WATERLOO TECHNICAL SOCIETY
13 MARCH 2002 MINUTES

The 13 March 2002 meeting of the Waterloo Technical Society was held at Greenstreets located at the Cedar Falls Holiday Inn with 32 members and 2 guests in attendance. The meeting was called to order at 7:15 PM by Vice-President Brian Carlson.

Following the introduction of guests, Past presidents and Honorary Members were recognized. The Treasurer's Report was presented by Co-Treasurer Dave Berry which showed 28 Feb 02 balance of $364.10; there were receipts of $90.00 and expenses of $76.11 including $33.00 for guests and $43.11 for publicity with a current membership of 75. The minutes of the 13 Feb 02 meeting were presented by Co-Secretary, Tim Schoenfelder. In new business, Brian asked if everyone could get their meeting reservations to Nico De Jong, our Sergeant-At-Arms earlier in the week as he has been getting later reservations. Brian also stated that he and Dave would work together to get the meeting notices mailed earlier also.

Warren Amfahr, March Program Chairperson, then introduced Dr. H. Kent Macomber. Dr. Macomber presented on the topic of "The Basic Physics of Heat Pumps". He described the issues associated with measuring temperature and temperature differences. Dr. Macomber then described a method that would work to accurately and inexpensively measure temperature and temperature differences. He went on to explain the basics of heat engines. In addition, Dr. Macomber described how the Carnot Cycle works and used that to illustrate how a heat pump provides more energy than what is put in.

Dr. Macomber recommended describing this phenomena of getting more energy out than put in with a heat pump as a coefficient of performance instead of efficiency to avoid confusing the two.

Dr. Macomber's presentation notes as well as pictures of Warren's Hot Water Heating System should be on the Waterloo Technical Society Website in the near future.

Respectfully submitted,

Tim Schoenfelder

Co-Secretary