22	0.0 ² 0.7	⁵ 0.0 ⁶ 0.7	¹⁰ 0.7 ⁷ 3.3	¹ 0.4 2.2	4.4 11.9	12.2 19.3	14.4 24.8	25.6 31.1

1. Three station combinations displayed this percentage.
2. Hahn/Cologne was the "worst" station combination instead of Bitburg/Hahn.
3. Frankfurt/Cologne and Bitburg/Cologne displayed this percentage.
4. Frankfurt/Cologne and Bitburg/Frankfurt displayed this percentage.
5. Bitburg/Frankfurt was the "worst" station combination instead of Bitburg/Hahn.
6. Bitburg/Hahn and Frankfurt/Hahn displayed this percentage.
7. Bitburg/Hahn and Hahn/Cologne displayed this percentage.
8. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
9. Frankfurt/Hahn and Frankfurt/Cologne displayed this percentage.
10. Bitburg/Frankfurt was the "best" station combination instead of Frankfurt/Cologne.
11. Frankfurt/Cologne and Hahn/Cologne displayed this percentage.
12. Hahn/Cologne was the "best" station combination instead of Frankfurt/Cologne.
13. Hahn/Cologne and Bitburg/Cologne displayed this percentage.
14. Four station combinations displayed this percentage.

TABLE 19
TWO STATION PROBABILITIES OF ADVERSE WEATHER
FOR OCTOBER IN PERCENT
(Local Standard Time)
1961-1970 (Except OCT 67)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.7 5.7	1.1 9.0	7.5 17.9	2.5 11.8	15.4 32.3	⁷ 30.8 47.0	⁶ 37.3 55.9	⁶ 50.9 63.8
4	1.1 ¹ 7.5	1.8 10.8	9.7 20.1	3.2 16.5	18.3 39.4	³ 35.8 56.3	⁶ 44.8 64.9	58.8 ⁸ 72.0
7	3.9 12.9	2.9 14.0	21.2 ⁵ 32.3	3.9 18.3	29.8 ¹ 51.6	47.7 ¹ 65.6	⁶ 58.1 ¹ 79.9	⁷ 64.9 ¹ 86.4
10	1.8 9.3	2.2 14.7	³ 12.9 21.9	3.6 18.6	⁷ 25.5 ¹ 45.5	⁷ 40.5 ¹ 63.8	⁷ 46.6 ¹ 73.8	⁷ 57.4 ¹ 79.2
13	² 0.0 1.4	⁶ 0.4 4.3	6.1 9.3	³ 0.7 8.6	² 11.5 ⁵ 21.5	26.2 40.1	33.3 53.1	44.8 59.5
16	³ 0.0 0.7	⁴ 0.0 3.9	1.8 5.4	0.0 4.7	6.5 14.7	⁷ 17.2 26.9	⁷ 21.5 36.6	⁶ 31.2 ⁹ 43.7
19	⁴ 0.0 ⁵ 1.1	⁴ 0.0 4.7	1.8 9.3	0.0 7.9	8.2 ⁸ 19.4	⁶ 22.9 ⁸ 34.1	30.1 46.2	42.3 55.9
22	⁶ 0.0 2.2	³ 0.4 6.8	4.3 11.8	³ 0.4 10.4	11.1 23.3	⁶ 20.8 36.9	⁶ 30.1 ⁸ 46.2	44.8 58.1

1. Bitburg/Frankfurt was the "worst" station combination instead of Bitburg/Hahn.
2. Frankfurt/Cologne and Hahn/Cologne displayed this percentage.
3. Frankfurt/Cologne and Bitburg/Cologne displayed this percentage.
4. Frankfurt/Cologne, Hahn/Cologne, and Bitburg/Cologne displayed this percentage.
5. Bitburg/Hahn and Bitburg/Frankfurt displayed this percentage.
6. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
7. Hahn/Cologne was the "best" station combination instead of Frankfurt/Cologne.
8. Frankfurt/Hahn was the "worst" station combination instead of Bitburg/Hahn.
9. Bitburg/Hahn and Frankfurt/Hahn displayed this percentage.

TABLE 20
TWO STATION PROBABILITIES OF ADVERSE WEATHER
FOR NOVEMBER IN PERCENT
(Local Standard Time)
1961-1970 (Except NOV 67)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	0.0 5.9	1.9 16.3	5.9 21.1	2.6 21.9	13.7 35.9	26.3 55.2	38.9 66.7	48.9 73.7
4	0.4 9.3	² 2.2 15.9	6.3 24.4	2.2 24.1	¹ 13.7 41.1	² 28.2 63.0	¹ 40.0 74.1	53.3 78.2
7	0.0 10.4	² 2.6 20.7	7.0 27.4	3.7 28.9	15.9 43.3	31.5 67.4	47.8 75.6	59.6 79.3
10	1.1 8.9	2.6 20.4	11.9 28.9	3.3 27.4	² 20.4 45.6	42.6 69.6	² 52.2 ³ 79.3	⁴ 62.2 84.8
13	¹ 0.4 3.3	1.5 14.1	¹ 6.7 21.1	3.0 21.9	¹ 11.9 33.7	28.9 54.4	⁴ 41.5 ⁵ 68.2	⁴ 51.5 ⁵ 75.6
16	0.4 4.1	0.0 10.7	¹ 4.4 17.0	1.9 17.8	12.2 32.6	26.7 50.0	⁶ 38.2 ⁷ 63.0	⁴ 48.2 ⁶ 67.8
19	0.0 4.4	0.4 13.0	3.7 16.7	1.9 19.3	11.1 30.7	25.9 49.3	37.0 62.6	50.7 71.1
22	0.0 5.6	² 1.1 15.6	3.3 19.6	2.2 22.6	¹ 11.1 30.7	¹ 27.0 49.3	¹ 37.0 62.6	¹ 46.3 ⁷ 67.0

1. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
2. Bitburg/Cologne and Frankfurt/Cologne displayed this percentage.
3. Bitburg/Frankfurt was the "worst" station combination instead of Bitburg/Hahn.
4. Hahn/Cologne was the "best" station combination instead of Frankfurt/Cologne.
5. Bitburg/Frankfurt and Bitburg/Hahn displayed this percentage.
6. Bitburg/Cologne and Hahn/Cologne displayed this percentage.
7. Frankfurt/Hahn was the "worst" station combination instead of Bitburg/Hahn.
8. Bitburg/Frankfurt and Frankfurt/Hahn displayed this percentage.

TABLE 21
TWO STATION PROBABILITIES OF ADVERSE WEATHER
FOR DECEMBER IN PERCENT
(Local Standard Time)
1961-1970 (Except DEC 67)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.4 9.3	² 1.1 17.6	³ 5.7 24.0	2.2 25.1	³ 14.7 37.6	² 34.1 63.1	² 48.4 76.3	60.9 81.0
4	¹ 0.4 9.6	0.7 18.6	³ 6.5 26.2	3.6 27.2	³ 15.1 40.5	35.6 64.9	46.6 74.9	58.4 79.2
7	0.0 8.6	0.4 20.4	² 6.8 26.2	2.5 28.3	³ 15.4 41.6	39.1 66.7	50.2 78.1	63.1 80.7
10	0.4 11.1	² 1.1 16.5	³ 11.8 ⁴ 26.9	3.2 27.2	³ 23.7 44.1	³ 49.1 ⁵ 62.7	58.8 ⁶ 77.8	³ 68.5 ⁷ 84.6
13	0.4 7.9	1.4 18.3	³ 7.9 25.1	2.2 25.5	³ 21.5 41.6	³ 39.1 65.2	49.5 77.8	³ 64.2 82.4
16	1.4 7.9	0.7 18.3	³ 9.0 24.0	1.8 27.6	³ 20.4 42.7	³ 40.5 64.2	³ 54.8 77.1	³ 62.0 81.0
19	² 0.0 8.6	1.8 17.9	³ 7.5 24.4	2.9 22.2	² 17.9 37.3	34.4 62.4	² 49.1 76.3	² 61.3 80.7
22	0.0 6.8	0.4 14.7	³ 4.7 18.6	³ 2.5 22.6	³ 16.1 36.2	² 31.5 61.3	43.7 73.8	56.3 79.6

1. Hahn/Cologne was the "best" station combination instead of Frankfurt/Cologne.
2. Frankfurt/Cologne and Bitburg/Cologne displayed this percentage.
3. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
4. Bitburg/Hahn and Frankfurt/Hahn displayed this percentage.
5. Frankfurt/Hahn and Bitburg/Frankfurt displayed this percentage.
6. Bitburg/Frankfurt was the "worst" station combination instead of Bitburg/Hahn.
7. Frankfurt/Hahn was the "worst" station combination instead of Bitburg/Hahn.

TABLE 22
TWO STATION PROBABILITIES OF ADVERSE WEATHER
FOR JANUARY IN PERCENT
(Local Standard Time)
1961-1970 (Except JAN68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.7 9.7	1.4 19.4	7.9 25.8	2.5 28.0	17.9 44.8	36.6 66.7	49.8 74.2	³ 61.7 78.9
4	0.4 9.7	¹ 2.5 19.0	³ 7.5 27.2	3.2 27.6	17.6 48.0	39.8 67.4	53.1 75.6	63.1 78.9
7	¹ 0.7 8.6	³ 1.4 17.9	³ 7.5 27.2	³ 3.6 26.9	³ 19.4 44.8	36.9 72.0	52.3 80.7	65.2 84.6
10	² 1.8 10.4	³ 1.4 20.8	³ 12.9 ⁴ 33.7	3.2 29.0	³ 29.0 55.2	51.3 73.1	⁵ 62.4 79.9	³ 70.3 ⁶ 84.6
13	³ 1.1 5.7	³ 1.4 17.6	³ 12.2 26.5	2.2 24.4	³ 24.7 43.4	39.8 64.9	³ 51.3 ⁴ 75.3	³ 59.5 ⁴ 78.9
16	¹ 0.4 ⁴ 5.4	¹ 1.4 14.0	10.0 ⁴ 24.4	3.6 21.9	³ 20.8 41.9	³ 35.5 61.7	³ 45.9 72.7	³ 56.6 77.8
19	³ 0.4 5.4	³ 1.4 16.1	³ 7.9 23.3	³ 2.9 24.0	³ 17.2 39.1	37.3 58.8	³ 48.4 69.5	³ 61.3 75.6
22	0.0 7.2	2.2 20.8	¹ 7.5 27.2	3.6 28.7	18.3 41.6	35.1 59.5	48.0 69.2	58.4 74.6

1. Frankfurt/Cologne and Bitburg/Cologne displayed this percentage.
2. Frankfurt/Cologne and Hahn/Cologne displayed this percentage.
3. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
4. Frankfurt/Hahn was the "worst" station combination instead of Bitburg/Hahn.
5. Hahn/Cologne was the "best" station combination instead of Frankfurt/Cologne.
6. Bitburg/Frankfurt was the "worst" station combination instead of Bitburg/Hahn.

TABLE 23
TWO STATION PROBABILITIES OF ADVERSE WEATHER
FOR FEBRUARY IN PERCENT
(Local Standard Time)
1961-1970 (Except FEB 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.4 3.2	0.4 9.9	⁸ 5.2 15.5	2.0 14.3	¹ 15.9 30.6	27.0 47.6	¹ 42.1 61.9	52.0 69.4
4	0.4 4.4	0.8 13.1	7.5 21.4	2.4 18.3	14.3 37.3	33.7 56.8	45.6 70.6	54.0 75.4
7	¹ 0.4 ² 3.2	⁸ 1.6 11.9	9.5 25.8	2.4 19.8	¹ 18.3 40.5	34.1 61.1	41.7 74.2	54.8 79.4
10	¹ 0.8 ³ 4.0	¹ 1.2 11.1	¹ 15.5 25.8	2.0 21.0	¹ 24.2 44.4	¹ 42.1 59.1	¹ 50.4 72.2	⁸ 62.7 79.0
13	⁴ 0.8 ⁵ 1.6	0.4 7.9	7.5 17.1	0.8 14.7	¹ 16.7 30.2	31.4 49.2	44.4 66.7	¹ 52.8 73.0
16	⁶ 0.4 ³ 1.6	¹ 0.4 5.2	¹ 6.4 ² 14.3	⁸ 1.2 9.1	¹ 11.5 21.4	23.0 43.3	¹ 34.1 57.5	44.4 66.7
19	⁷ 0.0 1.6	¹ 0.4 4.8	¹ 5.2 11.1	⁸ 1.6 9.1	¹ 13.1 28.6	25.8 47.6	¹ 37.3 61.1	50.8 66.7
22	⁸ 0.4 2.4	⁸ 0.4 6.8	¹ 4.4 11.5	¹ 0.8 11.1	¹ 10.7 26.6	¹ 26.6 44.1	¹ 35.7 58.7	44.8 66.3

1. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
2. Frankfurt/Hahn was the "worst" station combination instead of Bitburg/Hahn.
3. Frankfurt/Hahn and Bitburg/Hahn displayed this percentage.
4. Three station combinations displayed this percentage.
5. Bitburg/Frankfurt and Bitburg/Hahn displayed this percentage.
6. Bitburg/Cologne and Hahn/Cologne displayed this percentage.
7. Bitburg/Cologne and Bitburg/Frankfurt displayed this percentage.
8. Bitburg/Cologne and Frankfurt/Cologne displayed this percentage.

TABLE 24

TWO STATION PROBABILITIES OF ADVERSE WEATHER
FOR JULY IN PERCENT
(Local Standard Time)
1961-1970 (Except JUL 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.0 0.4	³ 0.0 1.1	⁴ 0.4 1.8	¹⁰ 0.0 1.8	⁹ 2.2 5.4	⁹ 6.8 ⁴ 10.0	³ 14.3 ³ 17.9	⁹ 21.2 ¹¹ 28.7
4	² 0.0 ³ 0.7	⁶ 0.0 2.9	1.1 5.4	³ 0.4 3.6	³ 7.2 ¹¹ 10.0	⁹ 16.9 ⁷ 22.2	⁹ 24.7 ¹² 30.1	⁹ 35.8 ⁷ 44.1
7	⁴ 0.0 1.8	³ 0.4 ³ 2.2	⁸ 3.9 ⁵ 7.5	0.4 3.6	⁸ 12.2 ⁶ 19.0	⁸ 22.2 ⁵ 33.0	⁸ 29.4 ⁵ 40.9	⁸ 42.3 ⁵ 55.6
10	¹ 0.0 ⁵ 0.4	0.0 2.2	1.1 ³ 2.9	¹⁰ 0.4 3.2	¹⁰ 3.9 ³ 6.8	⁹ 13.3 ⁷ 19.0	25.1 38.0	¹³ 35.1 42.3
13	0.0 0.0	² 0.0 ³ 0.4	⁸ 0.0 ⁷ 1.4	¹ 0.4 1.1	³ 1.1 ³ 2.2	4.3 10.0	13.3 33.0	21.9 38.4
16	0.0 0.0	0.0 0.0	³ 0.0 ² 0.4	¹ 0.0 0.4	¹⁰ 0.7 ³ 2.2	¹⁰ 3.6 ⁷ 5.4	9.7 17.9	³ 15.8 25.1
19	0.0 0.0	0.0 ⁷ 0.4	⁴ 0.4 ³ 1.1	² 0.0 0.7	³ 1.4 ⁷ 2.5	2.5 5.4	5.7 13.6	11.8 21.2
22	0.0 0.0	⁴ 0.0 ⁴ 0.4	⁹ 0.0 ³ 1.4	³ 0.0 ³ 0.7	⁹ 1.1 2.9	⁹ 3.6 ⁷ 10.4	³ 10.0 14.3	⁹ 15.8 ⁷ 26.5

1. Five station combinations displayed this percentage.
2. Four station combinations displayed this percentage.
3. Two station combinations displayed this percentage.
4. Three station combinations displayed this percentage.
5. Bitburg/Cologne was the "worst" station combination instead of Bitburg/Hahn.
6. Bitburg/Frankfurt was the "worst" station combination instead of Bitburg/Hahn.
7. Hahn/Cologne was the "worst" station combination instead of Bitburg/Hahn.
8. Frankfurt/Hahn was the "best" station combination instead of Frankfurt/Cologne.
9. Bitburg/Frankfurt was the "best" station combination instead of Frankfurt/Cologne.
10. Bitburg/Cologne was the "best" station combination instead of Frankfurt/Cologne.
11. Frankfurt/Hahn was the "worst" station combination instead of Bitburg/Hahn.
12. Frankfurt/Cologne was the "worst" station combination instead of Bitburg/Hahn.
13. Hahn/Cologne was the "best" station combination instead of Bitburg/Hahn.

TABLE 25

THREE STATION PROBABILITIES OF ADVERSE WEATHER
ANNUAL SUMMARY IN PERCENT
(Local Standard Time)

1961-1970 (Except SEP 67-AUG 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.1 0.6	0.3 1.6	2.4 4.8	0.9 3.1	7.0 12.6	15.5 23.3	24.1 34.8	¹ 35.4 41.5
4	² 0.2 1.0	0.5 2.2	3.2 6.7	1.0 3.7	9.0 16.0	20.7 29.1	30.4 42.2	40.8 49.7
7	0.5 1.4	0.5 2.4	¹ 6.3 9.3	1.2 4.4	¹ 15.0 21.7	¹ 28.6 37.3	¹ 38.0 49.9	¹ 49.3 58.1
10	0.2 1.3	0.4 2.3	4.9 8.5	0.9 4.7	12.6 19.7	¹ 27.5 34.8	36.0 49.0	¹ 45.6 56.4
13	³ 0.1 0.4	0.3 1.4	2.7 5.2	0.5 2.9	6.9 11.3	15.3 22.5	26.1 40.2	35.0 46.9
16	0.1 0.5	¹ 0.2 1.2	2.1 4.0	0.4 2.3	5.4 10.0	12.5 19.1	20.6 31.5	27.5 37.9
19	⁴ 0.1 0.3	¹ 0.3 1.2	1.8 3.9	0.6 2.4	5.5 10.4	13.2 19.8	20.4 30.6	29.5 37.9
22	0.0 0.3	¹ 0.3 1.2	1.3 3.7	0.6 3.0	5.4 10.2	13.1 19.8	20.7 30.2	28.7 37.2

1. Bitburg/Frankfurt/Cologne displayed the same percentage as Frankfurt/Hahn/Cologne.
2. Frankfurt/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
3. Bitburg/Frankfurt/Cologne displayed the same percentage as Bitburg/Hahn/Cologne.
4. The actual percentage was 0.03%.

TABLE 26
THREE STATION PROBABILITIES OF ADVERSE WEATHER
FOR SEP-OCT-NOV IN PERCENT
(Local Standard Time)
1961-1970 (Except SEP-NOV 67)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.2 ² 0.9	0.9 2.3	³ 3.4 6.8	¹ 1.6 4.0	10.1 18.0	20.6 30.2	28.6 41.6	38.7 48.7
4	¹ 0.4 1.6	0.9 2.6	³ 5.0 9.9	¹ 1.6 4.0	³ 12.1 22.8	24.8 37.2	¹ 35.3 50.3	³ 45.3 57.1
7	1.1 3.3	1.3 4.3	³ 10.6 15.8	2.1 5.9	³ 19.3 30.3	³ 32.5 45.9	³ 42.9 57.5	³ 53.1 64.6
10	³ 0.5 2.3	1.1 4.0	¹ 7.2 11.5	1.8 6.0	³ 16.4 27.0	31.8 44.7	³ 39.2 57.9	³ 49.8 63.9
13	⁴ 0.0 0.4	0.4 1.5	3.1 5.3	0.6 3.3	³ 7.5 13.4	³ 18.2 27.4	³ 27.1 42.4	³ 36.9 49.9
16	0.0 0.5	¹ 0.0 1.1	1.3 3.4	0.2 1.6	5.0 10.3	13.8 21.4	20.5 32.6	28.5 38.7
19	¹ 0.0 ² 0.4	¹ 0.1 1.6	1.6 4.3	0.4 3.1	5.9 12.3	16.2 24.2	22.8 33.8	34.3 42.4
22	0.0 0.5	¹ 0.4 2.0	1.8 5.6	³ 0.6 3.7	³ 8.1 13.7	16.1 24.8	23.4 34.4	33.2 41.9

1. Bitburg/Frankfurt/Cologne displayed the same percentage as Frankfurt/Hahn/Cologne.
2. Bitburg/Frankfurt/Hahn displayed the same percentage as Bitburg/Hahn/Cologne.
3. Frankfurt/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
4. Bitburg/Frankfurt/Cologne displayed the same percentage as Bitburg/Hahn/Cologne.

TABLE 27
THREE STATION PROBABILITIES OF ADVERSE WEATHER
FOR DEC-JAN-FEB IN PERCENT
(Local Standard Time)
1961-1970 (Except DEC 67-FEB 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.1 1.4	0.4 4.0	4.3 11.0	1.6 7.5	13.1 24.8	28.8 44.3	42.4 60.4	53.8 67.3
4	² 0.3 2.0	0.7 5.1	4.4 12.5	2.0 8.4	13.0 26.3	32.6 45.4	44.7 63.0	54.6 69.5
7	0.3 1.6	0.5 4.6	5.7 12.4	1.9 8.9	14.1 27.4	32.1 47.7	45.1 65.7	58.3 72.2
10	0.5 2.8	0.4 4.2	10.5 19.5	1.1 9.1	22.5 36.8	43.2 55.4	53.8 70.5	63.7 77.9
13	³ 0.5 1.2	0.9 4.2	7.2 14.9	1.2 7.0	17.4 28.2	31.5 47.3	44.3 65.2	55.1 70.6
16	0.4 1.5	0.7 3.7	6.7 12.4	1.2 7.0	14.3 26.2	28.8 43.8	41.5 59.4	51.0 67.5
19	⁴ 0.1 1.0	1.0 3.0	4.6 9.9	1.6 5.7	12.9 24.2	27.9 41.9	39.9 58.4	53.0 66.7
22	0.0 0.6	0.7 2.4	3.2 8.4	1.9 7.3	12.2 23.1	26.7 41.2	39.1 58.3	49.5 65.7

1. Frankfurt/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
2. Frankfurt/Hahn/Cologne displayed the same percentage as Bitburg/Frankfurt/Cologne.
3. Three station combinations displayed the same percentage.
4. Bitburg/Frankfurt/Cologne displayed the same percentage as Bitburg/Hahn/Cologne.

TABLE 28
THREE STATION PROBABILITIES OF ADVERSE WEATHER
FOR MAR-APR-MAY IN PERCENT
(Local Standard Time)
1961-1970 (Except MAR-MAY 68)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	¹ 0.0 0.2	0.1 ¹ 0.2	0.7 ⁴ 1.3	0.1 ⁴ 0.7	3.0 ⁴ 5.4	8.1 ⁴ 14.1	17.3 26.0	26.8 33.2
4	² 0.2 ³ 0.4	0.1 0.9	1.5 ⁴ 3.1	² 0.1 1.7	5.6 ³ 9.1	14.3 ⁴ 20.5	23.8 34.5	35.0 41.8
7	0.1 0.6	0.0 0.6	4.6 ⁴ 6.6	0.7 1.9	15.2 17.6	⁶ 26.3 31.9	⁶ 36.1 45.8	48.6 55.0
10	¹ 0.0 ⁴ 0.1	0.1 1.0	1.6 ⁴ 2.5	0.4 2.1	8.0 11.5	21.6 26.9	⁶ 31.3 42.4	⁶ 42.5 51.8
13	0.0 0.0	¹ 0.0 ⁴ 0.1	0.4 ⁴ 1.2	² 0.0 1.2	1.9 3.5	8.1 11.5	21.0 36.0	30.3 43.0
16	0.0 0.0	¹ 0.0 ⁵ 0.1	¹ 0.5 ⁵ 0.6	0.1 0.6	2.2 3.4	5.6 7.9	14.0 24.0	20.5 30.3
19	0.0 0.0	² 0.0 0.2	⁶ 0.6 ³ 1.3	¹ 0.1 0.9	2.4 4.1	7.3 ⁴ 11.0	15.3 23.3	23.6 30.8
22	0.0 0.1	³ 0.0 0.4	² 0.2 1.1	² 0.0 1.0	1.7 ⁴ 3.5	6.9 ⁴ 10.6	14.4 20.2	21.3 27.9

1. Three stations displayed the same percentage.
2. Bitburg/Frankfurt/Cologne displayed the same percentage as Frankfurt/Hahn/Cologne.
3. Bitburg/Frankfurt/Hahn displayed the same percentage as Bitburg/Hahn/Cologne.
4. Bitburg/Hahn/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Hahn.
5. Frankfurt/Hahn/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Hahn.
6. Frankfurt/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.

TABLE 29
THREE STATION PROBABILITIES OF ADVERSE WEATHER
FOR JUN-JUL-AUG IN PERCENT
(Local Standard Time)
1961-1970 (Except JUN-AUG 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.0 0.1	⁵ 0.0 ¹ 0.1	⁵ 0.4 ⁴ 1.1	⁵ 0.1 0.4	1.8 ⁴ 3.3	4.8 ⁴ 7.6	8.5 12.0	14.0 ⁴ 18.5
4	² 0.0 ³ 0.2	0.1 ⁴ 0.4	1.6 ⁴ 2.7	⁵ 0.2 ⁴ 1.0	4.7 ⁷ 6.3	11.5 ⁷ 13.9	18.1 21.6	27.5 ⁴ 31.2
7	¹ 0.2 ⁴ 0.6	0.1 ⁶ 0.9	² 3.3 5.1	0.2 ⁷ 1.1	² 9.1 11.7	² 20.5 ⁷ 23.9	⁶ 26.3 31.0	² 36.2 ³ 42.2
10	¹ 0.0 0.1	0.0 ⁴ 0.4	⁵ 0.6 ⁴ 1.3	0.2 1.7	2.8 ⁴ 4.7	10.8 ⁴ 13.9	⁵ 18.8 25.7	² 25.7 32.7
13	0.0 0.0	¹ 0.0 ⁶ 0.1	⁷ 0.1 ⁵ 0.2	⁸ 0.0 ⁶ 0.2	⁹ 0.5 ² 1.1	3.1 ⁴ 5.8	11.5 17.6	17.0 24.6
16	0.0 0.0	0.0 ⁴ 0.1	¹ 0.0 ⁴ 0.4	¹ 0.0 ⁴ 0.1	0.1 ⁴ 1.0	2.3 ⁴ 4.0	6.6 10.8	10.6 15.6
19	0.0 0.0	⁵ 0.0 ⁷ 0.1	0.2 ⁶ 0.6	⁵ 0.1 ⁷ 0.2	1.0 ⁴ 1.6	1.8 ⁴ 3.7	4.0 7.5	7.7 12.6
22	0.0 0.0	¹ 0.0 ⁴ 0.2	⁸ 0.0 ⁴ 1.0	¹ 0.0 ⁴ 0.2	0.7 ⁴ 2.2	3.1 ⁴ 5.8	6.3 ⁴ 9.4	11.1 ⁴ 14.7

1. Three stations displayed the same percentage.
2. Frankfurt/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
3. Bitburg/Frankfurt/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Hahn.
4. Bitburg/Hahn/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Hahn.
5. Bitburg/Frankfurt/Cologne displayed the same percentage as Frankfurt/Hahn/Cologne.
6. Frankfurt/Hahn/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Hahn.
7. Bitburg/Frankfurt/Hahn displayed the same percentage as Bitburg/Hahn/Cologne.
8. Bitburg/Frankfurt/Hahn displayed the same percentage as Bitburg/Frankfurt/Cologne.
9. Bitburg/Frankfurt/Hahn was the "best" station combination instead of Bitburg/Frankfurt/Cologne.

TABLE 30
THREE STATION PROBABILITIES OF ADVERSE WEATHER
FOR SEPTEMBER IN PERCENT
(Local Standard Time)
1961-1970 (Except SEP 67)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.0 ² 0.4	0.0 ² 0.7	⁷ 0.4 ² 3.7	¹ 0.0 ² 0.7	⁷ 3.7 8.9	12.6 15.6	⁷ 16.3 21.5	⁷ 26.7 28.5
4	¹ 0.0 ² 0.7	0.0 ³ 0.7	⁷ 2.2 5.9	³ 0.0 1.9	⁷ 9.3 17.4	⁷ 17.8 24.1	⁷ 23.7 31.1	⁷ 31.9 38.9
7	³ 0.4 ⁴ 1.9	0.0 ⁴ 0.7	⁷ 9.3 11.5	³ 0.4 ² 1.5	⁷ 18.2 ¹⁰ 24.8	⁷ 27.4 ¹⁰ 36.3	⁷ 31.1 ⁸ 40.8	⁷ 41.9 ¹⁰ 53.0
10	⁵ 0.0 ⁶ 0.4	³ 0.4 1.5	2.6 ² 6.7	³ 0.4 2.2	10.0 15.2	⁷ 20.7 27.8	⁷ 26.7 40.0	⁷ 35.2 45.2
13	0.0 0.0	¹ 0.0 0.7	⁴ 0.4 ⁶ 1.1	¹ 0.0 0.7	³ 2.6 4.1	7.8 ² 13.0	⁷ 15.6 25.2	⁷ 23.7 33.3
16	0.0 0.0	0.0 0.0	⁸ 0.0 ⁹ 0.4	¹ 0.0 ² 0.4	³ 0.7 ² 2.6	4.1 ² 7.8	⁷ 7.4 13.7	⁷ 14.4 19.3
19	0.0 0.0	¹ 0.0 ² 0.4	1.1 ² 2.6	³ 0.0 ⁴ 0.4	³ 3.0 4.8	7.0 9.3	10.0 14.1	19.6 23.0
22	0.0 0.0	0.0 ² 0.4	¹ 0.4 ² 1.5	³ 0.0 ⁴ 0.4	³ 3.3 5.2	7.8 10.7	10.0 13.7	17.8 ² 22.6

1. Three station combinations displayed this percentage.
2. Bitburg/Hahn/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Hahn.
3. Bitburg/Frankfurt/Cologne and Frankfurt/Hahn/Cologne displayed this percentage.
4. Bitburg/Frankfurt/Hahn and Bitburg/Hahn/Cologne displayed this percentage.
5. Bitburg/Frankfurt/Cologne and Bitburg/Hahn/Cologne displayed this percentage.
6. Bitburg/Frankfurt/Hahn and Frankfurt/Hahn/Cologne displayed this percentage.
7. Frankfurt/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
8. Bitburg/Frankfurt/Hahn and Bitburg/Frankfurt/Cologne displayed this percentage.
9. Bitburg/Hahn/Cologne and Frankfurt/Hahn/Cologne displayed this percentage.
10. Bitburg/Frankfurt/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Hahn.

TABLE 31
THREE STATION PROBABILITIES OF ADVERSE WEATHER
FOR OCTOBER IN PERCENT
(Local Standard Time)
1961-1970 (Except OCT 67)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.7 ² 1.8	¹ 0.7 2.9	³ 5.0 9.0	2.2 ² 3.9	13.6 22.6	⁹ 26.2 36.9	⁴ 33.3 48.0	45.2 54.8
4	¹ 0.7 3.2	1.1 ⁶ 3.2	³ 7.5 11.1	2.5 ² 5.4	⁴ 15.4 24.7	30.8 42.7	41.9 57.7	³ 53.1 64.8
7	³ 2.9 6.1	2.2 6.1	³ 16.5 21.9	2.9 7.2	⁴ 25.8 38.7	³ 41.5 53.4	³ 52.0 67.4	³ 61.7 75.3
10	³ 0.7 3.2	¹ 1.4 5.4	³ 9.0 12.2	¹ 2.9 7.5	⁸ 21.9 32.6	³ 35.8 50.5	³ 42.3 60.6	³ 53.4 67.4
13	⁴ 0.0 0.4	0.0 ⁴ 0.4	⁷ 3.9 ² 5.0	⁴ 0.4 2.5	³ 8.2 14.7	³ 20.8 29.8	28.0 41.2	¹ 38.4 48.0
16	0.0 0.0	⁴ 0.0 0.4	³ 0.7 1.8	¹ 0.0 1.1	¹ 4.3 7.2	13.3 18.3	¹ 17.9 27.2	25.5 35.5
19	⁴ 0.0 0.4	⁴ 0.0 1.1	0.7 ² 3.9	¹ 0.0 2.2	5.7 11.5	19.0 25.5	25.1 34.8	¹ 36.2 41.9
22	⁵ 0.0 0.7	⁴ 0.4 2.5	2.2 6.5	⁴ 0.4 2.9	8.6 15.4	16.9 25.5	25.8 36.6	³ 39.4 48.0

1. Bitburg/Frankfurt/Cologne and Frankfurt/Hahn/Cologne displayed this percentage.
2. Bitburg/Hahn/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Hahn.
3. Frankfurt/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
4. Three station combinations displayed this percentage.
5. Bitburg/Frankfurt/Cologne and Bitburg/Hahn/Cologne displayed this percentage.
6. Bitburg/Frankfurt/Hahn and Bitburg/Hahn/Cologne displayed this percentage.
7. Bitburg/Frankfurt/Hahn and Frankfurt/Hahn/Cologne displayed this percentage.
8. Bitburg/Hahn/Cologne and Frankfurt/Hahn/Cologne displayed this percentage.
9. Bitburg/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.

TABLE 32
THREE STATION PROBABILITIES OF ADVERSE WEATHER
FOR NOVEMBER IN PERCENT
(Local Standard Time)
1961-1970 (Except NOV 67)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.0 1.1	⁵ 1.5 4.1	⁵ 4.8 10.0	⁵ 2.2 8.5	11.5 22.2	21.9 37.8	34.4 55.2	43.7 62.6
4	¹ 0.4 1.5	1.5 3.7	4.8 12.6	⁵ 1.9 6.3	⁵ 11.5 26.3	23.0 44.8	36.3 61.9	49.3 67.4
7	¹ 0.0 1.9	1.9 5.9	5.2 13.7	3.0 9.3	¹ 13.7 27.8	⁵ 28.2 49.3	⁵ 45.2 64.1	⁵ 55.6 68.5
10	0.4 3.3	1.5 5.2	⁵ 8.5 17.4	2.2 8.2	⁵ 16.7 33.0	⁵ 38.5 55.6	⁵ 48.5 73.0	⁵ 60.7 78.9
13	² 0.0 0.7	0.7 3.3	4.4 10.7	1.5 6.7	10.7 21.5	⁵ 25.2 41.9	⁵ 37.8 60.7	⁵ 48.5 68.5
16	0.0 1.5	¹ 0.0 3.0	3.0 8.5	0.7 3.7	10.0 21.5	24.1 39.3	⁶ 35.2 57.0	⁶ 44.4 61.5
19	¹ 0.0 ³ 1.1	¹ 0.4 3.7	3.0 7.8	1.1 6.7	8.9 20.7	22.6 37.8	33.3 52.6	47.0 62.2
22	¹ 0.0 ⁴ 0.7	¹ 0.7 3.3	3.0 10.0	⁵ 1.5 7.8	9.3 20.4	23.7 38.2	34.4 53.0	41.9 57.4

1. Bitburg/Frankfurt/Cologne and Frankfurt/Hahn/Cologne displayed this percentage.
2. Bitburg/Frankfurt/Cologne and Bitburg/Hahn/Cologne displayed this percentage.
3. Bitburg/Hahn/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Cologne.
4. Bitburg/Frankfurt/Hahn and Bitburg/Hahn/Cologne displayed this percentage.
5. Frankfurt/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
6. Bitburg/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.

TABLE 33
THREE STATION PROBABILITIES OF ADVERSE WEATHER
FOR DECEMBER IN PERCENT
(Local Standard Time)
1961-1970 (Except DEC 67)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.0 1.8	0.4 3.9	3.9 10.8	1.4 8.2	11.8 23.3	29.4 48.0	42.7 65.6	56.3 72.4
4	² 0.0 2.2	² 0.4 3.2	3.9 10.4	2.2 8.2	11.1 22.6	30.1 45.2	42.3 63.1	53.8 70.3
7	¹ 0.0 1.4	0.0 5.7	3.6 11.1	1.4 10.0	11.8 25.1	33.7 48.0	46.6 65.6	59.1 72.0
10	¹ 0.0 3.2	¹ 0.4 4.7	9.7 19.0	1.8 9.3	⁵ 20.4 33.0	⁴ 44.8 55.9	¹ 54.1 71.3	63.8 79.6
13	³ 0.4 1.8	1.1 5.0	6.1 16.5	1.4 9.7	17.6 30.5	34.1 50.9	45.5 69.5	59.5 75.6
16	0.7 2.2	¹ 0.7 5.4	7.2 13.3	1.1 10.0	15.8 29.8	34.4 50.9	50.2 67.4	57.4 75.3
19	³ 0.0 1.8	¹ 1.4 4.7	5.0 12.5	¹ 2.5 8.6	12.9 24.7	28.0 47.0	44.1 66.0	57.4 74.2
22	¹ 0.0 0.7	⁴ 0.4 2.9	2.2 7.5	1.8 9.3	13.3 23.7	26.9 45.5	² 40.9 64.9	² 53.4 72.8

1. Bitburg/Frankfurt/Cologne and Frankfurt/Hahn/Cologne displayed this percentage.
2. Frankfurt/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
3. Three station combination displayed this percentage.
4. Bitburg/Frankfurt/Cologne and Bitburg/Hahn/Cologne displayed this percentage.
5. Bitburg/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.

TABLE 34
THREE STATION PROBABILITIES OF ADVERSE WEATHER
FOR JANUARY IN PERCENT
(Local Standard Time)
1961-1970 (Except JAN 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.0 1.4	0.4 4.7	5.0 13.3	2.2 9.0	15.1 31.5	33.7 50.5	46.2 62.7	57.4 69.2
4	² 0.4 2.5	1.1 6.8	4.7 15.4	2.5 10.4	15.4 31.9	37.6 49.8	50.5 66.3	60.2 72.4
7	³ 0.4 1.8	⁶ 0.7 6.1	⁶ 5.0 14.3	¹ 2.5 12.2	15.8 33.0	33.3 53.8	49.5 71.0	² 63.4 77.1
10	⁴ 0.7 3.6	⁴ 0.7 6.5	⁶ 9.7 24.4	1.1 12.2	25.5 45.9	45.5 59.9	² 59.1 73.8	⁶ 67.0 80.7
13	³ 0.7 1.8	⁴ 1.4 5.0	³ 10.4 18.3	⁴ 2.2 8.2	² 21.9 33.7	34.4 53.1	47.7 68.8	56.6 72.4
16	0.0 1.4	¹ 0.7 4.3	7.5 15.4	2.2 8.2	17.9 33.3	32.3 48.8	42.3 62.4	53.1 69.5
19	³ 0.4 1.1	⁶ 0.7 2.9	5.0 11.1	1.8 6.1	13.6 27.6	33.0 45.2	43.0 58.4	55.6 66.7
22	² 0.0 ⁵ 0.4	¹ 1.1 2.5	4.3 11.5	3.2 9.3	14.4 28.3	30.8 44.8	44.1 59.5	53.8 66.3

1. Frankfurt/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
2. Frankfurt/Hahn/Cologne and Bitburg/Frankfurt/Cologne displayed this percentage.
3. Three station combinations displayed this percentage.
4. Bitburg/Frankfurt/Cologne and Bitburg/Hahn/Cologne displayed this percentage.
5. Bitburg/Frankfurt/Hahn and Bitburg/Hahn/Cologne displayed this percentage.
6. Bitburg/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.

TABLE 35
THREE STATION PROBABILITIES OF ADVERSE WEATHER
FOR FEBRUARY IN PERCENT
(Local Standard Time)
1961-1970 (Except FEB 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	¹ 0.4 ² 0.8	² 0.4 3.2	³ 4.0 8.7	1.2 5.2	12.3 19.1	22.6 33.3	37.7 52.0	47.2 59.5
4	0.0 1.2	0.4 5.2	4.8 11.5	1.2 6.4	12.3 24.2	29.8 40.9	41.0 59.1	49.2 65.5
7	³ 0.4 1.6	0.4 1.6	7.9 11.5	1.2 4.0	14.7 23.8	29.0 40.5	38.5 59.9	51.6 67.1
10	⁴ 0.4 ⁵ 1.6	0.0 1.2	10.7 14.7	0.4 5.6	19.4 31.0	38.9 50.0	47.6 65.9	58.7 73.0
13	⁶ 0.0 0.4	0.0 2.4	4.8 9.5	0.0 2.8	12.3 19.4	25.4 36.9	39.3 56.4	48.4 63.1
16	⁷ 0.4 0.8	⁷ 0.4 1.2	4.4 7.9	0.4 2.4	³ 8.7 14.3	18.7 30.6	31.0 47.2	41.7 56.8
19	⁷ 0.0 0.4	³ 0.4 1.2	3.6 5.6	0.4 2.0	11.9 19.8	22.2 32.5	31.8 50.0	45.2 58.3
22	0.0 0.8	⁷ 0.4 1.6	3.2 6.0	0.4 2.8	8.7 16.7	21.8 32.5	31.0 49.6	40.1 57.1

1. Bitburg/Frankfurt/Hahn and Bitburg/Hahn Cologne displayed this percentage.
2. Bitburg/Frankfurt/Cologne and Frankfurt/Hahn/Cologne displayed this percentage.
3. Bitburg/Frankfurt/Cologne and Bitburg/Hahn/Cologne displayed this percentage.
4. Bitburg/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
5. Bitburg/Frankfurt/Hahn and Frankfurt/Hahn/Cologne displayed this percentage.
6. Bitburg/Frankfurt/Hahn was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
7. Three station combinations displayed this percentage.

TABLE 36

THREE STATION PROBABILITIES OF ADVERSE WEATHER
FOR JULY IN PERCENT
(Local Standard Time)

1961-1970 (Except JUL 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.0 0.0	0.0 0.0	0.0 ¹ 0.4	0.0 0.4	0.7 ¹ 2.2	3.9 ¹ 6.5	¹⁰ 8.6 ¹⁰ 10.0	14.0 ⁸ 18.6
4	0.0 0.0	0.0 ¹ 0.4	⁴ 0.0 ¹ 1.8	² 0.0 ³ 0.4	⁴ 3.6 5.0	11.5 ⁸ 13.6	18.3 ⁸ 20.4	28.0 ⁸ 31.9
7	0.0 ¹⁰ 0.4	0.0 ¹ 0.7	¹ 1.4 ¹ 4.3	0.0 ¹ 0.7	⁴ 7.5 ⁶ 10.4	⁴ 17.6 ¹ 23.3	⁴ 24.0 ¹ 31.2	⁴ 35.1 44.8
10	0.0 0.0	² 0.0 ³ 0.4	0.7 ¹ 1.4	0.0 1.1	2.5 ³ 3.2	9.0 ¹ 12.2	15.8 23.7	25.8 30.1
13	0.0 0.0	0.0 0.0	0.0 0.4	⁷ 0.0 ¹ 0.4	⁵ 0.4 ⁹ 1.1	2.5 ¹ 5.0	⁴ 9.7 17.6	⁴ 16.1 26.5
16	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	⁹ 0.4 ¹⁰ 1.1	2.5 ⁸ 3.2	7.2 10.4	11.1 ¹¹ 15.4
19	0.0 0.0	0.0 0.0	0.4 0.4	0.0 0.0	⁷ 1.1 ¹ 1.8	² 1.4 ³ 2.5	⁴ 3.2 7.9	7.9 13.3
22	0.0 0.0	0.0 ¹ 0.4	⁷ 0.0 ¹ 1.1	⁷ 0.0 ¹ 0.4	² 0.4 ¹ 1.8	1.8 ¹ 4.7	5.7 ⁸ 10.4	11.5 ⁸ 16.1

1. Bitburg/Hahn/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Hahn.
2. Bitburg/Frankfurt/Cologne and Frankfurt/Hahn/Cologne displayed this percentage.
3. Bitburg/Frankfurt/Hahn and Bitburg/Hahn/Cologne displayed this percentage.
4. Frankfurt/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
5. Bitburg/Frankfurt/Hahn was the "best" station combination instead of Bitburg/Frankfurt/Cologne.
6. Bitburg/Frankfurt/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Hahn.
7. Three station combinations displayed this percentage.
8. Frankfurt/Hahn/Cologne was the "worst" station combination instead of Bitburg/Frankfurt/Hahn.
9. Bitburg/Frankfurt/Cologne and Bitburg/Hahn/Cologne displayed this percentage.
10. Bitburg/Frankfurt/Hahn and Frankfurt/Hahn/Cologne displayed this percentage.
11. Bitburg/Hahn/Cologne was the "best" station combination instead of Bitburg/Frankfurt/Cologne.

TABLE 37

FOUR STATION PROBABILITIES OF ADVERSE WEATHER
ANNUAL SUMMARY IN PERCENT
(Local Standard Time)

1961-1970 (Except SEP 67-AUG 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.1	0.3	2.0	0.8	6.6	14.6	22.7	31.2
4	0.2	0.3	2.6	0.9	8.0	19.1	28.2	38.1
7	0.3	0.4	4.7	1.1	12.7	25.9	35.6	46.7
10	0.2	0.3	4.0	0.8	11.0	24.5	33.4	43.0
13	0.1	0.3	2.3	0.4	6.2	14.4	24.4	32.7
16	0.1	0.2	1.8	0.4	5.1	12.1	19.2	25.8
19	0.0	0.2	1.6	0.5	5.1	12.7	19.6	28.5
22	0.0	0.2	1.2	0.6	5.1	12.5	19.4	27.4

1. The actual percentage was 0.03%.

TABLE 38
 FOUR STATION PROBABILITIES OF ADVERSE WEATHER
 FOR SEP-OCT-NOV IN PERCENT
 (Local Standard Time)

1961-1970 (Except SEP-NOV 67)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.2	0.7	3.2	1.5	9.3	18.7	26.1	35.8
4	0.2	0.7	4.5	1.5	11.1	22.5	32.6	42.5
7	0.9	1.3	9.0	2.1	18.1	31.1	41.3	51.3
10	0.4	0.9	5.6	1.6	14.5	30.3	38.1	48.5
13	0.0	0.2	2.6	0.5	7.0	17.1	25.6	34.3
16	0.0	0.0	1.2	0.2	4.6	12.9	18.6	26.0
19	0.0	0.1	1.6	0.4	5.0	15.4	21.9	32.5
22	0.0	0.4	1.6	0.6	6.5	14.9	21.7	31.4

TABLE 39

FOUR STATION PROBABILITIES OF ADVERSE WEATHER
FOR DEC-JAN-FEB IN PERCENT
(Local Standard Time)

1961-1970 (Except DEC 67-FEB 68)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	0.1	0.4	4.0	1.6	12.8	28.0	40.9	52.1
4	0.1	0.6	3.7	1.9	12.6	31.6	43.5	53.1
7	0.1	0.1	4.1	1.5	13.3	31.7	44.4	57.0
10	0.4	0.4	9.0	1.1	20.5	40.9	51.6	61.7
13	0.4	0.9	6.5	1.2	16.2	30.6	43.2	53.6
16	0.4	0.6	5.9	1.1	13.7	28.4	40.3	50.1
19	0.1	0.9	4.1	1.4	12.5	27.7	39.3	52.4
22	0.0	0.6	3.0	1.9	12.0	26.2	37.9	48.8

TABLE 40
FOUR STATION PROBABILITIES OF ADVERSE WEATHER
FOR MAR-APR-MAY IN PERCENT
(Local Standard Time)

1961-1970 (Except MAR-MAY 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.0	0.1	0.6	0.1	2.9	7.6	16.4	25.0
4	0.2	0.0	1.0	0.0	4.7	13.3	21.9	32.4
7	0.1	0.0	3.5	0.7	12.3	23.1	33.0	45.1
10	0.0	0.1	1.1	0.4	6.9	18.6	27.9	39.4
13	0.0	0.0	0.2	0.0	1.6	7.1	19.4	28.4
16	0.0	0.0	0.2	0.1	1.9	5.1	12.8	19.0
19	0.0	0.0	0.6	0.1	2.3	6.5	14.4	22.6
22	0.0	0.0	0.2	0.0	1.6	6.6	12.9	19.9

TABLE 41
 FOUR STATION PROBABILITIES OF ADVERSE WEATHER
 FOR JUN-JUL-AUG IN PERCENT
 (Local Standard Time)

1961-1970 (Except JUN-AUG 68)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	0.0	0.0	0.2	0.0	1.7	4.4	7.7	12.6
4	0.0	0.0	1.2	0.1	3.6	9.4	15.2	24.9
7	0.1	0.1	2.2	0.2	7.1	17.9	23.8	33.6
10	0.0	0.0	0.4	0.2	2.3	8.8	16.3	23.1
13	0.0	0.0	0.1	0.0	0.4	3.0	9.8	14.9
16	0.0	0.0	0.0	0.0	0.1	2.2	5.6	8.5
19	0.0	0.0	0.2	0.1	1.0	1.7	3.5	7.0
22	0.0	0.0	0.0	0.0	0.6	2.8	5.4	10.0

TABLE 42
FOUR STATION PROBABILITIES OF ADVERSE WEATHER
FOR SEPTEMBER IN PERCENT
(Local Standard Time)

1961-1970 (Except SEP 67)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	0.0	0.0	0.4	0.0	3.7	10.4	14.4	22.2
4	0.0	0.0	1.9	0.0	8.5	15.6	21.9	28.5
7	0.4	0.0	7.8	0.4	16.7	26.3	30.0	40.4
10	0.0	0.4	2.6	0.4	8.5	18.5	25.2	33.7
13	0.0	0.0	0.4	0.0	2.6	7.4	15.2	21.9
16	0.0	0.0	0.0	0.0	0.7	3.7	6.7	12.6
19	0.0	0.0	1.1	0.0	3.0	5.9	8.5	17.4
22	0.0	0.0	0.0	0.0	2.6	6.7	8.5	15.9

TABLE 43
FOUR STATION PROBABILITIES OF ADVERSE WEATHER
FOR OCTOBER IN PERCENT
(Local Standard Time)

1961-1970 (Except OCT 67)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	0.7	0.7	5.0	2.2	13.6	24.7	30.5	42.7
4	0.4	1.1	7.2	2.5	14.3	30.1	40.5	50.9
7	2.2	2.2	14.3	2.9	24.7	40.1	49.5	60.2
10	0.7	0.7	7.2	2.2	19.7	34.8	40.9	52.0
13	0.0	0.0	2.9	0.0	7.9	20.1	25.1	34.4
16	0.0	0.0	0.7	0.0	3.9	12.2	15.4	22.9
19	0.0	0.0	0.7	0.0	4.3	18.3	24.4	34.1
22	0.0	0.4	1.8	0.4	7.9	15.4	23.3	36.9

TABLE 44
FOUR STATION PROBABILITIES OF ADVERSE WEATHER
FOR NOVEMBER IN PERCENT
(Local Standard Time)

1961-1970 (Except NOV 67)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.0	1.5	4.1	2.2	10.4	20.7	33.3	42.2
4	0.4	1.1	4.4	1.9	10.4	21.5	35.2	47.8
7	0.0	1.9	4.8	3.0	12.6	26.7	44.1	53.0
10	0.4	1.5	7.0	2.2	15.2	37.4	48.2	59.6
13	0.0	0.7	4.4	1.5	10.4	23.7	36.7	46.7
16	0.0	0.0	3.0	0.7	9.3	23.0	33.7	42.6
19	0.0	0.4	3.0	1.1	7.8	21.9	32.6	45.9
22	0.0	0.7	3.0	1.5	8.9	22.6	33.3	41.1

TABLE 45
FOUR STATION PROBABILITIES OF ADVERSE WEATHER
FOR DECEMBER IN PERCENT
(Local Standard Time)

1961-1970 (Except DEC 67)

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	0.0	0.4	3.9	1.4	11.5	28.7	42.3	55.2
4	0.0	0.4	2.9	1.8	11.1	28.3	41.2	52.7
7	0.0	0.0	2.2	1.4	10.8	33.0	46.2	58.4
10	0.0	0.4	8.6	1.8	19.4	41.6	50.9	61.7
13	0.4	1.1	6.1	1.4	15.8	33.0	43.7	58.1
16	0.7	0.7	6.5	1.1	15.1	34.4	49.1	56.3
19	0.0	1.4	4.7	2.2	12.9	27.6	43.0	57.0
22	0.0	0.4	1.8	1.8	13.3	26.2	39.8	52.7

TABLE 46
FOUR STATION PROBABILITIES OF ADVERSE WEATHER
FOR JANUARY IN PERCENT
(Local Standard Time)

1961-1970 (Except JAN 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.0	0.4	4.7	2.2	15.1	33.0	45.2	56.3
4	0.4	1.1	3.9	2.5	14.7	36.9	49.1	58.1
7	0.0	0.4	3.6	2.2	15.1	33.0	48.8	62.0
10	0.7	0.7	9.0	1.1	23.7	43.7	57.0	66.0
13	0.7	1.4	9.0	2.2	20.4	34.1	47.3	55.2
16	0.0	0.7	7.2	1.8	17.9	32.3	41.9	52.3
19	0.4	0.7	4.7	1.4	12.9	32.6	42.3	54.8
22	0.0	1.1	3.9	3.2	14.0	30.5	42.7	52.7

TABLE 47
FOUR STATION PROBABILITIES OF ADVERSE WEATHER
FOR FEBRUARY IN PERCENT
(Local Standard Time)

1961-1970 (Except FEB 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.4	0.4	3.2	1.2	11.9	21.8	34.5	44.1
4	0.0	0.4	4.4	1.2	11.9	29.4	39.7	48.0
7	0.4	0.0	6.8	0.8	14.3	29.0	37.7	50.0
10	0.4	0.0	9.5	0.4	18.3	36.9	46.3	57.1
13	0.0	0.0	4.4	0.0	11.9	24.2	38.1	46.8
16	0.4	0.4	4.0	0.4	7.5	17.5	28.6	40.9
19	0.0	0.4	2.8	0.4	11.5	22.2	31.8	44.4
22	0.0	0.4	3.2	0.4	8.3	21.4	30.6	40.1

TABLE 48
FOUR STATION PROBABILITIES OF ADVERSE WEATHER
FOR JULY IN PERCENT
(Local Standard Time)

1961-1970 (Except JUL 68)

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.0	0.0	0.0	0.0	0.7	2.9	6.8	11.8
4	0.0	0.0	0.0	0.0	2.2	9.3	14.7	23.7
7	0.0	0.0	0.7	0.0	5.7	15.1	22.2	32.3
10	0.0	0.0	0.7	0.0	2.2	7.5	14.7	21.9
13	0.0	0.0	0.0	0.0	0.4	2.5	9.3	14.7
16	0.0	0.0	0.0	0.0	0.4	2.2	6.1	9.0
19	0.0	0.0	0.4	0.0	1.1	1.1	2.9	6.8
22	0.0	0.0	0.0	0.0	0.4	1.8	5.4	10.8

TABLE 49
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
AT BITBURG-FRANKFURT-HAHN
ANNUAL SUMMARY IN PERCENT
(Local Standard Time)
1961-1970

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	2.8 8.8	7.7 20.0	15.2 24.8	9.4 25.6	26.4 36.9	39.2 50.9	52.1 57.8	59.0 65.2
4	4.4 12.1	9.2 24.1	18.9 30.2	11.3 30.1	32.0 44.6	48.2 59.3	61.3 65.1	68.0 72.0
7	6.1 13.9	10.8 27.2	25.9 34.7	13.1 34.6	44.0 48.9	59.9 ² 63.9	³ 68.9 ² 71.8	³ 74.9 ² 77.9
10	5.5 10.6	10.1 22.6	¹ 22.6 28.2	13.3 29.7	¹ 37.6 41.0	56.0 ² 58.3	³ 66.2 ² 69.9	³ 71.6 ² 75.3
13	3.0 6.4	7 16.9	¹ 14.0 20.1	9.7 22.0	¹ 23.8 29.0	37.2 45.5	56.6 ⁴ 62.6	63.4 ² 68.1
16	2.7 6.2	6.8 14.4	¹ 11.4 17.7	8.7 18.7	¹ 20.7 26.4	31.4 38.6	48.0 54.6	55.0 60.5
19	1.8 6.1	6.5 14.8	12.4 19.0	8.3 19.3	21.9 29.9	32.5 41.3	46.3 51.9	53.9 58.8
22	2.1 6.7	6.9 16.9	12.7 20.8	8.6 21.4	22.5 32.1	33.8 45.0	46.6 53.8	¹ 53.9 61.2

1. Bitburg was the "best" station instead of Frankfurt.
2. Bitburg was the "worst" station instead of Hahn.
3. Hahn was the "best" station instead of Frankfurt.
4. Bitburg and Hahn displayed this percentage.

TABLE 50
SINGLE STATION PROBABILITY OF ADVERSE WEATHER
AT BITBURG-FRANKFURT-HAHN
FOR SEP-OCT-NOV IN PERCENT
(Local Standard Time)

1961-1970

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	5.5 11.8	9.5 21.4	22.9 29.2	11.5 27.5	¹ 37.4 42.8	¹ 52.3 56.3	¹ 61.0 ⁴ 64.0	¹ 66.6 ⁴ 69.9
4	8.6 16.4	12.3 26.9	28.6 35.4	14.4 33.1	44.6 51.7	61.3 65.4	¹ 70.0 ⁴ 72.2	¹ 75.9 76.9
7	12.1 20.4	17.3 30.2	² 36.7 39.9	19.2 36.7	³ 54.4 ⁴ 57.8	³ 68.4 ⁵ 73.9	³ 72.4 ⁴ 82.1	³ 78.5 ⁴ 86.6
10	10.0 15.5	15.8 25.8	31.2 33.5	18.9 34.1	³ 48.2 ⁴ 55.6	³ 65.1 ⁵ 70.7	³ 70.0 ⁴ 79.2	³ 74.9 ⁴ 84.4
13	4.6 6.8	9.6 18.5	¹ 16.2 21.2	11.9 23.3	¹ 29.6 31.4	44.2 49.9	61.3 ⁵ 64.5	³ 67.6 ⁵ 71.4
16	¹ 2.6 6.6	7.0 15.4	¹ 12.1 18.3	9.3 19.4	23.9 26.5	36.9 40.1	² 51.9 52.5	¹ 57.2 ⁴ 59.0
19	2.9 7.5	7.1 15.0	¹ 14.2 21.5	9.5 19.4	¹ 26.5 33.1	¹ 39.9 46.9	51.8 56.0	59.1 64.1
22	4.0 9.3	8.9 18.5	¹ 16.7 24.2	10.8 23.3	¹ 29.0 37.3	¹ 41.9 50.1	¹ 53.4 58.1	¹ 60.7 65.8

1. Bitburg was the "best" station instead of Frankfurt.
2. Bitburg and Frankfurt displayed this percentage.
3. Hahn was the "best" station instead of Frankfurt.
4. Frankfurt was the "worst" station instead of Hahn.
5. Bitburg was the "worst" station instead of Hahn.

TABLE 51

SINGLE STATION PROBABILITY OF ADVERSE WEATHER
AT BITBURG-FRANKFURT-HAHN
FOR DEC-JAN-FEB IN PERCENT
(Local Standard Time)

1961-1970

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	4.7 16.9	11.6 35.9	23.8 41.6	15.1 45.3	40.4 58.6	57.3 75.1	74.3 81.3	80.0 86.0
4	6.7 19.2	13.0 39.8	25.2 46.7	17.4 47.3	39.9 63.0	58.0 78.8	75.6 84.1	81.9 88.2
7	6.6 17.7	13.1 38.0	25.0 46.8	18.8 48.9	42.2 64.8	59.8 82.9	76.9 87.7	83.0 91.0
10	10.7 22.2	14.3 38.8	¹ 37.7 46.8	19.6 47.4	¹ 56.2 65.9	74.0 79.6	¹ 83.8 ² 85.9	¹ 87.4 ² 90.2
13	7.2 16.7	12.6 35.8	¹ 28.9 43.2	16.3 44.3	¹ 45.6 57.8	65.0 75.2	¹ 78.9 81.9	¹ 82.6 86.3
16	¹ 6.9 16.7	11.1 31.6	¹ 24.0 39.6	15.7 40.1	¹ 40.6 55.7	58.9 72.7	¹ 74.7 80.0	79.6 83.8
19	4.0 13.9	9.6 31.0	21.6 39.0	13.8 40.4	38.7 58.1	54.8 73.6	71.9 81.1	¹ 77.8 85.1
22	4.2 12.8	10.2 33.9	22.1 39.9	14.7 41.8	¹ 38.4 56.7	56.1 73.4	¹ 72.0 79.6	76.8 84.7

1. Bitburg was the "best" station instead of Frankfurt.
2. Frankfurt was the "worst" station instead of Hahn.

TABLE 52
TWO STATION PROBABILITIES OF ADVERSE WEATHER
AT BITBURG-FRANKFURT-HAHN
(ANNUAL SUMMARY IN PERCENT)
(Local Standard Time)

1961-1970

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.8 3.2	2.4 7.5	6.6 11.4	4.0 11.2	14.7 21.3	25.9 35.3	37.9 44.7	44.5 51.3
4	¹ 1.6 4.2	3.2 8.9	9.0 15.1	5.0 13.3	19.2 27.2	32.9 42.9	46.7 52.5	54.1 59.3
7	2.5 5.7	4.0 10.2	¹ 13.3 18.8	6.2 15.6	¹ 27.2 32.2	¹ 42.3 51.1	¹ 54.7 59.9	¹ 62.8 66.8
10	2.0 3.9	3.6 9.0	11.4 14.6	6.1 14.5	² 24.4 27.7	¹ 39.8 46.4	¹ 53.8 58.5	¹ 61.1 64.7
13	0.8 1.7	2.1 5.9	6.4 9.2	3.8 9.6	13.5 17.2	25.5 32.5	44.8 51.7	52.2 57.8
16	0.6 1.6	1.8 5.0	5.1 7.6	3.0 8.2	11.3 15.6	21.1 27.4	35.7 41.6	42.6 47.9
19	0.4 1.9	1.8 5.4	4.8 8.4	3.1 8.4	11.8 17.0	21.2 28.9	33.5 39.8	40.7 46.6
22	0.6 2.2	1.8 6.4	4.5 9.4	3.5 9.8	11.4 17.7	21.2 29.8	33.0 39.2	39.9 46.1

1. Frankfurt/Hahn was the "best" station combination instead of Bitburg/Frankfurt.
2. Frankfurt/Hahn displayed the same percentage as Bitburg/Frankfurt.

TABLE 53
TWO STATION PROBABILITIES OF ADVERSE WEATHER
AT BITBURG-FRANKFURT-HAHN
FOR SEP-OCT-NOV IN PERCENT
(Local Standard Time)

1961-1970

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	1.5 4.4	3.2 9.1	¹ 10.2 15.4	5.2 13.2	22.0 27.9	35.0 42.3	46.5 50.6	53.3 57.7
4	¹ 2.5 5.9	4.5 10.1	14.4 19.2	6.0 15.8	28.2 34.8	43.6 50.3	¹ 56.5 59.1	63.3 65.9
7	¹ 4.6 10.0	6.8 14.0	¹ 20.7 25.9	8.7 19.0	¹ 36.2 ² 41.5	¹ 51.2 58.4	¹ 62.1 ² 68.8	¹ 69.5 ² 76.4
10	¹ 3.2 6.7	6.0 13.1	¹ 15.7 20.5	8.6 17.6	¹ 32.2 ² 36.2	¹ 48.8 ² 55.3	¹ 61.3 ² 68.7	¹ 67.3 ² 75.2
13	0.9 1.4	2.5 6.5	7.1 10.3	4.7 10.5	¹ 16.2 20.2	¹ 29.4 37.3	¹ 45.9 52.9	¹ 54.2 59.5
16	0.7 1.5	2.0 5.3	5.1 7.8	2.7 8.5	¹ 12.3 17.5	¹ 24.3 29.8	¹ 37.0 40.1	44.1 46.3
19	¹ 0.5 1.9	2.0 6.0	5.2 9.8	3.4 9.5	14.7 19.4	26.6 32.2	37.1 42.5	45.9 51.7
22	0.9 2.6	2.7 7.6	7.5 11.9	4.6 11.3	16.5 21.4	27.5 34.3	39.2 43.5	47.0 51.4

1. Frankfurt/Hahn was the "best" station combination instead of Bitburg/Frankfurt.
2. Bitburg/Frankfurt was the "worst" station combination instead of Bitburg/Hahn.

TABLE 54
TWO STATION PROBABILITIES OF ADVERSE WEATHER
AT BITBURG-FRANKFURT-HAHN
FOR DEC-JAN-FEB IN PERCENT
(Local Standard Time)

1961-1970

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT	C<4500 FT	C<8000 FT
1	1.4 7.1	3.2 9.1	13.1 21.8	8.4 23.0	26.4 37.3	46.6 59.1	63.3 70.7	69.9 76.3
4	2.6 7.9	4.5 10.1	14.8 25.3	9.7 25.1	27.7 41.8	47.3 63.1	65.9 73.7	72.6 77.8
7	2.8 7.2	6.8 14.0	15.9 26.2	11.2 25.7	29.4 41.6	49.0 66.4	67.8 77.6	74.4 81.2
10	3.8 8.3	6.0 13.1	23.8 28.9	11.6 27.0	41.3 47.9	60.7 66.9	75.2 76.8	81.4 ² 82.8
13	2.3 5.3	2.5 6.5	17.0 22.8	9.3 22.1	31.6 38.2	51.7 60.4	68.4 72.9	74.1 77.4
16	1.7 4.9	2.0 5.3	14.4 19.4	8.4 20.1	28.1 35.0	45.3 56.2	63.1 69.1	70.2 74.6
19	1.1 5.1	2.0 6.0	11.7 19.9	7.6 19.6	25.8 35.3	42.4 55.9	60.1 68.9	67.7 73.9
22	¹ 1.2 5.2	2.7 7.6	9.4 19.6	7.9 21.7	23.7 34.9	42.3 54.9	60.3 67.0	66.9 72.8

1. Frankfurt/Hahn was the "best" station combination instead of Bitburg/Frankfurt.
2. Frankfurt/Hahn was the "worst" station combination instead of Bitburg/Hahn.

TABLE 55
THREE STATION PROBABILITIES OF ADVERSE WEATHER
AT BITBURG-FRANKFURT-HAHN
ANNUAL SUMMARY IN PERCENT
(Local Standard Time)

1961-1970

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	0.6	1.8	4.9	3.2	12.3	23.0	34.6	41.0
4	1.0	2.3	6.9	3.8	15.8	28.8	42.0	49.3
7	1.6	2.7	9.5	4.8	21.5	36.9	49.6	57.8
10	1.3	2.5	8.4	4.8	19.5	34.5	48.9	56.5
13	0.4	1.4	5.0	2.9	10.9	22.2	39.8	46.6
16	0.5	1.3	4.0	2.4	9.8	18.8	31.2	37.5
19	0.3	1.3	4.0	2.5	10.3	19.3	30.4	37.5
22	0.3	1.3	3.9	3.0	10.0	19.4	29.9	36.8

TABLE 56

THREE STATION PROBABILITIES OF ADVERSE WEATHER

AT BITBURG-FRANKFURT-HAHN

FOR SEP-OCT-NOV IN PERCENT

(Local Standard Time)

1961-1970

HR	V<1 KM	C<500 FT	C<500 FT &/OR V< 2 MI	C<800 FT	C<800 FT &/OR V< 3 MI	C<2000 FT &/OR V< 4 MI	C<4500 FT &/OR V< 4 MI	C<8000 FT &/OR V< 5 MI
1	1.0	2.5	7.1	4.1	17.5	29.7	41.0	48.0
4	1.8	3.0	10.5	4.3	22.7	36.8	49.7	56.8
7	3.4	4.7	15.8	6.4	29.9	45.5	56.9	64.6
10	2.1	4.1	11.4	6.3	27.1	44.0	57.5	63.8
13	0.3	1.0	4.9	3.3	12.7	26.3	41.7	49.1
16	0.4	1.2	3.4	1.6	9.8	20.9	31.4	37.7
19	0.3	1.6	4.3	3.0	12.3	23.3	33.1	41.5
22	0.5	2.2	6.2	3.8	13.6	24.2	33.8	41.8

TABLE 57
THREE STATION PROBABILITIES OF ADVERSE WEATHER
AT BITBURG-FRANKFURT-HAHN
FOR DEC-JAN-FEB IN PERCENT
(Local Standard Time)

1961-1970

HR	V<1 KM	C<500 FT	C<500 FT &7OR V< 2 MI	C<800 FT	C<800 FT &7OR V< 3 MI	C<2000 FT &7OR V< 4 MI	C<4500 FT &7OR V< 4 MI	C<8000 FT &7OR V< 5 MI
1	1.3	4.2	10.9	7.9	24.2	43.6	60.1	66.9
4	1.9	5.1	12.6	8.4	25.9	45.2	63.2	69.8
7	1.7	5.0	12.4	9.6	27.0	47.0	65.5	72.0
10	2.9	4.9	19.6	9.4	36.3	55.2	70.2	77.8
13	1.3	4.4	14.7	7.3	27.7	47.4	64.8	70.1
16	1.6	4.1	12.2	7.4	25.8	43.0	59.2	66.8
19	0.9	3.3	10.1	6.1	23.8	40.9	57.9	65.8
22	0.6	2.7	8.3	7.4	22.2	40.6	57.4	64.4

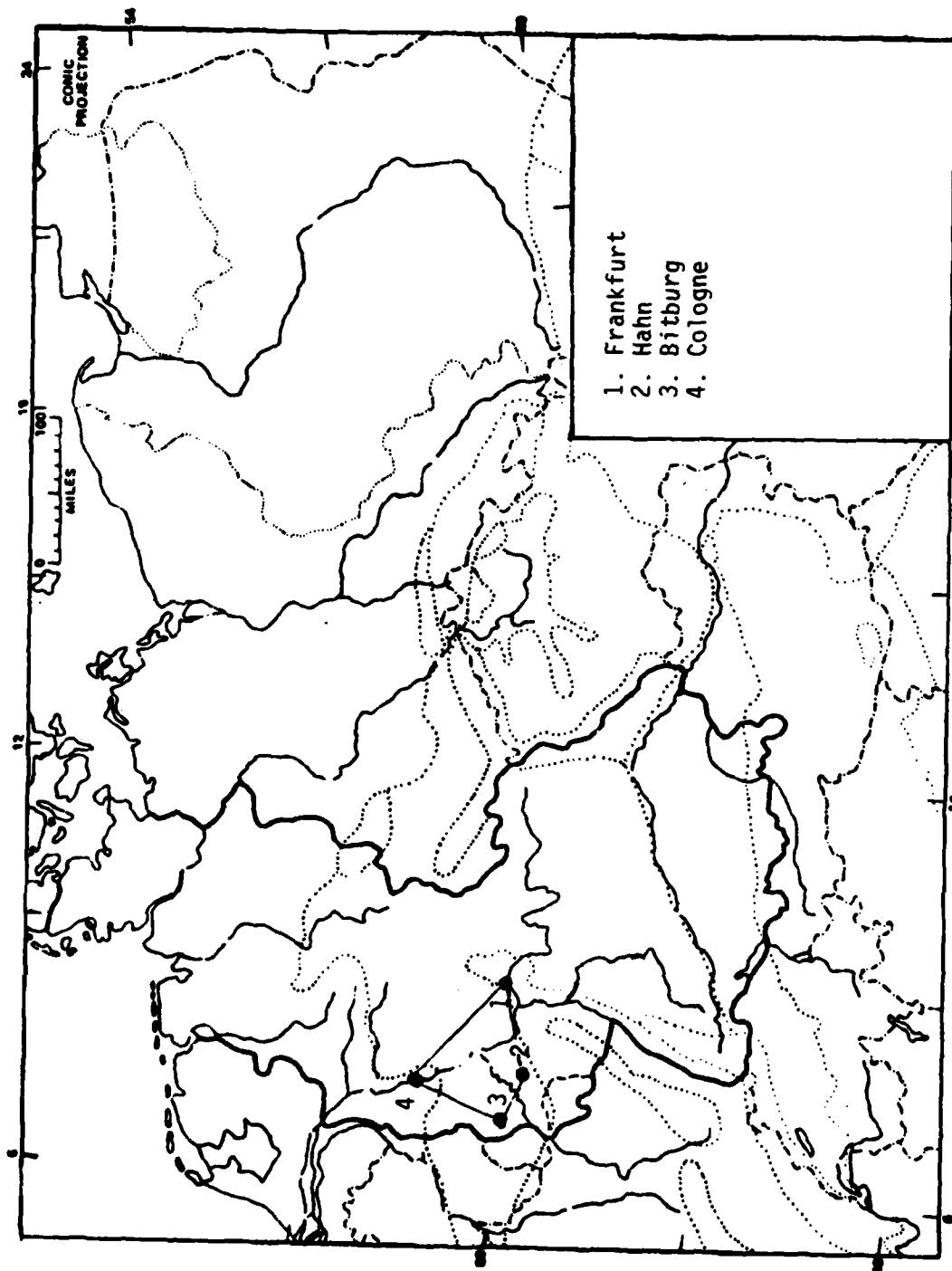


Figure 1. Location of Stations

DISTRIBUTION

	<u>No. of Copies</u>
Office of Naval Research/Code 221 ATTN: D. C. Lewis 800 N. Quincy Street Arlington, VA 22217	1
Pacific Missile Test Center Code 3253 ATTN: Charles Phillips Point Mugu, CA 93042	1
Commander US Army Test and Evaluation Command ATTN: NBC Directorate AMSTE-EL -BAF Mr. Alfred H. Edwards Aberdeen Proving Ground, MD 21005	1 1 1
Commander US Army Cold Regions Research and Engineering Laboratories ATTN: Environmental Research Branch Mr. Roger H. Berger, CRREL-RP Hanover, NH 03755	1 1
Commander US Army Ballistics Research Laboratories ATTN: AMXBR-B/LA/Ken Richer Aberdeen Proving Ground, MD 21005	3
Commander US Army Edgewood Arsenal ATTN: SMUEA-CS-0 Operations Research Group Edgewood Arsenal, MD 21010	1 1
Commander US Army Picatinny Arsenal ATTN: SMUPS-TV-3 Dover, NJ 07801	1
US Army Armament R&D Command ATTN: Murray Rosenbluth/DRDAR-SCF-DD, 65S Dover, NJ 07801	1

	<u>No. of Copies</u>
Commander US Armament Development & Test Center ATTN: MAJ Francis Lomax/CPT Edward H. Kelly Det 10, 2 Weather Sq. Eglin AFB, FL 32542	2
ADTC/XRCE (D. Dingus) Eglin AFB, FL 32542	1
AFATL/LMT Eglin AFB, FL 32542	1
Commander US Army Dugway Proving Ground ATTN: Meteorology Division Dugway, UT 84022	1
Commander US Army Artillery Combat Development Agency Fort Sill, OK 73504	1
Commander US Army Artillery & Missile School ATTN: Target Acquisition Department Fort Sill, OK 73504	1
Commander US Army Communications-Electronics Combat Development Agency Fort Huachuca, AZ 85613	1
USAF/ETAC Air Weather Service (MATS) ATTN: Ms. Hilda Snelling	1
MAJ Kit G. Cottrell/AWS/DNP	1
CPT William S. Weaving (7WW/LN)	1
Scott AFB, IL 62225	
Commander US Army Combined Arms Combat Development Activity Fort Leavenworth, KS 66027	1
Chief of Naval Operations ATTN: Code 427 Department of the Navy Washington, DC 20350	1
Chief, US Weather Bureau ATTN: Librarian Washington, DC 20350	1

	<u>No. of Copies</u>
Commander US Army Armament Command Rock Island, IL 61202	1
Commander US Army Foreign Science and Technology Center Federal Office Bldg 220 7th Street, NE Charlottesville, VA 22901	1
Commander US Army Training & Doctrine Command ATTN: ATORI Fort Monroe, VA 23351	1
Commander US Naval Air Systems Command Washington, DC 20360	1
Chief of Naval Research Department of the Navy Washington, DC 20360	1
Commander US Naval Air Development Center Warminster, PA 18974	1
Commander US Naval Surface Weapons Center Dahlgren, VA 22448	1
US Army Materiel Systems Analysis Activity ATTN: DRXSY-MP Aberdeen Proving Ground, MD 21005	1
USAF/AFOSR/NP ATTN: LTC Gordon Wepfer Bolling AFB Washington, DC 20332	1
Naval Surface Weapons Center ATTN: Mary Tobin, WR42 White Oak, MD 20910	1
HQS, Dept of the Army ATTN: DAEN-RDM/Dr. F. dePercin Washington, DC 20314	1

	<u>No. of Copies</u>
HQS, Dept of the Army	
Directorate of Army Research	
ATTN: DAMA-ARZ	2
-ARZ-D	1
Dr. Frank D. Verderame	1
Washington, DC 20310	
 Director	
US Army Night Vision Laboratory	
ATTN: Dr. Richard R. Shurtz	1
Dr. C. Ward Trussell, Jr.	1
Fort Belvoir, VA 22060	
 Director	
Naval Research Laboratory	
ATTN: Code 5300, Radar Division	1
Code 5370, Radar Geophysics Br.	1
Code 5460, Electromagnetic Propagation Br.	1
Washington, DC 20390	
 Deputy for Science and Technology	
Director of Defense Research and Engineering	
ATTN: Military Asst for Environmental Sciences	1
Pentagon, Washington, DC 20301	
 Commander	
US Army OTEA	
ATTN: CSTE-STIS-I/F. G. Lee	1
5600 Columbia Pk	
Falls Church, VA 22041	
 Commander/Director	
Corps of Engineers	
Waterways Experiment Station	
ATTN: WESEN/Mr. Jerry Lundien	1
P. O. Box 631	
Vicksburg, MS 39180	
 Director	
Atmospheric Sciences Program	1
National Sciences Foundation	
Washington, DC 20550	
 Director	
Bureau of Research and Development	1
Federal Aviation Agency	
Washington, DC 20553	

	<u>No. of Copies</u>
Director US Army Air Mobility Research and Development Laboratory Ames Research Center Moffett Field, CA 94035	1
Director of Meteorological Systems Office of Applications (FM) National Aeronautics & Space Admin. Washington, DC 20546	1
National Bureau of Standards Boulder Laboratories ATTN: Library Boulder, CO 80302	1
Navy Representative National Climatic Center Arcade Bldg Asheville, NC 28801	1
National Oceanic & Atmospheric Admin. National Climatic Center ATTN: Technical Library Arcade Bldg Asheville, NC 28801	1
Director Defense Advanced Research Projects Agency 1400 Wilson Blvd Arlington, VA 22209	1
Commander ARRADCOM ATTN: DRDAR-SCF-IM Mr. J. Heberley Dover, NJ 07801	1 1
National Aeronautics & Space Admin. ATTN: R-AERO-Y Marshall Space Flight Center, AL 35812	1
Director Ballistic Missile Defense Advanced Technology Center ATTN: ATC-D	1
-O	1
-R	1
-T	1
P. O. Box 1500 Huntsville, AL 35807	

	<u>No. of Copies</u>
Director of Defense Research and Engineering Engineering Technology ATTN: Mr. L. Weisberg Washington, DC 20301	1
Office of Chief Communications-Electronics, DA ATTN: Electronics Systems Directorate Washington, DC 20315	1
Office, Asst Chief of Staff for Intelligence, DA ATTN: ACSI-DSRSI Washington, DC 20310	1
Office of US Naval Weather Service US Naval Air Station Washington, DC 20390	1
Office, Asst Secretary of Defense Research and Engineering ATTN: Technical Library Washington, DC 20301	1
US Air Force Avionics Laboratory ATTN: ASD/WE, MAJ Winston Crandall	1
AFAL/WE, CPT J. D. Pryce	1
AFAL/RWI, Dr. B. L. Sowers	1
AFAL/WE, Mr. Roger T. Winn	1
AFAL/RWI-3(WE), CPT W. C. Smith	1
Mr. Raymond Wasky	1
Mr. D. Rees	1
Wright-Patterson AFB, OH 45433	
DA, ODCSLOG US Army Logistics Evaluation Agency New Cumberland Army Depot New Cumberland, PA 17070	1
US Army Engineering Topographic Lab Earth Sciences Division ATTN: ETL-GS-ES, Dr. W. B. Brierly Fort Belvoir, VA 22060	1
Commander US Army Research Office ATTN: Dr. R. Lontz	1
Dr. Frank DeLucia	1
Dr. James Mink	1
Dr. Hermann Robl	1
P. O. Box 12211 Research Triangle Park, NC 27709	

	<u>No. of Copies</u>
US Army R&S Group (Europe) ATTN: DRXSN-E-RX, Dr. A. K. Nedol Box 65, FPO New York 90510	2
US Army Materiel Development and Readiness Command ATTN: Dr. Gordon Bushy Dr. James Bender 5001 Eisenhower Avenue Alexandria, VA 22333	1 1
Commander US Army Tank Automotive R&D Command ATTN: DRDTA-RCAF RCAF, Mr. Eugene Spratke Warren, MI 48090	1 1
Commander USA Mobility Equipment R&D Command ATTN: DRDME-ZK, Dr. Karl H. Steinbach Fort Belvoir, VA 22060	1
US Army Combat Development Experimentation Command Engr. Sys. Branch ATTN: Mr. Joseph Egger Fort Hunter-Liggett, CA 93928	1
Commander HQ Rome Air Development Center (AFSC) ATTN: Mr. Larry Telford Mr. Edward E. Altshuler Hanscom AFB, MA 01731	1 1
Air Force Geophysics Laboratories ATTN: OPI, Mr. John Selby Mr. V. Falcone OPA, Dr. R. Fenn CRXL LKI, Mr. Lund Mr. Gringorten Mr. Lenhard Mr. Grantham LYS, Mr. R. S. Hawkins LYW, Mrs. R. M. Dyer Mr. R. J. Donaldson LUP, Mr. B. A. Kunkel Hanscom AFB, MA 01731	1 1 1 1 1 1 1 1 1 1 1 1 1

END

FILMED

10-84

DTIC