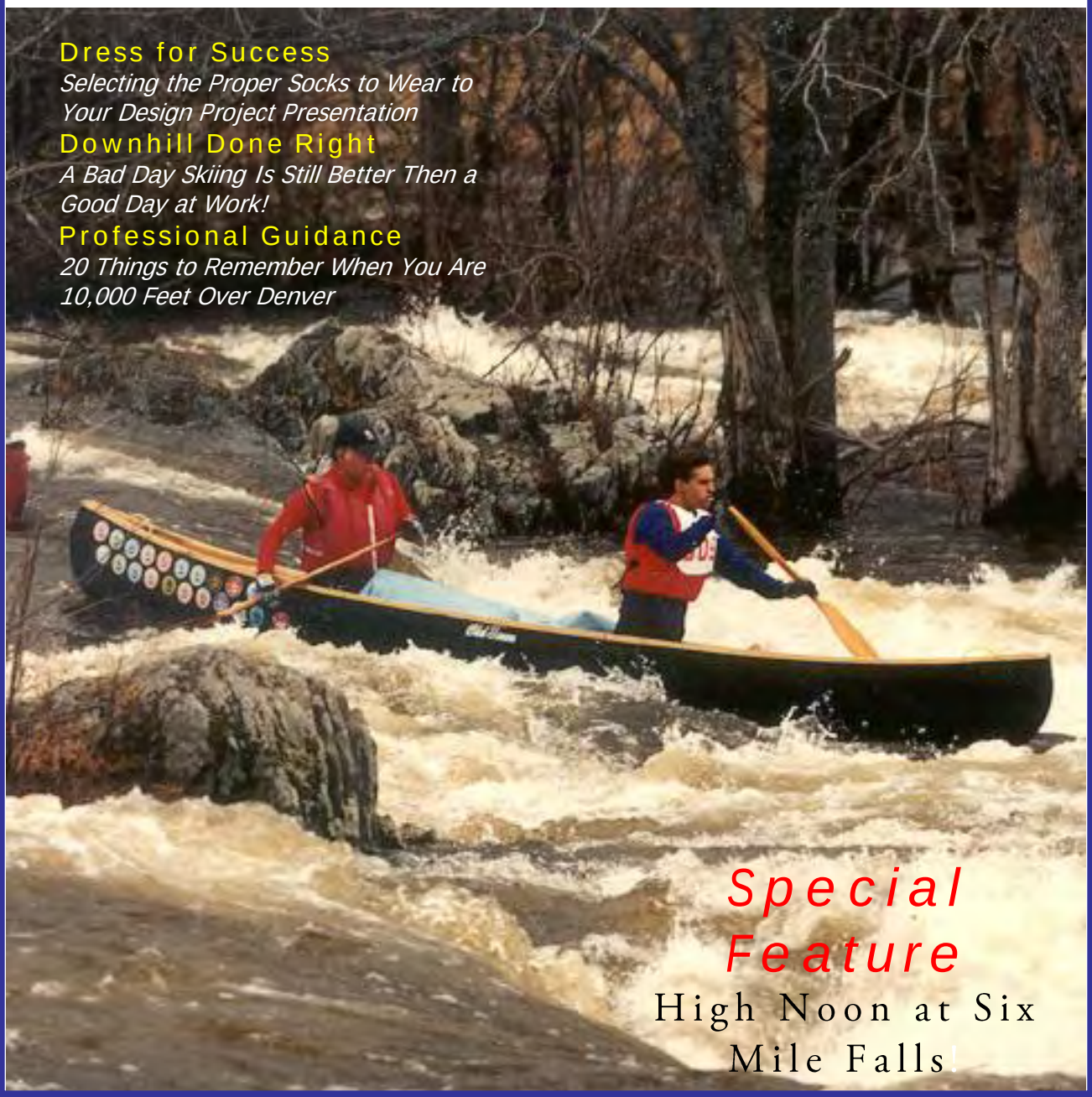
October 4, 2003 Volume I, Number I

Confessions of a Chemical Engineering Outdoorsman

Prof. Bill Ceckler's Journal of Higher Education and Outdoor Living



Dress for Success
Selecting the Proper Socks to Wear to Your Design Project Presentation

Downhill Done Right
A Bad Day Skiing Is Still Better Then a Good Day at Work!

Professional Guidance
20 Things to Remember When You Are 10,000 Feet Over Denver

Special Feature
High Noon at Six Mile Falls!

A Publication of the University of Maine College of Engineering

The Autobiography

Of Professor Emeritus Bill Ceckler

I came to the Chemical Engineering Department at the University of Maine with three guiding principles in mind:

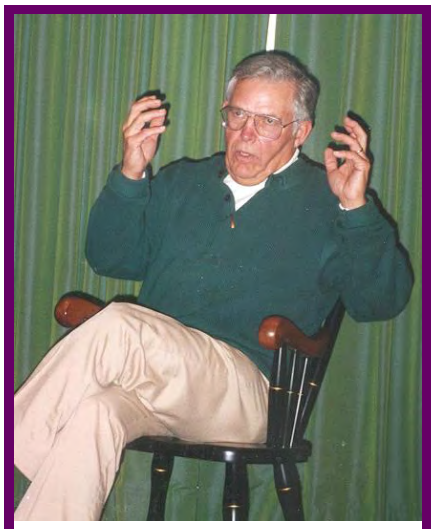
1. The purpose of a college education is to develop the student's ability to meet new and unfamiliar situations with confidence and competence.
2. The determining factor in achieving success depends on how well a person can get his or her ideas across to others in both written and oral form.
3. An education should be an enjoyable process.

I was reasonably well prepared for the job. A B.S. degree in Chemical Engineering from the University of Rochester, MS and ScD degrees from M.I.T., 4 years as Assistant Director and Director in the M.I.T. Chemical Engineering Practice School and 12 years of experience in engineering development and research in the Steel Industry rounded out my experience.

During my 27 years with the department I taught all of the core Chemical Engineering courses. Introduction to Chemical Engineering, Unit Operations, Thermodynamics, Process Design, Unit Operations Lab and Process Design Lab. Ed Thompson and I wrote a textbook titled *Introduction to Chemical Engineering*. Warner, Lucius, Hwalek and I made substantial change to the Process Design Lab that allowed it to legitimately qualify as the Department's capstone course.

I pursued major research activities in energy conservation in the Paper Industry, removal of SO2 and NOx from power plant flue gasses and the production of alcohol from wood.

Confessions of a Chemical Engineering Outdoorsman



A very rare photo of Bill managing to sit still long enough to tell a story

One of the things I found missing when I first arrive on campus was the opportunity for social interaction with the students. I have always been vitally interested in sports and recreation, and for me it provided a good way to interact with and get to know students and fellow faculty members. There is nothing like a good game of racquet ball or a gentle game of "touch" football to let students know that the Tyrant they face at 9:00 Tuesday and Thursday mornings shares many human frailties with them.

One of the observations that I made soon after I arrived was that many of the Physical Education faculty would spend a 2 hour lunch working out, and then spend Wednesday afternoon paddling the local rivers, all in the guise of Recreation Management. It seemed only reasonable that the engineering faculty should spend at least a 2 hour lunch studying various aspects of muscular and physiological dynamics and spend Thursday afternoons studying various aspects of fluid dynamics by direct observation of flow separation, turbulent mixing, hydraulic jumps, etc. This could best be accomplished in a series of hydraulic seminars on the Kenduskeag Stream and other flow channels in the area. I initiated this program and it proved to be quite popular with undergraduates, graduate students and fellow faculty members. Ken Jewett and Brian Shiller were at the top of the class.

The University is fortunate in being located in the epicenter of some of the best open canoeing white water in the east and the Kenduskeag Stream Race is an ideal test site for various canoe design innovations. I participated in the race for 24 years with a variety of bow men, including George Denton from Geology, Ron

"Sea Dog the Sailor Man" with Wife Pollyanna Sea Dog on a cruise around Frenchman Bay

Sheldon from Chemical Engineering, Bryan Pearce from Civil Engineering, Mike Webber, a ChE student, my son Jack and daughter Toni. In 1978 Rod Forsgren, from the Business College, and I won the beginner class (primarily because a beginner is one who has never won a race) with a time of 2 hours and16 minutes which was a record that stood for 17 years. The next year we won the Club Class and in 1989 Dick Weeks and I won the 20 ft. Class.

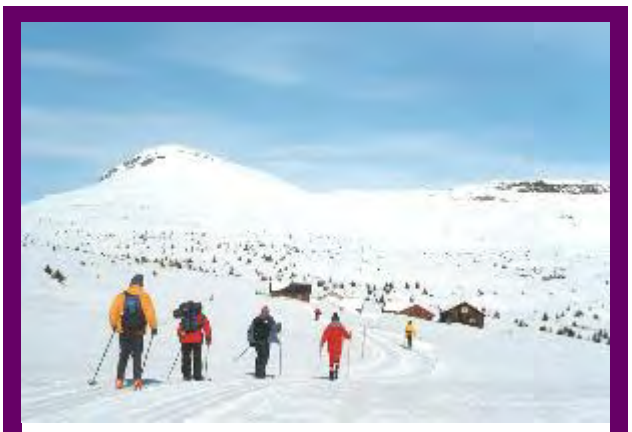
Bill and Daughter Toni in the Kenduskeag

For many years it was well know in the Department that Bill would be at Six Mile Falls at High Noon on the 3rd Saturday of April and if you expected to pass either Unit Operations or Design Lab you had better be there, cheering loudly enough so that I could hear you as I paddled past. There was also a standing offer of a guaranteed "A" in the course for any one who could devise a way to increase the speed of a canoe by 10%..

In retirement my wife Polly and I live 75 feet above high tide in Hancock Maine. I have transferred much of my interest in water sports to sailing and racing a Rhodes-19 sailboat on Frenchman Bay. However, I will still make the offer to change anyone's grade in Unit Operations, Unit Operations Lab or Design Lab to an "Á" if you can devise a way to increase the speed of my sailboat by 10%

Skiing and x-c skiing are still important winter activities for me. On Mondays and Tuesdays in the winter I can usually be found in the vicinity of the Spillway Chair at Sugarloaf. If the weather is bad I will probably be on the x-c trails. My wife and I and a group of friends have had two winter adventures cross-country skiing in Norway. Two winters ago we spent two weeks x-c skiing 200 miles north of the Arctic Circle in NW Finland.

I have rediscovered bicycling. Besides being a good way to stay fit, it is an ideal way to visit foreign countries, interact with the people and absorb some of the culture. This has lead to some interesting tours with my wife and friends to Germany, Austria, Holland, Belgium, Quebec and Vancouver.



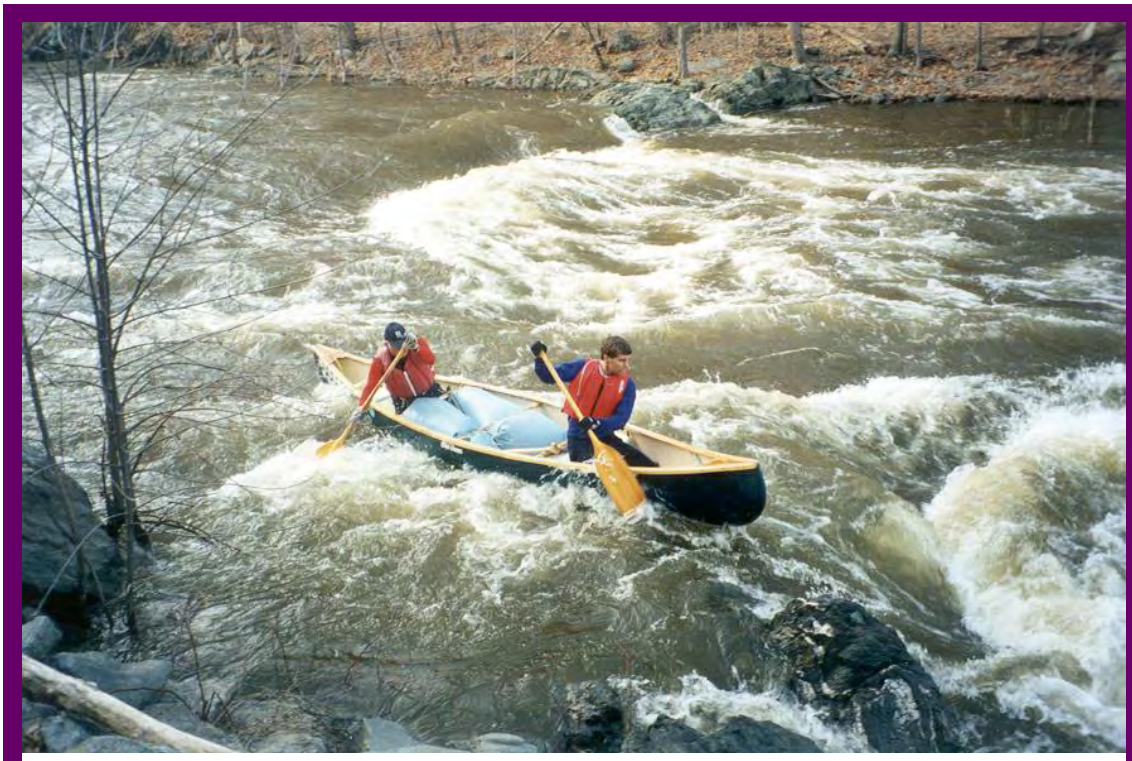
Bill and Friends Above the Artic Circle

In conclusion I must point out that retirement hasn't been all

play. I have served several years as President of the Frenchman Bay Conservancy, and am still on the Board. This is a Land Trust devoted to preserving the natural character of Frenchman Bay. I am Vice President of the Sunrise Trail Coalition, a group devoted to promoting the development of recreational trails in Hancock and Washington Counties. I serve on the Regional Transportation Advisory Committee for Washington and Hancock Counties, and the Public Advisory Committee that is trying to devise better ways to get people from the Bangor/Brewer area to Mount Desert Island and Acadia National Park.

If you are in the area, stop by and say "Hello", bring toys!

Bill Ceckler
October 4, 2003



Bill and Son Jack ready to encounter ***High Noon at Six Mile Falls***

Bill Ceckler Stories

I am a 1972 ChE graduate and had Bill for Unit Operations.

The whole class really liked Bill and his style.

Not sure of details in this story (it was 30 years ago) but Bill made a deal with a bunch of us senior ChE's to come to his lot in Hancock. We would help him cut trees and clear brush, and he would provide the beer.

We started out as a very industrious bunch cutting etc, BUT then Bill allowed us to have some beer. Big mistake! We did not get much clearing done after that, and I think it was only noon at that point!

I am guessing at guys there but it was probably Bob Hume, Bruce Stowe, Brian Jones, Pat Sturtevant and probably someone I am forgetting.

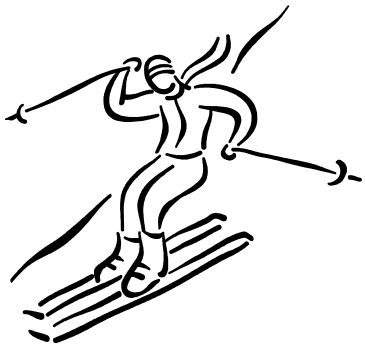
I do hope to make it to the luncheon with my wife.

Patrick D. Sturtevant
Class of 1972

The year after I graduated, Ceckler hired me to work on a research project at the University of Maine. During the interview he was describing the job and explained that there were always two acceptable reasons for missing work: canoeing and skiing. "If we get a few inches of fresh powder, you *may* be at Sugarloaf… I *will* be at Sugarloaf!"

I remember one morning in the springtime; Ceckler came into the office and asked me to make a decision, "A bunch of us from the University are heading up to the Pleasant River for a canoe trip. You can either stay here at the office and work… or you can paddle bow." Given the choice between whitewater or white papers, the next morning I was on my way to Brownville Junction with the boss!

Wade A. Amos, P.E.
Class of 1993



The first story concerns the year I was Bill's bow man for the Kenduskeg Stream Race one year. This was back in 1976 and I was a senior in the Department. Bill's children, who normally raced with Bill, had all left home at that point, and as a result of my performance (albeit under the influence of much beer) at a canoe race at the AIChE Student chapter spring picnic I became his bow man.

This was my first experience in canoe racing, so Bill and I met on the banks of the Stillwater River every morning for practice. In the (sober) light of dawn I think that Bill had some real concerns about my canoeing abilities, but as the days passed I got better and he felt more comfortable. This lead to an actual practice day on the Kenduskeg so that we would have some real world experience together as a team. Things went well that day until we drifted bow first up against a partially submerged tree while Bill was chatting with some people in another canoe. As rookie, I didn't realize the danger that we were in, but once Bill heard the "thunk" of the bow against the tree, he immediately started screaming, "Back paddle!" Well, we did so with all our might, but the canoe still managed to turn sideways and get back up against the tree. Once that happened, the disaster followed immediately. The river current pushed and flipped the canoe under the tree, and the next thing I remember is that I'm coming up out of the 45 degree water 20 feet downstream of the tree watching as the canoe resurfaces and starts floating away! After seeing that Bill had bobbed to the surface as well, we went after and caught up with the canoe, with the help of some other teams, and were soon back out of the water.
I think it was at that point that Bill really started to question the wisdom of the whole novice bow man idea, but we did stay together as a team and did complete the actual race on the next weekend. I don't remember where we finished in the standings (I remember we did finish!), I just know it was way below Bill's usual finishing place. God bless Bill in that he kept an upbeat attitude and was a positive influence throughout the whole experience.

I think that leads in to my second recollection of Bill, and that is of him working away in his office in the upper reaches of Jenness Hall. If you walked by, he would invariably be listening to some type of classical music on the radio. He would have a chalkboard full of calculations and computations, and his desk would be piled high with work. If you stopped in to discuss a problem, he would bound out from behind his desk to discuss whatever it was you needed to resolve, perhaps adding to the hieroglyphics on the chalkboard in the process. I like to think that whatever positive can-do problem solving attitude & abilities I have are in part modeled on Bill Ceckler. I owe the man a debt, as I'm sure do hundreds and hundreds of other students who passed under his influence.

I think that it's appropriate that Bill is being honored at this year's luncheon on Homecoming weekend.

Michael R. Webber
Class of 1974

If there is one thing I remember about Prof. Ceckler, it was his hypothetical situation about us (as future engineers) being on an airplane "20,000 feet over Denver" going to some meeting where we would be expected to have an answer to some technical issue.
He was stressing to us that we sometimes need to be able think without the benefit of books, calculators, or computers.
And that many times, an EWAG (engineering wild-ass guess) was much better than a non-engineer's calculated figure.

At the time, I guess I didn't appreciate what he was telling us. But after being in the real world for 17 years, I completely understand.

Todd C. Hallee
Class of 1986

Since we have known Bill Ceckler not at work but in his annual rehearsals for retirement, vacationing in Hancock, we offer our tribute to Bill Ceckler at play.

"First be a good animal," said Emerson, who once spoke of the joy of walking 40 miles from Roxbury to Worcester in his journal. Norman Brown wrote that man is a species of animal which has as its immortal project the recovering of its childhood.

Bill is a wonderful and childlike animal at play, and that is how we have come to know and love him: on the tennis court, in a canoe or sailboat, on hiking trails, on the croquet court at our side lawn, bill has played always with his whole heart and joyfully. He plays for the joy of play, not so much to win. In his play we think he has achieved one of humanity's highest purposes: To be a good companion, an unselfish friend, and a reservoir of good humor and wise perspective.

For the sailor in Bill, we pay this tribute in song (to the tune of *Popeye the Sailor Man*):

He's Ceckler the Sailor Man;
On the Rhodes he is in Command
When the pistol is fired,
The rest are all mired,
As we tighten up on the vang

He's Ceckler the Sailor Man:
He's never without a plan.
When the wind is a'roarin'
We're planning and soaring;
When it's light we just stay on land.

He's Ceckler the Sailing Vet;
"Beat Waldner's" his raison d'etre.
But through sails are trimmed tight
And the wind is just right,
Waldner's handicap beats him yet!

He's Ceckler the Sailing ace;
You would think he would lead the chase.
But with spinnakers failing
And lobster traps tailing,
We're just glad to complete the race!

He's Ceckler the Sailing sage;
And his wisdom has grown with age.
Though we're lengths to the rear
We've got peanuts and beer
And good friendship to still his rage.

With Ceckler on Frenchman Bay
And in doubles upon the clay,
We've spent many an hour
And friendship has flowered,
So, Bill, come on out and play!

Bob Crabtree
Prill Ellis

I knew professor Ceckler from taking thermodynamics with him. He was always one of my favorite professors because he stressed not only the book-learned aspect, but real world engineering as well. He was always trying to get us to think about situations beyond the textbook problems and apply our knowledge.

One of my favorite memories is of the engineer who designs a bridge. Professor Ceckler, in stressing the importance of double checking your work, would tell us; "You know, if the bridge collapses, then you may as well not come back from lunch, because they won't allow you to clean your desk before firing you.

It always helps to think of that to drive the point home of thoroughness.

Craig Glidden
Class of 1989

In my opinion, Dr. Ceckler was the least intimidation professor in the ChE department (at least, that's what I thought until Senior Design Presentations.) I think that my opinion originates from my first class with him, Introduction to Chemical Engineering, during which he took a Polaroid of every student (in groups of 3, alphabetically.) It was at this time that I realized there was hope for me as a ChE major – all I had to do was whatever I deemed necessary to retain all of the information I was being fed; it didn't matter it my strategy appeared odd or extreme to my classmates.

Later, in my final semesters of ChE, Dr. Ceckler was among those who sat in the audience of Unit Ops and Senior Design presentations and drilled the minds of those who stood fearful at the front of the dark room. It was at these times that I learned how important it is to think on one's feet and, at the same time, I realized (maybe once or twice) how satisfying it can be to do so. Additionally, Dr. Ceckler not only challenged those presenting projects but also reminded the audience, via "Question of the Week," that they, too, had a responsibility fo fulfill. I frequently think of Dr. Ceckler during presentations at workshops and conferences and instantly feel motivated to put the presenter in the hot seat of his or her research.

Most of all, however, Dr. Ceckler was simply fun. His sense of humor was always keen, timely, and relieving.

Cynthia Curry
Class of 1992

What a guy – What a Teacher – In the truest sense of the word. I knew Dr. Ceckler when he first came to Maine (I was there 66-73.) He had a smile and "Zest" for life. I am not sure how much of all the technology he taught us I retained, BUT to this day I can say he taught me "how to think like an engineer"; how to take the broad view; how to step back and understand the "why."

My favorite story relates to a Unit Operations Final… We (Pat Sturtavant, Gerry Hall, and others) had studied all afternoon and night for the test, going over equation after

equation, example after example. We ended up in Pat's for a pizza and… well we had too much of a good thing. Nonetheless, we pressed on through the night and into the morning hours. The next day, slide-rules in hand (primitive computational tool) we marched to the test.

We were READY to do battle with the world of Unit-Ops per Dr. Bill. Slide rule at the ready, the test began… But where were the problems, the charts, and the equations? There were none:

Question # 1: A test tube of toluene is on the bench top uncovered. How much will be left in the morning?

Question # 2: A steel ball is falling through a suspension of pulp. What is its viscosity?

We read, paused, put down the slide rules and began to THINK!

Well, I have never stopped thinking; I have a dozen US Patents and countless foreign Patents.

THERE ISN'T A DAY GOES BY THAT I DO NOT APPLY ALL I GAINED AT MAINE Ch-E.

Much of it from Dr. Ceckler, a mench, a teacher, a model of what is good about man.

I wish him well, and hope that he knows that to many young engineers, he made a difference. That what he told us, we heard and we listned.

H.B. Fuller
Class of 1973

I have always considered myself fortunate to have had you as a professor, and to have worked briefly for you on the "hand sheet smasher." It was always fun to be in your class, and to work for you. You can't say that about just any old professor.

Let me elaborate on a few of my favorite tips, picked up straight from your unit operations lecture:

- When piping a Newtonian fluid from point A to point B, make sure the line doesn't sag, or it will freeze during the Christmas mill outage. Lotta truth to that theory in Maine.
- Never leave a sledgehammer overnight on top of an open 55-gallon barrel of tar.
- If you do, get a good night sleep before trying to remove it.
- Since the dimpled golf ball flies faster, straighter and therefore further, a dimpled canoe must therefore also exhibit the same enhanced fluid dynamic properties.

Wherever I go in the pulp and paper industry, I am proud to be a University of Maine engineer because as a group we have an excellent reputation. You were clearly one of the professors that played a key role in keeping that reputation alive and well.

Jack Thomas
Class of 1984

Although I can remember a number of things about Dr. Ceckler, there are three in particular which I will always remember, all of which are from the Unit Ops class.

"You're 30,000 feet over Denver, you have a meeting in an hour, and your presentation isn't ready. If your aren't sure were to start, make an EWAG." In my field of work, I've made a number of Engineering Wild Ass Guesses. They haven't all worked out, but I was much more successful making them instead of sitting around.

There was also a story about your informal determination of the coefficient of drag for a pickup truck. I seem to remember something about riding on the bumper of a tractor-trailer along the interstate for a long enough period to determine an improvement in gas mileage. I tried this a few times while in school, but now that I can afford gas, I try to keep a safe distance behind.

"In the real world, there are only A's and E's. But since I'm a nice guy, you'll get a C if you set up the problem correctly, but screw up the math." This is perhaps the most useful piece of career-oriented advice that I've ever received. If the job isn't done correctly, it's wrong. There are no brownie points for trying on million dollar investments.

David Roy
Class of 1987

The year was 1989, and I had just left my career as a teacher in order to go back to school and study engineering. I walked into the room for my first class, and I was nervous. The class was Introduction to Chemical Engineering, and the teacher literally "wrote the book on the subject!"

We learned a lot in that class, but what stands out in my memory are not the rules and formulas, but the teacher. I remember I didn't know a soul, and you cam up to me during the first week and pointed out another non-traditional student. Now Terry Pierson and I were about as opposite as you can get, but it sure helped having an adult to work with.

Up until now, whenever I meet a Chem-E from UMO, we shared certain experiences. There were sayings like "ten miles above Denver," and prizes for presentations that required the winners to be over 21 years of age. There were little remarks in class… remember this? It's December, two degrees out, and this student in shorts, tank top, and shoes with NO SOCKS ON, gets up to do an example. From the corner of the room we hear your voice say "grid in his loin cloth.." I don't know why it was so funny, but I still laugh today just thinking about it.

Christine Berg
Class of 1992

One funny story involving Professor Ceckler that comes to mind was relayed to me by Mike Farrington and Matt Mangarelli, a couple of upperclassmen I knew. Apparently Mike and Matt were observing a design presentation when a question about the temperature of a certain cooling stream was raised. The group responded that they had done the calculation and found that it was –30 Kelvin. Ceckler then commented: "Well gee, that's pretty cold!" (For those of you not up on the Kelvin temperature scale, 0 Kelvin is absolute zero and –30 Kelvin is impossible.)

David Cyr
Class of 1993

Bill Ceckler – Engineer, Story Teller, Friend. These are the words that first jump to mind when I think of Bill. My professional life was enhanced significantly during the 5-6 years just before Bill's retirement. We worked together on huge proposals, and on small consulting jobs. We shared hotel rooms, many meals; long late evening drives home, and so many stories.

There are tales to tell of sharing work, editing documents, presentations - experiences very much enjoyed by me. But my fondest memories are personal. A lot of the personal revolves around Bill's stories. I got to know him while I was in my late 30's and early 40's, he near retirement. As we traveled and worked together, we both told stories. Bill's favorite topics were Polly, and his two children. He also told engineering project stories. I think of Bill whenever I take one of my kids skiing. I think of Bill whenever I use more color in my presentations. These are both things that he taught me, indirectly – by accident, through his story telling. He's right about the teenagers of course. Skiing is a great way to keep them interested in dad.

As an engineer, it was easy to follow Bill's lead. While he was happy and gracious when I might jump in and take over a conversation or writing task, he usually led. After all, it was obvious; he is a very good engineer and a talented presenter. He knows how to be successful.

I can summarize by stating that I learned a lot from Bill, and he enjoyed sharing what he knows.

Finally, a little roasting. It is because of Bill Ceckler that I own a Subaru Outback. One rainy fall evening, with Route 2 covered with wet leaves, Bill and I traveled at high speed (Bill drove) to northern Vermont. If it were not for Bill's excellent choice of automobile, I may not have lasted to write this tale. On a curvy stretch of 2-lane road Bill and I met a famous State of New Hampshire Police Officer. We later learned that the officer had actually made news for his ticket-awarding prowess. While it felt so unfair to Bill that he earn a ticket when only traveling a few mph over the speed limit…the story lives on as I drive the outback on curvy wet roads.

Mike Boyle
Professor of Mechanical Engineering
University of Maine

Recollections of Life With Bill Ceckler

I have fond memories of life in the Chemical Engineering Department with Bill Ceckler. I worked closely with Bill for 21 years and believe that I got to know him well. Bill is a very likeable individual, competent professionally, extremely engaging, colorful and entertaining.

Bill had a long and distinguished career as an engineer in the steel industry and as a teacher here in the Chemical Engineering Department at the University of Maine. Bill was an outstanding instructor, especially in teaching the Chemical Engineering Design and Unit Operations Laboratory courses. He did a wonderful job working with students on developing communications skills and instilling in them a practical approach to solving tough engineering problems. My recollection of interacting with Bill on a daily basis was that he resembled "Fiber McGee" of the "Fiber McGee and Molly" show popular on radio during the late 1940s and early 1950s. Fiber McGee was always getting himself into scrapes, but was kind at heart and much loved by all. Bill mellowed into the curmudgeon of the Chemical Engineering Department.

Much like Fiber McGee's cluttered hall closet that spilled on the floor when the door was opened, Bill's mail box was always overflowing with unanswered telephone messages, half-opened parcels and piles of unread mail. Bill could not, for some unknown reason, ever find time to empty his mail box, read his mail or answer his telephone messages in a timely fashion. When his mail box became full and packed with assorted material so that Anna Perkins and Cathy Dunn could no longer stuff items into his box, usually just after the time when contents would fall on the floor, they would swoop up the debris, march to his office and deposit the litter on his desk.

Unfortunately for Anna and Cathy, they needed a shovel to find Bill's desk since his office also resembled "Fiber McGee's hall closet"; packet to the gunnels with books, technical papers and reports from bygone years, unopened mail, a canoe that held a prominent position in one corner for years and "Sam", a large well-nourished, black Labrador retriever asleep on the floor. Sam often slept 10 hours a day in the only unoccupied space in the office. The only person in the Department whose office came close to matching Bill's on the clutter index was Albert Co's, whose clutter index was a good order of magnitude less than Bill's. Bill never sweated the small stuff like a tidy office.

Sam was Bill's faithful companion during his latter years at the University. Whenever Sam was not sleeping in Bill's office he could be found wondering the byways of Jenness Hall, accompanying Bill on his rounds. Sam was a reasonably well-disciplined pooch but was a "crotch sniffer" of renowned proportions. Sam inspected my private parts on many occasions; and those of other occupants in Jenness Hall. Sam knew when people changed underwear and what they had for dinner the previous night. I recall one day with fond memories when Sam

put a scare into Michael York, the University photographer, who had just finished taking pictures in the Pilot Plant. Michael and I were walking down the Hall when Sam, out for his daily round of sniffing people, came upon us unexpectedly when we turned a corner. Sam, not content with sniffing me as he usually did, thrust his nose into Michael York's crotch. Being a large, well-fed, burly dog, needless to say, Michael was startled and less than enthusiastic by Sam's show of affection. Startled, wide eyed, and turning white Michael dropped his photographic gear before Bill could corral Sam. Michael left the building muttering memorable epithets about requiring black dogs to be on leashes.

Another one of Bill traits that is fondly missed in the Department since Bill's retirement is his loquaciousness. Bill just loved to talk, especially in our faculty meetings, where he always seemed to be at the center of the conversation, and most turmoil. When Bill was on the stump pontificating, as he frequently was, the meetings were never dull, boring or short. Moreover, even less was accomplished when Bill was present in the room than in his absence, if that is possible.

Bill also was an avid physical fitness "buff"; canoeing, hiking, down hill skiing, running and the like. I always felt that Bill's avocation for physical fitness was a remnant of his days playing football for Massillon High School, a perennial football power in northeastern Ohio, and at the University of Rochester where he was a lineman (both guard and tackle) in the late 1940s and early 1950s. When I would disagree with Bill, which on occasion did occur, I would accuse him of playing football too long without his helmet. Bill would always just smile. During my days as Chair in the Department, I appreciated receiving the wisdom of Bill's sage advice. When I was desperate and in need to discuss a thorny issue with Bill to receive his council, I would often go to the Gymnasium at lunch where I knew I could find him sweating, grunting and discussing world issues with other notable scholars from the University; mostly on the track in the field house.

The Department has not been the same since Bill has retired and I miss seeing him on a daily basis. Best wishes and fondest regards to Bill in his retirement.

Joe Genco
Professor of Chemical Engineering
University of Maine

Thank You
Professor Ceckler
for all that you