

NATIONAL SECURITY COUNCIL

Mr. ~~Rosen~~ <sup>Row</sup> :



Walt:

Here's the latest  
development regarding  
your long time favorite  
Semi-Submersible.

WJ

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6/6/68

UNITED STATES GOVERNMENT

# Memorandum

1a

TO : Director

FROM : Special Assistant to the Director

SUBJECT: ANTON BRUUN; Information concerning

DATE: May 28, 1968

I was visited today by Dr. John Calhoun, Vice President for Programs at Texas A&M, inquiring as to the status of ANTON BRUUN for possible use of the ship by the Gulf Universities Research Corporation (GURC). Dr. Calhoun had evidently been informed of ANTON BRUUN's status by Dr. Joe Reynolds.

Dr. Calhoun's idea for utilizing ANTON BRUUN is strictly in the preliminary thinking stage but we discussed the following points:

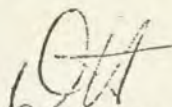
- (1) He must obtain suitable backing for the operation of the ship from the Gulf universities and private sources.
- (2) Preliminary thinking is that the ship could be set in concrete or permanently imbedded near Pelican Island, the new oceanographic center being established by GURC near Galveston, and used as a facility for laboratory space and/or a dormitory for the oceanographic academic community; or, as an alternative, there is a possibility the ship could be completely activated and operated by the Texas Maritime Academy for the purpose of training cadets, graduate students in oceanography, and faculty. There would necessarily be a permanent crew, the minimum required being the subject of investigation.
- (3) He was to pursue these ideas further, first of all with Dr. Chinn of Texas A&M, who had extensive experience on ANTON BRUUN as Chief Scientist during several of her cruises.





- (4) I advised him that, in pursuing his planning and cost effectiveness for use of the ship for specific objectives, he should have an experienced member of his staff inspect ANTON BRUUN.
- (5) He stated that his experience on the Sea Grant Panel had indicated that if there actually were a shortage of qualified oceanographers in the country, there certainly was a shortage of oceanographic ships in which faculty and graduate students could receive adequate training at sea.
- (6) He stated that one of the objectives of using the ship, if operational, would be to accomplish detailed biological studies in the Gulf. He stated that if the planning and analysis showed that this might be a wise move, he would commence preparation of a proposal to submit to the Foundation.
- (7) He was aware of the status of ANTON BRUUN insofar as India refusing acceptance and as to the two representatives of Florida State University who recently went to India on behalf of Florida State's cooperative oceanographic program with the University of Madras and the attempt to get India to review their decision on ANTON BRUUN. Dr. Calhoun received this information from the President of FSU.

I advised Dr. Calhoun that we would furnish any assistance that we could and he stated that if this program appeared feasible, he possibly would be in contact with you, Dr. Wenk and/or Dr. Reynolds.

  
Daniel Hunt, Jr.

cc: Dr. Wilson  
Mr. Hoff  
Dr. Todd

2  
NATIONAL SECURITY COUNCIL

June 12, 1968

MEMORANDUM FOR MR. ROSTOW ✓

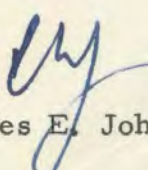
SUBJECT: Anton Bruun

Walt --

Lee Haworth is consulting with State and the Marine Sciences Council to see if there is any further use for the Anton Bruun since the Government of India has finally decided not to accept this ship. He suggests that you might wish to advise the President of this action.

I recommend that we wait to see what replies he gets from State and the Marine Sciences Council before saying anything more to the President in this matter.

I attach Haworth's memorandum to you plus copies of his letters to State and the Marine Sciences Council.

  
Charles E. Johnson

cc: Ed Hamilton



2a

NATIONAL SCIENCE FOUNDATION

OFFICE OF THE DIRECTOR

WASHINGTON, D.C. 20550

June 11, 1968

MEMORANDUM for W. W. Rostow:

Since the Government of India has finally decided not to accept ANTON BRUUN, I am making plans to transfer the ship to the General Services Administration for disposal.

Prior to taking this action I am asking Dean Rusk and Ed Wenk if they are aware of any appropriate foreign utilization for this oceanographic research ship.

You may wish to advise the President of this action.

*Leland J. Haworth*

Leland J. Haworth  
Director

1X  
XERO  
XERO  
25  
XERO

NATIONAL SCIENCE FOUNDATION

OFFICE OF THE DIRECTOR

WASHINGTON, D.C. 20550

June 11, 1968

Dr. Edward Wenk, Jr.  
Executive Secretary  
National Council on Marine Resources  
and Engineering Development  
Executive Office of the President  
Washington, D.C. 20500

Dear Ed:

Since the Government of India has finally decided not to accept ANTON BRUUN, I am making plans to transfer the ship to the General Services Administration for disposal. By memorandum I have advised Walt Rostow of this intended action and have stated that I would ask you and Dean Rusk, prior to taking this action, if you were aware of any appropriate foreign utilization for this oceanographic research ship.

We have had several informal inquiries with regard to the acquisition of ANTON BRUUN but we have received no formal proposals. No proposal that would involve in any way expenditure of Foundation funds for operation and maintenance of this ship would be acceptable. Indeed, we feel that the expenditure of funds of any federal agency would be inadvisable.

I am hoping for an early response so that the saga of ANTON BRUUN can be brought to a conclusion.

Sincerely yours,

*Leland*

Leland J. Haworth  
Director



NATIONAL SCIENCE FOUNDATION

OFFICE OF THE DIRECTOR

WASHINGTON, D.C. 20550

June 11, 1968

Honorable Dean Rusk  
Secretary of State  
Washington, D.C.

Dear Dean:

Since the Government of India has finally decided not to accept ANTON BRUUN, I am making plans to transfer the ship to the General Services Administration for disposal. By memorandum I have advised Walt Rostow of this intended action and have stated that prior to taking this action, I would ask you and Ed Wenk if you knew of any appropriate foreign utilization for this oceanographic research ship.

We have had several informal inquiries, as I am sure your staff has had, regarding the acquisition of the ship, but we have received no firm proposals. No proposal that would involve future support for the maintenance and operation of the ship with Foundation funds would be acceptable.

During the course of this saga concerning ANTON BRUUN, the cooperation and assistance rendered by your staff have been splendid. I would particularly like to commend Mr. Addison Richmond, Jr. of your staff for his fine service.

Sincerely yours,

*Leland*

Leland J. Haworth  
Director

~~SECRET~~ NATIONAL SECURITY COUNCIL ~~SECRET~~ 3

8/14/67

Mr. W. W. Rostow ✓

FYI.

CEJohnson



*Church — info Dan*  
*For your info*

8/11

3a

NSB-67-163

NATIONAL SCIENCE FOUNDATION  
OFFICE OF THE DIRECTOR  
Washington, D.C. 20550

August 10, 1967

MEMORANDUM TO MEMBERS OF THE NATIONAL SCIENCE BOARD

Subject: ANTON BRUUN

My memorandum to you, dated July 10, 1967, summarized the casualty to ANTON BRUUN on June 30 in which the drydock at Bushey Shipyard sank, causing the ship to capsize.

The salvage of the ship by Merritt, Chapman & Scott, a sub-contractor to Bushey Shipyard, was carried out with some difficulty. However, finally on July 15th, the ship was successfully refloated and the cleaning and preservation commenced. This cleaning and preservation effort was sub-contracted for by Bushey Shipyard and was completed on July 26th. ANTON BRUUN was inspected at this time by representatives of the State Department, the Foundation, and our prime contractor, Alpine Geophysical Associates, Inc. The cleaning had been well done and apparently the machinery and systems within the ship had been preserved in the best manner possible in order to minimize immersion damage and deterioration. The damage sustained by ANTON BRUUN, due to her immersion in salt water for over two weeks, was in the following major categories:

- (a) Main and auxiliary machinery
- (b) Complete electrical system and components
- (c) Sheathing, insulation, and deck coverings
- (d) Interior non-structural components, particularly those made of wood.

The ship was drydocked on the afternoon of July 27th for an inspection of the underwater body to determine the damage that had been caused by the casualty. The underwater hull appeared in good condition. There were several indentations in the hull and the keel which were not critical from a strength and structural standpoint. Two small areas of the



hull will have to be replaced and the U.S. Coast Guard will require approximately a 12-foot section of the keel to be renewed. The port propeller was damaged and the port tail shaft and main rudder may have sustained deflection. The foregoing items are relatively minor and can easily be repaired. The ship was undocked on Tuesday, August 1st, after the complete hull inspection had been made.

The consultant marine surveyors for Alpine, Bushey, and Hartford Fire Insurance (underwriters for Bushey) have completed their joint survey in order to specify all casualty damage. This survey was completed this week and, at present, the casualty damage list is being refined and cost estimates are being prepared. After final preparation to the satisfaction of all parties, this survey will be forwarded to U.S. Salvage, Inc. (marine consultants to Hartford). After review of the casualty specifications and their estimated costs, a meeting will be scheduled by U.S. Salvage, Inc. for representatives of Bushey, Bushey's underwriters, Alpine, and the Foundation. The tentative date for this meeting is August 18th.

The subject of the value of ANTON BRUUN has been informally raised by U.S. Salvage, Inc., the marine surveyors for Bushey's underwriters. The reason this subject has been raised is that if Bushey is deemed liable for the sinking of ANTON BRUUN, and if the cost of restoring the ship to its original condition should exceed the value of the ship, then extensive negotiations will be required.

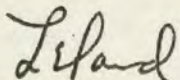
There is no official estimate as yet as to the cost to restore ANTON BRUUN to her pre-casualty condition. We should have this estimate next week. An informal guess by Alpine's consultant port engineer and consultant marine surveyor is \$400,000 to \$500,000. This figure includes the specified work in Alpine's fixed price subcontract with Bushey for the \$160,000 overhaul. Since Bushey has funded the \$56,000 for salvage of the ship, certain amounts for the cleaning and preservation subcontracts, a precedent has been established even though "without prejudice." If we can assume that Bushey's underwriters will advance insurance funds for repair of casualty damage, then, based on risk advice from our Office of General Counsel and Alpine's consultant admiralty lawyers, we would proceed with the repair and overhaul of ANTON BRUUN. A new schedule would be prepared for the transfer to India and it is possible that we could receive a ship



in better condition than if the casualty had not occurred. In any event, we estimate a minimum of increase in cost to the Foundation due to this unfortunate casualty. On the other hand, if the underwriters refuse to advance funds to Bushey, due to determination of liability, a question as to the value of the ship, or some other legal aspect, then ensuing court action could take many months. At this juncture, based on advice from our General Counsel, the alternatives would have to be reviewed.

Bushey's drydock No. 4 is being salvaged by Bushey. The drydock has not been refloated as of this date, but it is expected that it will be successfully raised within the next two weeks. There is a strong possibility that there will be no specific cause pinpointed for the sinking of the drydock. It is still suspected that the drydock sank due to its poor material condition.

I will keep you advised as to further developments and whether or not the final decision will be to proceed with the planned program for the transfer of ANTON BRUUN to India.

  
Leland J. Haworth  
Director



NATIONAL SCIENCE FOUNDATION  
OFFICE OF THE DIRECTOR  
WASHINGTON, D.C. 20550



July 18, 1967

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MEMORANDUM FOR: Mr. Charles Maguire  
The White House

SUBJECT: Monthly Report to the President

I have the following item to report to the President this month.

In carrying out the planned program, as approved by the President, to transfer the R/V ANTON BRUUN to the Government of India, the National Science Foundation recently authorized their prime contractor, Alpine Geophysical Associates, Inc., to award a subcontract for overhaul of ANTON BRUUN to place her in good material condition prior to transfer. This subcontract was awarded on June 28 to Ira S. Bushey & Sons, Inc., Brooklyn, who immediately took custody of the ship and placed her in one of their floating drydocks for commencement of underwater repairs. About midnight on June 30, at a time when no one was on board either the ship or the drydock, the drydock was observed to slowly list and sink to her port side. When ANTON BRUUN became unstable due to this sinking, she keeled to port and rested against the drydock wingwall. The final stabilized position resulted in the complete sinking of the drydock with ANTON BRUUN resting against the port wingwall of the drydock at an angle of 45 degrees. The water level varied from the main deckedge of the ship to covering one-half to three-fourths of the main deck depending on the New York harbor five-foot tide change.

The shipyard contracted with Merritt, Chapman and Scott on July 3, 1967, to raise the ship. Merritt, Chapman and Scott has worked continuously in this salvage operation and finally succeeded in raising the ship on Saturday, July 15. ANTON BRUUN has now been stripped of all remaining water and has been moved to Pier 5 at the Bushey shipyard for commencement of cleaning and preservation work. Following this, a joint survey will be conducted to determine the extent of casualty damage. ANTON BRUUN suffered no major structural damage other than the light structure above the main deck. The major damage will be to interior systems and equipment due to immersion in salt water for two weeks.



After the condition of the ship and the extent of repairs required to restore her to her pre-casualty condition have been determined a decision must be made whether or not to carry out the repairs necessary if we are to proceed with the proposed transfer to India.

After the drydock is salvaged, the extent of liability will be determined. It is most probable that the Foundation will not be liable for any of the costs attendant with raising the ship or making repairs to the ship to place her in pre-casualty condition.

Mr. Charles Johnson of the White House staff has been kept fully informed on this matter.

SIGNED

Leland J. Haworth  
Director

Copy to:  
Mr. W. W. Rostow  
Special Assistant to the President

5

THE WHITE HOUSE  
WASHINGTON

April 22, 1967

MEMORANDUM FOR DR. LELAND J. HAWORTH

The President has approved your recommendation to proceed with the transfer of ANTON BRUUN to India.

The State Department should be requested to initiate with the Indian Government the detailed planning required to effectuate the transfer.

*W W Rostow*

W. W. Rostow

cc's to: The Vice President  
The Secretary of State  
Dr. Edward Wenk, Exec. Secy,  
Marine Sciences Council, for info of Council

Dispatched 4/24/67 - Outside Rcpts.

PRESERVATION COPY



MEMORANDUM

THE WHITE HOUSE

WASHINGTON

April 13, 1967

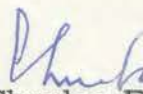
MEMORANDUM FOR MR. ROSTOW

Walt -

I attach a record of the clearance with Senator Russell of the gift of ANTON BRUUN to India. I believe this satisfies the one remaining condition.

If you agree, I suggest you dispatch the memorandum to Haworth so that the detailed planning may be initiated with the Indians.

I understand you are seeing JHA today. You might wish to take this opportunity to let him know informally.

  
Charles E. Johnson

## Memorandum

TO : Office of Congressional Liaison

Date Reported: 4/14/67

FROM : Theodore W. Wirths

Date of Conversation: 4/14/67

SUBJECT: Conversation with Member of Congress or His Staff

I conferred with William Jordan, Executive Sec., Sen. Richard Russell, Ga.  
(Title, Name, and State)☐ in person, ☐ by telephone, at \_\_\_\_\_

with respect to the following: I called Mr. Jordan to ask whether or not Senator Russell would be responding any time soon to the Director's letter of April 11, which requested Senator Russell's views on the proposed transfer of the ANTON BRUUN to India. Mr. Jordan said he had discussed the matter with Senator Russell. He said that Senator Russell believes he is not in a position to make a judgment in this matter. The Senator pointed out that was not knowledgeable enough in the subject matter of oceanography to make any kind of judgment in this case. While he is basically opposed to giving something to another country\* that would tax it heavily from the standpoint of involvement in complex scientific enterprises, he feels that the Director of the NSF is in the best position to make this judgment and has the authority to do so. The Senator believes that, if in the Director's judgment such a gift would assist the receiving nation in solving some of its most pressing problems, then he would have no objection to making such a gift.

I asked Mr. Jordan whether it would help if the Director would discuss this matter personally with the Senator. He said, "I don't think so." He pointed out that this<sup>s</sup> is a relatively minor matter and he would hope that, if there are any discussions between NSF and the Senator, it would be on broader matters than an item like this.

(Check, if applicable)

☐ which requires the following further action: (Indicate who shall take action.)

I have agreed to meet with Mr. Jordan in the near future and brief him on some of NSF's activities.

cc: Director Dr. Johnston Dr. Robertson Mr. Hoff  
Dr. Wilson Mr. Hunt Dr. Jones Mr. Rosenthal

Theodore W. Wirths  
(Signature)

CLO  
(Title)

→ \* in particular, an economically developing nation,



## Memorandum

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cc: Director      Dr. Johnston      Dr. Robertson      Mr. Hoff  
     Dr. Wilson      Mr. Hunt      Dr. Jones      Mr. Rosenthal

Theodore W. Wirths  
(Signature)

CLO  
(Title)

→ \* in particular, an economically developing nation,



5d  
11 APR 1967

Honorable Richard B. Russell  
United States Senate  
Washington, D.C. 20510

Dear Senator Russell:

The R/V ANTON BRUUN was originally the private yacht ARAS constructed in 1930 by Bath Iron Works, Bath, Maine. Early in World War II, she was purchased by the Navy, and, as the USS WILLIAMSBURG, served a distinguished career as escort ship, flagship, and Presidential yacht until her inactivation in 1953. President John F. Kennedy made her available to the National Science Foundation in 1962 and she was converted to an oceanographic biological research ship to meet the needs of American scientists for the International Indian Ocean Expedition (IIOE). She played a leading role in this expedition in 1963 and 1964, during which time several Indian scientists gained valuable experience in oceanographic techniques. ANTON BRUUN returned to this country in 1965 for overhaul and then embarked on another successful oceanographic research cruise, namely, the Southeastern Pacific Biological Program, from September 1965 to October 1966. She has thus served as an excellent biological oceanographic facility.

ANTON BRUUN is now in an inactive status and we are in the process of conducting a thorough survey of the ship to determine the repairs required for possible future use, permanent lay-up, or other disposal. We have placed the ship in an inactive status due to high costs of operation. The foregoing programs were costing the National Science Foundation somewhat in excess of \$1,000,000 per year of which the operation of the ship itself totaled \$350,000. A large proportion of this cost related to the wages of the 31-man crew. With this crew complement, she had quarters and laboratory space available to accommodate a scientific party of 16. Our present day objective for oceanographic ships is to have a crew/scientist ratio of one to one, and our present planning for the support of future research in the oceanographic biological field is being based on smaller, more modern and efficient ships. We estimate it should cost us approximately \$500,000 per ship per year.

ANTON BRUUN is one of the largest oceanographic research ships, with a displacement of 1700 tons and an over-all length of 243 feet. She is 37 years old, has had excellent



care during her lifetime, and competent marine opinion is that, after overhaul, she should be capable of reliable operation for five or more years.

We believe ANTON BRUUN can effectively be used as an oceanographic research vessel by India's recently organized National Institute of Oceanography. India could operate this ship at a greatly reduced cost due to the differential in wage standards between our two countries and we have received assurance from Indian scientists that rupees are available to operate ANTON BRUUN. This oceanographic research ship would serve as an interim ship until India gained experience and could build or purchase a new oceanographic ship in accordance with long-range scientific planning.

There is a great deal of investigation that can profitably be done in the Indian Ocean, the results of which would be of value to the progress of American science and could have an important influence in the future upon India's food production potential. Moreover, some research space will be available for qualified American scientists who might wish to continue or initiate studies in the waters surrounding India. Thus, the availability of this ship in the Indian Ocean would make it possible for American scientists to cooperate with the Indians and expand and verify the important studies which were previously initiated.

India's interest in acquiring this ship emanated from India's scientific participation aboard ANTON BRUUN during the International Indian Ocean Expedition from 1933 to 1935. Therefore, we proposed last year to transfer ANTON BRUUN to the Government of India and have recently requested the President's approval to proceed with this transfer.

In support of this proposal, we have ascertained that there is no Governmental interest in this ship for any national oceanographic program and that the high cost and inefficiency associated with the ship make its use uneconomical by non-Governmental organizations in the United States. The Department of State, Department of the Navy, and all other interested member agencies of the National Council on Marine Resources and Engineering Development concur that the transfer of ANTON BRUUN to India would be the best utilization of the ship in serving the national interests. We have authority for such transfer under the National Science Foundation Act of 1950 and funds are available from our

fiscal year 1967 budget to provide for an austere overhaul to assure the safety and reliability of ANTON BRUUN and her conformance with regulatory body requirements. In addition, we intend to determine what residual scientific equipment used aboard ANTON BRUUN can be granted to the Indian Government in order that they may have a healthy start in the oceanographic field.

In regard to Congressional reaction to this proposal, I have contacted the leadership in the Senate and the House, the chairmen and principal members of subcommittees concerned with oceanography, and the chairmen and principal members of subcommittees concerned with the National Science Foundation. I have been requested by the White House to inform you of this proposed transfer and I would appreciate your comments, at your earliest convenience, on this action. If there is any further information you desire, I will be most happy to supply it.

Sincerely yours,

Leland J. Haworth  
Director



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MEMORANDUM

OK of Russell's Board  
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THE WHITE HOUSE

WASHINGTON

Wednesday, April 5, 1967

MEMORANDUM FOR THE PRESIDENT

Dr. Haworth, the Director of the National Science Foundation, in the attached letter requests your approval to proceed with the proposal of transferring ANTON BRUUN to India.

The proposal, which was first brought to your attention last year, has been completely checked out with the appropriate Members of Congress and with all pertinent Departments and Agencies of the Government. There has been no objection raised to the transfer. It is the view of the Department of State, the Department of the Navy and all other interested member agencies of the National Council on Marine Resources and Engineering Development that the transfer of ANTON BRUUN to India would be the best utilization of the ship in serving U.S. national interests.

The National Science Foundation estimates that it will cost \$260,000 to overhaul and transfer the ship to India. The National Science Foundation has the necessary authority in the National Science Foundation Act of 1950, and the funds are available in the fiscal year 1967 appropriations.

The Department of State has prepared a scenario of additional actions to be taken if you approve the transfer. It will be necessary to undertake discussions with the Indian Government to reach agreement on the specific terms and conditions of the gift, the participation of U.S. scientists in Indian oceanographic projects, the actual arrangements for the transfer of title and custody, the training of a crew, and the formal transfer ceremonies. When these matters have been arranged, the details of the ceremonial transfer and related publicity can be worked out, including the content and timing of appropriate press releases.

I recommend that you approve the transfer and authorize me to sign the attached memorandum to Dr. Haworth, copies of which would also be made available to the other affected departments and agencies.

\_\_\_\_ Approved  
\_\_\_\_ Disapproved  
\_\_\_\_ See me

Walt Rostow  
I talked personally with Sen Morse today. He says: "It is perfectly clear this does not violate the Morse formula. OK."  
Also see Tab F.



NATIONAL SCIENCE FOUNDATION  
OFFICE OF THE DIRECTOR  
WASHINGTON, D.C. 20550

March 23, 1966

The President  
The White House  
Washington, D.C.

Dear Mr. President:

This letter is a summary of the current status of the proposal made in March 1966 to transfer permanently the research vessel ANTON BRUUN (the converted ex-Presidential yacht WILLIAMSBURG) to the Government of India. This vessel was converted to a biological oceanographic research facility in 1962 for the purpose of participating in the International Indian Ocean Expedition from 1963 to 1965. India's interest in acquiring this ship emanated from India's scientific participation in this expedition. ANTON BRUUN can effectively be used as an oceanographic research vessel by India's recently organized National Institute of Oceanography.

ANTON BRUUN recently completed her second successful oceanographic research cruise, namely, the Southeastern Pacific Biological Program from September 1965 to October 1966. She has thus served as an excellent interim biological oceanographic facility. Our present planning for the support of future research in this field is being based on smaller, more modern and efficient ships. ANTON BRUUN was costly to operate, principally because the ratio of ship's complement to scientific personnel approached twice that normally required. (This is a significant cost factor in the United States but is not so significant in India.) Although she is thirty-seven years old, she has had excellent care. Competent marine opinion is that after overhaul, ANTON BRUUN should be capable of reliable operation for five or more years. By the proposed transfer further value can be realized from the original investment of converting her to a floating biological research laboratory for she will serve as an adequate interim ship for India's development of an oceanographic program.

We have now obtained the clearances required to proceed with this recommended transfer. The summary of Congressional response was reported to you by my letter of March 25, 1966. Although at that time, Senator Wayne



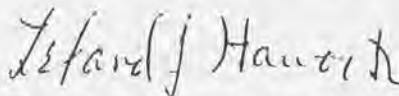
Morse and Representative Gerald Ford had not approved this transfer, their concurrences have now been obtained. We have also ascertained that there is no Governmental interest in this ship for any national oceanographic program and that the high costs and inefficiencies associated with the ship make its use uneconomical by non-Governmental organizations in the United States. The Department of State, Department of Navy, and all other interested member agencies of the National Council on Marine Resources and Engineering Development concur that the transfer of ANTON BRUUN to India would be the best utilization of the ship in serving the national interests.

ANTON BRUUN is now in an inactive status and we are in the process of conducting a thorough survey of the ship to determine the repairs required for overhaul. We estimate that it will cost us \$200,000 to overhaul the ship and \$60,000 to make arrangements for the transfer to India. We have authority for such transfer under the National Science Foundation Act of 1950 and the funds are available from our FY '67 budget. In addition, we intend to determine what residual scientific equipment used aboard ANTON BRUUN can be granted to the Indian Government in order that they may have a healthy start in the oceanographic field.

I respectfully request your approval to proceed with the proposal of transferring ANTON BRUUN to India. I feel that this transfer will be important for U.S. and international scientific efforts as well as to the national oceanographic effort of India. Should you approve of this transfer, we will request the State Department to commence the planning required.

I am forwarding, under separate cover, to Mr. Walter Rostow of your staff, copies of substantiating correspondence and pertinent back-up information.

Respectfully yours,



Leland J. Haworth  
Director

Copy to: The Vice President

National Security File, Country File, India

"ANTON BRUUN"

There is no document #6 in this folder.



NATIONAL SCIENCE FOUNDATION  
OFFICE OF THE DIRECTOR  
WASHINGTON, D.C. 20550

March 23, 1967

1004  
C. Johnson  
Wiggins  
2 Ref

6a

Mr. Walter Rostow  
The White House  
Washington, D.C.

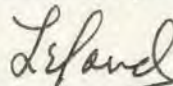
Dear Mr. Rostow:

Attached is a copy of my letter to the President summarizing the current status of the proposal made in 1966 to transfer the research vessel ANTON BRUUN to the Government of India and requesting the President's approval to proceed with this transfer. In my last paragraph, I have stated that I am forwarding to you, under separate cover, copies of substantiating correspondence and pertinent back-up information. This package of information is attached.

Also attached is a draft of a proposed press release should this transfer be approved and should the State Department negotiate a satisfactory agreement with the Government of India concerning this transfer. As this transfer is being made under the National Science Foundation Act of 1950 to support basic scientific research, the agreement must provide that U.S. scientists will be expected to participate in and conduct oceanographic projects aboard ANTON BRUUN and that all scientific data resulting from ANTON BRUUN oceanographic cruises be made publicly available.

Mr. Charles Johnson of your staff and Mr. Daniel Hunt, Jr. of my staff have been working closely on this matter and my staff is at your disposal to furnish any additional information you may desire.

Sincerely yours,



Leland J. Haworth  
Director

Attachments

Copy to: The Vice President

I N D E X

<u>Tab</u>	<u>Subject</u>
A	Dr. Leland J. Haworth's letter to Dr. Donald F. Hornig, Director, Office of Science and Technology, dated March 2, 1966, regarding ANTON BRUUN background and proposal to transfer ship to India
B	Department of State letter signed by Mr. Herman Pollack, Acting Director, International Scientific and Technological Affairs, to Dr. Leland J. Haworth dated March 16, 1966, regarding the Department of State approval of ANTON BRUUN transfer to India subject to appropriate clearances
C	Memorandum from Dr. Donald F. Hornig, Special Assistant to the President for Science and Technology, to Robert Komer dated March 18, 1966, regarding transfer of ANTON BRUUN to India
D	Letter from Dr. Leland J. Haworth to the President dated March 25, 1966, regarding Congressional response to transfer of ANTON BRUUN to India
E	Letter from Dr. Leland J. Haworth to Mr. Paul H. Nitze, Secretary of the Navy, dated September 7, 1966, inquiring as to Navy interest in ANTON BRUUN
F	Memorandum from the Department of State to Dr. Leland J. Haworth dated October 19, 1966, quoting telegram from Senator Morse to Ambassador Bowles  Letter from Leland J. Haworth dated April 28, 1966, to Dr. H. W. Menard, Office of Science and Technology, confirming Senator Wayne Morse's response



<u>Tab</u>	<u>Subject</u>
G	Admiral Horacio Rivero, Vice Chief of Naval Operations, letter dated October 29, 1966, to Dr. Leland J. Haworth stating that Navy has no requirement for ANTON BRUUN
H	Memorandum from Mr. Daniel Hunt, Jr. to Dr. Harve J. Carlson dated December 12, 1966, regarding Inspection of ANTON BRUUN
I	Department of State Memorandum to the Files dated December 22, 1966, summarizing meeting of December 19, 1966, regarding ANTON BRUUN refitting and transfer
J	Memorandum from Dr. Harve J. Carlson to Mr. Roy Dillon, National Council on Marine Resources and Engineering Development, dated December 23, 1966, giving pertinent summary with appropriate attached references on background of proposal to transfer ANTON BRUUN to India
K	Memorandum from Mr. Daniel Hunt, Jr. to Dr. Harve J. Carlson dated December 29, 1966, regarding ANTON BRUUN Status
L	Letter from Dr. Robert A. Frosch, Chairman, Interagency Committee on Oceanography (ICO), to Dr. Harve J. Carlson dated February 1, 1967, regarding utilization of ANTON BRUUN by member ICO agencies, with attachment of J. K. Treadwell, Chairman, Ships Panel of ICO, letter dated January 24, 1967, to Dr. Frosch regarding utilization of ANTON BRUUN
M	Letter to Mr. Frank Meyer, Administrative Assistant to Representative Gerald Ford, dated February 17, 1967, confirming telecon same day re Representative Ford's answer to transfer of ANTON BRUUN to India

<u>Tab</u>	<u>Subject</u>
M (contd.)	Memorandum to the files from Mr. Daniel Hunt, Jr., dated March 8, 1967, re phone call from Mr. Frank Meyer informing Mr. Hunt that Representative Ford had no objection to proposed transfer of ANTON BRUUN



6c

M

6-d

March 8, 1967


MEMORANDUM TO THE FILES:

Subject: Phone call from Representative Gerald R.  
Ford's Office in regard to Disposition  
of the R/V ANTON BRUUN

My letter of February 17, 1967, to Mr. Frank Meyer, Administrative Aide to Representative Ford, requested an answer, either orally or in writing, to the Director's letter of March 24, 1966, to Gerald Ford regarding the proposal to transfer the R/V ANTON BRUUN to India.

Mr. Frank Meyer, by a phone call this date at 2:30PM, informed me that Representative Gerald Ford had no objection to the proposal.

Mr. Meyer asked if the transfer had already taken place and also apologized for his tardiness in answering.

  
Daniel Hunt, Jr.

cc: Dr. Haworth  
Dr. Wilson  
Mr. Ohlke  
Dr. Carlson



6-2

February 17, 1967

Mr. Frank Meyer  
Administrative Assistant to  
Representative Gerald R. Ford  
House of Representatives  
Washington, D.C.

Dear Mr. Meyer:

Confirming our telephone conversation this morning, attached is a copy of the March 24, 1966, letter that the Director of the National Science Foundation, Dr. Leland J. Haworth, sent to The Honorable Gerald R. Ford on the subject of the proposal to transfer the research vessel ANTON BRUUN (ex-Presidential yacht USS WILLIAMSBURG) to India.

I would appreciate it very much if I could have a copy of Representative Ford's answer since it may have been misplaced and we cannot find it in our files. Alternatively, a phone call to me, IDS Code 183, Extension 6455, would be sufficient to indicate Representative Ford's comments on this matter and thereby complete our Director's file on Congressional response.

Sincerely yours,

Daniel Hunt, Jr.

bcc: Dr. Haworth  
Mr. Ohlke

b-f

L





THE ASSISTANT SECRETARY OF THE NAVY  
(RESEARCH AND DEVELOPMENT)  
WASHINGTON, D.C. 20350

68

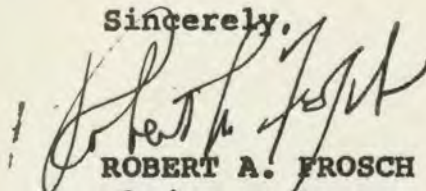
1 FEB 1967

Dear Harve:

In response to your verbal request in December, the ICO Ships Panel discussed the utilization of ANTON BRUUN with the ICO member agencies. A copy of the Chairman, Ships Panel memorandum of 24 January 1967 is enclosed.

In summary, it is recommended that you continue with planning for foreign transfer recognizing that the recipient should be made aware of the problems with respect to spare part replacement. If she is transferred to a country where labor is cheap, repair parts can be handtooled. It should be emphasized that to procure one-of-a-kind repair parts for ANTON BRUUN from the United States industrial community is much too costly.

Sincerely,

  
ROBERT A. FROSCH  
Chairman, Interagency  
Committee on Oceanography

Dr. Harve J. Carlson  
Division Director  
Biological and Medical Sciences  
National Science Foundation  
1800 G Street, N.W.  
Washington, D.C. 20550

Enclosure

Copy to:  
ICO Members and Observers

FEB 3 1967



U.S. NAVAL OCEANOGRAPHIC OFFICE  
DEPUTY COMMANDER (OCEANOGRAPHY)

24 January 1967

6h  
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Honorable Robert B. Frosch  
Chairman, Interagency Committee  
on Oceanography  
Room 4E736, the Pentagon

Dear Dr. Frosch:

In response to your request, the ICO Ships Panel has investigated the possibility of using the R/V ANTON BRUUN in our National Oceanographic Program.

To recap the history of this ship, it was built in 1930 as the yacht ARAS. About 1940 it was converted to a Navy patrol gunboat; in 1946 to the Presidential yacht WILLIAMSBURG; and finally in 1962 to the R/V ANTON BRUUN. Under NSF sponsorship it was fitted out primarily for biological work during the International Indian Ocean Expedition. During mid-1966 NSF decided to de-activate it, and it is now being considered for transfer to India.

The ship is quite fine in her lines; although 244' long, it only has a 36' beam and a gross tonnage of 1562. Its nominal cruising speed (seldom achieved) is twelve knots, and she has an endurance range of 9,000 miles or 32 days. The crew/staff ratio is rather poor, being 32 crew to 15 scientists. It has two Winton diesels of 1100 HP, a small active rudder, modest auxiliary power, and no capability for quieting ship. Winch and laboratory facilities are those commonly found on a biological research vessel. Operating cost (exclusive of scientific programs) has run about a million dollars per year. The fine lines, plus the extra scientific gear added topside, have reportedly resulted in a fairly unstable ship, uncomfortable to work on.

There are several factors which work against the use of this ship as an oceanographic vessel, principal one being her age. Acquiring a 37-year old ship is not unlike marrying a middle-aged woman. After 37 years of service, and three conversions, some debility of hull and equipment is to be expected. This can, in part, be alleviated by a general re-outfitting, but it would only forestall the end by a few years and would be inordinately expensive. This problem is reflected in the unusually high maintenance costs of the last few years.



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Her suitability as an oceanographic vessel is not outstanding. I have mentioned her fine lines, which curtail the available space and lead to rather poor sea-keeping qualities. Her conversion was heavily slanted toward biological research, rather than general usage; this coupled with the lack of quieting and paucity of auxiliary power would limit her usefulness in future surveys of broad scope, using delicate equipment which requires quiet and plenty of power. The general layout leads to the poor scientist/crew ratio; most ships now being built approximate one-to-one, while BRUUN has one to two.

In summary, the ANTON BRUUN will probably give a few more years of service, adequate for programs in biological and general oceanography. Her life expectancy and efficiency will depend heavily on an adequate maintenance program and the duration of a limited spare parts stock. In view of the crew/scientist ratio, and the need for considerable and continuing repairs, it could most effectively be used by a country in which cheap labor is readily available.

The consensus of U. S. government agencies is that we already have more than enough old conversions in our inventory. Adding another would compound our headaches without adding commensurately to our sea-going capability. I have contacted representatives of the principal ship-operating agencies (Navy, Coast Guard, ESSA, BCF, and Smithsonian) none of which have an interest in taking on the ship.

It is recommended that the ICO interpose no objection to providing the ANTON BRUUN to the Indian Government which can, I am sure, make good use of it in its declining years. In all fairness, however, they should be made aware of the problems which will probably arise and become progressively more severe.

If the transfer of the ship to India is for some reason not consummated, then a final resort might be considered to avoid her total loss. The recent PSAC Panel on Oceanography discussed the difficulty sometimes encountered by researchers, outside the mainstream of oceanography, in finding ship time. The Ships Panel is in the process of making suggestions on this, and one alternative being considered is the use of "pool ships", operated by an institution or a consortium for the benefit of several groups. The ANTON BRUUN might possibly be used in such a program, although her cost-effectiveness would

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have to be weighed against other vessels. I would emphasize that this is suggested only as a final resort; clearly the preferred course of action at this stage is to offer the ship to India.

Very respectfully,

*T. K. Treadwell*

T. K. TREADWELL  
Chairman, Ships Panel  
Interagency Committee  
on Oceanography



bi

K

Dr. Harve J. Carlson

December 29, 1966

Daniel Hunt, Jr.

ANTON BRUUN; Status Report

1. The following summarizes the events to date in regard to status of R/V ANTON BRUUN:

- a. Alpine Geophysical Associates, Inc. letter to Dr. J. T. Spencer, dated December 2, 1966, gives an estimated cost of \$235,000 to overhaul ANTON BRUUN. This figure includes overhaul of the ship and ship's equipment including installed scientific gear. It does not include re-conditioning and re-installing scientific equipment and supplies already removed. The foregoing analysis is based on the Report of Inspection and Survey, dated December 1, 1966, made by Mr. Peter Larsen, Consulting Port Engineer for Alpine, and includes major alterations recommended, viz., replacing boiler, adding a new 200 KW D.C. diesel generator and adding a new 15 KW MG set.
- b. NSF representatives, in company with Alpine, inspected ANTON BRUUN on December 7, 1966 and a detailed report of the inspection is given by Hunt's memo to Harve Carlson, dated December 12, 1966. An estimate of \$150,000 is given as the minimum cost to place the ship in a satisfactory condition. An estimate of \$400,000 is given to overhaul and modify the ship to place her in peak condition. This would include major machinery alteration, habitability alterations and an increased berthing capacity to accommodate more scientists.
- c. A meeting at the State Department to discuss transfer of ANTON BRUUN to India was arranged by Dr. Spencer between representatives of NSF and State and took place on December 19. This meeting is briefly summarized by State's memo to the files, dated December 22, 1966. Further comments regarding this meeting are given below.



2. Comments in regard to meeting at State Department on December 19 between representatives of State and NSF on subject of transferring ANTON BRUUN to India:

- a. Dr. Spencer and Mr. Hunt discussed ANTON BRUUN background and material condition, respectively. Upon query, a ball park estimate of six months and \$250,000 was given to place ANTON BRUUN in an acceptable condition for transfer to India.
- b. The subject of power supply was discussed. Since India operated their shore stations on 220 volts, 50 cycle, should not the ANTON BRUUN be converted to the same power to assure scientific equipment compatibility? This would have to be investigated; however, it should not be contemplated to perform such an extensive alteration on the ship. India should be responsible for this.
- c. Where should transfer take place -- in a U.S. port, in an Indian port, or both? (i.e., ceremonies in each country). This would be an item for State to plan once the agreement to transfer ANTON BRUUN to India had been arranged. Mention was made that the Vice President and his Council would become involved and it might be desirable for ceremonies in each country. The cost to NSF depends on the plans developed for the transfer.
- d. In regard to the NCMBED, it was mentioned by NSF that a formal letter should be received from the Council, probably originating from ICO, that no member agency desired ANTON BRUUN for any national effort and that it would be in the best national and international interests to transfer the ship to India.
- e. After NSF has completed all planning for ship transfer, State should then contact Indian Embassy and commence plans for ultimate agreement. Prior to such agreement, representatives from the Indian Government should inspect ANTON BRUUN. The minimum representation should include a marine specialist and a scientific specialist. All details of the transfer should be clearly understood and in writing. For example: condition of the ship, equipment installed, spare parts, allowance lists, scientific



equipment, logistics, provisioning, sea trials, training, and schedules for all events.

- f. State seemed anxious to expedite the transfer and desired the ship to be in the best condition possible.
3. Prior to planning in detail the steps required to reach the ultimate agreement for transfer of ANTON BRUUN to India, the below-listed items must be accomplished as soon as possible:
- a. Send letter to Alpine asking for estimate to perform detail survey so that an amendment to NSF-C443 can be approved. Follow this letter up with conference to expedite amendment and commencement of preparation of detailed work list by priorities within major categories. After detailed estimates received, and NSF decides on scope of overhaul, proceed with overhaul by another amendment or new contract. A proposed letter to Alpine for Dr. Spencer's signature is attached.
  - b. Send letter to Chairman of ICO, Dr. Frosch, in order to formally receive member agency non-interest in ANTON BRUUN for national oceanographic programs. (Dr. Carlson has done this.)
  - c. Resolve reported \$40,000 outstanding obligation on NSF-C298 with Alpine. This contract preceded present contract with Alpine for operation of ANTON BRUUN and was for the purpose of overhaul at Munroe Shipyard in Boston during 1965. For contractual reasons, nothing should be done to ANTON BRUUN until this matter is settled.
  - d. Immediately arrange for a full and complete inventory of all property to be performed jointly by the Foundation and the Contractor as required by Section A, Paragraph 3, Subparagraph d(2), Page 5 of NSF-C443. Locate and return any missing equipment and affix responsibility for any equipment that cannot be located.
4. Funds required.

It is estimated that approximately \$150,000 will be required to place ANTON BRUUN in acceptable condition for transfer to India. This, however, does not include scientific equipment



reconditioning, specification and bid preparation, or other contingencies. Also, depending upon the ultimate agreement reached in regard to allowance, spare parts, provisioning, training and transfer, additional funds will be required. Therefore, it is recommended that \$300,000 be budgeted for ANTON BRUUN.

Recap.

\$150,000	Overhaul
50,000	On-going costs of contract, and administration of overhaul
100,000	Scientific equipment recondition- ing and other costs for foreign transfer
<hr/>	
Total	\$ 300,000

Depending upon agreement of transfer with India and how much India can and will fund, the above amount could be decreased.

5. Time Schedule.

With close supervision and cooperation by all departments and agencies involved, ANTON BRUUN could be wrapped up and transferred to India in about six months. More likely, it will take eight. However, shortcuts can be taken. For example, the boiler analysis and replacement could be handled immediately by a separate amendment to C443. If the green light is given, this should receive high priority since 12 - 16 weeks are required for delivery of a boiler due to U.S. Coast Guard requirements for plan approval. There is a possibility this could be expedited by personal contact.

The length of time in preparing specifications and circulating for bids prior to final shipyard award for overhaul can be time consuming. Any hull or machinery discrepancies discovered by USCG, Lloyds', or ABS surveyors could cause extension of overhaul time and an increase in fund requirements.

For a ship such as ANTON BRUUN, it should not require more than two weeks to train a foreign crew. Four weeks should be allowed for planning purposes.

The following is a hypothetical time schedule:

Jan 1 - 15	Letter to Alpine and conference with Alpine in regard to preparing detailed work list and estimates. Issue amendment to C443 for Alpine to commence work. Include material
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procurement, as boiler and MG set, or issue separate amendment. Resolve old contract C298. Complete inventory with Alpine in accordance with contract C443.

Jan 15 -  
Feb 15

Alpine complete and submit ANTON BRUUN detailed work list by priorities within major categories with estimates. NSF review work list and decide on scope of overhaul work. Prepare amendment to C443 for ANTON BRUUN overhaul or issue new contract. NSF conduct liaison with State Department and commence planning for details of transfer agreement. Arrangements to be made for representatives from India to inspect ANTON BRUUN.

Feb 15 - Mar 15 Representatives from India inspect ANTON BRUUN in company of NSF and State representatives. All conditions to be reduced to writing for final agreement purposes. Alpine to prepare specifications for overhaul, farm out design work, and circulate bids.

Mar 15 - Apr 15 Alpine to award shipyard contract. Representative from India to be present during overhaul (India's option). Final agreement to be formulated for transfer of ANTON BRUUN to India.

Apr 15 -  
June 15

Completion of overhaul, including sea trials. Crew from India to arrive approximately two weeks prior to completion of overhaul. All final details of transfer to be worked out.

June 15 -  
July 1

Training of crew and final transfer.

Daniel Hunt, Jr.

cc (w/o attachment);

Dr. Haworth  
Dr. Wilson  
Mr. Sheppard  
Dr. Robertson  
Mr. Bolton  
Mr. Phillips  
Mr. Rosenthal

cc (w/attachment): Dr. Spencer



6-K

J

*Official Use only*

*6-L*

Mr. Roy Dillon, National Council on Marine  
Resources and Engineering Development

December 23, 1966

Harve J. Carlson, Division Director for  
Biological and Medical Sciences  
National Science Foundation

Additional Information on the R/V ANTON BRUUN

As a result of the questions raised by you and Mr. Glenn Schweitzer when you visited the National Science Foundation on December 15, we are forwarding additional information regarding the R/V ANTON BRUUN.

For nearly two years there has been a continuing informal exchange of information between India and the United States regarding possible transfer of this vessel to India for use by the recently organized National Institute of Oceanography. I am attaching copies of several memoranda and letters that highlight the development of this dialogue.

Dr. Donald L. Fuller, Science Attache at the American Embassy, New Delhi, was early approached by CSIR officials on this matter (Attachment 1). Dr. S. H. Zaheer, Director General of CSIR, and Dr. B. K. Panikkar, Director of the Indian Ocean Expedition, Director of the newly formed National Institute of Oceanography and member of CSIR, have been central in these discussions from the beginning. I call your attention to a letter from Dr. T. S. Satyanarayana Rao, dated May 25, 1965, to Dr. Keck which sets out some pertinent budget items and indicates that the Indians estimate they could operate such a ship as the ANTON BRUUN 200 days per year at a cost of approximately \$250,000 per year (Attachment 2). On June 4, 1965 Dr. Panikkar wrote Dr. Keck that he felt their operating cost for the BRUUN might approximate \$315,800 per year (Attachment 3). Dr. Arthur Roe, Head of the Office of International Affairs of the Foundation, was in India in December 1965 and I submit his memo to the files regarding discussions at that time on the possibility of a transfer of the BRUUN to that country (Attachment 4). An unsolicited letter from Dr. Warren S. Wooster, Secretary of ICSU, further elaborates a widespread interest in seeing that the ANTON BRUUN is put to good use (Attachment 5). A letter from Mr. Herman Pollack to Dr. Haworth of March 16, 1966, indicates State Department approval, subject to necessary clearances, of the transfer of the ANTON BRUUN to the Indian CSIR (Attachment 6). Finally, a letter of July 27, 1966 from Dr. Panikkar to Dr. Keck indicates the progress in setting up the National Institute of Oceanography and reiterates the continuing interest in India in obtaining the ANTON BRUUN (Attachment 7).

*Dr. Haworth*



During this period there have been various personal contacts, in addition to those mentioned. One was the visit by Dr. Zaheer to the United States in the spring of 1965. Discussions were also held on the subject by Dr. Donald Hornig when he was in India in the late summer of 1965. Consequently, there is a considerable background on this matter available in the official records of the State Department and the National Science Foundation.

In addition to the approval from Mr. Pollack, Director of International Scientific Affairs, Department of State, this matter will require specific approval by the Secretary of State. So far as Congressional clearances are concerned, this matter was covered in a detailed memorandum from the Director of the National Science Foundation to the President on March 25, 1966 (sent via Mr. Henry Wilson of the White House staff).

In respect to departmental approvals, numerous contacts were made a year ago by NSF staff members with all agencies having oceanographic programs to ascertain any specific interest in the ANTON BRUUN, but none was found. In addition, the Vice Chief of Naval Operations formally notified Dr. Haworth on October 29, 1966, that the United States Navy had no further requirement for this ship. As a further step, we are now requesting Dr. Froesch, Chairman of the ICO, to circulate all agencies with respect to the ANTON BRUUN so as to bring their responses up-to-date. We will transmit this information to you and Mr. Schweitzer as soon as it becomes available from the ICO. We do not expect that the current situation will differ from what it was one year ago.

One or two questions were raised on December 15 regarding the cost of operating the BRUUN. As we indicated in a memorandum to Mr. Schweitzer on December 2, we estimate that the current annual average cost is approximately \$862,000 exclusive of the scientific program and major overhauls. Since that time, a preliminary engineering inspection on December 7 indicates that prior to transfer of the vessel to India, overhaul costs would range from a low of about \$150,000 to a maximum of \$275,000 dependent upon a final decision as to what condition the vessel should be in prior to the transfer to the Government of India. Cost estimates for the overhaul are now in the process of further refinement.

The question regarding economy of operation of the BRUUN has been raised on several occasions. Most experts will agree on at least one point, that as any vessel becomes older, maintenance costs become greater. Just 18 months ago, overhaul costs on the BRUUN approximated \$250,000 and NSF is now faced with perhaps a similar expenditure if the ship is to be placed in something approaching A-1 condition.



As regards crew costs, the BRUUN is perhaps no more expensive than other vessels which require a total of 32 officers and seamen. For example, the BRUUN operating costs may be compared with a few other vessels of comparable size:

<u>Vessel</u>	<u>Displacement Tonnage</u>	<u>Crew</u>	<u>Scientific Party</u>	<u>Annual Operating Cost, 1966</u>
R/V BRUUN	1,700	32	15	\$ 862,000
R/V ARGO	2,079	40	24	800,000
R/V ATLANTIS II	2,100	28	25	880,000
R/V CHAIN	2,100	29	23	845,900
R/V CONRAD (AGOR)	1,320	26	15	715,800
R/V YAQUINA (FS)	820	18	14	400,000
R/V EASTWARD	474	15	15	327,050

We wish to make clear that NSF has not been concerned so much with the inefficiency of the BRUUN (although this is a factor) as with its relatively large size. We know, for example, that a vessel of only one-half the tonnage of the BRUUN (specifically the YAQUINA) can be equipped to do everything the BRUUN can do, and perhaps more. At the same time, operating costs are less than half as much.

It has been estimated by competent engineers that the BRUUN has a longevity of six to eight years. Based upon the maximum figure, we have attempted to calculate the savings which could be effected were the ANTON BRUUN to be replaced as soon as possible by a new and more efficient vessel. In doing this it is necessary to make several basic assumptions (Attachment 8), but it does not seem unreasonable to postulate a savings of perhaps \$5,000,000 over the entire period. This would easily pay for the cost of new construction and leave \$2,000,000 surplus at the end of the period.

With the exception of the ICO confirmation regarding absence of agency requirements for the ANTON BRUUN, we hope the foregoing adequately covers most of the questions which you raised earlier. Additional documentation on some of these points is available in National Science Foundation files as well as State Department files. Some of the latter material (especially various cables) are of a classified nature and should be requested from the State Department if they are needed. (Cf. the official memorandum dated December 21, from Dr. Leland J. Haworth to Dr. Edward Wenk re these documents.

Please let us know if we can be of further assistance.

Harve J. Carlson

Attachments

cc: Dr. Robertson Dr. Wilson Dr. Haworth

Dr. Keck  
Dr. Spencer  
Dr. Jones  
Dr. Spencer  
Captain Hunt



# INDEX

## ATTACHMENT    1965

- 1 - Apr 23    Memo fr American Embassy (Fuller) New Delhi to Dr. Keck desiring to know possibility of working out terms, costs, program interests, etc. if BRUUN is made available to India.
- 2 - May 24    Ltr fr Rao to Keck stating Governing Body of CSIR approval for estab. Nat'l Inst. Oceanography with budget provision
- 3 - June 4    Ltr fr Panikkar to Dr. Keck giving cost of operation of BRUUN in India ✓
- 4 - 1966  
Jan 19    Memo/Files fr Dr. Roe (ISA) re conversations in India re BRUUN
- 5 - Feb 2    Ltr fr Warren Wooster (ICSU) to Dr. Keck re plans discussed with Panikkar on development of Nat'l Inst of Oceanography; possible use of PL 480 funds. ✓
- 6 - Mar 16    Ltr fr State Dept. (Pollack) to Dr. Haworth re State Dept. examined proposal and approves it, subject to necessary clearances for gift of BRUUN to India
- 7 - July 27    Ltr fr Panikkar to Dr. Keck, CSIR has accepted proposal for establishing Nat'l Inst. of Oceanography. ✓
- 8 - Dec 19    Comparative Costs for Operation of BRUUN; Total Investment - Eight Years

National Science Foundation  
December 20, 1966



## OPERATIONS MEMORANDUM

TO: Dr. David Keck - NSF

DATE: April 23, 1965

FROM: American Embassy - SCI - Donald L. Fuller - New Delhi

SUBJECT: Anton Bruun

REF:

The possible availability of the ss. Anton Bruun for two or three years for oceanographic studies in the Indian Ocean has created a great deal of interest here. In the meetings with Dr. S. H. Zaheer, Director General of the Council of Scientific and Industrial Research (CSIR), and Dr. V.K. Panikkar, (CSIR) and Indian director of the Indian Ocean Expedition, it was learned that they are anxious to explore this opportunity.

In long range plans the CSIR expects to build an oceanographic vessel for the new CSIR National Oceanographic Laboratory now being organized. The availability of a vessel in the meantime would greatly accelerate the research program since the scientists are currently on hand and it is believed that an experienced Indian crew for the vessel could be acquired quickly.

To reduce operating costs of course the CSIR would prefer a joint Indo-American program and they could be prepared to work out such a program on short notice. An obvious question is what USG Agency would be able and willing to sponsor part of the program?

To get things started we wish to know more about this possibility and what can be said about the timing, terms, US program interests, costs for operating and insurance and the numerous other points that would be involved in the transfer or loan of the vessel. A first draft of the type of contract or agreement that must be developed would be desirable as well as a description of the vessel and the scientific and auxiliary equipment that would be provided.

c.c. Dr. I.E. Wallen - Smithsonian Inst.  
Dr. J. W. Joyce - SCI - State

UNCLASSIFIED





Grams: OCEANOLOGY

Phone: 35657 / 73353

INDIAN OCEAN EXPEDITION  
(COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)

Rafi Marg, / B-7, Houz Khas Enclave,

NEW DELHI. 196

Dr. T. S. Satyanarayana Rao,  
Scientist.

From Bombay Office: Hornbill House,  
Opp: Lion Gate,  
Apollo Road,  
Bombay-1.

Tel: 257277. Grams: HORNBILL

May 24th 1965  
D.O.

Dr. David D. Keck,  
Deputy Division Director for  
Biological and Medical Sciences,  
National Science Foundation,  
Washington D.C. 20550.

Dear Dr. Keck,

I thank you for your kind letter d16th April 1965. Recently I was at Delhi where I met Dr. N. K. Panikkar and discussed with him about the Anton Bruun and your letter to him. I am pleased to inform you that we are very much interested in Anton Bruun and I thought I should keep you fully informed, though unofficially at this stage, about how things are here in the hope that when the future of the Bruun comes to be discussed at NSF you may have some facts to go by.

You should be pleased to hear that the Governing Body of the Council of Scientific & Industrial Research of which our Prime Minister is the president has given approval for the establishment of the National Institute of Oceanography during the Fourth Plan. The NIO should therefore start functioning from the 1st April 66. As you are aware we have now a department under the CSIR dealing with the Indian Ocean Expedition and the idea is to make this as the nucleus of the new institution. A sitting committee has been appointed to examine suitable sites for locating the NIO and the possible places are Goa, Mangalore, Cochin, Trivandrum on the west coast and Pondicherry and Waltair on the east coast.

The budget provision for the National Institute are briefly as follows, the funds spread over a five-year period starting from April 1966.

Capital	Rs. 192.50 Lakhs which includes Rs. 105.00 Lakhs for the ship.
Recurring (Labs)	Rs. 101.56 Lakhs
Recurring (Ship)	24.00 Lakhs each year (from 3rd year of the plan but could be prepared if necessary)





Grams : OCEANOLOGY  
Phone : 35657 / 73353

**INDIAN OCEAN EXPEDITION**  
(COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)

Raft Marg, / B-7, Houz Khas Enclave,

NEW DELHI ..... 196

The local shipping companies feel that a ship of Anton Bruun's size (about 1600 tons) and a crew of 30 should cost us no more than Rs. 10 to 12 Lakhs (appx. 250,000 \$) to maintain and run for 200 days operation in a year. This estimate is based on the fact that average crew salary on Indian ships is about 5 to 6 times lower than the American and the same may be true under many other heads of expenditure. However, to get at the correct estimate it would be desirable <sup>to know</sup> as to how your estimate of \$750,000 has been arrived at. If you are pleased to send me at your earliest all the details under different heads such as crew salary, fuel, food, transportation, insurance, depreciation etc. I shall be able to correctly estimate the cost of running and maintaining Anton Bruun with Indian crew in these waters. There is also an idea to <sup>get</sup> contract the Indian Navy to run the ship for the NIO. As you would see from our budget, we have more than sufficient funds to run the Anton Bruun on our own. I had sent a cable and also a letter to Mr. John Berg of the Alpine Geophysical Associates to send me details of expenditure and I request that you kindly do the needful in supplying information so that we may realistically estimate all aspects of maintaining and running Bruun before we go to our Government with our recommendations.

Should you be requiring further information I would be happy to provide the same. It is my earnest desire to further the excellent cooperation we have had from the U.S. in marine sciences during the IIOE and continue the same during the years to come.

With kindest regards,

Yours sincerely,

*T. S. Satyanaryana Rao*

T. S. Satyanaryana Rao.





Dr. N. K. PANIKKAR  
DIRECTOR  
INDIAN PROGRAMME

Grams : OCEANOLOGY  
Phone : 3 5 6 5 7

INDIAN OCEAN EXPEDITION  
(COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)

RAFI MARG,

NEW DELHI 4th June, 1965

No. DPA/65

Dear Dr. Keck,

Many thanks for your letter of the 13th May. I write to confirm our deep interest in the research ship ANTON BRUUN. We have given some thought to the cost of operation and the feeling in our expert circles is that if the ship is run with an Indian crew and Indian provisioning the cost of operation will be substantially less. We figure it something like Rs.15 lakhs (\$315800) a year. We are trying to obtain the details on its staffing and cost of operation from the Alpine Geophysical Associates and if you would allow them to release the required information we shall be in a position to give you more accurate figures.

I am sure you will be pleased to hear that our project for the establishment of a National Institute of Oceanography has been approved by the Governing Board of the CSIR and there is a provision for Rs.3.41 crores (\$7179000) for five years commencing from March 1966. We have included in this financial provision the cost of building a research vessel and its operation but if the ANTON BRUUN were to become available we will not immediately spend the money on constructing a new ship. For your information I am enclosing with this letter a copy of the draft plan for the establishment of our Institute.

The thinking here is that if approval is secured at governmental level the vessel could be transferred under an agreement between the Council of Scientific & Industrial Research and the National Science Foundation. This is only a loud thinking on my part. I would deeply appreciate of being informed of any proposals you have for the vessel and if you require any further details about our own programme and the way we would use the vessel, I shall be very glad to do so.

With kindest regards,

Yours sincerely,

( N.K.PANIKKAR )

Dr. David Keck,  
Deputy Director,  
Division of Biological & Medical Sciences,  
National Science Foundation,  
WASHINGTON D.C.



MEMORANDUM FOR THE FILES

January 19, 1966

Subject: Conversations in India regarding the Anton Bruun

I talked briefly with Dr. Zahoor and more at length with Dr. Paniker<sup>n a</sup> about the proposed transfer of the Anton Bruun.

The conversations with Zahoor took place in Bombay, and those with Paniker took place in Delhi, although they were exceedingly difficult to arrange because of the chaotic conditions existing there because of Shastri's death. (My plane arrived at the Delhi airport just an hour before Shastri's body arrived.)

The following points were made by Paniker.

1. In spite of the Pakistan unpleasantness, funds are available in India for running the Anton Bruun. The Institute of Oceanography is being set up and the acquisition of the Anton Bruun and putting it into service is considered a high priority program by the Government.
2. There are competent Indian staff to man the vessel scientifically; indeed, several of the staff actually did work on the Anton Bruun during its service in the Indian Ocean expedition.
3. The Indians are awaiting word from the NSF that the vessel is available. As soon as they get this word, they will have a formal request in our hands within days.
4. If transfer of the vessel can be accomplished, they would like to send a skeleton crew to the States for training on the vessel, sailing it back to India with a skeleton American crew. In this way they would receive ample training running the ship, while not spending too much in foreign exchange.

Other pertinent facts

1. Dr. Donald Fuller, Scientific Attache to India, said that he had discussed with the Indians the possibility of using some PL 480 funds for running the vessel and Fuller thinks it quite probable that some of the funds can be used. However, Indian acquisition and maintenance of the vessel does not depend on these funds.



2. Dr. W. E. Webster of Gerspts, who was in Bombay for the ICSU meeting, told us that whereas he went to India in a somewhat skeptical frame of mind about the transfer of the Anton Braun to India, came away from a day's conversation with Paniker more than well satisfied that Paniker and his group could make excellent use of the Anton Braun, and that ship should be transferred as soon as possible.

Arthur Roe, Head  
Office of International  
Science Activities

cc: Dr. Haworth, O/D  
Dr. Wilson, O/D  
Dr. Carlson, EMB  
✓Dr. Koch, EMB

INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS — CONSEIL INTERNATIONAL DES UNIONS SCIENTIFIQUES

SCIENTIFIC COMMITTEE ON OCEANIC RESEARCH

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Capitan de Navio  
Luis R. A. Capurro  
Texas A & M University  
College of Geosciences  
Department of Oceanography  
College Station, Texas 77843

Secretary:

Dr. Warren S. Wooster  
University of California  
Scripps Institution of Oceanography  
Post Office Box 109  
La Jolla, California 92038  
Cable: SIOCEAN

2 February 1966-551

Dr. David Keck  
National Science Foundation  
Washington, D.C.

Dear Dr. Keck:

During a recent visit to India, I discussed with Dr. Panikkar their plans for development of a National Institute of Oceanography. Although final site selection has not been made, it seems likely that the Institute will be located in Goa. Funds appear to be available for the construction of a research vessel, but in the normal course of events, this would not be available for 4-5 years. In the meantime, INS KISTNA, which had been made available for oceanographic work by the Indian Navy, has been withdrawn because of the difficulties with Pakistan.

Thus the problem of a research vessel for the next few years, during the formation of the Institute, is a serious one. Dr. Panikkar has expressed great interest in the possible availability of ANTON BRUUN. I am inclined to agree that this ship would be of great use to India and probably could be operated by them at a cost they could afford (particularly if it is feasible for PL 480 assistance to be obtained). The only reservations I would have on the advisability of transferring the ship to India concern the necessity that the ship be in good physical condition and the desirability that she be supplied with major items of scientific equipment (winches, echo sounder, radar, etc.) installed.

Yours sincerely,

*Warren S. Wooster*

Warren S. Wooster  
Secretary

WSW:jc

cc: Dr. D. Fuller



DEPARTMENT OF STATE  
THE DIRECTOR  
INTERNATIONAL SCIENTIFIC AND TECHNOLOGICAL AFFAIRS

March 16, 1966

Dear Dr. Haworth:

In our telephone conversation on March 1st you requested the Department of State's opinion regarding a proposal that the National Science Foundation make available its oceanographic ship the SS ANTON BRUUN to the Indian Council for Scientific and Industrial Research.

The Department of State has examined the proposal and approves it, subject to the necessary clearances of other appropriate government departments and agencies as well as the Congress.

Sincerely yours,

*Herman Pollack*

Herman Pollack,  
Acting

Dr. Leland J. Haworth,  
Director,  
National Science Foundation,  
Washington, D. C.

*Enc. 2*  
MAR 18 1966  
9<sup>45</sup> A.M.

MAR 23 1966





NATIONAL INSTITUTE OF OCEANOGRAPHY  
( COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH )

DR. H. K. PANIKKAR  
DIRECTOR

NEW DELHI-1 27th July, 1956

by air mail

8/31

Copies  
Wiler  
Robert  
Roe  
Curtis  
Spencer

Dear Dr. Keck,

You would doubtless know of the various discussions which took place both in New Delhi and in Washington on the possible use of the Research Ship ANTON BRUNN for oceanographic investigations by our new Institute. From Dr. Zaheer I understand that the subject came up for talks in Washington and that the proposals have been more or less accepted. But we have no confirmation from any source that these arrangements are progressing satisfactorily. My anxiety is that if this proposal is coming through, I should make arrangement to have the suitable personnel for manning the ship located from our side. Unless the possibilities of the ship being available are good, it would naturally be unnecessary for me to pursue this question of finding persons to man the ship from our Navy or Merchant Navy.

You will be pleased to hear that the CSIR has accepted the proposal for the establishment of the National Institute of Oceanography, the headquarters of which will be located in Goa with two research wings, one at Cochin and the other at Waltair. Arrangements to establish the Institute are proceeding. I understand, all these were discussed by Dr. Zaheer, our Director-General with Dr. Seitz and other concerned scientists of the United States.

Our Indian Ocean Biological Centre has been a great success and we have now about four thousand samples taken by the various ships that participated in the International Indian Ocean Expedition using the Standard Net. Dr. Brinton of the Scripps is now with us as the Curator. The IOBC is one of the Divisions of my new Institute.

With kindest regards,

Yours sincerely,

*H. K. Panikkar*

(N.K. PANIKKAR)

Dr. David Keck,  
Deputy Director,  
Division of Biological & Medical Sciences,  
National Science Foundation,  
WASHINGTON, D.C.



Comparative Costs for Operation of R/V ANTON BRUUN  
With New Construction  
(Smaller & More Efficient Vessel)

Assumptions:

- 1) The current annual cost for operating the R/V ANTON BRUUN is estimated at \$862,000.
- 2) Annual and biennial overhaul costs are estimated to average \$100,000 per year.
- 3) A suitable replacement vessel for the BRUUN would cost perhaps \$3,000,000 (assuming a 3-year lead time for developing plans and acquiring funds).
- 4) The annual operating costs for the replacement vessel would be of the order of \$500,000, including overhauls.
- 5) The maximum longevity of the R/V ANTON BRUUN is estimated to be an additional eight years.
- 6) Operating and construction costs will increase at a rate of 5% per year.

Total Investment - Eight Years

I. R/V ANTON BRUUN

Year 0, Overhaul:	\$ 275,000
Year 1, Operating + Overhaul:	\$ 962,000
Year 2, Operating + Overhaul:	\$ 1,010,000
Year 3, Operating + Overhaul:	\$ 1,061,000
Year 4, Operating + Overhaul:	\$ 1,114,000
Year 5, Operating + Overhaul:	\$ 1,170,000
Year 6, Operating + Overhaul:	\$ 1,229,000
Year 7, Operating + Overhaul:	\$ 1,290,000
Year 8, Operating + Overhaul:	\$ 1,355,000
Terminal Replacement Cost in 1975:	\$ 4,200,000
	\$13,666,000

II. New Construction

Replacement Cost	\$ 3,000,000
In 1970 :	
Operating:	\$ 500,000
Operating:	\$ 525,000
Operating:	\$ 551,000
Operating:	\$ 579,000
Operating:	\$ 608,000
Operating:	\$ 638,000
Operating:	\$ 670,000
Operating:	\$ 704,000
Operating:	\$ 739,000
	\$ 8,514,000

Savings in Eight Years= \$13,666,000-8,514,000= \$5,152,000

Prepared By J. T. Spencer, 12-19-66

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C O P Y

6-N

LIMITED OFFICIAL USE

December 22, 1966

MEMORANDUM TO THE FILES

SUBJECT: ANTON BRUUN Refitting and Transfer  
FROM: SCI - A. E. Richmond

On December 19, 1966 a meeting was held to discuss the proposed transfer of the oceanographic research ship "ANTON BRUUN" from NSF to India. Attending were:

Mr. Sherman - NSF  
Mr. Spencer - NSF  
Mr. Phillips - NSF Contracts Office  
Capt. Hunt - NSF/MO  
Dr. Joyce - SCI  
Dr. Rouleau - SCI  
Mr. Littlewood - SCI  
Mr. Richmond - SCI  
Mr. Kirby - NEA/INC

The NSF representatives stated that approximately six months and a sum on the order of \$250,000 would be required to place the ANTON BRUUN in a presentable, seaworthy condition. The exact amount required is not fixed as yet and will depend on the nature and degree of sophistication of the refitting accomplished, for example, whether or not to rewire the electrical system for 50 cycles, 220 V output. The condition of the ship should be such as to preclude any embarrassment to the U.S. As a minimum, the following items need to be done.

- (1) replace the boiler
- (2) overhaul or replace the DC generating system
- (3) overhaul or replace the AC generating system
- (4) build up the main engine valves
- (5) normal scraping, painting, etc.
- (6) drydock inspection

It was agreed that the ship should be put into a completely seaworthy and serviceable - but not "gold plated" - condition prior to transfer and that it would be highly desirable to include at least some of the scientific equipment that was on board in the transfer.

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C O P Y

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NSF will in the immediate future determine the funds available to them and what can be done towards refurbishing with that amount. At that time, if all necessary clearances have been obtained, it is proposed that the Indian Government will be asked to send representatives, on an informal basis, to examine the ship and negotiate matters such as scientific equipment installations, crew training, etc. If satisfactory arrangements can be made, the Department will arrange for proper ceremonies.

cc: SCI - Dr. Joyce  
NEA/INC - Mr. H. Kirby

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SCI:AERichmond:ghb

C O P Y



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UNITED STATES GOVERNMENT

# Memorandum

TO : Dr. Harve J. Carlson, Division Director  
Biological and Medical Sciences

VIA : Dr. J. T. Spencer

FROM : Daniel Hunt, Jr.  
Head, Mohole Project Office

DATE: December 12, 1966

SUBJECT: R/V ANTON BRUUN; Inspection of

Attachment (A): Report of Inspection and Survey made of ANTON BRUUN  
by Peter Larsen, Consulting Port Engineer to Alpine,  
dated December 1, 1966

## 1. Background

- a. The R/V ANTON BRUUN, being operated by Alpine Geophysical Associates, Inc. for the Foundation, returned in October, 1966, from an extensive scientific cruise of approximately thirteen months duration in the Southeastern Pacific. This cruise was reported as most successful due in large measure to the reliability of ANTON BRUUN and due to the facilities provided her during her conversion in 1962 to a national oceanographic-biological research facility for the Indian Ocean Expedition. Her reliability during her latest expedition was marred by a ten-day derangement period caused by inadequate electrical power, which will be covered in this report.
- b. ANTON BRUUN was inspected by Peter Larsen, Consulting Port Engineer for Alpine Associates, upon her return in October of this year. His report of her material condition, including recommendation for repair, is attached. This report is general in nature, containing no detailed work list; however, it presents an accurate appraisal of BRUUN's material condition.
- c. Alpine Associates reported that to restore ANTON BRUUN to a reliable and efficient operational condition for oceanographic mission accomplishment, an extensive overhaul would be required, alterations accomplished, and that a preliminary estimate would be approximately \$250,000.

To ascertain the material condition of ANTON BRUUN first hand, the following representatives from the Foundation inspected the ship on December 7, 1966:



5010-108

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan



Dr. J. T. Spencer, Program Director for  
Facilities and Special Programs, BMS

Mr. Daniel Hunt, Jr., Head, Mohole Project  
Office

Mr. Jack Dullahan, Consulting Marine Engineer  
from Scripps

The inspection of the ship took place while ANTON BRUUN was berthed "cold iron" at the Coastal Shipyard, Staten Island, New York, and was made in the company of Mr. Julius Hirschman, Director of Alpine Associates Facilities Management Division, and Mr. Peter Larsen, Consulting Port Engineer for Alpine. The ship was not manned and in a caretaker status.

## 2. Preliminary to Inspection

- a. Foundation representatives boarded ANTON BRUUN at 1000, December 7, 1966, and were briefed by Alpine representatives as to the present condition of the ship.

Attachment A was distributed and summarized. The following items are particularly pertinent:

- (1) The past voyage proved the ship capable of efficiently carrying out her oceanographic mission. The ship rode well and was comfortable for scientists and crew.
- (2) The ship is stable, structurally sound and her machinery is reliable with the following exceptions:
  - (a) Heating boiler - in poor condition and beyond economical repair. Must be replaced.
  - (b) Ship's service generators - require complete overhaul due to constant running. An alteration is recommended to provide more electrical power so that reserve power is available during emergencies and so that units can be rotated for adequate preventive maintenance.

- (c) Main engines are extremely reliable and in good condition with exception of all exhaust and intake valves which have no surface remaining for grinding. These valves must be rebuilt and at the same time, new spindles should be provided in order to guarantee future years of reliable operation.

### 3. Inspection Results

- a. Without the benefit of underway operation and without benefit of discussion with the Chief Engineer nor a review of his records, the following results of the one-day material inspection of ANTON BRUUN are listed in a work list category, and follow in general the outline of Attachment A in order to assist in any future priority listing and estimating:

#### A. Hull above water line and superstructure

- 1. Remove rust and corrosion in those areas requiring same and repaint.
- 2. Check running rigging and repair, adjust and test as necessary. For example, forestay from mainmast is disconnected.
- 3. Repair or replace deteriorated screen doors. Most screen doors need complete re-screening.
- 4. Check knife edges and gaskets of all watertight doors to weather decks. Several watertight doors were inoperative.
- 5. Ascertain structural soundness and preservation of main and superstructure steel decks by removing representative sections of teak decking. Repair deck leaks where required by caulking teak deck seams. Several leaks reported, although majority of leaks were repaired in India by complete recaulking.

#### B. Interior of ship including staterooms and laboratories

- 1. Clean, titivate and make minor repairs as per list to be developed.
- 2. Check fire fighting equipment and other safety equipment, as watertight doors.



3. Repair fixtures per list developed. Several light fixtures cracked, broken or missing.

C. Gallery, mess areas, freezer boxes and store rooms

1. Fumigate all areas and possibly entire ship since cockroaches in evidence. No evidence of rats, however, with ship in caretaker status in Staten Island, there is probability of rats coming aboard.
2. Check all reefer boxes for tightness and condition of insulation. Repair as required. Reefer box doors need to be overhauled and regasketed.
3. Repair deteriorated vestibule deck to reefer space.
4. Conduct test of compressors and coils, check freon charge and lines, and repair and adjust as necessary.
5. Check all galley equipment and repair or replace as necessary. Equipment is old, but reported reliable and in good working order.
6. Refurbish wardroom and crew's mess room.

D. Communications equipment

1. Conduct routine tests and recondition as necessary all navigation and communication equipment, as Decca radar model 668 S, RCA 300 watt transmitter, and RCA RDF model AR-8714 A reported to be in reliable and good operating condition.
2. Have manufacturer completely check out Mark 14 standard gyrocompass.
3. Place in proper operating condition MK 18 gyro-compass or remove from ship. Compass reported erratic and excessively costly in maintenance. Alpine reported that new magnetic compass installed on bridge for price of past repair expenditures to MK 18.

E. Deck machinery, including windlass and hydraulic crane

1. Conduct routine tests, adjust and repair as necessary. Hydraulic crane (Daybrook Speed-lift powerloader) on stern should be particularly checked due to past extensive use during scientific cruise. Investigate need for crane of larger capacity.

F. Scientific machinery including all winches

1. Inspect and test deep sea 125 H.P. trawl winch and 25 H.P. oceanographic winch and repair as necessary to insure reliable operation. These winches are main scientific battery and have been extensively operated. Particularly check brakes and controls.
2. Inspect and test  $\frac{1}{2}$ " wire rope and 3/16" wire rope on trawl and oceanographic winches, respectively, to insure no over tensioning. Replace wire or reduce load requirements as necessary.
3. Recover and reinstall Kelvin Hughes Fisherman Asdic which is missing. The console for this echo sounder is located in pilot house and has evidently been removed. Ragged cable ends were all that remained.
4. Recover and reinstall 10 H.P. motor and controller which had been removed from starboard outboard locker at aft end of main deck entrance to wardroom. This power unit was for the purpose of long line operation and had evidently been completely removed from the ship.
5. Recover and reinstall the 18' Boston whaler with 50 H.P. engine which has been removed from the ship.
6. Inspect and test scientific reefer for reliable operation. This space should require no work other than clean up since ice was still present on deck, indicating excellent insulation.

G. Steering gear including active rudder



1. Completely test and inspect electro-mechanical steering system including motor and controls. Repair as necessary to assure reliable operation.
2. Completely test and inspect Pleuger-Hamburg AKTIV-RUDER system including console, controls and 135 HP variable frequency Diesel generator. Repair as necessary to insure reliable operation.
3. Inspection of rudder and installed Pleuger-Hamburg submersible motor and propeller to be accomplished in drydock.

H. Electric Wiring, components and motor generators

1. Check wiring systems and power supplies throughout ship and remove excessive requirements as economically feasible plus remove all possible fire hazards.
2. Check four reported obsolete and defective 4 KW M.G. sets in engine room and overhaul or replace as necessary. Consider replacing with one 15 KW M.G. set for more economical operation.
3. Investigate installation of one new 1 KW M.G. set in IC room for exclusive use of navigational equipment.
4. Investigate modification of electrical wiring in order to effectively utilize the two operable and existing 12.5 KW M.G. sets.

I. Auxiliary service machinery and piping

1. Inspect and test all ship's service pumps, e.g. flushing, fresh water, fire main, and repair as necessary to assure reliable operation. Overhaul associated valves as required.
2. Make work list of deteriorated lines and piping and repair/replace as required. Particularly check fresh and potable water lines.

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J. Main engines and shafting

1. Rebuild all exhaust and intake valves and valve cages. Preferably install new spindles in lieu of rebuilding.
2. Key up all bearings, pull pistons for examination and perform other routine maintenance.
3. Inspect and test all main engine auxiliaries and repair/replace in order to assure reliable operation.
4. Inspect and test all main engine controls including gauges and repair/replace as required.
5. Inspect reversing gear, main bearings, engine foundation; take and record readings, and repair as required to assure reliable operation.
6. Inspect main shafting and spring bearings, take and record readings; repair as required.
7. Inspect stern tube packing and associated fittings. Repack and repair as required.

K. Ship's service generators

1. Inspect and conduct required overhaul of all three General Motors 3-268A Diesels and attached 100 KW generators. Units have had heavy and continuous use. Since ship's service load is normally 150 KW or greater, two of the three units have to be operated continuously. The third unit must be reserved for the trawler and oceanographic winches. Therefore, all units are operated continuously during cruises with no standby power for emergencies, nor flexibility for underway maintenance.
2. Investigate installation of additional diesel generator unit, preferably a 200 KW dc power package. If a 200 KW unit of adequate size is not available, then alternatively a 100 KW unit similar to existing units should be installed to give ship adequate and reserve power.



plus a proper maintenance capability. Suggested location for design investigation is on lower engine room level, port side, in existing location of heating boiler. New, more compact heating boiler installation is recommended for the upper level.

3. Inspect and test power distribution board with associated switches and meters and repair/replace as required for reliable operation. Conduct thorough cleaning.

L. Heating Boiler.

1. Have detailed inspection accomplished on existing Cleaver-Brooks fire tube boiler to determine cost and advisability of repairs. Boiler presently operating but in need of extensive overhaul and reported to be beyond economical repair. Rear fire wall has caved in and there are numerous tube leaks. In fact, steam escapes up the stack and gases of combustion permeate the engine room.
2. Investigate type of replacement marine boilers required, installation, design, and installation cost. Investigate possibility of installing two small light weight marine heating boilers on upper level of engine room in location of existing boiler with consideration of installing additional diesel generator set under on lower level.

M. Distilling plants, air compressors, ventilation and air conditioning

1. Inspect and test existing two HO-20 Maxim distilling plant installations including associated auxiliaries, controls and gauges and place in reliable condition.
2. Inspect and test three air compressors and repair as required to assure reliable operation.
3. Inspect and test complete air conditioning system, including two Frick compressors, controls and duct work, and place in reliable condition.
4. Inspect and test ventilation system and repair as necessary to place in reliable condition. Clean out entire system.

N. Underwater hull and hull fittings

1. Drydock ship for underwater hull and machinery inspection. Perform repairs as required and perform routine preservation and underwater body work.

O. Lifesaving and Firefighting Equipment

1. Inspect and test all lifesaving and fire-fighting equipment and perform check off list per U.S. Coast Guard requirements for this class of ship.
2. Place cover over starboard life boat which was missing and stow gear within lifeboat in an orderly manner.

P. Tanks and Voids

1. Inspect all fuel oil, fresh water, ballast tanks and voids to assure proper preservation, condition of structure and piping. Repair and preserve as required. Particularly check sonar transducer space which was flooded at one time. Recondition space and equipment as required.

One representative fuel tank was inspected and condition was excellent. One fresh water tank was inspected and upper bulkheads were beginning to be pocked with rust spots.

4. Overall Evaluation of Material Condition

a. Hull

As a result of this one-day inspection, the hull and hull appurtenances of ANTON BRUUN are considered to be above normal for a ship of her age. This is a riveted ship and little deterioration was noted above the waterline. Reservation is made on the overall hull condition until inspection of the underwater body in drydock. An inspection of two representative tanks, viz., a fuel oil tank and a fresh water tank, proved the ship to be remarkably structurally sound. A comparison of plate thicknesses and other readings taken at the next drydocking with those of the drydocking in 1965 should verify the overall hull condition.

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b. Machinery

The condition of the main and auxiliary machinery installations is considered poor. Although the main engines are reputed to be sound and in good running order, they do need some urgent work. Specifically, the intake and exhaust valves need rebuilding. The heating boiler is in a completely unsatisfactory condition and probably has seen the end of its days. It probably should be replaced with one or two small, modern, marine heating boilers. This depends upon complete investigation.

c. Electrical

The electrical installation is unsatisfactory for the mission of an oceanographic research ship. As previously stated, there is no standby unit for electrical DC power. The existing three 100 KW diesel generators must be operated at all times. Alpine has recommended the installation of a new 200 KW diesel generator which would satisfy the ship's service load and allow a reserve for emergencies and flexibility in maintenance. If a 200 KW unit is not practical, a 100 KW unit would serve the same purpose. In addition, the AC power installation is in an unsatisfactory condition. The four KW M.G. sets in the engine room are obsolete and in need of repair. The installation of a new 15 KW M.G. set as recommended by Alpine would economically correct this situation. There are two 12.5 KW M.G. sets in the forward part of the ship which far exceed the capacity needed for their present light load hook up. It would be desirable to replace these units with smaller ones or redistribute the power in the ship to effect a balanced installation. However, the expenditure of funds for this desirable alteration is not mandatory. The age of the ship and the fact that she is of D.C. power, has contributed over the years to indiscriminate wiring for various A.C. power sources. With old wiring and modification and alterations performed throughout the years, it would be advisable to conduct a complete electrical survey of the ship. This should be done if for no other reason than to eliminate possible fire hazards. A great deal of the interior of the ship is of wood and a short circuit could create a serious fire.

d. Living and Laboratory Spaces

The living spaces aboard for ship's complement and scientific complement are extremely adequate. In fact, the four 4-man rooms for scientific personnel are spacious by present standards. The laboratory spaces are large, well-lighted and well-ventilated. They are located on the main deck and above and probably, when fully equipped and in full operation, comprise the best oceanographic biological facility afloat today. They are particularly suitable to easy and inexpensive alteration and rearrangement to satisfy scientific requirements. All living and laboratory spaces are air conditioned.

The wardroom and crew's mess are more than adequate. The galley should be completely modernized and a rearrangement effected so that the crew's mess can receive hot food directly from the galley. The present arrangement is not ideal.

e. Equipment Inventories

It is assumed that a representative of the Foundation will coordinate with a representative from Alpine in checking inventory lists of installed equipment, spare parts, allowance items, and scientific equipment. The efficacy of handling the foregoing appeared to be lacking on the part of the contractor. Also, the following installed equipment was noted to be missing and its accountability was not made clear:

- (1) 18-ft. Boston Whaler (work boat with 50 HP engine)
- (2) 10 HP motor and associated controller used for long line operation
- (3) Kelvin Hughes Fisherman ASDIC console installed in pilot house
- (4) Dishwashing machine in galley.

f. Regulatory Body Certifications

The regulatory body certifications are still in effect from the last overhaul, viz.,

- (1) USCG Certificate expires August 17, 1967

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(2) Lloyd's Load Line Certificate  
expires November 30, 1967

A USCG biennial inspection and a Lloyd's or ABS five-year inspection should be scheduled prior to any further use of the ship.

5. Preliminary Fund Estimates

- a. Alpine Associates has submitted a letter, dated December 1, 1966, giving estimates for major categories of repair work and alterations that are recommended in Attachment A. The following is a summary of these estimates:

New 200 KW Diesel generator	\$55,000
New heating boiler	65,000
New 15 KW M.G. Set)	
New 1 KW M.G. Set)	20,000
Rebuild M.E. exhaust and intake valves	10,000
Overhaul Main/aux. engines	25,000
Drydocking and u/w work	20,000
	<hr/> \$195,000
20% contingency	<hr/> 40,000
Total	<hr/> \$235,000

The above estimates do not include supervision nor engineering and plan preparation. The total overall cost of the overhaul and modifications recommended in Attachment A would probably be close to \$275,000. The estimates for installation of the new diesel generator set and the new heating boiler appear high. This depends upon what type of equipment is installed.

- b. The minimum cost to place ANTON BRUUN in satisfactory material condition for scientific expeditions is estimated as follows:

New 100 KW Diesel generator \$30,000

New heating boiler/boilers 30,000

New 15 KW M.G. set)

New 1 KW M.G. set) 10,000

Overhaul main and auxiliary  
Diesel engines including  
rebuilding of exhaust and  
intake valves and valve cages 30,000

Drydocking and u/w work 20,000

Other repair work, painting,  
design, supervision, and  
regulatory body inspection 30,000

Total \$ 150,000

- c. The investment to overhaul and modify ANTON BRUUN to place her in peak condition for future scientific work is estimated to be \$400,000, or approximately 10% of replacement cost. Therefore, a budgeted figure of \$500,000 would be adequate to plan for a proper national laboratory in the oceanographic-biological field.
- d. Dr. Spencer stated that an estimate for mothballing the ship was \$125,000. This appears reasonable and would include drydocking, preservation of machinery, minor repairs and D/H of spaces.

6. Recommendations

- a. Prepare a detailed work list of repairs required so that an accurate estimate can be made. The ship should be checked in detail against the overhaul specifications of February 25, 1965, and utilizing the experience of the past Captain and Chief Engineer, a detailed work list could be compiled. The foregoing specifications for the \$200,000 overhaul conducted at Monroe Shipyard in Boston from March through June 1965, are excellent and would provide a good basis for detailed work now required.



- b. Prepare a list of alterations necessary and desired; obtain preliminary estimates, and arrange in priority for consideration depending upon the future utilization of the ship. The following is a start at such a list by priority:

- (1) Overhaul or replace boiler
- (2) Increase D.C. generating capacity
- (3) Overhaul and alter A.C. power installation and wiring
- (4) Modernize galley and alter messing arrangement
- (5) Install adequately protected after control station
- (6) Investigate installation of additional berthing space for scientific personnel.

- c. Immediately accomplish the following to protect investment and assure accountability:

- (1) Conduct on site inventory of ship's equipment, spares, and allowance list
- (2) Conduct on site inventory of scientific equipment estimated at \$80,000 in value
- (3) Reinstall or determine status of missing equipment previously noted.

- d. Make an early decision as to future utilization or disposition of ship. On-going costs are minimal for caretaker status and pier space; however, the costs are continuing. Also the longer the ship remains idle without routine maintenance, the greater the deterioration, and the greater the cost for reconditioning.

## 7. Considerations

- a. ANTON BRUUN is old, but not obsolete for oceanographic scientific work. Her structure appears sound, well-preserved and good for a number of years. Her two Winton 1100 H.P. direct drive, slow speed diesel engines are rugged and reliable. At moderate cost

they can be reconditioned to permit continuous and low maintenance operation for a number of years. Spare parts are not a problem. However, many of her installed systems, as heating, ventilation, air conditioning, flushing, fresh water, salt water, refrigeration, electrical, etc. will continually require maintenance, repair and replacement at more than the normal expected cost. The major drawbacks of the ship are:

- (1) D.C. power installation
- (2) Unsatisfactory A.C. power installation
- (3) Poor but acceptable arrangements, viz.,
  - (a) Crew's mess remote from galley
  - (b) Galley needs modernizing
  - (c) Machinery room for active rudder is remote from main engine room
  - (d) Dangerous fire hazard due to unknown condition of wiring and abundance of wood installations.

The above must be weighed against the investment in the ship to date and its estimated replacement cost. In conversion and repairs alone, at least \$1,200,000 have been invested since 1962. Approximately \$1,000,000 for her conversion prior to the Indian Ocean Expedition, and approximately \$200,000 for her overhaul during 1965. Her replacement cost for a similar size ship would probably be between 4 and 6 million dollars.

2. In consideration of the above, and the emphasis being placed on oceanography in all fields, it appears that ANTON BRUUN should be retained and utilized as a national oceanographic laboratory. Alternatively, with the commencement of the sea-grant program, ANTON BRUUN could be refurbished and given to a University which may be planning to request a new ship or a conversion for oceanographic research programs. The costs to accomplish this are not considered disproportionate to the investment.

3. ANTON BRUUN can be used as a stop gap facility until a new one is established, if the latter is in any future planning. To plan, design, and construct a new



oceanographic-biological facility, a period of at least five years would be required.

4. If ANTON BRUUN is to be continued in service or is to be granted to a foreign country, the USCG and either Lloyds or ABS should be requested to perform their full inspection of the ship in advance of expiration of the present regulatory body certificates. These inspections should be accomplished during the drydock period and the work list resulting will assure future safety and regulatory body certification.

5. If the ship is to be mothballed, it is assumed that she could be turned over to the Maritime Administration for their administration in laying up.

6. If ANTON BRUUN is to be considered for a grant to a foreign country, the following should be considered:

(a) Turn the ship over to the State Department (AID) or to Maritime Administration for handling

(b) In what condition is ship to be turned over to foreign country:

(1) As is, where is?

(2) In an acceptable material condition for transit to foreign country?

(3) In a condition ready to perform scientific work?

(c) Funding of the transfer:

(1) State Department or NSF?

(2) Repairs required?  
(minor overhaul or major overhaul?)

(3) Training of foreign crew

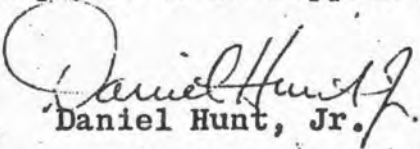
(4) Logistic support

(5) Spare parts

(6) Allowance list

PRESERVATION COPY

- (7) American liaison representatives during transit
- (8) Scientific equipment to be supplied.

  
Daniel Hunt, Jr.

Attachment

cc: Dr. Newton  
Mr. Phillips  
Mr. Sheppard  
✓ Dr. Spencer  
Dr. Wilson



Report of Inspection & Survey

made of

R/V ANTON BRUUN

as she laid afloat moored at Pier 46, Brooklyn

during the week of October 24, 1966

12/1/66

Peter Larsen

Consulting Port Engineer

Alpine Geophysical Associates, Inc.

Facilities Management Division

70 Oak Street

Norwood, New Jersey

PRESERVATION COPY

After a thorough visual inspection of the entire vessel and its appurtenances and consultations and questioning of its scientific personnel, officers and crew, the following are the findings and recommendations.

The vessel appeared in general to be well maintained and in excellent condition for a craft of her age. However, due to the specific requirements of her as an oceanographic survey vessel, certain repairs and/or renewals and additions are recommended, that she may be used to her fullest capacity and insure many more years of trouble free service.

A. Hull above water line and super structure

Condition: very good

Recommend: localized minor repairs and painting

B. Interior of vessel including staterooms and laboratories

Condition: very good

Recommend: cleaning, localized minor repairs and painting

C. Galley, mess areas, freezer boxes and store rooms

Condition: fair

Recommend: general fumigation of all areas, thorough cleaning throughout, substantial repairs to freezer box, doors and floor areas adjacent, routine check up and repair of compressors and



coils, localized painting.

D. Navigational implements and radio

Condition: good

Recommend: routine repairs and adjustments

E. Deck machinery including windlass and hydraulic crane

Condition: good

Recommend: routine check up

F. Scientific machinery including all winches

Condition: very good

Recommend: routine check up

G. Steering gear including active rudder

Condition: good

Recommend: overhaul of motor for steering gear and routine check up of all other equipment.

H. Electric wiring, components, and motor generators

Condition: fair

Recommend: moderate rearrangement of wiring so as to fully utilize and interchange the use of existing motor generators, also installation of one new 15 KW M.G. set to replace four defective and obsolete 5 KW M.G. sets in engine room. Installation of one new 1 KW M.G. set in IC room for exclusive use for navigational instruments.

I. Ships service pumps and pipe lines

Condition: fair

Recommend: routine check up of all pumps moderate amount of renewals of wasted and leaky piping.

PRESERVATION COPY

J. Main Engines

Condition: good

Recommend: key up bearings, pull pistons for examination and perform other routine maintenance procedures. Rebuild all exhaust and intake valves and valve cages.

K. Ships service generators

Condition: fair but inadequate

Recommend: complete overhaul of three G.M. ship service generators also installation in available space in engine room of one new 200 KW diesel generator to be connected up to existing board. New generator can absorb the full normal requirements of the vessel enabling the existing generators to be held in reserve.

L. Heating boiler

Condition: very poor

Recommend: removal and replacement with new boiler

M. Evaporators and compressors

Condition: good

Recommend: routine check up

N. Hull underwater and hull fittings

Condition: unknown

Recommend: vessel to be drydocked for examination and routine bottom work.

Respectfully submitted,

*Peter Larson*

Peter Larson  
Consulting Port Engineer

PRESERVATION COPY



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G



VICE CHIEF OF NAVAL OPERATIONS

29 OCT 1966

6-R

Dear Dr. Haworth,

The Secretary of the Navy has asked that the Chief of Naval Operations reply to your letter dated September 7, 1966 concerning the research vessel ANTON BRUUN, formerly known as WILLIAMSBURG (AGC-369) before her transfer to the National Science Foundation on 9 August 1962.

I wish to inform you that the Navy has no requirement for this ship and there is no need to make her available for inspections by the Navy.

Please accept my thanks for your cooperation in this matter.

Sincerely,

HORACIO RIVERO  
Admiral, U. S. Navy

Dr. Leland J. Haworth  
Director, National Science Foundation  
Office of the Director  
Washington, D.C., 20550

*Rec'd Oct*  
OCT 31 1966  
*10 30 4 11 12*



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6-7  
C O P Y

April 28, 1966

Dr. H. W. Menard  
Office of Science and Technology  
Washington, D. C. 20506

Dear Bill:

This is to confirm the fact that our General Counsel, William Hoff, today telephoned Mr. Berg, Senator Morse's Administrative Assistant, to inquire whether, in the light of my letter to Senator Morse of April 15, the Senator was satisfied to have the ANTON BRUUN transferred to a foreign country. Mr. Berg advised him that he had discussed my letter with Senator Morse and that it is all right for the transfer to proceed.

Very truly yours,

SIGNED

Leland J. Haworth  
Director

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DEPARTMENT OF STATE  
INTERNATIONAL SCIENTIFIC AND TECHNOLOGICAL AFFAIRS

October 19, 1966

LIMITED OFFICIAL USE

MEMORANDUM FOR: Dr. Leland J. Haworth  
Director  
National Science Foundation

The following quoted paragraph is the text of a recent telegram from Senator Morse to Ambassador Bowles, probably sent about October 11th or 12th.

"In regard to inquiry concerning ship Anton Bruun. Earlier this year my office received an inquiry from National Science Foundation as to whether Morse Formula would be violated through a gratuitous transfer of this ship to India. I informed the National Science Foundation that unless statutory authority exists for such a transfer, the transfer would violate the Morse Formula. Thereafter Director Hayworth of the Foundation wrote to me citing statutory authority for the transfer. I advised Hayworth's office that if the information he supplied me was correct, Morse Formula would not be violated by ship transfer, because formula is never operative where statutory authority for gratuitous transfer exists."

We are still trying to determine informally the status of the Navy's reply to your letter of September 7, 1966 to Secretary Nitze.

*LS*  
J. W. Joyce  
Acting Deputy

LIMITED OFFICIAL USE

SCI:JWJoyce:bfo

*copy sent to Charles J. Hansen  
11/30/66  
per  
for Hansen et al  
1368-  
E083*

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E



C O P Y

September 7, 1966

Honorable Paul H. Nitze  
Secretary of the Navy  
Washington, D.C. 20350

Dear Mr. Secretary:

I am writing you regarding the R/V ANTON BRUUN. You may recall that this vessel came to the Foundation from the Navy in 1962. We took her from the Philadelphia Navy Yard where she had been in the Reserve Fleet Since 1952 and rebuilt her for use as a biological research vessel to carry out the U.S. Biological Program in the International Indian Ocean Expedition.

The R/V ANTON BRUUN made a distinguished record in the Indian Ocean from 1963 to 1965 when she returned to the United States. For the past year we have used this vessel in the Southeastern Pacific Biological Oceanographic Program where her excellent performance has been a source of satisfaction both to the National Science Foundation and the many U. S. and Latin American scientists who participated in the eight individual cruises. The last of these cruises is scheduled to terminate in Guayquill, Ecuador, on September 26, 1966.

For reasons of economy the Foundation does not propose to use the ANTON BRUUN further. She is being ordered to return to an East Coast port, probably in the New York area, at the conclusion of her current cruise.

For some months we have been seeking suitable disposition for this vessel. Last spring we canvassed various agencies, including the Navy, as to their possible interest in utilizing her and obtained uniformly negative responses. Meanwhile, scientific representatives of the Government of India had requested both informally and through our Embassy that consideration be given to giving her to India to be used for oceanographic research in the Indian Ocean with the understanding that American scientists would be welcome as visitors on her voyages and that all scientific data and other information be made available to us. The proposal was endorsed by Ambassador Bowles.



The suggestion had considerable merit. A vessel of her capabilities would be very useful to the Indians, especially in developing the food and other resources of the Indian Ocean and adjacent waters; because of the large differential in labor rates they could operate her much more cheaply than we; no federal agency had evinced an interest in her and private institutions could not use her without federal support of the operating costs. Consequently, on March 2 I recommended to the White House, through Dr. Hornig, that consideration be given to transfer of the vessel to the Indian Government with the understanding that we would not be expected to support her operation, that scientific information derived from her use would be made freely available and that opportunities to work aboard her would be offered to American scientists. I further suggested that should the transfer be made it might be done on the occasion of the Prime Minister's visit in late March.

Although considerable interest was evinced by the White House staff and I was asked to make a canvass of appropriate Members of Congress to obtain their reactions, which were generally favorable, no decision to proceed with the transfer was ever made. Nor, so far as I am aware, has the matter been completely dropped.

We have recently learned that there is a newly developed interest on the part of the Navy in using the R/V ANTON BRUUN as a research vessel. I believe this interest stems from the Office of the Oceanographer (Navy), and Captain Frederick W. Pannoyer in the Chief of Naval Operations Office is one knowledgeable in this area. As the time is drawing short for the vessel's return to the States, I wish to inquire whether the Navy's interest in the BRUUN is firm and, if so, whether there is any information for us that would be useful in keeping the ship accessible to the needs of your Department. In accordance with the understanding when the vessel was transferred to the Foundation, the Navy has first call upon her at the termination of NSF usage.

Sincerely yours,

Leland J. Haworth  
Director

Copy to:  
Dr. Donald F. Hornig

C O P Y



bw

D

C O P Y

March 25, 1966

Dear Mr. President:

In response to a request by Mr. Henry Wilson of your staff, I have consulted a number of Congressional leaders to ascertain their reaction to the suggestion that the R/V ANTON BRUUN be transferred to the Indian Government for use by them as an oceanographic research vessel. The response has been overwhelmingly favorable, ranging from enthusiasm to simple assent or an expression of no objection; indeed there has been no dissent, although of two individuals who took the matter under advisement, I have been unable to again reach one (Senator Morse) and the other (Representative Ford) has not yet reached a conclusion. The enclosure to this letter encapsulates the comments of the various individuals. Favorable responses have been received from the following.

Senate

Senate Leadership - Senators Mansfield and Dirksen

Committee on Foreign Affairs - Senators Fulbright,  
Lausche and  
Hickenlooper

Committee on Labor and Public Welfare - Senator Hill

Committee on Commerce - Senators Magnuson, Pastore  
and Cotton

Independent Offices Subcommittee on Appropriations -  
Senators Magnuson, Pastore and Cotton (as also listed  
above)

House

House Leadership - Speaker McCormack and Representative  
Albert

Committee on Foreign Affairs - Representatives Morgan,  
Zablocki, Bolton and  
Broomfield



Committee on Appropriations - Representative Mahon  
(Chairman)

Subcommittee on Independent Offices - Representatives  
Evins (Chairman)  
and Jones (ranking  
Republican)

Committee on Science and Astronautics - Representatives  
Miller (Chairman),  
Teague and Daddario

Committee on Merchant Marine and Fisheries -  
Representative Garmatz (Chairman)

The following explanations are in order: Senator Magnuson at first suggested that in view of the fact that the vessel is a former Presidential yacht, it might be better domestic public relations to charter the vessel for a nominal sum, than to give it outright. After further discussion with his staff and with me, however, he concurred in transferring the vessel outright. When I spoke to Senator Mansfield he asked if I had conferred with Senator Magnuson, and I told him that the latter was then deliberating upon his suggestion regarding the possibility of a charter. Senator Mansfield responded that he would concur in Senator Magnuson's final conclusion which, as stated above, was favorable to the transfer.

When I consulted with Senator Morse he seemed generally sympathetic to the idea, but raised a number of questions. He spoke of the "Morse Formula" which, I understand, relates to the disposal of surplus property and requires financial participation by the recipient. This was before I had an opportunity to explain that the transfer would be made as part of the grant-making authority of the National Science Foundation and would not require any Congressional action. When I did so he stated that he believed the matter should be checked with other members of the Committee on Foreign Relations. I explained that I had already talked with Senator Fulbright, who endorsed the transfer, and that I intended to call others. (I have called Senators Lausche and Hickenlooper who also assented.) Senator Morse then remarked that one who should be consulted and in whom the Committee had complete confidence is Dr. Carl Marcy, Head of the Committee staff. Our General Counsel has since discussed the matter with Dr. Marcy who saw no problems. However, despite repeated telephone calls, I have been unable to again reach Senator Morse (who departed for Oregon this morning), and I am, therefore, unable to say that he concurs in the proposal.



I had difficulty reaching Representative Gerald Ford and was able to talk to him for only about two minutes on March 24. He asked that I send him a letter on the subject; such a letter was sent immediately. Mr. Ford, who has been out of town much of the intervening time, wishes to consult others before reaching a conclusion but states he personally has no strong feelings either way.

Since Chairman Miller of the Committee on Science and Astronautics expressed the desire to consult members of his Committee before reaching a conclusion, I delayed calling other members and have not been able to reach Minority members Martin and Mosher, who are now out of town. Similarly, I delayed calling Representative Mailliard, Senior Minority Member of the Committee on Merchant Marine and Fisheries until I reached Chairman Garmatz, who had been away. By the time I called Representative Mailliard, he also was out of town.

Respectfully yours,

Leland J. Haworth  
Director

The President  
The White House

Enclosure

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Individual Comments by Members of Congress on the Proposal to  
Transfer the R/V ANTON BRUUN to India

March 25, 1966

Senate Leadership

Senator Mike Mansfield: In response to my brief description, Senator Mansfield asked if I had consulted Senator Magnuson. I told him that Senator Magnuson is quite favorable to making the vessel available to the Indians; that when I first talked to him he suggested that (in view of the fact the vessel is a former Presidential yacht), it might be better domestic public relations to lease the vessel for a nominal sum rather than to give it outright; but that he was considering the matter further. Senator Mansfield then said he would go along with whatever view Senator Magnuson finally adopted. Since Senator Magnuson ultimately endorsed an outright transfer (see below), Senator Mansfield has also done so in effect.

Senator Everett Dirksen said that in view of facts that there seems to be no useful role for the vessel to play here, that it is old, and that it could nevertheless play a useful role in the hands of the Indians, he would raise no objection to the transfer.

Senate Committee on Foreign Relations

Senator J. W. Fulbright, Chairman, enthusiastically endorsed the proposal.

Senator Frank J. Lausche is favorably impressed, insofar as my brief description covered the matter, and would raise no objection to the transfer.

Senator Bourke B. Hickenlooper recognized at once the great need for intensive research in the Indian Ocean, the Arabian Sea and the Persian Gulf, especially for the development of food resources. He endorsed the idea of the transfer, stating that in his opinion we should have a definite understanding with the Indians that American scientists would be given opportunity to work on the vessel.



Senator Wayne Morse seemed sympathetic with the idea but, during my description, raised certain questions. He spoke of the "Morse Formula" which I understand relates to the disposal of surplus property and requires financial participation by the participants. This was before I had an opportunity to explain that the transfer would be made as part of the grant-making authority of the National Science Foundation and would not require any Congressional action. When I did so he stated that he believed the matter should be checked with other members of the Committee on Foreign Relations. I explained that I had already talked with Senator Fulbright, who endorsed the transfer, and that I intended to call others (see above). Senator Morse then remarked that one who should be consulted and in whom the Committee has complete confidence is Dr. Carl Marcy, head of the Committee staff. Our General Counsel has since discussed the matter with Dr. Marcy who endorses the idea. However, despite repeated telephone calls, I have been unable again to reach Senator Morse (who departed for Oregon this morning), and I am, therefore, unable to say that he concurs in the proposal.

#### Senate Committee on Labor and Public Welfare

Senator Lister Hill was favorably impressed by the proposal and will be guided entirely by the decision of the Executive Branch.

#### Senate Committee on Commerce

Senator Warren G. Magnuson strongly endorsed the idea of making the vessel available to the Indians but expressed fear that its identity as a past Presidential yacht might result in unfavorable comment if we make an outright gift. He therefore suggested initially that it be leased to the Indians for a nominal sum and, perhaps, given to them at a later date. When I pointed out that this would not be as "nice" and that it might leave us liable for suit in case of trouble, he said that he would like to confer with others, particularly with marine experts on his staff, before reaching a conclusion. After so conferring he accepted the concept of the outright transfer.

Senator John O. Pastore was favorably impressed and would be guided by the judgment of the Executive Branch. He spoke of our friendly relations with India as an important consideration.

Senator Norris Cotton endorsed the transfer without particular comment.



### House Leadership

Speaker John W. McCormack. Representative McCormack was in favor of the transfer but suggested that I should consult members of the Committee on Merchant Marine and Fisheries which I had not done at that time. I have since obtained the endorsement of Chairman Garmatz of that Committee.

Representative Carl Albert expressed himself as being in favor of the transfer of the ANTON BRUUN to the Indian Government. He made no particular comment.

Representative Gerald R. Ford. I was able to reach Mr. Ford only yesterday (Thursday noon) and then for only about a 2-minute conversation. He requested that I write him concerning the matter which I did within the hour. However he left shortly thereafter on an out-of-town trip, returning only this noon. In another discussion Friday afternoon he stated that he has no strong personal reactions one way or another but prefers to consult with colleagues before giving me a final answer. Since some of the individuals he mentioned are out of town, this will probably take a couple of days.

### House Committee on Foreign Affairs

Representative Thomas E. Morgan, Chairman, expressed his belief that the transfer would be a 'good idea'.

Representative Clement J. Zablocki strongly endorsed the transfer.

Representative William S. Broomfield strongly endorsed the idea of making the ANTON BRUUN available to the Indians. He commented favorably on the fact that we would reap scientific benefits and that the use of the vessel might be a great help to the Indians with respect to their food problems.

Representative Frances P. Bolton asked for a written document and upon receiving it expressed the opinion that the proposal is "a very sensible idea".



Committee on Appropriations, House of Representatives

Representative George H. Mahon, Chairman, after hearing my explanation, asked if there were any possible hitches that might give grounds for objection on the part of anyone. I said that I could see none other than possibly on the part of people who were out-and-out isolationists and opposed to international cooperative efforts. He said he realized this possibility but on the basis of my description he would be strongly for the transfer.

Representative Joe L. Evins, (Chairman, Subcommittee on Independent Offices), endorsed the proposal without particular comment.

Representative Charles R. Jonas (Subcommittee on Independent Offices) asked a number of questions. In response to his inquiry as to whether the vessel might be sold, I said that no canvass of the private sector had been made but in view of the vessel's age I doubted if it would bring much more than its scrap value. He then asked whether we might need a replacement and if so what it might cost. I told him that we had no present plans for such a replacement but that if at some future time any need arose for a Federally-owned vessel available to the general scientific community, the appropriate thing would be a considerably smaller vessel costing much less to operate and that vessels of this general class cost of the order of one and one-half to two million dollars or so. Mr. Jonas then said he would raise no objection to the transfer. In a second call after he had discussed the matter with some of the Subcommittee members, he inquired whether consideration had been given to leasing the vessel for a nominal sum. I told him of the discussion with Senator Magnuson and pointed out some of the objections to leasing including both the possibility of our involvement in case of difficulties and the fact that the whole thing would be cleaner and nicer and would make for better relations if an outright gift were made. Mr. Jonas then reiterated the fact that he would raise no objection to an actual transfer.

House Committee on Science and Astronautics

Representative George P. Miller, Chairman, expressed a favorable, personal reaction to the proposal but said that he would like to consult members of his Committee. After such consultation he told me that he could "see nothing wrong" with the proposed transfer.



Representative Emilio G. Daddario (Chairman of the Subcommittee on Science, Research and Development) had called me some weeks ago about the ANTON BRUUN as a result of a communication to him from Ambassador Bowles. When I called him this week (which I did before succeeding in reaching Mr. Miller), he strongly endorsed the transfer.

Representative Olin E. Teague said that he would go along with any decision made in the matter.

For reasons of protocol I delayed for some time calling other members of this Committee (except Representative Daddario whom I had called previously) pending hearing from Mr. Miller. Not having done so by mid-afternoon on Thursday, I called Representative Teague and attempted to reach Representatives Joseph W. Martin, Jr. and Charles A. Mosher. Unfortunately Representatives Martin and Mosher were out of town and have not returned.

#### House Committee on Merchant Marine and Fisheries

Representative Edward A. Garmatz, Chairman inquired whether we would need to replace the vessel. I explained that we had no present plans to do so; that, if the need arose for a Government-owned "nationally-available" vessel sometime in the future, it would be a smaller one costing much less to operate; that such a vessel would cost about two million dollars. He acquiesced in the proposal but without any particular enthusiasm.

Representative Mailliard who was not on the original list, was out of town by the time I attempted to reach him.

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THE WHITE HOUSE  
WASHINGTON

March 18, 1966

MEMORANDUM FOR

Robert Komer

Subject: Transfer of the Anton Bruun to India

Legal Authority

The proposed transfer of the Anton Bruun by the National Science Foundation to India could be done under the authority provided by the National Science Foundation Act of 1950.

Under Section 3(a)(2), the NSF is authorized "to initiate and support basic scientific research...in the physical...and other sciences, by making...grants...to support such scientific activities..." Section 11(c) authorizes the Foundation to "dispose by grant...real and personal property of all kinds necessary for, or resulting from, the exercise of authority granted by this Act."

Two other authorities in the NSF Act underscore Congressional intent to permit a grant of this type to a foreign government. Section 11(c) authorizes the Foundation "to enter into contracts or other arrangements...for the carrying on, by organizations in...foreign countries, including other government agencies...of foreign countries, of such basic scientific research activities as the Foundation deems necessary to carry out the purposes of this Act..." Section 13(a) authorizes the Foundation "to cooperate in any international scientific activities consistent with the purposes of this Act..." However, the authority to enter into such arrangements with organizations in foreign countries, as provided in Section 11(c), and to cooperate in international scientific activities as provided in Section 13(a), "shall be exercised only with the approval of the Secretary of State."

Conclusions

Whereas there is ample legal authority for the NSF to make a grant of the Anton Bruun to India, I recommend that it be couched in terms of a "transfer" of registry pursuant to general statutory objective of the NSF

"to strengthen basic research in the sciences...throughout the United States", to be consistent with the legislative history of the Act.

The United States participated in close cooperation with India and other countries in the Indian Ocean Expedition which made very substantial contributions to our national oceanographic research effort. Since the IOE has come to an end, it would be clearly of benefit to U. S. science if the Indian government could acquire the Anton Bruun to carry on and extend the scientific research in the Indian Ocean undertaken in the IOE at considerable expense to the U. S.

In accordance with the provisions of Sections 11(c) and 13(a), the arrangement should be formally approved by the Secretary of State as being "consistent with the foreign policy objectives of the United States." (Informal approval has been given.)

Donald F. Hornig  
Special Assistant to the President  
for Science and Technology



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DEPARTMENT OF STATE  
THE DIRECTOR  
INTERNATIONAL SCIENTIFIC AND TECHNOLOGICAL AFFAIRS

March 16, 1966

Dear Dr. Haworth:

In our telephone conversation on March 1st you requested the Department of State's opinion regarding a proposal that the National Science Foundation make available its oceanographic ship the SS ANTON BRUUN to the Indian Council for Scientific and Industrial Research.

The Department of State has examined the proposal and approves it, subject to the necessary clearances of other appropriate government departments and agencies as well as the Congress.

Sincerely yours,

*Herman Pollack*

Herman Pollack,  
Acting

Dr. Leland J. Haworth,  
Director,  
National Science Foundation,  
Washington, D. C.

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*L. J. Haworth*  
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March 2, 1966

Dr. Donald F. Hornig  
Director  
Office of Science and Technology  
Executive Office Building  
Washington, D. C. 20506

Dear Don:

The R/V ANTON BRUUN (formerly the Presidential yacht U.S.S. WILLIAMSBURG) was converted to a research ship in 1962 by the National Science Foundation to meet the needs of American scientists for the International Indian Ocean Expedition. She is one of the largest American oceanographic research ships in active service today, with a displacement of 1700 tons and an over-all length of 243 feet. Her normal crew complement is 31, while she carries a scientific party of 15 with no difficulty. Although constructed in 1930, she is considered at the present time to be in good condition. According to competent engineering authority, she has an estimated remaining useful life of at least six to eight years. The BRUUN played a leading role in the International Indian Ocean Expedition in 1963 and 1964, during which time several Indian scientists gained valuable experience in oceanographic techniques while aboard this ship.

Since September of last year, the BRUUN has been engaged in the Southeastern Pacific Biological Oceanographic Expedition. This is a series of cruises designed to explore a variety of biological problems in the Humboldt Current west of the South American continent. The SPBOE comes to a conclusion in September 1966.

The BRUUN program is now costing the National Science Foundation somewhat in excess of one million dollars per year of which the operation of the vessel itself totals \$850,000 per year. A large proportion of the cost relates to the wages of the 31-man crew.



The National Science Foundation has a strong interest in the maintenance of an "open" national vessel like the BRUUN for the benefit of both American and foreign scientists. However, this job could be done by a smaller and more efficient vessel at considerable savings each year. The BRUUN now has a crew to scientist ratio of about 2 to 1, whereas a specially designed vessel should achieve a ratio of approximately 1 to 1. Such a ship should save about 50% of the annual cost of the BRUUN operation, or enough to pay for construction costs of the new ship in a period of 4 or 5 years. The Foundation expects to include provision for such a new ship in its budget estimates within the next two or three years; it would cost on the order of \$2 million.

When the activities planned for the ship come to an end this autumn, therefore, it will be available for transfer to another organization for oceanographic research purposes. The Government has title to the vessel, and the NSF is accountable for it. Recent contacts with other Federal agencies which might conceivably have need for a vessel of this type do not indicate a demand for the ANTON BRUUN at this time. Nor is there any indication that any organization in the United States is interested in operation of the vessel unless operating costs are to be supported by the Government; but as mentioned above, we believe the operation of the BRUUN by this country is uneconomical.

Since the primary basis for terminating NSF use of the BRUUN is the relatively high cost of its operation, the interest of science can most effectively be served by transferring her for oceanographic research purposes under conditions which would not require U. S. support of the operating cost. An attractive possibility is to make a gift of her to India.

During the International Indian Ocean Expedition several Indian scientists gained valuable experience in oceanographic techniques while aboard this ship. The Indian Council of Scientific and Industrial Research has now approved the establishment of the National Institute of Oceanography and made a provision in long range plans for building and operating an oceanographic vessel. Informational exchanges with Dr. S. H. Zaheer, Director General of CSIR and Dr. V. K. Panikkar (CSIR) have established their interest in having the BRUUN if she could be made available to them. We believe that the BRUUN would



give them considerable assistance in undertaking this new program. They could operate the BRUUN at a much reduced cost due to the great differential in wage standards between the two countries. We have official assurance from Indian scientists that rupees are available to operate the BRUUN locally.

There is a great deal of investigation that can profitably be done in the Indian Ocean, the results of which would be of value to the progress of American science and could have an important influence in the future upon India's food production potential. Moreover, some research space might well be available for qualified American scientists who might wish to continue or initiate studies in the waters surrounding India. Thus, the availability of this ship in the waters surrounding the Indian subcontinent may make it possible for American scientists to cooperate with the Indians and to expand and verify important studies which were initiated during the HIOE.

The State Department has been thoroughly informed about the discussions relating to possible transfer of the ANTON BRUUN to India. Our Embassy in New Delhi has been contacted by the Indians and on August 30, 1965 Ambassador Bowles recommended to Secretary Rusk by telegram that the transfer be made if feasible. I am informed by Mr. Pollack that the Department is in favor of the transfer. However, because of recent developments, including the dire food situation in India, they are currently reviewing the question again and will let me know their present views as quickly as possible.

In view of the above the National Science Board, on my recommendation, at its February 19, 1966 meeting authorized the grant or transfer of the BRUUN to the Indian Government, or other appropriate Indian organization, for oceanographic research purposes.

Should the President approve the transfer of the ANTON BRUUN to India, he might wish to announce the gift during the visit of the Prime Minister later this month. The details of the actual transfer could then be worked out in the course of negotiations between U.S. and Indian representatives. Would you please advise me whether the President desires to have the BRUUN transferred in this manner?

Sincerely yours,

SIGNED

Leland J. Haworth  
Director

OGC/Hoff/Schurman/vb  
O/D LJH/DMc/emh

cc: Mr. Hoff      Dr. Wilson  
     Dr. Roe      Dr. Keller  
     Dr. Carlson   Dr. Wilson

cc - Dr. Houston