



MMA NEWS

MISSOURI MAPPERS ASSOCIATION

P.O. BOX 1692

JEFFERSON CITY, MISSOURI 65102

Volume 7, Issue 1, March 15, 1991

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- MMA LOCAL CHAPTERS -

The Board of Directors of the Missouri Mappers Association approved a new by-law authorizing the formation of local chapters at its December 1 meeting in Columbia, Missouri. The by-law will read as follows:

The Association, with approval of its Board of Directors, may authorize and charter local chapters, consolidate chapters, or revoke chapter charters for good cause. Chapters shall be co-extensive in geographical area. Application for the charter of a chapter shall be in writing, signed by not fewer than ten MEMBERS in good standing, and shall be submitted to the Board of Directors of M.M.A. for approval.

Such local chapters shall provide for their internal government and regulations by By-Laws of the Association and which shall be submitted to the Board of Directors of the Association for its approval.

The Board of Directors feels that with this by-law change, there is an opportunity to make our association a more progressive and responsive organization to its membership through local involvement. If you would like to see a local chapter in your area please comply with the above by-law change and submit your application before the next Board of Directors meeting on March 23, 1991.

Should you have any questions, please contact any board member.

- IAAO COURSE 6 -

The IAAO Course 6 — Fundamentals of Mapping was held in Columbia February 4 thru 8, 1991. There were nine current MMA Members and twenty six new MMA Members in attendance. George Donatello, PMM, was the instructor. Course 6 has been revised and according to George is much harder now than it was a few years ago. If it's been a while and you need a refresher or you have never taken this course, I would strongly recommend you consider enrolling next time it is offered in this area.

Dan Roe, President

MISSOURI MAPPERS ASSOCIATION CERTIFICATION EXAMINATION

The Missouri Mappers Association PMM Certification Examination has been scheduled for some time in April or May of 1991. If you meet the following designation requirements, you are eligible to take the eight hour comprehensive and subjective examination:

1. Have five (5) full years of cadastral mapping experience or its equivalent.
2. Be engaged in the use, production, or maintenance of cadastral maps.
3. Attended a minimum of 30 hours of study in mapping, surveying or a closely related subject.

In order to be scheduled for the examination, you must complete a Certification Application and submit information verifying that you meet the requirements listed above. This information must be received by the Certification Committee no later than March 31, 1991. If you would like to receive an application or have any questions, please contact Stan W. Balsman, PMM, Certification Committee chairman, P.O. Box 366, Perryville, MO 63775, (314) 547-8357.

BOB PIRRIE DIES IN PLANE CRASH

On February 6th, we lost a wonderful asset to the area of surveying and drafting. Bob Pirrie's plane crashed at approximately 4:45 in the evening when he was attempting an IFR landing at the Cape airport. Bob loved to fly and had been a pilot for approximately 10 years. At this time there is an ongoing investigation into the cause of the crash. For the ones that did know Bob well, he was a very knowledgeable man that was always willing to share that knowledge with others. Bob owned and operated his own surveying and title insurance company. Bob was a Charter member of the Missouri Mappers Association and held the offices of Director and Secretary in the years 1986 - 1987 and 1987 - 1988 respectively. He also was designated as a Professional Missouri Mapper in 1985 and served on the Certification Committee since. He was a past President and newsletter writer for Missouri Association of Registered Land Surveyors. Bob was very involved in his community as well. He served as alderman for the City of Perryville since 1986 and was president of the Board of Alderman as well as serving on several committees. He also taught classes at the Vo-Tech school on surveying as well as several workshops for the MMA. He will be missed by all.

EDUCATION COMMITTEE REPORT

The workshops in November and December were very successful. I would like to thank everyone that participated in these workshops. Attendance ranged from 25 to 35 people per meeting.

In the near future I'll be scheduling a workshop on Highway Right-Of-Ways, plotting curves and inking techniques at two or more locations. All Missouri Mappers will be receiving a brochure on the upcoming workshops sometime after Easter.

Carl Sohn

Thence on a curve to the Right

Mappers occasionally are required to plot descriptions that at first appearance, seem to be virtually impossible to interpret. such an occasion came to me not long ago. While I refused to be intimidated by the following description, I did have to scramble and kame several phone calls to be sure that I was on the right track.

The description went something like this:

...thence North 50° 00' East, 200.00 feet...

...thence on a curve to the right, said curve having a radius of 150.00 feet, and an arc length of 92.00 feet...

Of course, being the experienced mapper that I am, I recognized right off that this was simply a matter of a couple of steps and the proper line would then be easily envisioned. I further reasoned that with the aerial photo base, I could readily identify land usage and in turn infer where the line was supposed to go. However, as is typical, the area being described was a mix of woods an pasture, and as it turned out, the reason for the deed was that the grantor was splitting off tracts from the parent parcel, so the base photo was of little help.

Being the systematic type that I am, I simply yelled, "_____!" Went to the phone and called Bob Meyers, PMM and in turn Ken Eftink, PMM and after a few puzzled (on my part) minutes of conversation, I was convinced. I had seen this type of description before, but obviously hadn't worked too many, fortunately with the able help of Meyers and eftink, I was able to complete the plotting of those curves.

As it turns out, I learned there are three easy steps to plotting such a curve. They are:

1. Calculate the central angle.
2. Calculate the length of the chord.
3. Turn one half of the angle and plot the point a chord length from the turning point.

Nothing of it, I told them. I just had one more question, how do you calculate the central angle, and the chord length?

To calculate then central angle, use the following formula where:

I is the central angle
L is the arc length in feet
r is then radius in feet
Pi is equal to 3.1415927

The formula is:

$$I = (180 * L) / (R * \text{Pi})$$

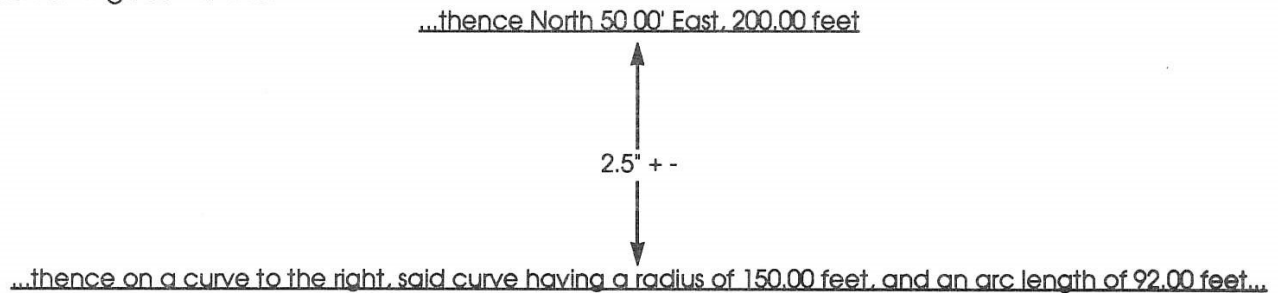
To calculate the length of the chord, use the calculated central angle and the given radius, where:

C is the chord length
R is the radius
I is the central angle

The formula is:

$$C = 2R \sin I/2$$

With the formulae is hand, and a firm grasp on the mathematics, I could now plot that dreaded curve. It goes like this:



1. Calculate the central angle:

$$I = (180 \cdot L) / (R \cdot \pi)$$

or

$$I = (180 \cdot 92) / (150 \cdot 3.1415927)$$

$$I = (16,560) / (471.2389)$$

$$I = 35.14 \text{ (the central angle)}$$

2. Calculate the chord length:

$$C = 2R \cdot \sin(I/2)$$

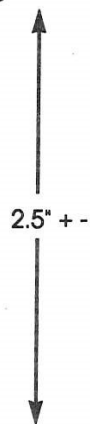
or

$$C = (2 \cdot 150) \cdot \sin(35/2)$$

$$C = (300 \cdot 0.30071)$$

$$C = 90.213' \text{ (CHORD LENGTH)}$$

3. The central angle (I) is about 35 degrees, so the final step is to turn an angle 1/2 of 35, or about 17.5 degrees (.5*35) to the right, and scale the chord length of 90', that point would be the intersection of the arc and the chord and the point which we are attempting to plot. If the arc is the boundary, then you would need to pencil the arc in between the two points. In this case and probably most often is, this point is just one call of many in the deed, and you simply continue plotting.



The sin of 17.5 degrees (0.30071) is obtained from the table of Natural Sines and Cosines available in most surveying text's. If one is not available, give me a call at the State Tax Commission, and I will provide you with a copy.

Bob Norris, PMM

A BIT OF HISTORY

We would like to recognize the members of our organization who have given their time and energy to serve on the Board of Directors.

George Donatello	President	1984 - 1985
Earl Tomberlin	Vice-President	1984 - 1985
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	President	1985 - 1986
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	President	1987 - 1988
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Dan Roe	Vice President	1989 - 1990
	President	1990 - 1991
Debbie Cochran	Secretary	1989 - 1991
Jerry Joe	Treasurer	1989 - 1991
Gene Zimmerman	Director	1990 - 1991

The time is drawing near when the nomination committee will be contacting members to fill the 1991 - 1992 Board of directors. If you would like to volunteer to have your name placed on the ballot, please contact any current board member and they will pass the information to the nominations committee.

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