My recollections of the "Old Boy" are that he was by far the most brilliant of all the EE instructors of his time and that he had a collection of coat jackets that were almost equally as brilliant! Of the various courses I took from him, the most memorable was Acoustics [not an easy course to take or teach]. He once set up a microphone, an amplifier and an oscilloscope and predicted he could sing a pure single frequency note. His boast was not unfounded as his voice produced a single sine wave display on the oscilloscope! Unbelievable, until you realized who did it! He became a veritable "Human Signal Generator"!!

Frank J. Halik
Class of 1958

I knew Professor Libbey in Bangor, Maine; as well as at the Orono Campus. In Bangor, while I was in High School, I believe that I worked with him selling men's clothing in a Department Store.
He always appeared to me as a good teacher in any event

Joseph B. Oppenheim
Class of 1950

Prof. Libbey was one of my favorite instructors in college (in fact, he is one of the few that I remember, since I have a very bad memory). I am not much of a story teller, but here is a small anecdote. Prof. Libbey performed in the Nutcracker Sweet with my (future) sister-in-law. After the performances, I gave him a rose. He then told me one of those useful pieces of information that I use more than the equations that he gave me: flowers last longer in Sprite than in water.

Anne Manahan
Class of 1987

Prof. Libbey was one of my favorite professors. He was one of the many unsung heroes at UMaine who contributed so much to so many.

Prof Libbey was superb not only in his technical knowledge but very importantly in his presentation skills. Some of the latter perhaps derived from his thespian activities in local plays. In the late '70's, I began teaching in various university [primarily Northeastern University in Boston but also at Univ. of Calif and once at Oxford in England] state-of-the-art programs and lecturing professionally at seminars for different organizations. I freely borrowed some of the presentation techniques which he used so effectively, although I am sure without the aplomb with which he taught.

I was in EE in the late 50's. The Russians had launched Sputnik, and there was great concern about our technical capabilities compared to the Russians. Prof Libbey on many occasions would fill up the blackboards on three sides of the room with detailed but carefully printed information. Thank goodness that we had windows on the fourth side, else he would have filled up those as well. It was intense, but he carefully paused for discussion after each

One of his great skills was the ability to time his lectures so that proper amounts of time were devoted to each topic and so that important topics near the end did not get short changed by time devoted to earlier topics. He must have spent a huge amount of time preparing his classes. Probably in emulation of this, to this day I generally spend almost as much time going over my lecture notes before class as I do in the actual presentation during class.

One of my favorite stories involving the above [which I submitted to Readers Digest Campus Comedy but which apparently was never published] is the following. At the end of one class after Prof Libbey had TWICE filled up the blackboards on three sides of the room in a one hour lecture, one of my classmates with his head still buzzing with information took the chaulk and printed a little note at the end. The note read

"How in the world can the Russians possibly be ahead of us?"

My congratulations and many thanks to you Professor Libbey for all you have given to your students.

Sincerely and with highest regards,

Ernie Hollis
Class of 1958
UMaine's Distinguished Engineering Award recipient 1994

I remember Mac Libbey well as an instructor and professor in Electrical Engineering. I spent 35 years with GTE-Sylvania in lighting engineering. A measure of the power of his teaching is that I only had a 1-hour, 1-semester course in lighting engineering.

Richard E. Perkins
Class of 1949

My first contact with Professor Libby was the Fall of 1949 at the beginning of my sophomore year. Over the next three years I took a number of his courses. I particularly remember his Basics of Acoustics course. Many of us thought we'd have little use for acoustic technology, since we tended to associate it with the music business. It turned out that I spent 17 of my 40 working years as General Manager of the Submarine Signal Company, a subsidiary of Raytheon Company.

Sub Sig was the first patents in the field of underwater acoustics. The term, Fathometer, was a registered trademark of the company. During my tenure, we developed and produced very sophisticated sonar and under water communications equipment for all US Navy Submarines and a great number if US and Allied surface ships. Talk about needing acoustic technology. I wish I had taken more of Mac's courses and paid more attention to those I did take.

I am pleased the Mac is still active at the University of Maine. I envy today's students access to a whole new world of technology and facilities, but I'm glad to share with them a dedicated and thought provoking professor like Mac Libby.

Ralph Martin
Class of 1952

My name is Bob Hanson and I was a member of the 1949 graduating class in
Electrical Engineering. I remember Prof Libbey well for a number of reasons.

One, he was a great teacher. We all felt we could learn from him. Two, he used various tools to get his points across, the most vivid memory, and I do mean vivid, was his extensive use of colored chalk. He could demonstrate almost anything using green, yellow, purple etc. chalk. I often wondered what his budget for the chalk was. All I can say today, it was used effectively to teach. Three, he was a very neat dresser. He had a blue suit and a green one that were very nice, and I often wondered whether he bought them at the same time, because they were very similar. Maybe two for one. Four, his language was precise and you could understand everything he said. Unfortunately many of us poor students were smart enough to learn the first time around, our fault, not Mac's

A couple of years ago, when Mac and Walter Weeks Turner retired, I was amazed how little either of them had changed. Evidently, teaching at the college level is not stressful.

Thanks for the education and help.

Bob Hanson
Class of 1949

As a member of Waldo's Class of 1944 it is a pleasure to offer some thoughts for the luncheon occasion to honor him.

Upon returning to Maine in 1946 after 3 years in the Army I discovered that he was to teach a course in Electracoustics which I promptly signed up for and enjoyed. He later informed me that this was the first time he taught the course and he was quite surprised on meeting the class for the first time as it was made up primarily of some of his former classmates in EE and this made him quite nervous, but he handled it well.

That one course, however, sent me into my career, first at an underwater sound lab at Penn State for 10 years and then into some 40 years as an acoustical consultant. He, thus has followed my career and I followed his as he kept up a strong interest in acoustics. We meant again several times in Cambridge, MA in the years around 1960 when he enrolled at MIT on several occasions to take a weeks course in Noise Control presented every two years by the firm of Bolt Beranek and Newman where I was employed. The course was directed by Dr. Leo Beranek and one year at the graduation dinner Waldo was invited to sit at the Head Table. During some closing remarks by Dr. Beranek he introduced Waldo saying that he was being honored for being the student who had attended the course three times over a period of six years, and this was an attendance record for the course. On an aside remark Leo queried Waldo as whether this was

the result of being a slow student at grabbing concepts, or was it that Waldo just liked to get away from Maine and visit Boston? I think we can all agree that the truth was that Waldo was a great student and every two years he came to get the latest scoop on Noise Control Technology.

In conclusion he has been a great friend over the years and diligently served our class as its treasurer. Also he was undoubtedly an excellent teacher and made contributions to the College of Engineering and the University especially by singing the Maine Stein song with a robust, acoustic voice.

With fond regards,

Bob Hoover
Class of 1944

The story that I remember is when our acoustics class went to measure the SST on its maiden voyage to the U.S. The plane was landing in Bangor and we carefully calibrated and set up our equipment for this rare opportunity. As the plane landed we learned that the SPL was much higher than we anticipated, overdriving our equipment. We were fortunate to get another measurement.

Lee Prager
Class of 1972

I have lots of fond memories of Prof. Libby's classes. During one of his test there was a question asking whether or not we would have stereoscopic vision if our eyes were aligned vertically instead of horizontally on our face. To answer this question I simply tilted my head at 90 degrees when I came to that question. Normally silent during a test period, Prof. Libby laughed out loud when he saw me, understanding which question I was answering at the time.

The information I learned taking his class has stayed with me to this day. His enthusiasm made him one of the best teachers I ever had. I'm glad he is being honored at this event.

Maurice Richard
Class of 1978

Among the central figures in my time in Electrical Engineering at Maine were Professors Libbey, Brown and Sheppard. They all helped me prepare for what would turn out to be a career with many unexpected turns. Of course students today clearly understand that a thirty-year career with the same company is a curious anachronism, and they all know that the best education prepares them to be entrepreneurial as well as industrious. I didn't realize it at the time, but that is just what I got from my undergraduate degree in 1965. Today I am not directly involved with the circuit design and communications theory that I learned from those professors and others, but that background has served me very well as my career moved from inertial guidance systems to underwater acoustics to physical oceanography and lately to university administration. That's a long road, but all along the way - and

continuing to this day - the engineering background and instincts I gained at Maine have served me well.

I am grateful to Mac Libbey and the others for the gift they gave me when I was a student at Maine (I'll admit there were some spring Friday afternoons when "gift" was not the first word that would have come to mind!). I wish him all the best in "retirement," but I'll bet that only means he comes in to his office at 8 am now, rather than at 7.

Dr. David A. Brooks
Class of 1955

When I received a letter from Larryl Matthews (Yes! That's the way he spells his first name…I did not make it up) requesting special or humorous memories of you from his "old" students (how rude, referring to me as "old"; I wonder how he refers to you?) I was quite excited about the prospect of putting my recollections and admiration of you in writing. And, if I couldn't recall anything factual, I was quite prepared to fabricate lies of most outlandish nature. Since I received this letter in September, and your luncheon is scheduled for October 20th, I immediately filed the letter away; awaiting divine inspiration. This was a technique that I frequently used on reports at UMO, back in the "old days" when there actually were formal lab reports. Unfortunately, now, as then, divine inspiration did not reveal itself and I am left to stating the facts, as I remember them. (Given our advanced ages, even if I make it up you probably wouldn't remember it anyway)

It was 1959 and the University of Maine had relaxed its admission standards, accepting all nature of riff-raff. I could tell that the Electrical Engineering Department truly felt this way because during our Freshman orientation Professor Creamer sighed a lot, nearly rubbed the plating off his Phi Beta Kappa Key, and vowed that he would flunk the entire lot of us out of the class before we got to be Seniors. Oh, there may be one or two of us worth saving, he allowed, but it was doubtful. And the worst part was that he smiled the entire time. Eventually, we got to meet the EE faculty and tour Lord Hall; possibly that was a mistake. 13% of the class transferred out of the department that very day.

As I recall it wasn't until my junior year that I actually signed up for a course that you taught; given that you only taught one course every other year, this was remarkably early in my student career. Course numbers have been permanently erased from my mind, but it had something to do with transmission wave theory. This was when we learned that Professor Libbey does not merely lecture, he orates. You also increased the bar on taking notes, and demonstrated that it is, indeed, possible to fill six (6) blackboards with equations **twice** during a one-hour lecture. You led us down the "road" transmitting some higher frequency waveform on a set of copper wires, and then starting canceling out terms on all six blackboards, seemingly

simultaneously, and forced us to the realization that the copper wires were superfluous. I was in awe! You were elevated to genius status that very day.

It was in your Acoustics course that I realized that you had a malicious side as well. You scheduled a lab for Saturday morning, quite early by student standards. We were going to listen to some musical passages as reproduced by some of your private stock audio equipment. There we were, a motley array of mankind, a few in various stages of alcoholic after haze, sometimes known as hangovers. In your best theatrical form, you raised the arm of the turntable over the record, and let it drop. It floated down to the surface and settled precisely into the first groove. A wave front blasted out of your speaker system at a SPL of 106 dB. 13 pairs of eyes immediately clenched shut to hold back tears; such was the pain. Now that you had captured our attention you proceeded to demonstrate the effect of balanced low, mid and high frequency speakers, and that by having just the tweeter connected to a 120-megawatt amplifier you can actually loosen fillings in otherwise healthy teeth. It was at this point that I added admiration to my awe of you. I also made it a point to inform students in the lower classes that they should be very careful about going into labs that had large pieces of audio equipment. Especially if it appeared that the power source was 480 Volts, 3 Phase. To give you some idea of how profound an impact your acoustics course made on me, I actually made my first career choice to join a company that had an acoustics program. Of course, to find a company that would even employ me was equally important. Unfortunately, I never did use my profound acoustics knowledge professionally. There are some that would assert that I have never done anything professionally. Sour grapes I say to them!

An EE Degree from the University of Maine just wouldn't be complete without the Professor Libbey experience. Thanks for making mine complete. It's an added plus that I live in Bangor and have the opportunity to see you occasionally.

All the Best

Ralph Webber,
Class of 1963

Bob Hoover has brought to my attention that "Mac" Libbey is to be honored with special recognition on October 20. This is an interesting reverse development: About six years ago, Mac brought to my attention that Bob Hoover was being considered for an honor by the Engineering Department at the University of Maine. I have known Mac for many years, and I have worked with Bob for the most part of the past 55 years. So, I am pleased to know that both these highly respected men and engineers are receiving deserving recognition for their lifetime of work in ways that benefit our society.

Before I retired in 1982, I worked in succession for the U.S. Navy at the Underwater Sound Lab at Harvard

University (for 4 years, 1941-45)), and at the Ordnance Research Lab at Penn State (for nearly 10 years, 1945-54); then, for the Acoustical Consulting firm of Bolt Beranek and Newman Inc. (BBN) in Cambridge, Mass. (for 27 years, 1954-81). I first came to know Bob Hoover in 1947 when he joined the Ordnance Research Lab at Penn State. One of his qualifications was an earlier course in acoustics conducted by Professor Waldo Libbey at the University of Maine. So, you see, our triumvirate has a longtime connection I did not know Mac at that time, except through this association with Bob. However, with time, both Bob and I joined BBN in Cambridge and have worked closely together ever since. In 1969, as a BBNer, I started conducting training courses in noise control for architects and engineers all across the country on a nationwide schedule. As a result of that series, in 1973 and again in 1978, Mac invited me to join him in giving a short one-week course in acoustics and noise control at the University of Maine for engineers largely from Maine and nearby areas. And, within those years, at BBN we hired a few graduate students from the University of Maine who had their college training in engineering and acoustics under Mac's guidance. In more recent years, Bob has taken over the conduct of those courses. In the meantime, of course, both Bob and I continued to carry out our normal work loads in acoustical consulting on all sorts of noise and vibration problems in this country, in Canada, and (more in Bob's case than mine) many important jobs overseas. Throughout all this time, we have kept our contacts with Mac, so his friendship and influence is still present.

Mac Libbey is a fine gentleman and an excellent teacher. My wife and I have had wonderful times with Mac and his parents in our earlier visits to Orono and Bangor. He exudes the enthusiasm of a good teacher and serves as a respected role model to his students. We are delighted that he is being honored by the University at this time. It is richly deserved.

Laymon N. Miller,
Emeritus Fellow, Acoustical Society of America

It is nearly fifty years since I was last in a class taught by Prof. Libbey. There is one personal item that I remember. I believe that it was in my senior year that I was in a class where he included a problem on an exam having to do with a transmission line. I did not get the solution and he later explained in class that it required a simple application of Thevenin's Theorem; lesson learned I thought. The following year in a graduate course, he had exactly the same problem on an exam. I immediately recognized it as the same problem, but I could not remember how to solve it; so much for good memory. From this experience, I gained a great appreciation for the value of Thevenin's Theorem in the solution of certain types of problems. Throughout my professional career, I oscillated between teaching electrical engineering and working as an electrical engineer. I had many

occasions to teach Thevenin's Theorem (and the associated Norton's Theorem) and I never forgot my experience in Prof. Libbey's class.

David W. Knudsen
Class of 1951

When Waldo "Mac" Libbey and I first became acquainted we were fellow students, he as a member of the Class of '44 majoring in Electircal Engineering, I as a member of the Class of '45 majoring in Agricultural Engineering. That was the fall of 1941, and we were both registered in the course then labeled MT-11, the University of Maine Band, Administered jointly by the music and military departments. The uniform was military and rehersals were in the Aromor, when not practicing outside on the March. That was 1941 which had its significant 7 December.

In the fall of '42 it was still a military unit, much reduced in size by both graduation and military service. When we marched, Libbey was the Drum-Major and I was often guide-man of the front rank. Russell Bodwell was a student leader. Russell Bodwell did well with the band he had left, and he has since done much more, both as a civil engineer and as an Alumnus of UMO.

I was cone form the campus (producing food and fiber) from May '43 through October '44. Libbey was on an accelerated academic commitment. By the time I was in my 9th and 10th semesters on the Orono campus, Libbey was the faculty member and I was the student in Electro Accoustics. By February of '48 I had my B.S. in electrical engineering, and in March that year began a five-month learning experience as a Westinghouse Gratuate Trainee. September of 1948 through June of '49 I was an instructor in the College of Engineering at the U. of Massachusetts (Amherst). September of '49 through June of 1953 I was Chair of the Ag. Engineering Department. At UNH. It is possible that we reached the Associate Professor level at about the same time.

The time Libbey and I have spent together beginning with the time that the band was "at ease" has been educational, in some senses competitive, but most important, it has contribuited MUCH to the JOY of my life.

Bernard P. Rines
Class of 1948

As you know when I came to Maine, even though I had all the necessary degrees, I was "wet behind the ears" and needed to seek advice and guidance from a senior faculty member. You filled that role for me. Whenever I got frustrated with University and Department politics you were always available to provide encouragement and positive reinforcement. Your preciseness in both oral and written communication acted as a model for me both in the classroom and in research. I could always count on you to provide a solid background for my students in

the area of acoustics, which was critical to their research efforts. Your suggestions and comments to me about academic related issues were always honest and deeply thought out and provided to me critical guidance through my early and middle years as a faculty member.

On a lighter note both you and I share common interests in the area of gardening and exercise although we do not necessarily participate in exactly the same type of gardening and exercise. For me it was vegetables and I guess that is due to my appetite and for you it was flowers possibly due to the fact that you were more artistic. Relative to exercise for me it was running and biking and for you swimming. In any case we march to the same drummer but play a different tune.

In closing I wish you continued enjoyment in your retirement and look forward to continuing our friendly relationship be on the way to or from a garden show or at the gym.

Dr. John Vetelino
UMaine Professor of Electrical Engineering

T*he Mental Slide Rule:* In the Mid 50's there were no calculators, and engineers were known by their slide rules. Whenever Mac did examples in class he would use his photographic memory of a slide rule to approximate the answers. He would look up slightly as though looking at an imaginary slide rule hanging in space and say something like, "5.6 that's about three quarters of the way up the slide rule and we place Pi over it. Pi is about half way up the rule, which puts the index about one quarter of the way up the D-scale. When we multiply by 2, which is a little more than a quarter of the way up the scale, putting us just beyond half way up the D-scale for about 3.6." Of course he had the answers carefully worked out in advance. I remember once when he calmly gave an answer of "about 3.565," and you knew that he might be good... but not that good.

Elements of Communication: EE21 was an interesting course that dealt with the inner working of the eye, ear, and throat as well as some information theory that I took fall 1954. Some of the Students called it Electrical Engineering Psychology. It was taught by the entire department (the department had fewer members had fewer members then) with each member taking a section where he had the greatest expertise. I remember being most impressed by the careful drawings showing the inner working of the ear, eye and vocal cords that were done in colored chalk on the black board. It was suggested by some of the class that the night before, he used the opaque projector that was in the middle of the classroom to project the pictures as a guide for drawing them on the board. Several years later, I tried using an opaque projector to copy a drawing onto a black board… it didn't work well.

About 1970 Mack was still teaching the course but now by himself. When I mentioned that it was team taught when I took it , he said that they did it the first year only. Some

years later, about ’78 or ’79 my daughter Janet also took the course and was told that it was the last year it would be taught. I thought it an interesting coincidence that I should take it the first year and my daughter should take it the last year.

The Unannounced Quiz: It was the last class before a vacation in Janet’s class when as expected attendance was a little on the light side, and Mac gives an unannounced, no-makeup quiz. As some came up to hand in their quizzes, Mac would look at it, shake his head, and say “You don’t want to hand this in. Go look at it again.” When they came back, perhaps hesitantly, he replied with at smile, “Yes! Now you want to hand it in.”

My Dimmer Board Article: In the early 60’s, while I was working on by Ph.D. at the University of Connecticut, I designed and built a aimer board for the Mansfield Players. I wrote it up and sent it to General Radio. They published it in the June 1964 issue of *The General Radio Experimenter*. Now, in those days the University was much smaller and reunions were much smaller and far more personal and there was no registration fee. On Friday night there was an alumni dance in the Damn Yankee room of the Memorial Union. If we were in town, we would go see who was there that we knew. On this occasion, Mac was there to help with the Alumni Association with the reunion activities as he did regularly. To my surprise, he mentioned that he had seen my article in the *Experimenter*. He said he had saved it because of his work with the Savoyards in Bangor.

Savoyards/Bangor Community Theater: The Savoyards was a group of amateur performers who would put on one musical production about June of each year. I believe that they started out doing Gilbert and Sullivan. Mac has a good singing voice and a very adaptable speaking voice. Every year he played one or more roles in the production. He could put on an English accent that would pass for a native. I remember him once quoting Dr. Martin, a retired chemistry professor. Not only were the words those of Fred Martin, but the voice sounded more like Fred Martin than Mac Libbey. I remember him saying about one show that he played four roles, and that his parents only recognized him in one.

In 1969 the Savoyards combined with another group to form the Bangor Community Theater. I started working with them in 1970 as lighting designer for *My Fair Lady* and Mac Played Col. Pickering. We worked together on a number of shows after that I can still see him as “First Gangster” and Steve Robbins as “Second Gangster” doing a lively tap dance in the “Brush up your Shakespeare” number of *Kiss me Kate* in 1974. I was impressed. He must have been about 50, and yet he was spry as a 30 year old.

The Mousy Christmas Card: I don’t know why or when it started, but for a long time, every year the Christmas card design he picked out

had to have a mouse on it
somewhere.

Fred Otto
Class of 1956 and Adjunct Faculty Member