Dr. George F. Carrier Pierce Hall Harvard University Cambridge 38, Massachusetts

Dear George:

I am enclosing the letter concerning my appraisal of Henry Stommel. You are quite right in saying that I have developed some distaste for macroscopic studies, but these do not make me in any way wish to underrate the importance of having some such work going on, and Henry Stommel is the best.

I was very pleased that this does not necessarily rule out my appointment. What I wrote to you in my last letter concerning my worries about the Chancellorship still hold today. There have been no decisions and no indication of a decision.

I am extremely curious about your work on the on the temperature distribution in hot stellar atmospheres, taking into account the frequency dependence of the absorption coefficient. The results sound extremely interesting.

Happy new decade!

Sincerely yours,

Walter H. Munk

WHM: GC

Enclosure

Dr. George F. Carrier
Pierce Hall
Harvard University
Cambridge 38, Massachusetts

# Dear George:

It is a pleasure to write my opinions of Hank Stommel. I think he is the best of the physical oceanographers. Last year the problem arose at Scripps concerning an additional appointment, and Hank Stommel was clearly the leading contender.

I met him when he was at the Department of Meteorology in Chicago with Rossby, and I have known him well ever since. The outstanding characteristic in his scientific career has been the simplicity and good sense with which he attacked an amazingly wide variety of problems. These include:

- (1) Work on convection in clouds and the oceans.
- (2) Diffusion and the turbulent spectrum in the sea (one of his weaker contributions).
- (3) His various papers on the electric field induced by ocean currents, consisting of both theoretical and experimental work.
- (4) His chief contribution, the many papers on the ocean circulation starting with his beautifully simple demonstration of the westward intensification.
- (5) His work on ecology and plankton with Bumpus and Riley.
- (6) His fundamental contributions to estuarine circulation.
- (7) The work on the abyssal circulation and the problems of the thermohaline circulation.

No other living person has such a record in the field of oceanography. I might also add that he is a most excellent teacher.

It is clear from what I said above that I think he would make a wonderful appointment at Harvard University and that you are to be congratulated on strengthening the University's position in this field by offering the position to Stommel.

Sincerely yours,

Dr. Perry Byerly Department of Geology University of California Berkeley 4, California

Dear Perry:

Here's the dope:

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Happy New Year!

Sincerely yours,

Walter H. Munk

WHM: GC

**美国国际企业**主义

# Henry M. Stommel

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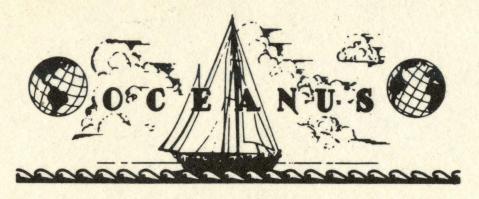
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VOL. VI, NO. 3. MARCH 1960

# OCHANUS



**EDITOR: JAN HAHN** 

Published periodically and distributed to the Associates of the Woods Hole Oceanographic Institution and others interested in Oceanography

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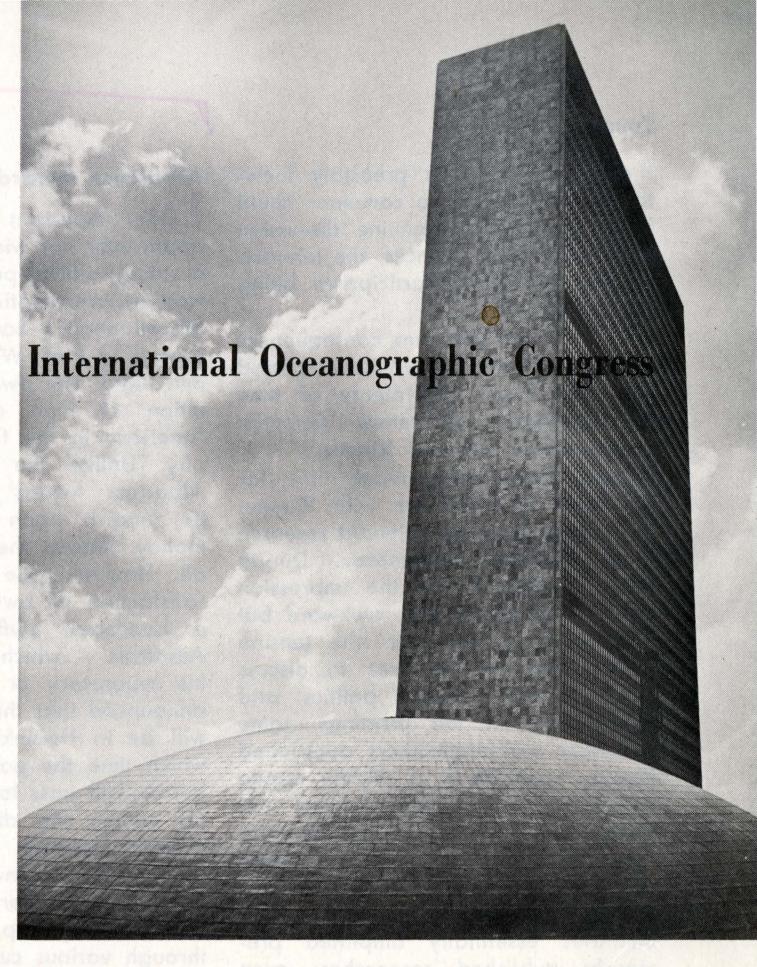
Bernstein

# **MEGOLAMANIA!**

OT many general practitioners have the opportunity to listen to a thousand human hearts beating as one; (a supreme example of togetherness). This was given to Dr. Alfred W. Senft while listening to a whale's heart about one thousand times larger than ours. The moribund patient co-operated fully but not freely, while lying exhausted on the beach. (see pp. 7-10)

Our fine cover photo was made by Daniel Bernstein of Provincetown, Massachusetts.

Impressions of the



# Henry Stommel:

It is with diffidence that I have accepted the invitation of the Editor of Oceanus to comment upon the Oceanographic Congress at the United Nations in New York. The meetings themselves were very stimulating, and the program well organized. Everyone who attended expressed admiration of Dr. Mary Sears' arrangement of the Congress. And it was certainly impressive to convene in the handsome auditoria - especially the Great Plenary Hall a marked contrast to the uncomfortably hot streets and stuffy Hotel Commodore.

Two weeks is a long time to sit and listen to talks. Fortunately, the subjects were varied and covered a wide range of topics. The idea of having "feature presentations", invited formal lectures, in the morning, followed by various shorter papers and round tables in the afternoon was successful in producing variety and maintaining interest. Since it is difficult to get large groups to discuss any connected theme coherently, the round-tables in the afternoon were more in the nature of "selected short subjects" than genuine discussions of a central

theme. But this was probably inevitable, and I think no convenor could have managed a genuine discussion under such circumstances, the interests of the individual participants being what they were.

One of the pleasant consequences of the prolonged two-week period was that there was plenty of time for delegates to renew personal acquaintance with old friends.

Also, there was enough time for everyone to fraternize with Russian colleagues from the splendid research vessel Michael Lomonosov. the first day, I had the impression that we all felt a little awkward but that within a few days the tension eased, and we felt free to discuss most subjects (except politics and Pasternak). At the meetings, some American oceanographers questioned Russian speakers in a slightly hostile manner — unbecoming of hosts and embarrassing to the majority. In some cases, the pertinent answers were already published in the Soviet literature. Indeed, most speakers of all countries essentially amplified previously published researches; even the very important current measurements by Swallow and Worthington in the Atlantic and by Knauss in the Pacific had already been announced in Nature magazine. No one of the 1000 odd participants had a fundamentally startling fact or mint-new idea to announce. Though thrills were few, there was a feeling of impressive progress on all fronts. And even more stimulating was the very wide range of topics covered — and the excellent summary lectures - so that many of us felt that we were being re-educated in our own science and our horizons - narrowed by years of specialization - opened up again.

#### Albatross Award

0 46 00

One important event which was apparently not widely publicized nor a strictly official part of the Congress was the presentation of the American Miscellaneous Society's Albatross Award to Prof. Walter H. Munk late one night. The award signifies recognition of high attainment by an American in the field of oceanography. Unlike the Nobel Prize, the Albatross Award does not rely for its renown upon a large sum of money. Indeed there is no money at all. However, the recipient has the satisfaction of owning for one year a handsome stuffed and mounted Albatross — which he can display in his laboratory or at home. It was announced that the next presentation will be in Helsinki in July 1960, at which time the possession of the Albatross will pass to the next recipient. Of course the distinction of being chosen Albatross Laureate far outweighs the inconvenience of transporting this rather large bird across the ocean by ship, in airplanes, and through various customs. And though it is inevitable that the buffeting of so much travel will, in time, somewhat dim the splendor plumage, the accumulated lore and history of this Grand Old Bird will make it the most coveted distinction in our profession.

#### Dr. P. Tchernia:

In your letter you asked me to give you some of my feelings on the congress and, more precisely, statements which may be useful for future planning of another International Congress in five or ten years.

First of all do not take my statements as a criticism of our last meet-

Stownsk 1 November 1960 Professor Henry Stommel Division of Engineering and Applied Physics Harvard University Cambridge 38, Massachusetts Dear Hank: Thank you so very much for the invitation to give some lectures at Harvard this winter. I am much tempted to do this. Would the first week of April do? Another possibility would be the second week of March. If either of these times is acceptable, could I have another month or so before making a firm commitment because there are a few loose ends which I will have to tie up? I have heard so very little from you lately that I welcome an opportunity to see something of you. Actually this would be the principal reason for accepting the invitation. I am still playing on the directional wave spectra from the southern hemisphere, and this is about to be tied up. We are starting a year's tide recording which will eventually give us hourly values to an accuracy of . 01 mm. There are many things; in particular it is nice to have George Backus here. What are you up to?

Regards to Elizabeth,

Yours,

Walter H. Munk

WHM:GC

# HARVARD UNIVERSITY

#### DIVISION OF ENGINEERING AND APPLIED PHYSICS

Pierce Hall
Cambridge 38, Massachusetts
October 25, 1960

Dr. Walter H. Munk
University of California
at La Jolla
La Jolla, California

Dear Walter,

On behalf of the university Committee on Oceanography, I am pleased to be able to ask you to deliver a series (perhaps three, during a week or so) of lectures here at Harvard sometime this winter at your own convenience, and on any oceanographical topic you may choose. We can offer you an honorarium of only \$1000, so that perhaps you may find it convenient to combine this trip East with another to make the money stretch.

Elizabeth and I are doing our best to make a life in the big city and are having a good time. The children enjoy their school. We do look forward to seeing you if you can come.

Yours truly,

Henry Stemmel

Hank

HS:ls

Somme

# HARVARD UNIVERSITY

DIVISION OF ENGINEERING AND APPLIED PHYSICS

Pierce Hall
Cambridge 38, Massachusetts

Dear Walter: -I have to want until geo Clarke har the next Committee heeting (Nov 16) before Team really covite on one to your of Nor 1, but I think the 2nd week in Mark would be hest. Will with soon my best Dank S.

Professor Henry Stommel
Division of Engineering and Applied Physics
Harvard University
Cambridge 38, Massachusetts

Section 24 dies.

Dear Hank:

I would find it much more convenient if I could change the date. I will be skiing at Aspen for a week and would love to come directly from there together with Judy. This would get me into Boston on Friday, 24 February, and I could stay as many days as are required to give three lectures. Travel plus honorarium of \$1000 is just fine.

I think I would prefer to give the three lectures on ocean waves. Perhaps the first day on the frequencies of 2 to 4 cycles per minute (swell); the second day from 0.1 to 30 cycles per hour; and the last day from 0.1 to 6 cycles per year. I hope the program is flexible because all of these discussions would be dealing with problems on which we are now working.

In a sense it would be best for me not to spend terribly much time. Would it be possible, for example, to schedule the lectures Friday, Monday and Tuesday? or Friday, Monday and Wednesday? But I repeat that my chief reason for coming is to see something of your work.

Yours,

Walter H. Munk

WHM:GC

\* P.M.

# HENRY STOMMEL Woods Hole, Mass.



Dear Walter: -

Thank you for your kind note about the NAS, and J am grateful to you for your efforts in my behalf. Kay Cromwell & Chick & J have been having a delightful time. It make me think back with nostalgia to the very happy time all speciet in La Jolla in 1959 - another accasion when you ded us a good feare - x one which we still value &

appenality STOMMIT I I Bus appe They best wester June 6, 1961 ann graffel to

June 22, 1962 Professor Henry M. Stommel Division of Engineering and Applied Physics Harvard University Cambridge 38, Massachusetts Dear Hank: I wanted to tell you how amusing I found your two notes in the proceedings of the Academy. They are typical Stommel notes, isolating a first-order puzzle and then discussing it in simple terms. We are off to a sabbatical at Cambridge, England, a month from now. I shall be back in January, 1963; and during July, August, and September, 1963, we shall be in the South Pacific measuring the attenuation of ocean swell. With very best regards, Yours sincerely, Walter H. Munk WHM:bg

# HARVARD UNIVERSITY

#### DIVISION OF ENGINEERING AND APPLIED PHYSICS

Pierce Hall Cambridge 38, Massachusetts

Dear Walter: 
() Harriet bosch, rage that the will send you

a photo.

() I will not be at the 1066 meetings, but

con take come of Kart in the East.

con take come of Kart in the East.

() Figures cape be would like to spend 3 months

in 1965 in Russia. His language in excellent of their

iningst satisfy State. I do not have any other alternate

unight satisfy State. I do not have any other alternate

to Komenhanth, but will ask July tomorrows wight

when I see him in Newton

There is another matter. They will invite Dr. Kort to visit various laboratories, either just before or just after the IUGG meeting. The trouble is that I shall be in Samoa at the time. Will you be at the IUGG meeting, and could you possibly help take care of Kort? Also, it was suggested that we ask Kort whether he could find out informally if the Academy, USSR, would approve a request for exchange as outlined above if they were to be approached through official channels.

All this is a preliminary account of where we stand. I expect to hear more from Mr. Mitchell of the Academy. Please don't forget to ask Harriet Rossby to get me a picture of Carl-Gustav.

With best regards,

Yours,

Walter H. Munk

WHM:bg

cc: Dr. Lawrence Mitchell

ce. Kannenkowik file

May 20, 1963

Mr. Henry M. Stommel

Division of Engineering and Applied Physics

Harvard University

Pierce Hall

Cambridge 38, Massachusetts

#### Dear Hank:

Fofonoff would be excellent. If you settle down on that suggestion, would you be kind enough to write a letter to:

Dr. Lawrence C. Mitchell
East-West Exchange Program
National Academy of Sciences
Office of International Relations
2101 Constitution Avenue
Washington 25, D. C.

on behalf of both of us.

Thank you for your note, suggesting Fofonoff.

Sincerely,

Walter H. Munk

# copy of wire

10/23/63 Honolulu 9:32 a.m.

TO MR. HENRY STOMMEL
c/o Walter Munk, Scripps, La Jolla
WIRE FLIGHT ARRIVAL CARE RCA.

WOODCOCK

November 27, 1963 Professor Henry M. Stommel Massachusetts Institute of Technology Cambridge 39, Massachusetts Dear Hank: I am very sorry, but I have thrown away the cards that went with your time series of the Bermuda cable. The time required to repunch these is really quite minimal. Hank, we would love to see you out here sometime. The Geophysics Laboratory has come out quite well in the only way that counts, which is the people who are here: George Backus, Freeman Gilbert, Klaus Hasselmann, Dick Haubrich, Hugh Bradner, and myself on a permanent basis. Ted Madden is here, and I do hope he will join us permanently. Our very best regards to you. Yours, Walter H. Munk WHM:bg

November 22, 1963

Dr. Walter H. Munk Scripps Institution of Oceanography La Jolla, California

Dear Walter:

Dr. B. Mandelbrot, visiting professor at Pierce Hall, Harvard University has akked me about the data from the Bermuda thermometric cable that you and Bernard and I described in that article we wrote together years ago. He has an interest in rather odd looking time series, and thinks it would be fun to play around with our numbers. I have them in manucript form, but it would be most convenient to him if you could let him have the cards from which you made the analysis. Probably they have long since been discarded, but just on the slim chance that they are hanging around I thought I ought to write and ask.

Dr. Redfield tells me that you are getting all ready for the dedication of your new Institute, Congratulations, Walter. You must be very pleased and happy, and I must say that I am too to hear how well things are working out geophysically in La Jolla.

Yours truly,

Henry Stommel

13 September 1965

Professor Henry Stommel Woods Hole Oceanographic Institution Woods Hole, Massachusetts

Dear Hank:

Are you planning to attend the PSAC meeting on September 17 and 18? If so I wonder whether you might come a little early or stay a little later, and give me a chance to talk to you about some recent work for at least a few uninterrupted hours? I have become very interested in the problems of the abyssal circulation and the distribution of the variables in the deep sea. I think I have seen all your papers on the subject by now. There seems to be a very simple way of fitting the observations into a pattern, and I would like to discuss with you the merit of the procedure. The work is an outgrowth of our plans, beginning this fall, of doing oceanography from the bottom up.

#Kanagaasara

With best regards,

Sincerely yours,

Walter H. Munk

WHM/esm