

ORD 601-64
18 March 64

MEMORANDUM FOR THE RECORD

SUBJECT: Trip to the West Coast on 9 - 13 March 64

1. On Monday, 9 March, [redacted] and I interviewed two ORD candidates for employment. Separate reports are available on the interviews.

2. On Tuesday, 10 March, we visited the Pt. Mugu Naval Missile Center and spent the day with [redacted] Head of Life Sciences at Mugu; [redacted] Head of Marine Sciences at Mugu; Mr. C. Scott Johnson who is from Notts-China Lake; Dr. Sidney Galler, ONR-Washington; and Mr. John B. Loefer, ONR-Los Angeles. [redacted] and his group reviewed the research which they are intending to carry out on dolphins and other marine life. Of particular interest are erythrocyte pigment differences, regional blood flow, migration, fasting, pathology, water balance maintenance, psychopharmacology, utilization of limited air supply, and dolphin heat exchanges through their flukes. They are also interested in hydrodynamic principles of these organisms. In effect they are trying to establish the performance limits of dolphins and the physiological reasons for their unique abilities. We visited their laboratory buildings and their dolphin tanks. My impression is that Pt. Mugu has lots of good equipment, animals, and people who are looking for a problem. In later discussions with Sid Galler, we think we can provide them with a problem and give this project more explicit direction. Some of the funds which we hope to transfer to ONR will be used to augment the Pt. Mugu operation.

3. On Wednesday morning, 11 March, [redacted] [redacted] briefed us on their current activities related to a proposal which was forwarded to us. They have achieved some rather remarkable results in using different correlation techniques on EEG patterns and have some interesting studies planned which I feel are of potentially great significance to our stress program. Their proposal has been forwarded through ONR and will be supported by us by a transfer of funds.

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GROUP 1
Excluded from automatic
downgrading and
declassification

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4. On Wednesday at noon, 11 March, [redacted] met with Dr. Sidney Galler, ONR, [redacted]. [redacted] has been using a cow tursiops borrowed from Pt. Mugu to study echolocation ability. He uses a [redacted]

He has done detailed dissections of Tursiops skulls, has done detailed studies of coronal sections, and has discovered that the echolocation receiving mechanism is through fat channels in the lower jaw. There is direct attachment from the center of the lower jaw to the middle ear. There is some resonance between this fat channel and very thin portions of jaw bone.

This summer [redacted] is going to Hawaii to determine the speed at which a porpoise can swim in the open sea and how deep he can dive.

X 5. On Wednesday afternoon, 11 March, [redacted] reviewed our plans for the meeting of 21 March (Kinzel Life Sciences Panel) and also reviewed the [redacted] proposal. [redacted] feels that it is a good proposal and should be supported. He also felt that [redacted] is underestimating the equipment costs. [redacted] also concurred on the proposal but was less enthusiastic. He recognizes the importance of getting adequate data for the polygraph but feels that this project will have to be very carefully evaluated periodically. His major concern is the cost of the project which involves a rather large percentage (approximately 40%) of this year's funds for Life Sciences. [redacted] questioned me further on the role which his Panel should play and particularly asked whether I wished them to review each proposal. I told him that I felt their major function should be in planning our program and in providing us with consultative advice rather than approving projects. I have the feeling that he agrees with this. This will no doubt be discussed at the 21 March

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meeting. [] also seemed concerned about our budget which he feels is rather small in terms of the objectives of the program.

6. On Thursday morning, 12 March, [] and I met with [] who is the Project Director on []. [] The results of our discussion will be part of a separate memo. In general, I believe [] is doing rather well and is a highly competent chemist. We anticipate a follow-on to his proposal.

7. Early Thursday afternoon, 12 March, we met with [] from the [] to see whether his activities would be of value to our stress program. [] is primarily concerned with biochemical and other physiological changes induced by stimulation to the hypothalamus. His orientation and experimental program is not the sort of thing that I believe we should support, although some of the results of his work may be of significance for the future. [] will forward the results of his work to us and keep our program in mind.

X 8. Late Thursday afternoon and evening, 12 March, we were engaged in a major psychodrama with the [] people. Neal and I met initially with [] and with [] the Director of []. I explained again the reasons why we wished to have [] as the Program Manager, particularly during the early phases of the program. After considerable discussion, [] agreed to put [] in charge of the program as the Staff Manager but with [] as the Technical in-house Director. This appears to be satisfactory to all concerned. Later we met with [] who is now head of []. He seems to me to be an extremely bright mathematician-engineer and should work well on our project. [] from [] is not yet cleared for the project although he has a TS clearance. I was somewhat less impressed by him, although his role will be very limited in terms of our project.

STEPHEN L. ALDRICH, M. D.
Deputy Assistant Director
LS/ORD/DD/S&T

cc: ADD/S&T
DAD/ORD

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