LETTERS FROM OCEANOGRAPHERS (Started in 1948)

1977

CONTRIBUTORS

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These are letters sent to Dale F. Leipper at the Department of Oceanography, Naval Postgraduate School, and copied for distribution (along with his letter).

8171 Calle del Cielo La Jolla, CA, 92037 April 25, 1977

Dear Dale:

With the exchange of letters at about decade intervals instead of annual, none of us dares miss a chance to give and get the news. Actually, there has not been as much change at Scripps as I would have thought over such a time span. We do have some additional buildings, the most recent being a much needed new library. The old building could hold less than two-thirds of the collection and was condemned for not meeting earthquake standards. One change is our increasing number of emeritus professors, but fortunately, this often seems little more than a change in title. Oceanography must be a profession that tops the low-risk rating by insurance companies. Several of our emeriti who have celebrated eightieth birthdays are very much involved with research and may be found regularly in their labs or offices when they aren't traveling elsewhere to investigate some problem. Another change I have noted is the increased attraction of oceanography for better graduate students. They are getting bigger and smarter every year! We will all have to watch out but isn't that a blessing.

Our professional lives are rather well-known and predictable for each other at this stage, so perhaps some personal news is in order. My first wife, Virginia, lost a long battle with cancer several years ago and I have remarried. Her name is Joy and she was the widow of Clete Burke. A number of you will probably remember meeting her here at Scripps when many of us were being introduced to sea and swell forecasting by Harald Sverdrup. Joy and I are lucky enough to share four grandchildren and other features of the "good life". A year ago we moved a few blocks up the hill from the old house, and we now have a great view of the sunsets (getting ready for retirement, you see!). The new address is 8171 Calle del Cielo, and we will hope to see you next time you get to Ia Jolla.

Bot arthur

DR. CHARLES C. BATES 5807 MASSACHUSETTS AVENUE, N.W. Bethe sda, MASSACHUSETTS AVENUESXMD. 20016 (301) 320-4696

29 January 1977

Dear Dale:

Your recent request that we hark back 19 years is a bit shaking--in that identical amount of time, I ranged from not being born to a college senior...so it is a major challenge to ask one's self what has he truly done for mankind in the past two decades.

After jotting down a few notes, I find that my career is essentially that of being a jack-of-all-trades and master of none. Yet it has been great fun and a work effort of which Dr. Sverdrup would approve, I trust. 1958 found me working as the Ekwironmental Systems Coordinator for the Office of the Deputy Chief of Maval Operations (Development) -- this was the first year the office had been formed under two great naval officers -- V Adm. "Chick" Hawward who eventually became president of the Naval War College and RADM "Charlie" Martell who eventually became the first ASW "czar". While there, I wrote the second major technical develorment plan in the Navy--the ASW Environmental Prediction System plan. This permitted system funding of underwater prediction development; another intriguing effort was being the Navy member on the technical steering group for the first meteorological satellite -- TIROS. This led eight years later to being Chairman of the inter-agency steering group established to get spacecraft oceanography underway using WASA funds. Efforts such as these helped build some of the basis for today's SEASAT satellite and the Coast Guard's airborne oil surveillance system which uses radar, infra-red/ultra-wiolet scanners, and passive microwave scanners to detect and map oil slicks on an all-weather basis.

From 1960-1964 came the hardest part of my career--that of being Chief of the Underground Nuclear Test Detection Branch, Advanced Research Projects Agency, Office of the Secretary of Defense. Here results, rather than funding, was the driving force, so it was possible to fund just about whatever was sensible to bring earthquake seismology into the twentieth century. There were over 100 simultaneous projects involving 12 government laboratories, 20 industries, and 30 universities, as well as worldwide network to construct of 125 observatories in 35 countries. We not only improved nuclear explosion detection but provided a major catalyst in the introduction of digital recording/processing into the oil exploration industry and built a foundation for today's hope the tearthquakes can be predicted with some skill in another decade or so. Again I worked under some terrfic leaders-particular B/Gen. Cy Betts who became chief of Army R&D, Bob Sproull who is now President of the Univ. of Rochester, and Bob Frosch, who became Chief Scientist of the United Nations Environmental Program in Nairobi.

The period, 1964-68, found me back at what had become the U.S. Naval Oceanographic Office as its scientific/technical director. "Oceanography" was a magic word in those days so the Office eventually came to employ over 2,800 persons, 12 ships, and three aircraft who ranged about the world doing hydrography, marine geophysics, and applied oceanography. As you know, several of the Scripps graduates worked with me-Captain T. K. Traddwell and Dr. Boyd Olson in perticular -- to try to get the quality of the work up as high as the quantity of output. Before momentum had really built up, however, the hydrography portion of the office split of f to the Defense Mapping Agency, and the oceanography portion is eventually moving to Bay St. Louis, Mississippi.

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By the time that inflection point occurred, however, I had been asked to be the first Science Advisor to the Commandant, United States Coast Guard, an 175-year old Armed Force that had never had a formal "Research, Development, Test, and Evaluation" appropiation from the Congress. Two key advisors, Dr. Ralph Bennett, the first PL-313 in the government and also the first technical director of the Naval Ordance Laboratory, and RADM John Leydon, former Chief of Naval Research, worked with the Vice Commandant and myself towards trying to establish an Office of Research and Development that did not have the complexity of the Office of Naval Research where both a military and civilian deputy is required under the two-star admiral. Hence, we tried out the idea of having a civilian deputy of the office (myself) who also served as Chief Scientist of the Office. In the long run, though, the Coast Guard proved to be the most military of all the Armed Forces --37,000 in uniform and only 5,000 civilians -- so it has worked more smoothly with my being just two-hatted -- Science Advisor to the Commandant and Chief Scientist of the Office of Research and Development. However, the typical Coast Guard officer assigned into "R&D" is a very competent guy and because funds are limited (about \$18 million a year for working on missions numbering twelve in nature -- search/rescue; marine law enforcement; ice breaking; aids to navigation; military operations; merine environmental protection; marine science; International Ice Patrol, etc .-), we tend to be tacticians, rather than strategists. We have been able to assemble an R&D Center on the U. of Conn. campus at Groton, Conn. -- a most beautiful spot, in fact -- accres from our Coast Guard Academy, as well as a Ship Fire and Safety Test Facility at Mobile, Alabama. Our best project may have been developing practical methods of "oil spill fingerprinting", although the ability to bring down a Loran-C receiver to the size of a cigarette pack and have it transmitt its position digitally to a shore or ship base is also an exciting application of solid state electronics. We are also into the fifth year of develop a remote sensing package for our new fleet of medium-range coastal search aircraft that will start being delivered in 1979,

Professionally, I still obtain enjoyment from watching and fostering smooth interfaces between the scientific, federal, and industrial communities. Thus, I enjoyed being the first government employee to ever be elected a vice president of the Society of Exploration Geophysicists. At the moment, I am the Technical Program Chairman for the 5th American Petroleum Institute-Environmental Protection Agency-Coast Guard Conference on the Prevention, Containment, Clean-Up and Behavior of Cil Spills. This is a bi-ennial affair drawing well over 1,000 participants; this time we have 125 technical papers on the program to be held in New Orleans on 8-10 March 1977.

Family-wise, it has also been an enjoyable 19 years. In fact, Bartie and I have spent the entire period in the house at 5807 Massachusæts Avenue about a mile beyond the District Line. From there our three daughters have scattered far from their place of upbringing. Nancy, now 30, is married to an Administrative Law Judge and works as a Foster Home Specialist in Portland, Oregon; Jane is nome-maker for an Assistant Professor in Astronomy in Augtin, Texas where she cares for our pride and joy-the one and only grand-child so far. Alexander was 3 months early in entering this world and weighted only 1.0 kilograms, so if you want advice on the world of premature babies, we can fill you in. He's three years old now and a terrific little guy, i.e., a fine boy of about the right size. The only single daughter is the youngest, Sally. After 1.5 years with the U.S. Social Security Administration as a claims representative in the prison city of Joliet, Illinois, she has decided to move to warmer, if not greener, pastures in Houston, Texas and just getting her new career underway there.

Time to close -- please drop by... the door is always open to Sverdrup's students.

1615 NW Hillcrest Drive Corvallis, Oregon 97330 25 April, 1977

Dear Friends in Oceanography:

It's hard to compress 19 years into a couple of pages, but I'll give it a try. I see many of you at various meetings, so you know, in general, about our endeavors at Oregon State University.

We have been most fortunate in getting good support from government agencies, as well as from the university here, and in acquiring good staff, so our program has grown tremendously in the past 19 years. We were granted Departmental status in 1957. During the following decade we acquired two research vessels: the 80 ft. Acona and the 180 ft. Yaquina. Both worked extensively in the Pacific in an area from Alaska to South America and Hawaii.

We developed strong academic programs in Physical, Geological, Chemical, and Biological Oceanography, as well as Geophysics and Radio Chemistry. We have sent our graduates all over the world. We have trained many students from south American countries, especially Chile, also from Taiwan, India, Mexico, Ghana, etc.

We have two main buildings on the OSU campus and 10 smaller buildings used for instrument shops, storage, staging, students offices, etc. Our Marine Science Center, located in Newport where we base our ships, opened in 1965 and has been a great success. Many research programs are underway there in the modern lab which is aued cooperatively by fisheries personnel, Sea Grant Extension, etc. About 250,000 visitors come to see our aquarium each year.

In 1967 I took # 4 months leave, spending most of the time at Scripps where we enjoyed renewing ***axx** and friendships and were much impressed by the changes and growth since '49. Upon my return to Corvallis, I gave up the chairmanship of the department—felt it was time for new blood and younger people with more energy to step in. I became Associate Dean of Research for Oceanographic programs and continue to work actively in the department and on my own research. We added another research vessel, the Cayuse (80 ft.) and two smaller ones to our fleet in 1968. The Acona went to Alaska.

I had a little setback in 1973 when I had a severe heart attack. Was recovering well from that when I had to have back surgery, so that year was pretty much a loss from the work standpoint, but I've been reasonably healthy ever since if I use good judgment.

As our program grew (we now have 55 faculty members at the PhD level), we requested School status and that was granted to us in 1974. So, a dream has come true and it has been most rewarding. The 180 ft. Wecoma was commissioned last summer and is now in southern waters. I t took the place of the Yaquina.

My own research centers around Air-Sea Interaction and I have participated in several international programs in this area: JASIN-72, JONSWAP-73, AMTEX-75, and will take part in JASIN-77. My main interest is in mesoscale variability in near surface meteorological and oceanographic prameters. Scales are a few minutes to a few weeks and a few kilometers to several hundred kilometers.

As for the family, Louise and I still put up with each other, and enjoy our home here in Corvallis. John, USNA graduate of 1965, became a Navy pilot and spent his share of time flying A-7's in the Pacific. He lives with his wife and three children near Annapolis where he now teaches Aeronautical Engineering at the Academy. Christine is an Obstetrician in Louisville, Kentucky and she and her Pediatrician husband have a baby boy. Laurie, a Reed College graduate, is doing Welfare work in Portland. He and his wife also have a baby boy. Our daughter, Darcy, who was born in 1958 just after the last exchange of letters, I guess, is now a freshman at OSU, majoring in Chemical Engineering.

We always enjoy our visits with those of you who make infrequent trips to Corvallis, or when we see you on our travels. Have been most impressed with the achievements of our special class at Scripps and now it's kind of nice to be one of the old men in the field who can sit back and watch what the young tigers are doing.

Best Wishes to all,

Wayne A. Burt

Oregon State University Corvallis, Oregon 97330

4448 Ross Crescent West Vancouver, BC V7W 1B2 May 6, 1977

Dear Dale,

Certainly procrastination in this case can be termed an 'evil' for had I got this letter out when I should I should not be so unavoidably late.

I was ready to believe your figure of twenty years until George Pickard in conversation refreshed my memory somewhat. Alas, I cannot look back on a sheaf of collector's items - for when I left Ottawa I shucked the snow, the dust and sheaves of ancient correspondence including the Scripps Alumni file.

I finished Ottawa administration in 1970 after a mixed bag of satisfactions and frustrations. I had been able to take part in some international meetings of note in the sixties. In these I had had the friendship of many old friends, Warren Wooster, Laurie McHugh, among the many. But management systems analysis crept insiduously north from its festering source south of the border and all the excitement of the fifties and early sixties began to wane.

I formally resigned in mid-1973 and have been enjoying retirement since. We have finally landed up with a shoreside house in West Vancouver - able to look across Burrard Inlet to the bulk of the University on Point Grey to the south of us. George Pickard very generously reinstated the Honorary Professorship I had had when I was first at the University of British Columbia. It is good to get across to seminars at the Institute when they show signs of being comprehensible.

Saw Wayne and Lorraine the other day. It was not entirely premeditated. We were driving south to a stay at San Francisco and Carmel when I developed all the symptoms of a heart attack. We ended up at the Eugene Clinic and have nothing but praise for the attention I received. A call to the Burts from Ruth, my wife, was enough. They were both down from Corvallis almost immediately and did us both good. I was caught brooding over such lines as "grass that witherith, etc." when Wayne bounced in to brag about how much worse he had been. It was hard not to feel pretty optimistic after seeing his good health.

I am sure we are all going to enjoy reading the collection of Alumni letters. Thanks for starting them again.

BILL CAMERON



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April 29, 1977

TEL. 548-90-53

DR. DALE F. LEIPPER
Director of Naval Postgraduate
School
Monterey, California 93940
U. S. A.

Dear Dale:

I was happy to learn that you have started again the letters to Oceanographers. Sorry that I have not replied before but your letter reached me few days ago.

I know through commons friends that you are doing well in California. Very often I cross paths with formar students of Monterrey and they tell me how good you are.

Let us go to business now:

Since our last letter my life was as follows:

- 1) I was very much involved in the development of oceanography in Argentina directing the Department of Oceanography at the Hydrographic Office which was the pionnering agency at that time in Argentina. I also enjoyed commanding various research vessels carrying on research activities in the South Atlantic and Antartic waters.
- 2) At that time we established strong relations with Maurice Ewing and his Lamont team. This association proved to be instrumental in the development of the oceanography in Argentina.
- 3) From 1959 to 1962 I requested leave from the Argentina Navy and went to Texas A & M to carry on scientific research and try to catch up with science again. I had a very pleasant and fruitful stay in Texas
- 4) In 1962 I was appointed Hydrographer of the Argentin Navy. In this position I had the opportunity to promote further the oceanographic activities in Argentina and involve the Universities in the various aspects of marine sciences. It was a rewarding effort.

- 5) In 1965 I had to make a tough decision; to remain in the Navy or to return to science before it was too late. I decided for the last; so I retired from the Navy and returned to Texas A & M where I joined the staff. I spent 6 very pleasant years in Texas, involved most of my time in research activities.
- 6) In the middle of 1971, I decided to join the international bureaucracy and moved to the Intergovernmental Oceanographic Commission (IOC) Secretariat in UNESCO, Paris. It was a very enjoyable experience to learn how the UN system works. I remained in this post until October, 1975 when I went to Mexico as Project Manager of a United Nations Development Programme (UNDP) Project entitled "Creation of a National Infrastructure in Marine Sciences and Technologies". It is a challenging work and I am enjoying a lot. I have with me about 10 long-rang experts in marine sciences and we are progressing very satisfactorily.

My family is in good shape. Tita had about 29 major house movings and does not complain. My son Luis still a bachelor.

During my frequent travels I had the chance to see often my friends. However I am looking forward to read their letters

Well Dale, I think this covers the development of my life during the last 15 years. Please give my best regards to Virginia and the rest of the family.

Yours sincerely

Luis Capurro Project Manager

MEX/74/004

Rt. 2, Box 835 Front Royal, VA 22630 6 April 1977

Dear old friends:

My career in oceanography terminated almost five years ago when I retired from the Naval Oceanography Office after 31 years of government service. As I look back on it, my chief goal in oceanography was never realized. I desperately wanted a career on the sea itself, but I simply could not endure the intense seasickness that overwhelmed me virtually every time I went on a cruise. Thus I was forced to turn to office work in oceanography for which I had no real talent. What little I did, any hack could have done, and was of little consequence. Later I got into supervision and administration. Whatever success I achieved was in this area. I did have a bit of a knack for motivating others to do good work. Now after five years away from it, I find I do not miss oceanography at all, although I sorely miss my many old friends and colleagues in the field.

Maud and I now enjoy a quiet life on our four acres in the Shenandoah Valley about five miles from the little town of Front Royal and about 70 miles from Washington, D.C. I don't think we could have found a more beautiful site for a home anywhere: the river is nearby and from our house we have a 180 degree view of the mountains — the sun rises over the Blue Ridge and sets behind the Massanutten Range. We cance the river, hike the Appalachian Trail and in the George Washington National Forest, make a large vegetable garden, cultivate many flowers and shrubs, go around the country and world competing in foot races, and when the weather is bad listen to music and read. One of my new friends is an English instructor at Randolph Macon Academy. Through him I have been reintroduced to the almost infinite world of literature. A good deal of the fun is discussing some facet of Faulkner or Poe with him while we take a running workout.

Running has been a big part of my life for the past thirteen years. In 1964 I read about some races being conducted by the Roadrunners Club of America and wondered if at the age of 46 I could get in shape to compete again. I had run in collegeand during military service in World War II but after a layoff of nineteen years Ifound I couldn't run a quarter mile without stopping even though I had played other sports almost continuously. It was tough going for about six months, but gradually the pain was replaced by the satisfaction of seeing my times improve. My first big achievement came in 1968 when I won the 880 in 2:09 and the Mile in 4:57 in the over-50 division at the Masters AAU National Championships in San Diego. Last Sunday's Cherry Blossom 10-miler in Washington marked my 575th race in this second time around. In competing all over the United States, in Britain, Finland, Norway, Sweden, Denmark, Germany, Australia, New Zealand, and Fiji I have made hundreds of wonderful friends. Also as president of the D.C. Roadrunners Club and as founder of the Potomac Valley Seniors Track Club and the Shenandoah Valley Runners I have had an opportunity to provide a service to a sport that has brought me such great satisfaction.

My family provides me with a pleasure that few persons are fortunate enough to enjoy. My parents at 91 and 84 will celebrate their 60th wedding anniversary in early July. Both are alert and relatively active on their

farm in Indiana. My children, Judy and Polly, managed to cope with the trials of the Vietnam War era without being diverted from their goals of getting aneducation and becoming useful citizens. Judy, who was an infant when we were at Scripps, lives in New Jersey, is the wife of an attorney, has taught kindergarten for a number of years, and is the mother of our grandson, Danny, and our granddaughter, Carly. Polly is still single and has worked as a librarian at the Census Bureau for five years since completing college. Maud is still the sweet, beautiful gal I married 31 years ago. She gave up her job at the Census Bureau when I retired stating "I'm not going to let that handsome dog run loose while I work!"

Dale suggested our letters be reflective and philosophical. I have certainly had time to ponder the problems of the world since I retired. and I'm afraid my conclusions are pretty pessimistic. I recall one of my greatest fears when I was a teenager was that all the gasoline in the world would be exhausted before I could grow up and own a motorcycle! Strange how that fear was so prophetic of one of the world's major problems - the energy shortage, I do now have a motorcycle and get a big thrill out of riding it. But will my grandson be so fortunate? The last several generations have demonstrated extreme gluttony in squandering natural resources and in unbridled procreation. Overpopulation, diminishing resources, and possibly a deterioration of the planet's climate, I feel, may well spell catastrophe for large segments of mankind. Certainly man will survive, but life as affluent as we have known it will not continue. I foresee much strife, even revolution, as more and more people struggle for the dwindling earth's resources. Man, essentially, is an undisciplined animal, and we have probably already gone too far to save our way of life. I fear that Communism will be our ultimate form of government where discipline will be forced on us and our lives will be rigidly Spartan. Space here does not permit, nor is this the proper medium, for developing this philosophy. If any of you see a ray of hope. I wish you would try to convince me otherwise. Until then, I feel Shakespeare may have best summed up things when he had Macbeth state: "Life is a tale told by an idiot, full of sound and fury, signifying nothing."

On a more cheerful note -- as I look over Dale's list of our vintage oceanographers, I can recall with considerable clarity most allief you. I had the pleasure of working with Charlie Bates, John Lyman, King Couper, and Hugh McLellanat the Oceanographic Office and with Bill Kielhorn and Dick Vetter at the Office of Naval Research. I note several names are missing: Ernie Anderson, my neighbor at Torrey Pines housing, and the brilliant Argentinian, Hector Iglesius. I recall the highly lucid lectures of Walter Munk and Bob Arthur of over a quarter century ago. With great sadness I remember our friends of both Woods Hole and Scripps days, Margaret and Estil Hamill, both of whom have passed on. And who can forget the youthful exuberance of Townie Cromwell? To all of you Maud and I send our greetings and love and extend a warm invitation to you to visit us if ever your path comes near this corner of the world.