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> OPTICAL TECHNOLOGY DIVISION OPTO-MECHANICAL DESIGN ENGINEERING

> > Memorandum ME 61

TO:

11.3

Distribution

DATE: September 29, 1971

FROM:

L.B. Molaskev

SUBJECT: Trip Report - Recovery of #3 - San Diego, California - 23 and 24

September

## Activities of 9-23

The hook was rerigged from the bow hoist to a pulley system off center and closer to the capsule and mechanical manipulator. The new position allows the manipulator to reach the latch and cocking lever of the hook when the payload is suspended on the cable. This new position was photographed, as were the details of all the modifications made for the project. They will be available on my return.

I sketched up a light cover of black nylon cloth to be used for covering the payload as it is brought to the surface. The Navy purchased the material in Los Angeles and is having it sent to their upholstery shop on the base to be fabricated. I visited that facility and reviewed the sketches with the man responsible for making the thing. There are no problems except for the delivery of the material which, at this writing, has not yet arrived. The device will tie onto the hook and completely surround the hook, payload and all. It has "draw strings" that when pulled by the divers will cinch off the top and bottom and completely cover the unit. Fabrication of the cover is scheduled for completion by Monday.

The cooling problem with the payload after recovery has been solved by building a refrigerator. The Navy purchased a refrigerator unit and plans to build a box to enclose the entire shipping container. Lumber, insulation and sealing materials have been loaded aboard the White Sands and the plan is to fabricate the box while in transit to the site.

## Activities of 9-24

Departure of the Trieste for the test site was delayed from this morning until Monday the 27th due to ship equipment problems. Because of this I will be joining the ship on Monday morning at the dock and will sail out to the test site aboard the White Sands. Because of the delay only one dive is planned.

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Memorandum ME 61 (Continued)

September 29, 1971

A meeting was held, aboard the White Sands, to discuss the techniques to be used to direct the Trieste to the target on the bottom. Attendees were as follows:

Westinghouse Tech. Rep.

Sperry Tech. Rep.

- Sperry Tech. Rep.

Lt. Cdr. P.C. Stryker

· Trieste II AOINC

Lt. A. Amaro

Trieste II Elec/Elex Officer

Lt. R. Taylor

- Trieste II Engineer

Lt. Cdr. M.G. Bartels

- Trieste II/White Sands OINC

L. Molaskey

- Civilian - USN

M.R. Boegemann

MPL (Scripps)

R. Lockwood

- MPL (Scripps)

Of primary concern was the interface between the Trieste, the White Sands and the DeSteiguer equipment to locate the ships on the surface and direct the Trieste on the bottom.

Apparently their navigation systems are not completely compatible, nor are the transponders, markers, hydrophones, etc. The interface was worked out, however, by supplementing the Trieste's capability with equipment from the DeSteiguer. Two schemes will be available for use at the site. My next report will provide the details.

The plan is now to put to sea on Monday to a test range west of San Diego, that is instrumented in a manner similar to the network that will be laid out at the target site. The dummy payload will be instrumented with a pinger and droped over the side. The Trieste will make one dive about 5,000 feet, retrieve the payload, make the transfer to the White Sands, load the Trieste aboard the White Sands and head for the target site. I will return by small boat to the base along with some of the Navy personnel who will be there to witness the test.

LBM/c i

cc: M.F. Maguire

P. Petty H.W. Robertson R. Roylance

R.W. Jones

C. Karatzas

J. Braddon (HQS)

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