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CER61-28

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ENGINEERING RESEARCH
FEB 28 '74
FOOTHILLS HALLWAY ROOM

PROGRESS REPORT
of
WORK ACCOMPLISHED AT
COLORADO STATE UNIVERSITY
ON THE
COOPERATIVE PROJECT ON CLIMATOLOGY
OF THE UPPER COLORADO RIVER BASIN

as of
1 November 1960

by
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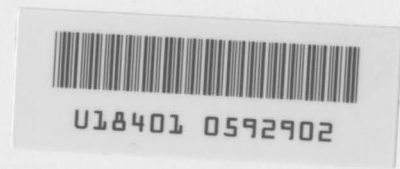
CER61RAS28

I. Summary of Card Punching Completed

Stations in	Number of Stations	Station years	
		Punched by	
		CSU	USWB
Colorado			
Western Slope	18	839	170
Fort Collins	1	70	--
New Mexico	1	42	12
Utah	5	113	137
Wyoming	5	<u>219</u>	<u>58</u>
		1283	377
			1660

Note: In addition, 450 station years of data from 15 east-slope stations in Colorado have been processed previously.

2110 x 365 = 770,000 cards
 1660 x 365 = 608,000 cards
 1283 x 365 = 470,000 cards



II. Reduction of Daily Cards to Storm Rainfall Totals

Objective - to reduce number of cards

Procedure

1. Break on "O" - method discarded
2. Break on "T" - method adopted and illustrated below

	Storm # 1						# 2		# 3							
Precipitation	.0	0	.2	.4	0	0	.2	T	.6	.8	0	T	T	0	0	.5
Serial date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Total Rain			.6				.2					.14				
Days with																
Precipitation >T			2				1					2				
T			0				1					2				
0			2				0					3				
Beginning Date			3				7					9				
Ending Date			6				8					15				

Result

- 1 - Listing of storm information and
- 2 - Summary deck of cards

Data reduction for the two stations for which reduction has been accomplished:

Grand Junction: 11% of cards in summary deck as compared with original deck.

Silverton: 14.5% of cards in summary deck as compared with original deck.

III. Analysis of Storm Data

1. Listing of last card gives the following information:

Annual precipitation for water year, 1 Oct. - 30 Sept.

Number of storms

Days with precipitation $\left\{ \begin{array}{l} > T \\ = 0 \\ \text{Missing} \end{array} \right.$

2. Frequency distribution of storm amounts --

By years

By months

3. Date of acquiring given amounts of precipitation --

- a. Frequency distributions

- b. Mean and standard deviation of serial dates of accumulating given amounts of precipitation

IV. Plans for Future Work

1. Sorting and re-boxing cards.
2. Reduction of data for all stations into storm totals.
3. Frequency analysis as illustrated, following a review of the effect of changes in exposure for individual stations.
4. Reduction of storm amounts to precipitation amounts related to runoff as indicated in LWC Report Number 29, Page 31, and obtain resulting frequency distribution.

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