file: NESMEA

THE HISTORY OF NESMEA

Presented by Phil McIntyre

I have just returned from attending the 1995 meeting of the Northeastern States Materials Engineers meeting, held this year in Nashua, NH. The meeting this year was hosted by Alan Rawson, the Materials Engineer for the NHDOT. It was very well attended. I understand that the registration was over 200.

I'm Phil McIntyre and I consider myself very fortunate in that I've been involved with this association, in one way or another, for about 30 years. Because of this, Alan has asked me to discuss briefly some of the history regarding its origin and growth through the years. As far as I can determine, this association is the oldest of its kind in this country.

This association has been very rewarding to me, not only for the new knowledge that I have gained from the many excellent speakers it has had, but also from the acquaintances and individuals that I have come to know through this organization and its annual meetings.

I began to attend these meetings in 1957. The pace of life was somewhat slower then and most of the association members back then had been in their respective positions for quite some time. Because of this, my personal knowledge of this organization goes back, almost to the end of the second World War. However, to fully understand and appreciate the original concept and or origin of this association, we need to set the stage by turning the clock back some 72 years, to the year 1923. Unfortunately, few, if any of us, were around at that time.

On May 2 & 3 of that year - the first non-stop U.S. transcontinental flight was made.

The World Series was played in the big apple that year between the N.Y. Yankees and the N.Y. Giants. The Yankees won it with the help of a guy named George Herman Ruth.

The Cecil B. Demille's award winning movie - The Ten Commandments was playing at the local theater. It was a silent film. And one of my boyhood hero's Tom Mix and his horse "Tony" made their first picture that year, also a silent movie.

The automobile was coming on strong. Henry Ford had introduced his model "T" 15 years earlier and his company had manufactured and sold thousands of these jalopies And plans were underway for a new car, the model "A", which would roll off the assembly line in only four short years. There were over 100 automobile manufacturers producing cars at this time. Two and half million cars were manufactured in 1923 and there were 10 million cars on the highways.

On August 2nd of that year, our 29th President of the U.S. died in office after having served only 3 years. Warren G. Harding was only 58 years old. He had suffered ill health and it was said partly as the result of the famous teapot dome scandal wherein some of his most trusted personal friends and cabinet officials had swindled Uncle Sam by selling off government owned oil reserves in the southwest U.S. for a price. And

later that same day, in Plymouth, VT., the then Vice President, Calvin Coolidge, while visiting his birthplace, was sworn into office, in the kitchen of his folks home, by his father, a justice of the peace.

Seven years earlier, congress had passed the first Federal Aid Road Act which, for the very first time, provided federal funds to the states for road building purposes.

And only 2 years earlier, the Federal Aid Act of 1921 required the states to establish a designated Federal Aid Highway System and mandated that all Federal Aid Funds which than totaled 100 million dollars (1/60th of today's - about 6 billion dollars) were to be spend on the new system, at the rate of not over $10,000 per mile. This new law was to be administrated by the Secretary of Agriculture through a new bureau - The Bureau of Public Roads (BPR).

By 1923, 35 states had enacted gas tax legislation, generally one cent per gallon.

Road surfacing was beginning to reach out into the rural areas of New England. At that time, over 95% of the roads were of crushed stone or gravel or just plain dirt. Here in N.H. the road through Franconia Notch (U.S. 3) remained closed during the winter months until the winter of 1927.

Bituminous surfacing materials were being used to seal existing macadam roads. Coal tar was readily available and cheap because it was a waste material from coal gasification plants in many locations. Petroleum produced asphalt, also a waste material was slowly being introduced as a new paving material. Concrete paving was very popular because slabs were placed directly on a prepared subgrade or perhaps on 6 or 8 inches of some type of granular material with little or no reinforcing. Steel truss bridges were approaching their hay day - a carry over from the railroad. I believe that only ASTM A 36 steel was available for this work. Bituminous based coatings, again taken from railroad technology, were popular. The lead-oil systems, as such, hadn't really begun as yet. And no one knew anything about soil mechanics or geotechnology as we call it today. Neither Terzaghi or Hogentogler or Casagrande had written anything in the technical press.

A gentlemen by the name of Albert V. Bratt, who had been assigned the task of administering a materials testing laboratory for the Massachusetts's DPW, in Boston, was very much aware of the fact that his trials and tribulations were being somewhat duplicated by those that had similar duties for state highway agencies in the various capital cities of the other New England States. Letters, perhaps telephone calls, and more likely, word or mouth was bearing this out. So, in 1923, only a few weeks after Warren Harding's death, he invited the materials engineers (and I use the term rather loosely) from the other New England States to meet with him in Bean Town. I would like to quote Mr. Bratt, "it is not always feasible for all of us to participate in the meetings of HRB, AASHO and ASTM which are usually held at some distant point."

I have no accounting as to which states attended this meeting; how they got there, but I suspect it was by rail; what was discussed or how long the meeting lasted. However, I do know that this gathering broke the ice and that the concept for a New England States testing engineers association had jelled.

For the next several years, at this time of year, this rather informal group met, by themselves, usually at the Statler Hotel in downtown Boston. I was told by one them them that occasionally they would recess to the "Old Howard Burlesque" theater to do a little research.

By the early thirties, the annual meeting had developed into a formal two day open session with presentations by State and Federal technical people and by Representatives from industries whose products were available and being consumed by the highway community, here in the Northeast. Although the "Soils Engineers" as such had not been born as yet, some individuals who were working in this area were also invited to attend and to participate in these meetings. Their presence at these meetings continued until they finally organized their own group in 1960.

In the early thirties, New York state joined the group and the name was changed to "The New England and New York States Testing Engineers Association".

Also during the thirties, Mr. Bratt established a meeting format wherein Bituminous materials were discussed the first day and the second day was devoted to non-bituminous materials; cement, concrete, soils, steel, paint and salt, etc. He asked the speakers to submit written texts so that an annual meeting proceedings could be published. Again I would like to quote Mr. Bratt, from the 1937 proceedings, "Let us not consider ourselves as merely guests here to listen to others present their ideas but let us rather consider that we are a part of group assembled to freely discuss our problems and our solutions to these problems and thus, benefit ourselves individually and the group as a whole".

The proceedings were only published for a few years, perhaps three or four. I suspect that the task of editing the materials together with publication costs was unmanageable.

Originally and even today, this association operates with a boot strap budget in that only those fees which are necessary to offset the meeting overhead costs and to provide some seed money for the following years host are charged.

Somewhat later, New Jersey joined this association and the name changed again to the New York, New Jersey and New England States Testing Engineers Association. Knowing Al Bratt, I can't help but wonder if he didn't play a little politics by showing some partiality to the newcomers by placing their names first in the title. Who knows?

In 1957, Al Bratt retired, but he continued to support and often attended these annual meetings until his death. I was very fortunate in having him as our guest of honor when I chaired the 1978 meeting 55 years after it inception in Manchester, New Hampshire.

After Mr. Bratt retired, the Chairmanship began to be rotated among the membership. In 1960, the meeting place began to be selected by the host State chairman each year and it's been on the move ever since.

At this same time, Puerto Rico was invited to join the group, primarily because it is included as a part of Region 1 of the Federal Highway Administration. The name of the group did not change and after an attempt to hold an annual meeting in Puerto Rico failed, they withdrew from the group.

After Mr. Bratt retired, a gentlemen by the name of Beverly Ottaway, an employee of the Mass DPW lab in Wellsley volunteered to act as Secretary/Treasurer. Bev's assistance in organizing these meetings was very helpful and I remember working with him on several occasions. However, eventually he transferred out of his position and this task was passed on to the yearly host.

Finally, Pennsylvania, which had been attending some of the meetings asked to formally join the group and the name changed once more to "The Northeastern States Materials Engineers Association" or "NESMEA" for short and this title has been used ever since.

Any of you that have been involved in organizing and presenting formal meetings of this type, know full well that the success of these meetings lies in the hands of many individuals. Much of the success of these "NESMEA" annual meetings has been due in large measure to those Ladies and Gentlemen who have volunteered their time and usually their expense to come to these meetings and speak. NESMEA is particularly indebted to a number of individuals who have returned again and again to help with this dissemination of technical information.

I would like to conclude my briefing of "NESMEA" by reading the preface, taken from one of the early published proceedings. (1935) "The opportunity afforded all interested parties within this district to freely discuss the subject of construction materials with eminent research men, and the representatives of the leading manufacturers fully justifies the annual meeting of the New England and New York States Testing Engineers." - A. V. Bratt, Chairman.

As I review the names of the current materials engineers who represent their respective state for this association, as shown on this years program, I believe my friend Al Bratt would agree with me when I say, "We can look forward to many more years of continued success for NESMEA from these very capable "young" materials engineers.

Thank you for giving me this opportunity to update you on NESMEA.