

STORM RAINFALL IN THE UNITED STATES

FOREWORD

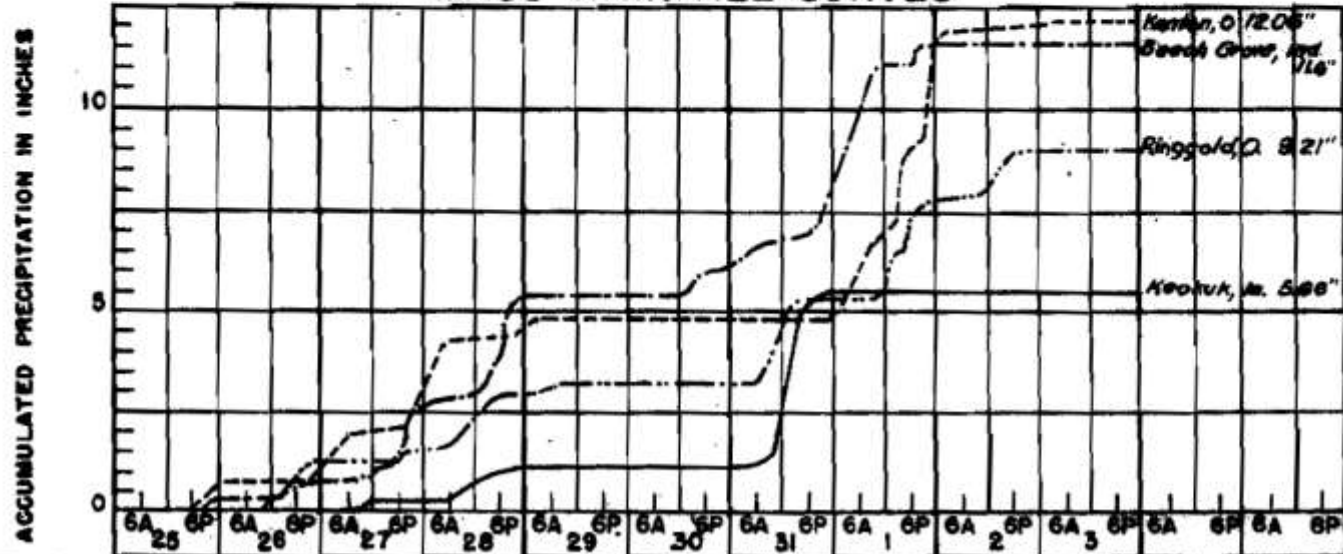
The design and operation of flood control, navigation and multiple purpose projects require a thorough analysis of rainfall data. Therefore, the Corps of Engineers, United States Army, organized a program in 1937 for the study of about a thousand major storms of record distributed throughout the entire continental United States. The program provides for a continuing analysis of current storms of major proportions. The investigation of major storms by the Division and District Offices of the Engineer Department (Corps of Engineers) has been divided into Part I and Part II studies. Part I of the Storm Study consists of the compilation of basic precipitation data, preparation of mass rainfall curves and a preliminary total storm isohyetal map. In addition to published records of the Weather Bureau, Part I includes all available precipitation data and miscellaneous information on the storm obtainable from the manuscripts of original records, files of municipal agencies, newspapers, etc.

Unofficial

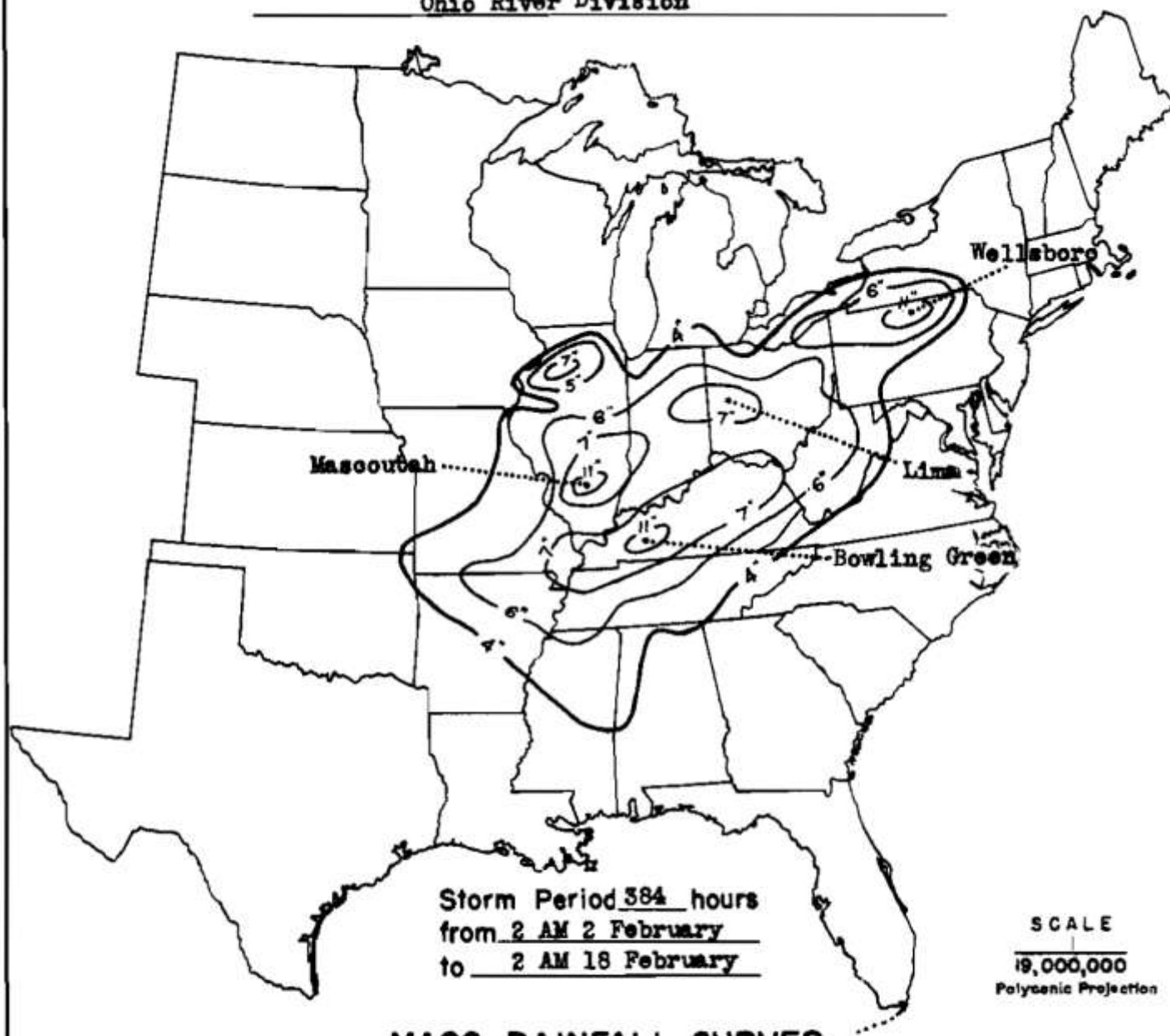
observations of precipitation are carefully analyzed and every effort is made to classify them as to their reliability. Part I of the Storm Study, assembled and organized by the various District Offices, is reviewed by the Hydrometeorological Section of the Weather Bureau and the mass-rainfall curves are correlated with the meteorological analysis of the storm. Upon completion of the review by the Hydrometeorological Section, Part I is returned to the originating District Office for preparation of Part II of the Storm Study. The preparation of Part II involves the following steps:

- a. Preparation of the final total storm isohyetal map based on the selected storm period, delineation of zones on the isohyetal map and grouping of rainfall stations by zones.
- b. Tabulation of contemporaneous rainfall quantities as scaled from mass rainfall curves, for periods usually increasing by 6-hour increments.
- c. Tabulation of absolute maximum rainfall quantities for durations of 6, 12, 18 and 24 hours for stations within the zones of excessive rainfall intensity.
- d. Computation of mass rainfall depths representing the average depth of rainfall over selected areas of the storm.
- e. The computation of maxima depth-area-duration data for various combinations of contiguous zones.

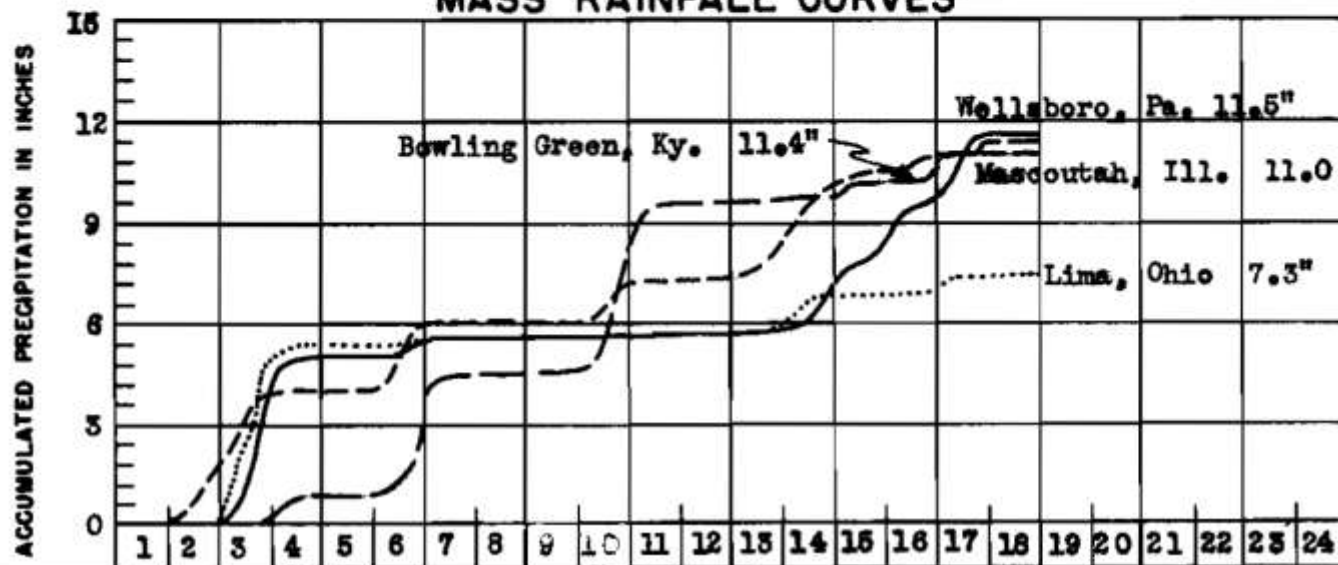
The following sheets summarize the results of the individual storm studies. It is the intention of the Engineer Department to issue similar pertinent data sheets for storms not previously studied and current storms as data become available.

STORM STUDIES - ISOHYETAL MAPStorm of July 25- August 3, 1875Assignment OR 4-1Study Prepared by: Louisville, Ky. District
Ohio River Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

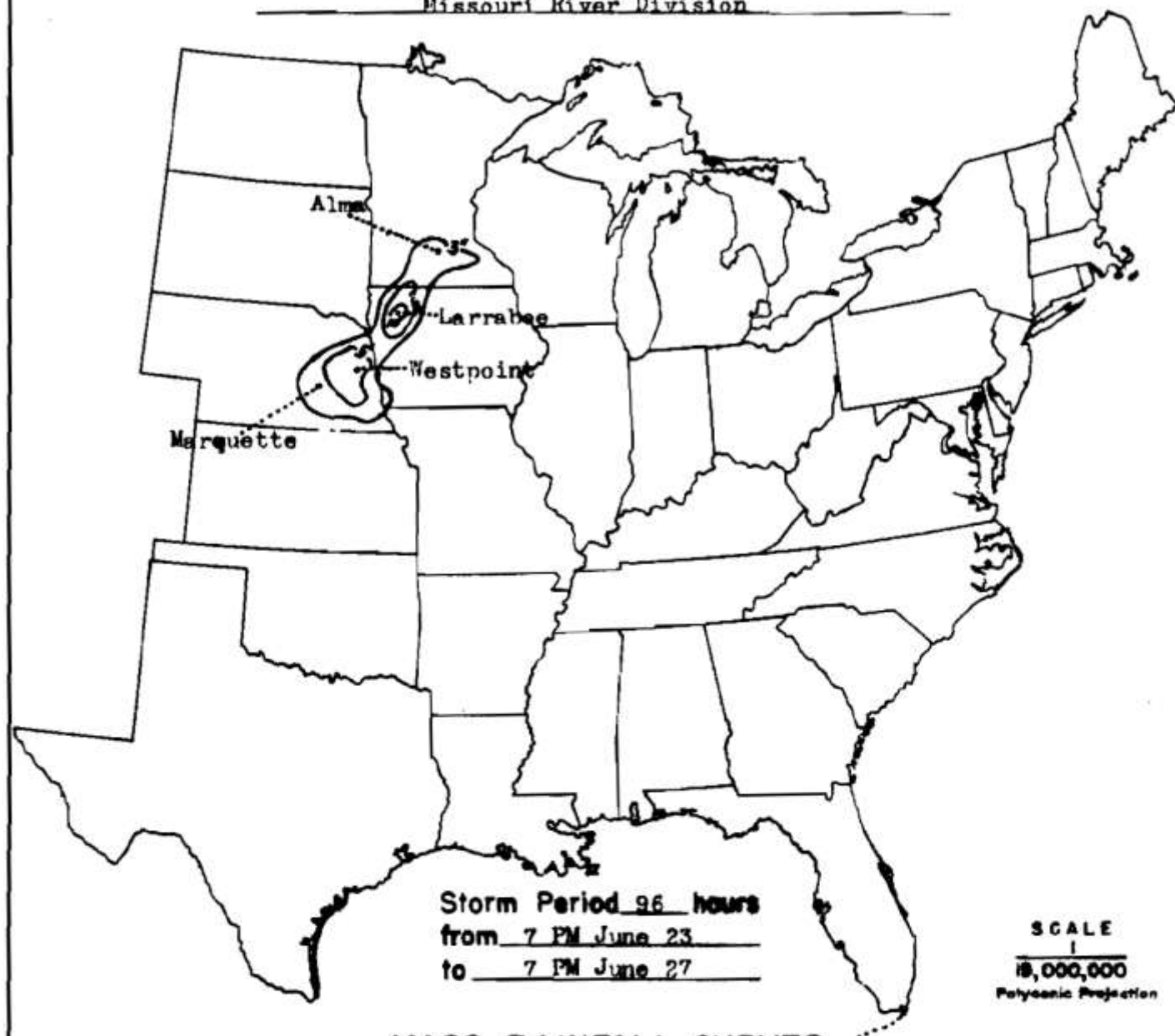
Storm of 2-18 February 1883 Assignment OR 5-11Study Prepared by: Louisville, Ky. District
Ohio River Division

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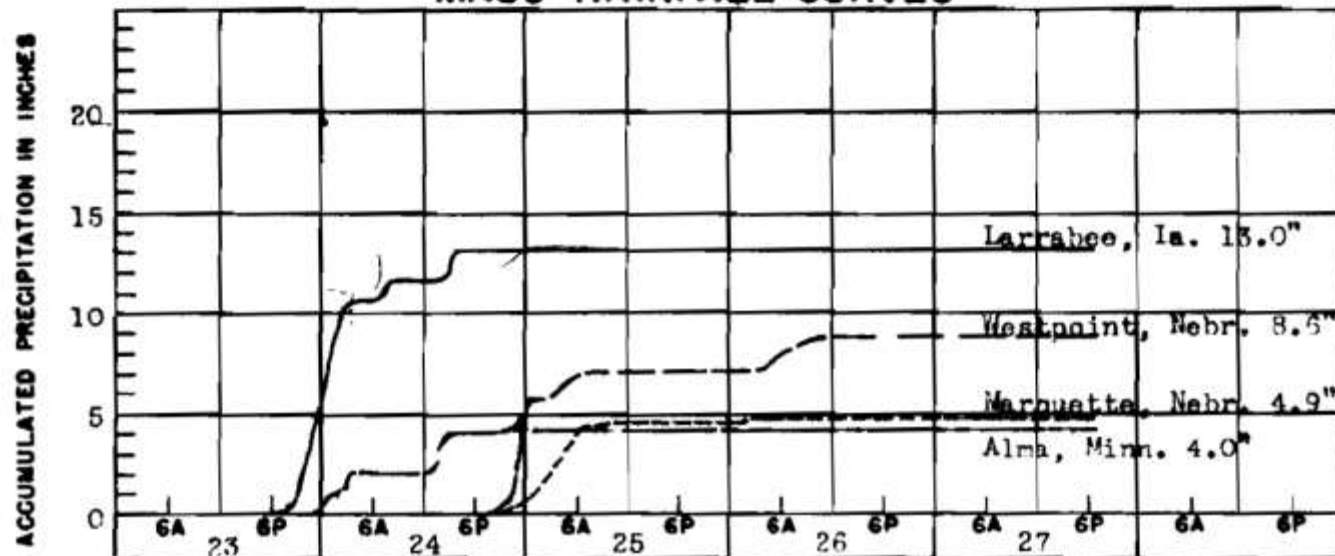


STORM STUDIES - ISOHYETAL MAP

Storm of 23-27 June 1891 Assignment MR 4-2
Study Prepared by: Omaha, Nebr. District
Missouri River Division



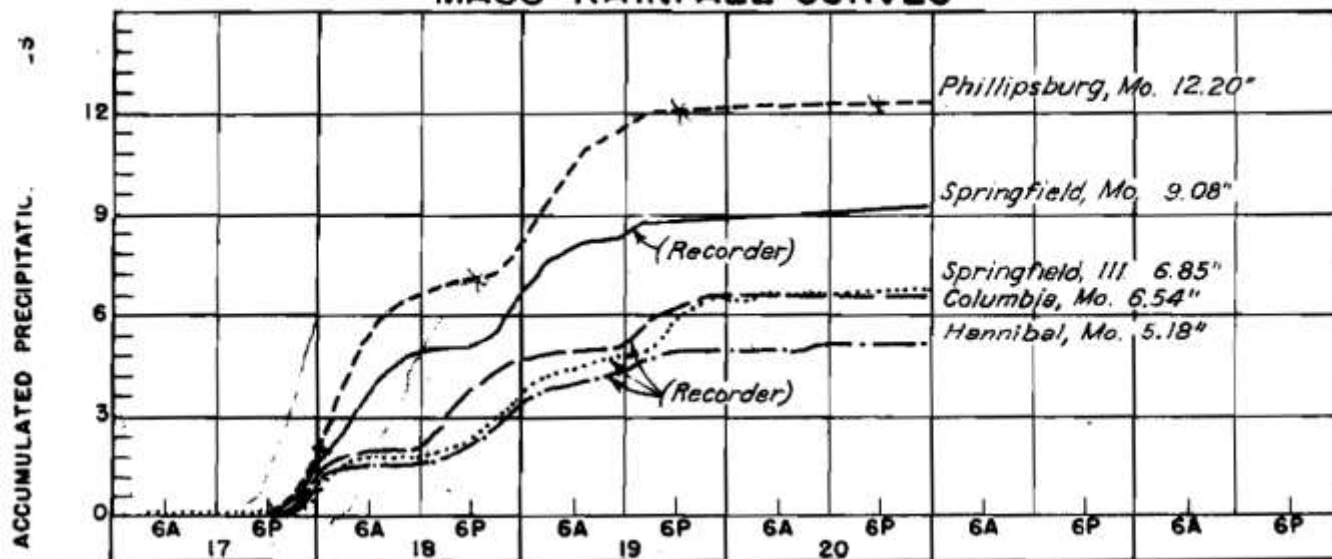
MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAP

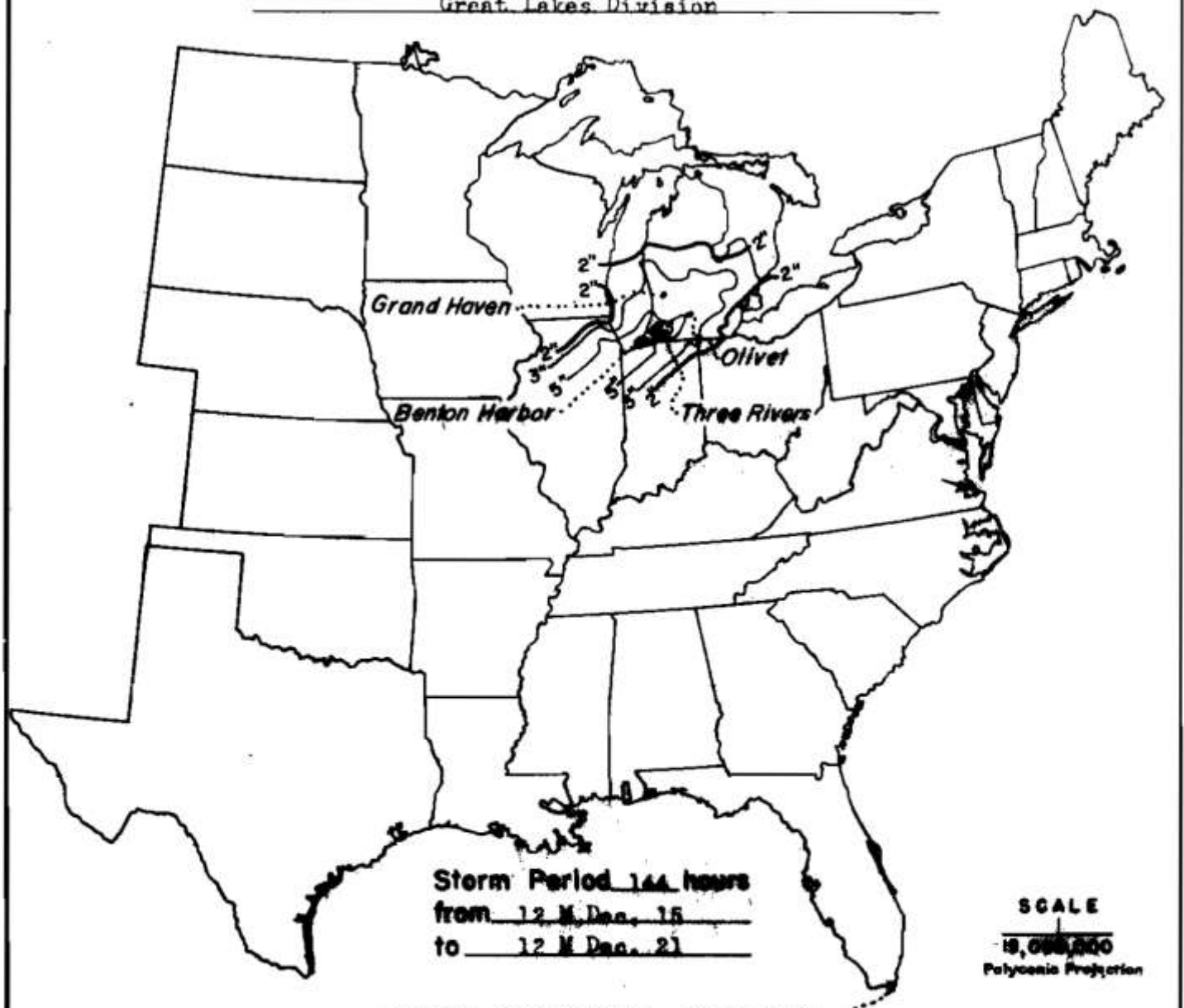
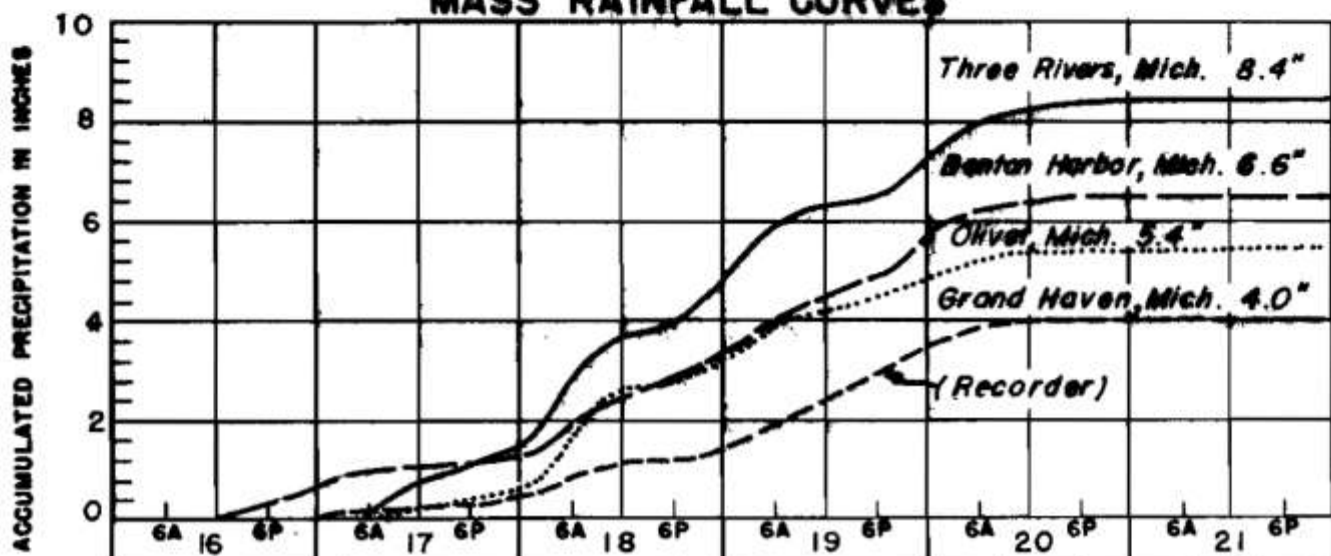
Storm of December 16-20, 1895 Assignment MR 1-1Study Prepared by: Kansas City, Mo. District
Missouri River Division

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STORM STUDIES - ISOHYETAL MAP

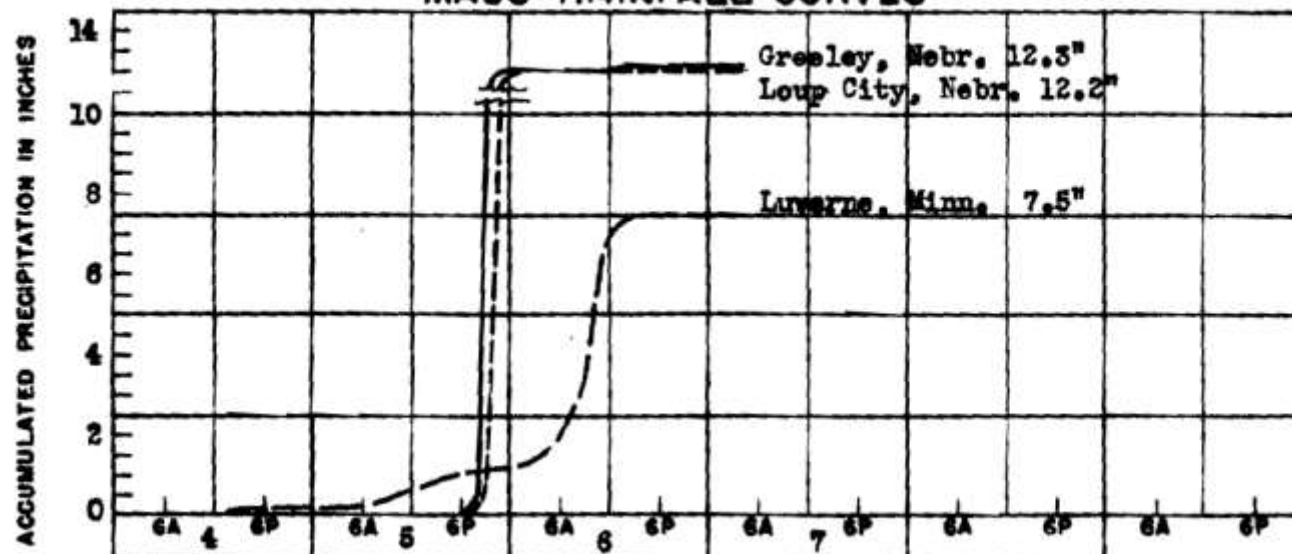
Storm of 16-21 December 1895 Assignment GL 2-8
 Study Prepared by: Milwaukee, Wis., District
Great Lakes Division

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STORM STUDIES - ISOHYETAL MAP

Storm of 4-7 June 1896Assignment MR 4-3Study Prepared by: Omaha, Nebr. District
Missouri River Division

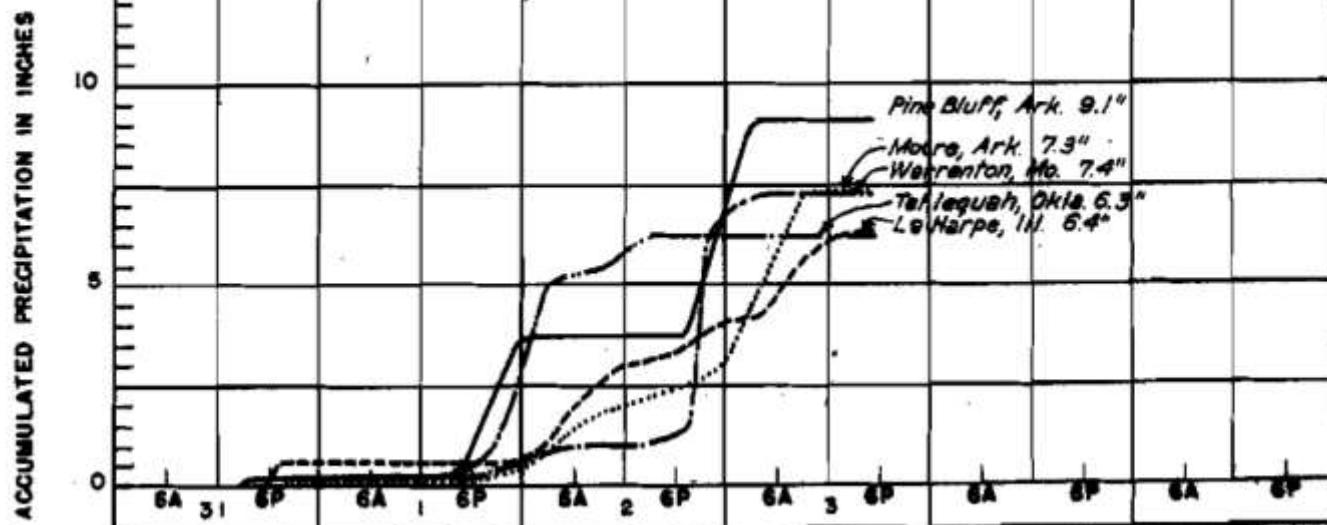
MASS RAINFALL CURVES



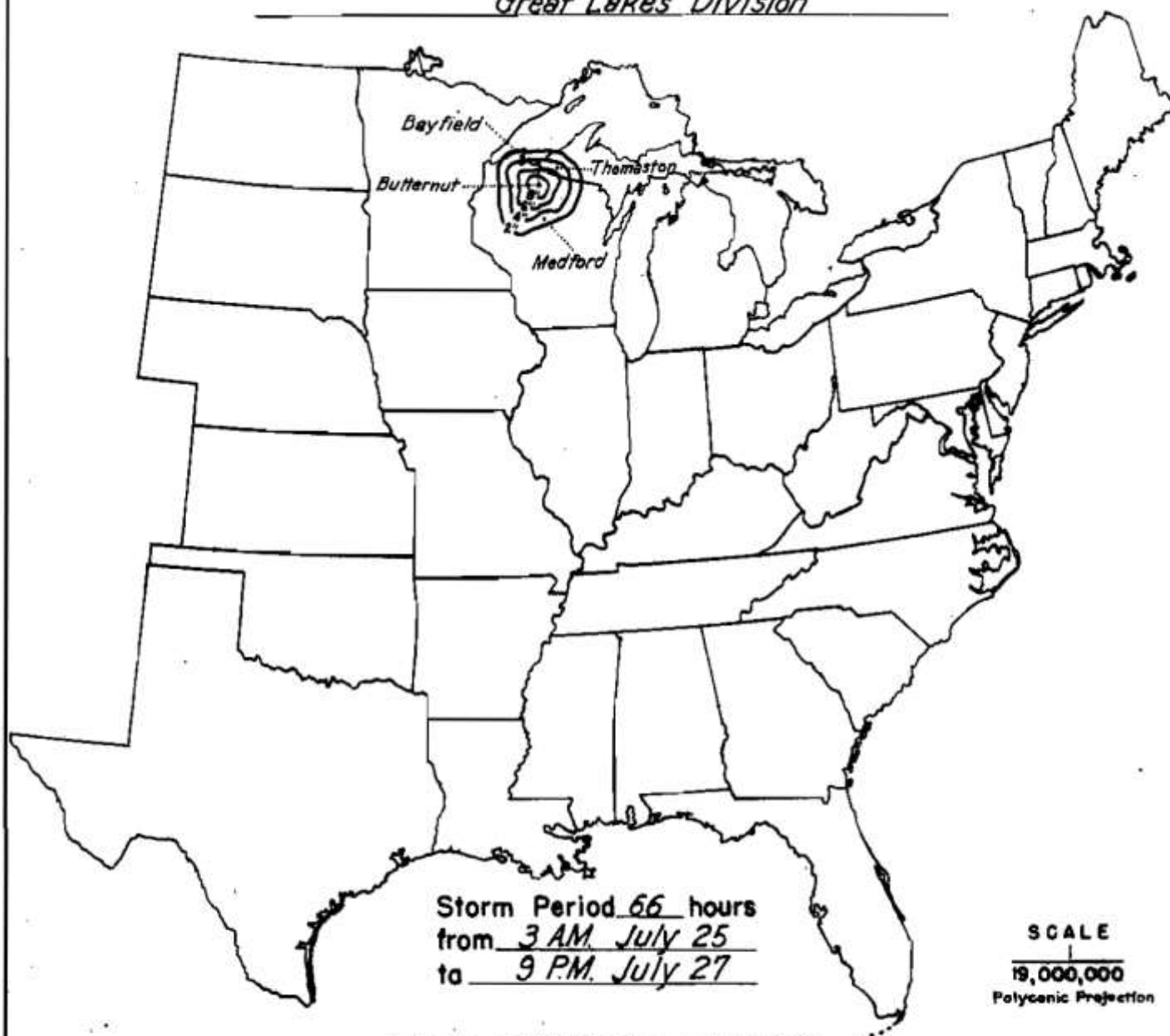
STORM STUDIES - ISOHYETAL MAP

Storm of December 31, 1896 to January 3, 1897 Assignment UMV 2-1Study Prepared by: Rock Island DistrictUpper Mississippi Valley Division

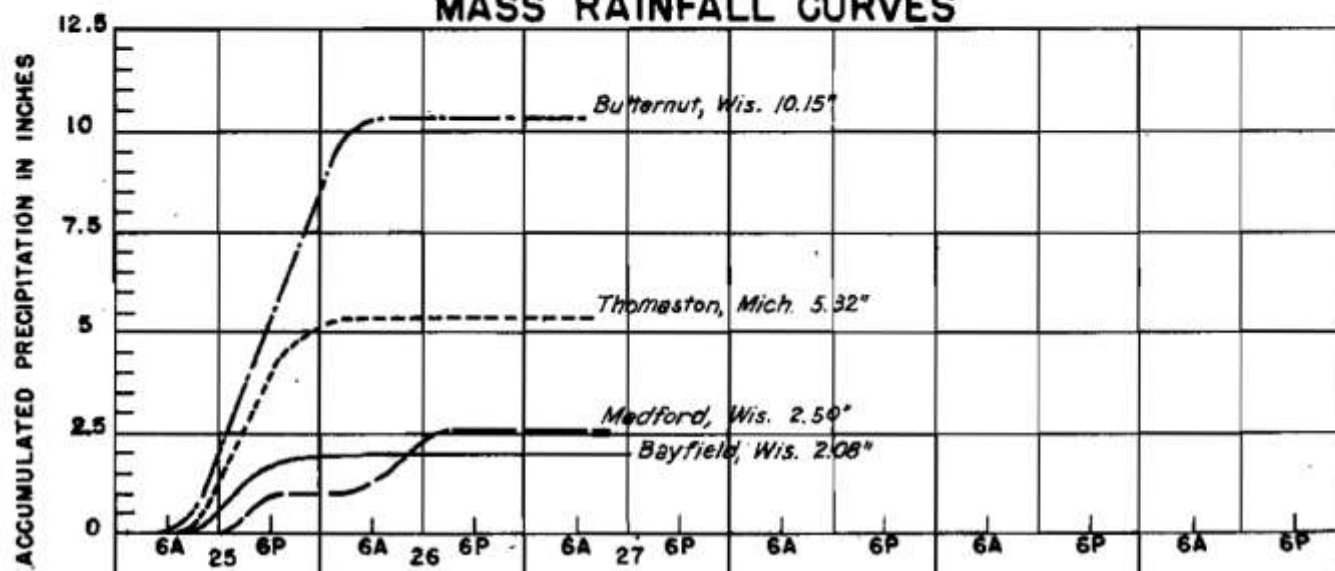
MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAP

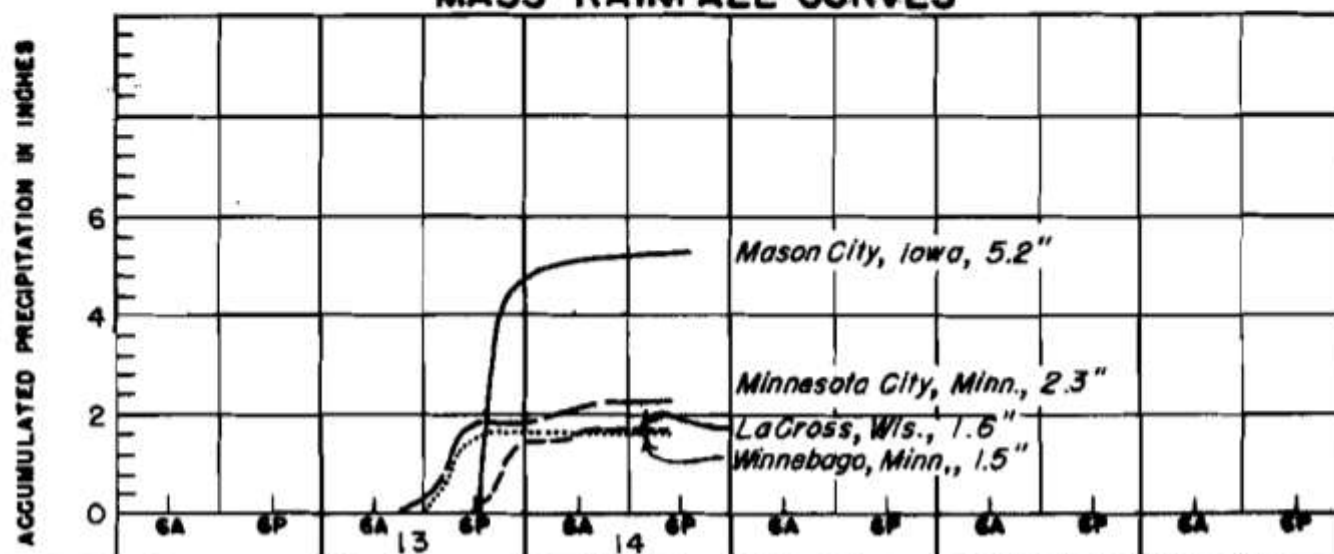
Storm of July 25-27, 1897 Assignment GL 4-5Study Prepared by: Milwaukee, Wis. District
Great Lakes Division

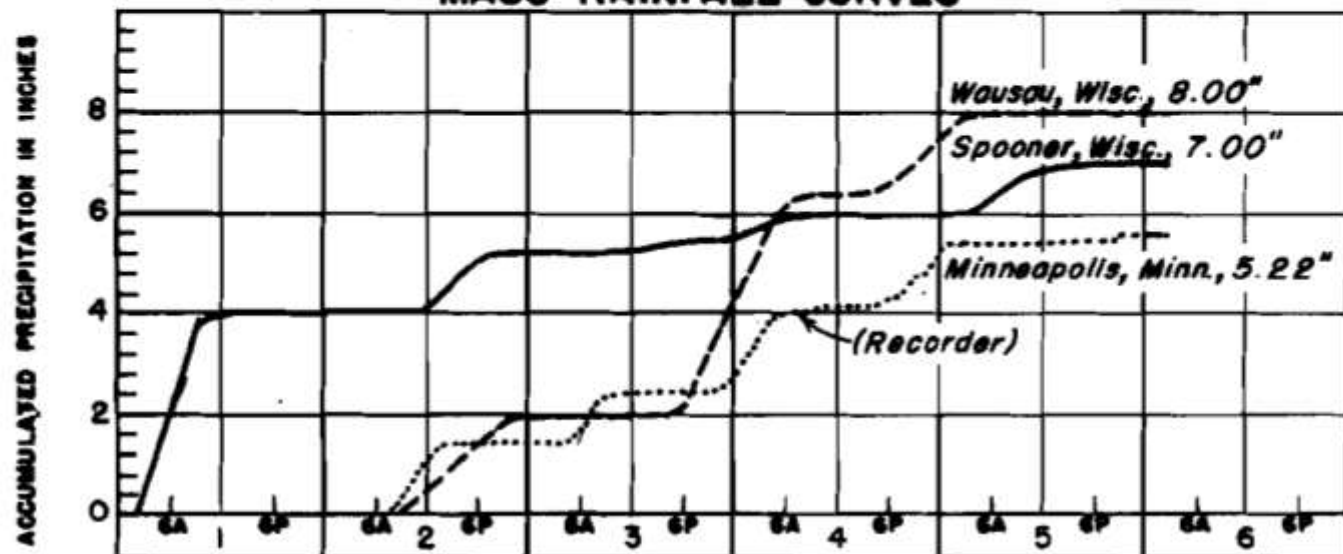
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STORM STUDIES - ISOHYETAL MAP

Storm of June 13-14, 1899 Assignment IMV 1-4 B
Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division

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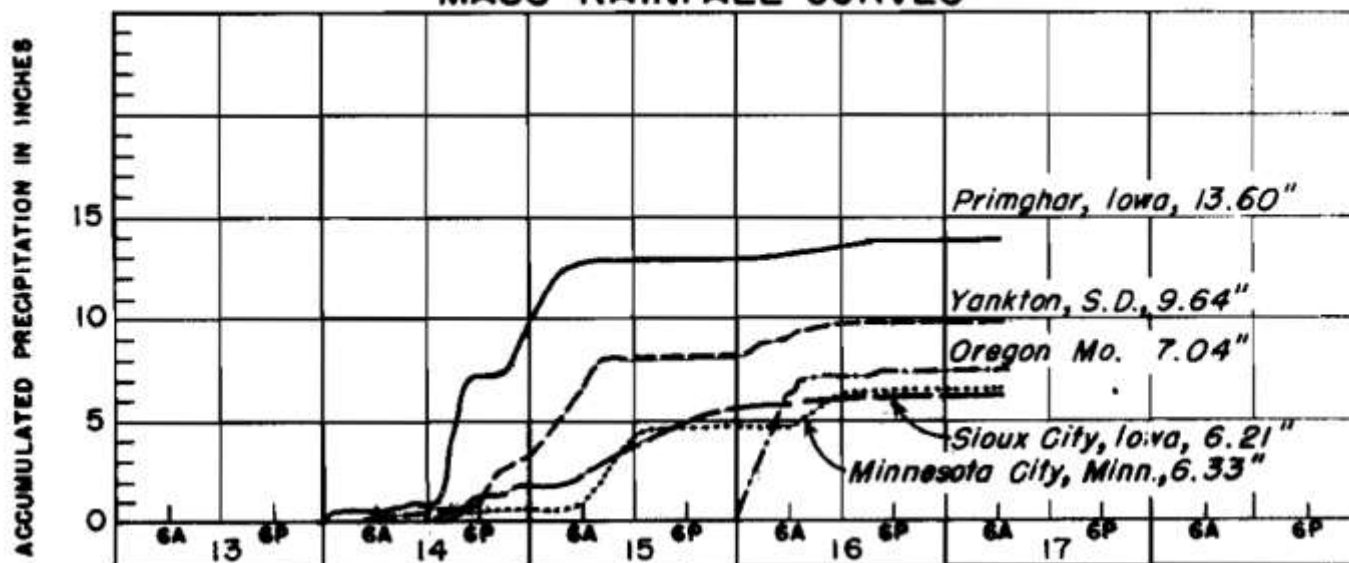
STORM STUDIES - ISOHYETAL MAPStorm of 1-6 July 1900Assignment UMV 1-5Study Prepared by: St. Paul, Minn. DistrictUpper Mississippi Valley Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

Storm of 14-17 July 1900 Assignment MR 1-7
 Study Prepared by: Omaha, Nebr. District
Missouri River Division



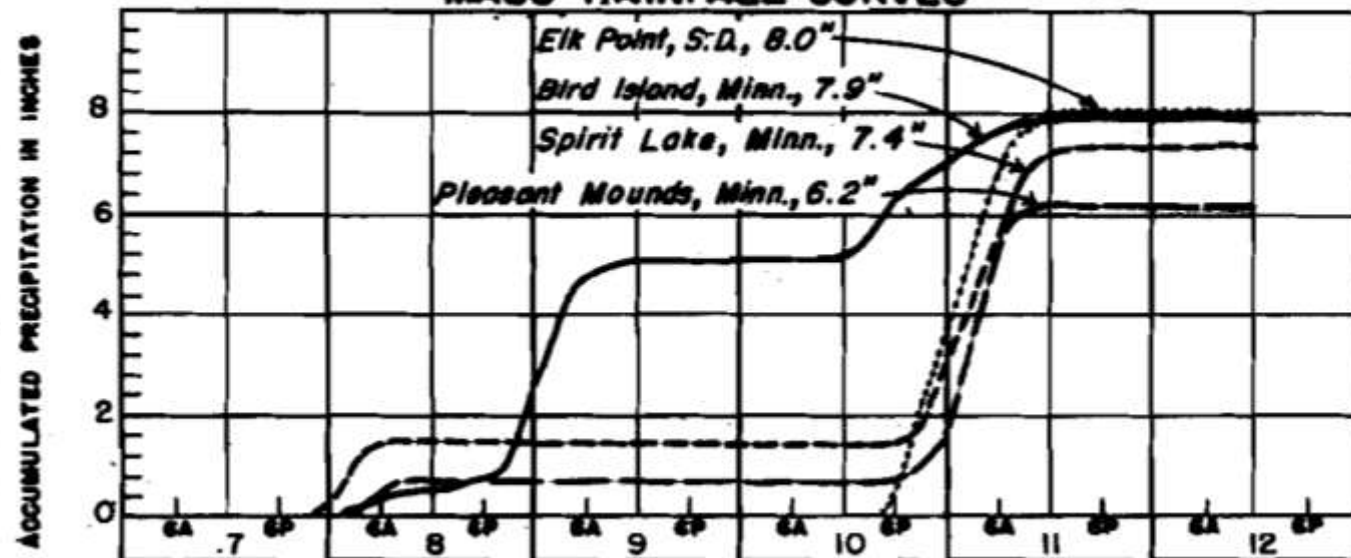
MASS RAINFALL CURVES



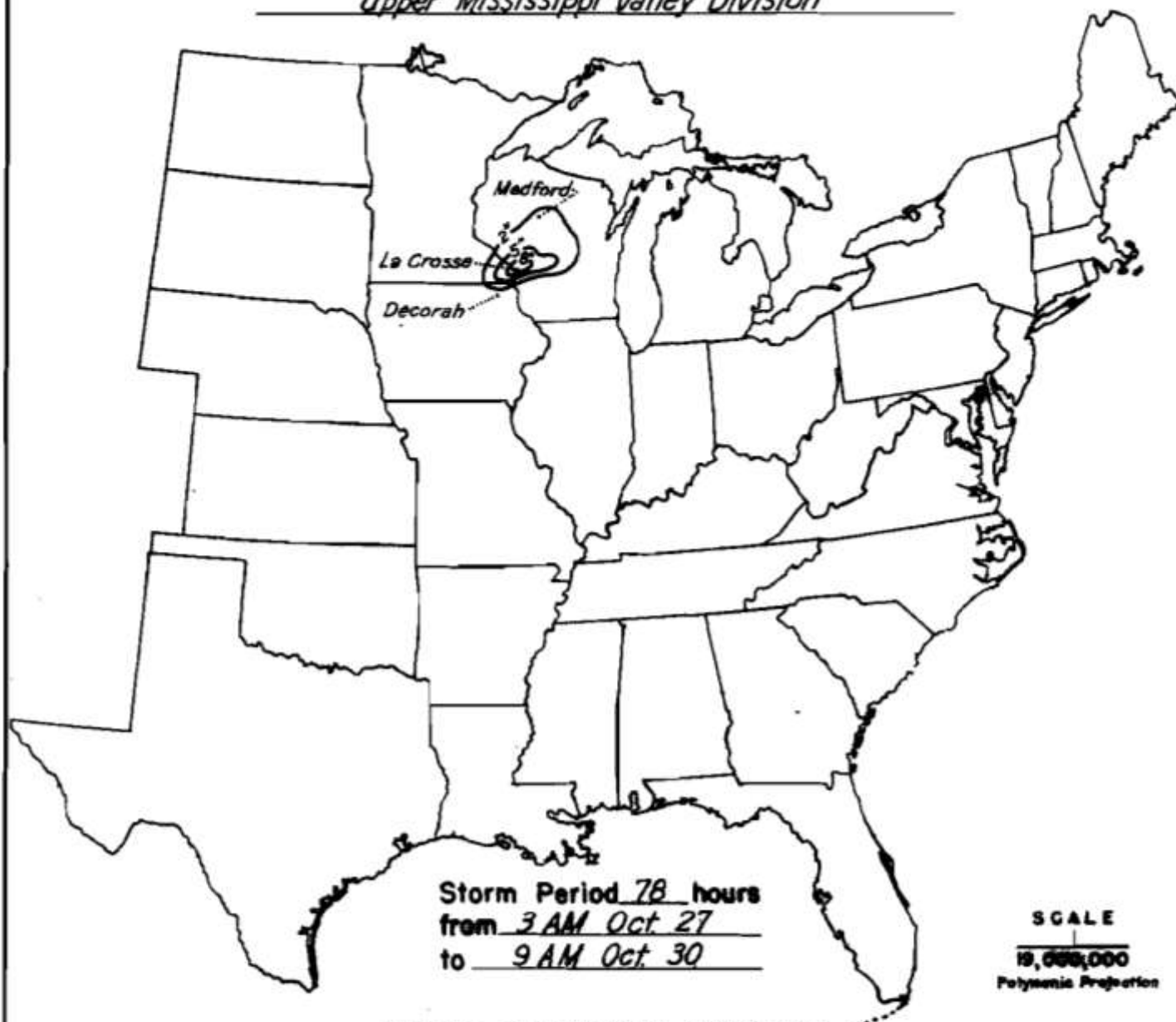
STORM STUDIES - ISOHYETAL MAP

Storm of 7-11 September 1900 Assignment UMV 1-6Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division

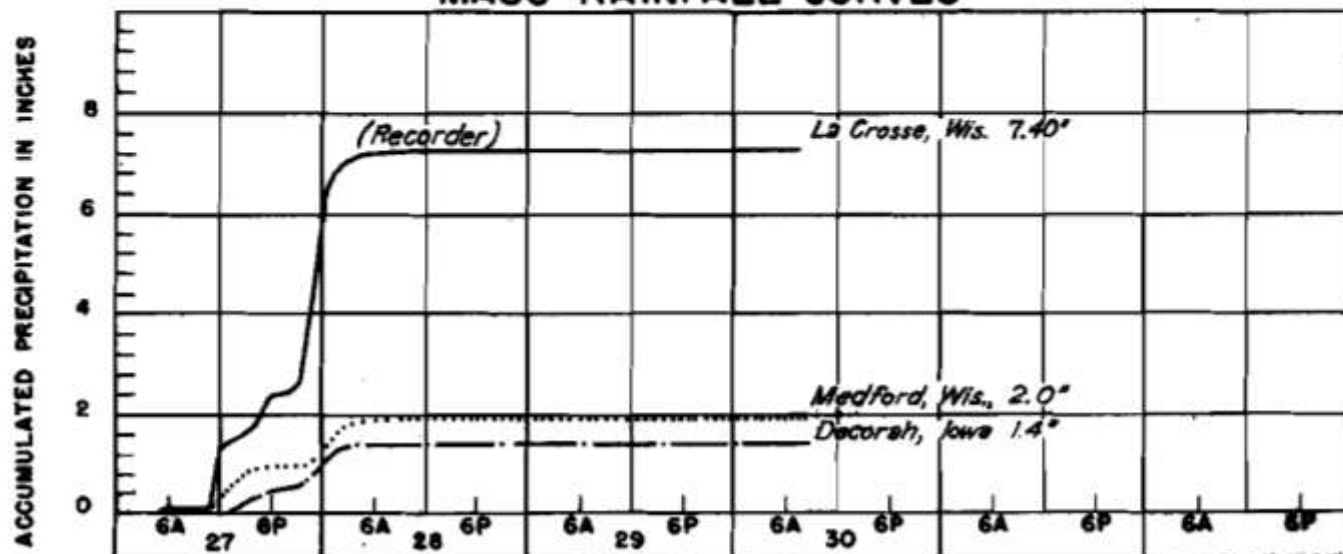
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STORM STUDIES - ISOHYETAL MAP

Storm of October 27-30, 1900 Assignment UMV 1-7 (A)Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division

MASS RAINFALL CURVES

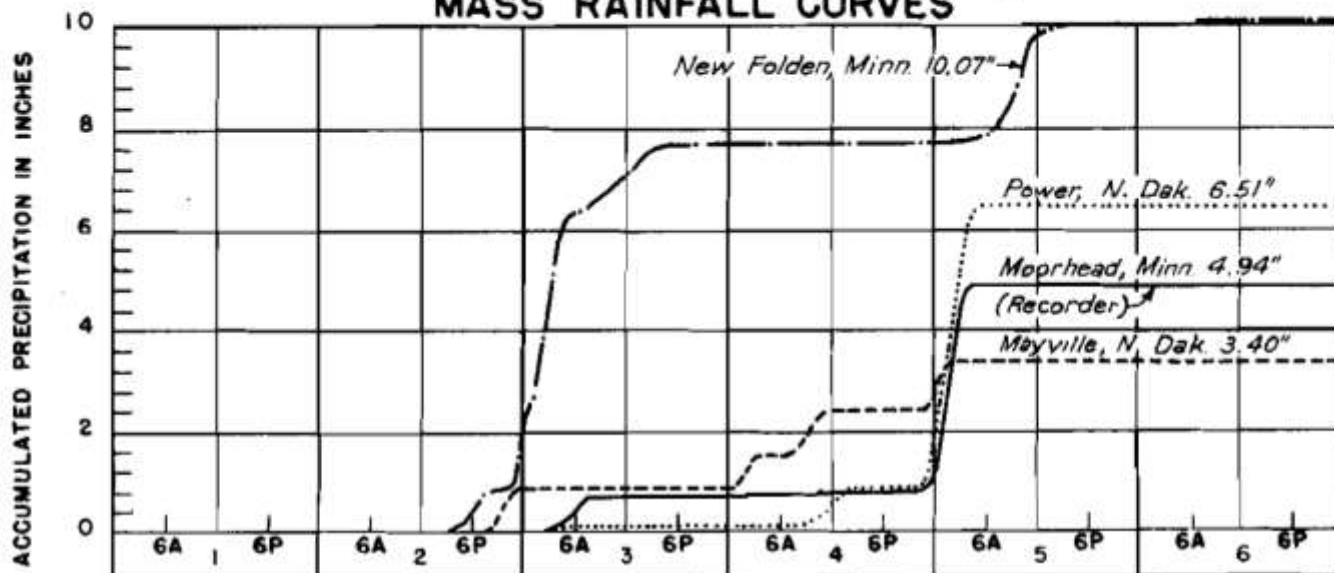


STORM STUDIES - ISOHYETAL MAP

Storm of July 1-6, 1901 Assignment UMV 1-8
Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division

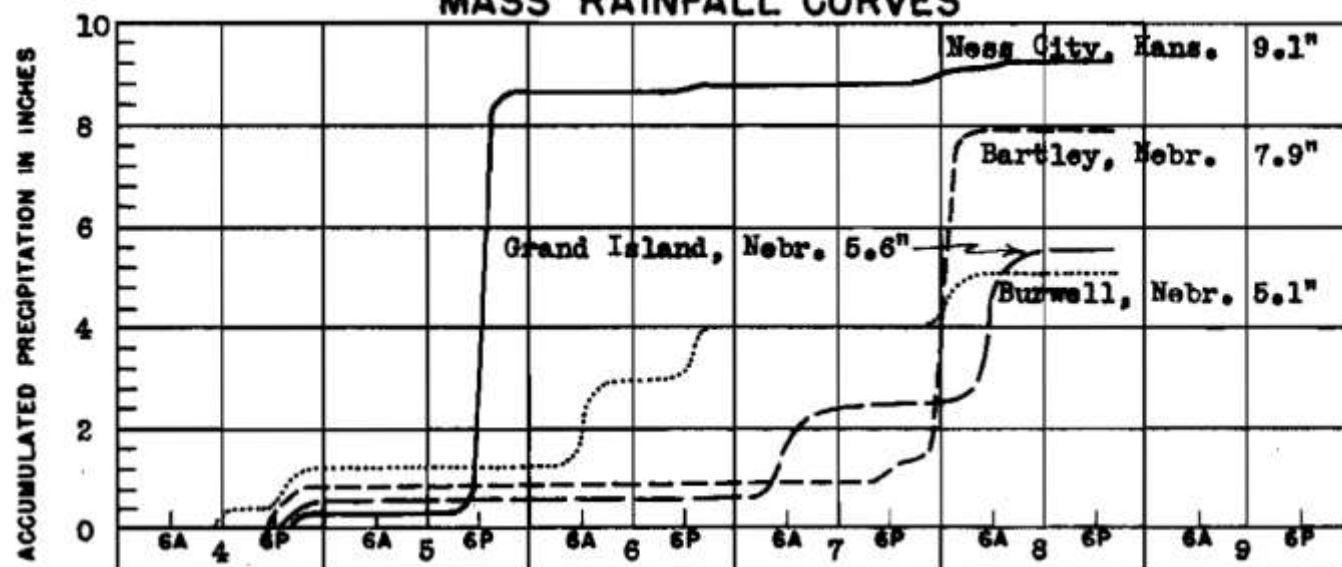


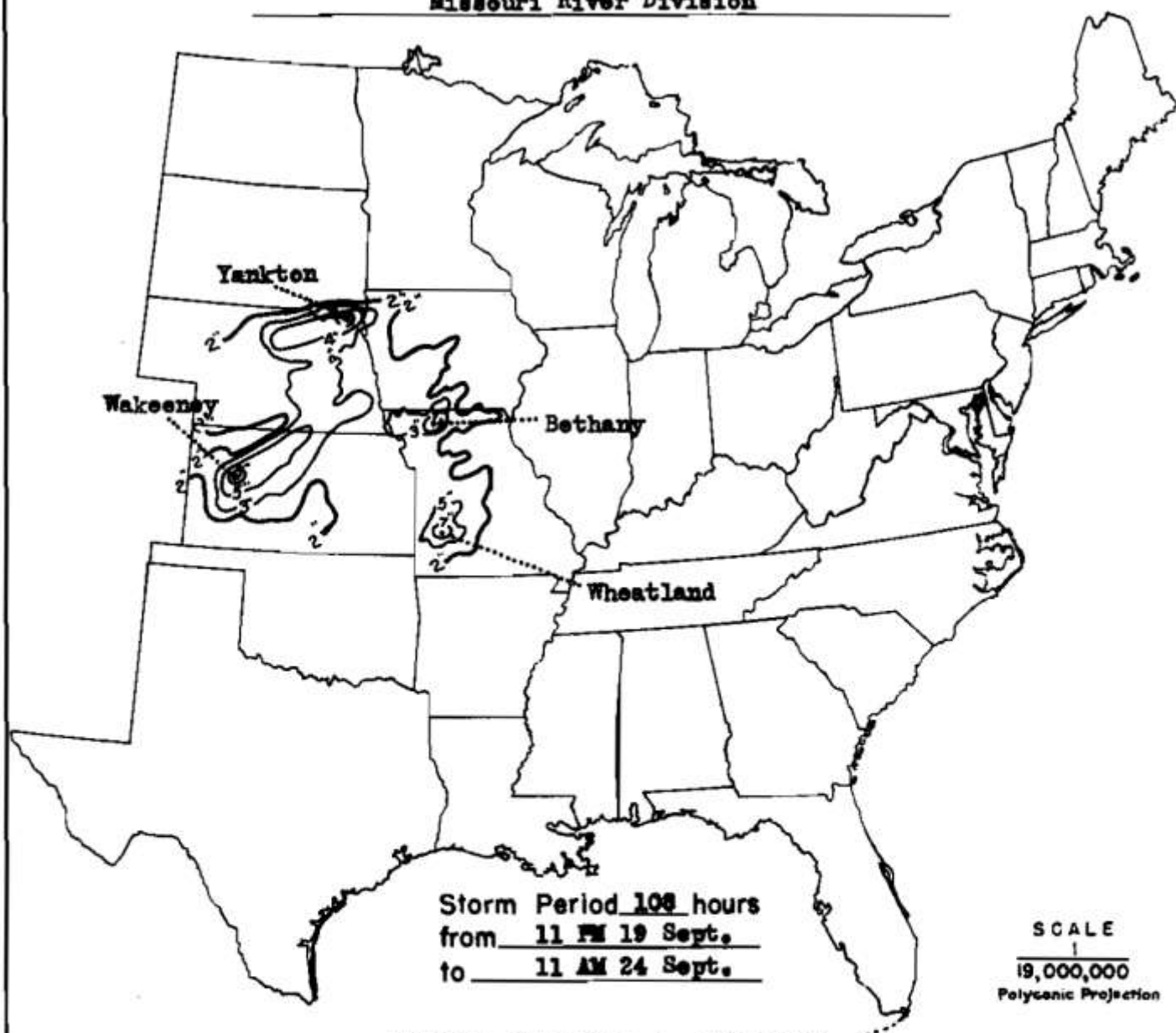
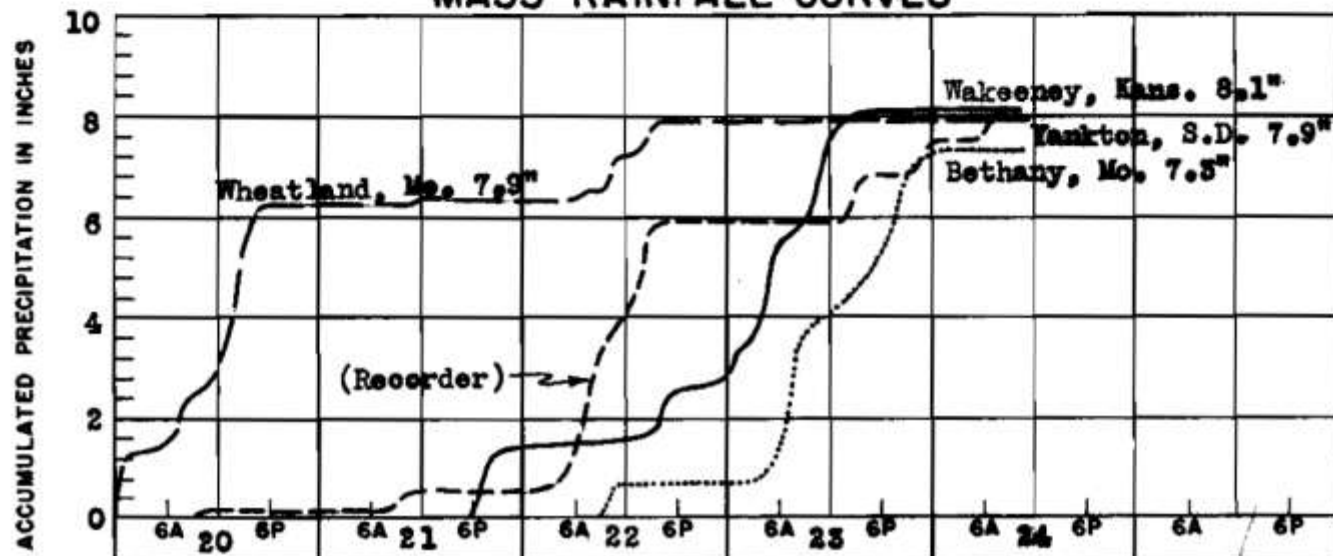
MASS RAINFALL CURVES

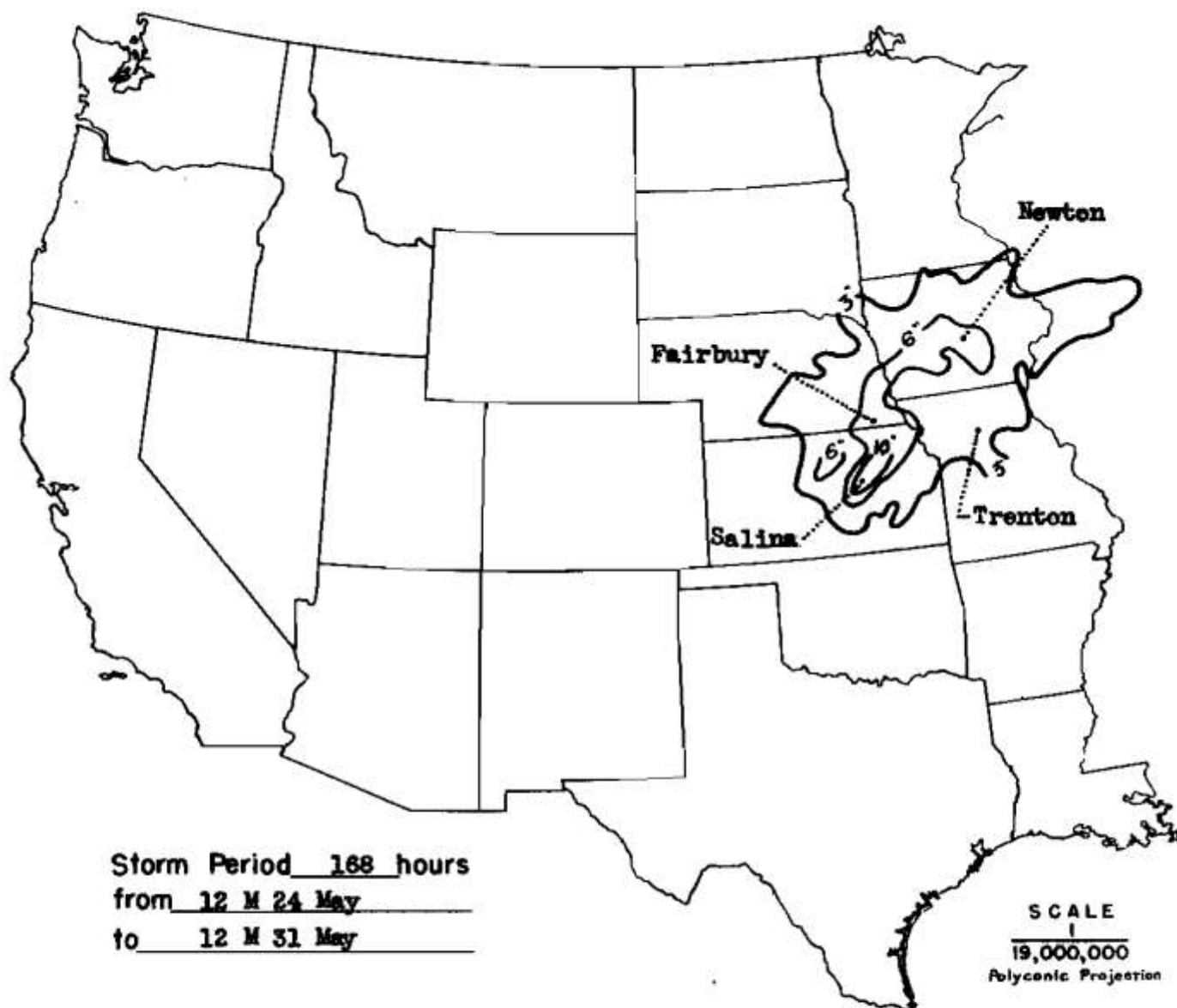
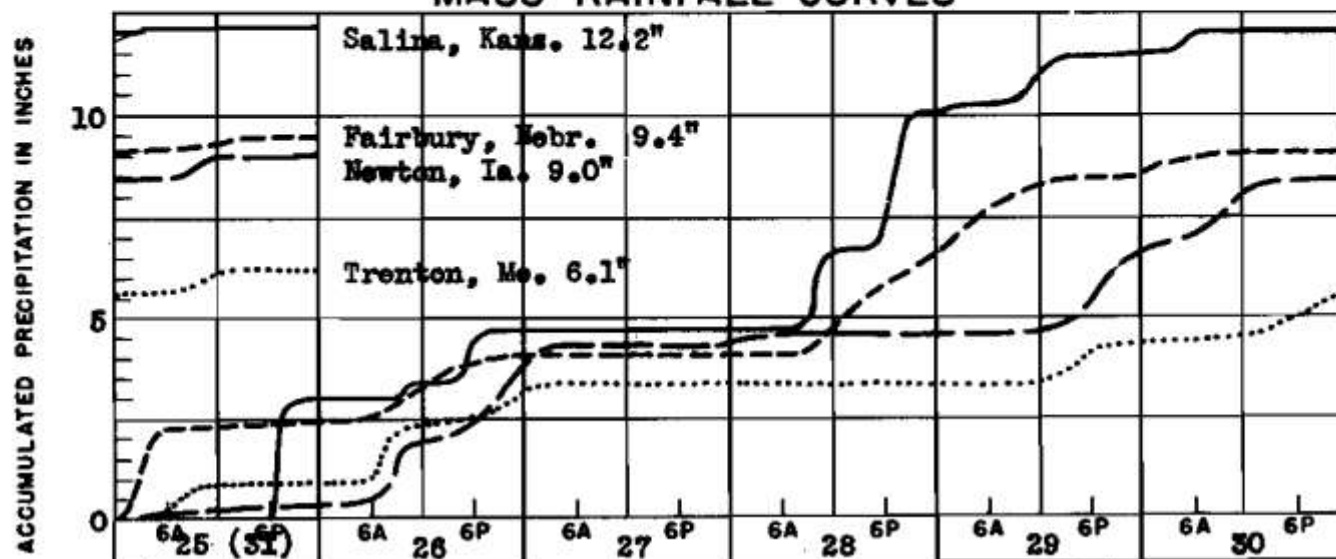


STORM STUDIES - ISOHYETAL MAP

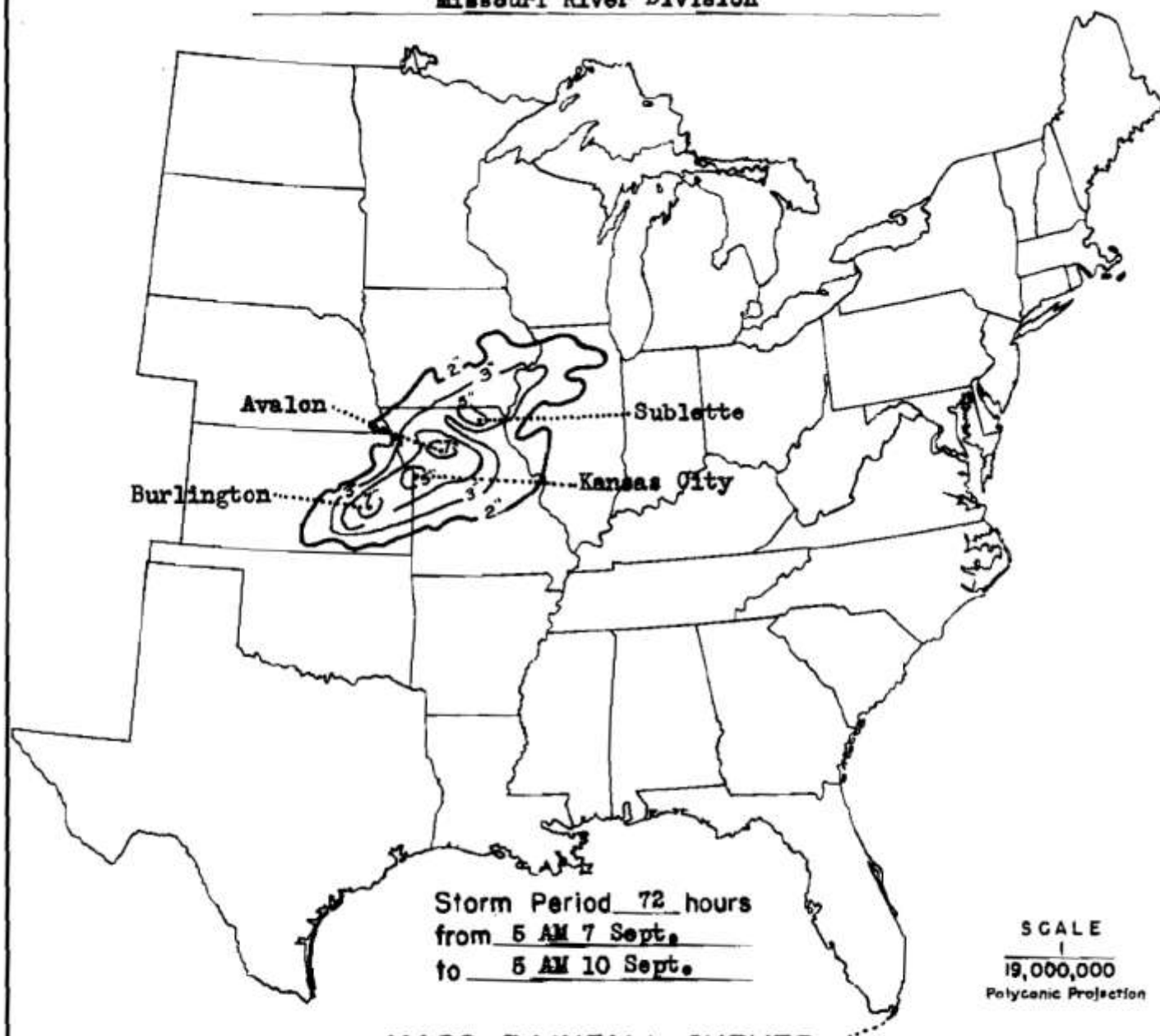
Storm of 4-8 September 1901 Assignment MR 1-6
 Study Prepared by: Kansas City, Mo. District
Missouri River Division

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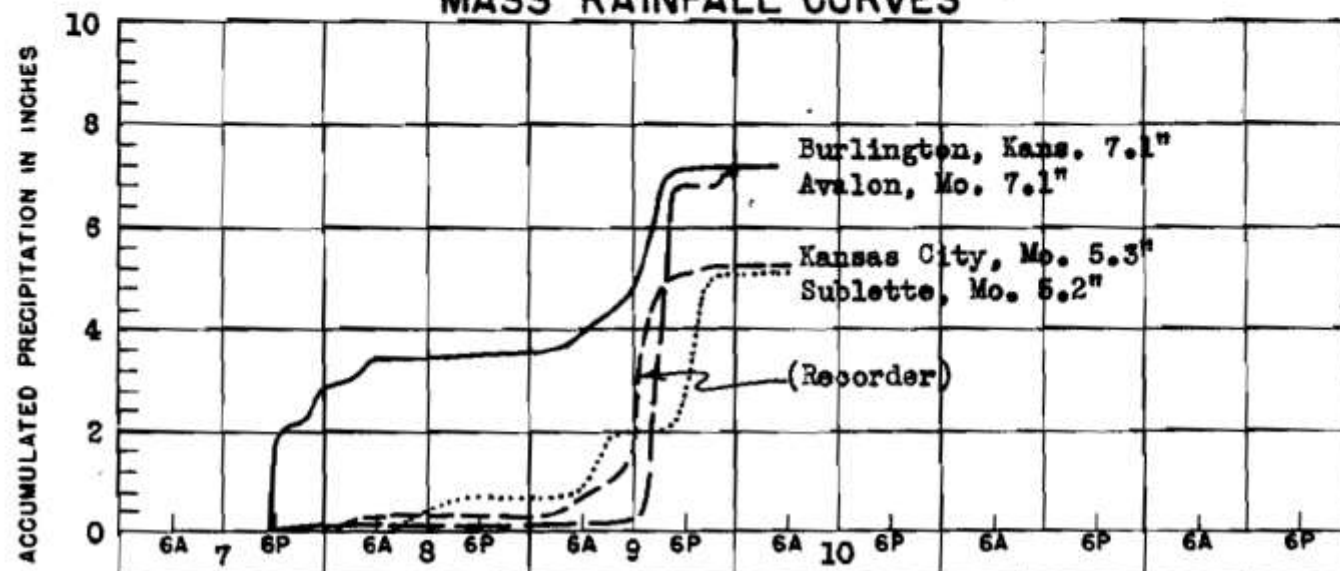
STORM STUDIES - ISOHYETAL MAPStorm of 20-24 September 1902Assignment MR 1-8Study Prepared by: Kansas City, Mo. District
Missouri River Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAPStorm of 25-31 May 1903Assignment MR 1-9Study Prepared by: Kansas City, Mo. District
Missouri River Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

Storm of 7-10 September 1903Assignment MR 1-11Study Prepared by: Kansas City, Mo., District
Missouri River Division

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STORM STUDIES - ISOHYETAL MAP

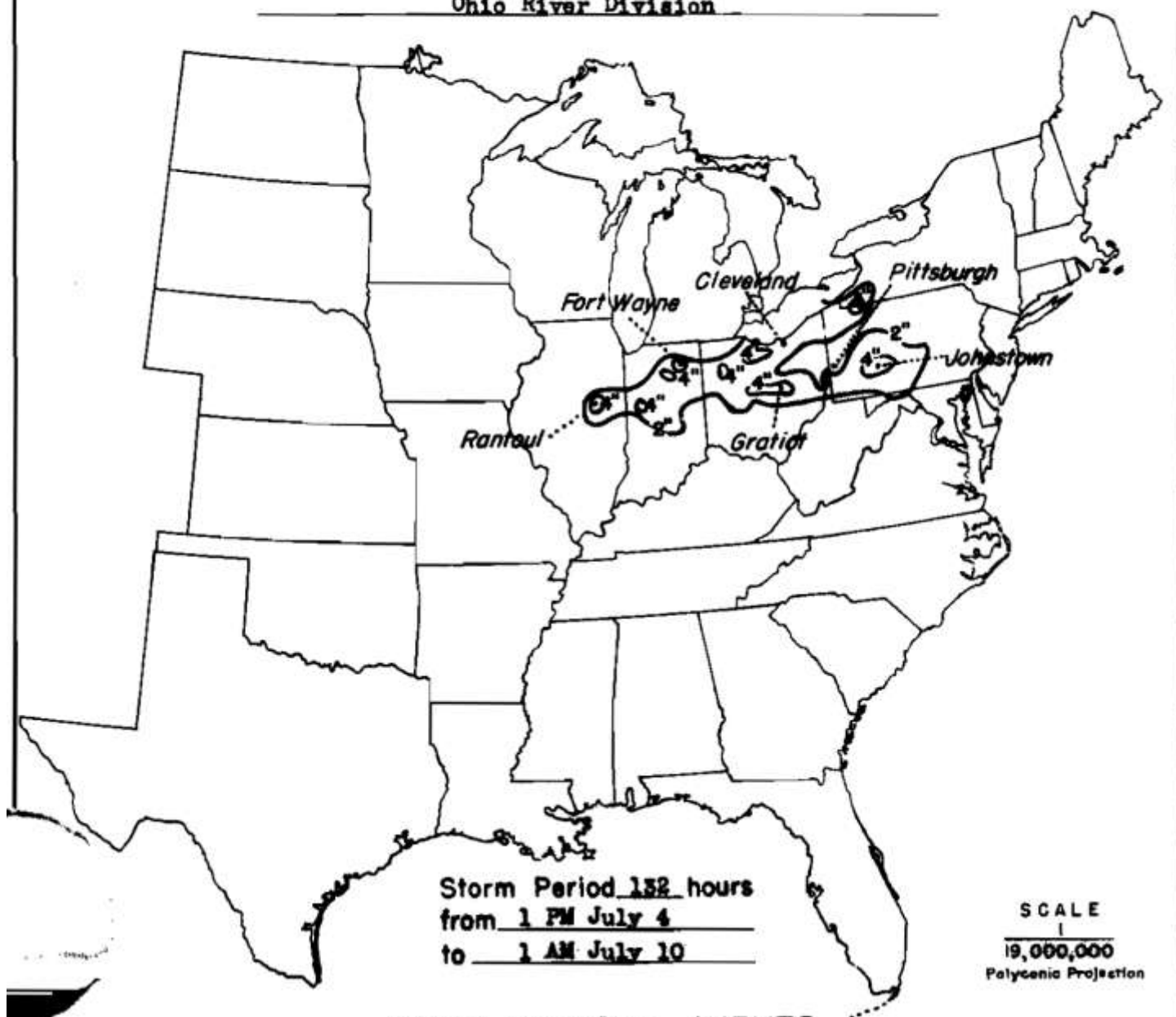
Storm of 11-15 September 1903 Assignment UMV 2-3Study Prepared by: Rock Island, Ill. District
Upper Mississippi Valley Division

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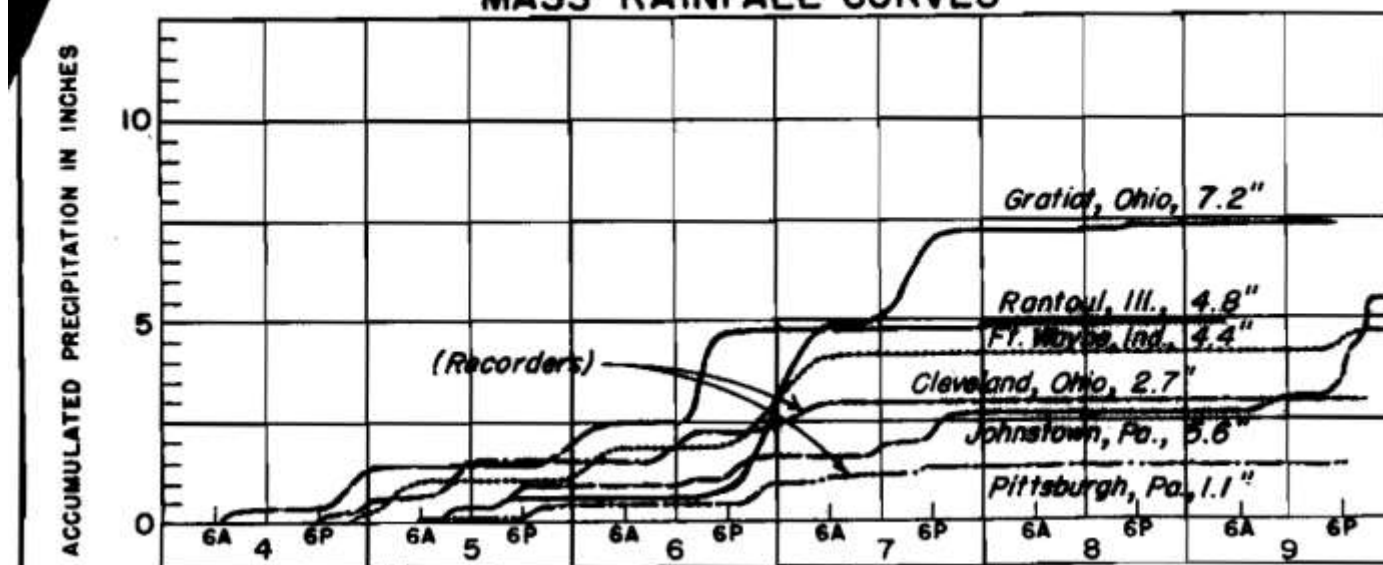


STORM STUDIES - ISOHYETAL MAP

Storm of 4-10 July 1904 Assignment OR 1-1
 Study Prepared by: Cincinnati, Ohio District
Ohio River Division



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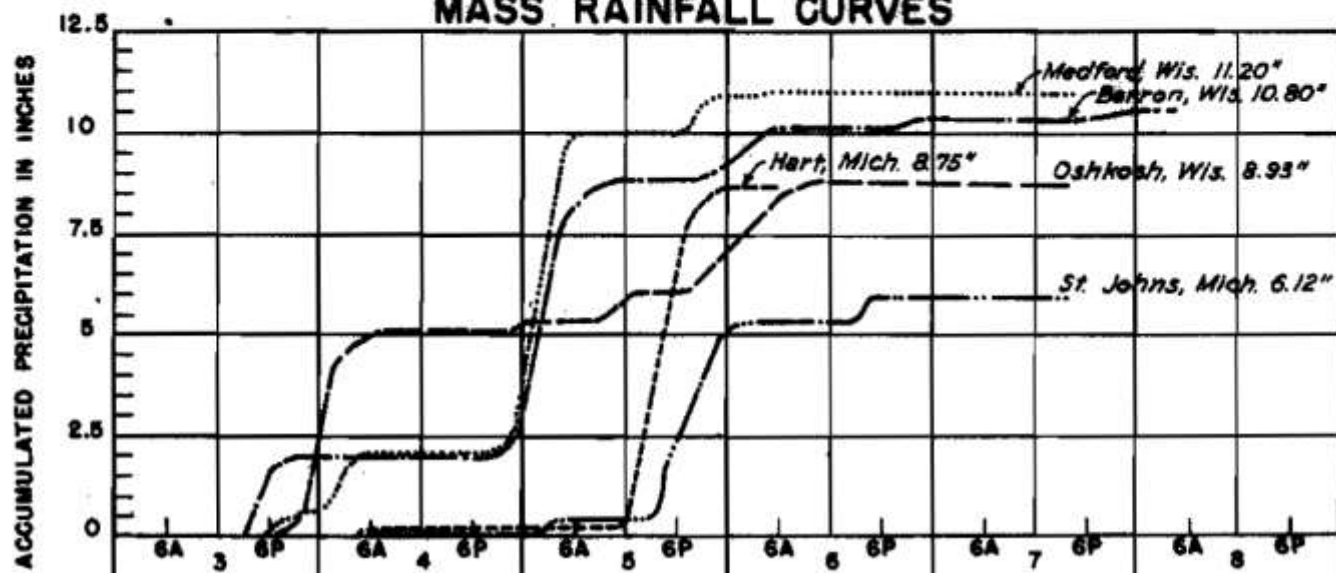


STORM STUDIES - ISOHYETAL MAP

Storm of June 3-8, 1905 Assignment GL 2-12
Study Prepared by: Milwaukee, Wis. District
Great Lakes Division

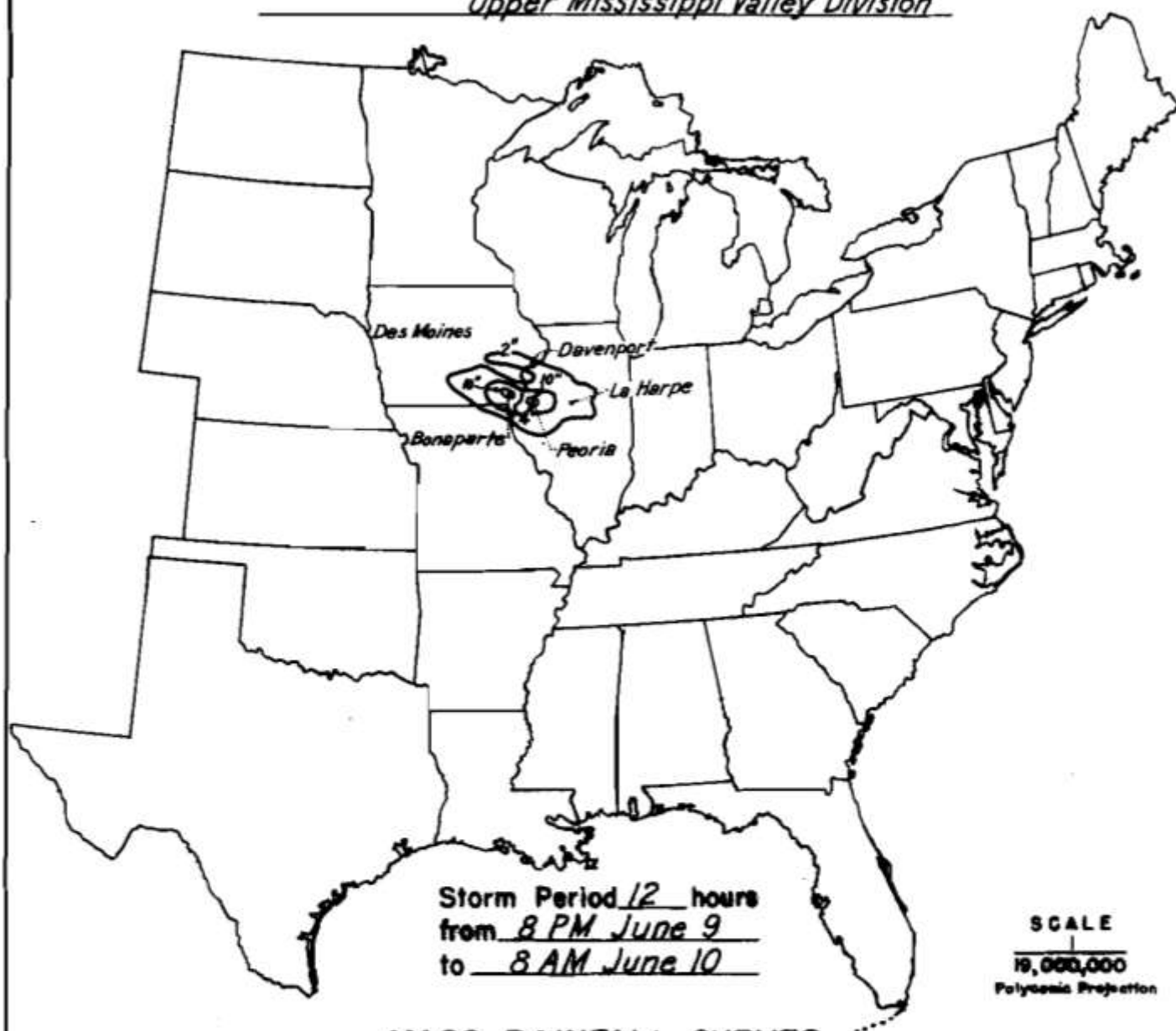


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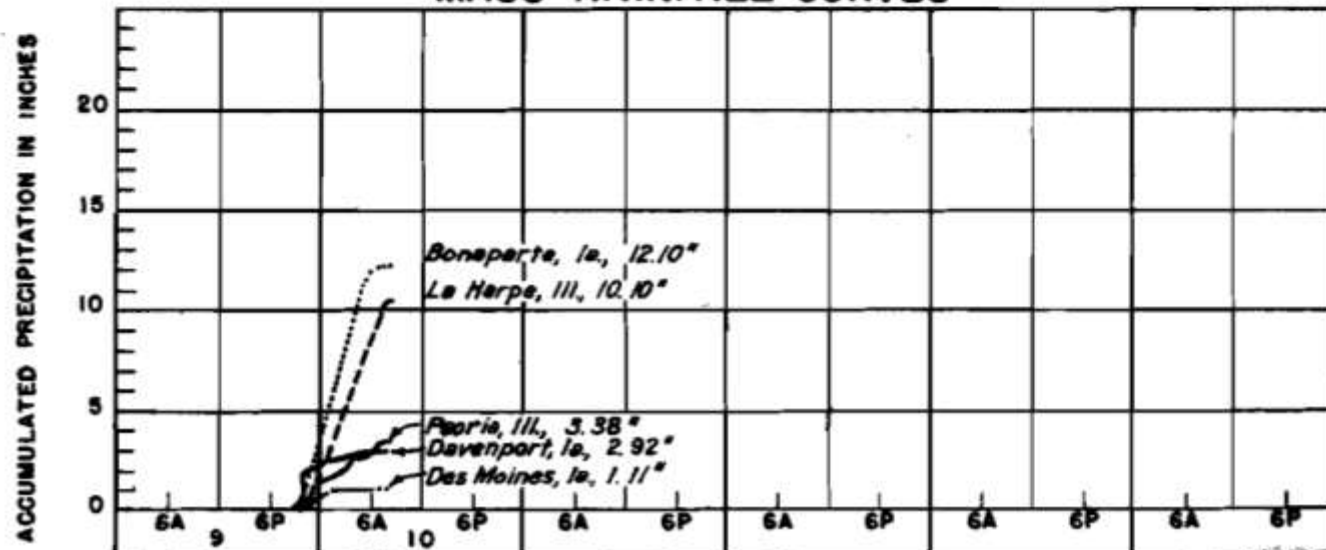


STORM STUDIES - ISOHYETAL MAP

Storm of June 9-10, 1905 Assignment UMV 2-5
Study Prepared by: Rock Island, Ill., District
Upper Mississippi Valley Division

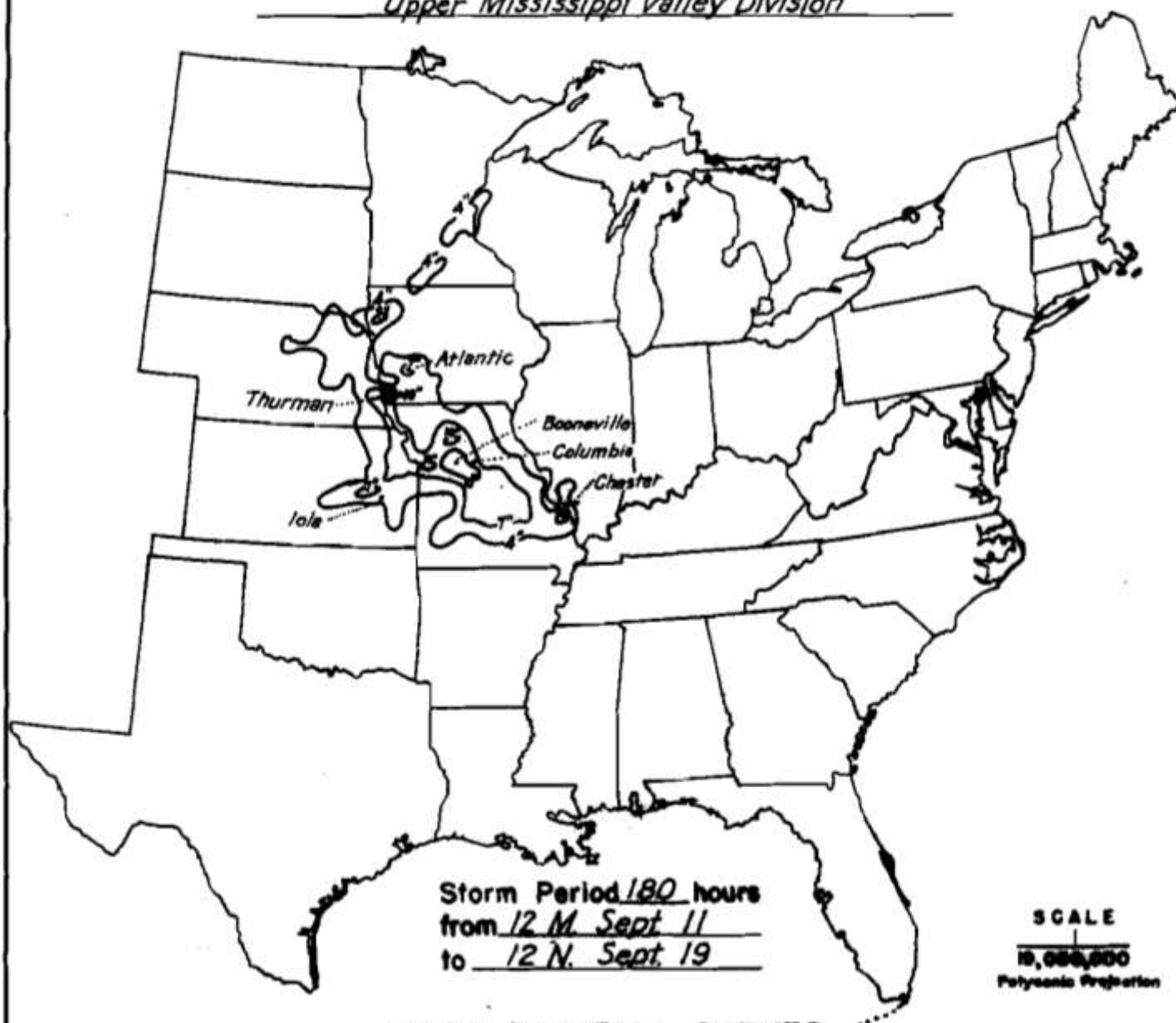


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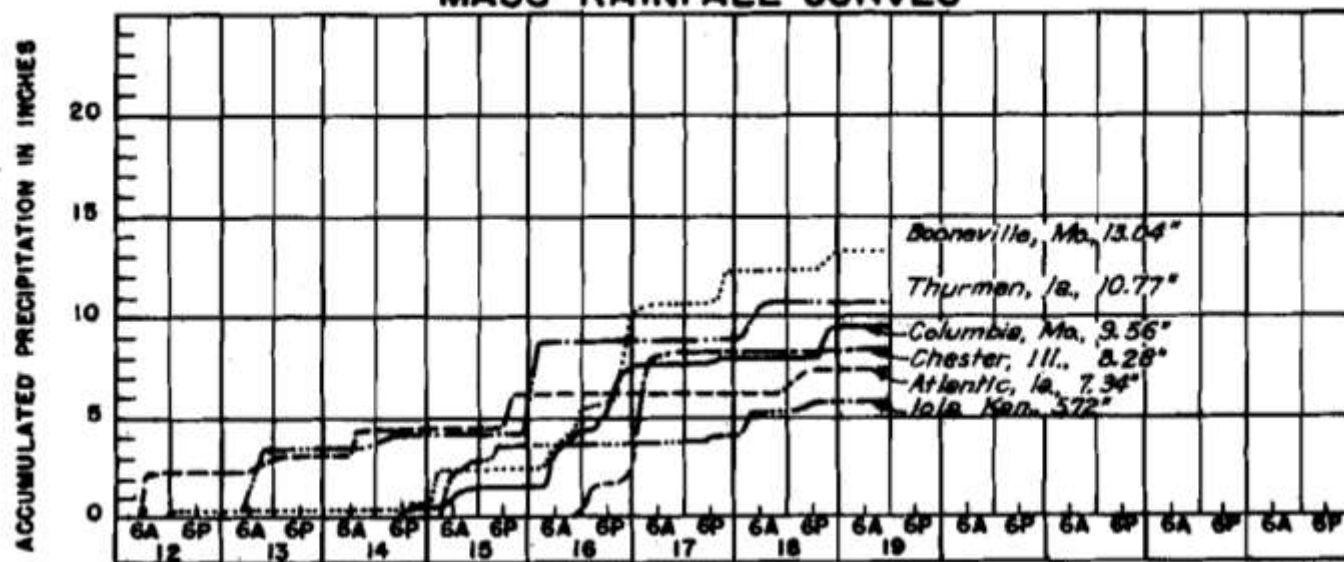


STORM STUDIES - ISOHYETAL MAP

Storm of September 12-19, 1905 Assignment UMV 2-18
 Study Prepared by: Rock Island, Ill. District
Upper Mississippi Valley Division

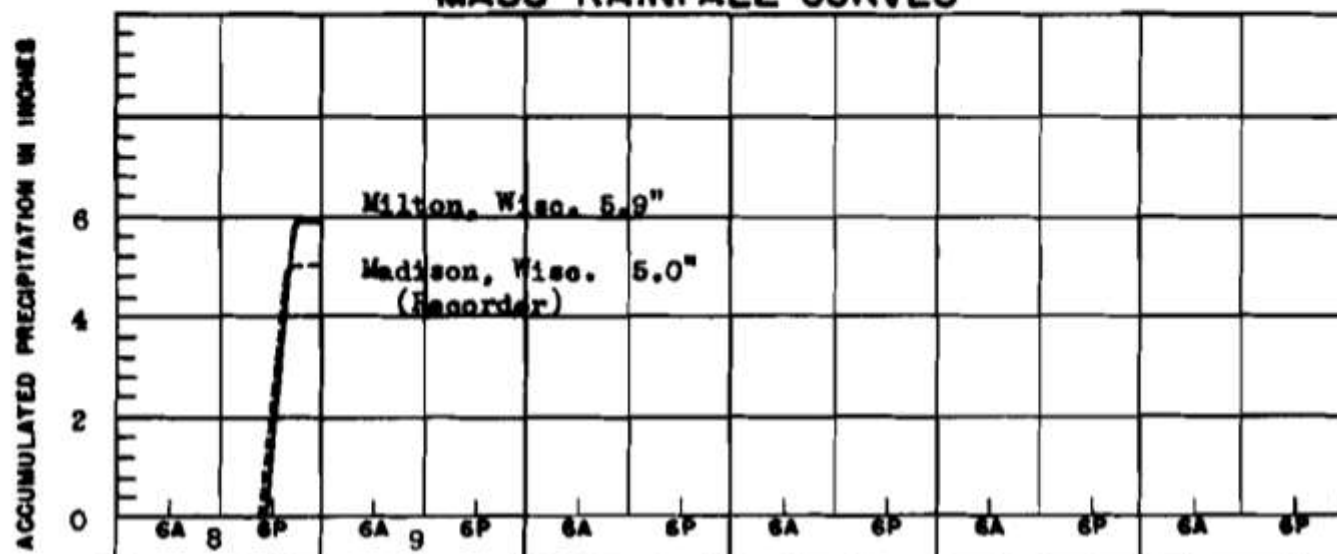


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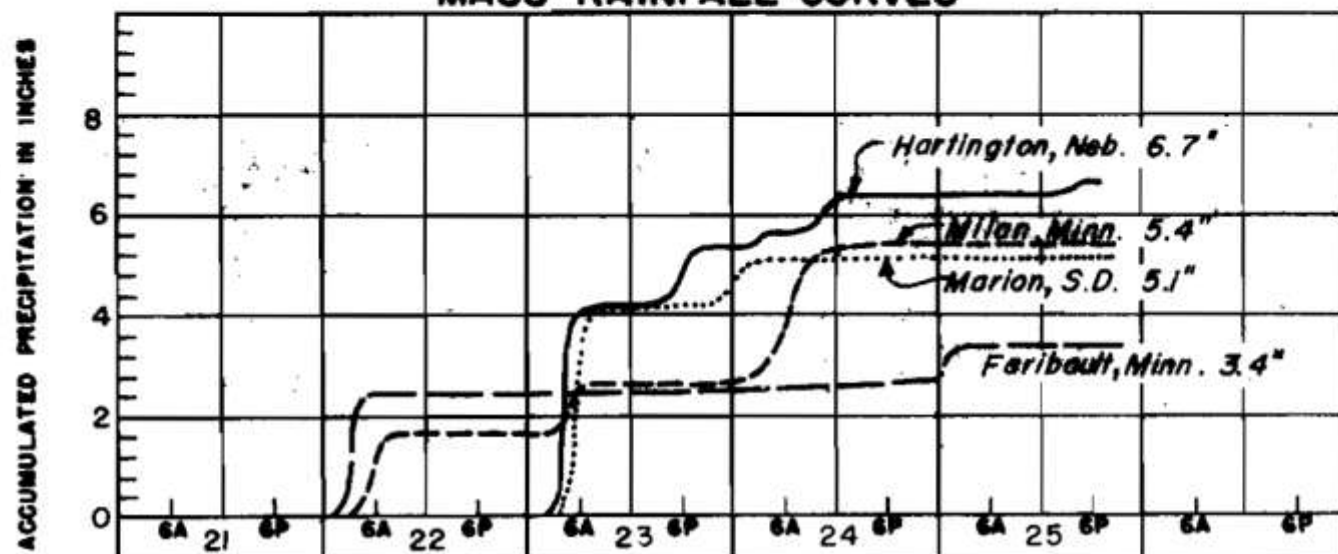
STORM STUDIES - ISOHYETAL MAP

Storm of 8 August 1906 Assignment UMV 1-10
Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division

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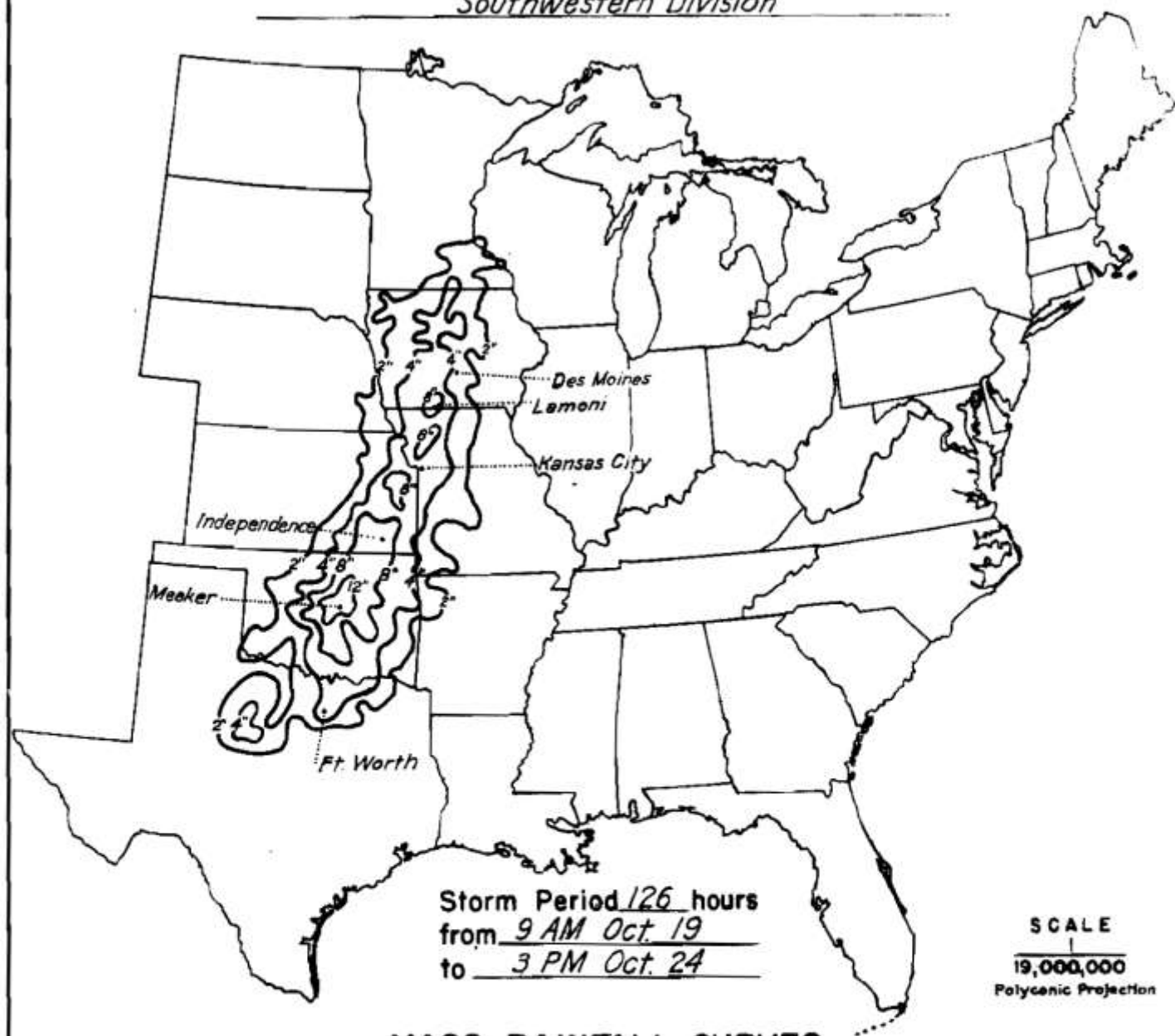
STORM STUDIES - ISOHYETAL MAP

Storm of 21-25 August 1906 Assignment MR 1-218
 Study Prepared by: Kansas City, Mo. District
Missouri River Division

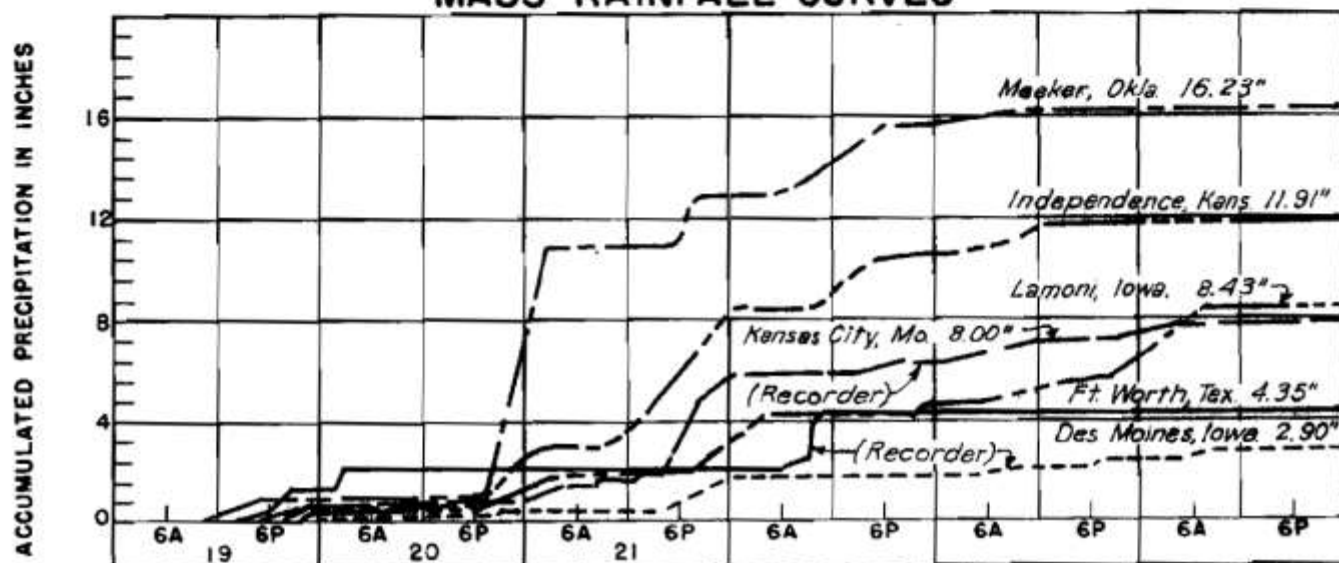
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STORM STUDIES - ISOHYETAL MAP

Storm of October 19-24, 1908 Assignment SW 1-11
Study Prepared by: Tulsa, Okla. District
Southwestern Division

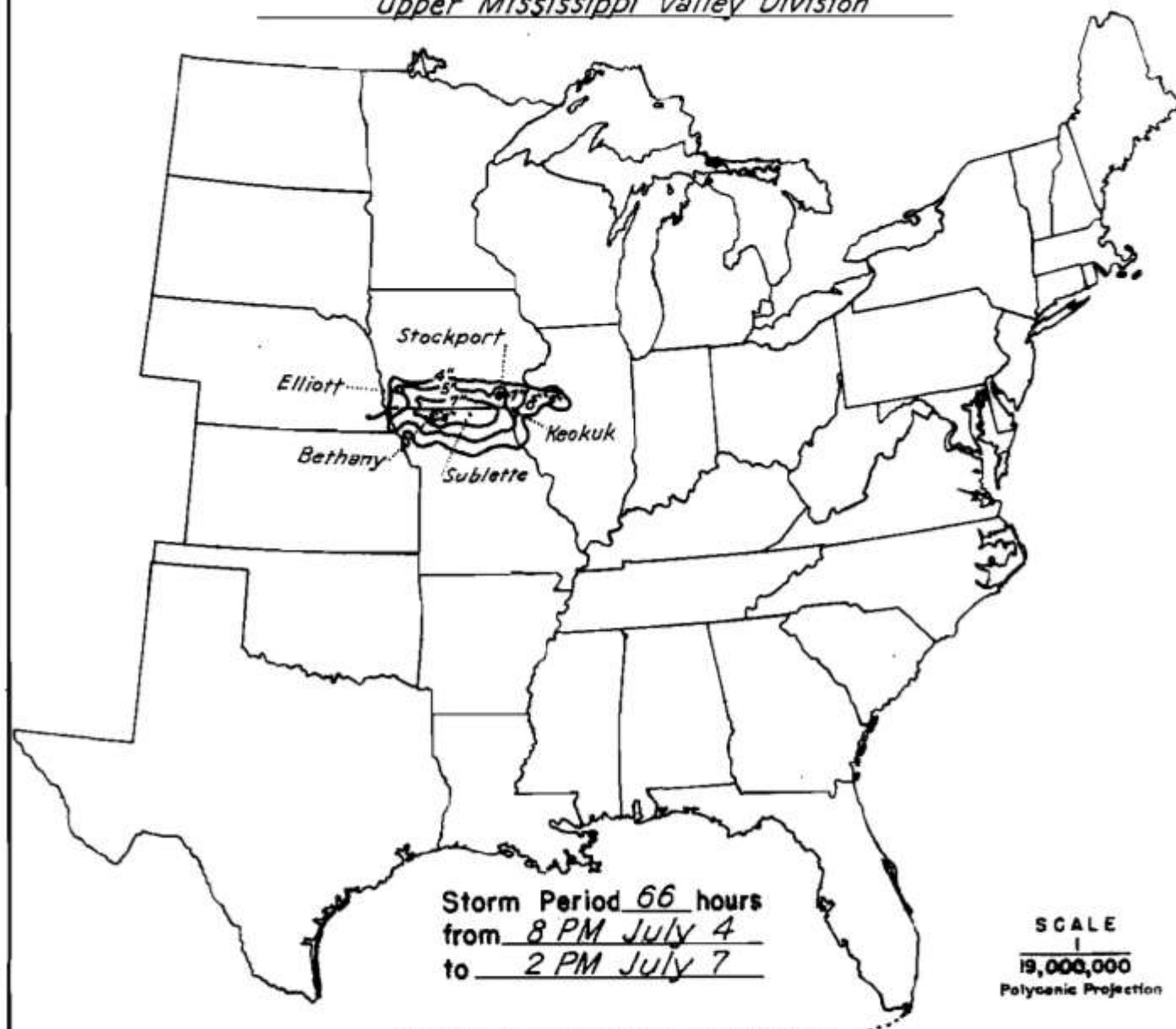


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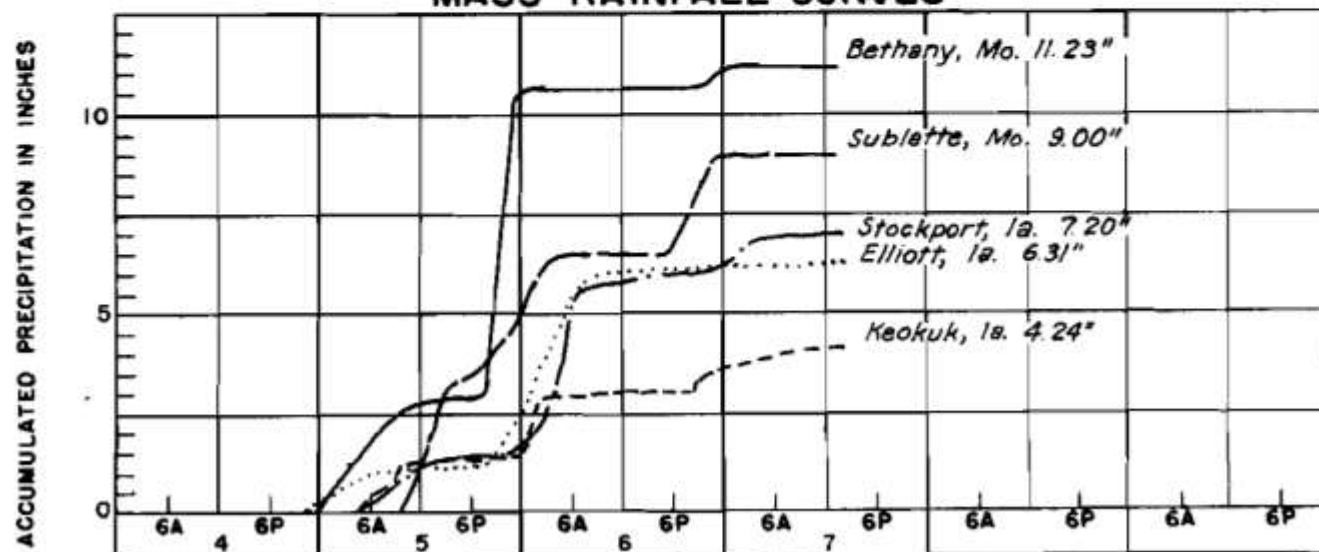


STORM STUDIES - ISOHYETAL MAP

Storm of July 4-7, 1909 Assignment UMV 2-8
Study Prepared by: Rock Island, Ill. District
Upper Mississippi Valley Division



MASS RAINFALL CURVES

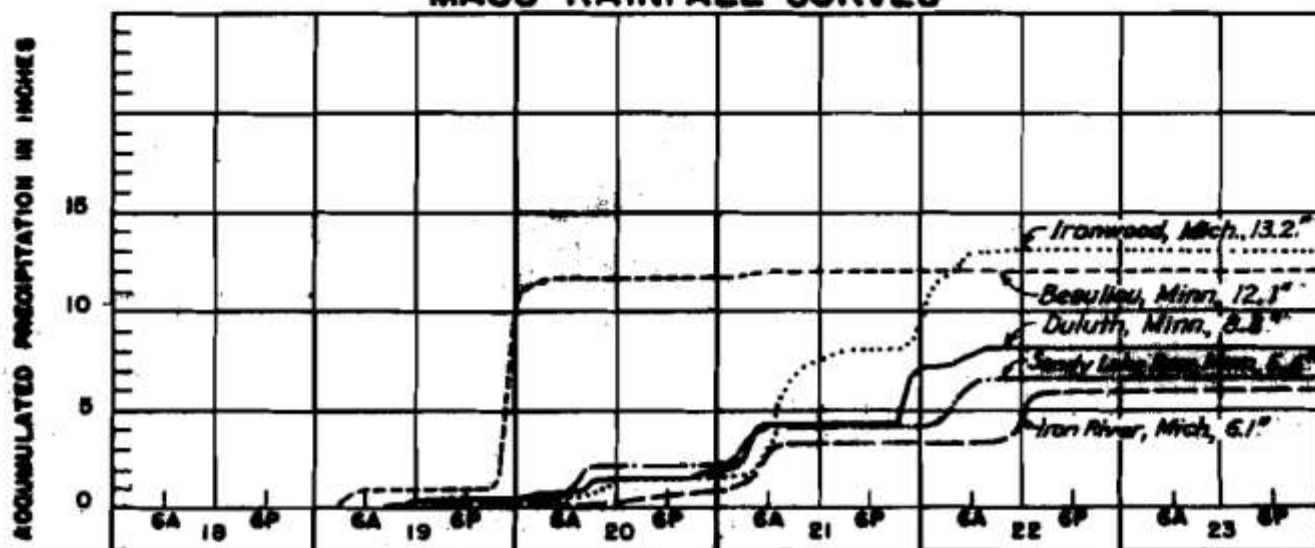


STORM STUDIES - ISOHYETAL MAP

Storm of July 18-23, 1909 Assignment UMV 1-11
 Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division



MASS RAINFALL CURVES

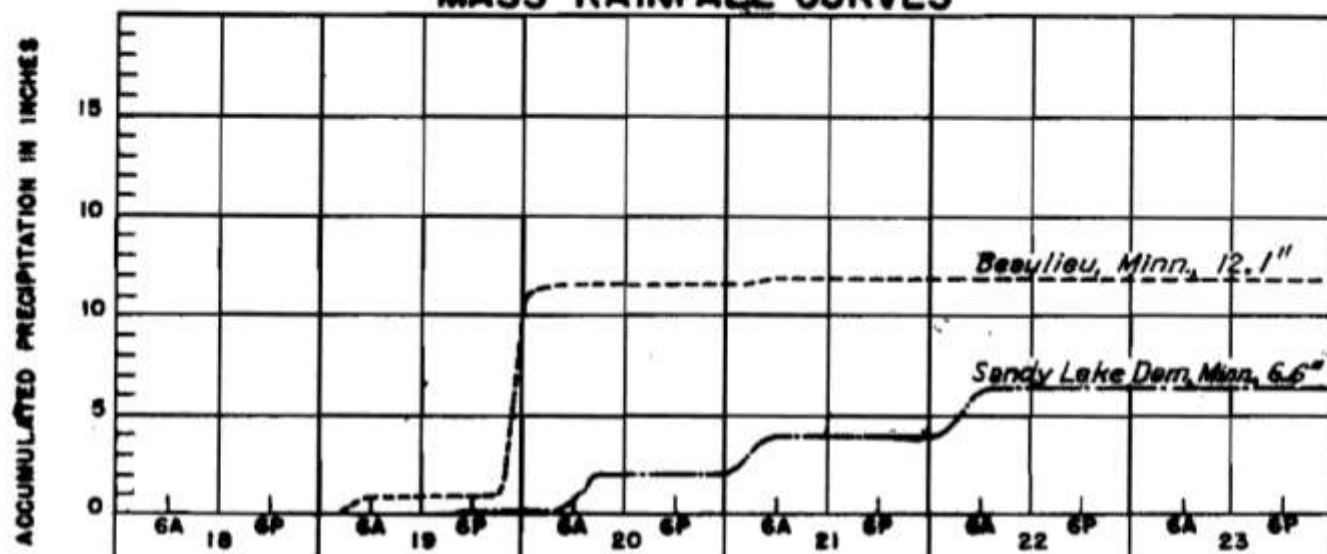


STORM STUDIES - ISOHYETAL MAP

Storm of July 18-23, 1909 Assignment UMV I-11 (a)
Study Prepared by: St. Paul Minn. District
Upper Mississippi Valley Division



MASS RAINFALL CURVES

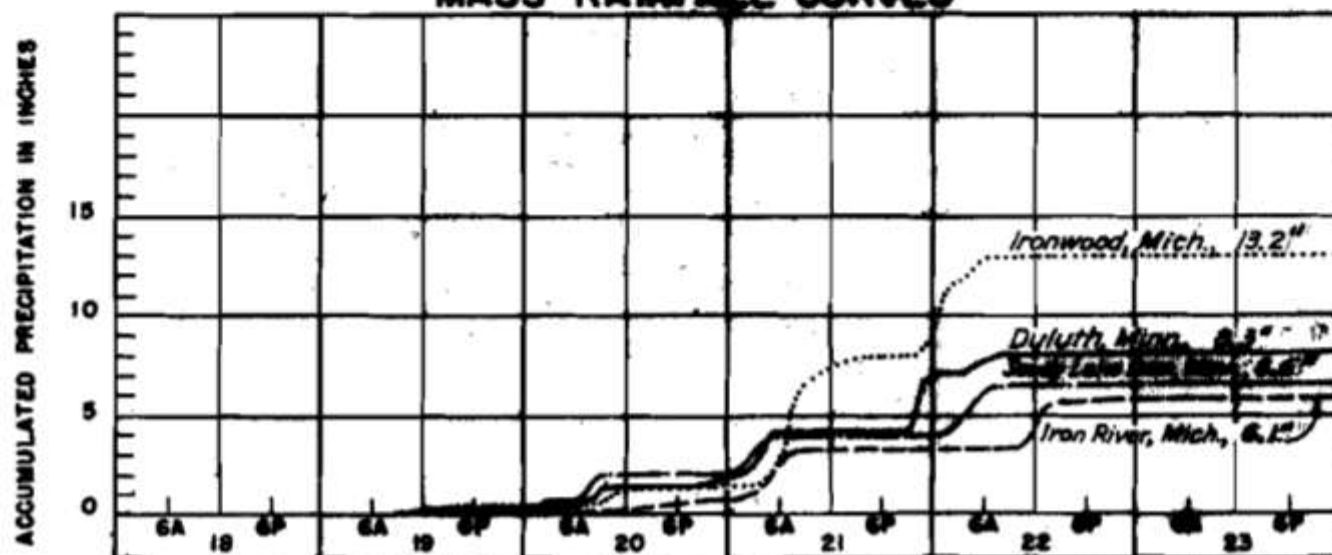


STORM STUDIES - ISOHYETAL MAP

Storm of July 18-23, 1909 Assignment UMV 1-11 (b)
 Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division

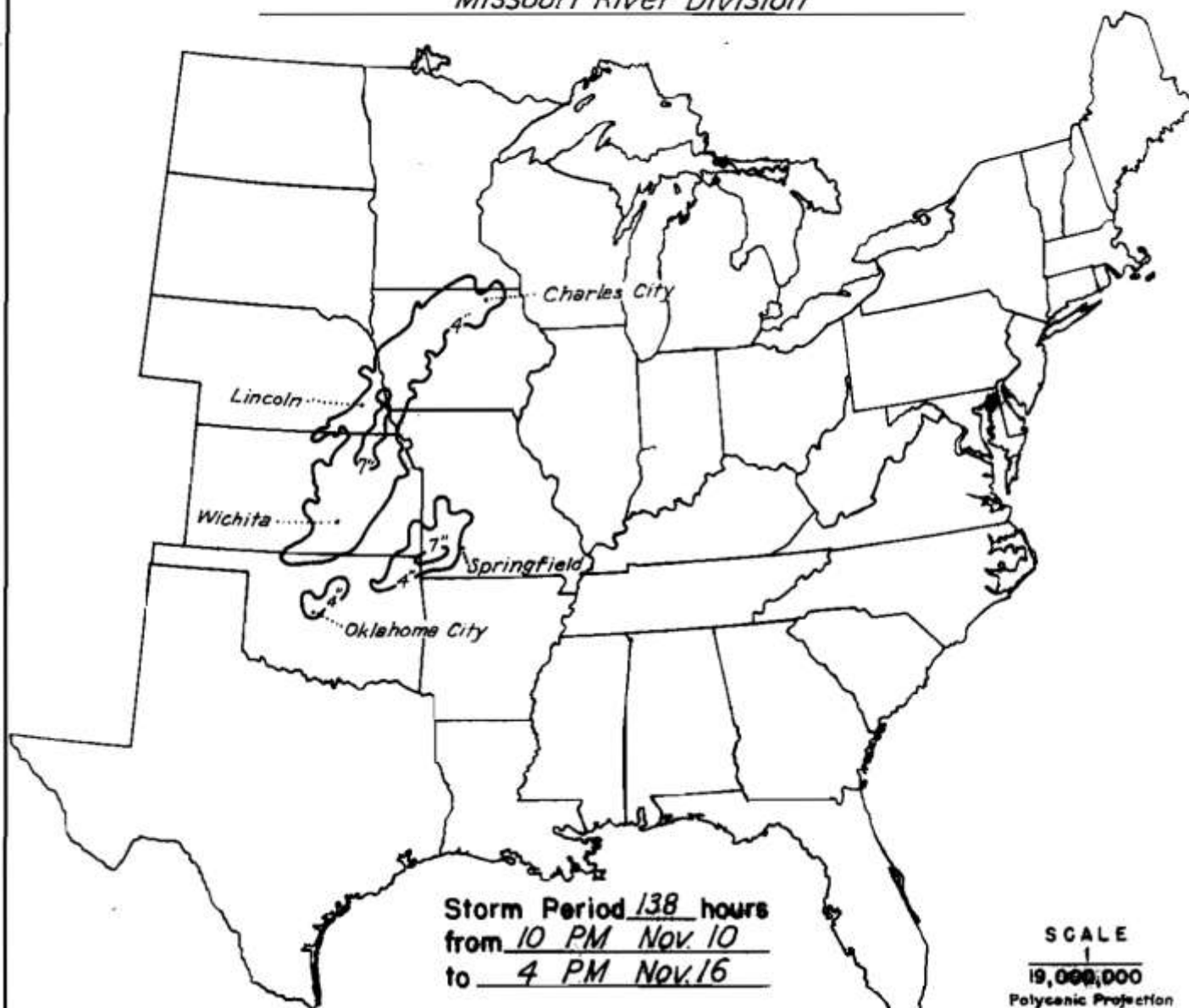


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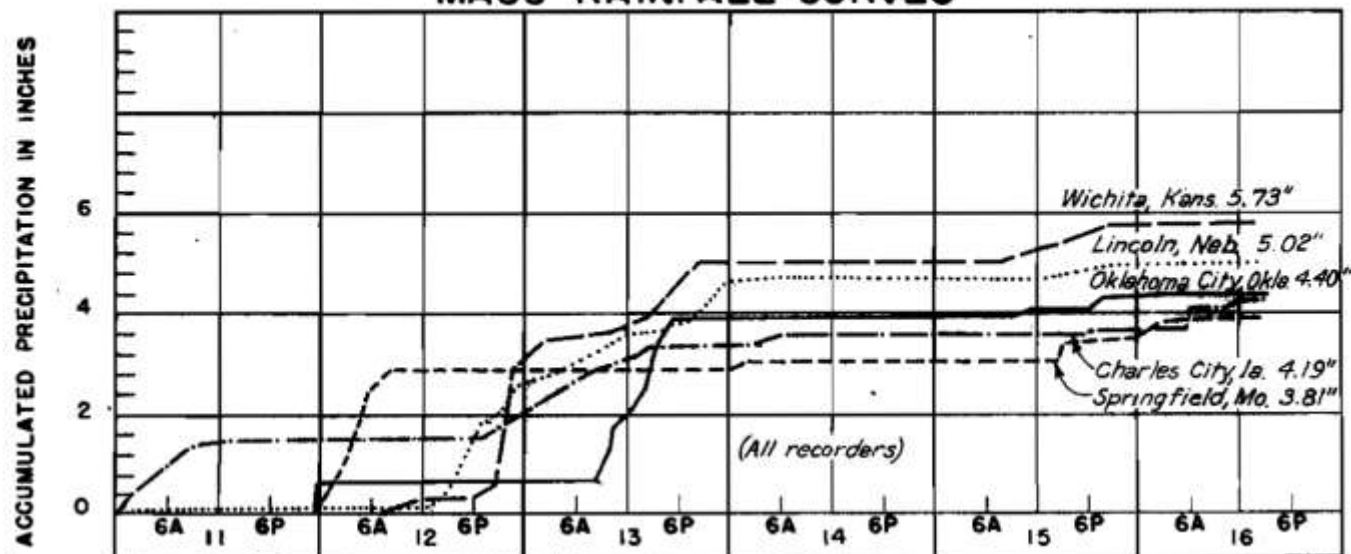


STORM STUDIES - ISOHYETAL MAP

Storm of November 10-16, 1909 Assignment MR 1-29
Study Prepared by: Kansas City, Mo. District
Missouri River Division

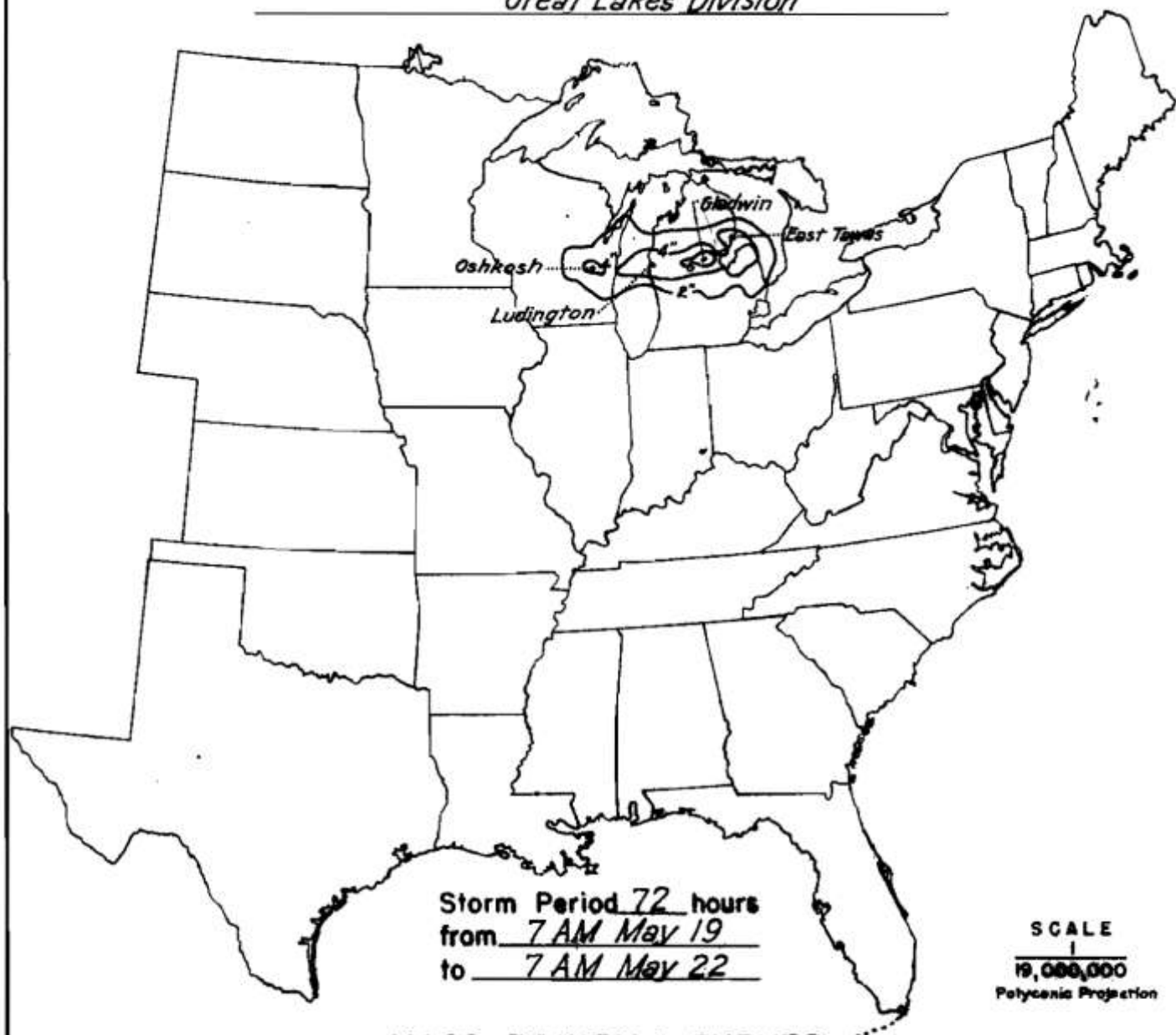


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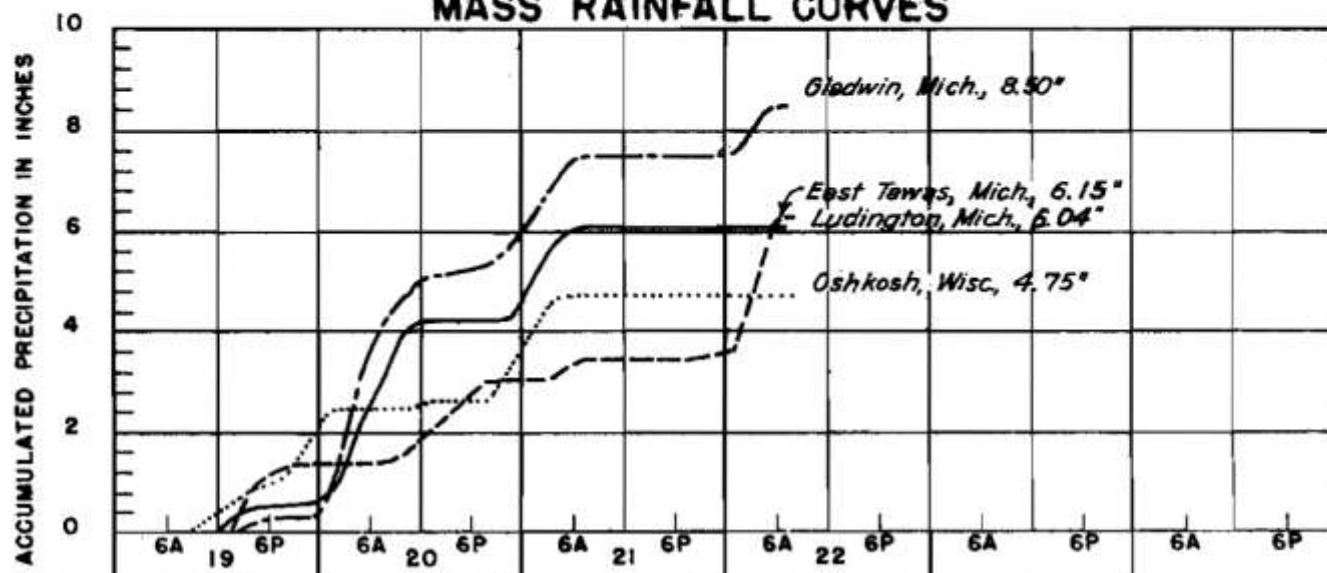


STORM STUDIES - ISOHYETAL MAP

Storm of May 19-22, 1912 Assignment GL 3-1
Study Prepared by: Detroit, Mich. District
Great Lakes Division

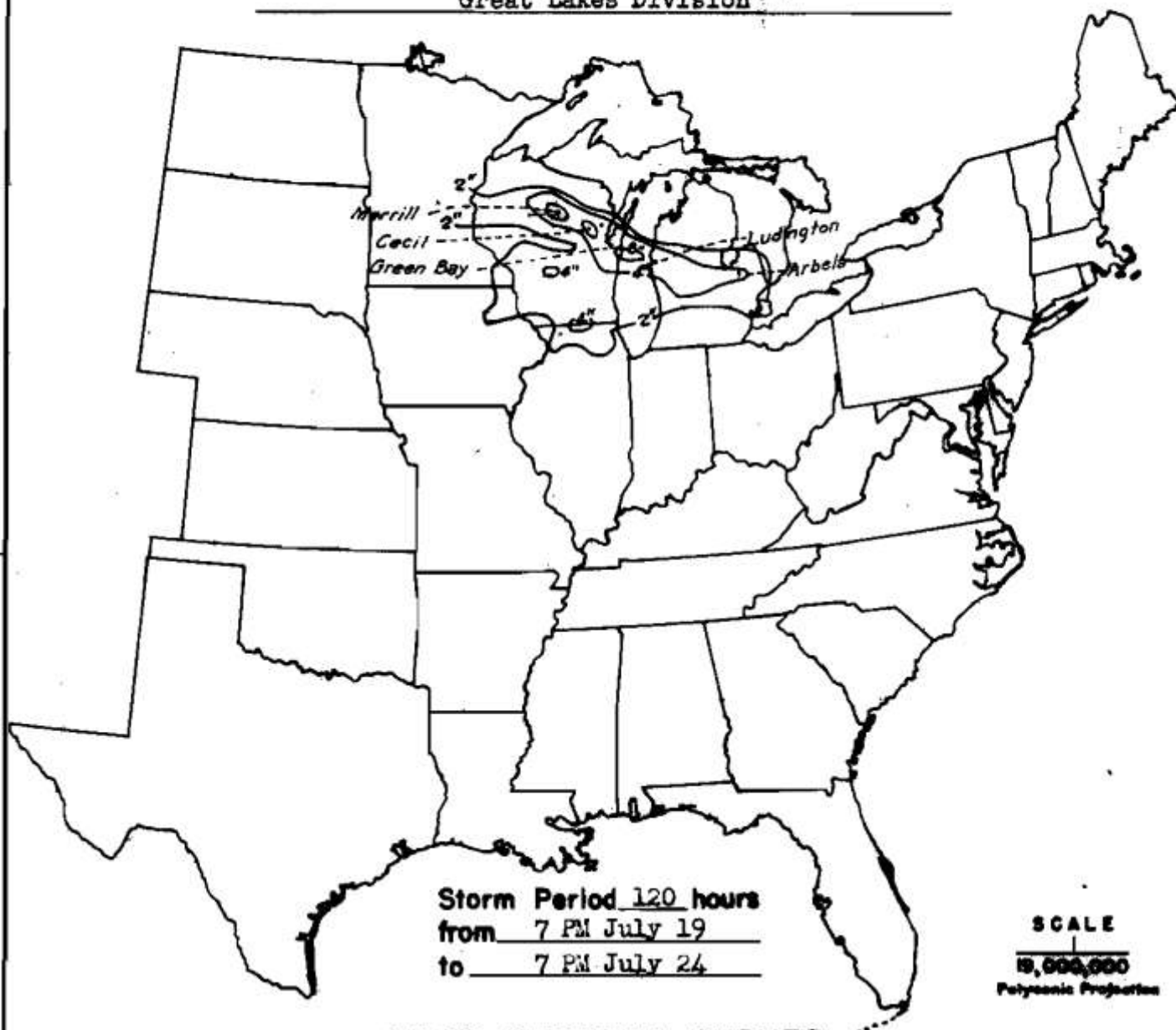
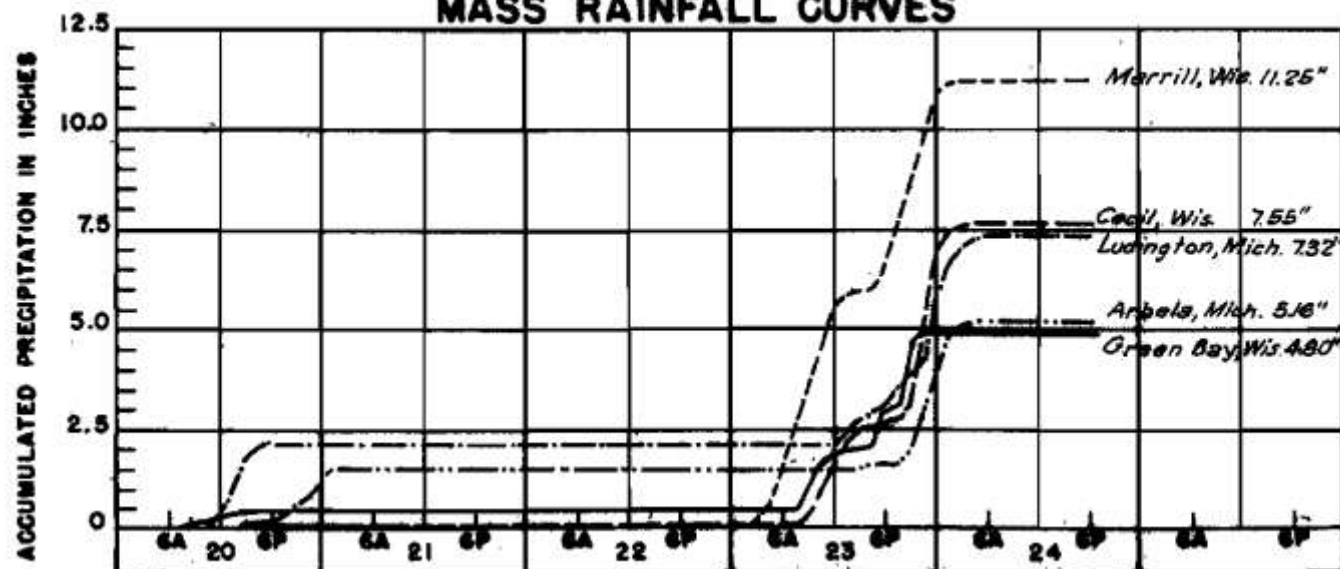


MASS RAINFALL CURVES



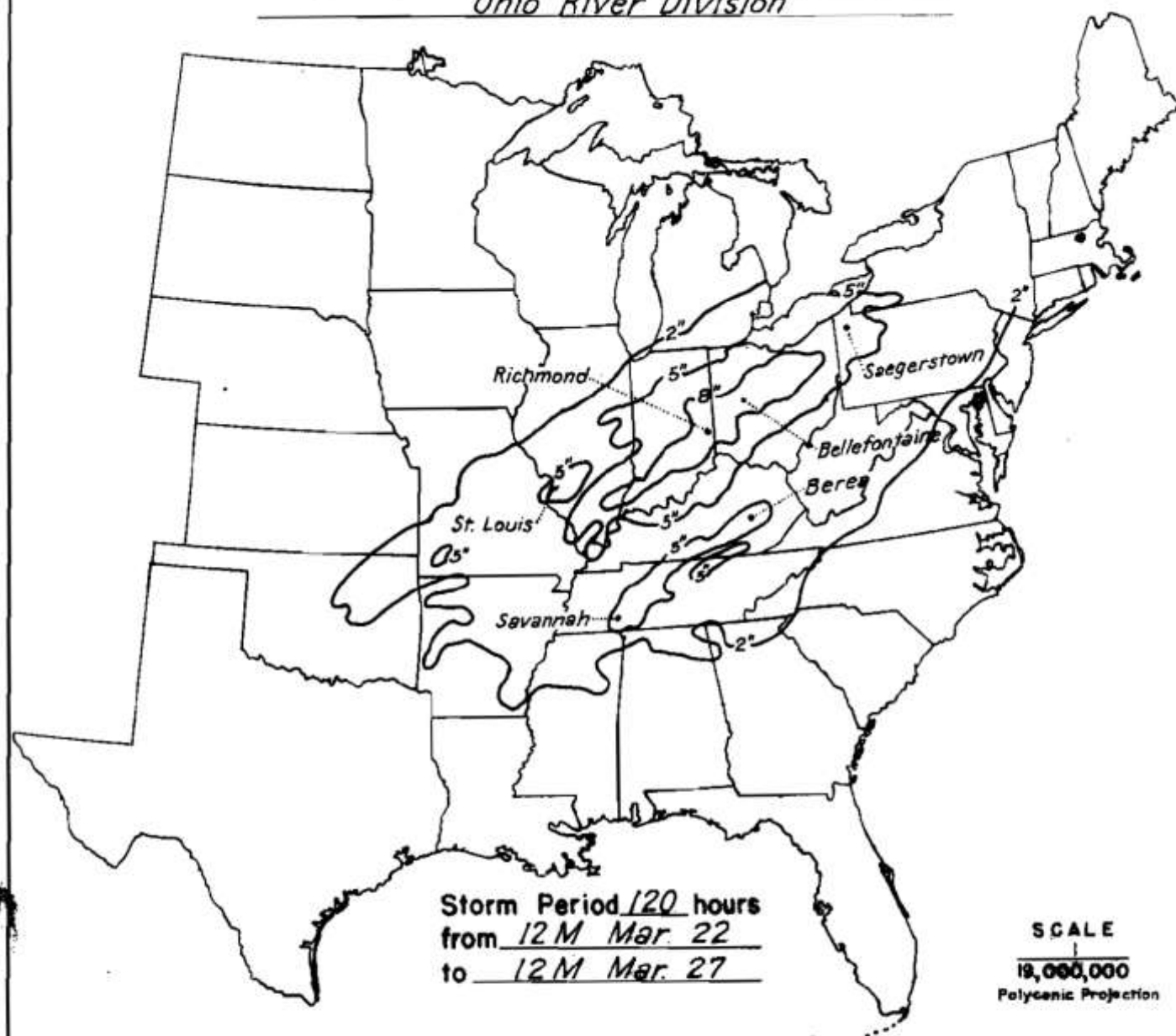
STORM STUDIES - ISOHYETAL MAP

Storm of July 19-24, 1912 Assignment GL 2-29
 Study Prepared by: Milwaukee, Wis. District
Great Lakes Division

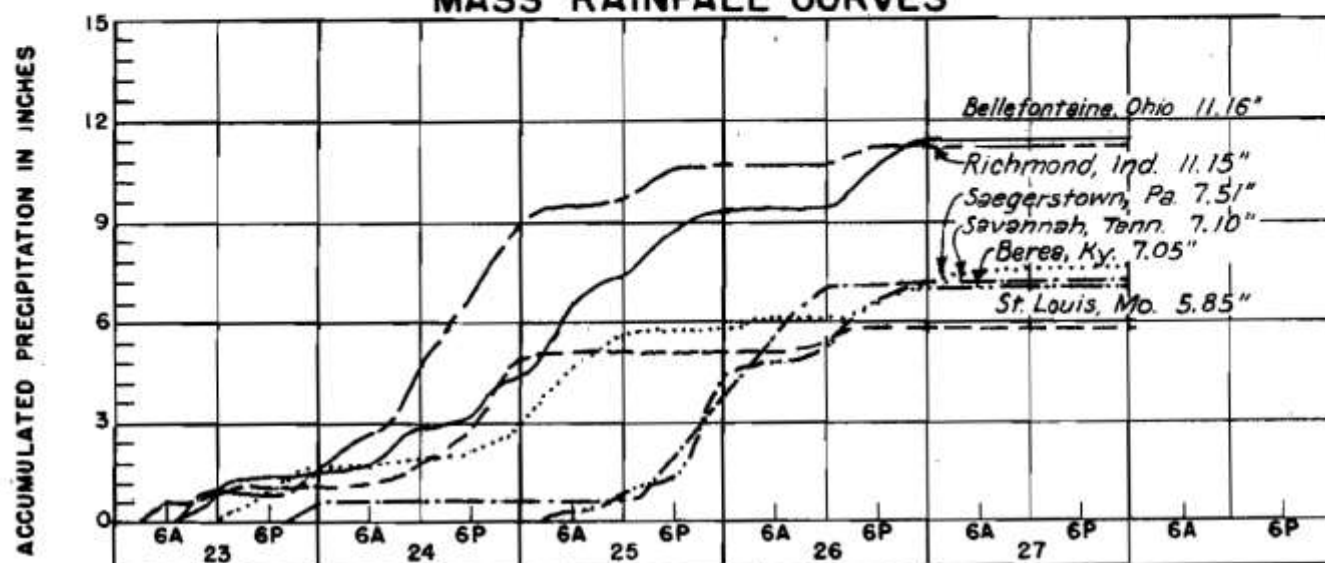
**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

Storm of March 23-27, 1913 Assignment OR 1-15
Study Prepared by: Cincinnati, Ohio, District
Ohio River Division

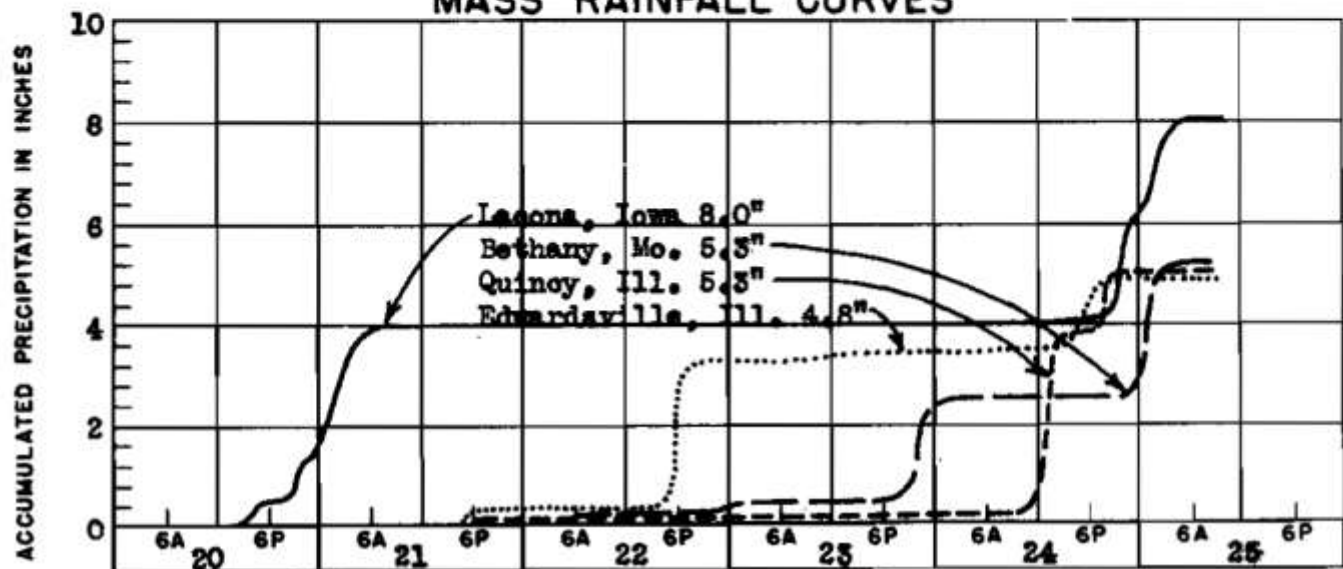


MASS RAINFALL CURVES

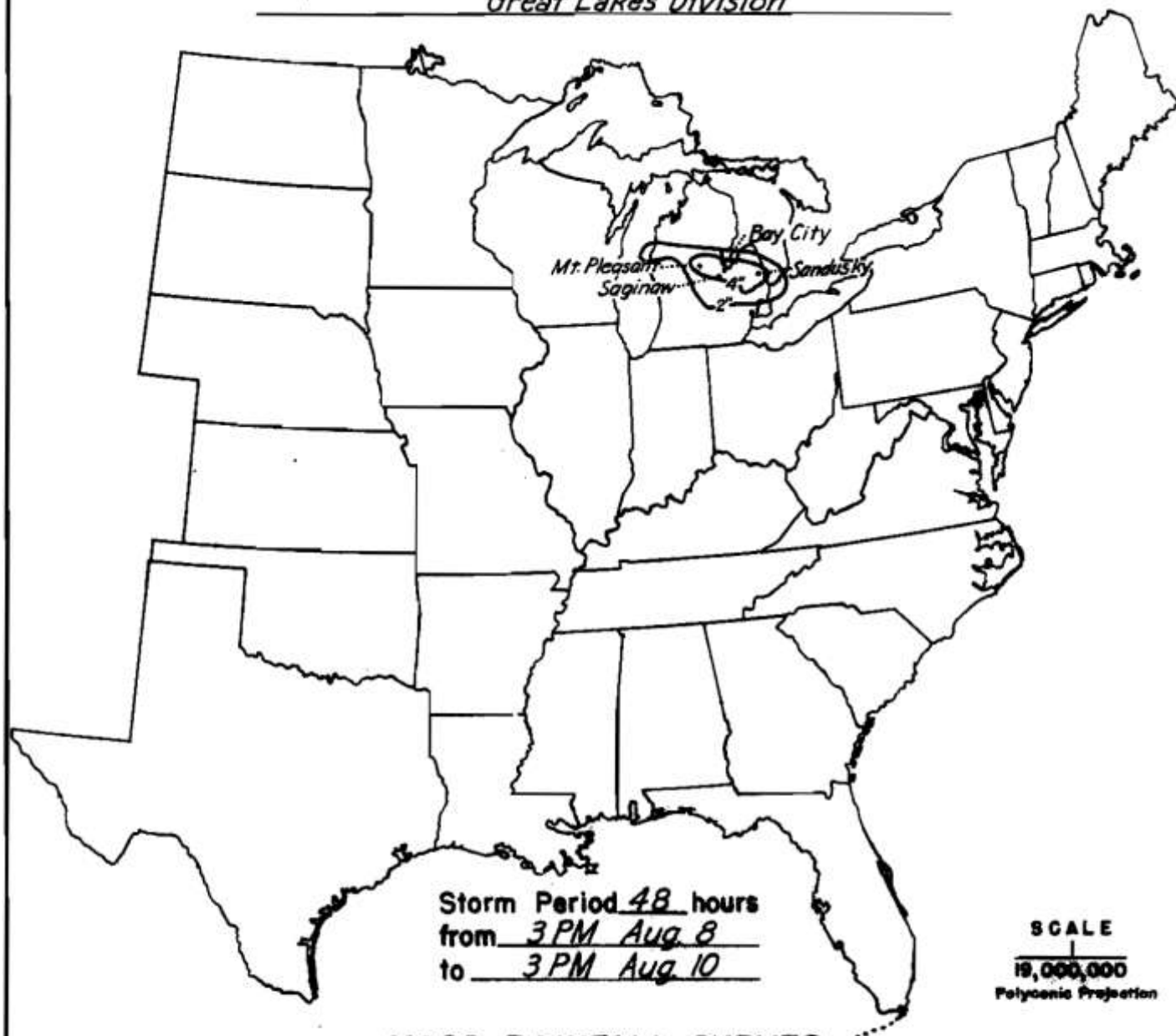


STORM STUDIES - ISOHYETAL MAP

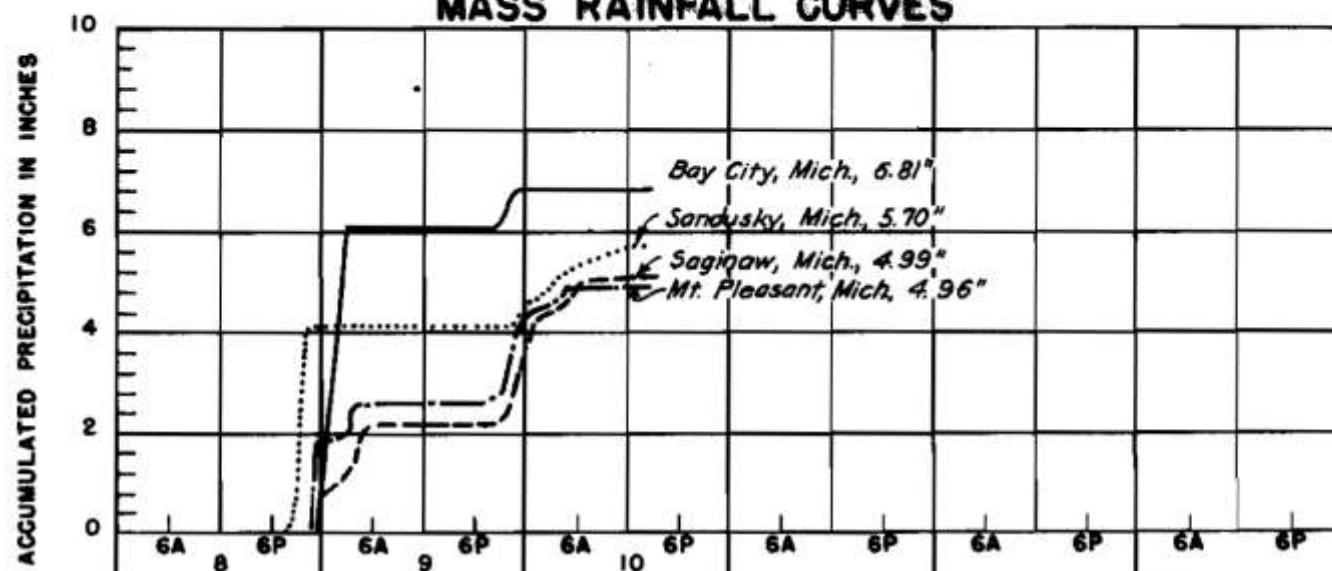
Storm of 20-25 June 1913 Assignment MR 2-5
Study Prepared by: Kansas City, Mo. District
Missouri River Division

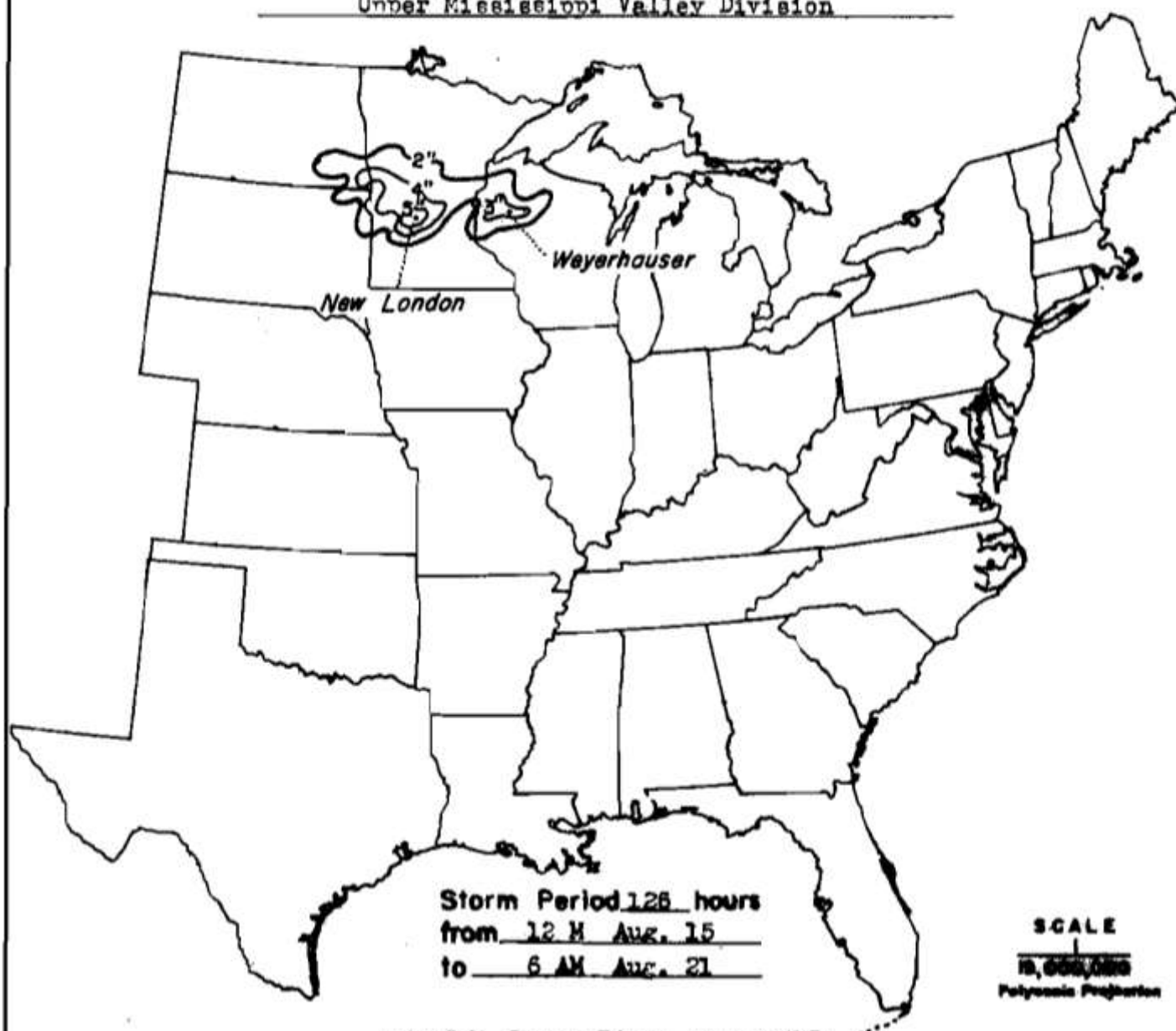
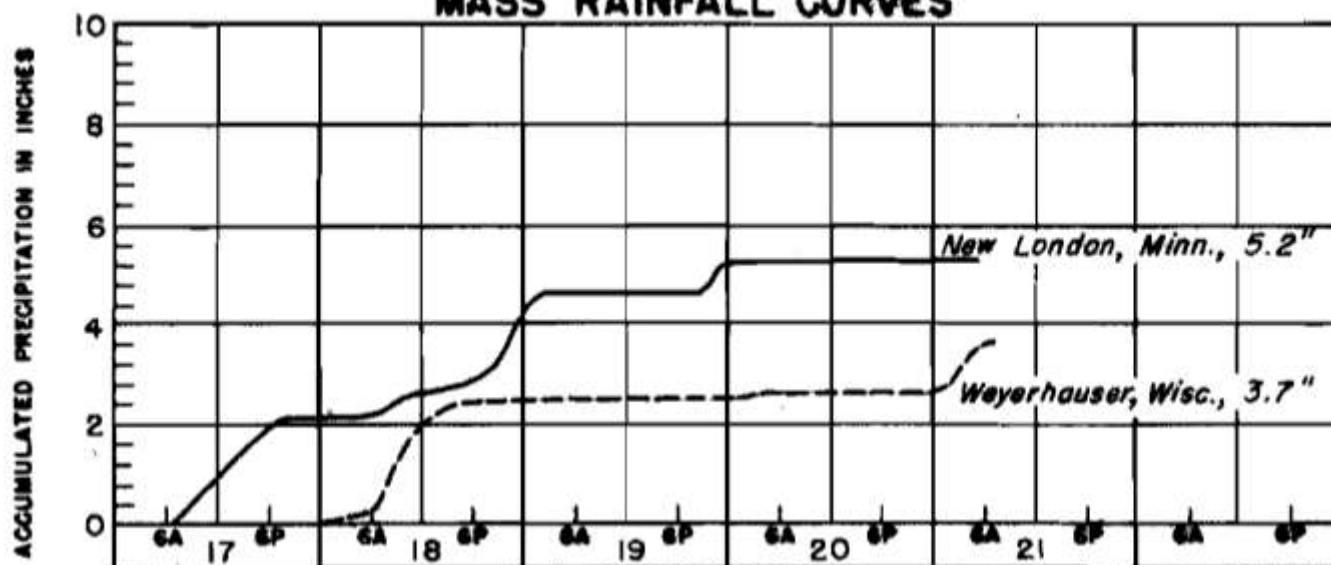
**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

Storm of August 8-10, 1913 Assignment GL 3-2Study Prepared by: Detroit, Mich. District
Great Lakes Division

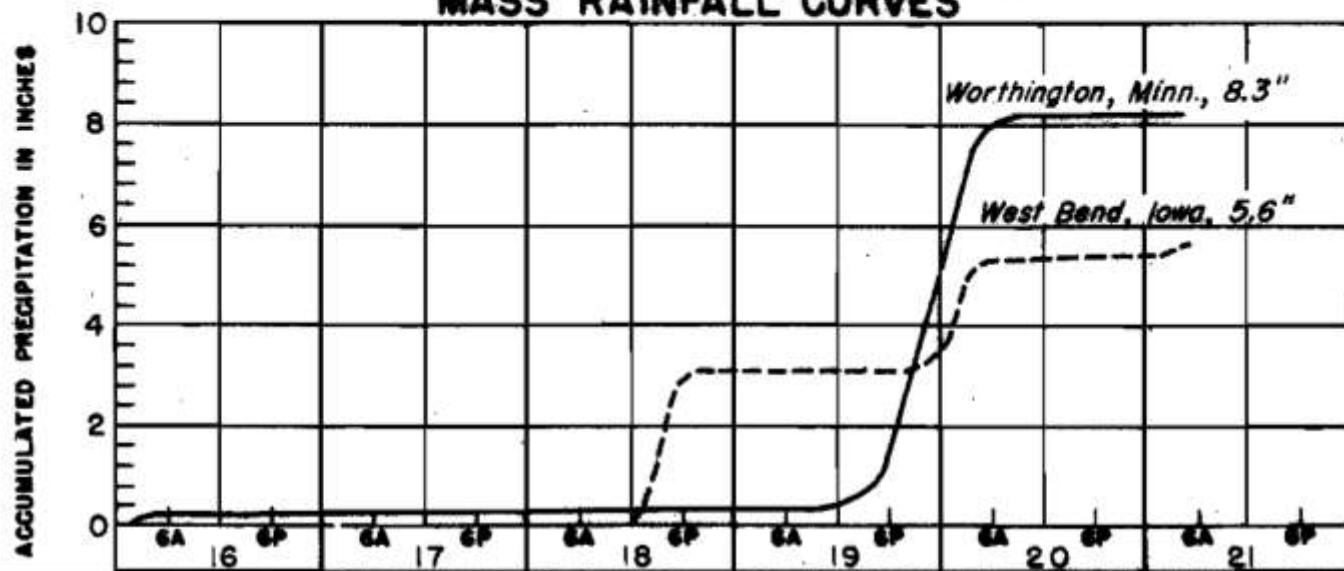
MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAPStorm of August 16-21, 1913 Assignment UMV 1-14(A)Study Prepared by: St. Paul, Minn. DistrictUpper Mississippi Valley Division**MASS RAINFALL CURVES**

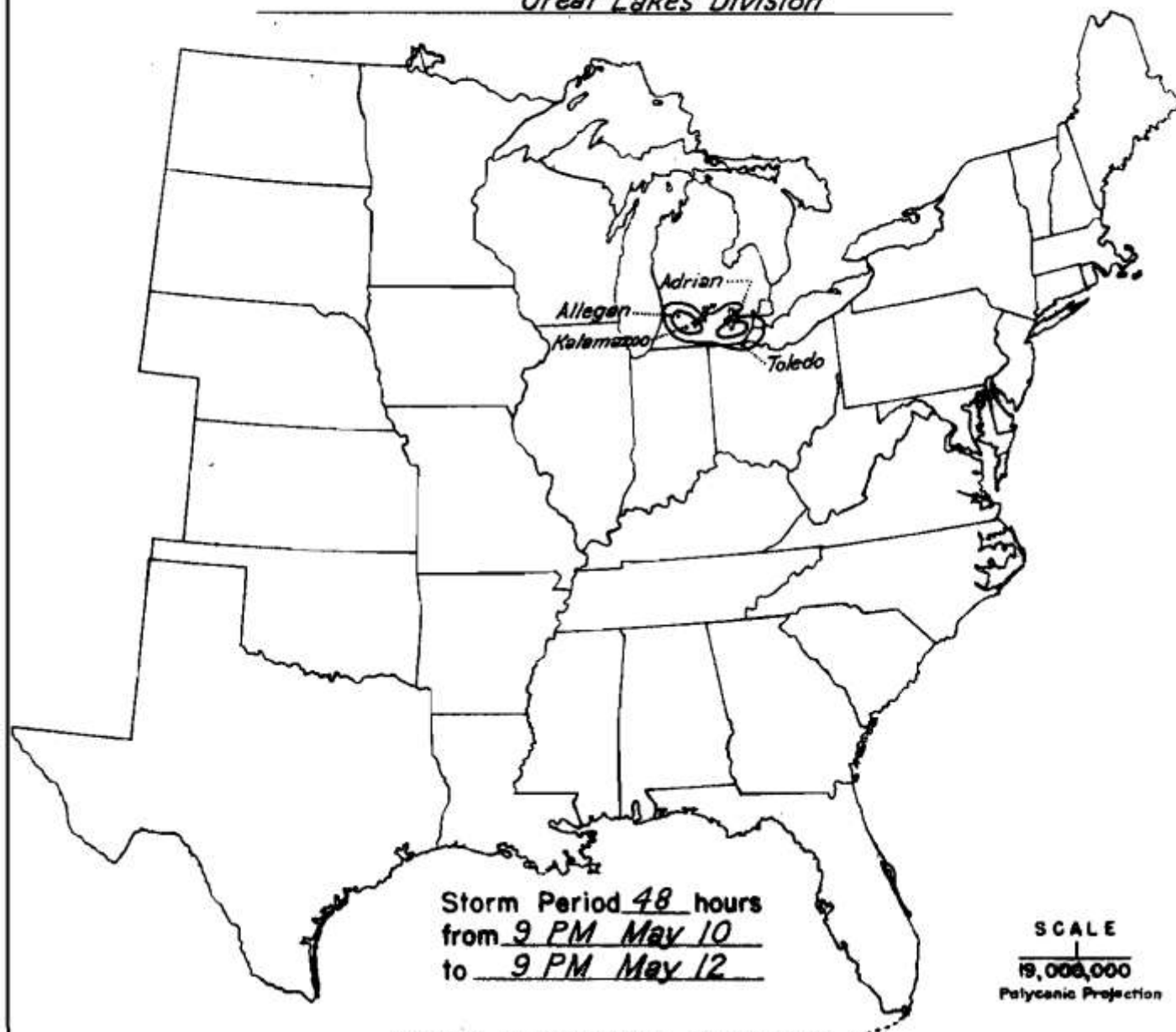
STORM STUDIES - ISOHYETAL MAP

Storm of August 16-21, 1913 Assignment UMV 1-14(B)
Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division

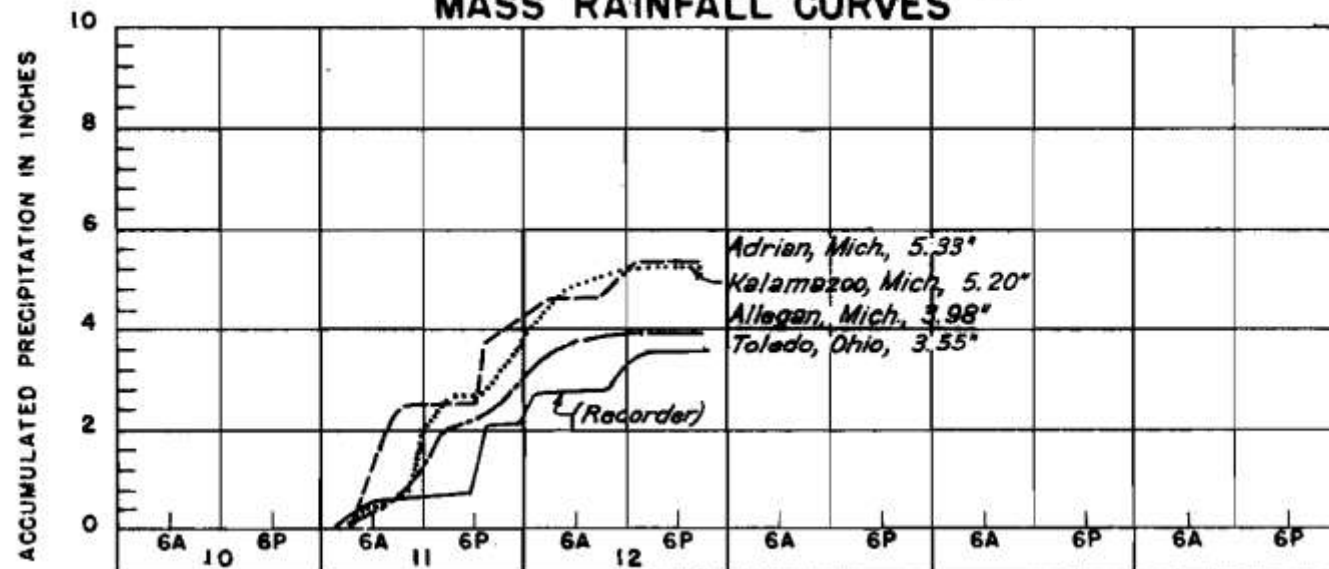
**MASS RAINFALL CURVES**

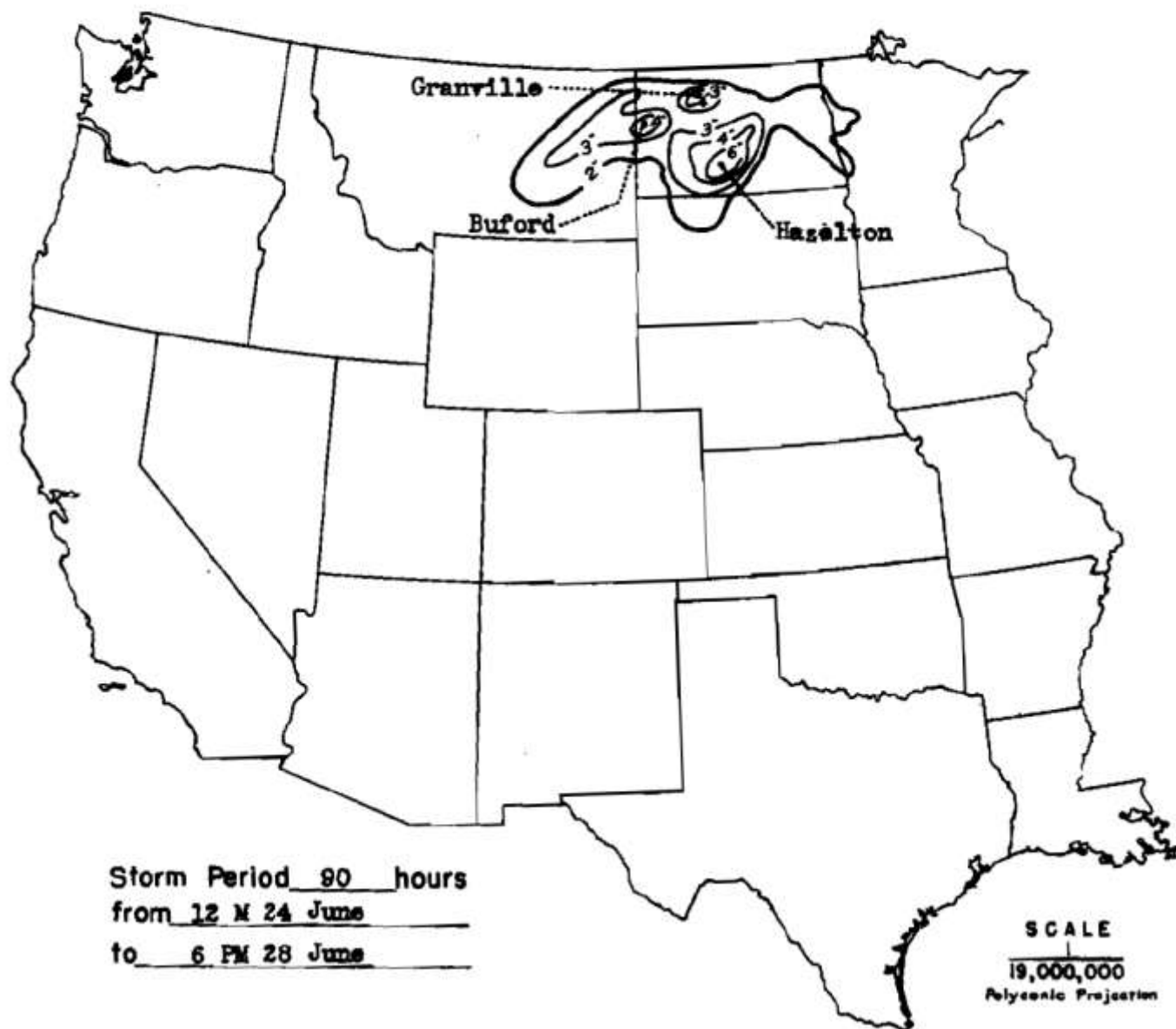
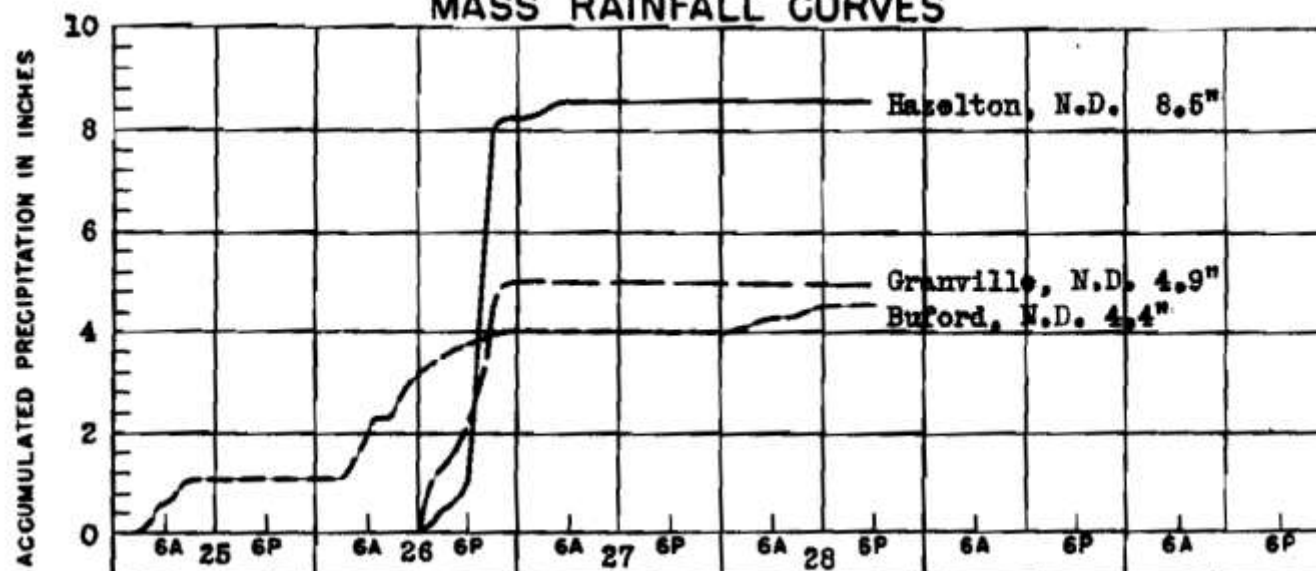
STORM STUDIES - ISOHYETAL MAP

Storm of May 10-12, 1914 Assignment GL 2-15
Study Prepared by: Detroit, Mich. District
Great Lakes Division

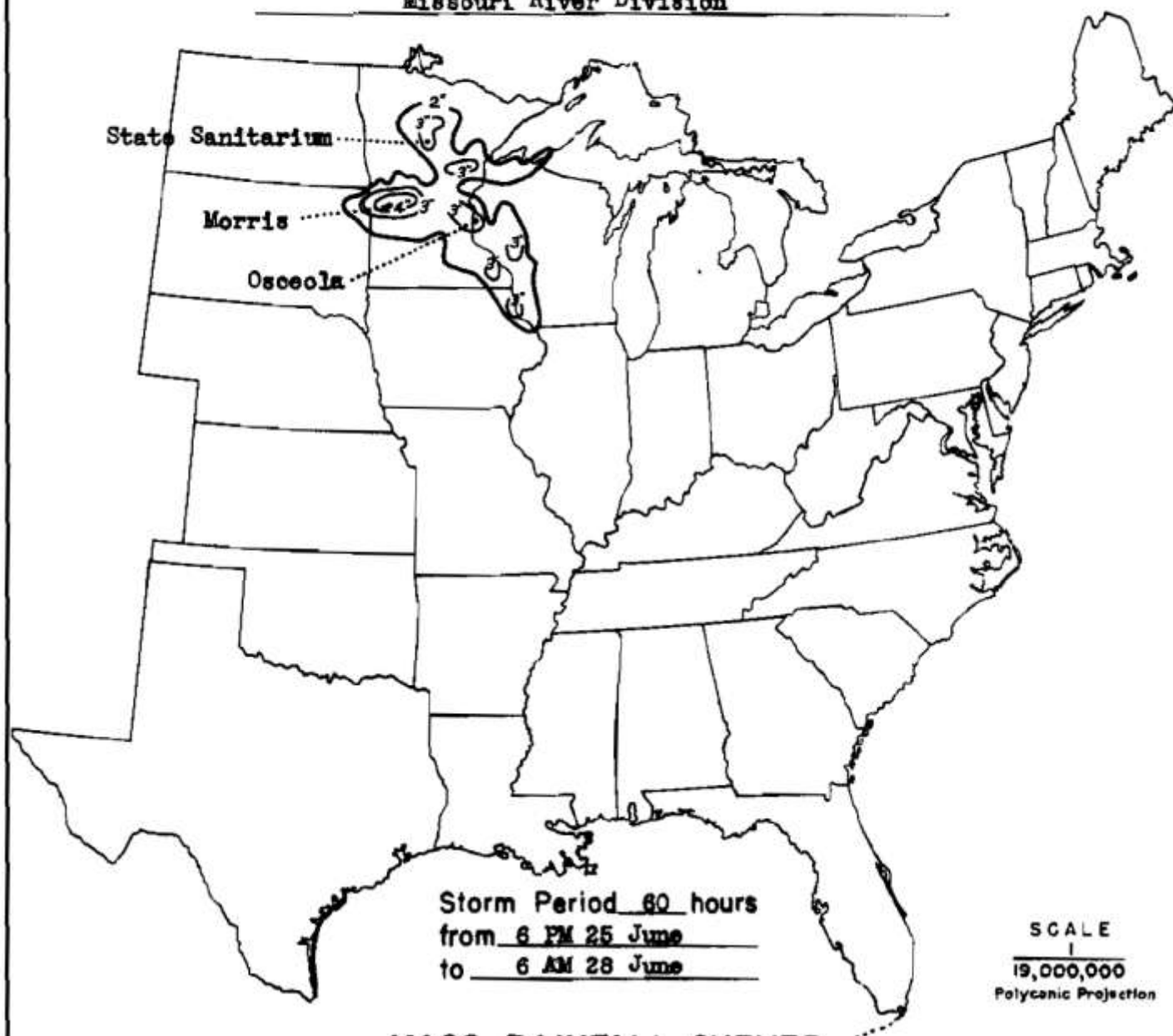


MASS RAINFALL CURVES

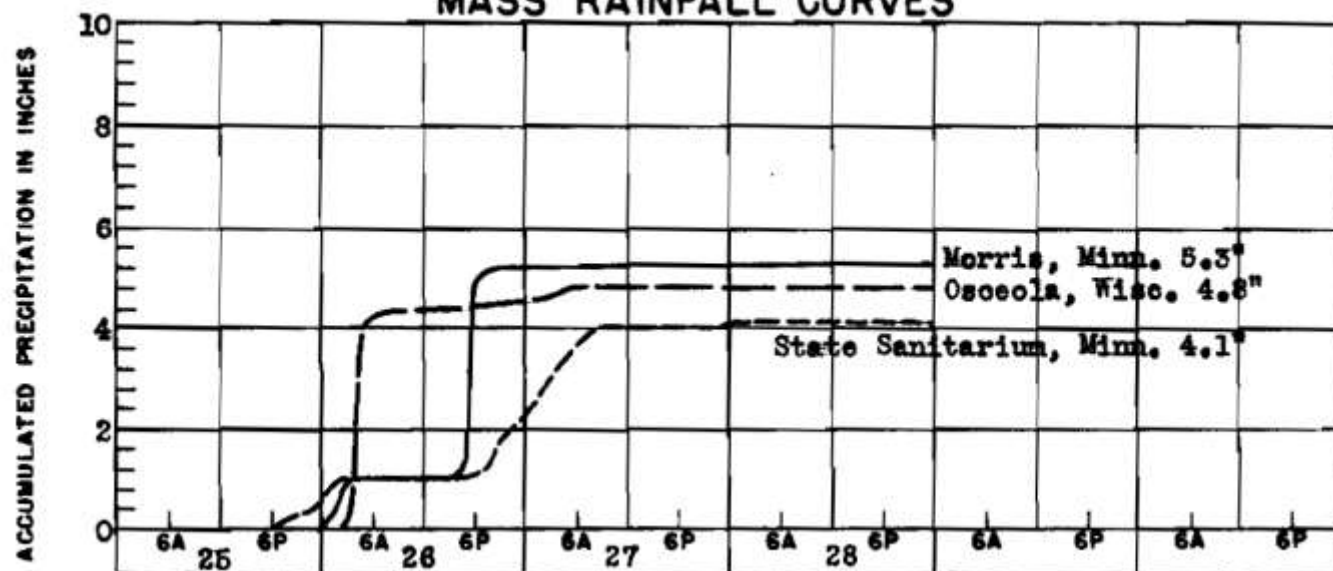


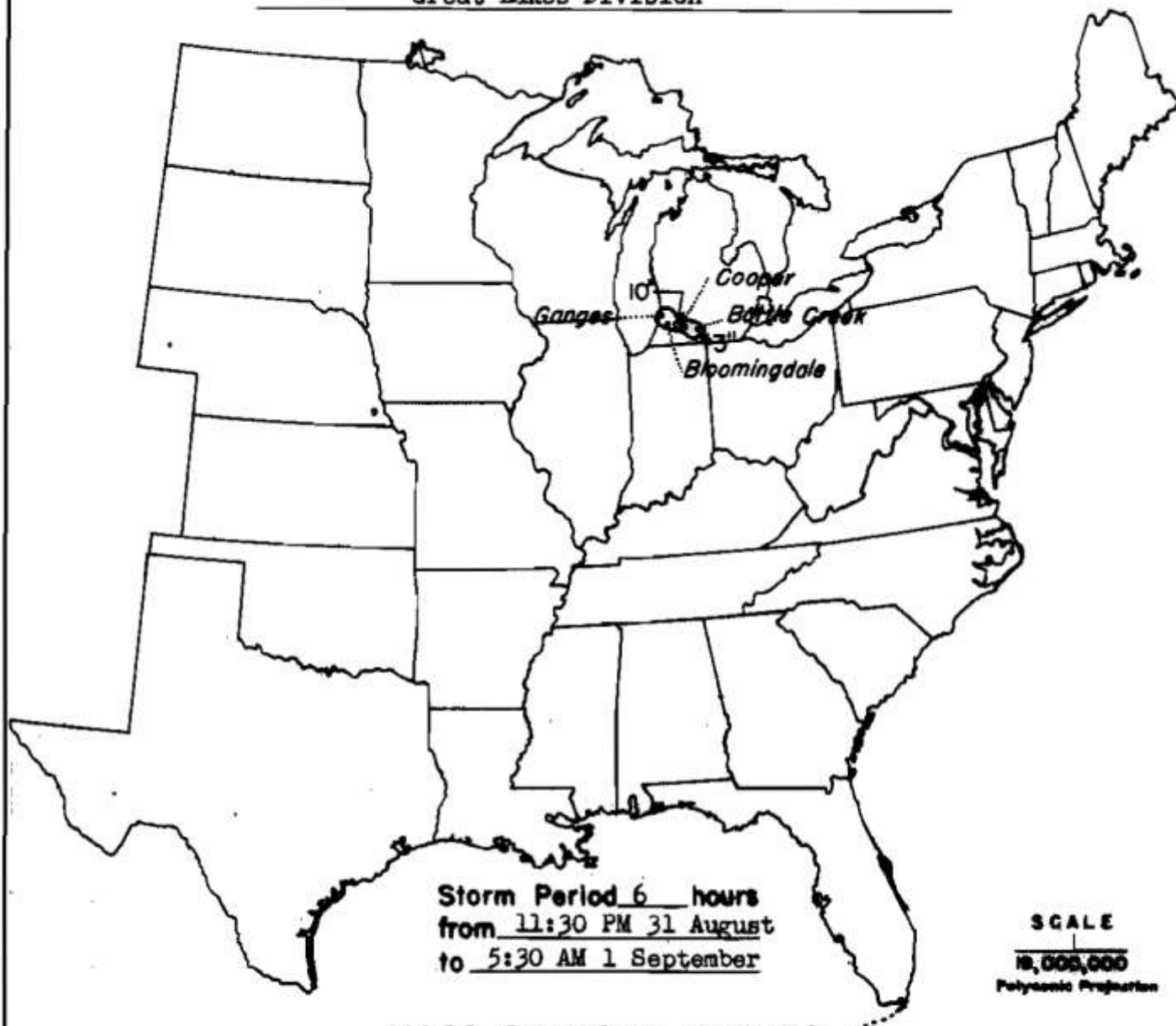
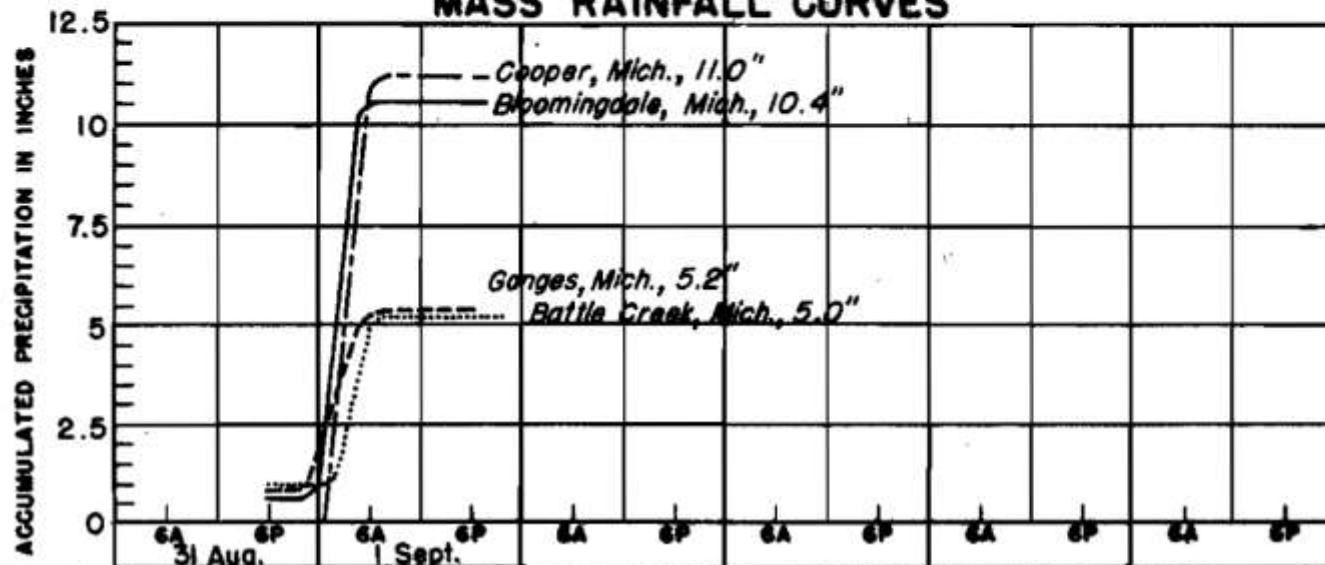
STORM STUDIES - ISOHYETAL MAPStorm of 25-28 June 1914Assignment MR 4-14AStudy Prepared by: Omaha, Nebr. DistrictMissouri River Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

Storm of 25-28 June 1914Assignment MR 4-14BStudy Prepared by: Omaha, Nebr. District
Missouri River Division

MASS RAINFALL CURVES



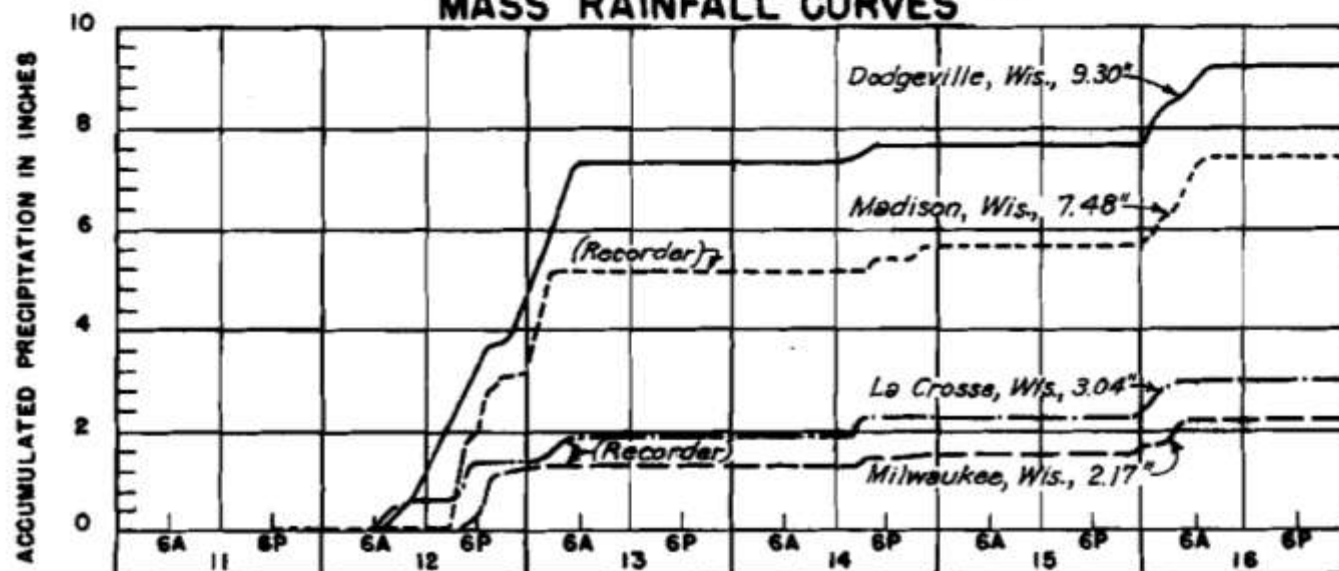
STORM STUDIES - ISOHYETAL MAPStorm of Aug. 31-Sept. 1, 1914Assignment GL 2-16Study Prepared by: Milwaukee, Wisc. District
Great Lakes Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

Storm of September 11-16, 1915 Assignment UMV 1-15
Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division

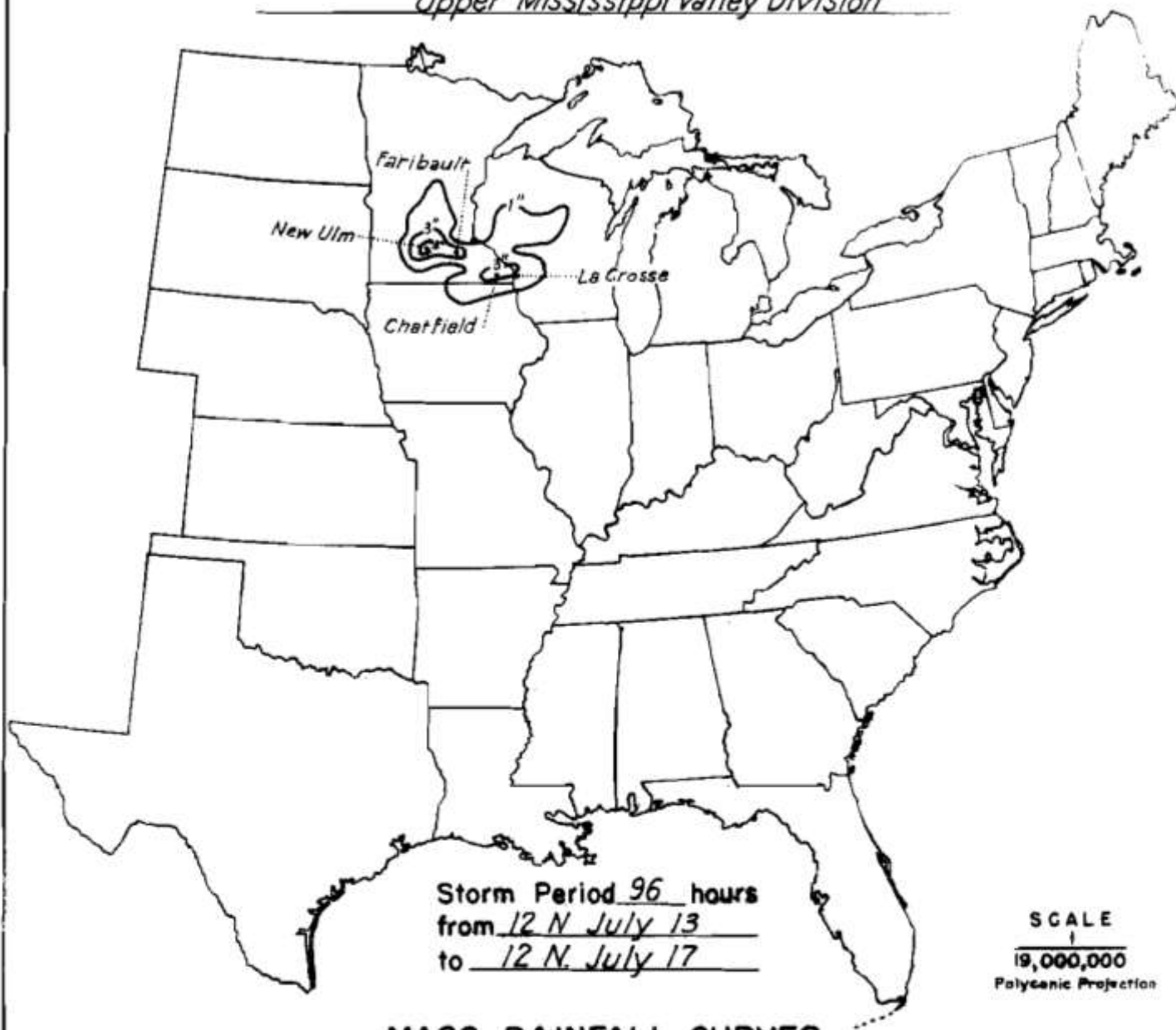


MASS RAINFALL CURVES

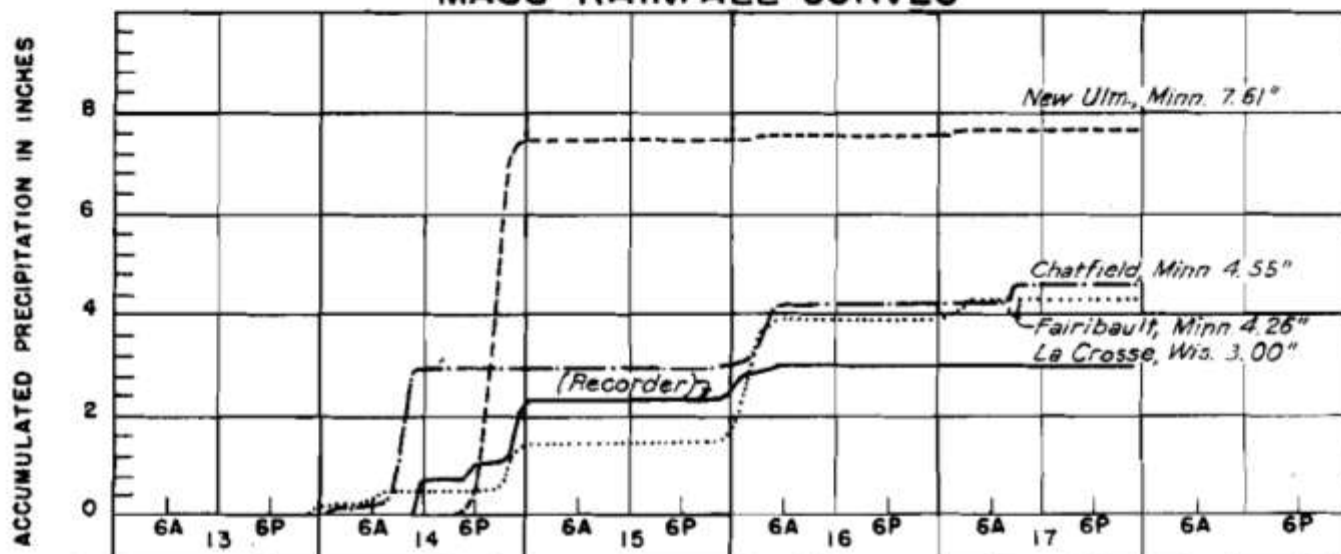


STORM STUDIES - ISOHYETAL MAP

Storm of July 13-17, 1916 Assignment UMV 1-16
Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division

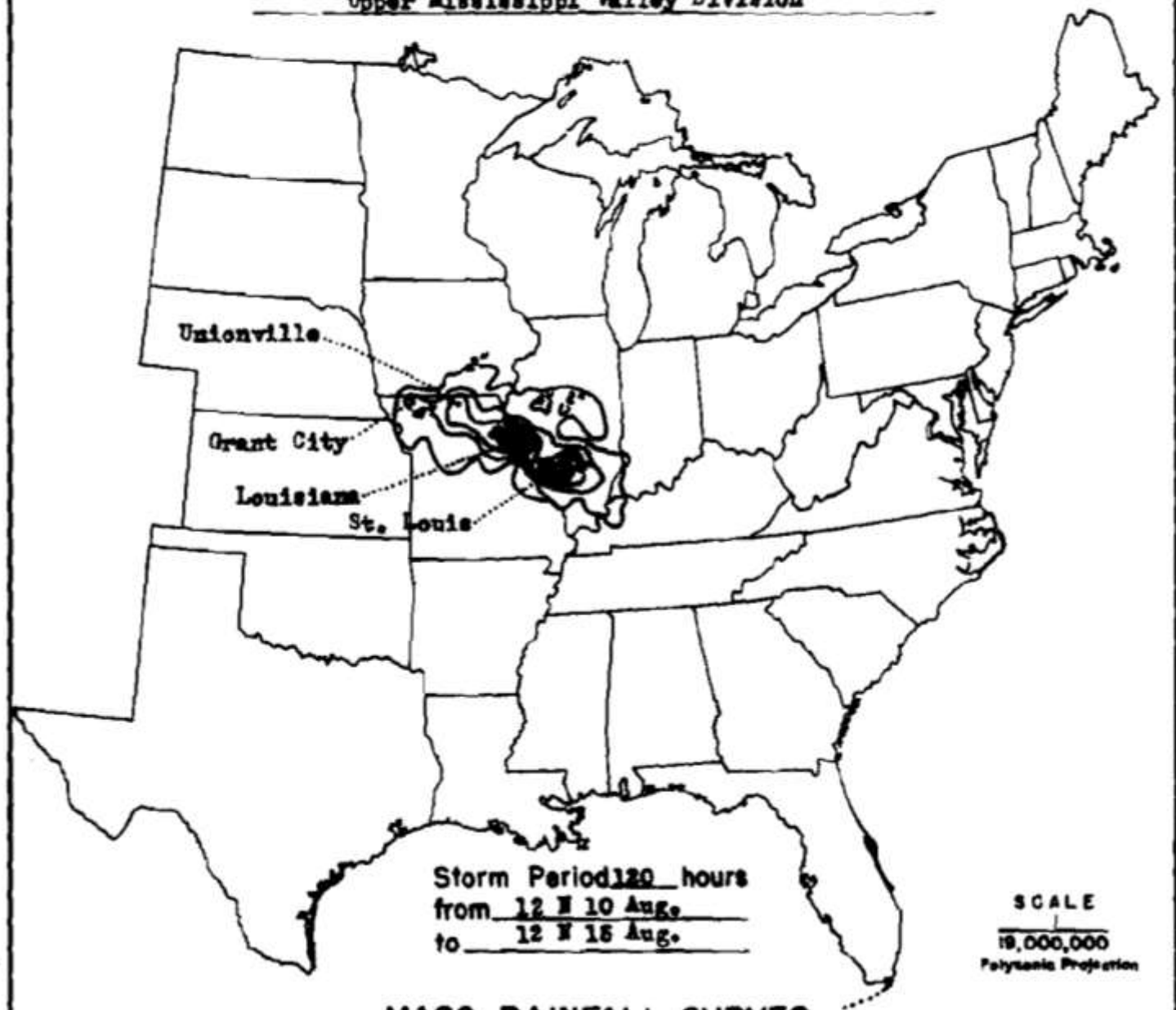


MASS RAINFALL CURVES

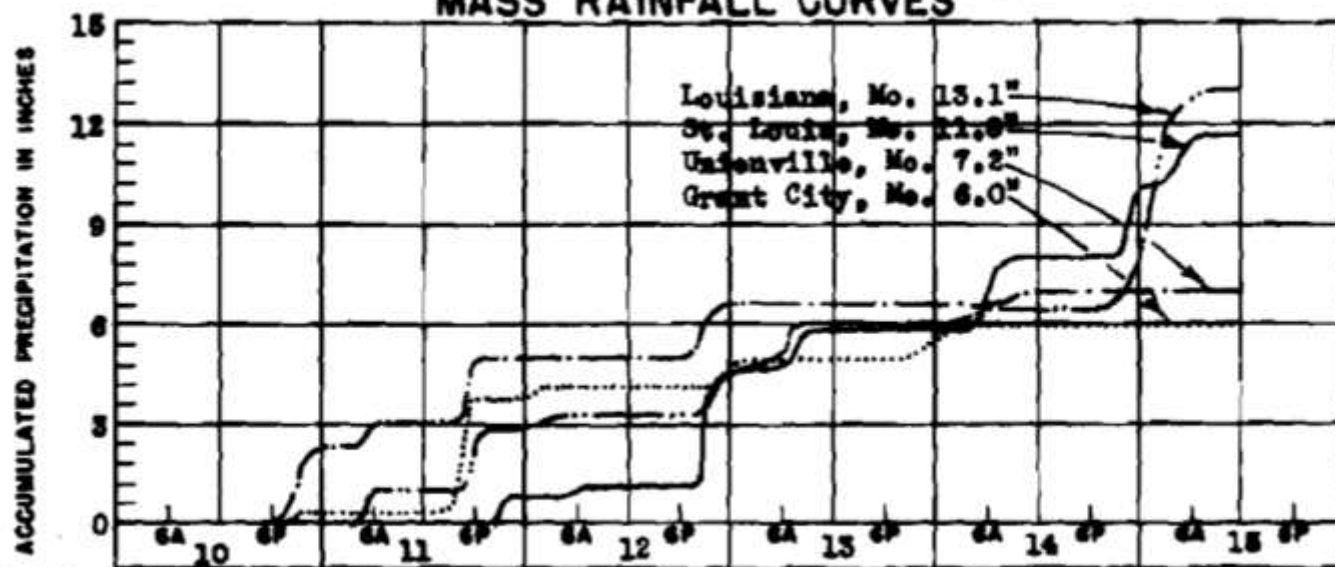


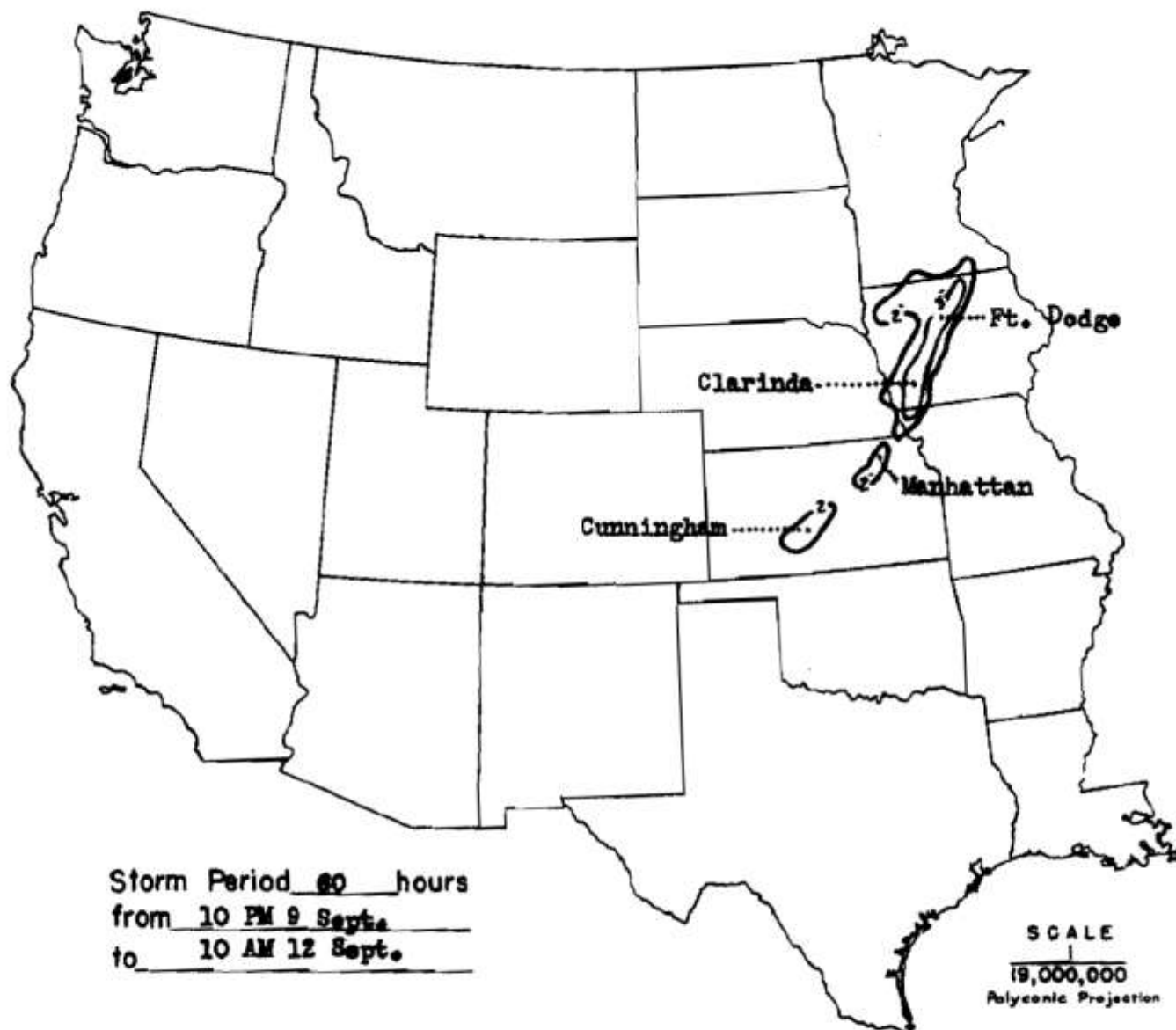
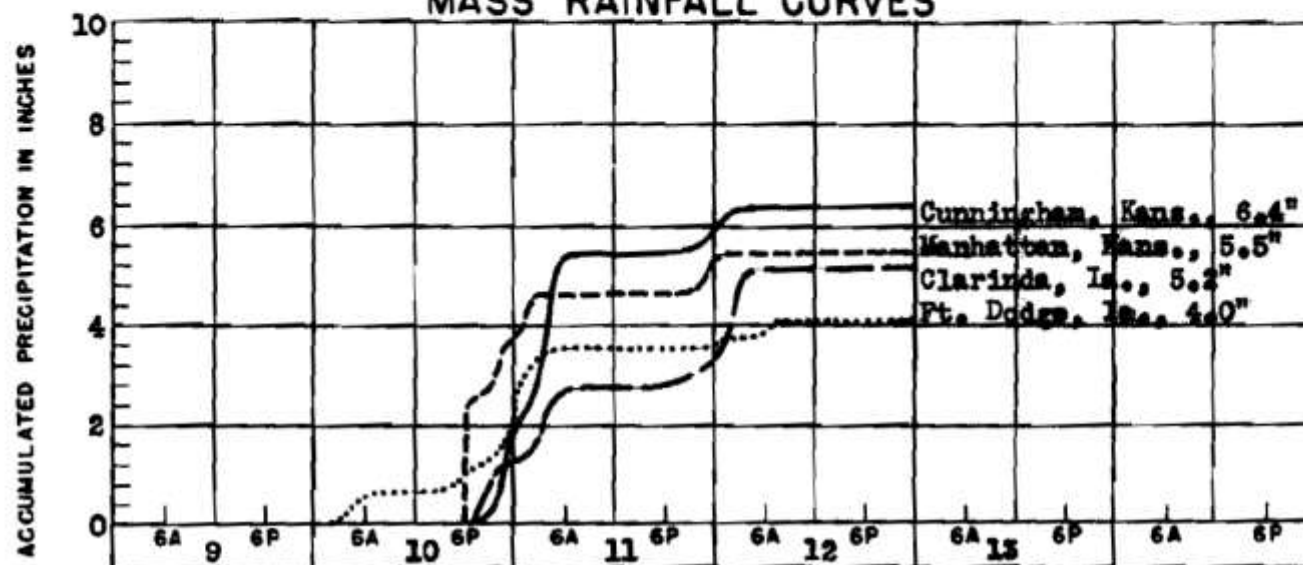
STORM STUDIES - ISOHYETAL MAP

Storm of 10 - 15 August 1918 Assignment UMV 2-9
 Study Prepared by: Reek Island, Ill. District
Upper Mississippi Valley Division

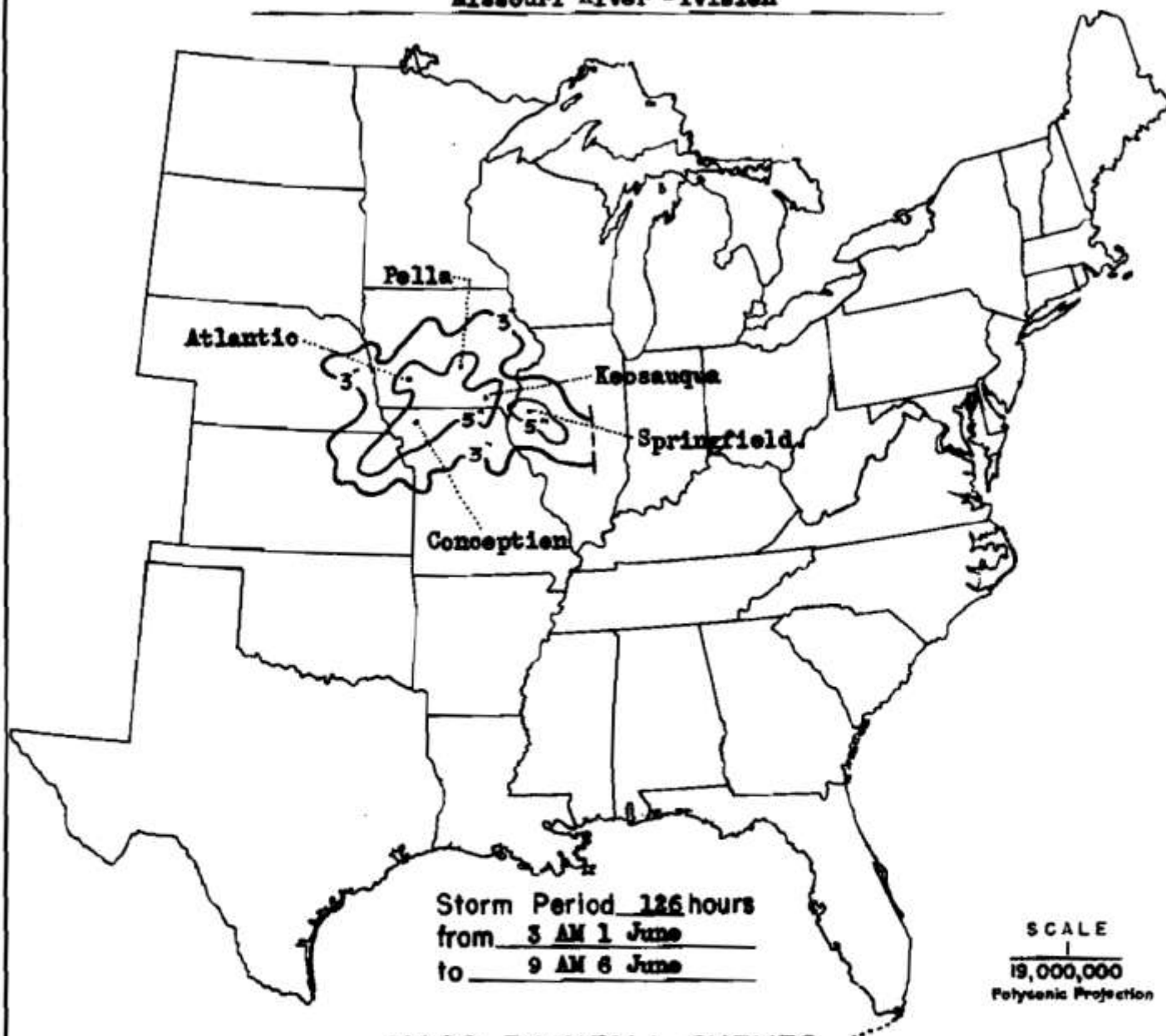


MASS RAINFALL CURVES

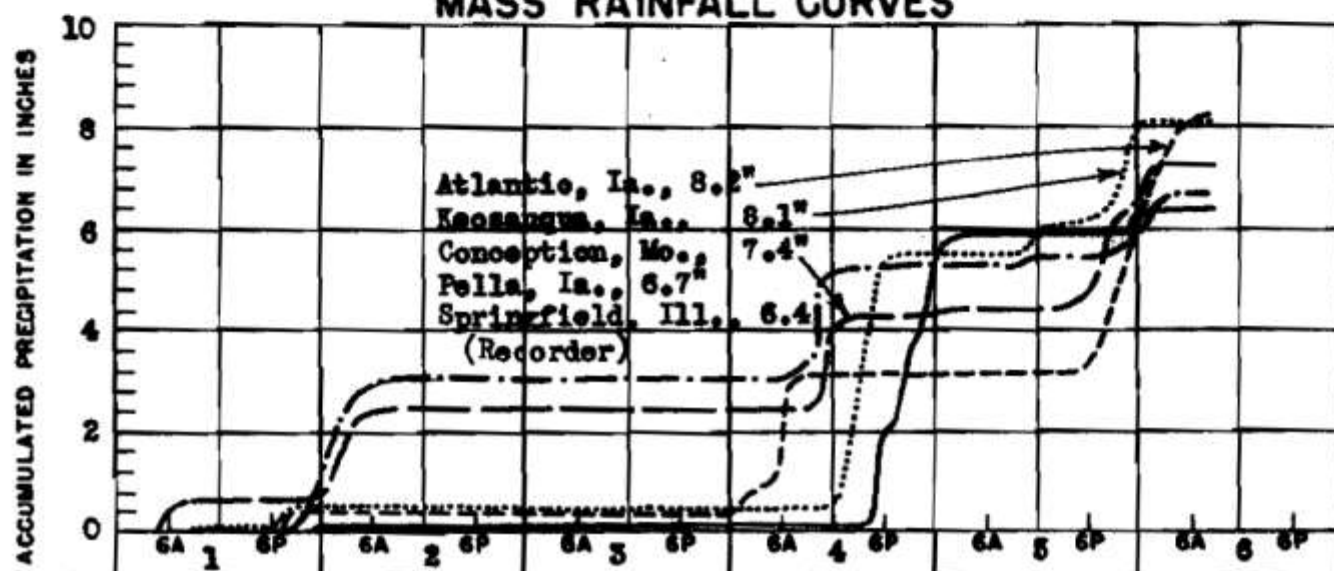


STORM STUDIES - ISOHYETAL MAPStorm of 10-12 September 1916Assignment MR 2-15Study Prepared by: Kansas City, Mo. District
Missouri River Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

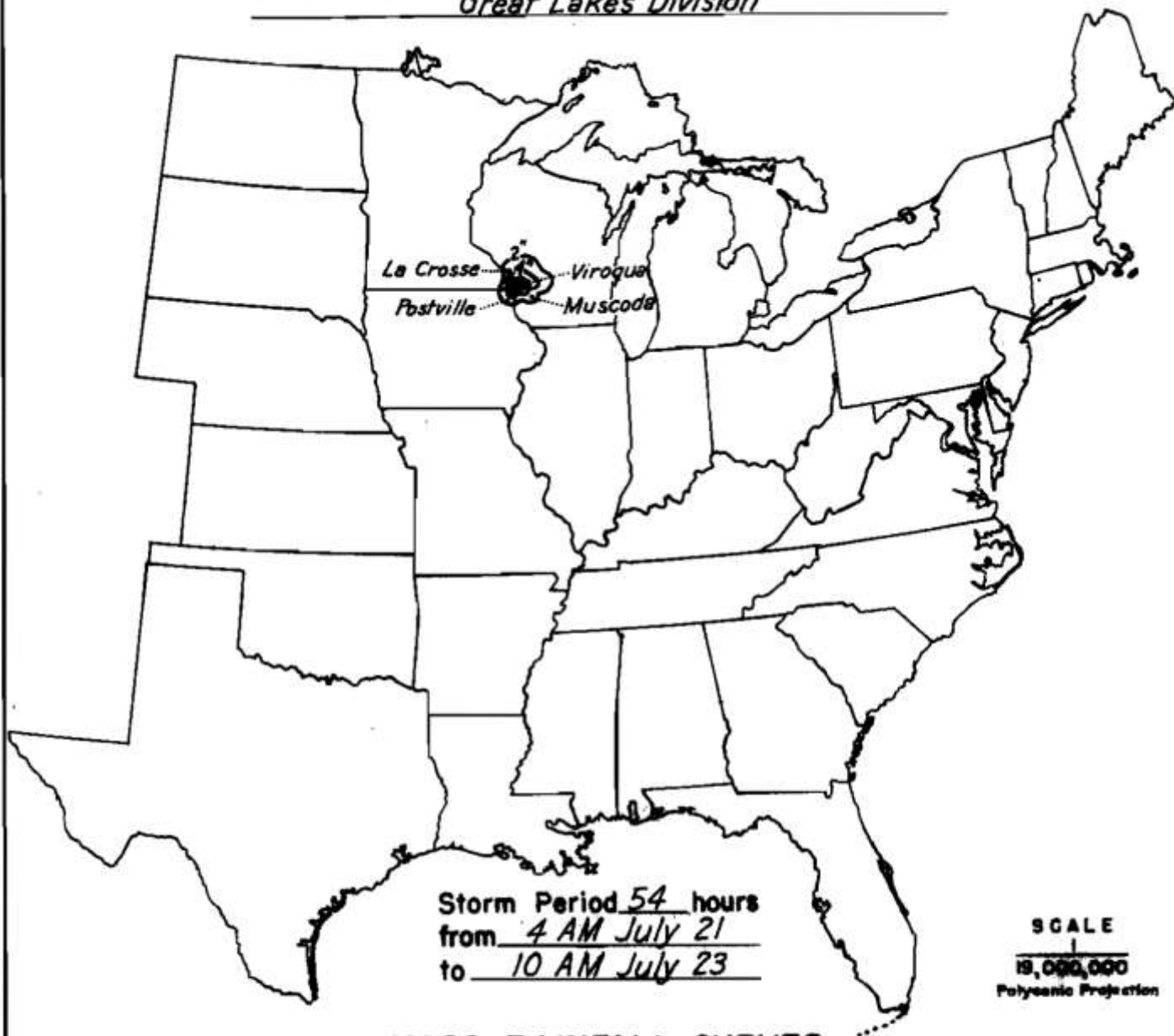
Storm of 1-6 June 1917Assignment MR 2-16Study Prepared by: Kansas City, Mo. District
Missouri River Division

MASS RAINFALL CURVES

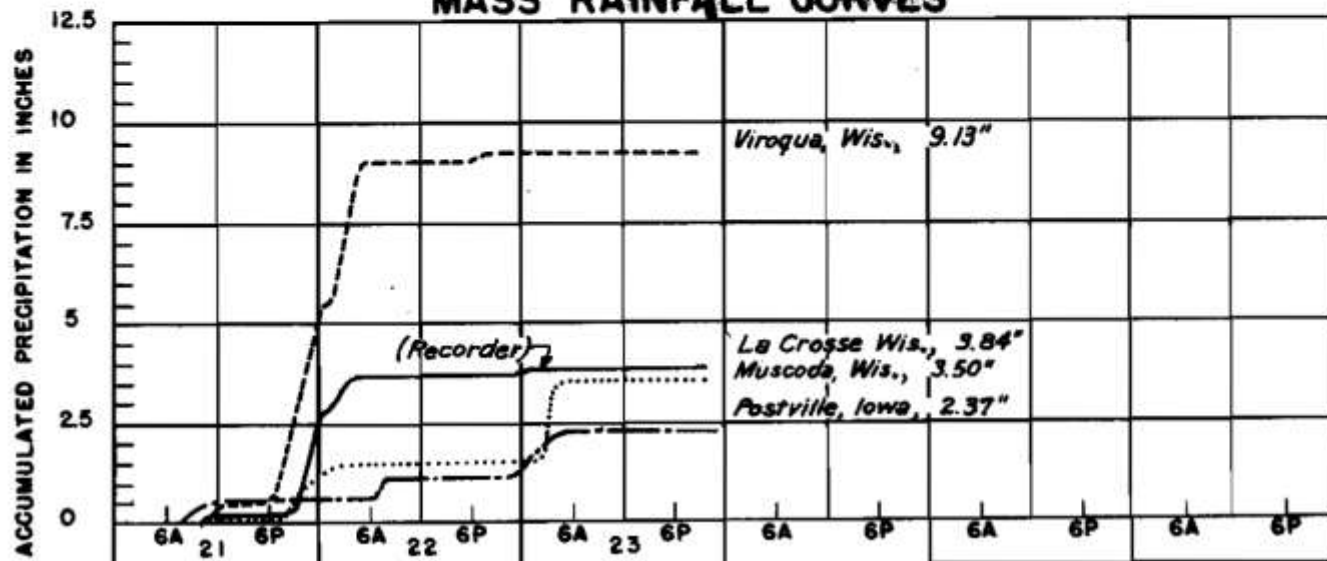


STORM STUDIES - ISOHYETAL MAP

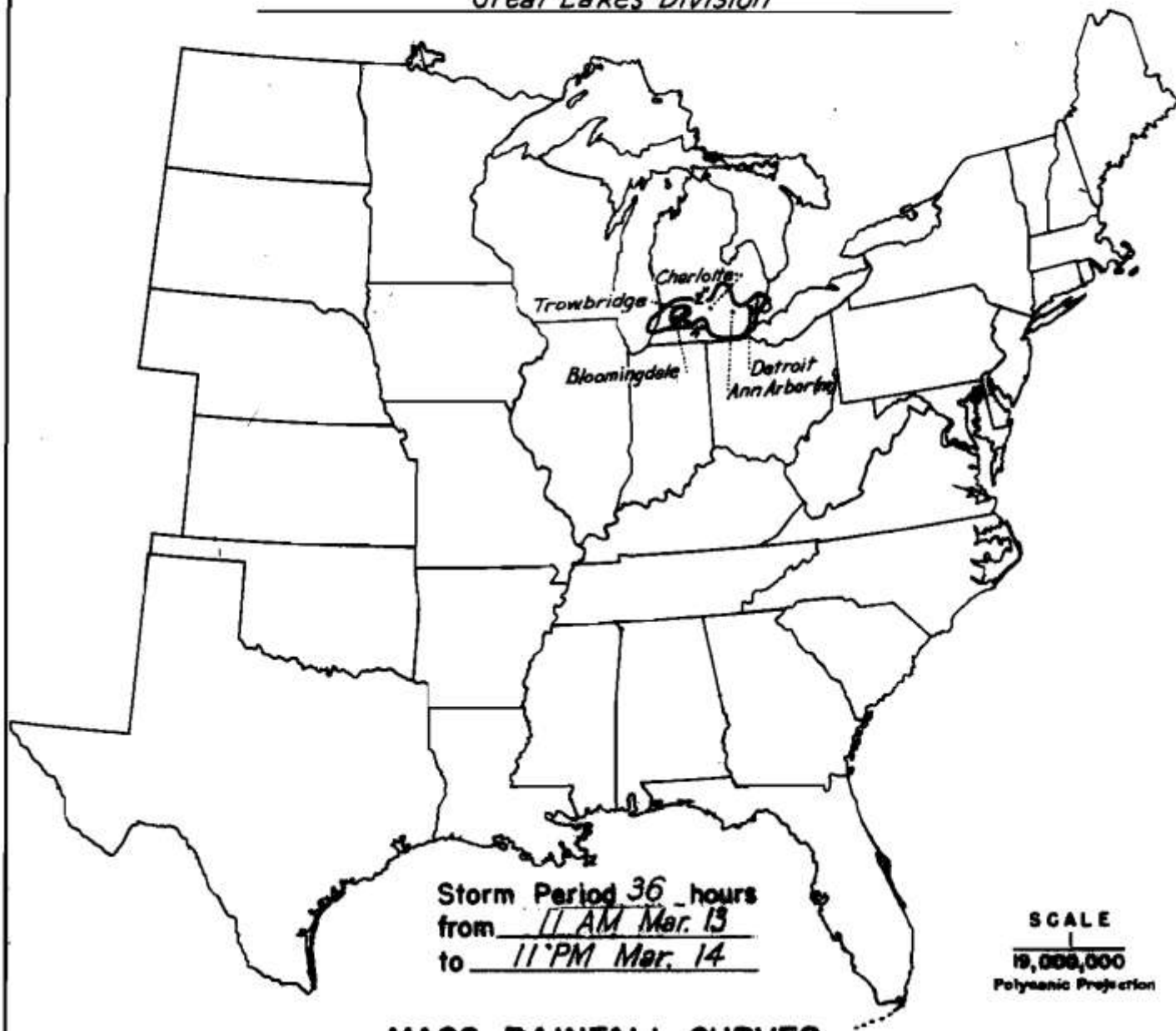
Storm of July 21-23, 1917 Assignment GL 2-30
Study Prepared by: Milwaukee, Wis. District
Great Lakes Division



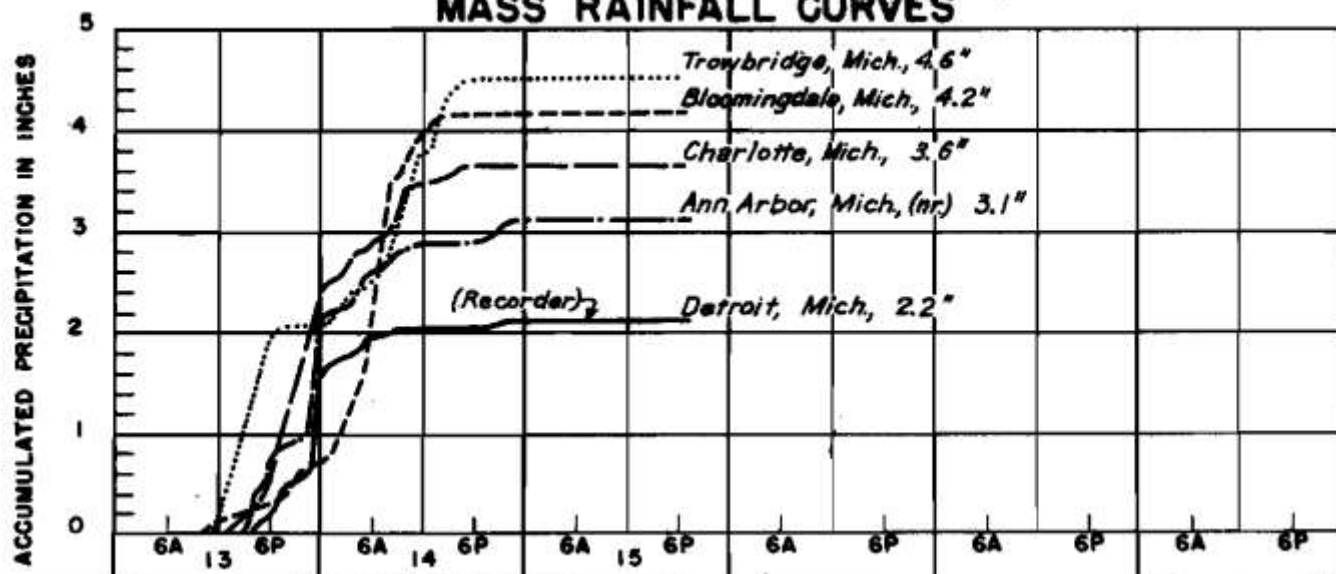
MASS RAINFALL CURVES



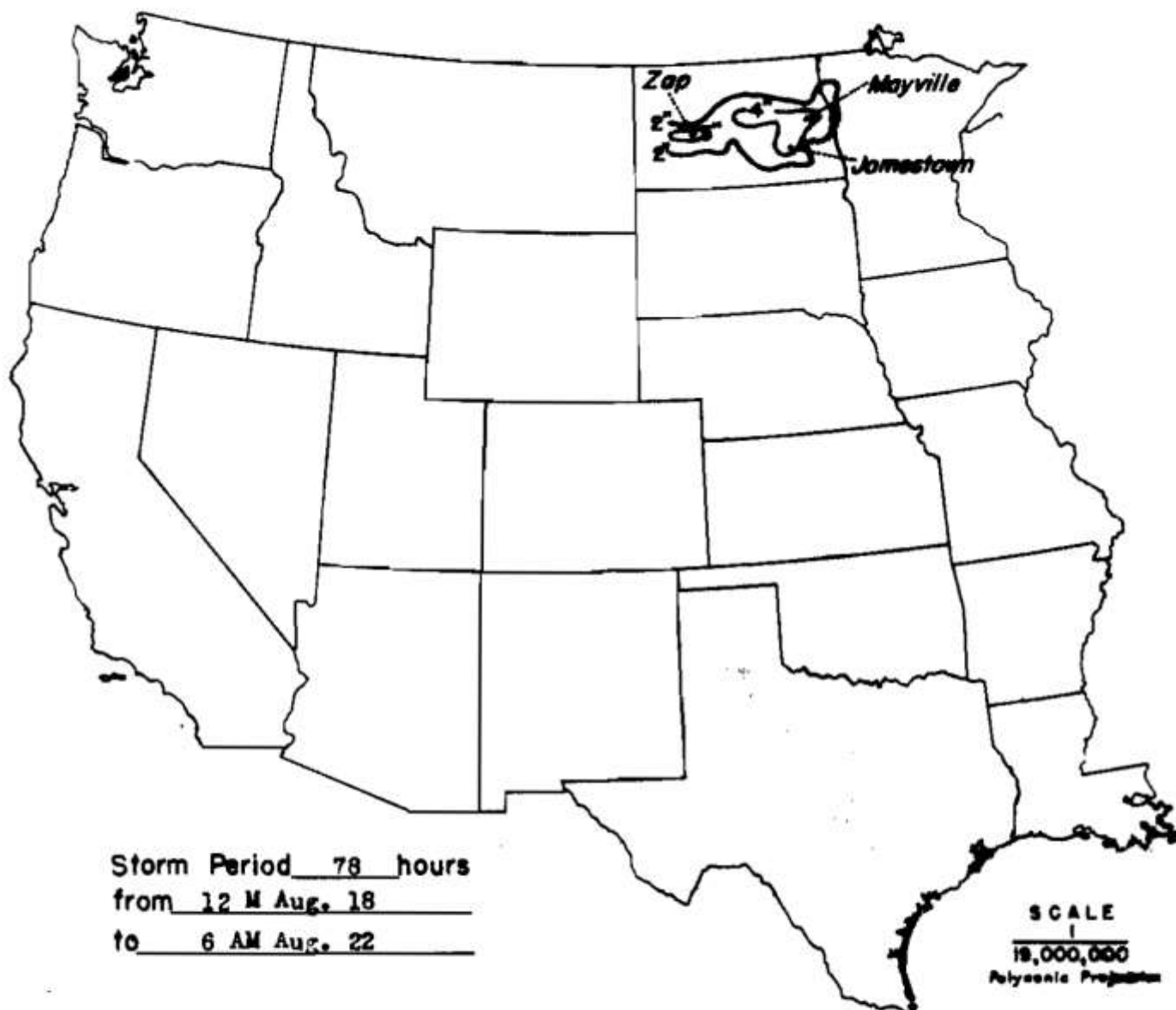
STORM STUDIES - ISOHYETAL MAP

Storm of March 13-14, 1918 Assignment GL 2-17Study Prepared by: Milwaukee, Wis. District
Great Lakes Division

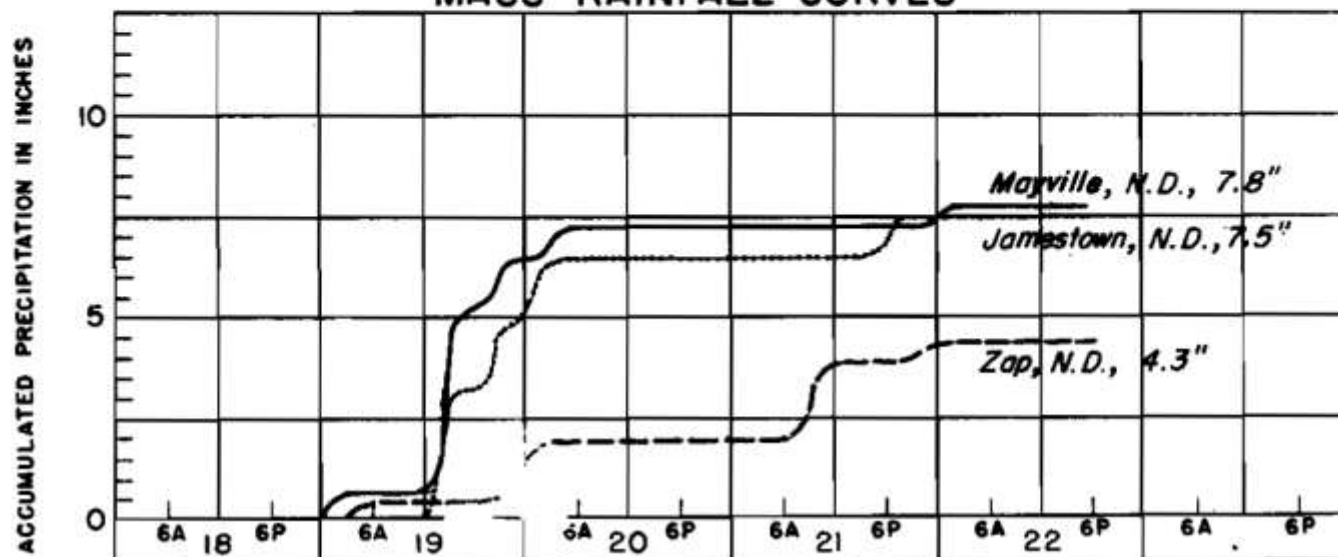
MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAP

Storm of 19-22 August 1918 Assignment MR 4-16Study Prepared by: Omaha, Nebr. District
Missouri River Division

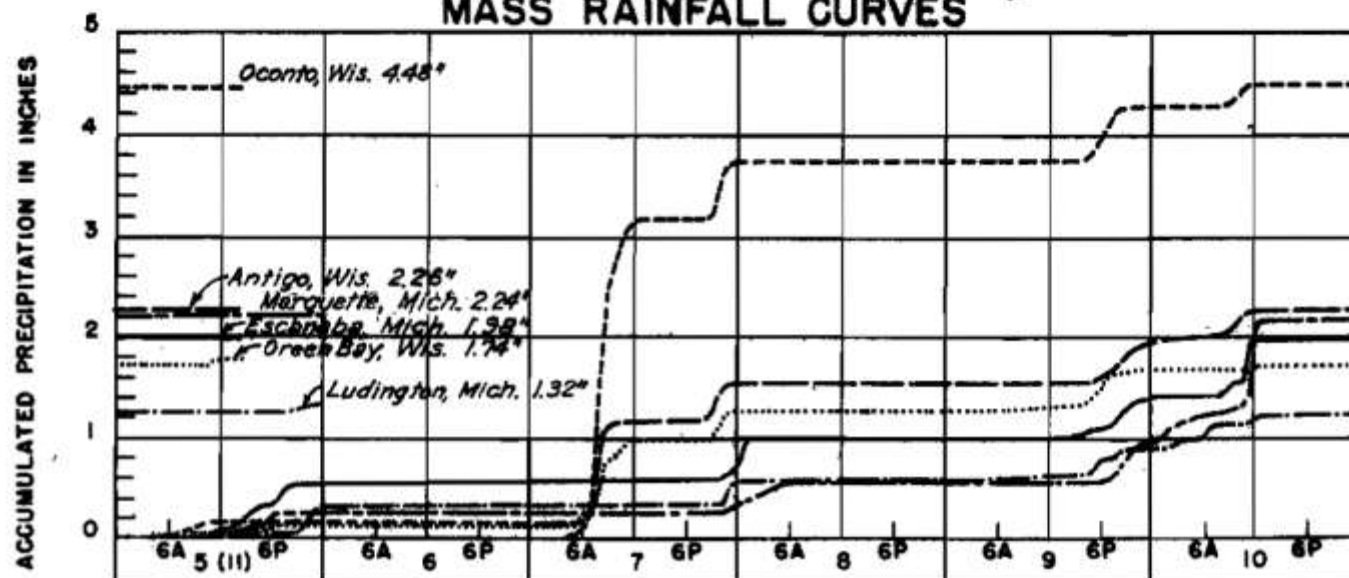
MASS RAINFALL CURVES



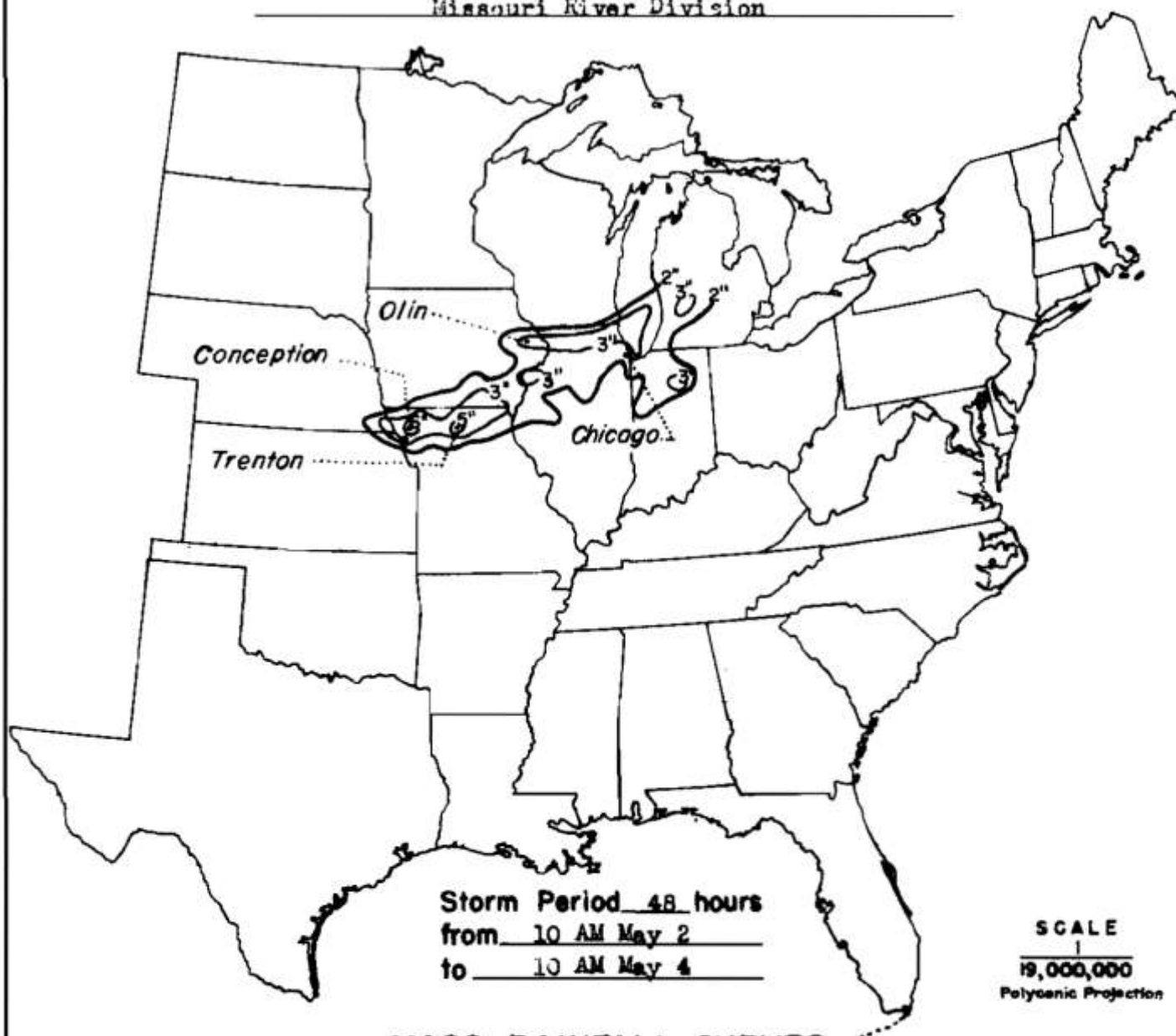
STORM STUDIES - ISOHYETAL MAP

Storm of April 5-11, 1919 Assignment GL 2-19Study Prepared by: Milwaukee, Wis. District
Great Lakes Division

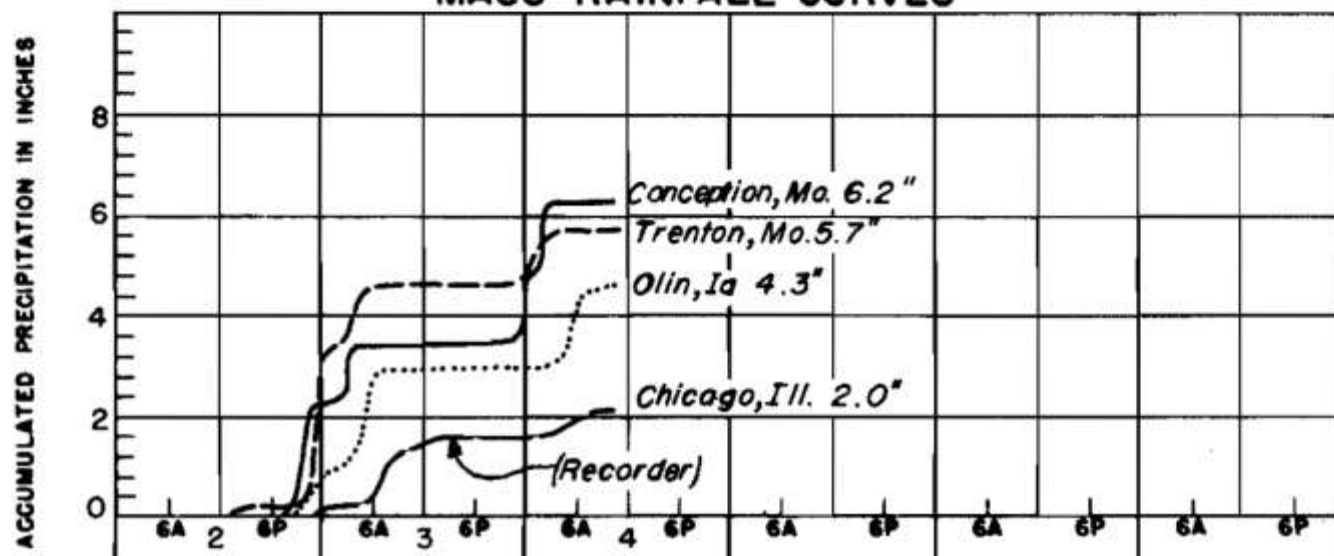
MASS RAINFALL CURVES

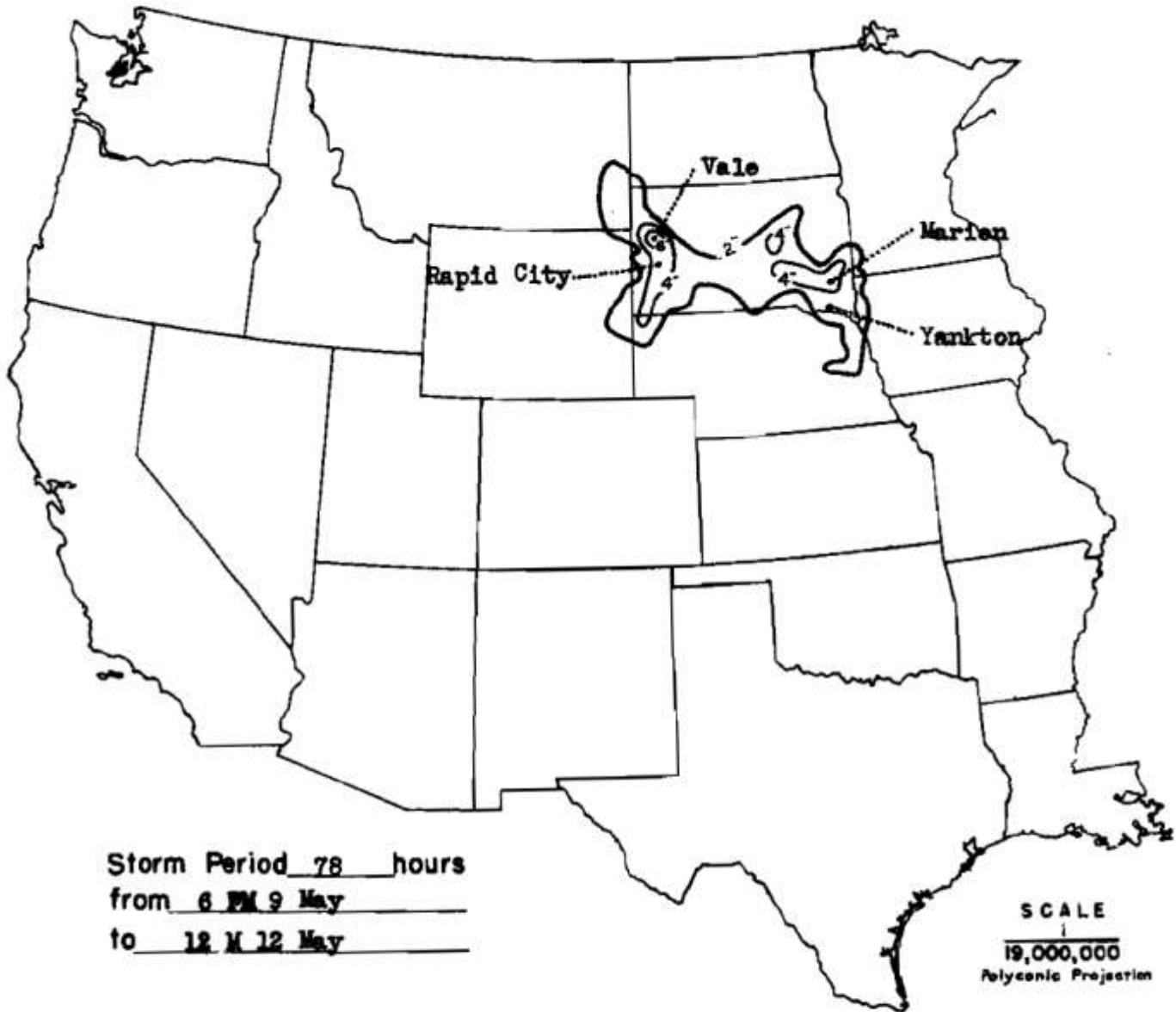


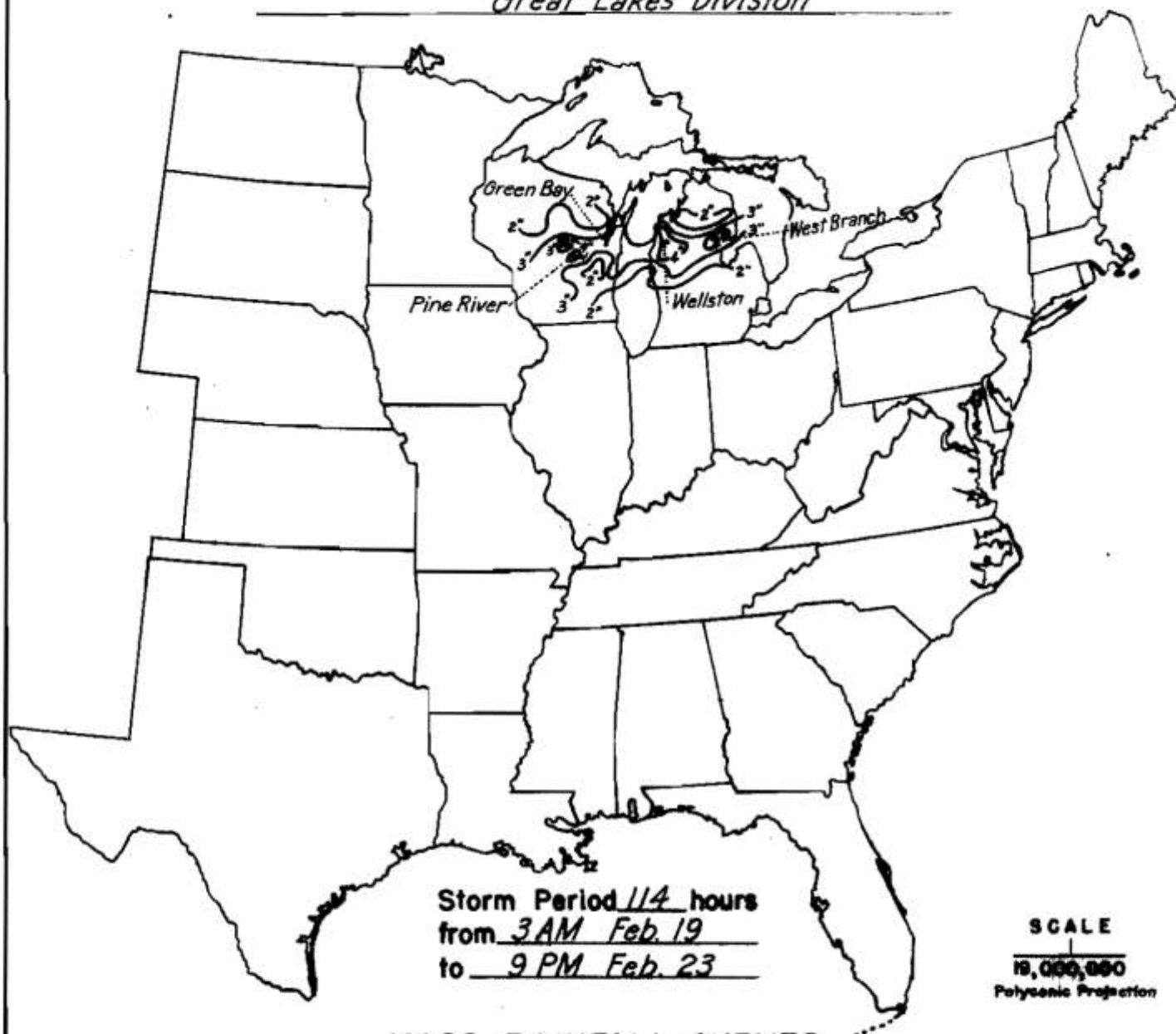
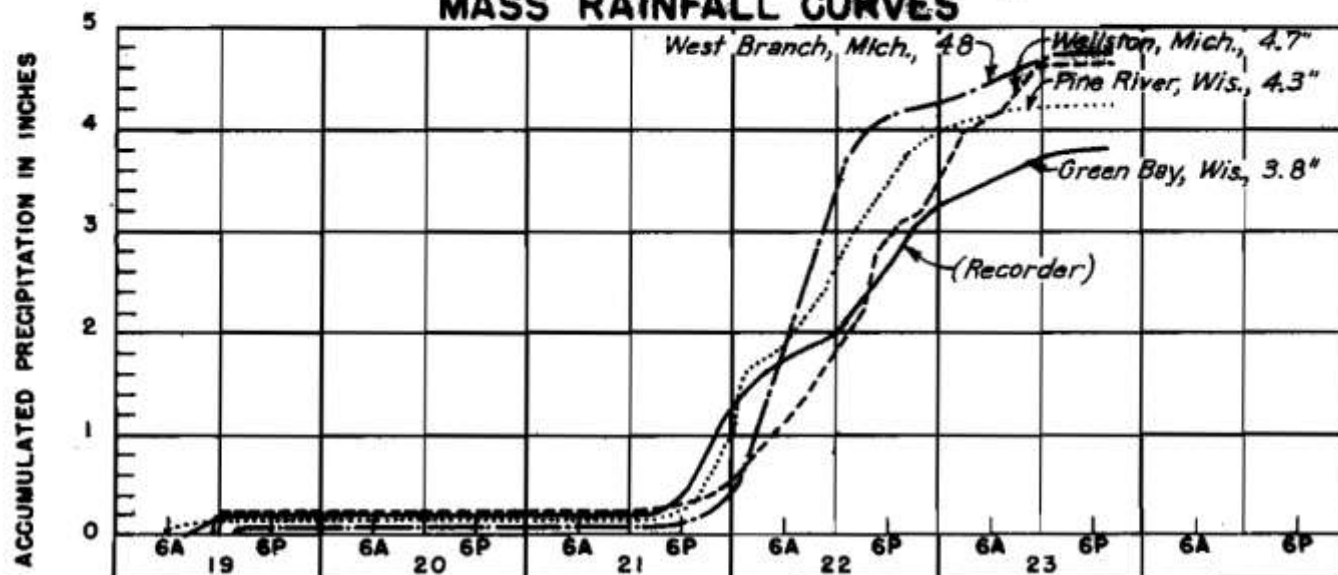
STORM STUDIES - ISOHYETAL MAP

Storm of 2-4 May 1919 Assignment MR 2-20Study Prepared by: Kansas City, Mo. District
Missouri River Division

MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAPStorm of 9-12 May 1920Assignment MR 4-17Study Prepared by: Omaha, Nebr. District
Missouri River Division**MASS RAINFALL CURVES**

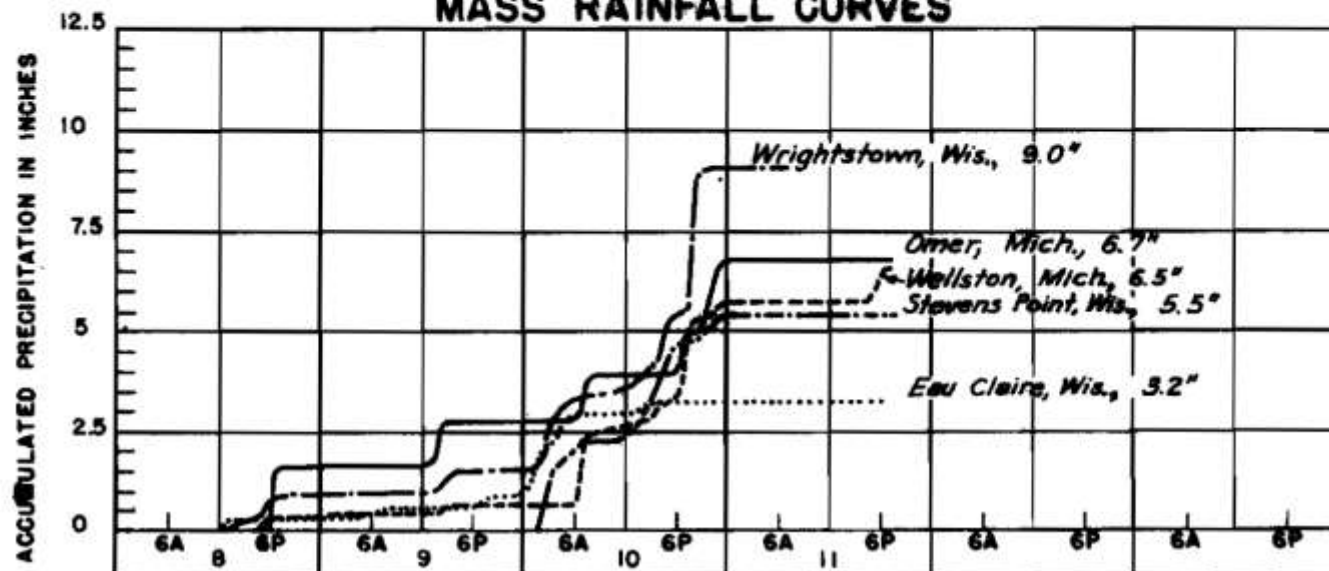
STORM STUDIES - ISOHYETAL MAPStorm of February 19-23, 1922 Assignment GL 4-17Study Prepared by: Milwaukee, Wis. District
Great Lakes Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

Storm of June 8-11, 1922 Assignment GL 2-21
Study Prepared by: Milwaukee, Wis. District
Great Lakes Division

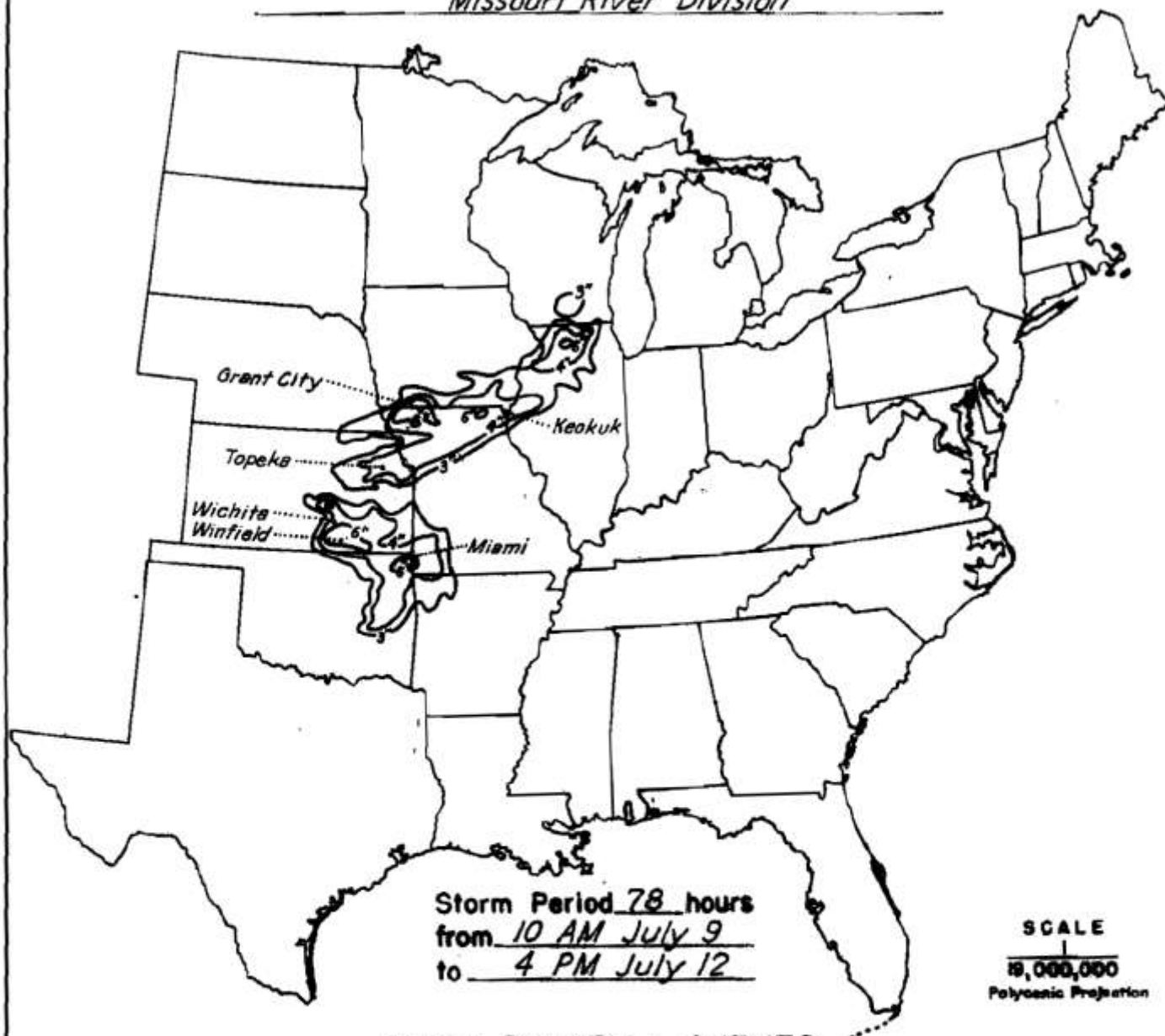


MASS RAINFALL CURVES

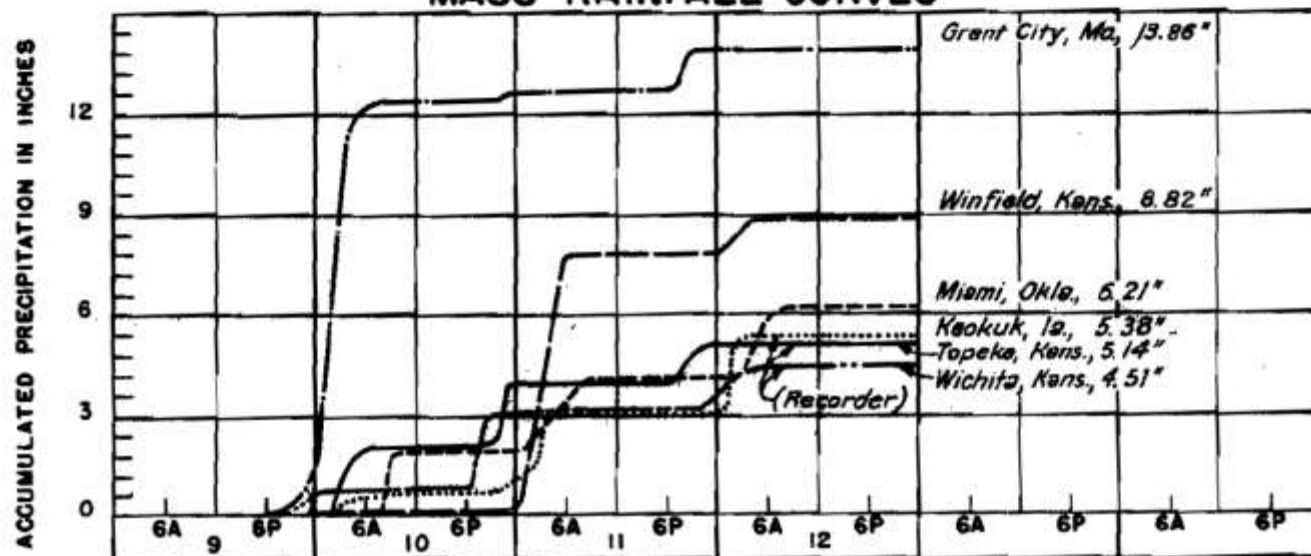


STORM STUDIES - ISOHYETAL MAP

Storm of July 9-12, 1922 Assignment MR 2-29
Study Prepared by: Kansas City, Mo. District
Missouri River Division



MASS RAINFALL CURVES

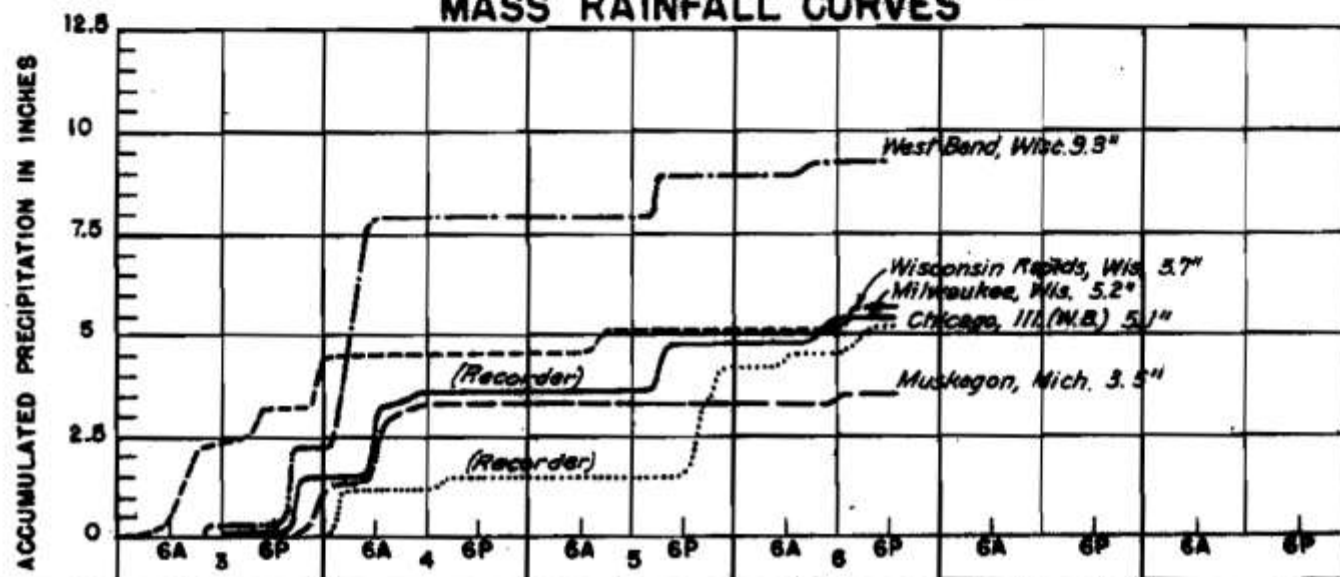


STORM STUDIES - ISOHYETAL MAP

Storm of August 3-6, 1924 Assignment GL 2-22
Study Prepared by: Milwaukee, Wis. District
Great Lakes Division



MASS RAINFALL CURVES

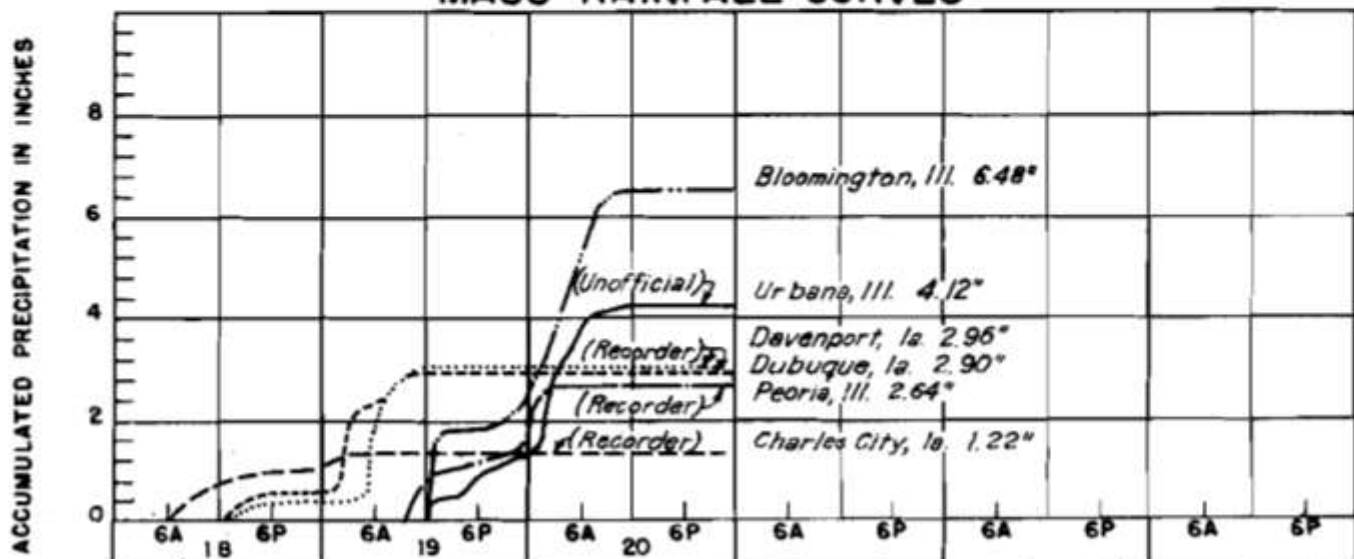


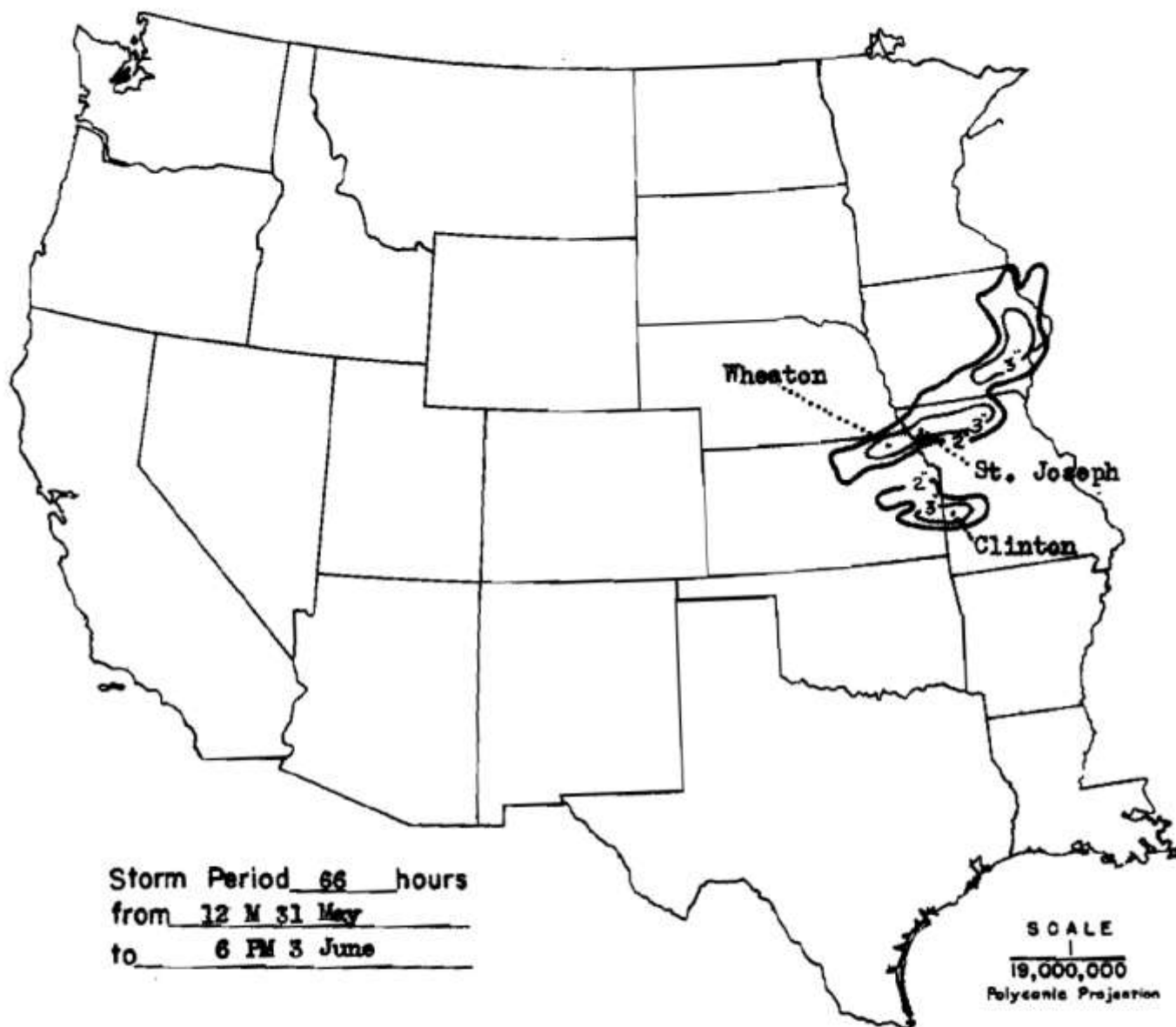
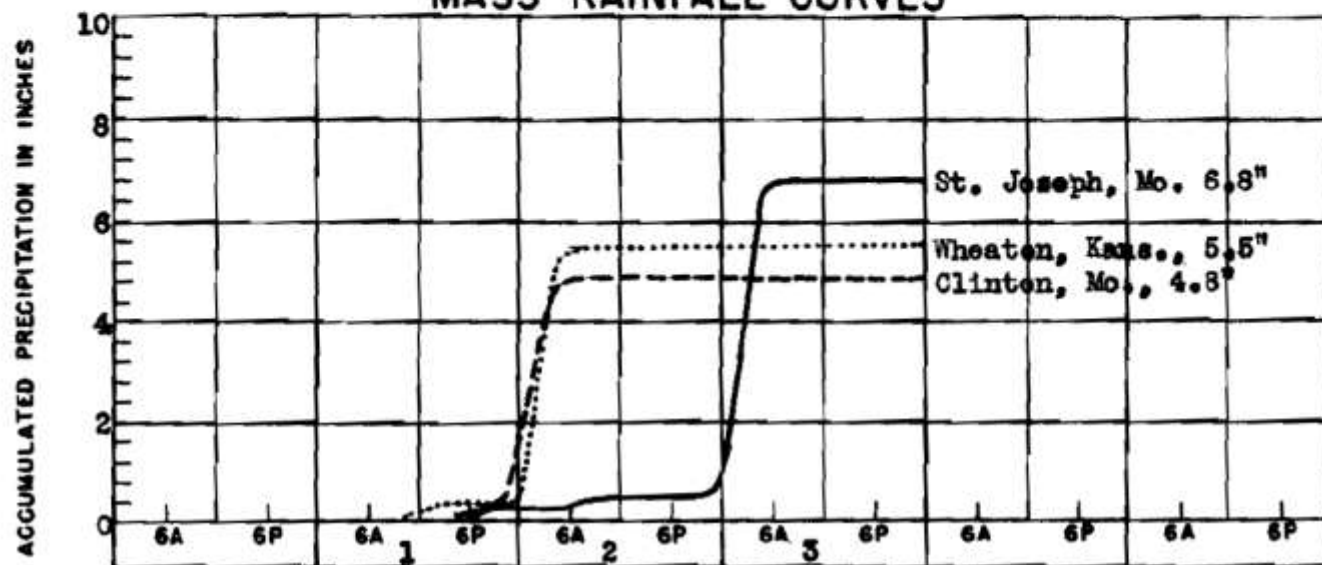
STORM STUDIES - ISOHYETAL MAP

Storm of August 18-20, 1924 Assignment UMV 4-11
Study Prepared by: Chicago, Ill. District
Great Lakes Division

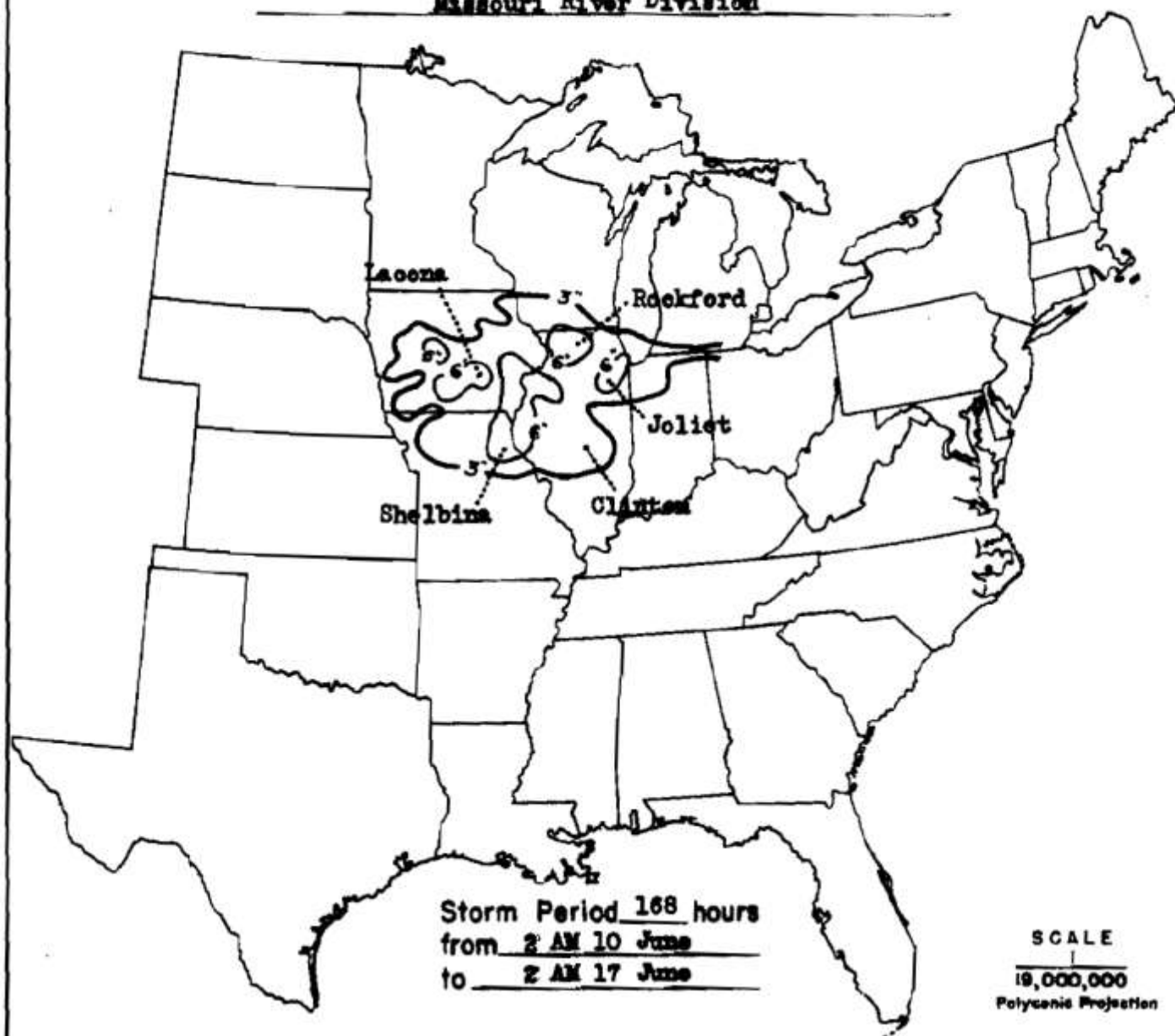


MASS RAINFALL CURVES

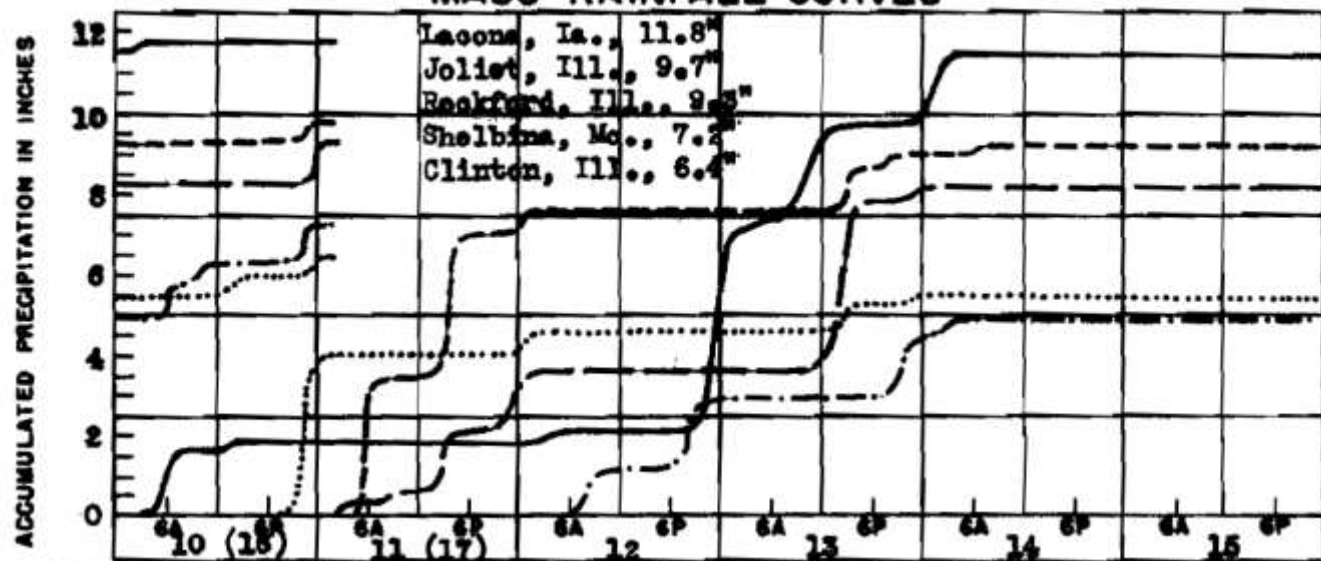


STORM STUDIES - ISOHYETAL MAPStorm of 1-3 June 1925Assignment MR 3-4Study Prepared by: Kansas City, Mo. District
Missouri River Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

Storm of 10-17 June 1928Assignment MR 3-7Study Prepared by: Kansas City, Mo. DistrictMissouri River Division

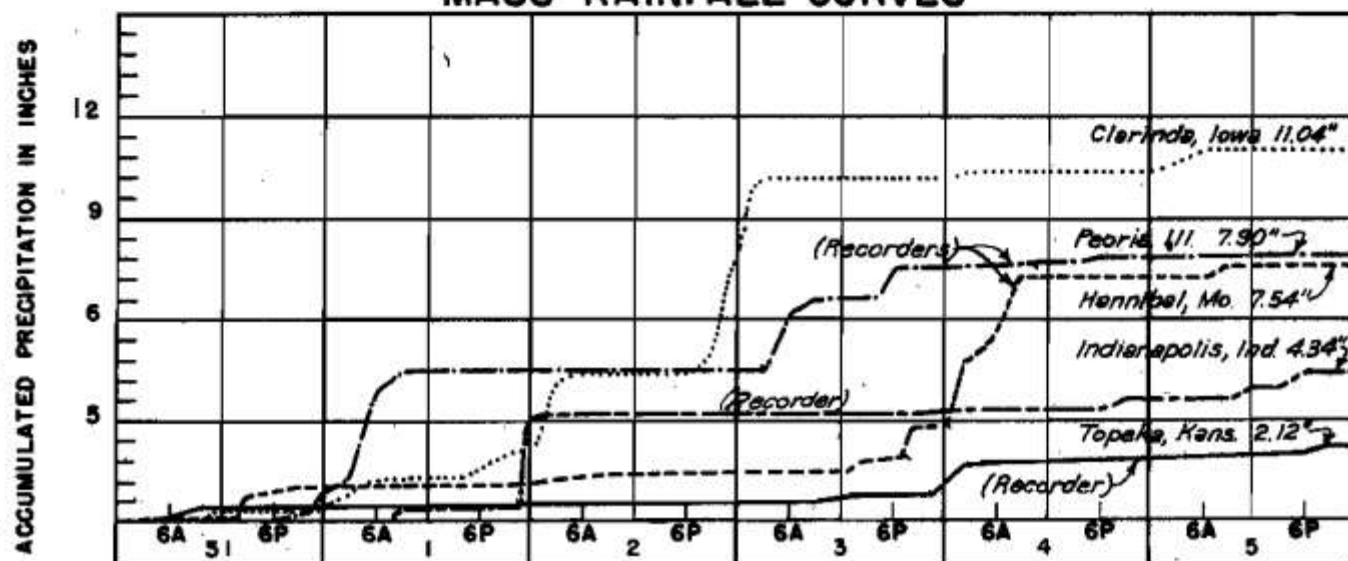
MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAP

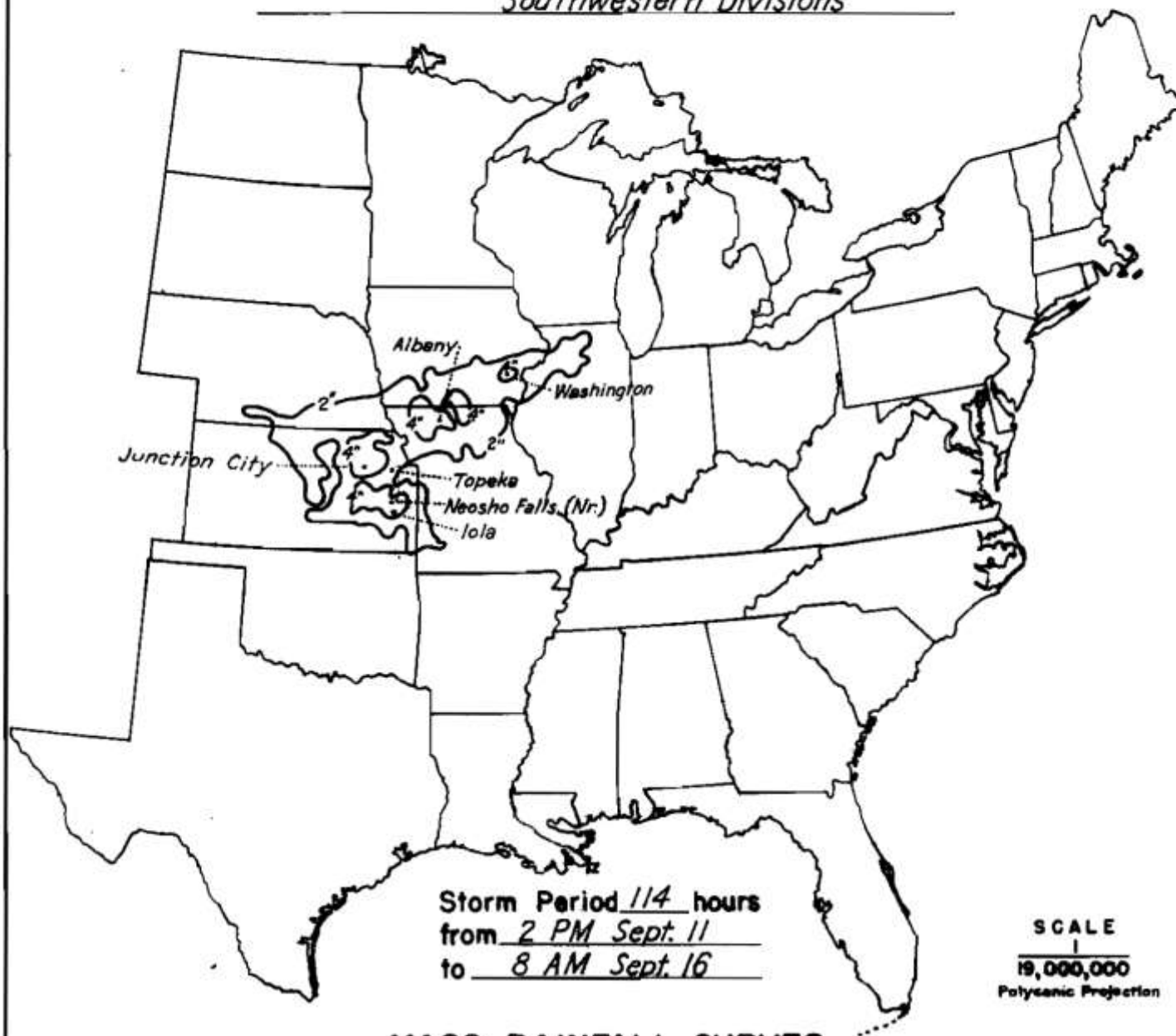
Storm of August 31 to September 5, 1926 Assignment MR 3-8Study Prepared by: Kansas City, Mo. District
Missouri River Division

MASS RAINFALL CURVES

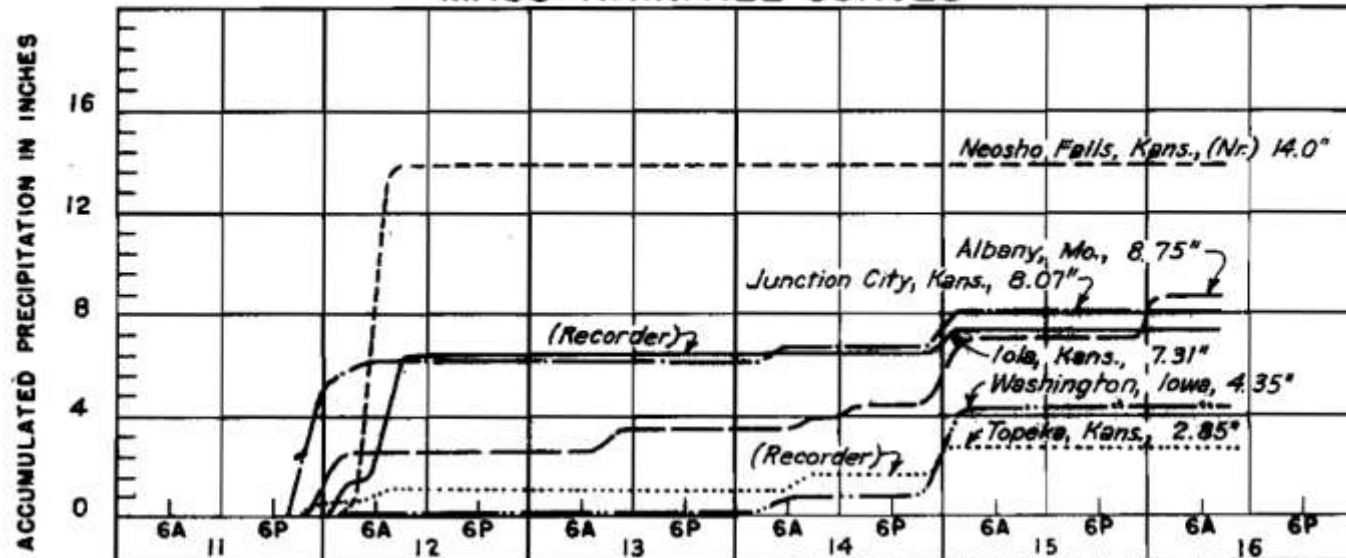


STORM STUDIES - ISOHYETAL MAP

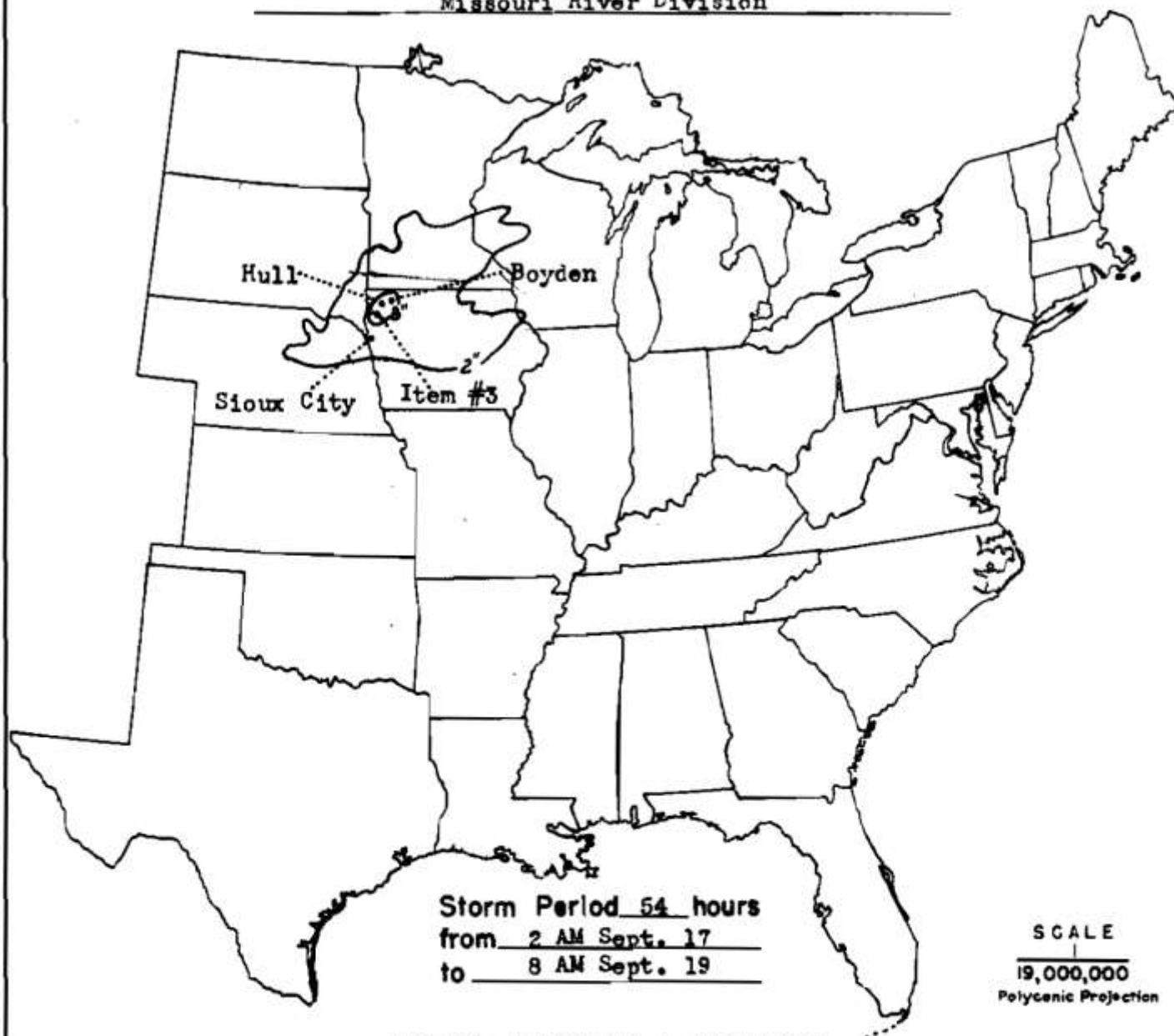
Storm of September 11-16 1926 Assignment SW 2-1
Study Prepared by: Tulsa, Okla. District
Southwestern Divisions



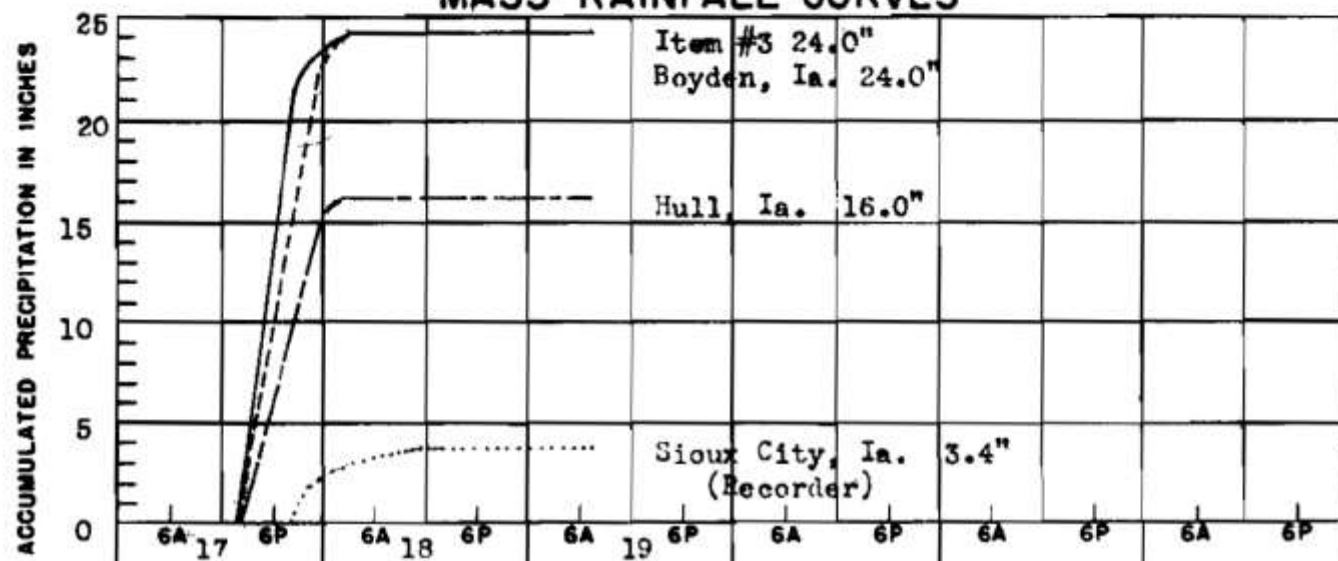
MASS RAINFALL CURVES



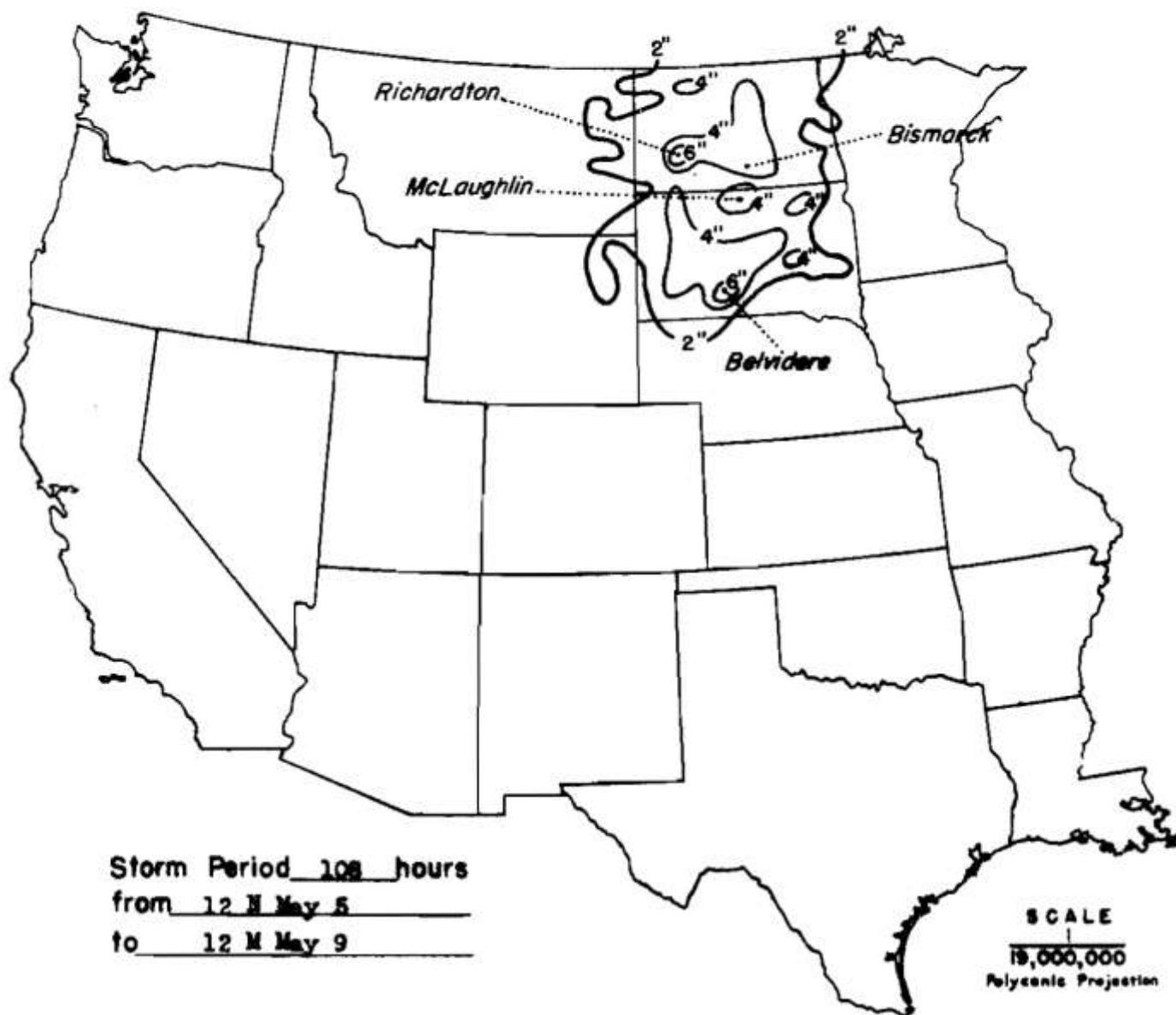
STORM STUDIES - ISOHYETAL MAP

Storm of 17-19 September 1926 Assignment MR 4-24Study Prepared by: Omaha, Nebr. District
Missouri River Division

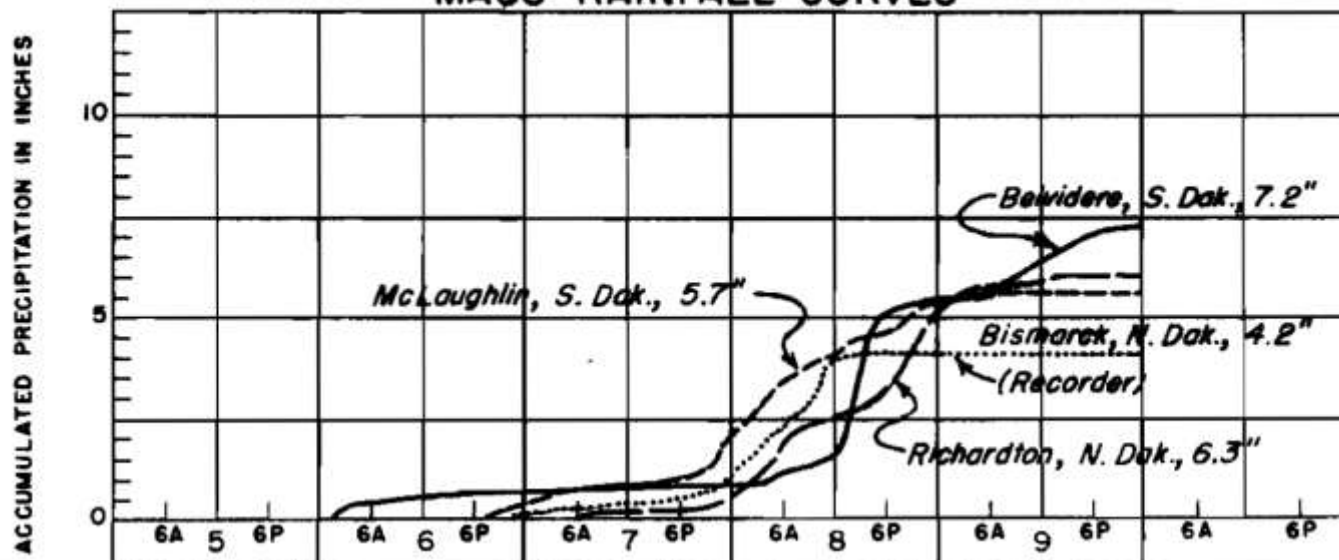
MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAP

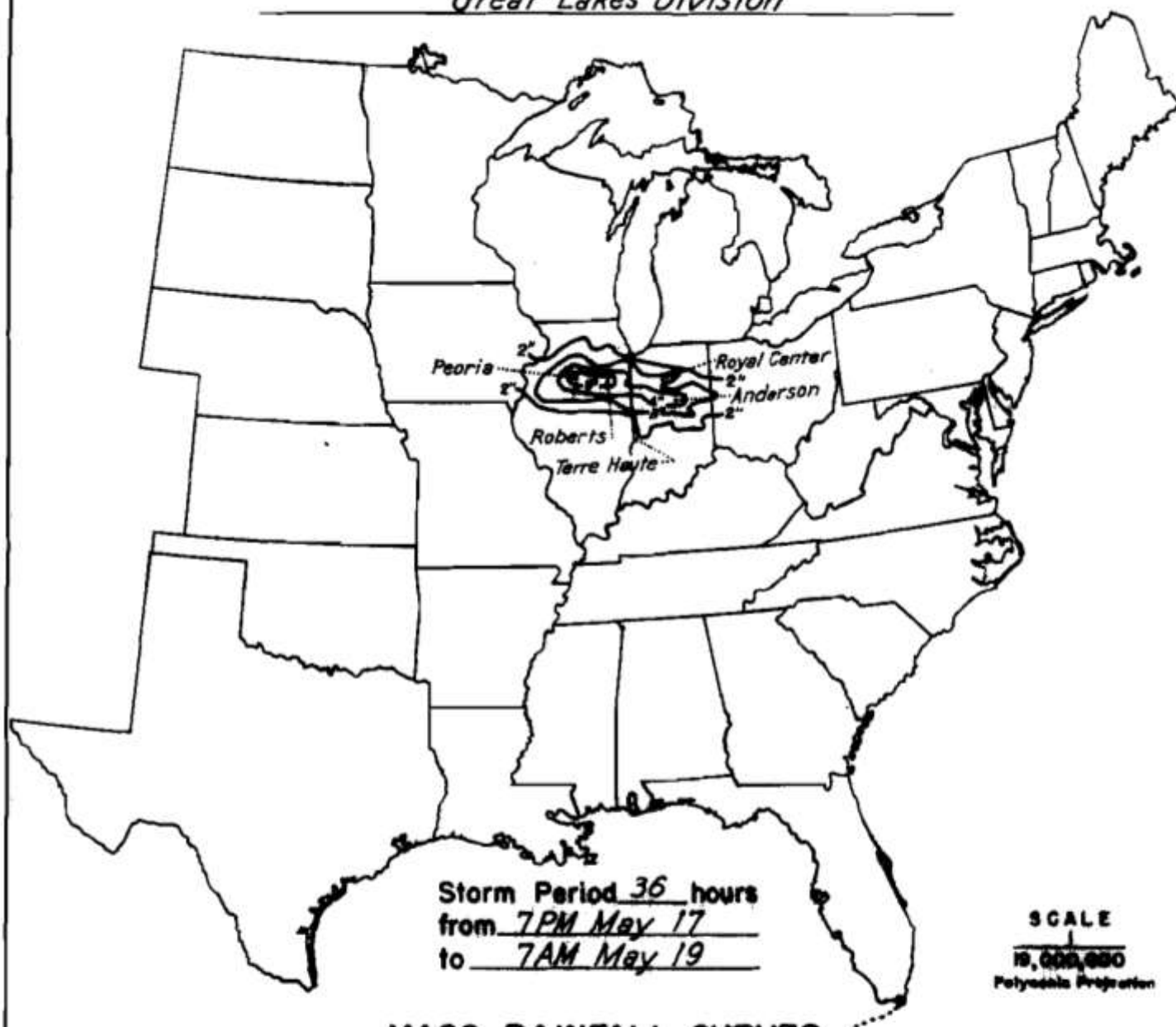
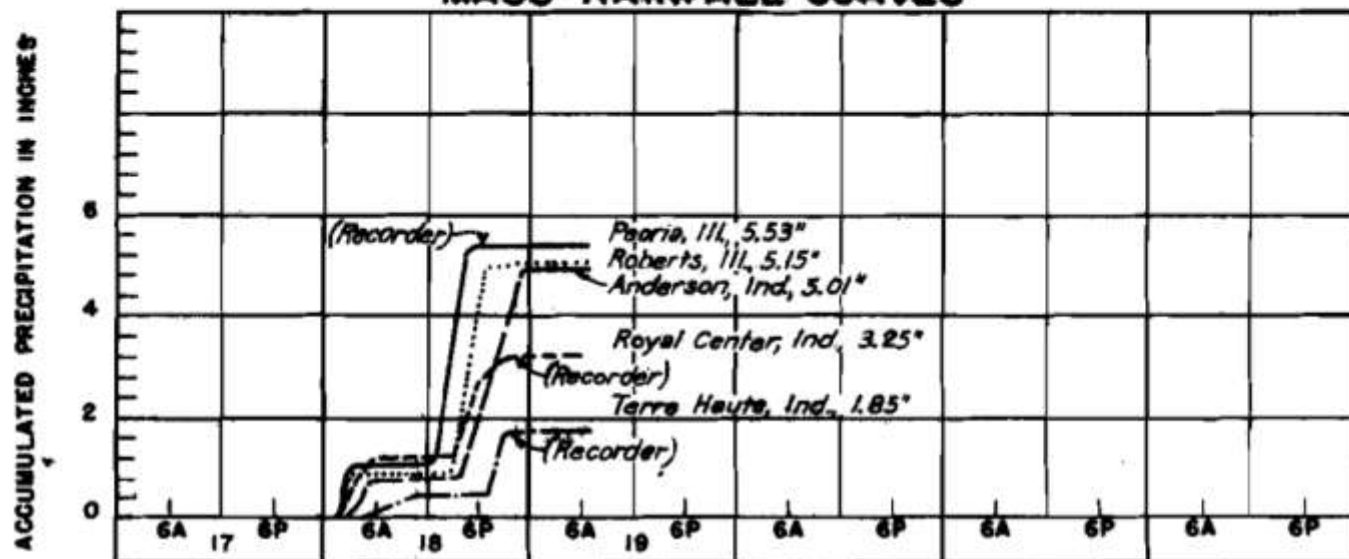
Storm of 5-9 May 1927 Assignment MR 4-25Study Prepared by: Omaha, Nebr. DistrictMissouri River Division

MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAP

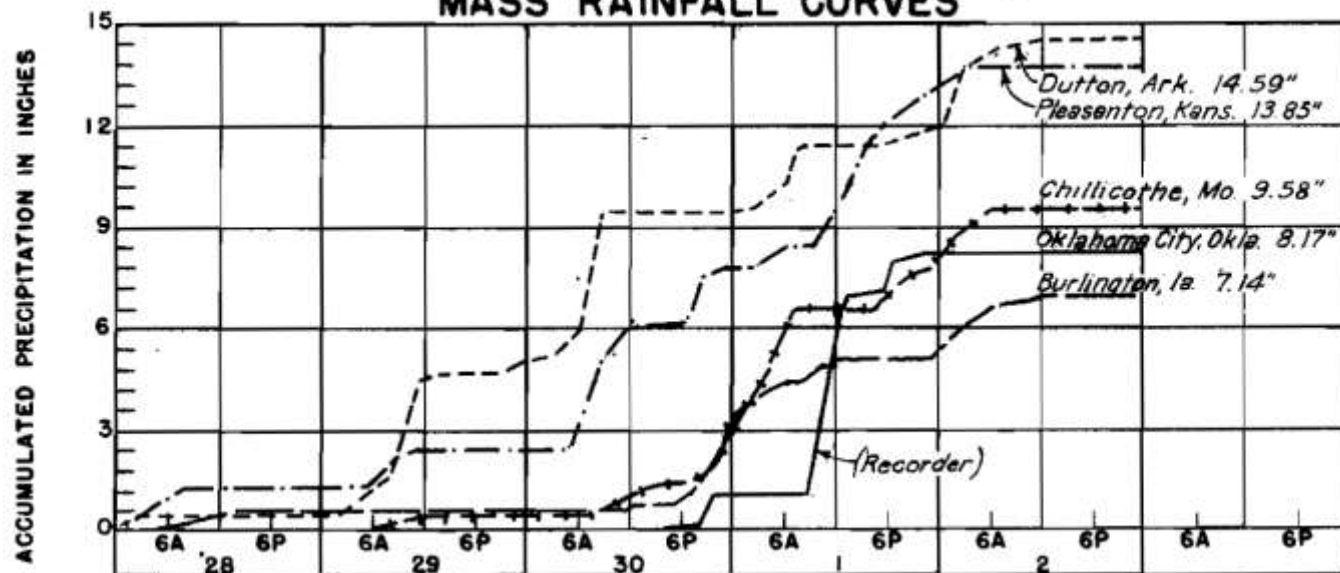
Storm of May 17-19, 1927 Assignment UMV 4-12
Study Prepared by: Chicago, Ill. District
Great Lakes Division

**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

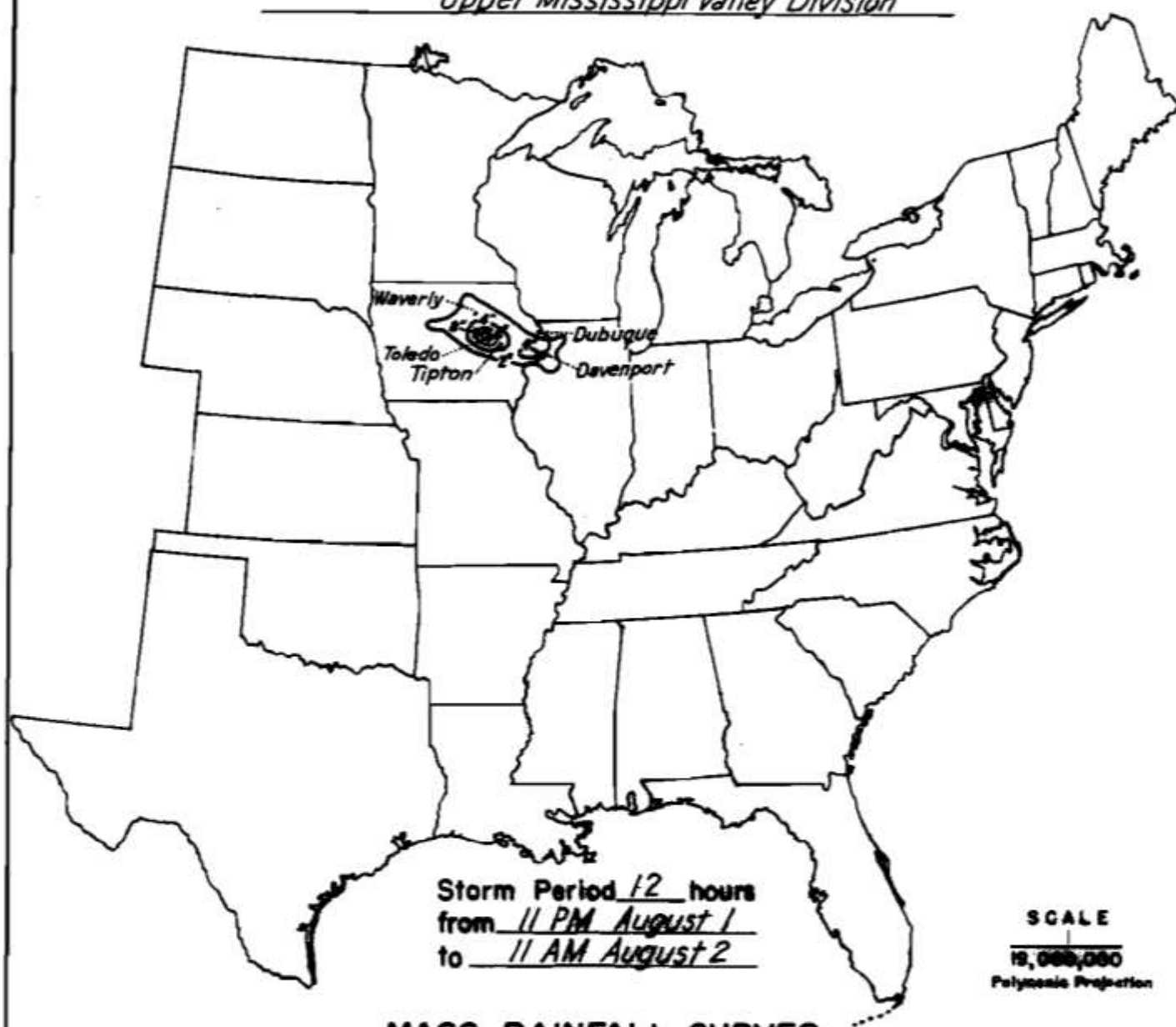
Storm of September 28-October 2, 1927 Assignment MR 3-14Study Prepared by: Kansas City, Mo. District
Missouri River Division

MASS RAINFALL CURVES

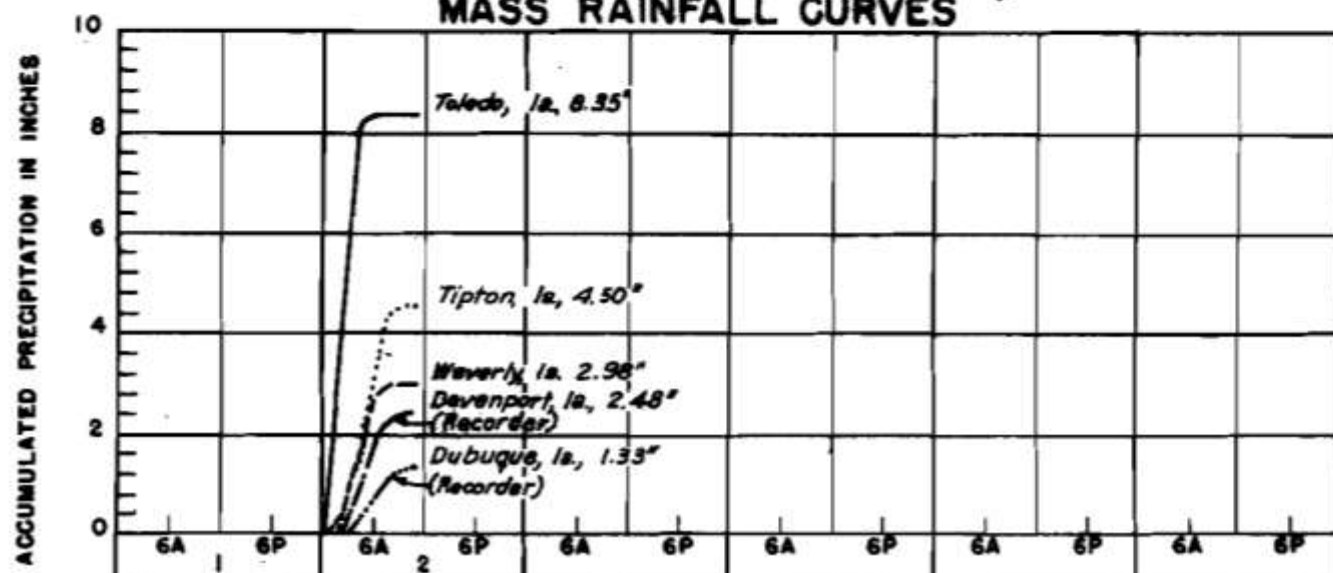


STORM STUDIES - ISOHYETAL MAP

Storm of August 1-2, 1929 Assignment UMV 2-17
Study Prepared by: Rock Island Ill., District
Upper Mississippi Valley Division

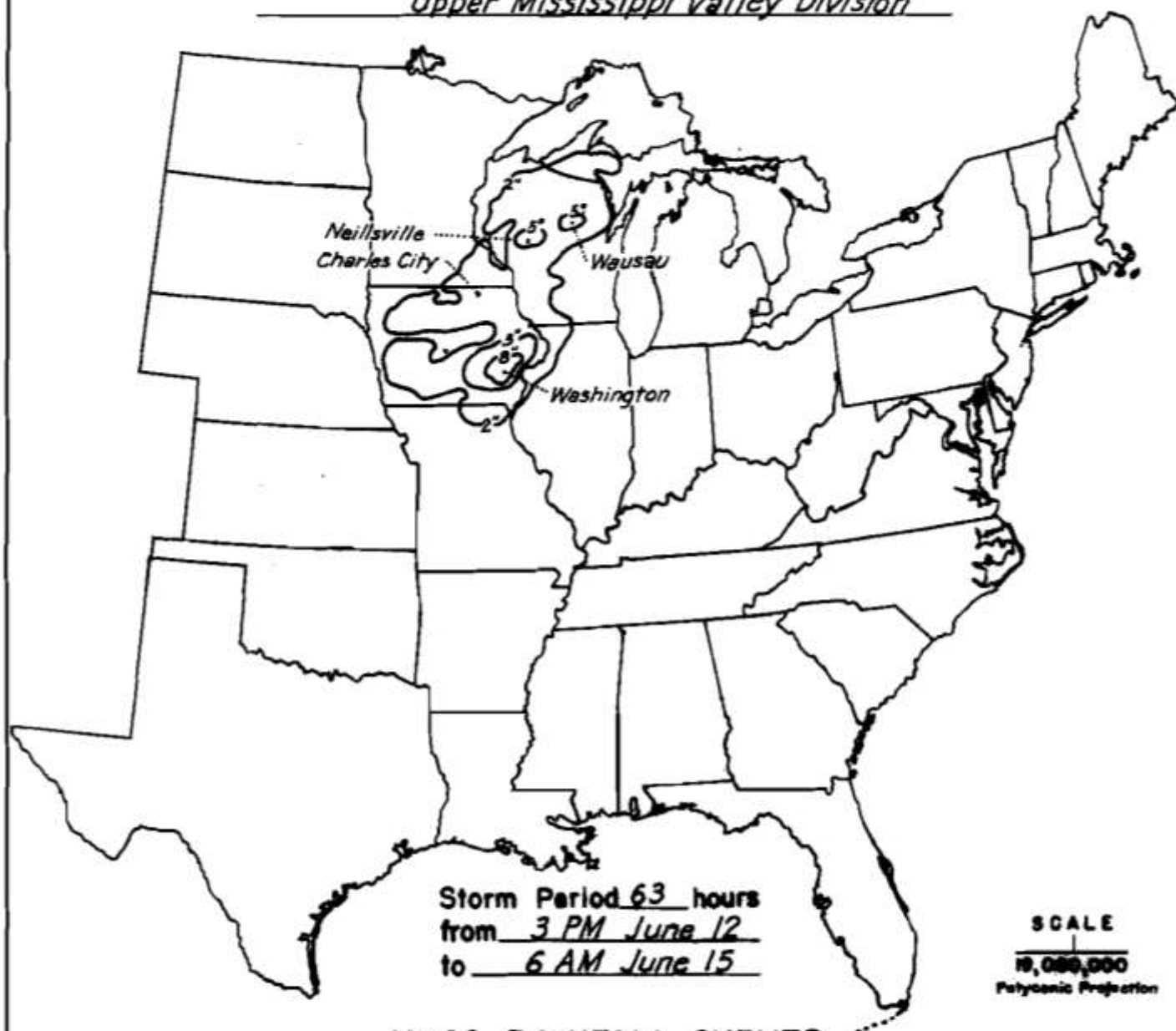


MASS RAINFALL CURVES

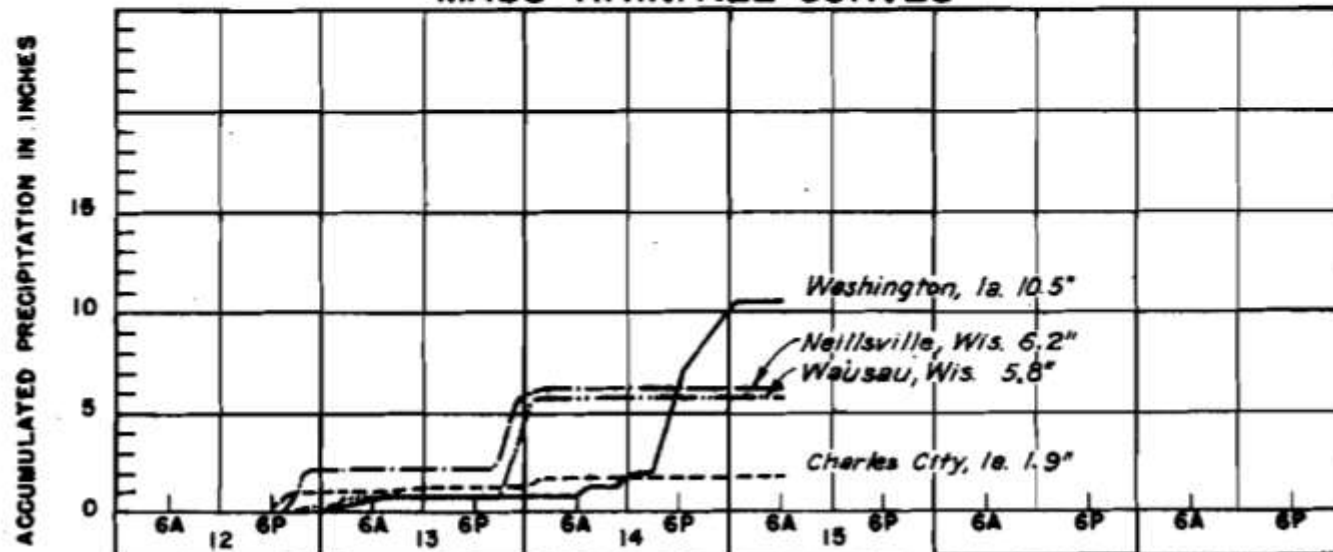


STORM STUDIES - ISOHYETAL MAP

Storm of June 12-15, 1930 Assignment UMV 2-14
Study Prepared by: Rock Island, Ill. District
Upper Mississippi Valley Division

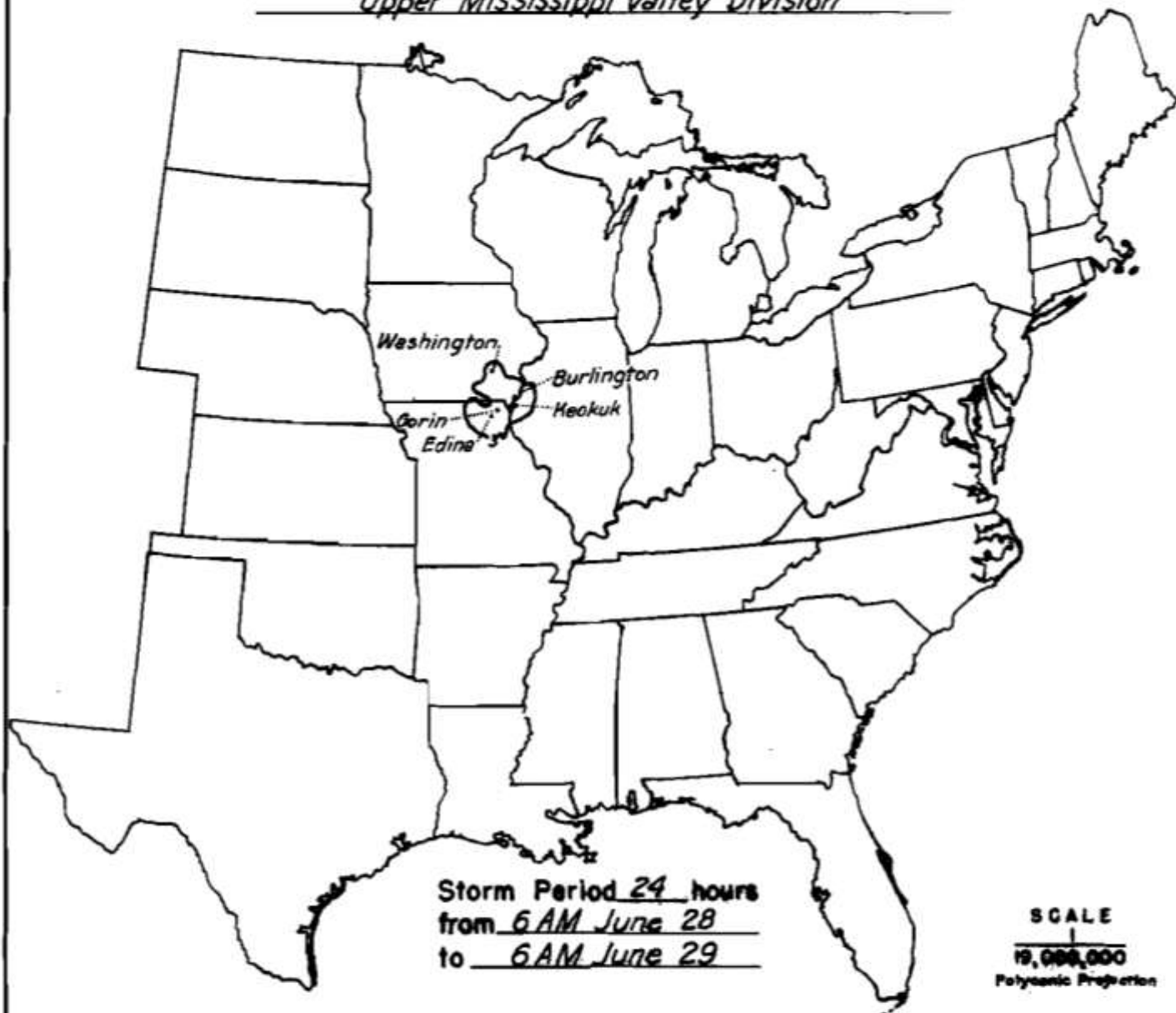
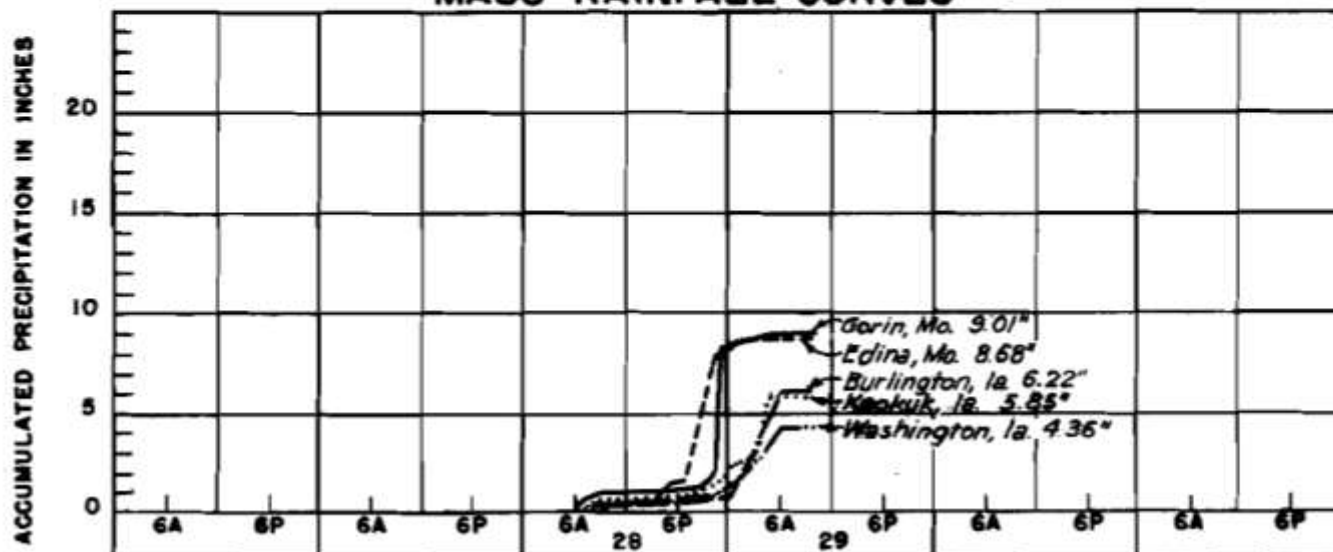


MASS RAINFALL CURVES

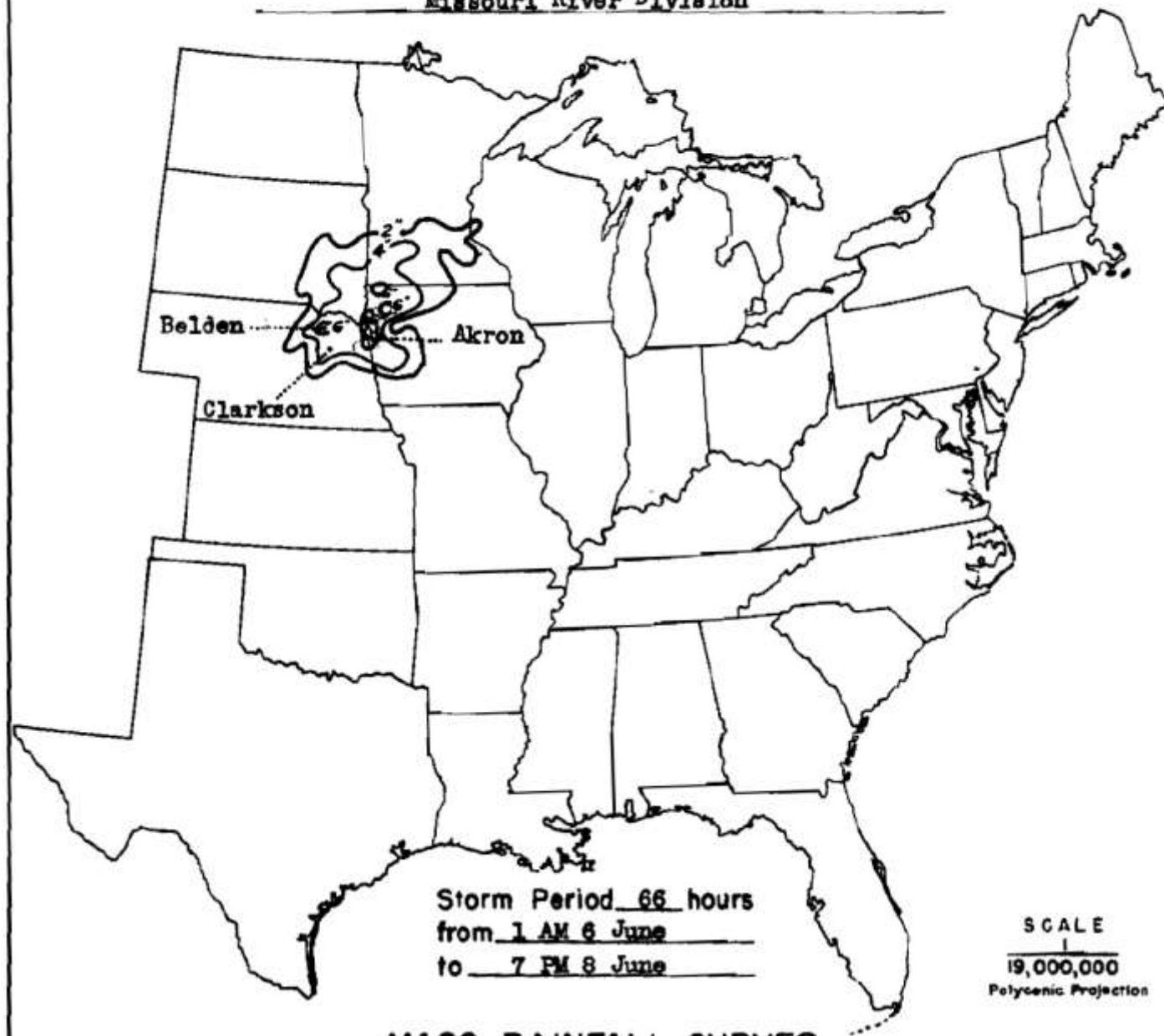


STORM STUDIES - ISOHYETAL MAP

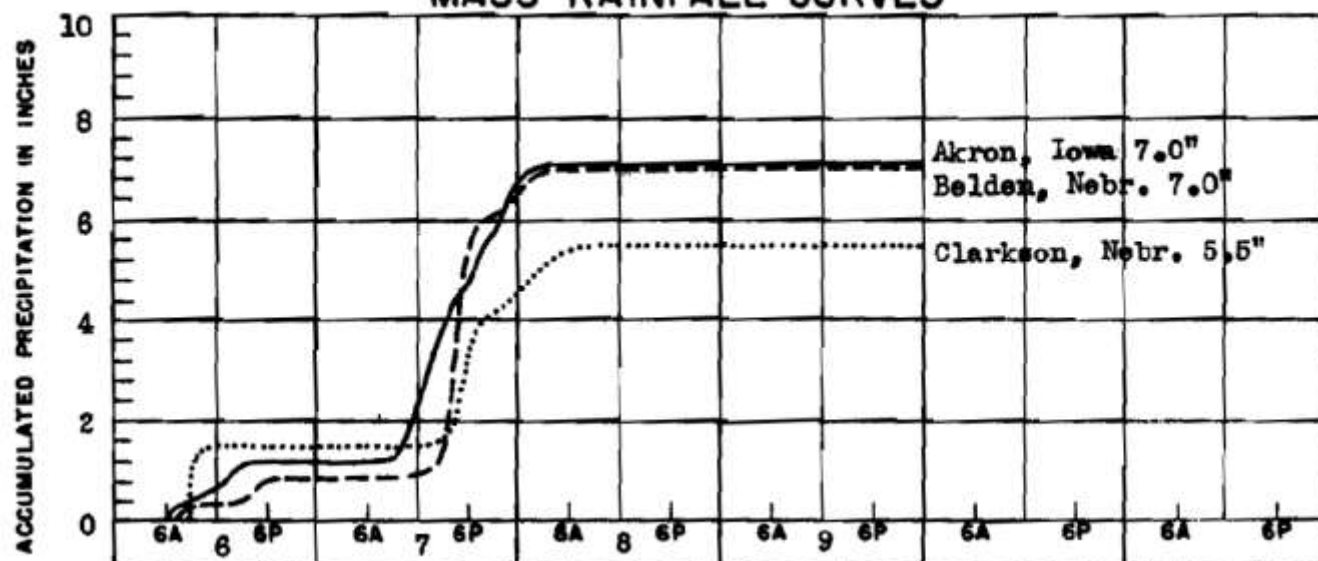
Storm of June 28-29, 1933 Assignment UMV 2-15
Study Prepared by: Rock Island, Ill. District
Upper Mississippi Valley Division

**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

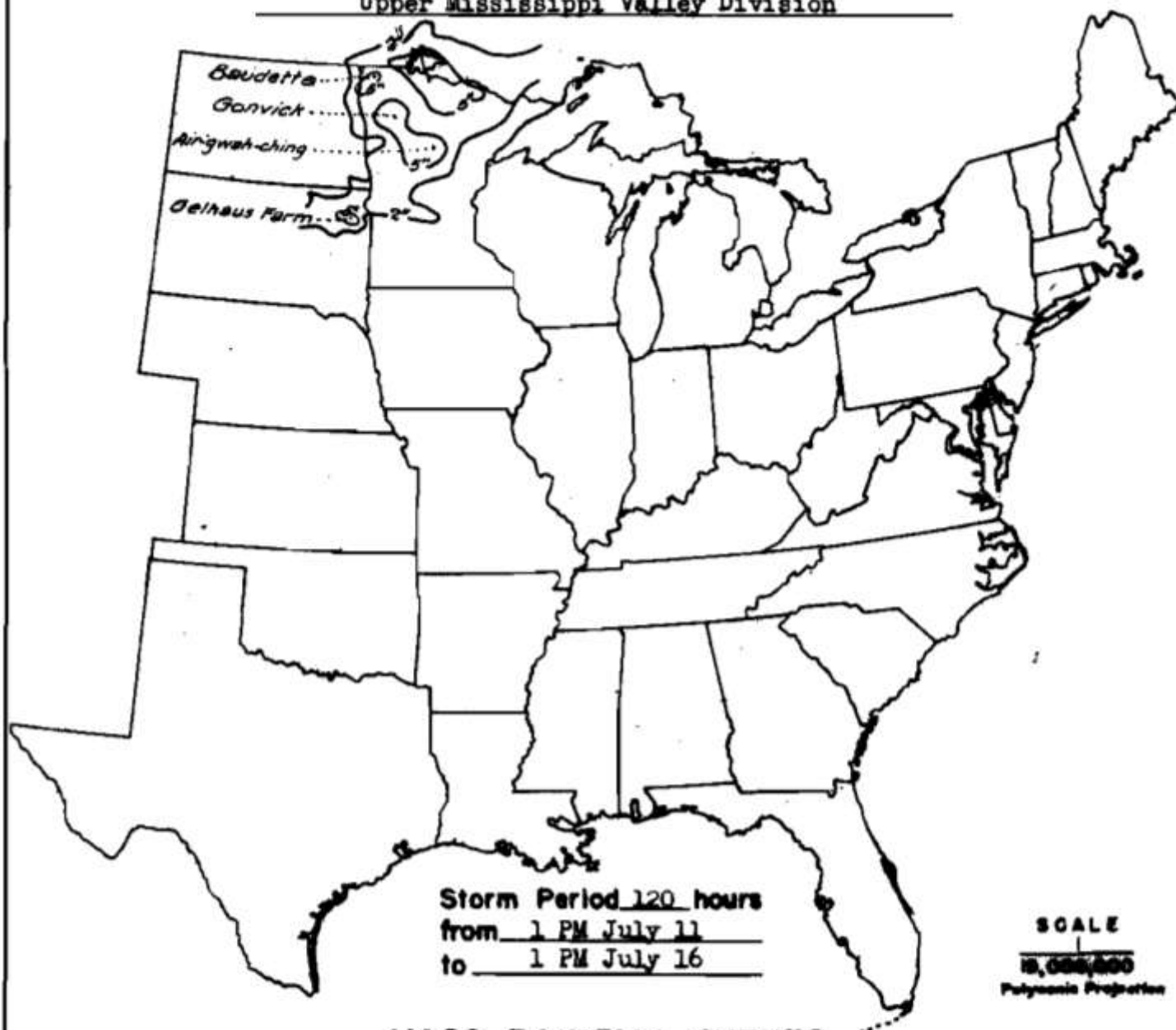
Storm of 6-8 June 1934Assignment MR 5-2Study Prepared by: Omaha, Nebr. DistrictMissouri River Division

MASS RAINFALL CURVES

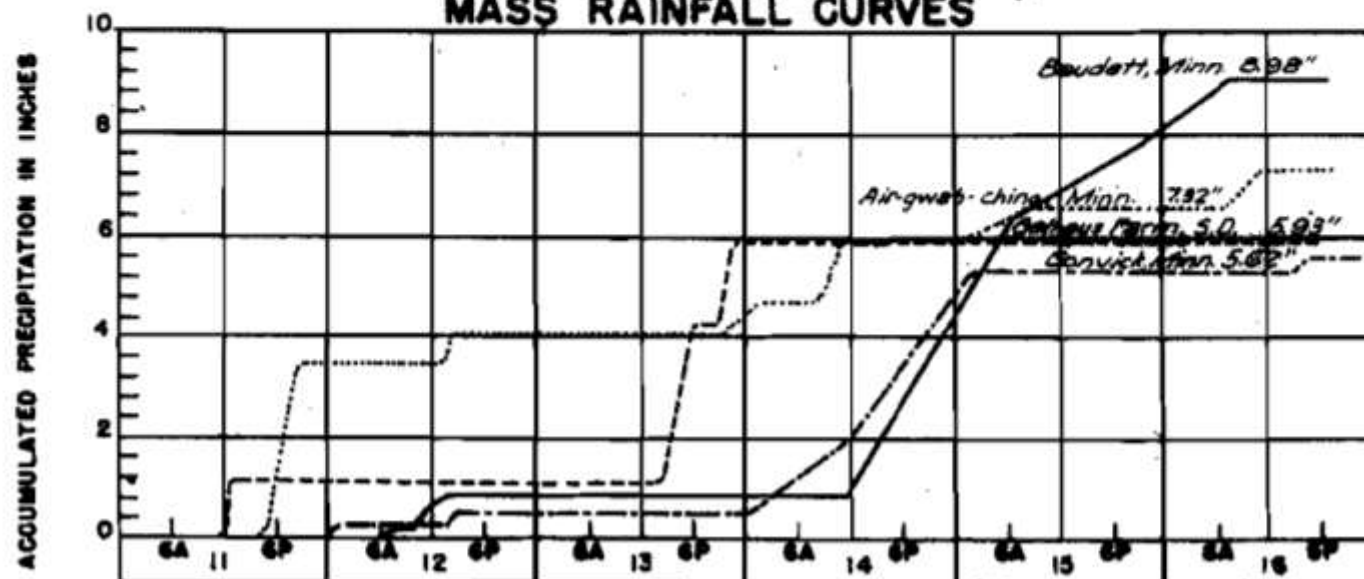


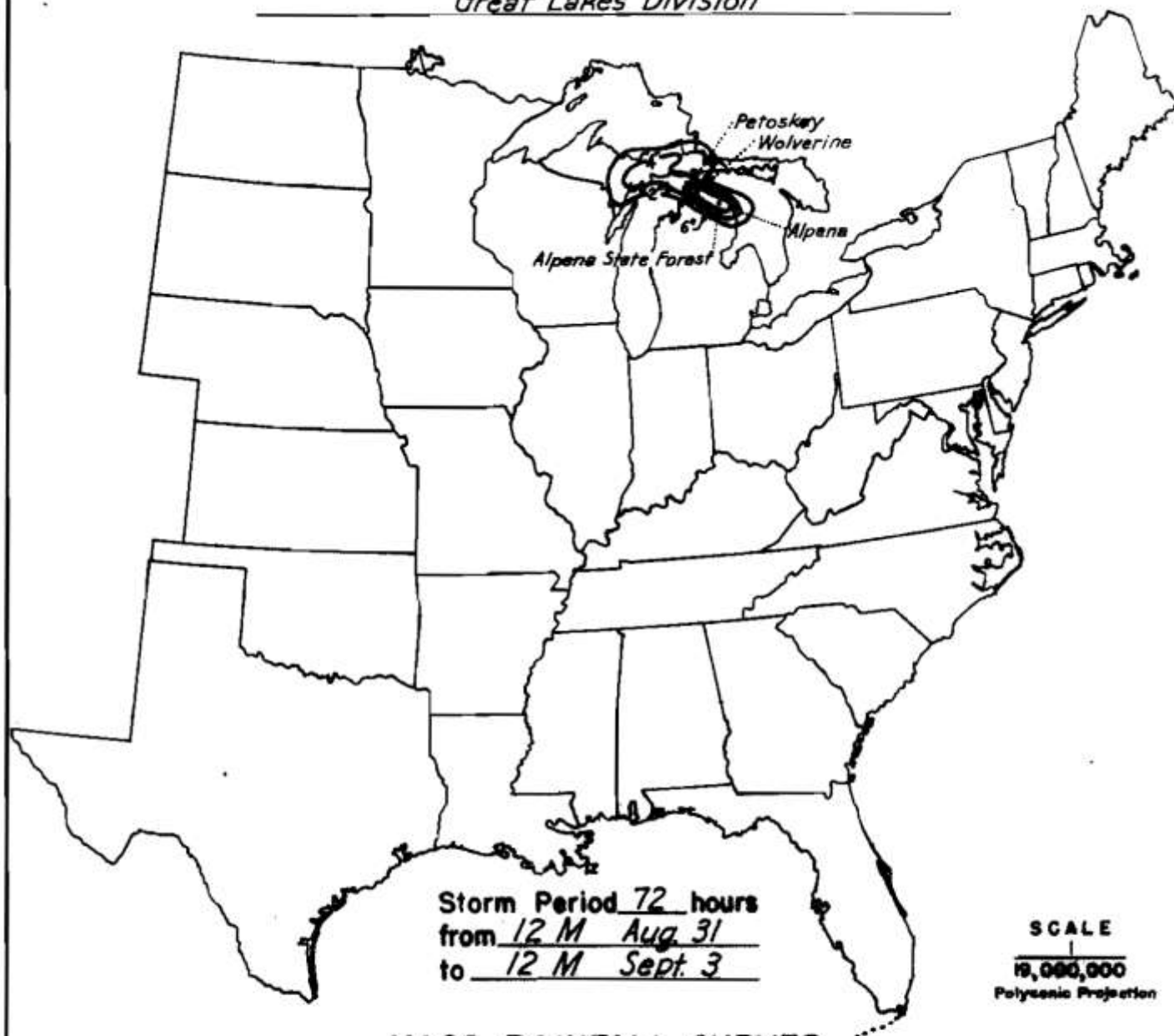
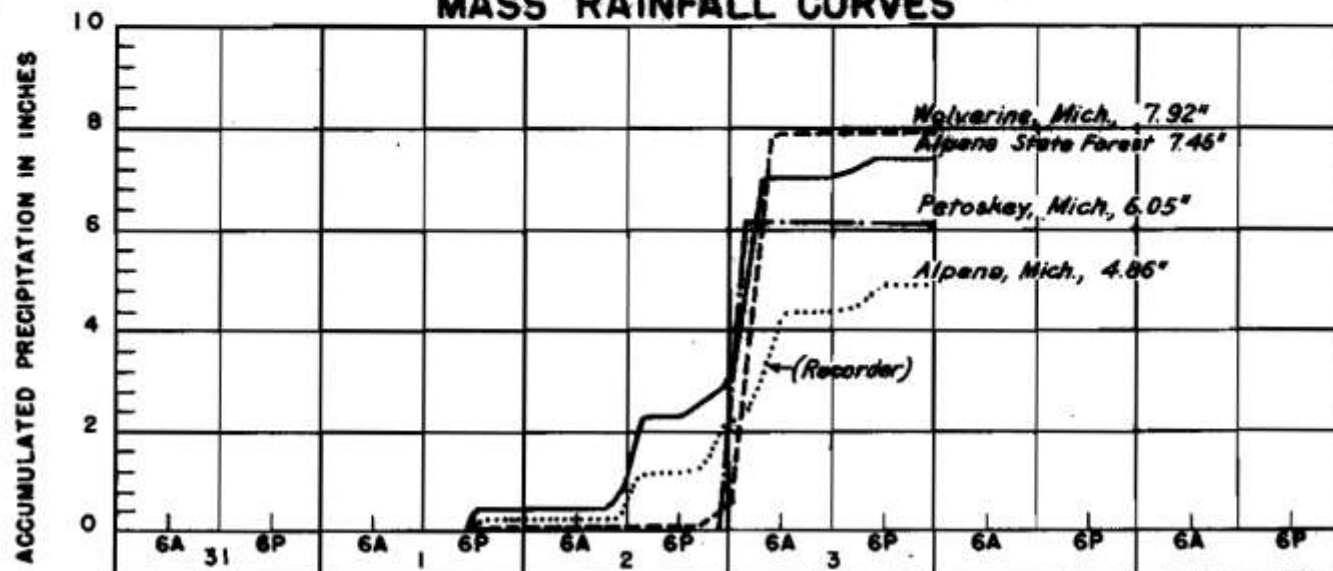
STORM STUDIES - ISOHYETAL MAP

Storm of July 11 - 16, 1937 Assignment UMV 1-20
 Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division

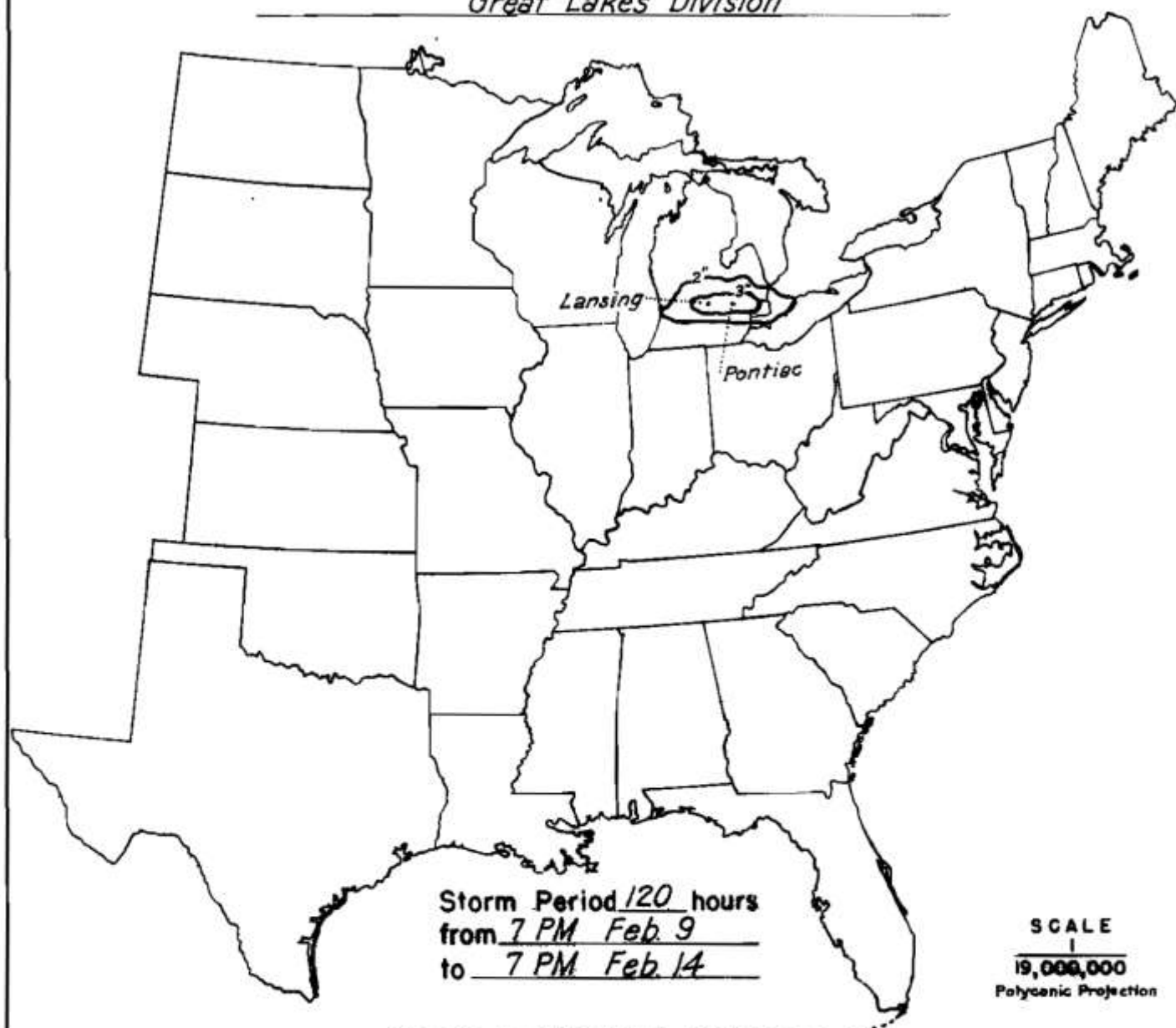


MASS RAINFALL CURVES

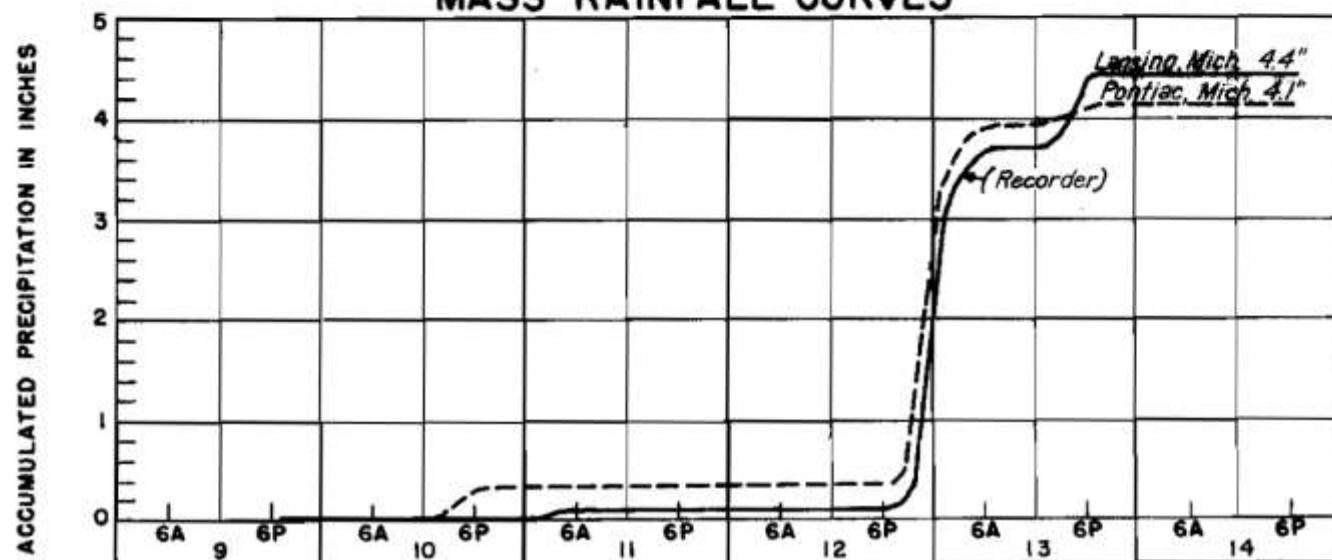


STORM STUDIES - ISOHYETAL MAPStorm of August 31 - September 3, 1937 Assignment GL 3-5Study Prepared by: Detroit, Mich. District
Great Lakes Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

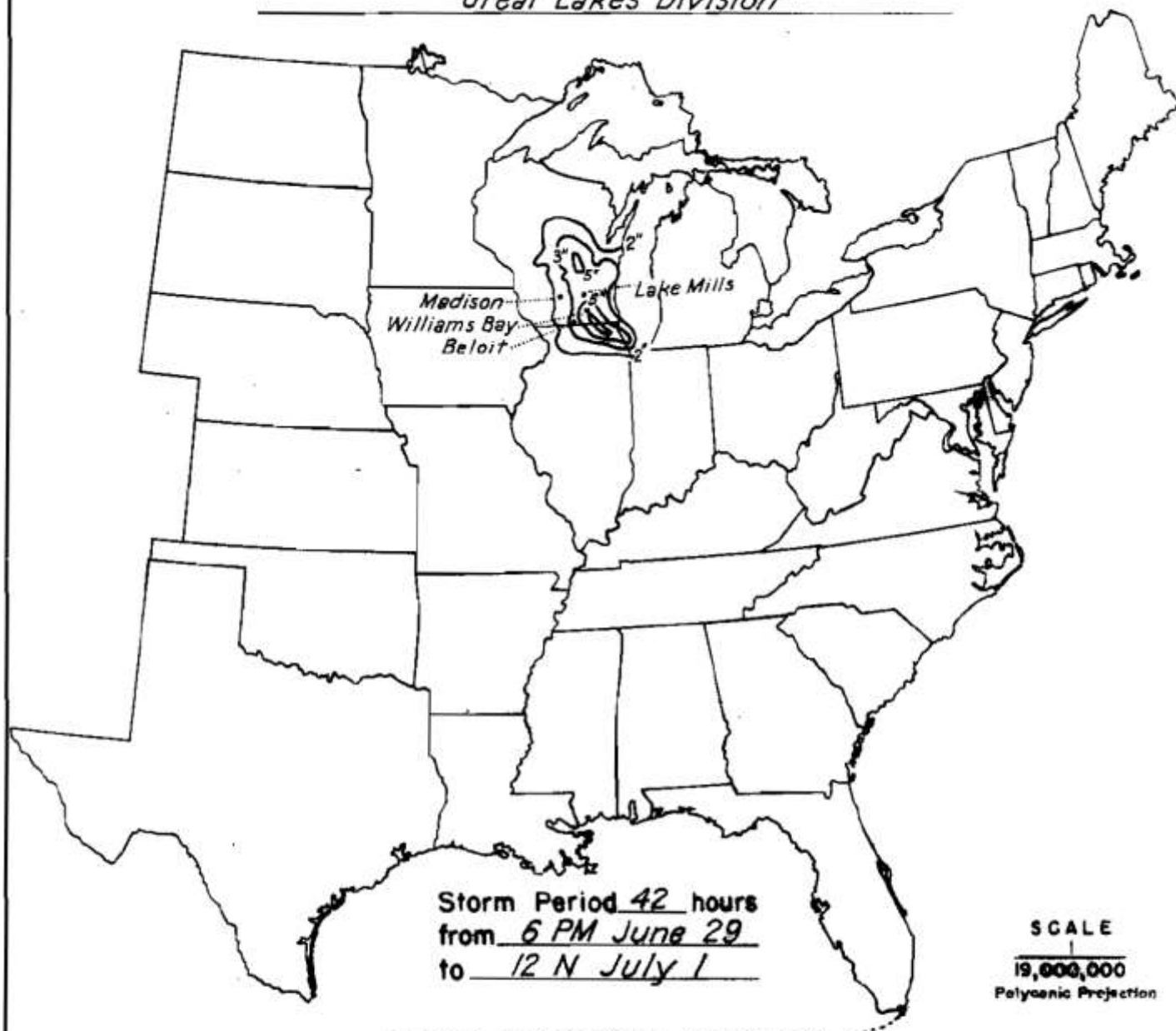
Storm of February 9-14, 1938 Assignment GL 2-27Study Prepared by: Detroit, Mich. District
Great Lakes Division

MASS RAINFALL CURVES

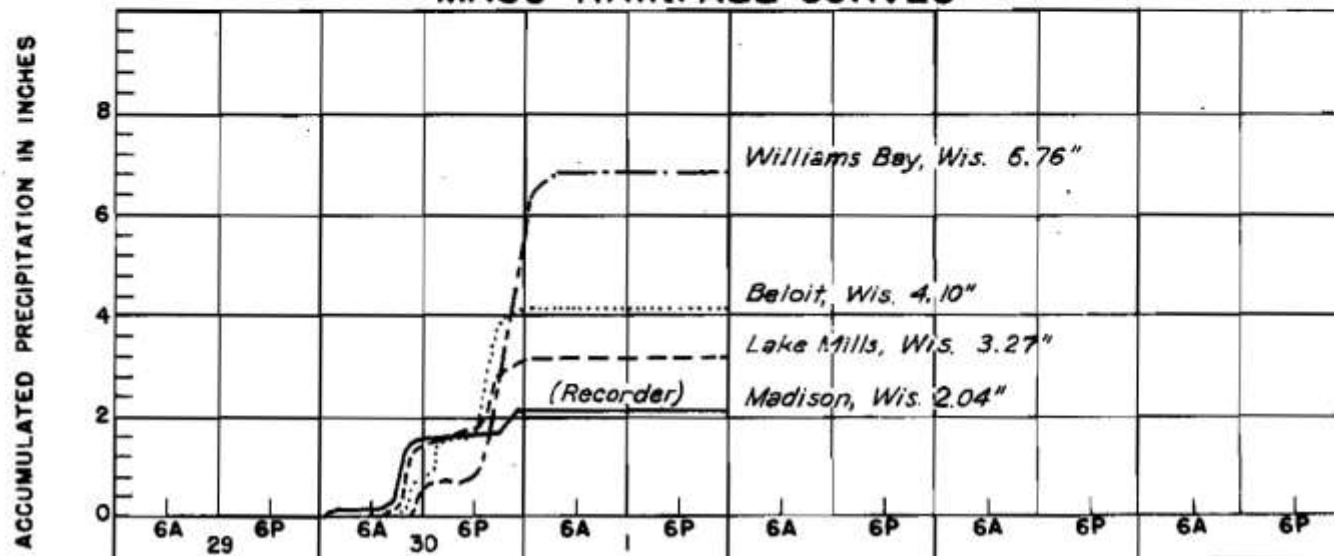


STORM STUDIES - ISOHYETAL MAP

Storm of June 29 - July 1, 1938 Assignment GL 3-11
Study Prepared by: Chicago, Ill. District
Great Lakes Division

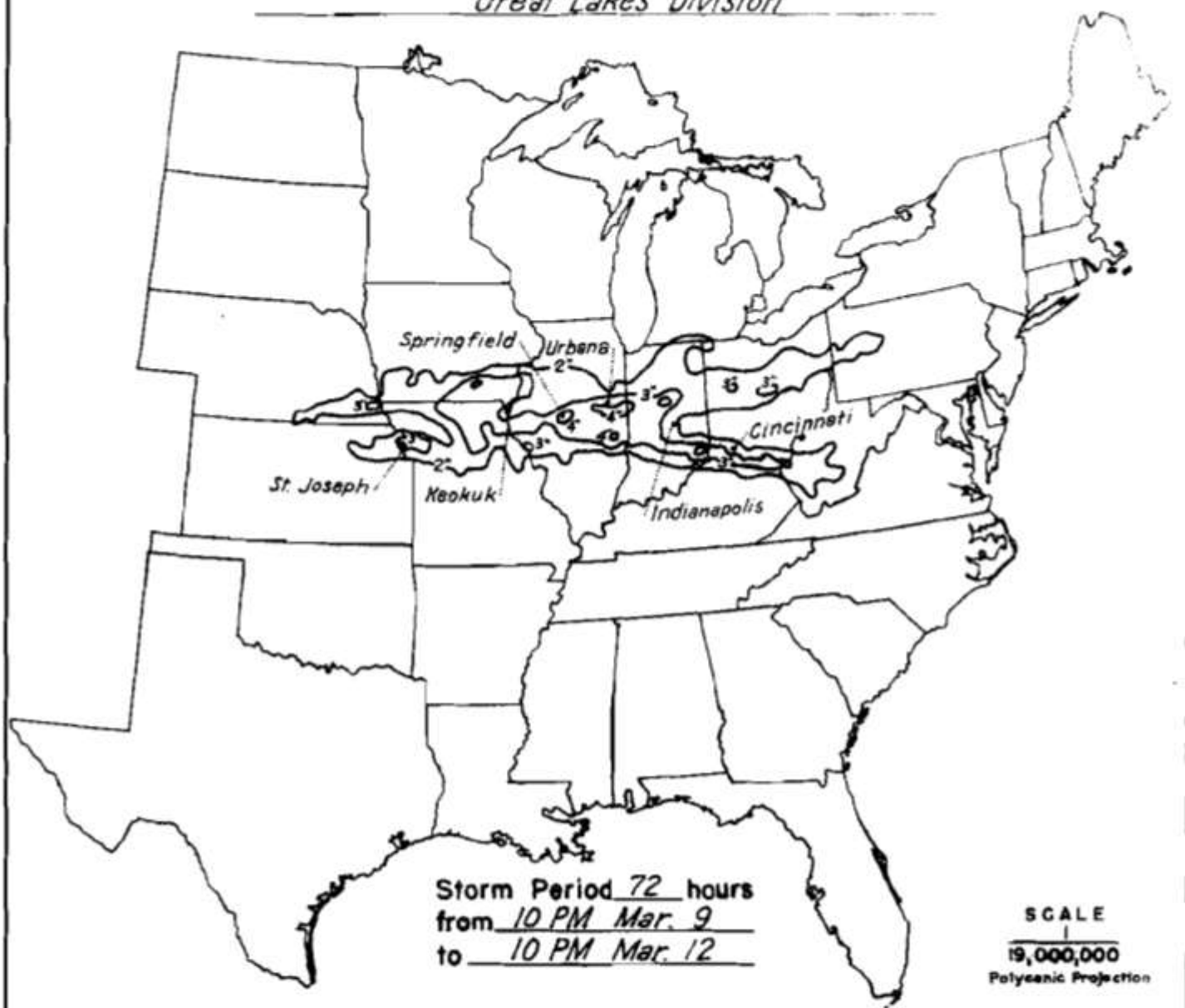


MASS RAINFALL CURVES

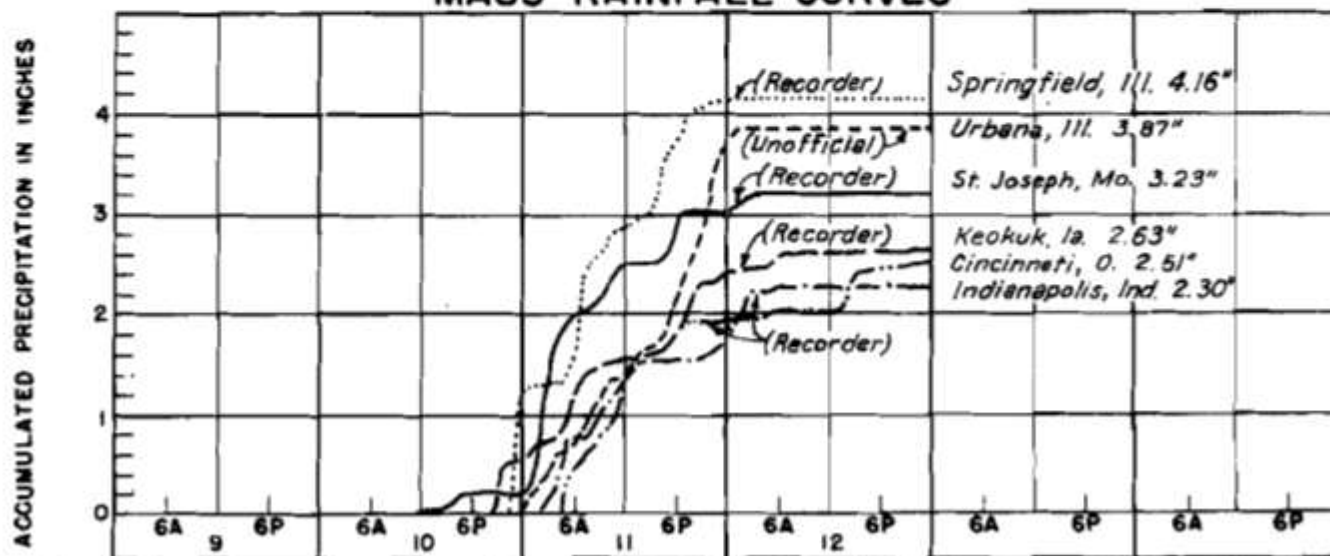


STORM STUDIES - ISOHYETAL MAP

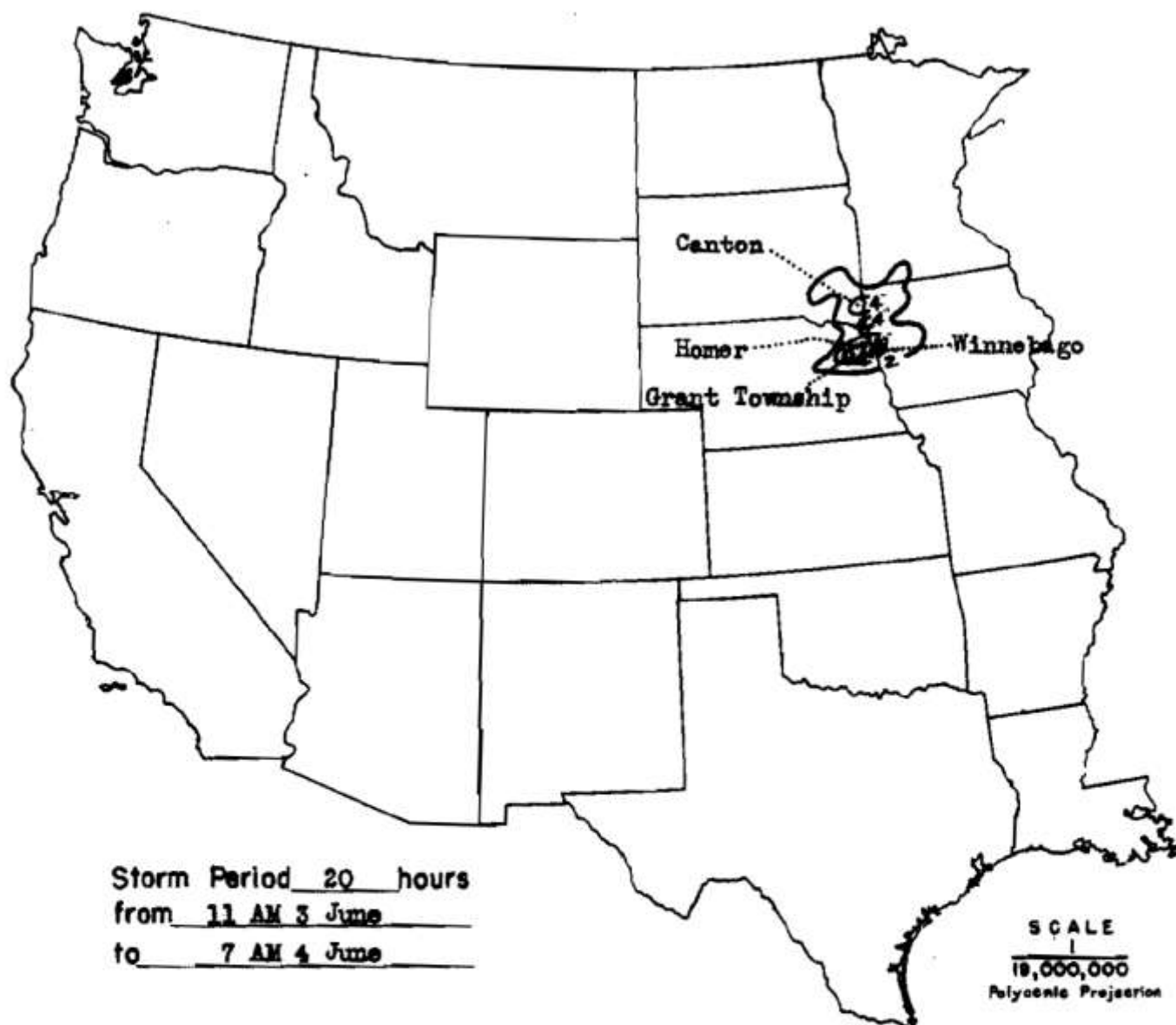
Storm of March 9-12, 1939 Assignment UMV 4-16
 Study Prepared by: Chicago, Ill. District
Great Lakes Division



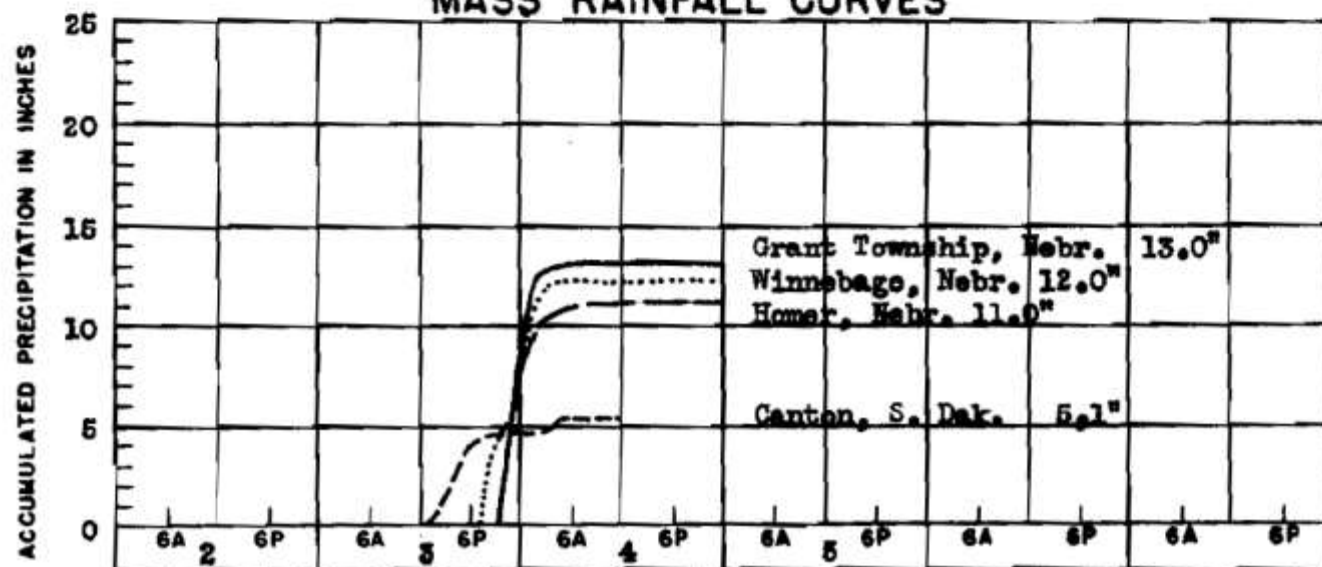
MASS RAINFALL CURVES

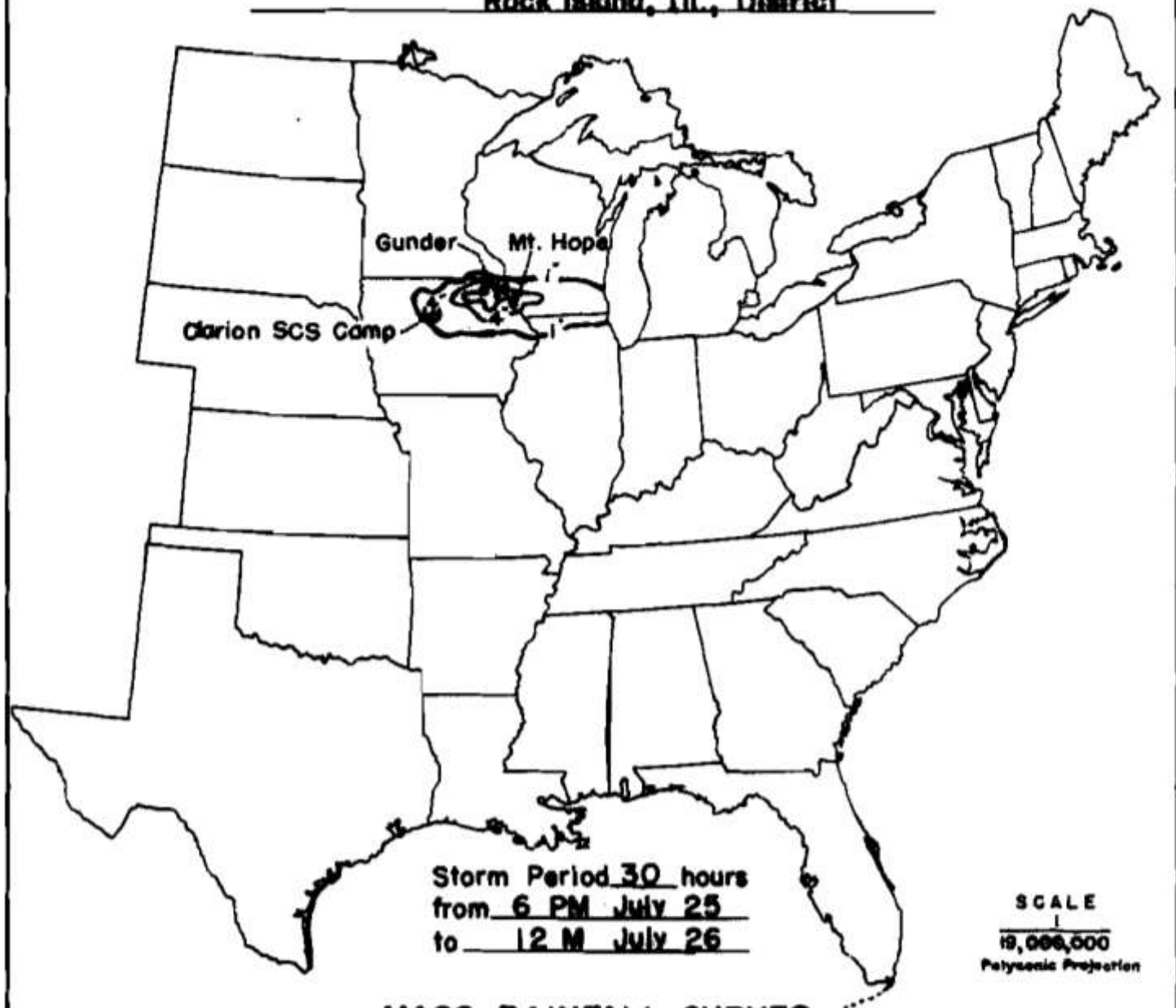
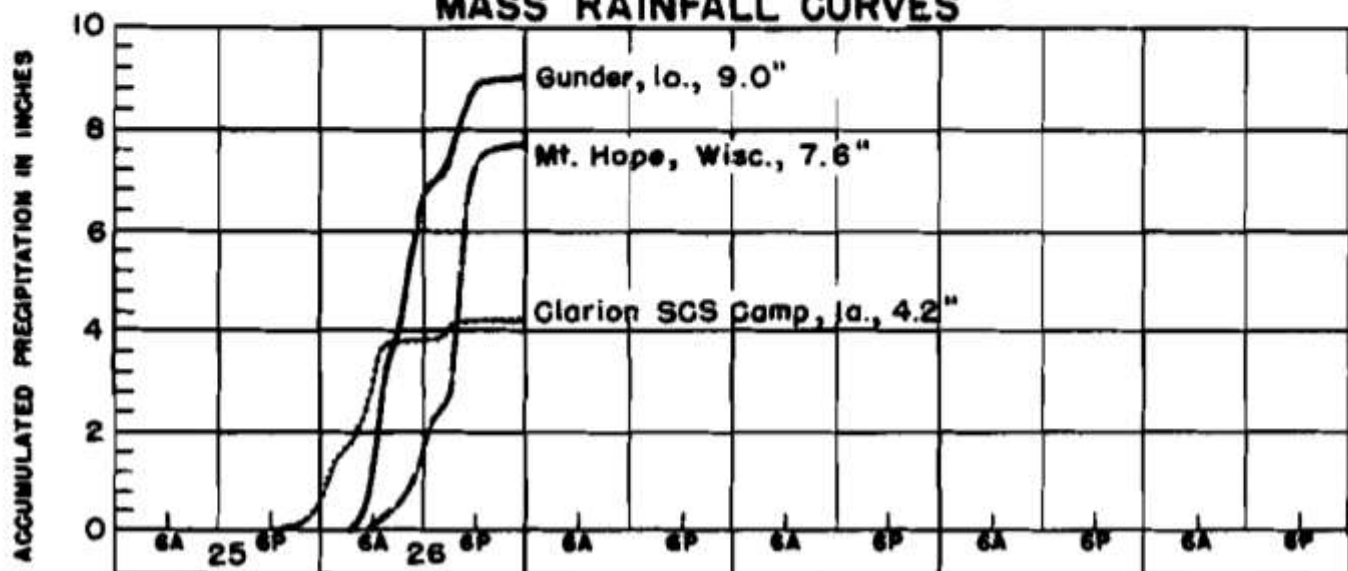


STORM STUDIES - ISOHYETAL MAP

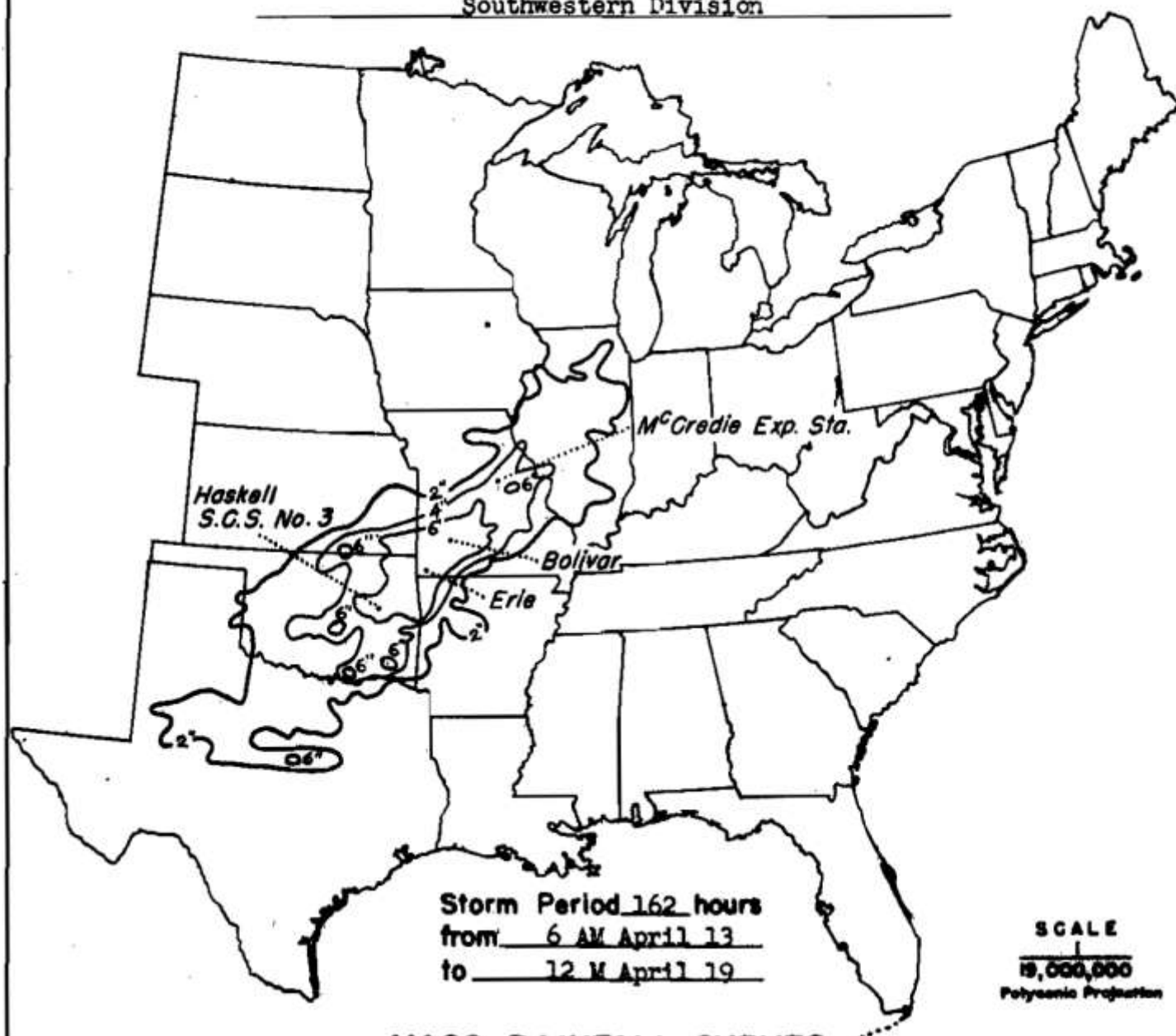
Storm of 3-4 June 1940Assignment MR 4-5Study Prepared by: Omaha, Nebr. District
Missouri River Division

MASS RAINFALL CURVES

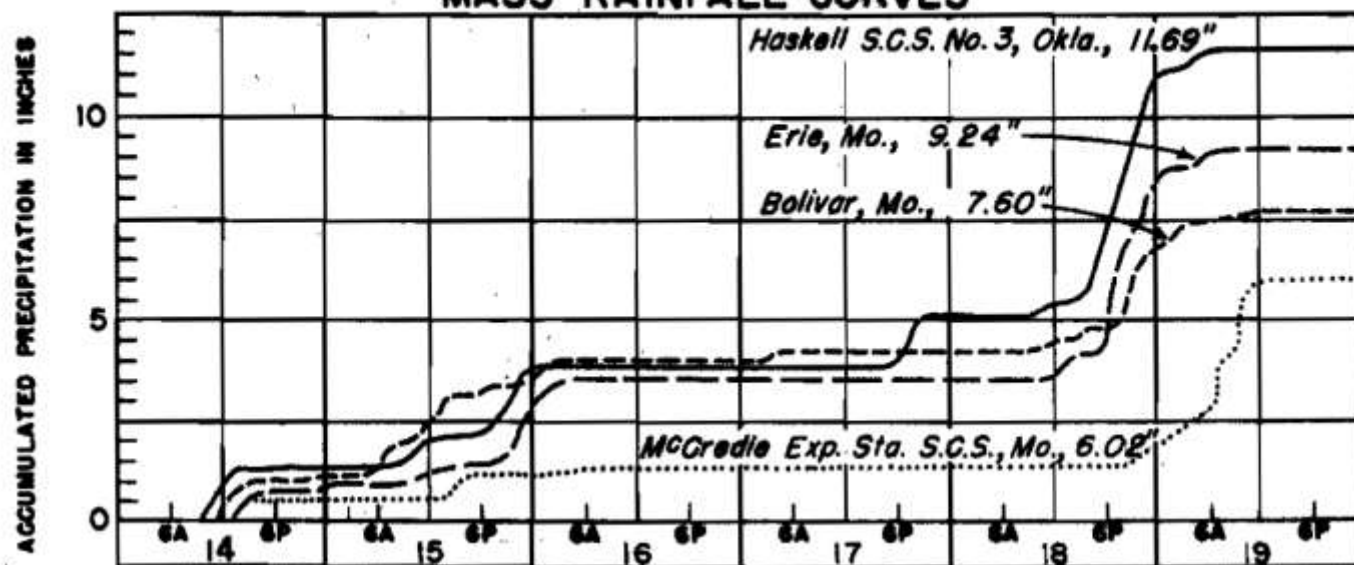


STORM STUDIES - ISOHYETAL MAPStorm of 25-26 July 1940Assignment UNV 2-22Study Prepared by: North Central Division
Rock Island, Ill., District**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

Storm of April 13-19, 1941 Assignment SW 2-19Study Prepared by: Tulsa, Okla. District
Southwestern Division

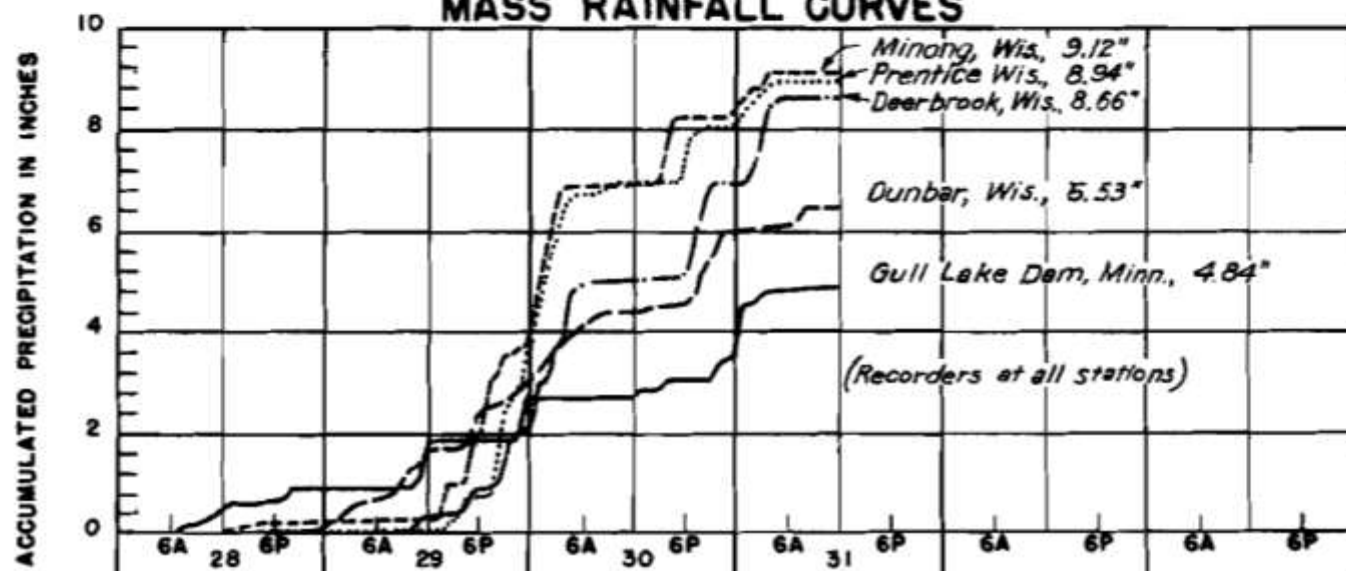
MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAP

Storm of August 28-31, 1941 Assignment UMV 1-22Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division

MASS RAINFALL CURVES



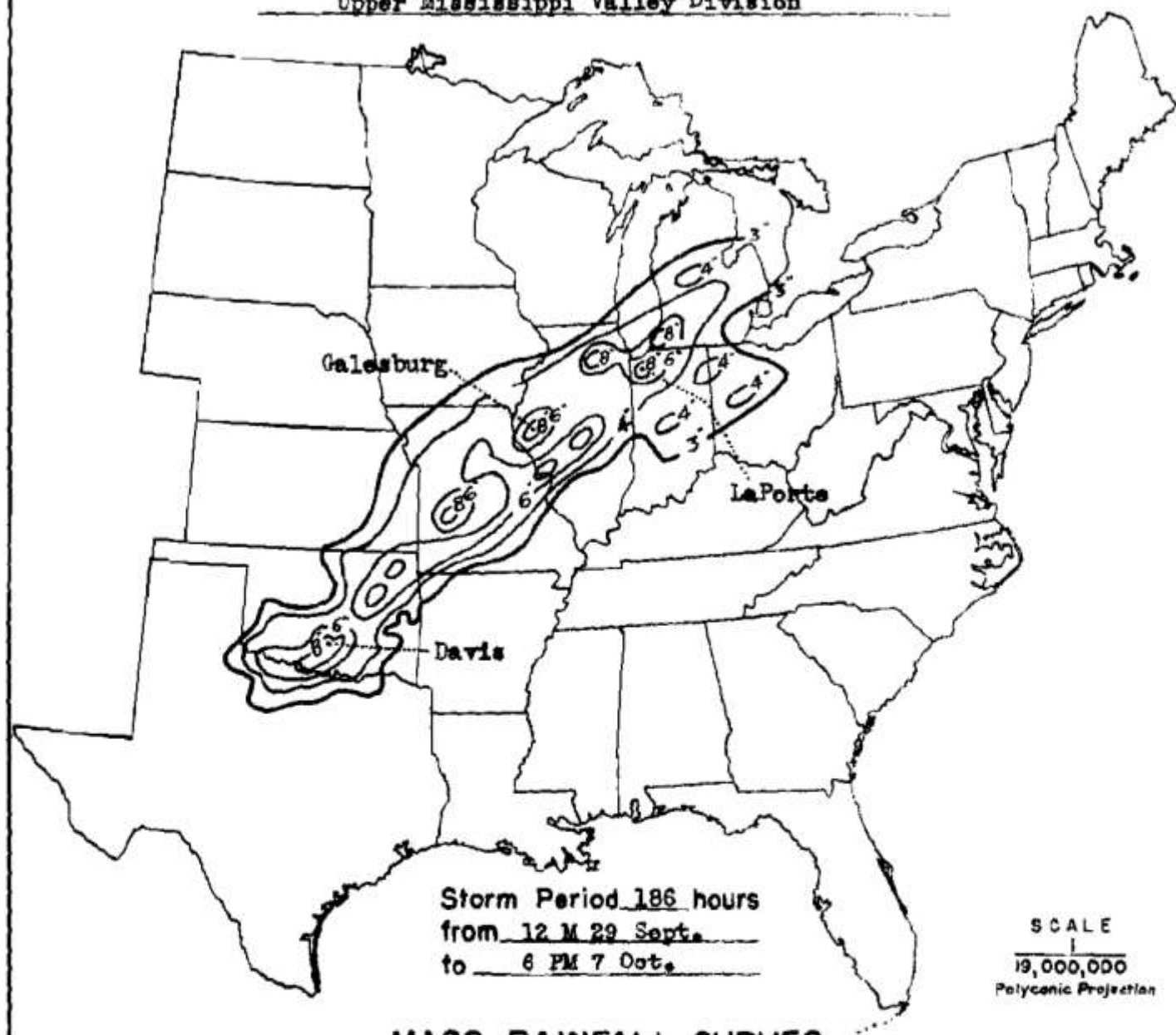
STORM STUDIES - ISOHYETAL MAP

Storm of 30 Sept. - 7 Oct. 1941

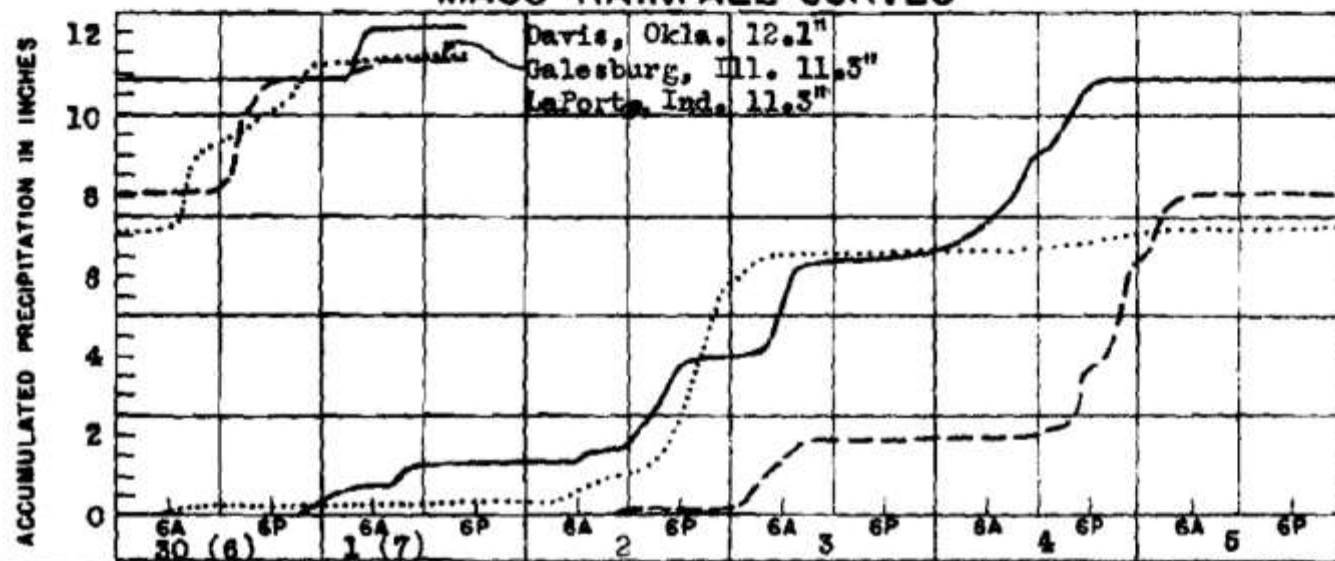
Assignment UMV 3-20

Study Prepared by: St. Louis, Mo. District

Upper Mississippi Valley Division



MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAP

Storm of 30 Sept. - 7 Oct. 1941

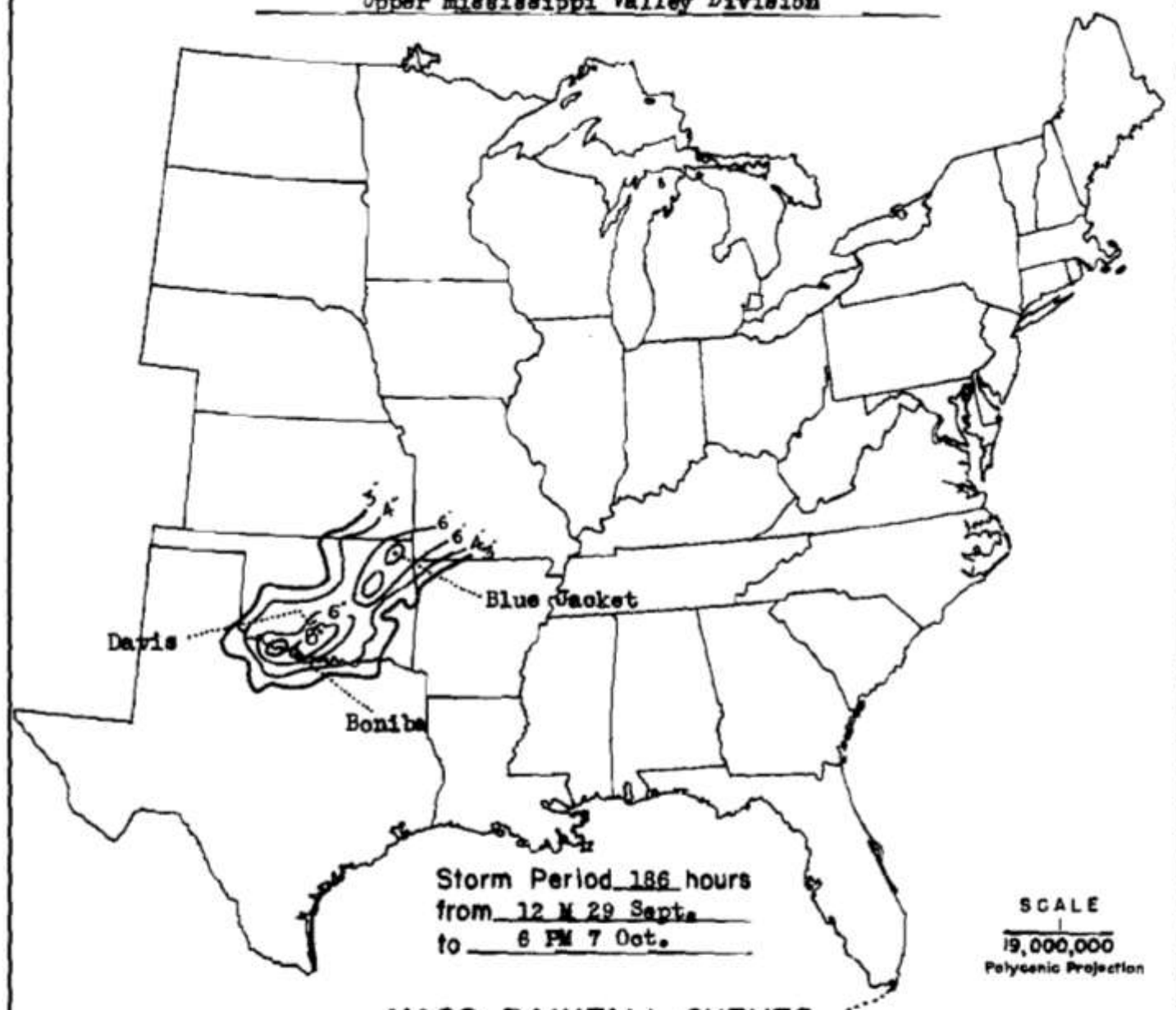
Assignment UHV 3-20 (a)

Study Prepared by: St. Louis, Mo. District

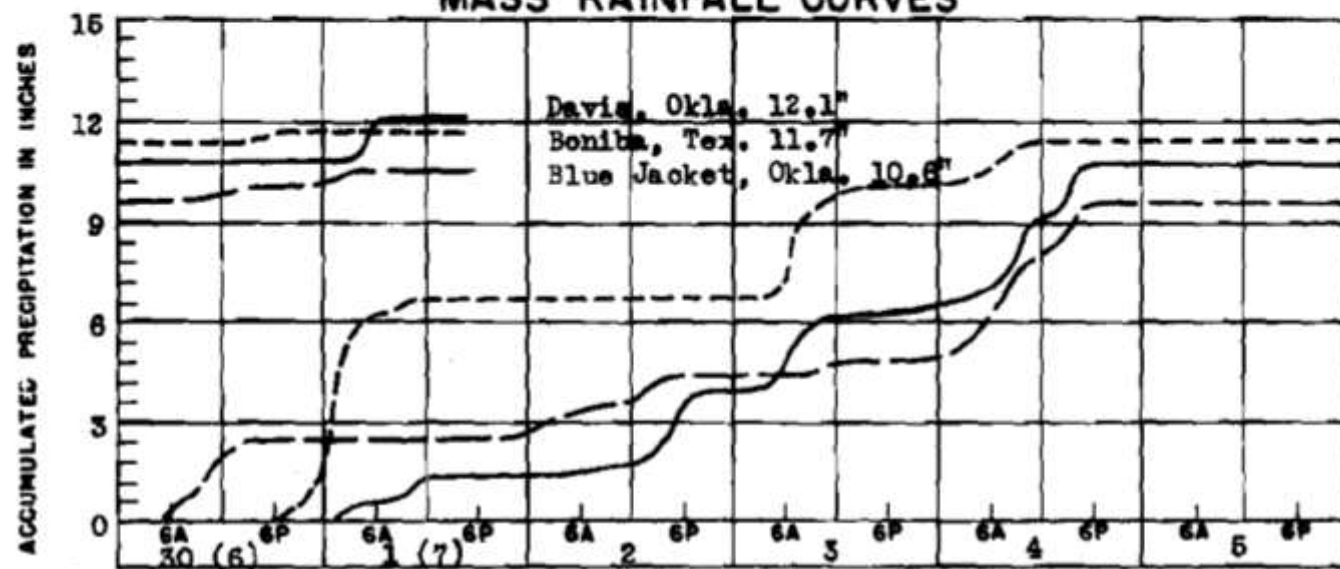
Upper Mississippi Valley Division



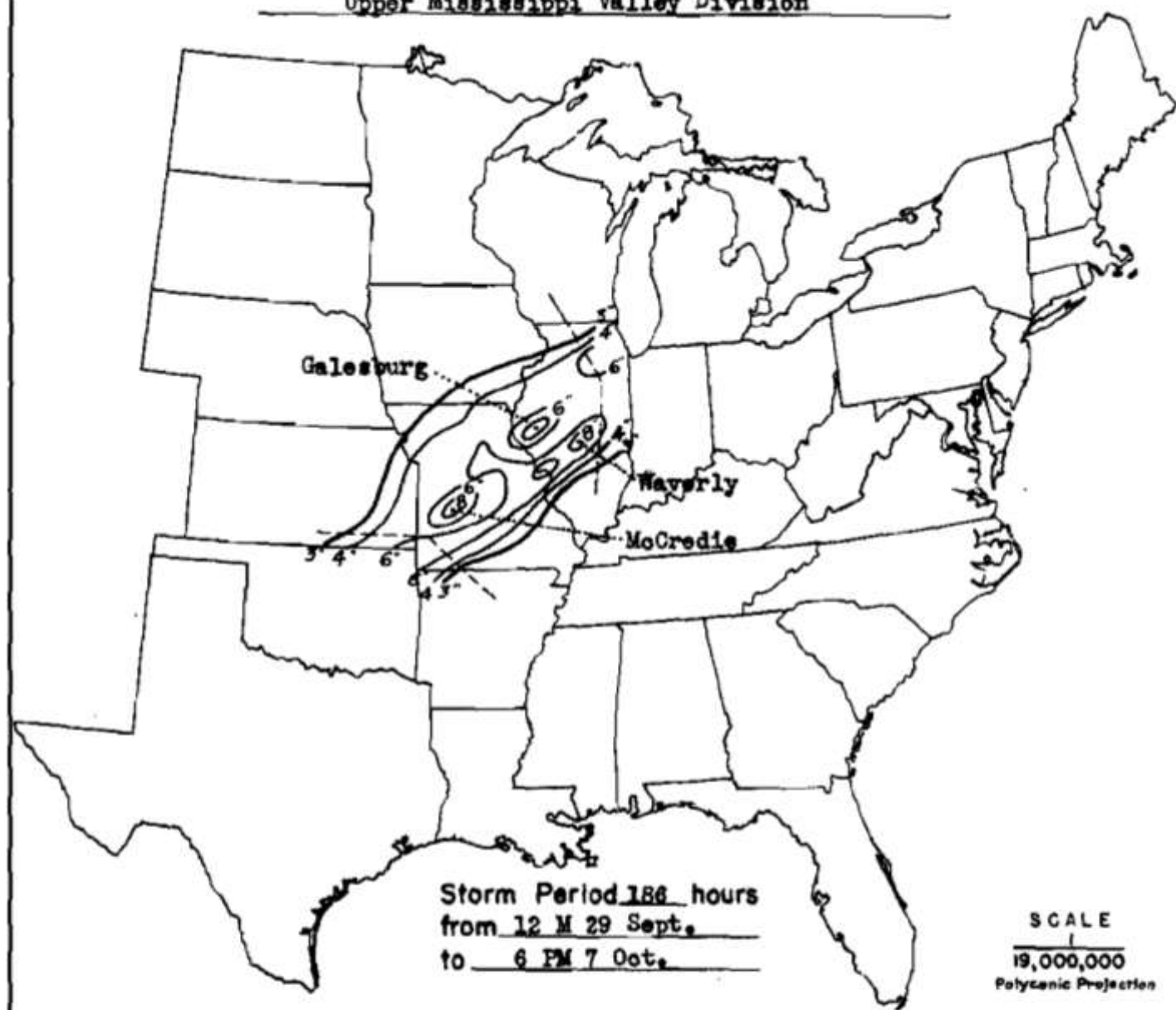
STORM STUDIES - ISOHYETAL MAP

Storm of 30 Sept. - 7 Oct. 1941Assignment UMV 3-20 (a)Study Prepared by: St. Louis, Mo. DistrictUpper Mississippi Valley Division

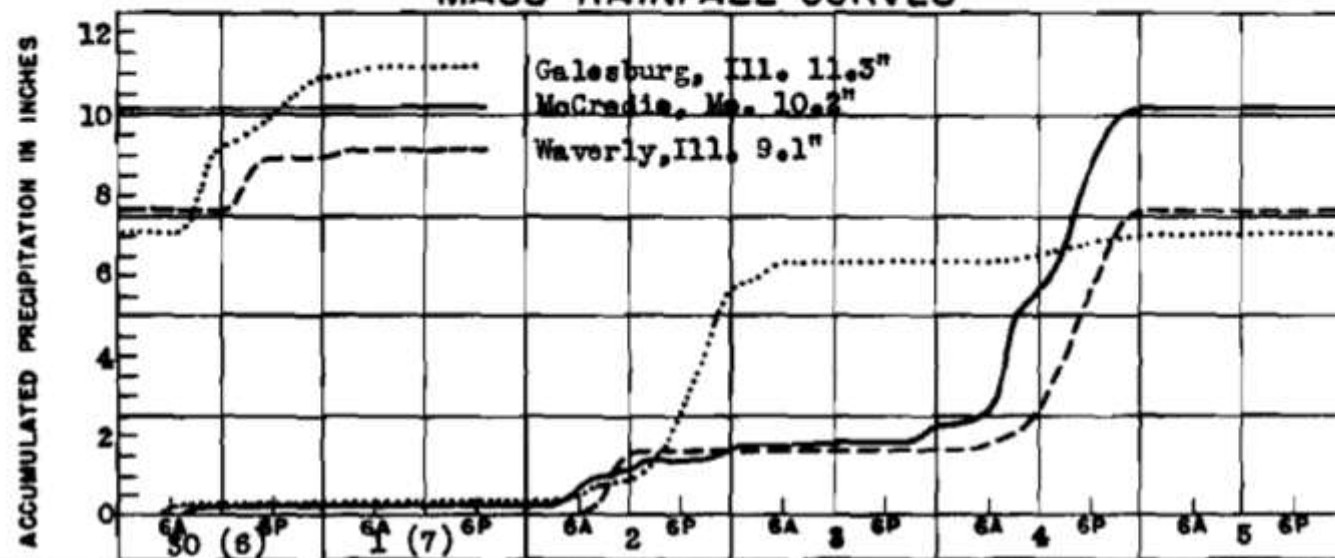
MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAP

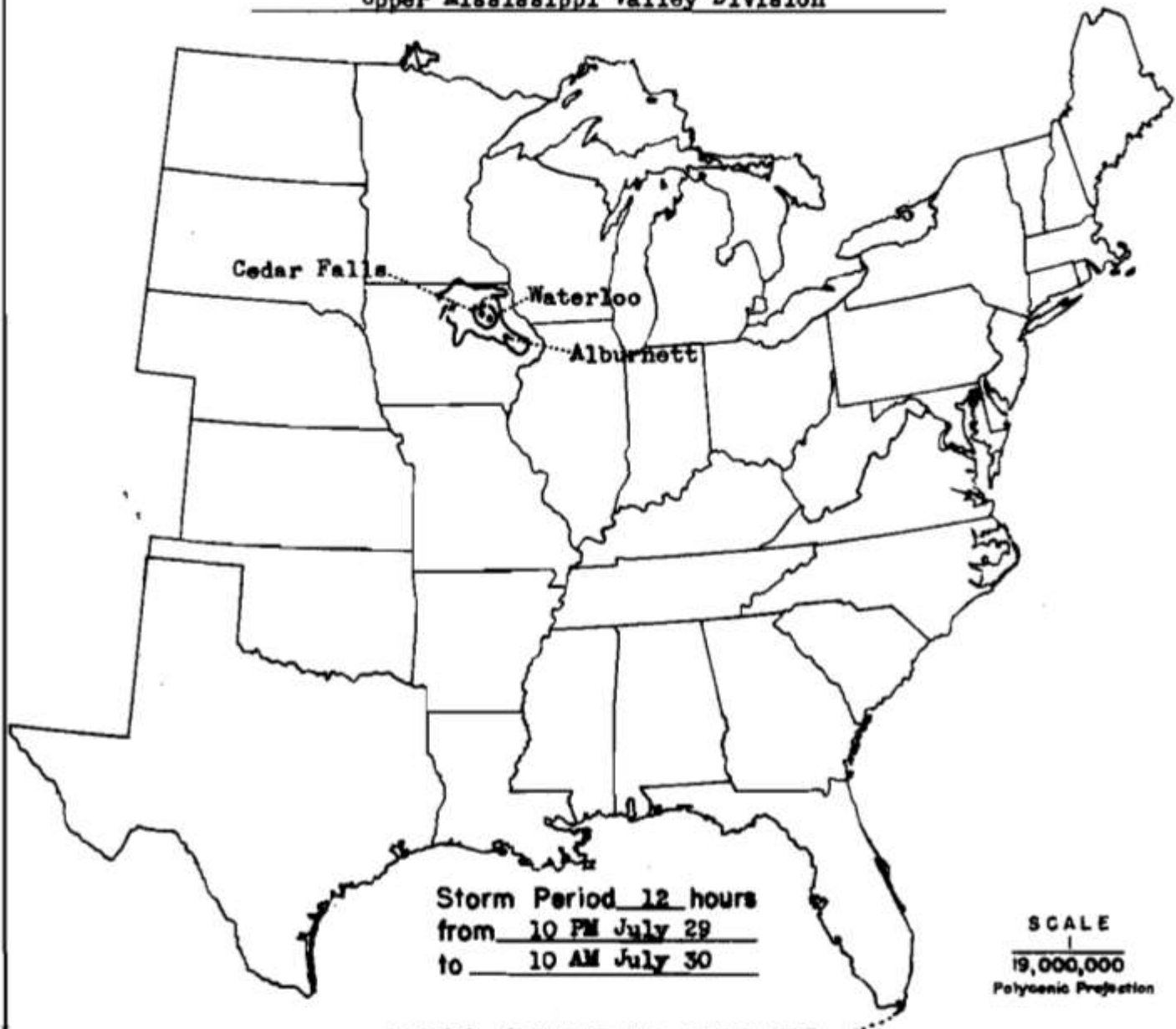
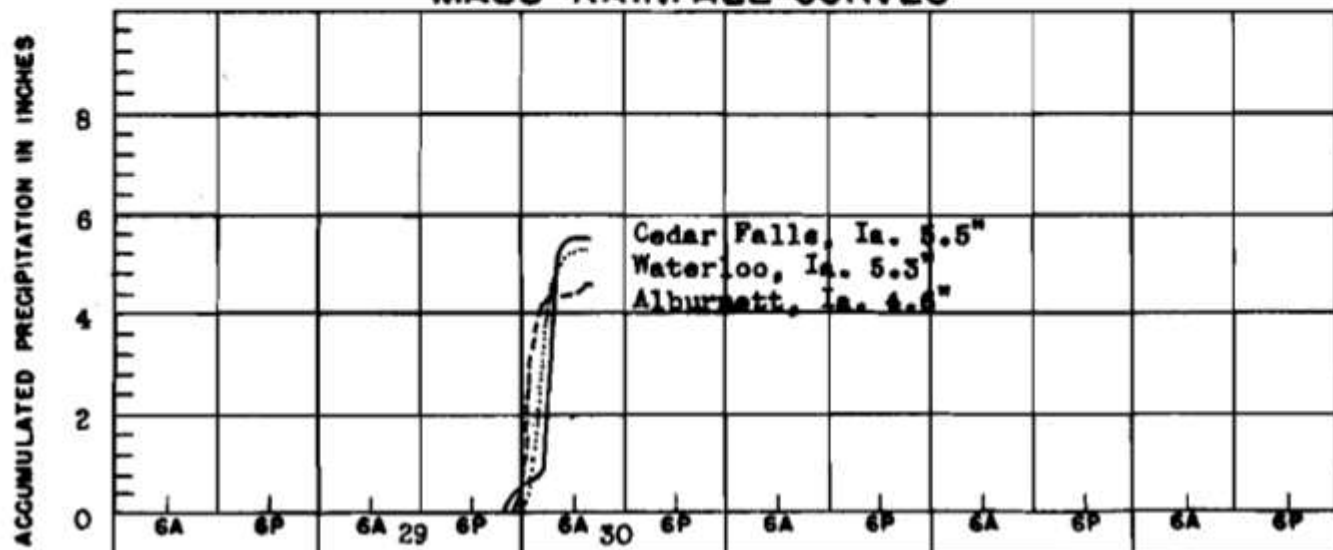
Storm of 30 Sept. - 7 Oct. 1941Assignment UMV 3-20 (b)Study Prepared by: St. Louis, Mo. DistrictUpper Mississippi Valley Division

MASS RAINFALL CURVES



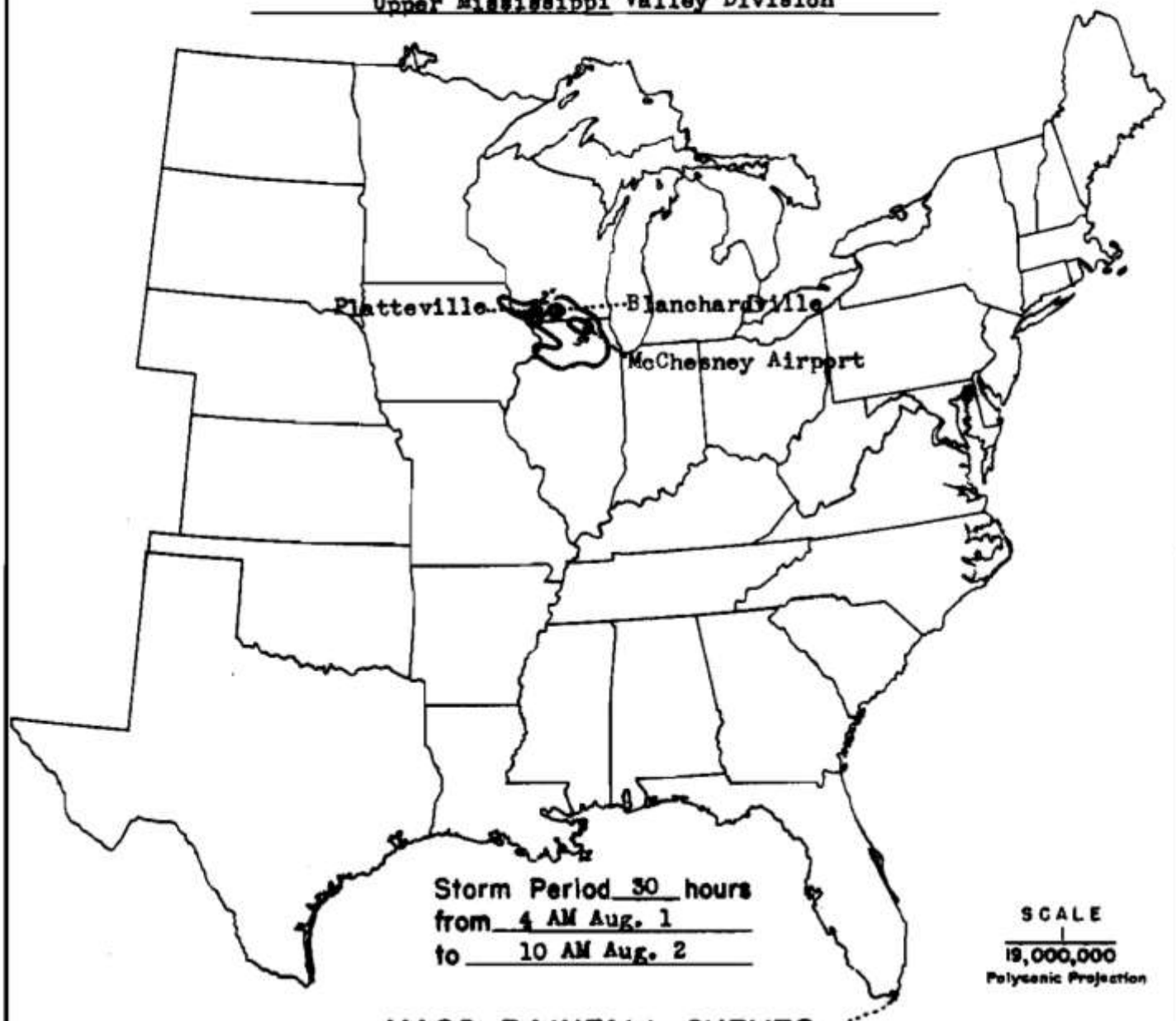
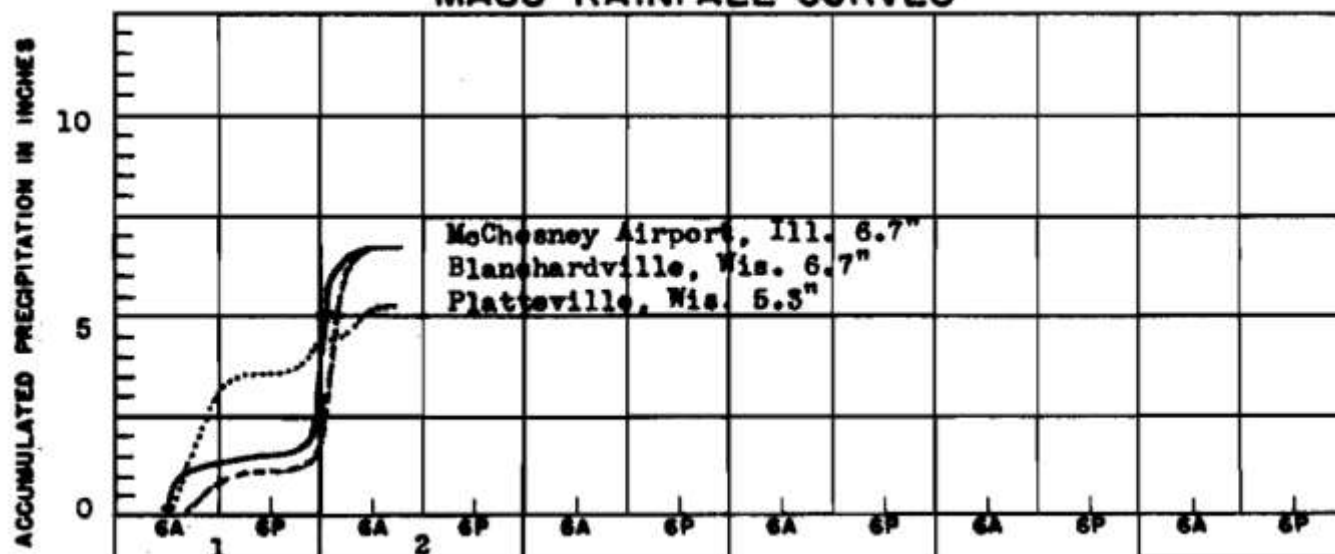
STORM STUDIES - ISOHYETAL MAP

Storm of 29-30 July 1942 Assignment UMV 2-28
Study Prepared by: Rock Island, Ill. District
Upper Mississippi Valley Division

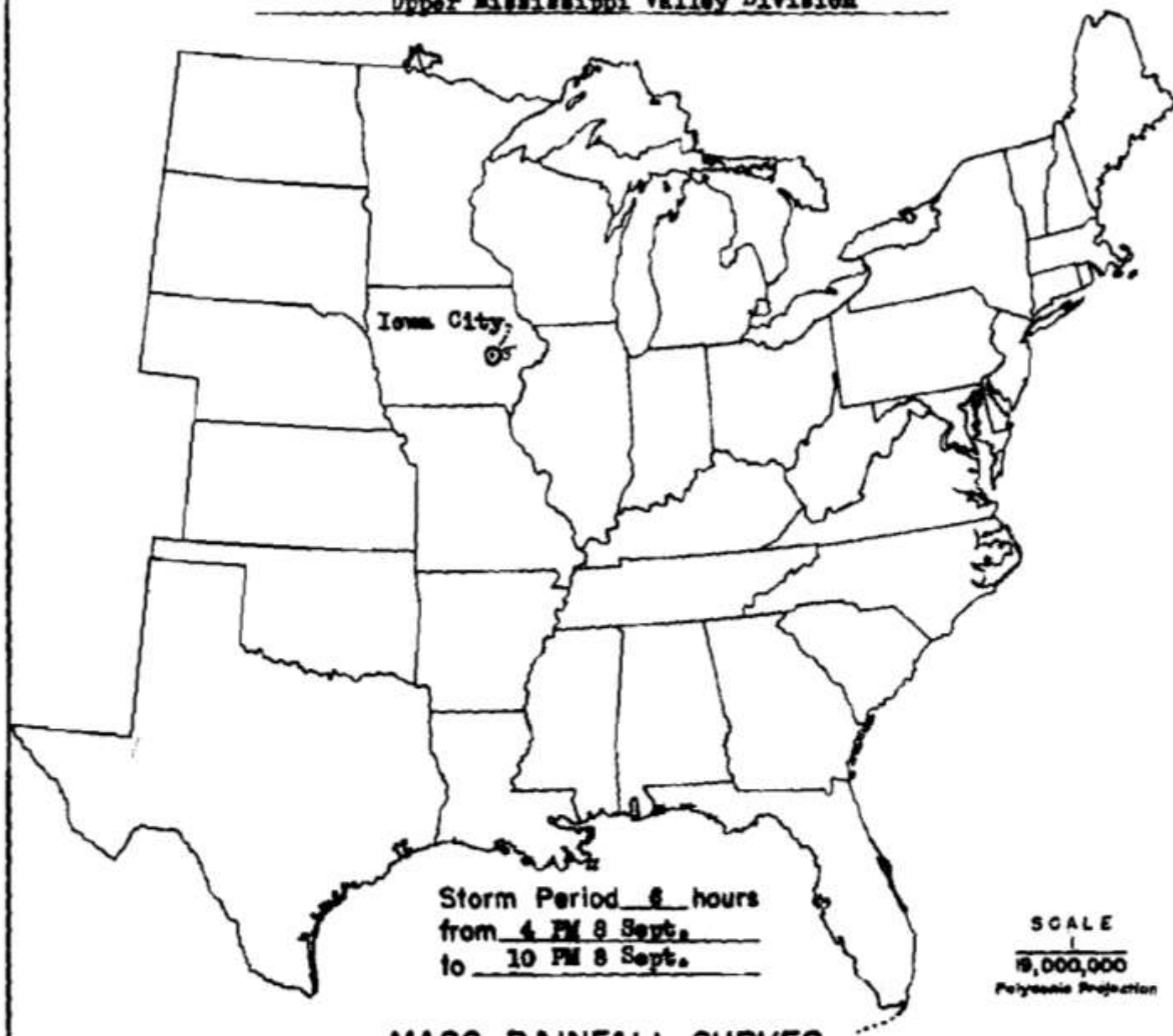
**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

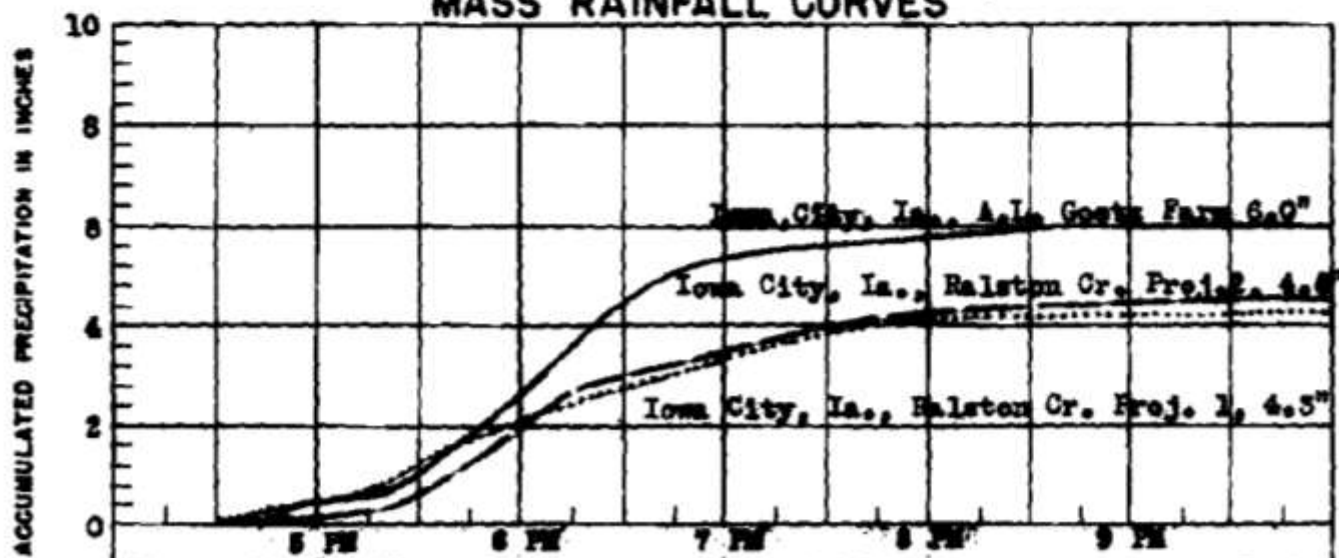
Storm of 1-2 August 1942 Assignment UMV 2-20
Study Prepared by: Rock Island, Ill. District
Upper Mississippi Valley Division

**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

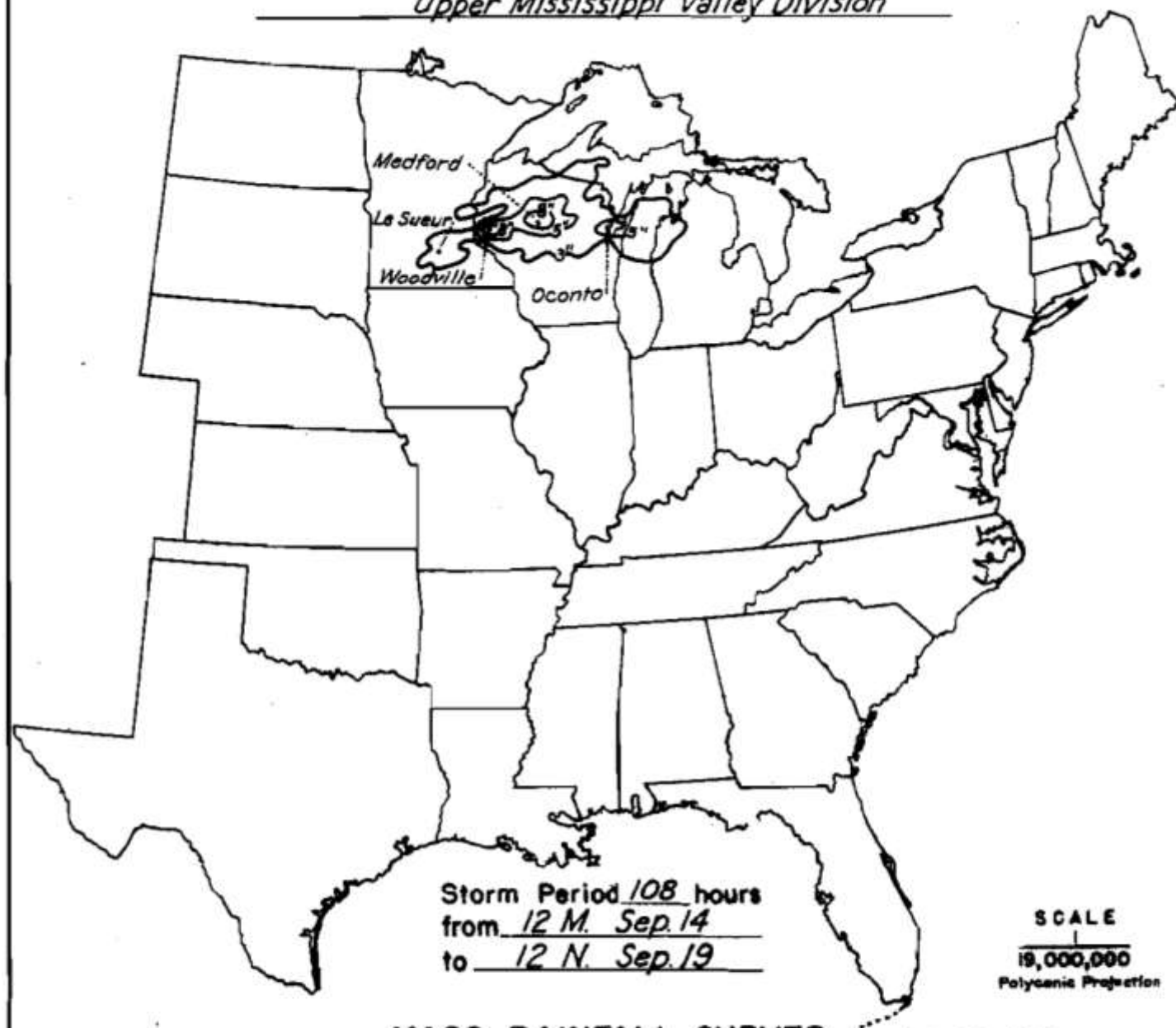
Storm of 8 September 1942Assignment UMV 2-21Study Prepared by: Rock Island, Ill. DistrictUpper Mississippi Valley Division

MASS RAINFALL CURVES



STORM STUDIES - ISOHYETAL MAP

Storm of September 15-19, 1942 Assignment UMV 1-25
Study Prepared by: St. Paul, Minn. District
Upper Mississippi Valley Division



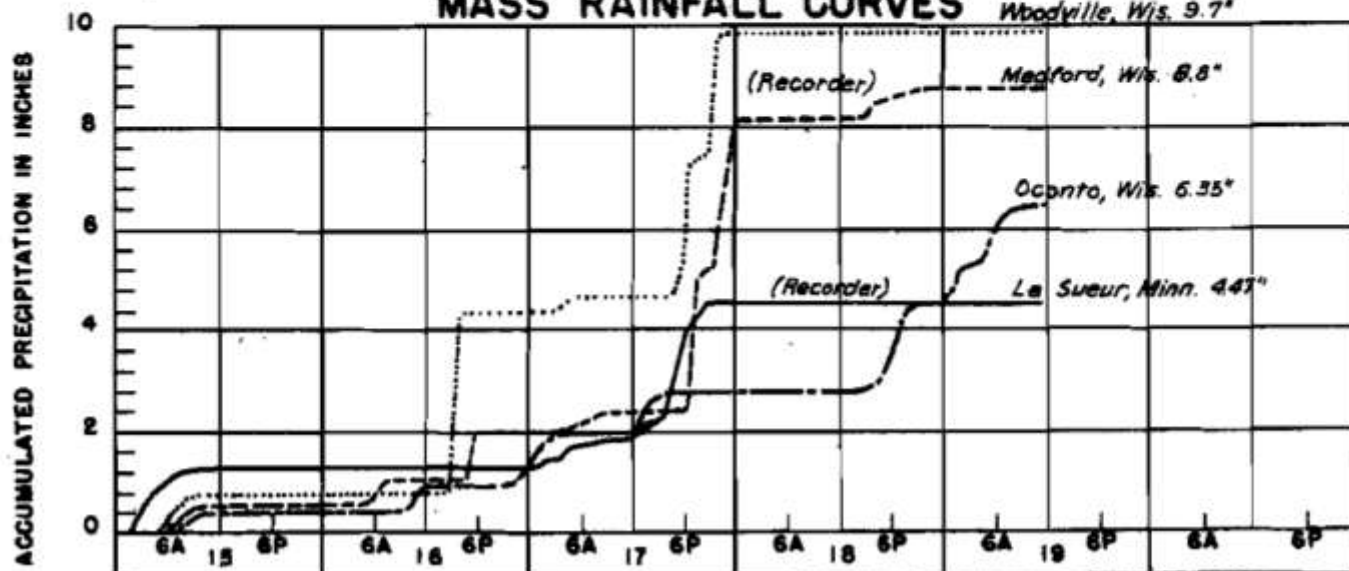
MASS RAINFALL CURVES

Woodville, Wis. 9.7"

(Recorder) Medford, Wis. 8.8"

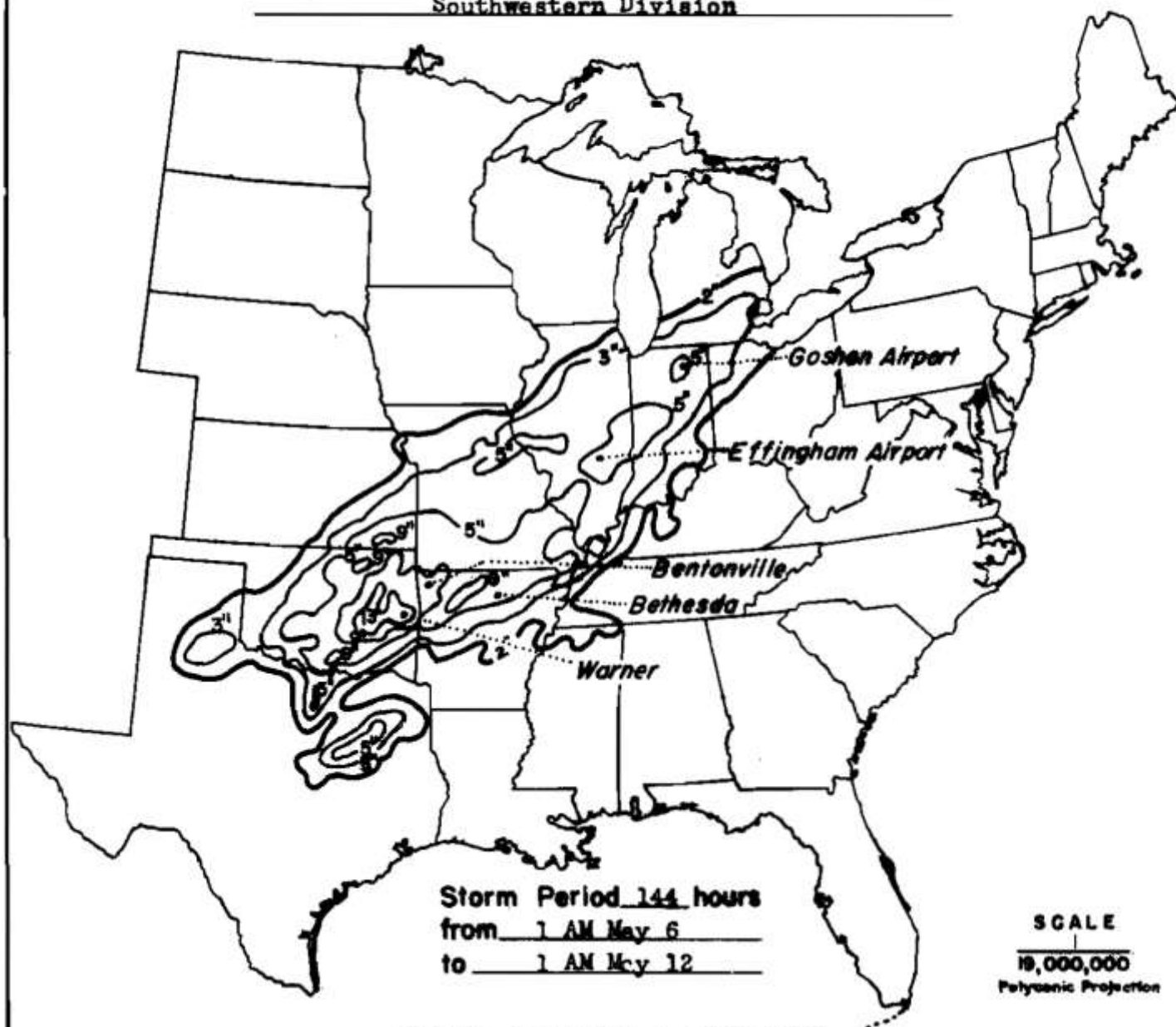
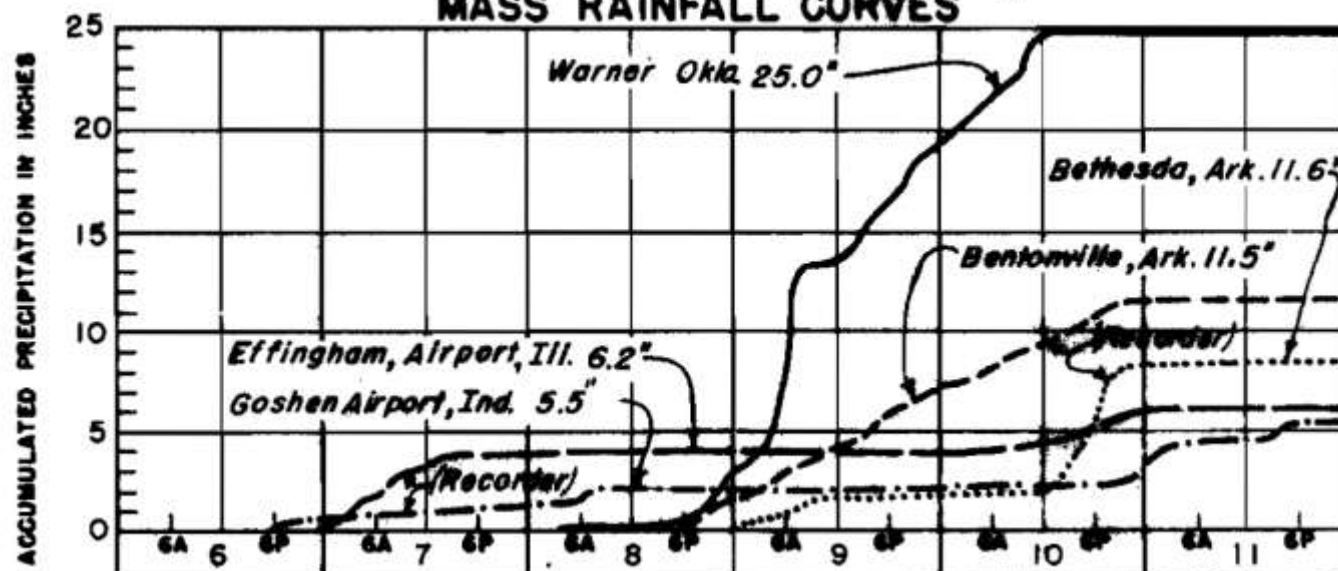
Oconto, Wis. 6.35"

(Recorder) La Sueur, Minn. 4.47"

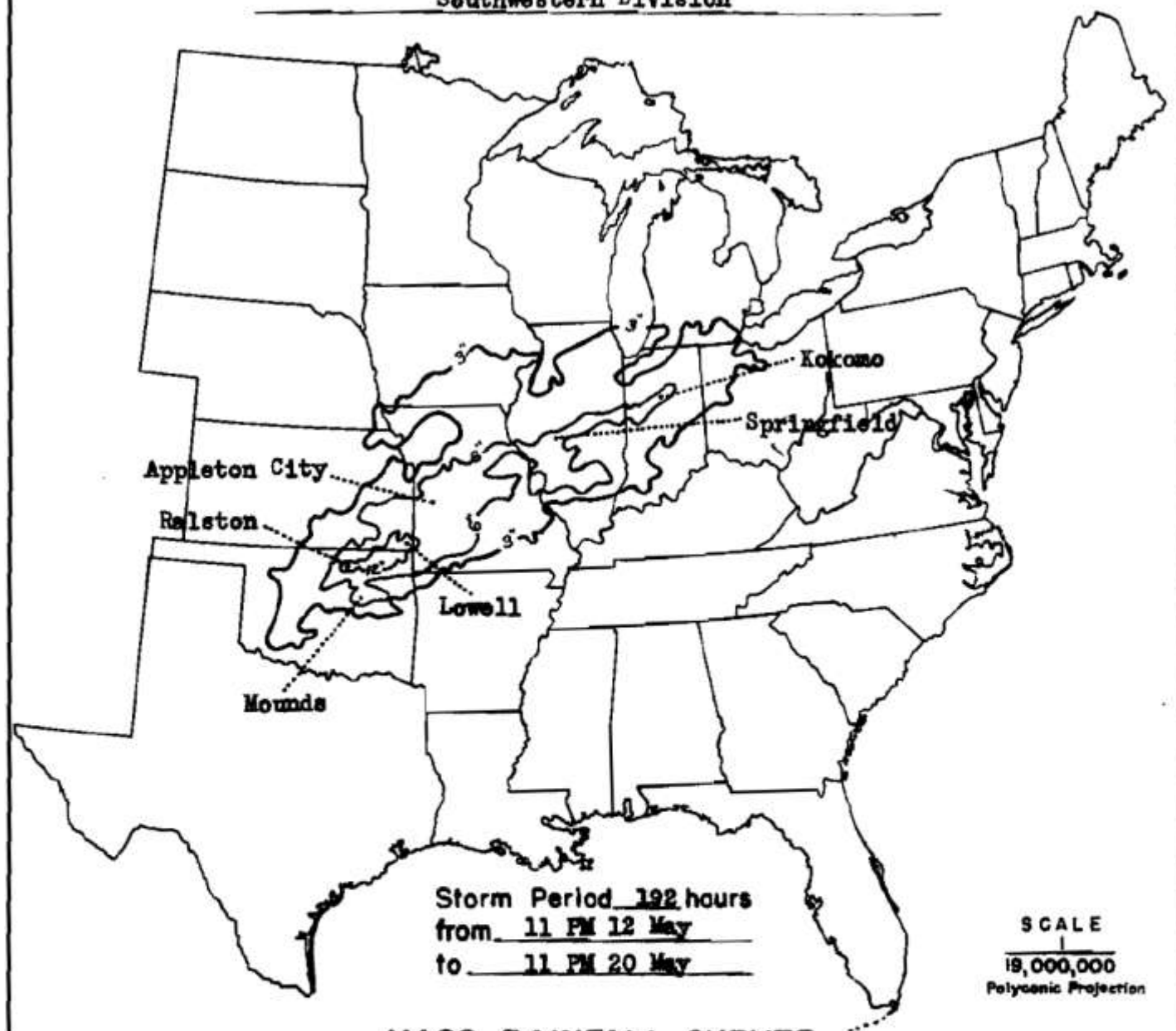


STORM STUDIES - ISOHYETAL MAP

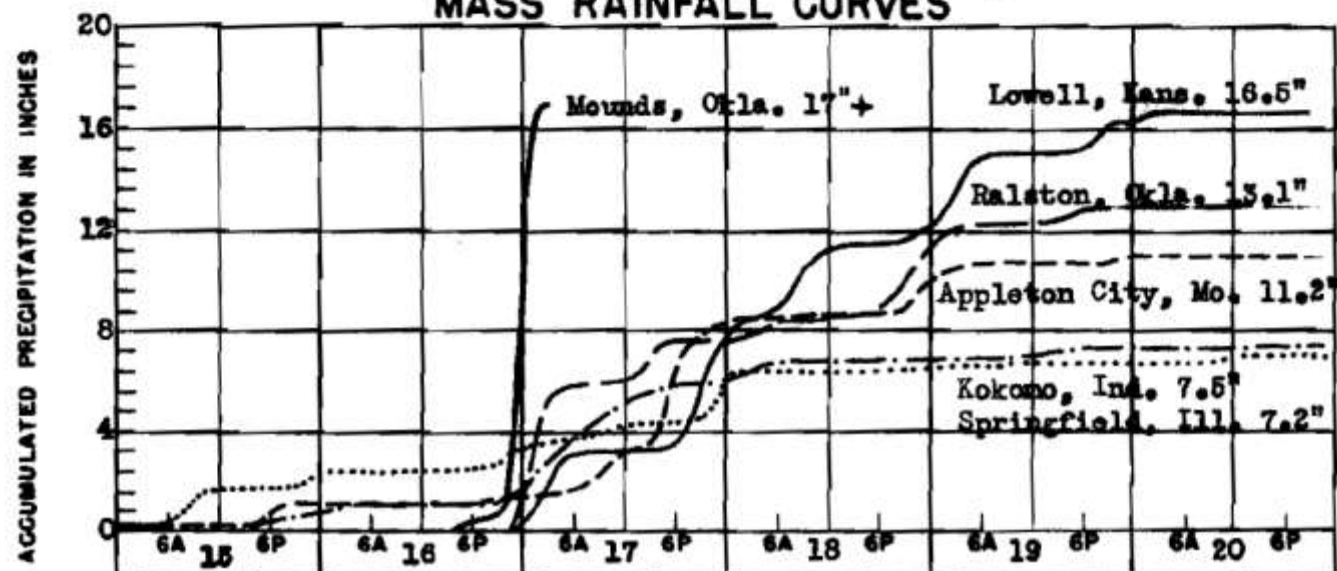
Storm of 6-12 May 1943 Assignment SW 2-20
 Study Prepared by: Tulsa, Okla. District
Southwestern Division

**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

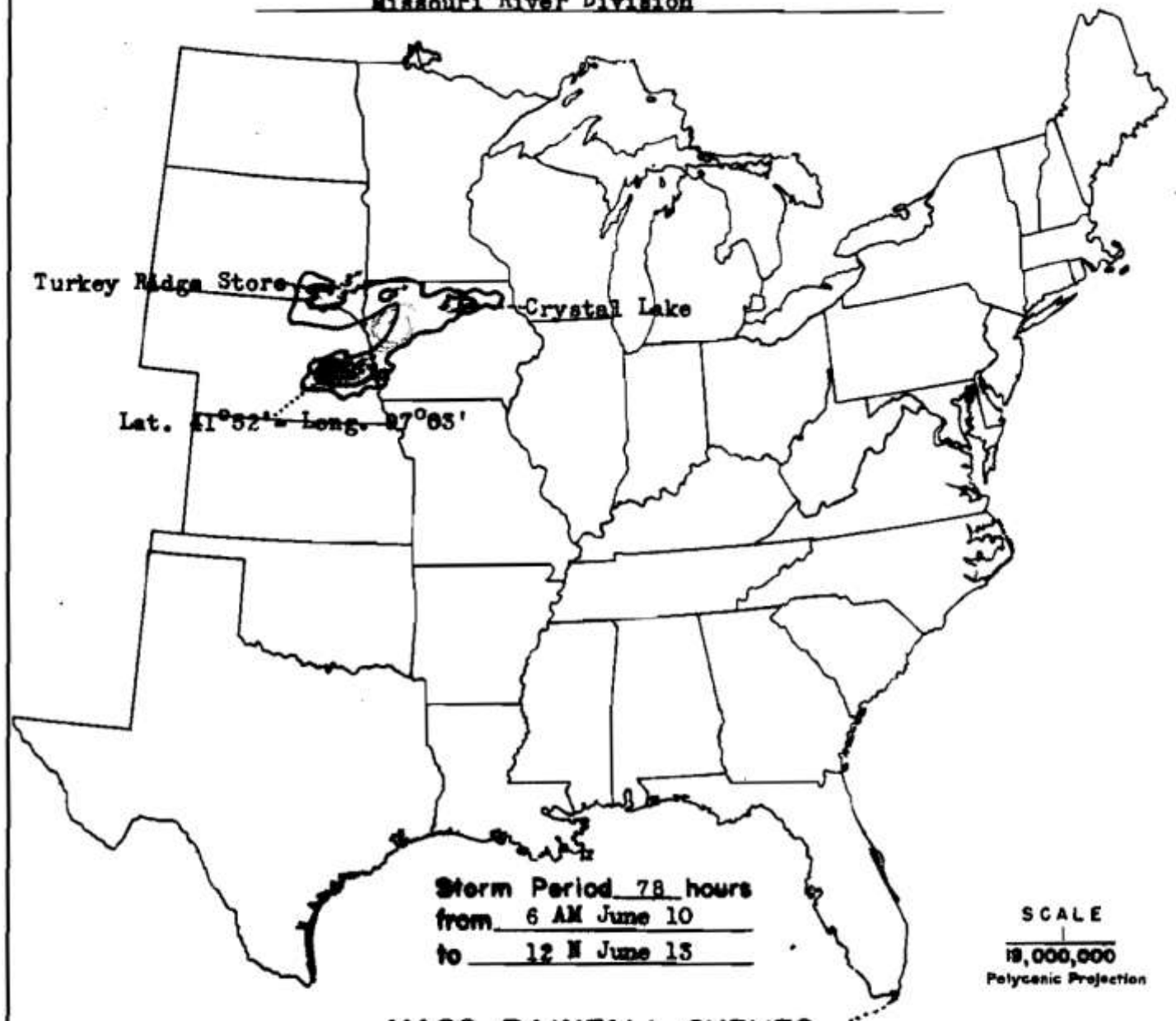
Storm of 12-20 May 1943Assignment SW 2-21Study Prepared by: Tulsa, Okla. District
Southwestern Division

MASS RAINFALL CURVES

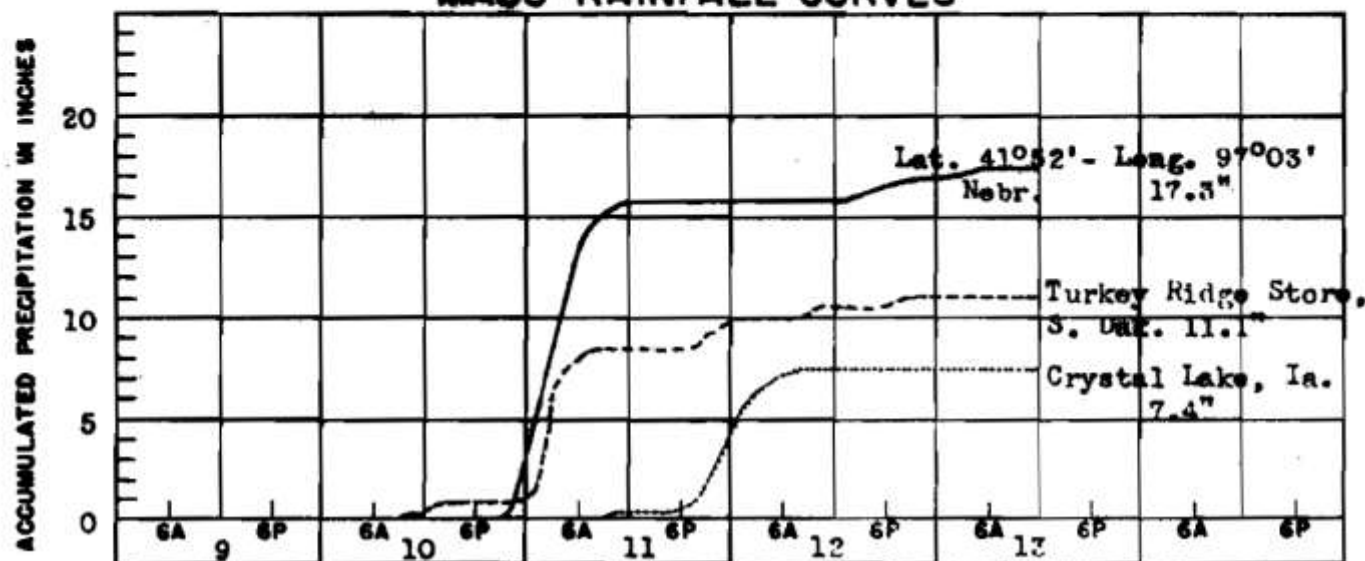


STORM STUDIES - ISOHYETAL MAP

Storm of 10-13 June 1944 Assignment MR 6-15
 Study Prepared by: Omaha, Nebr. District
Missouri River Division

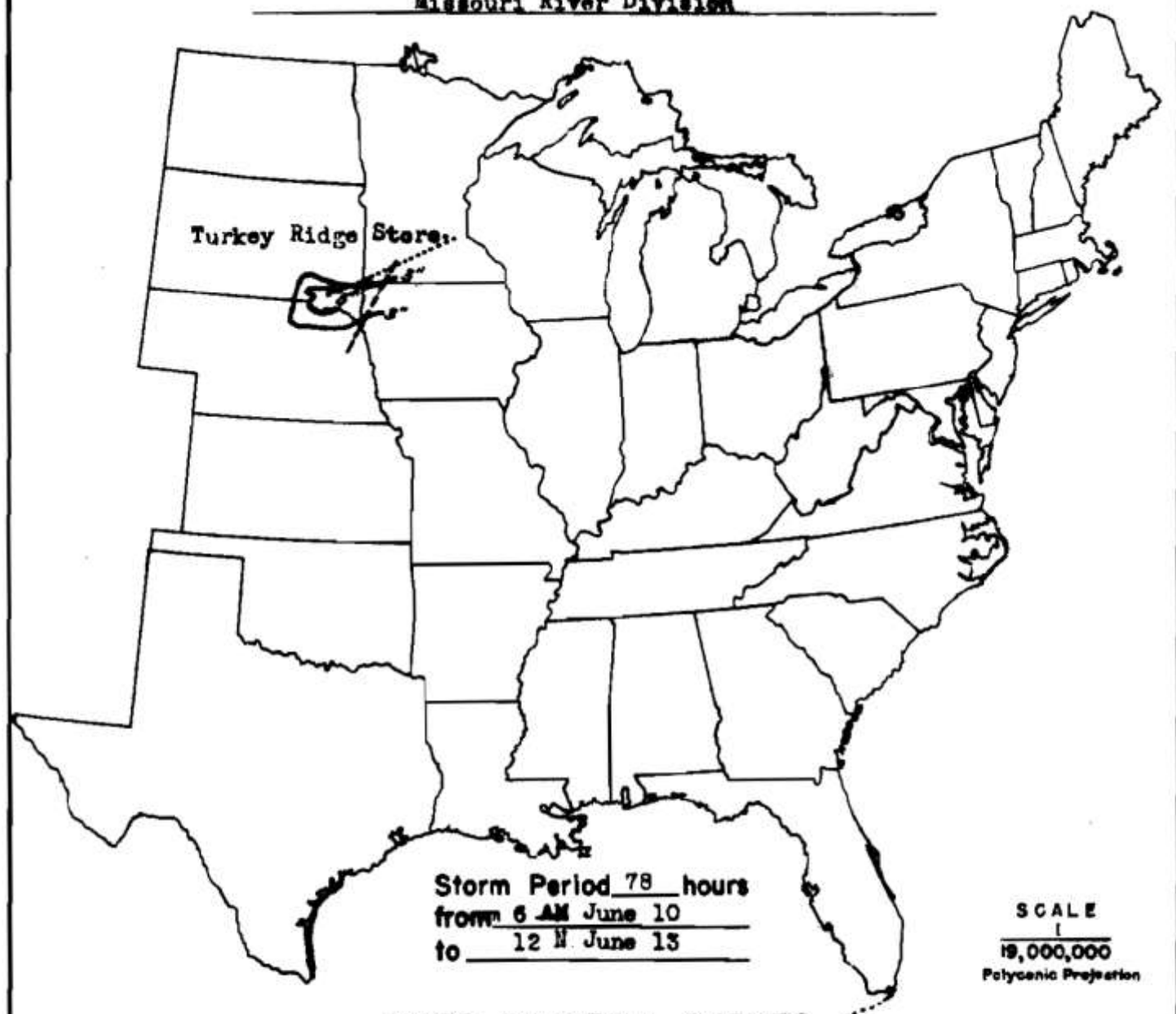


MASS RAINFALL CURVES

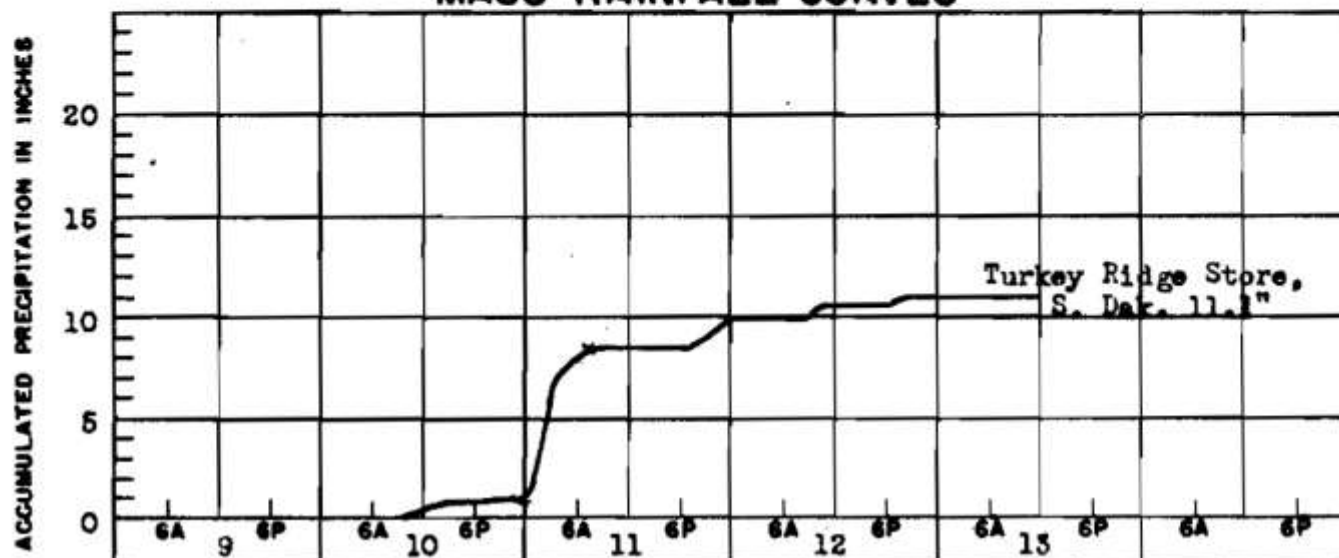


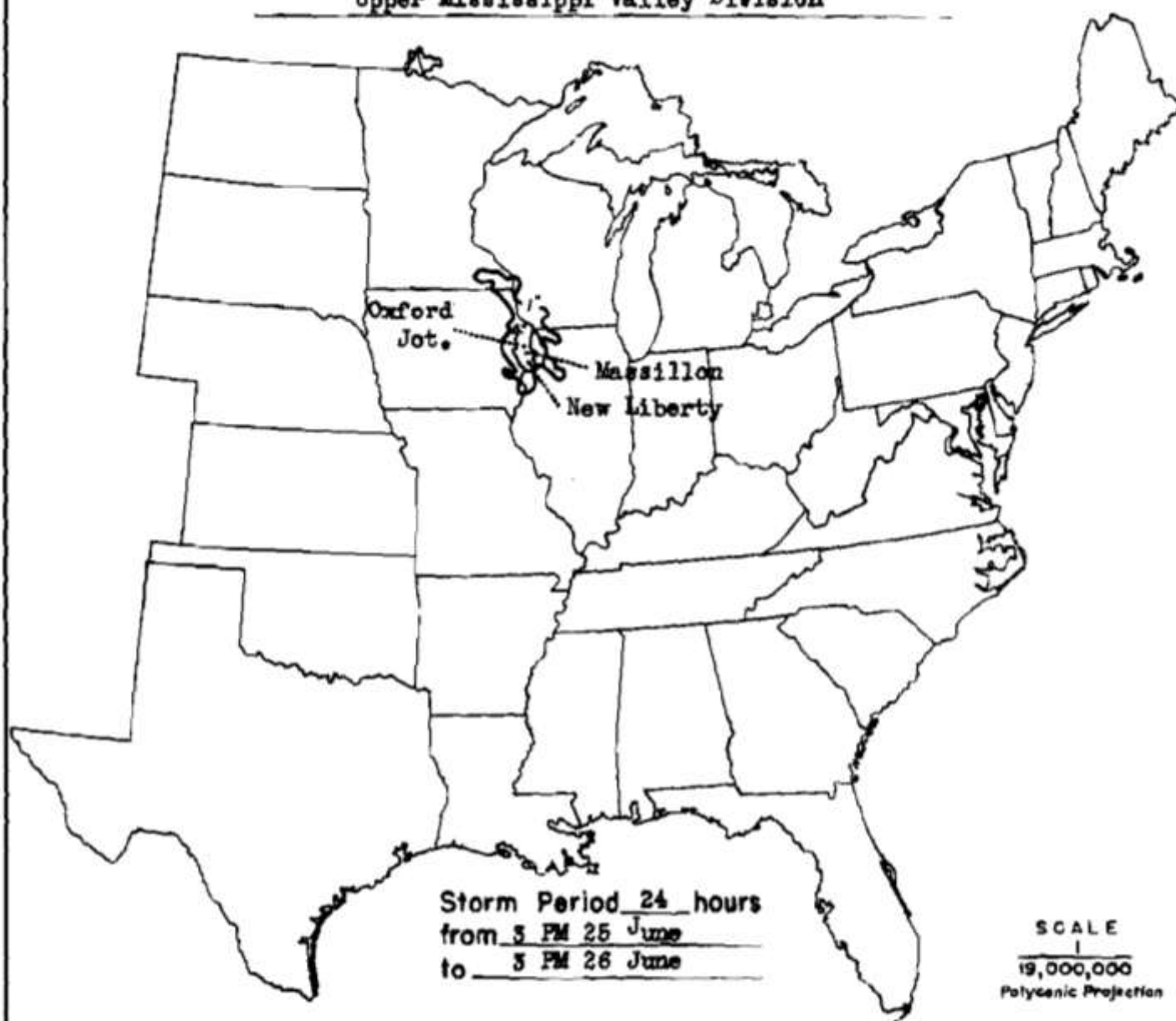
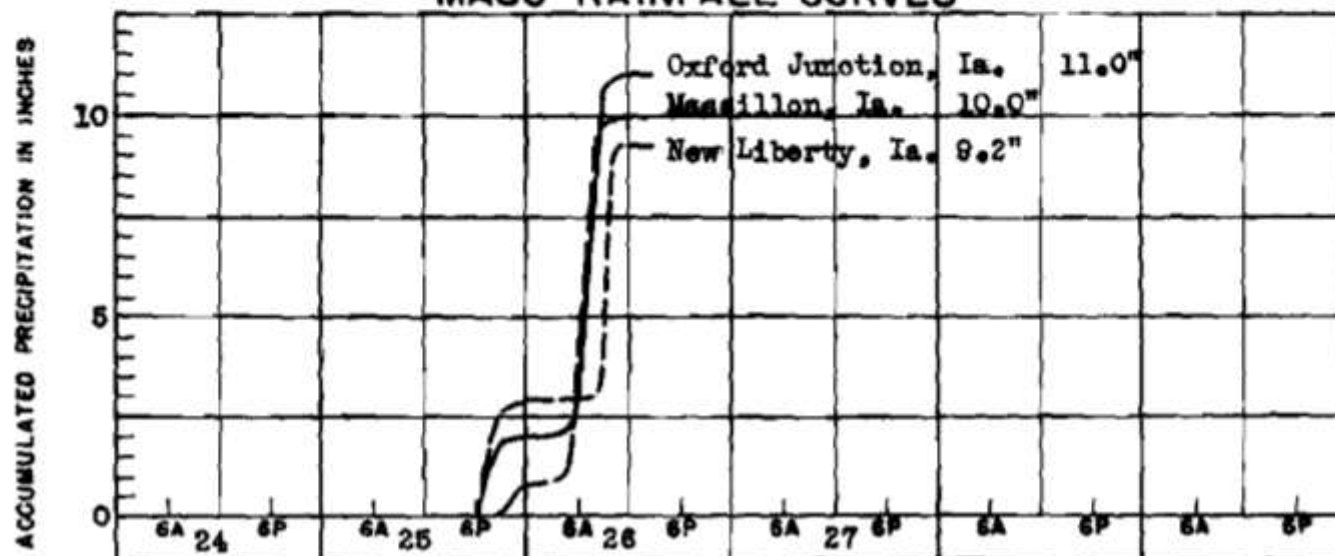
STORM STUDIES - ISOHYETAL MAP

Storm of 10-13 June 1944 Assignment MR 6-15 (a)
Study Prepared by: Omaha, Nebr. District
Missouri River Division

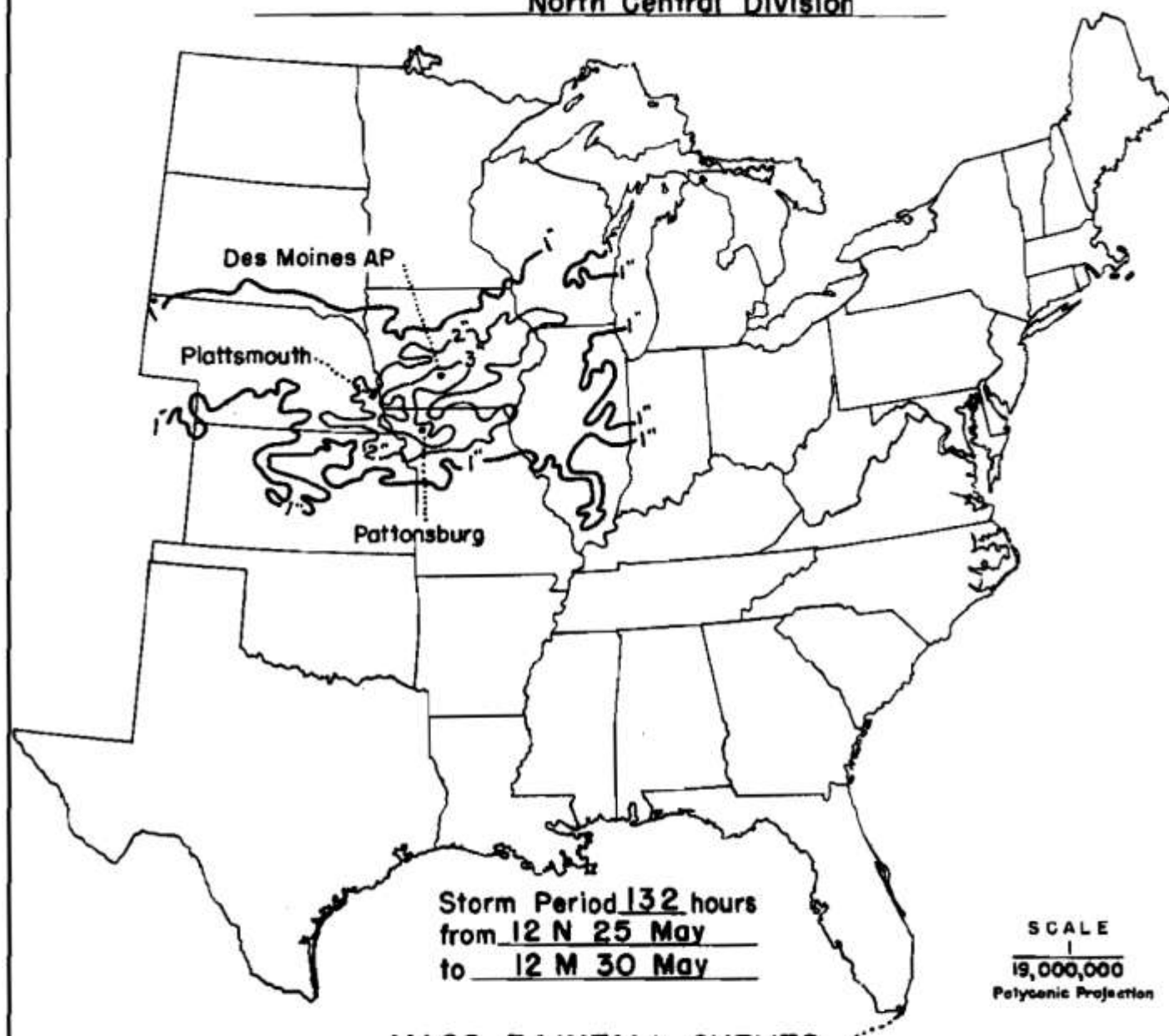


MASS RAINFALL CURVES

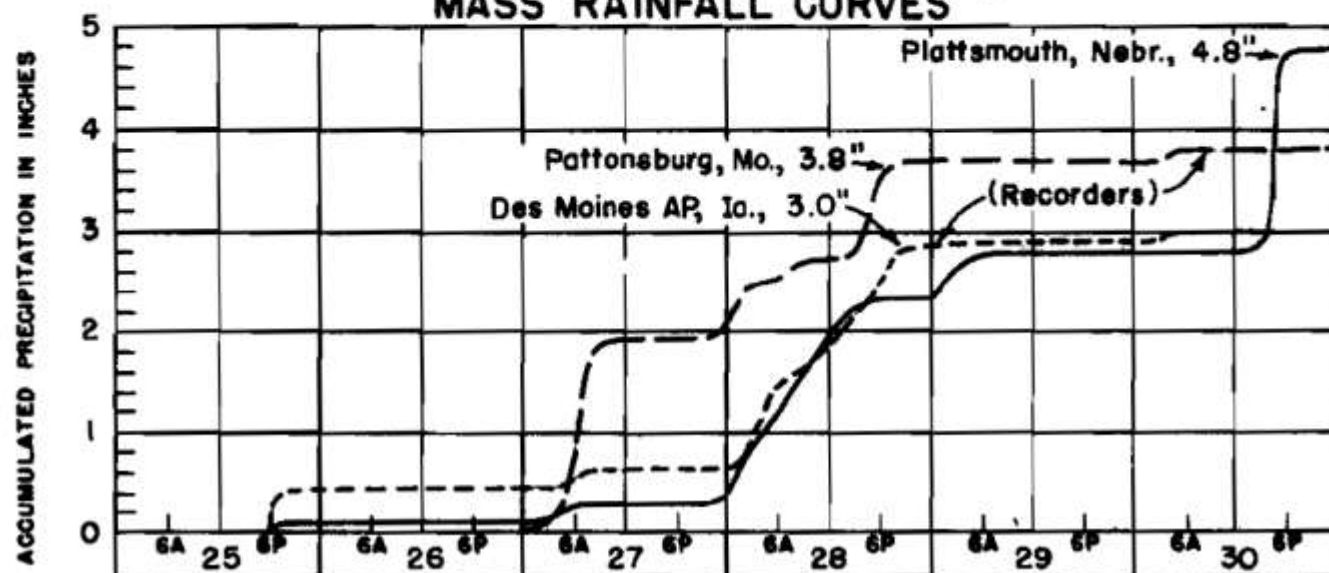


STORM STUDIES - ISOHYETAL MAPStorm of 25-26 June 1944Assignment UMV 2-30Study Prepared by: Rock Island, Ill. District
Upper Mississippi Valley Division**MASS RAINFALL CURVES**

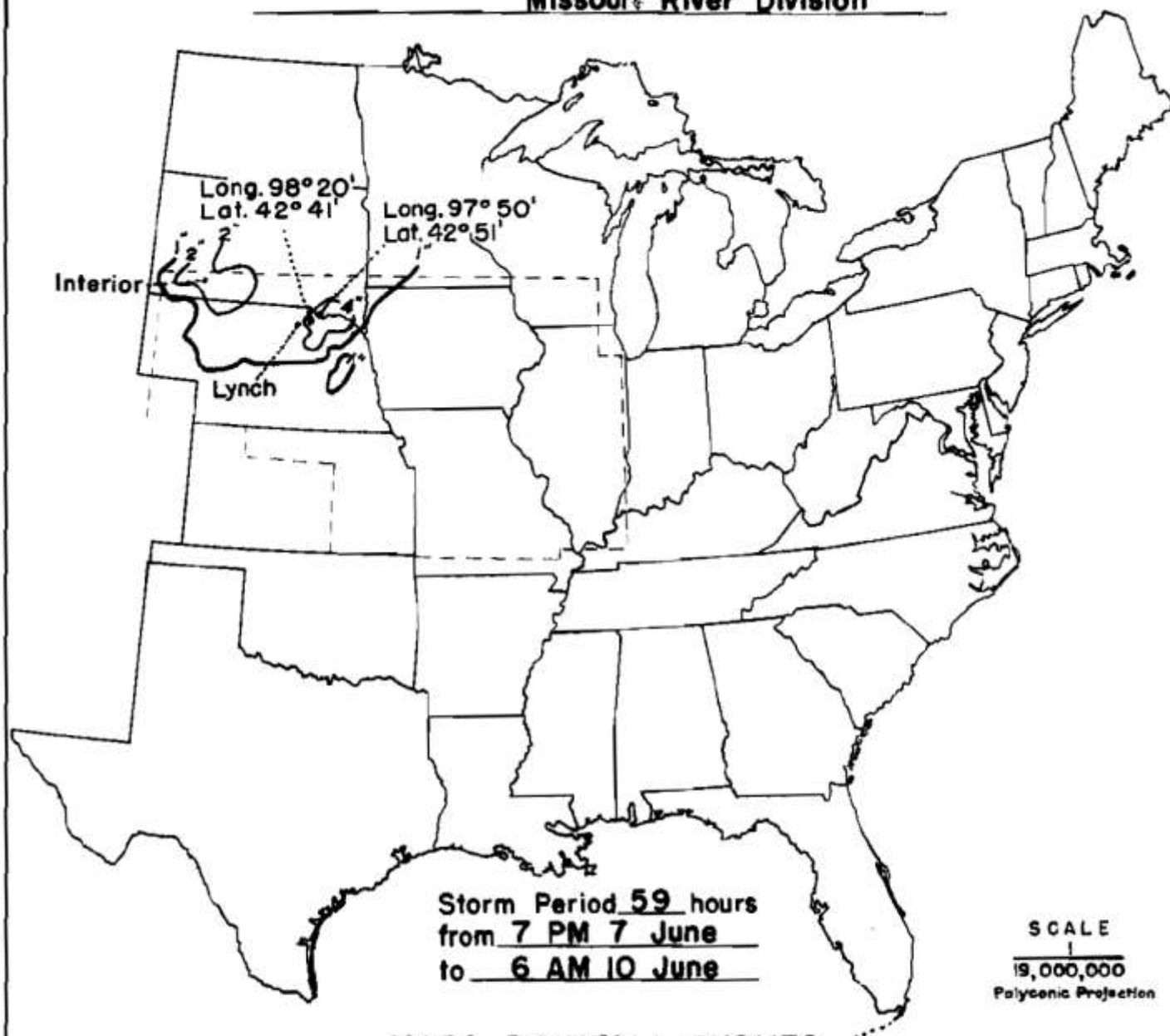
STORM STUDIES - ISOHYETAL MAP

Storm of 25-30 May 1947Assignment MR 8-6Study Prepared by: Rock Island, Ill., District
North Central Division

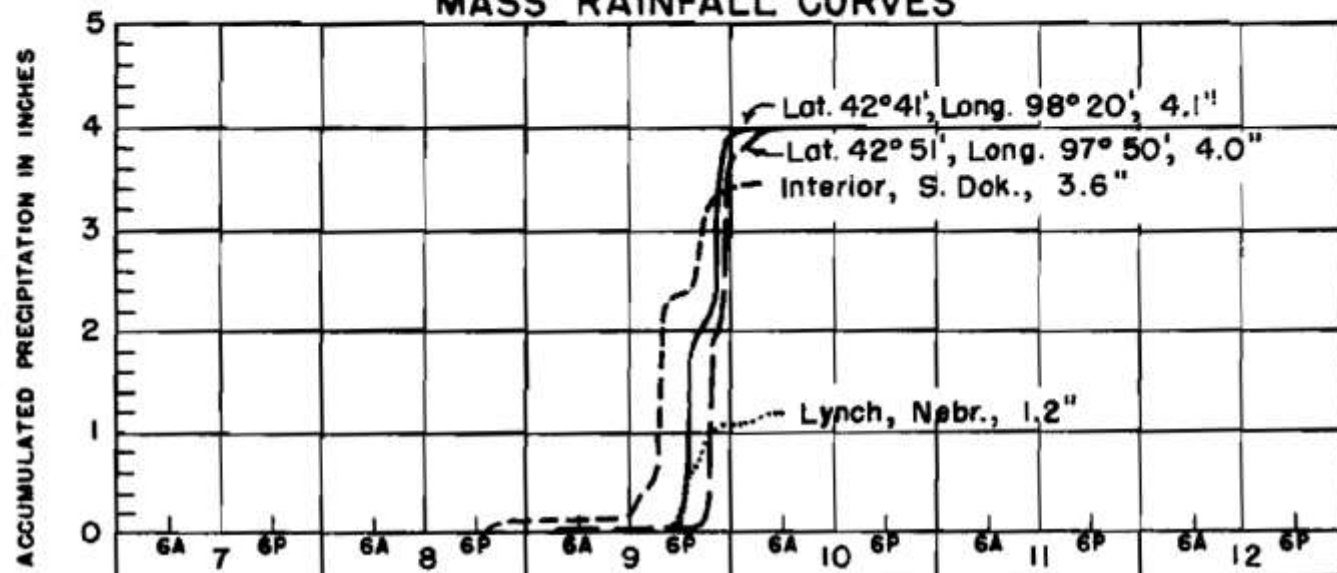
MASS RAINFALL CURVES

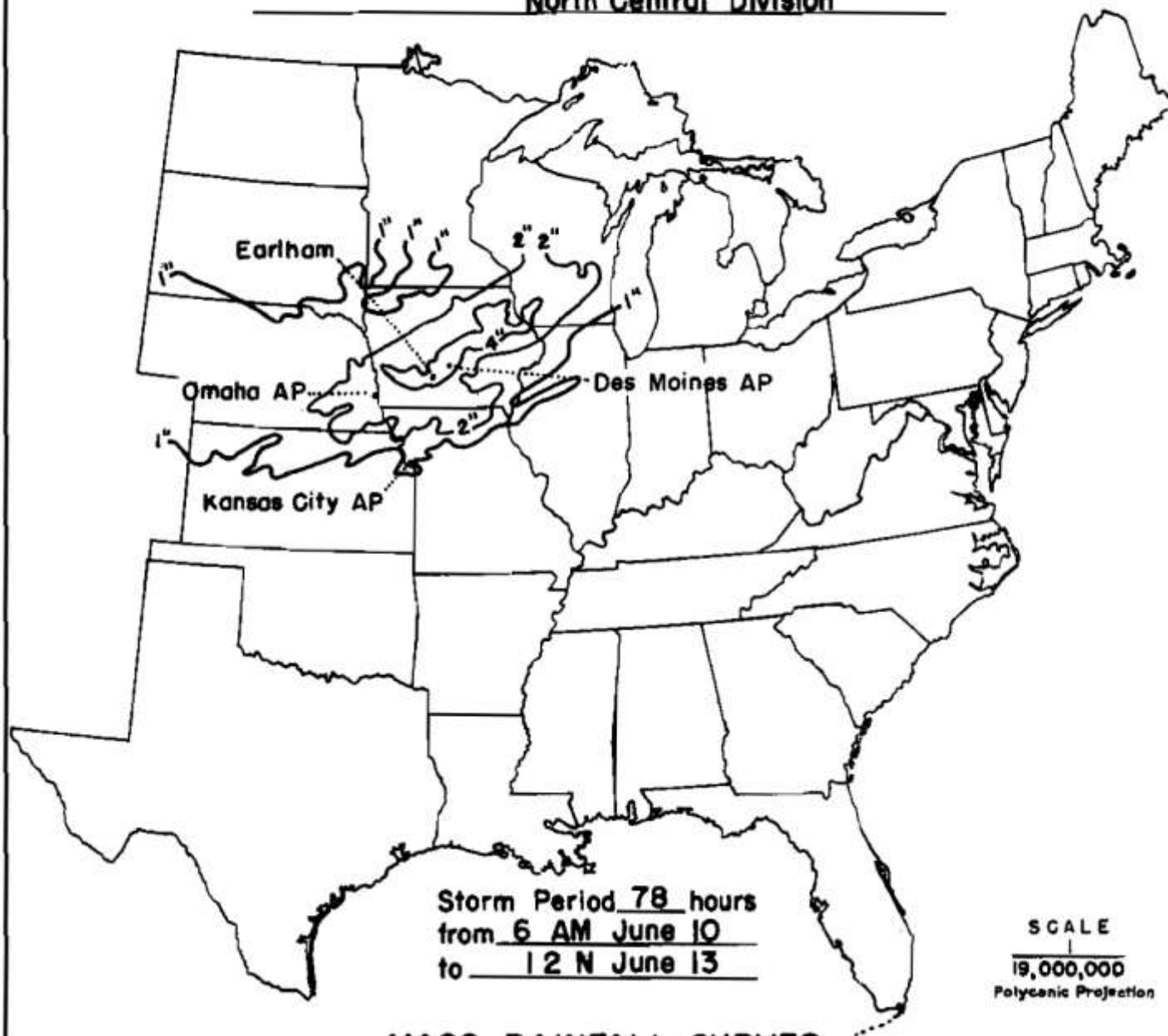
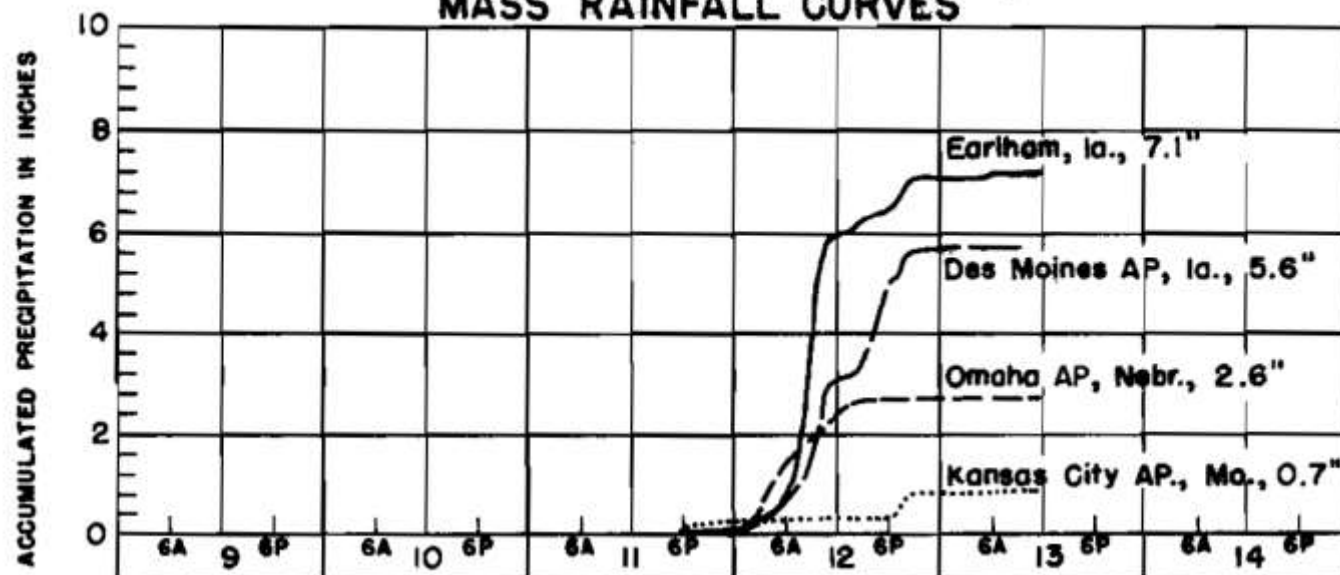


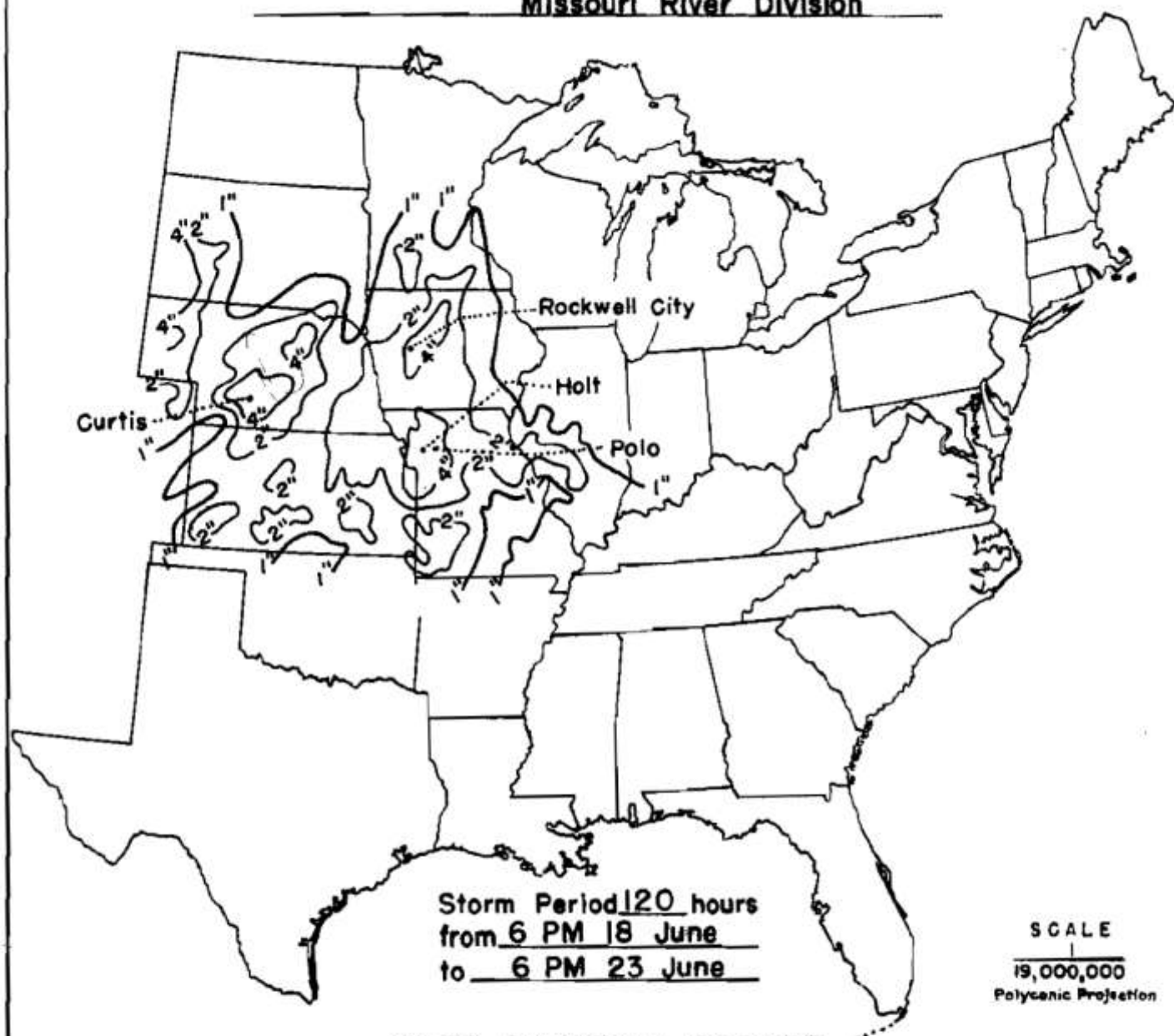
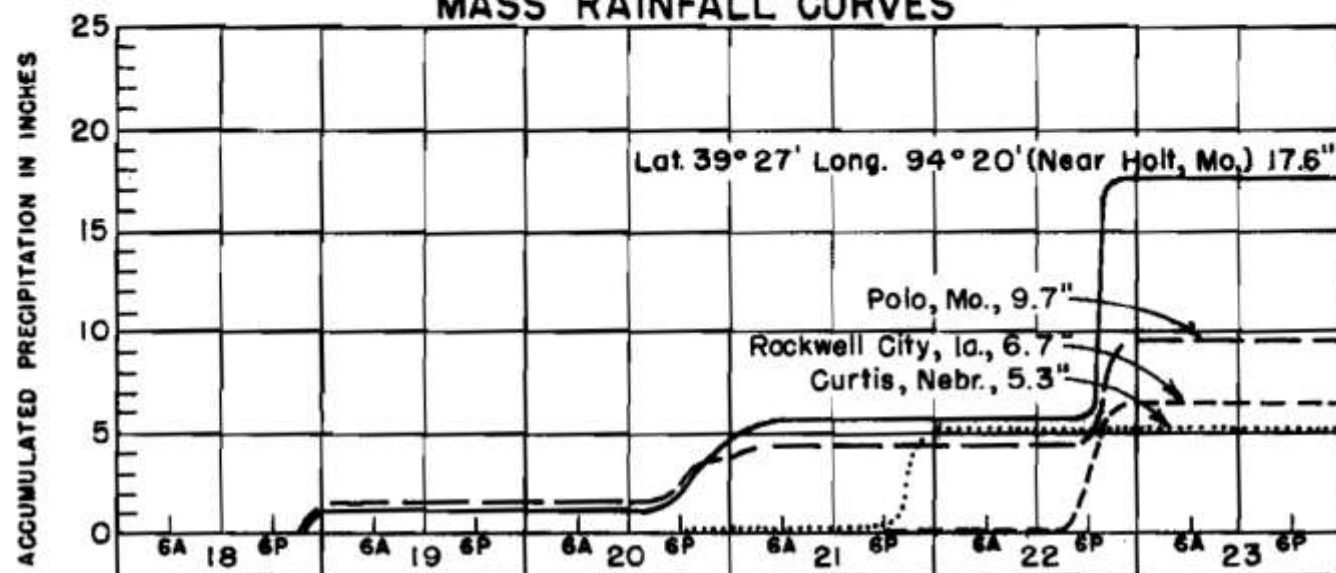
STORM STUDIES - ISOHYETAL MAP

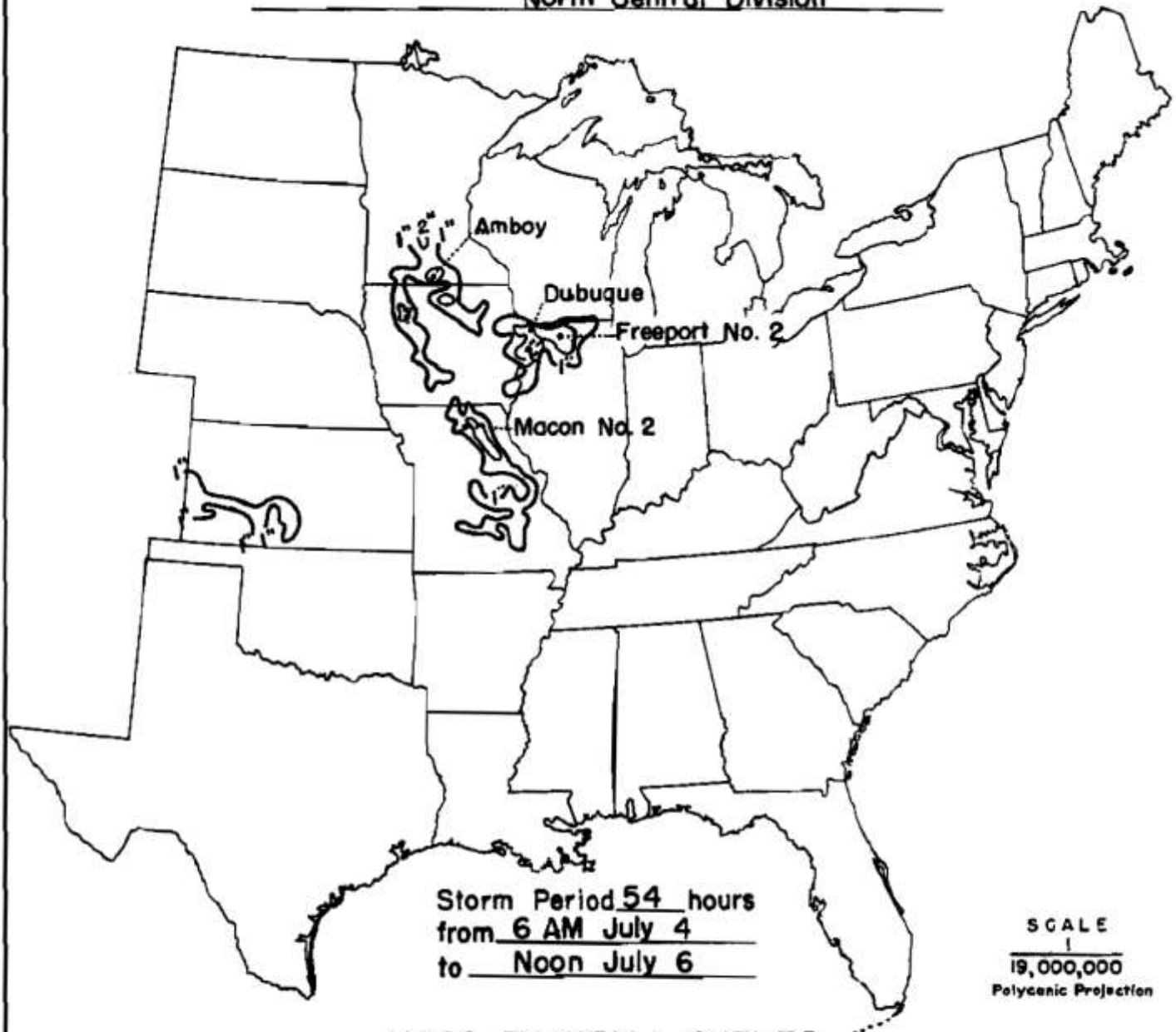
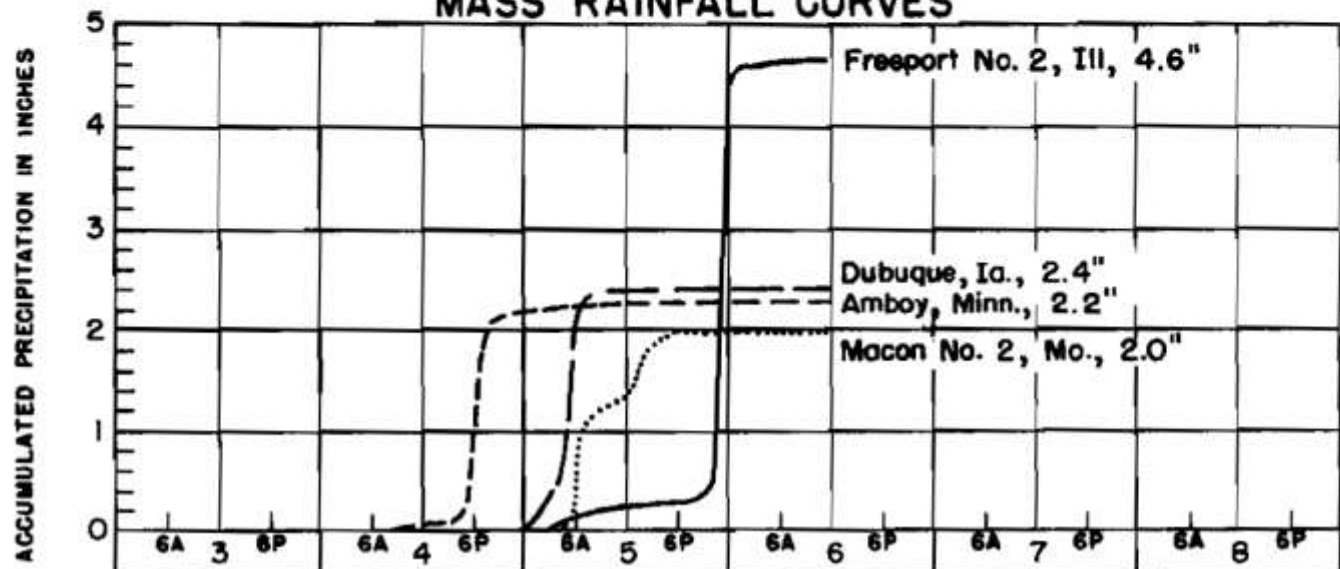
Storm of 7-10 June 1947Assignment MR 8-12Study Prepared by: Omaha, Neb., District
Missouri River Division

MASS RAINFALL CURVES



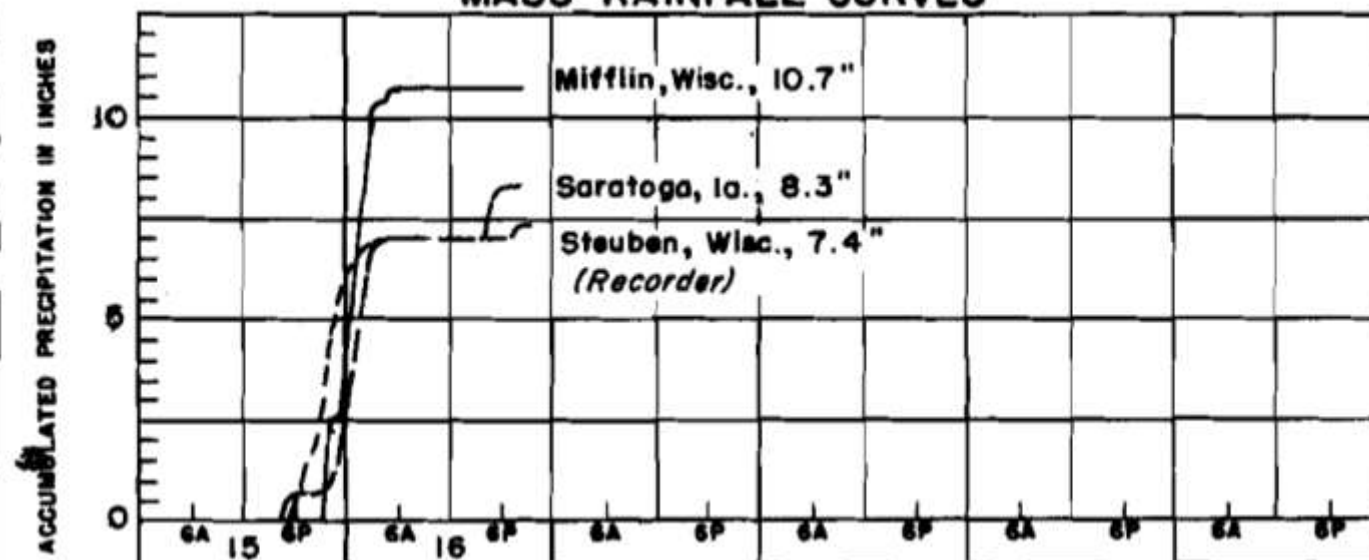
STORM STUDIES - ISOHYETAL MAPStorm of 10-13 June 1947Assignment MR 8-14Study Prepared by: Rock Island, Ill., District
North Central Division**MASS RAINFALL CURVES**

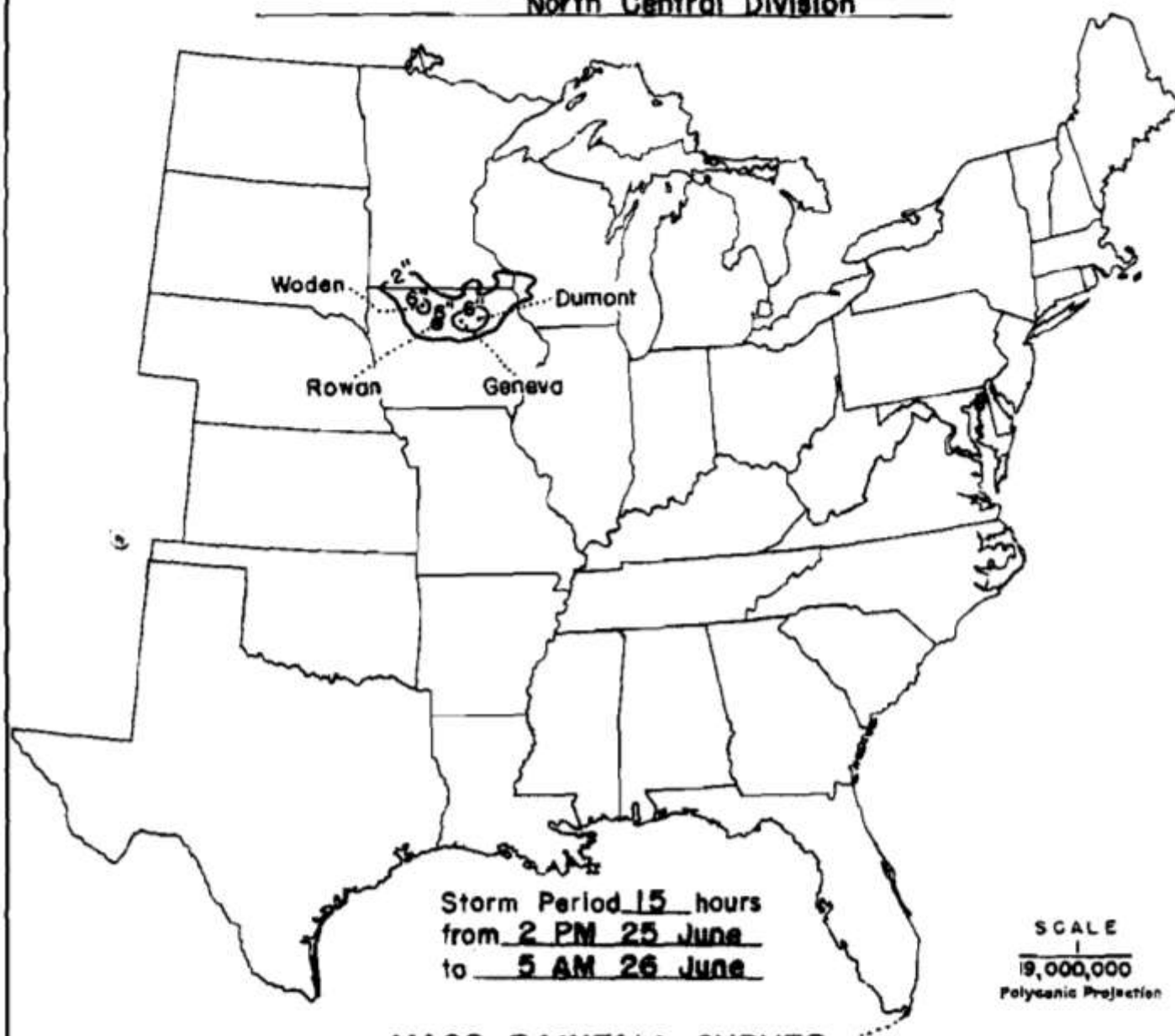
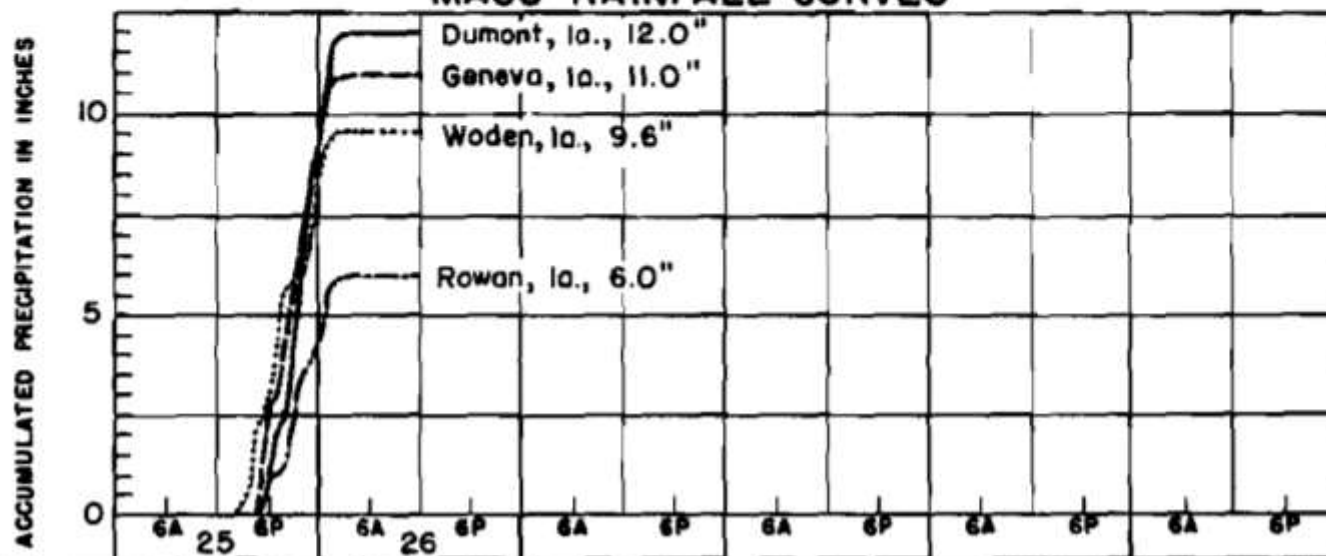
STORM STUDIES - ISOHYETAL MAPStorm of 18-23 June 1947Assignment MR 8-20Study Prepared by: Omaha, Nebr., District
Missouri River Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAPStorm of 4-6 July 1947Assignment MR 8-30Study Prepared by: Rock Island, Ill., District
North Central Division**MASS RAINFALL CURVES**

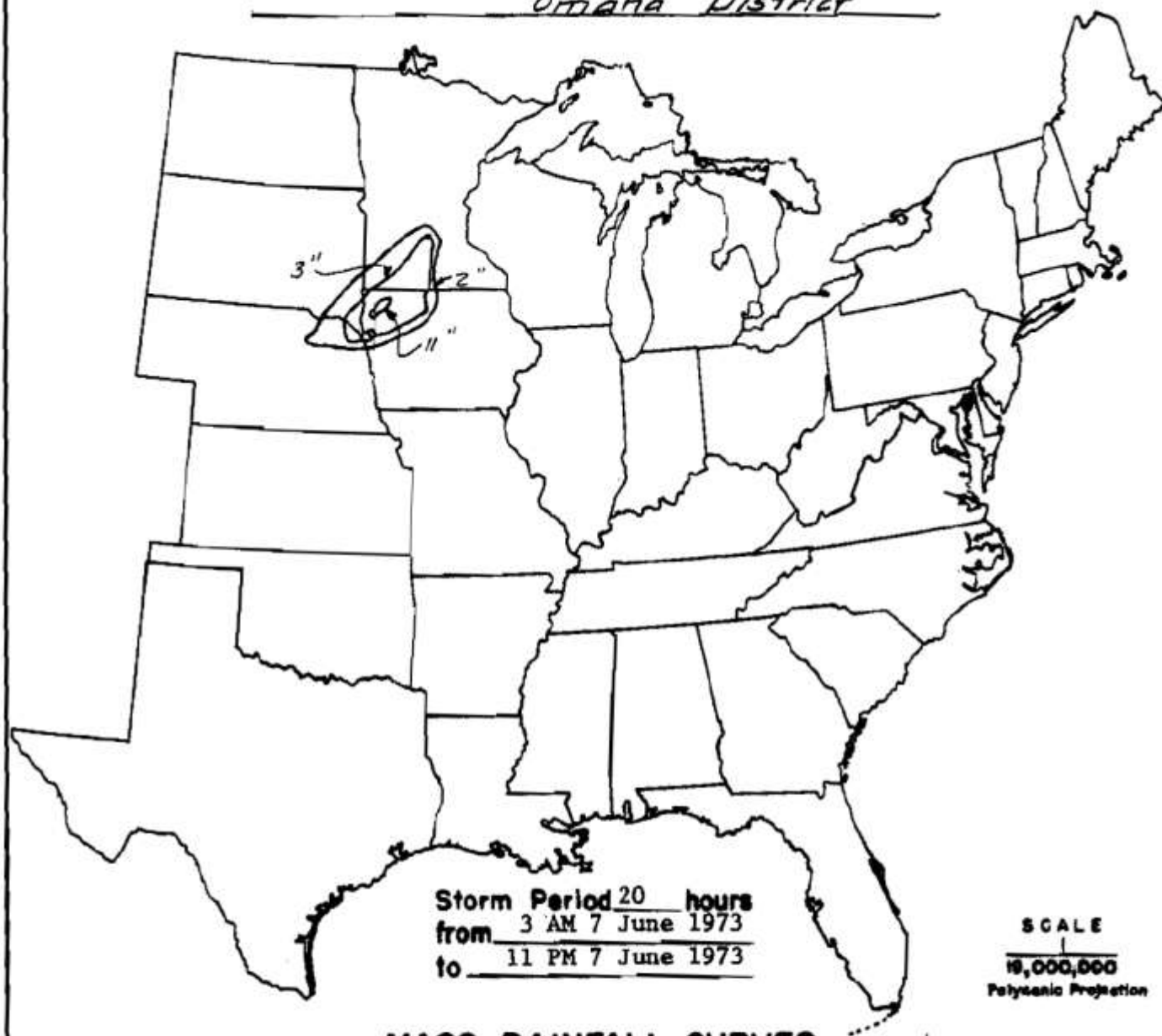
STORM STUDIES - ISOHYETAL MAP

Storm of 15-16 July 1950 Assignment UMV 3-28
Study Prepared by: Rock Island, Ill. District
North Central Division

**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAPStorm of 25-26 June 1951 Assignment UMV 3-29Study Prepared by: Rock Island, Ill. District
North Central Division**MASS RAINFALL CURVES**

STORM STUDIES - ISOHYETAL MAP

Storm of 7 June 1973Assignment MR 10-8Study Prepared by: Missouri River Division
Omaha District

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