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WOODS HOLE OCEANOGRAPHIC INSTITUTION MASS

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CRUISE PLAN FOR LAUREL 2.(U)

MAR 68 R HEINMILLER

N00014-66-C-0241

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Technical Memorandum No. 6-68

CRUISE PLAN FOR LAUREL 2

March 1968

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WOODS HOLE OCEANOGRAPHIC INSTITUTION
Woods Hole, Massachusetts

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Technical Memorandum No. 6-68

6 CRUISE PLAN FOR LAUREL 2

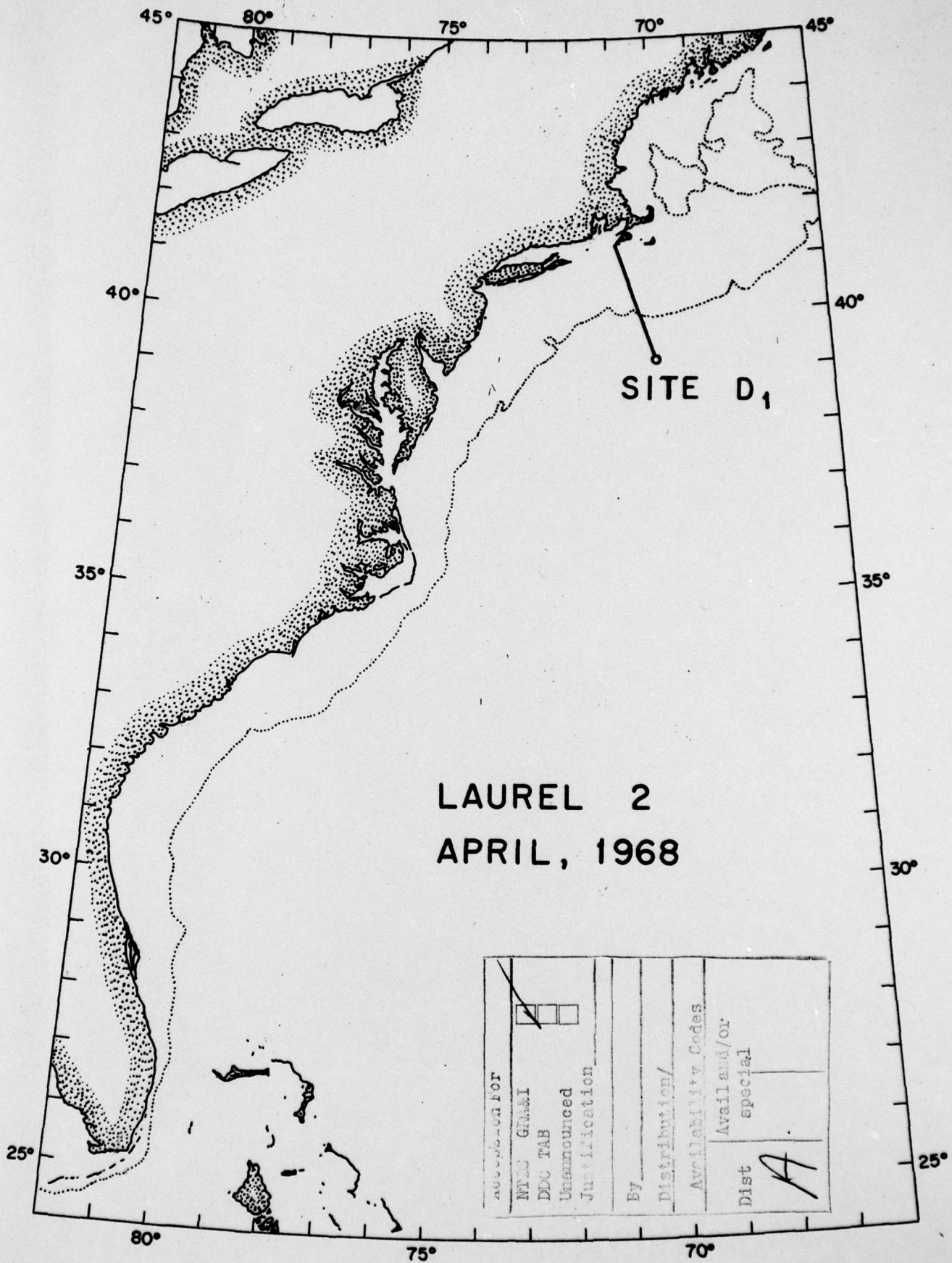
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R. Heinmiller
Chief Scientist

11 March 1968
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This work has been carried out under Contract N00014-66-C0241, NR 083-004
with the Office of Naval Research.

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LAUREL 2
 APRIL, 1968

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LAUREL 2
April, 1968

Introduction

The April 1968 Buoy Project cruise will be aboard USCGC LAUREL. The cruise will include both scientific and engineering work. It will be a single leg, leaving Woods Hole April 15 and returning on or before April 30. All work will be done at Site D₁ (39°10'N., 70°00'W.).

Test #1: All-Nylon Mooring → A long-term mooring will be set using a conical surface float and an all-synthetic mooring line. The line will be mainly 9/16" plaited nylon except in the recovery section, which will use 5/8" plaited nylon. A complete recovery section will be used. A wind recorder, telemetering tensiometer, and current meter will make up the instrumentation.

This mooring is a prototype of a scientific mooring to be used only at Site D₁ until the compound (wire-nylon) moorings are improved. It will be left for two months, to be picked up in June.

Test #2: Bottom Mooring - A bottom mooring using the syntactic foam float will be set for a short-term experiment (~ 6 days). If successful, it will be reset for a two month period. The purpose is to measure near-bottom currents. The mooring will carry a single current meter, a depth-modulated beacon, and a release.

Test #3: Engineering Mooring - A long-term surface mooring will be set as an engineering test of new ACCO 3 X 19 swaged aluminized wire. Instrumentation will include a telemetering tensiometer, two recording tensiometers, and a current meter. A recovery section using 16" glass spheres is included.

Release Experiments - A series of lowered experiments will be carried out. Object will be to investigate security and noise problems by monitoring release response via a conducting wire.

Personnel

R. Heinmiller, Chief Scientist
R. Simoneau

G. Tupper
C. Brown

Equipment:

Radio, Syntactic Foam Float	1
Radio, Toroid	1
Radio, Conical	1
Wind Recorder	2
Light, Conical	1
Light, Toroid	1
Syntactic Foam Float	1
Donut Float	1
Conical Float	1
Telemetering and Recording Tensiometer	1
Telemetering Tensiometer	1
Tensiometer, Recording	1
Acoustic Beacons, Depth-Modulated	3
Current Meter, Film	2
Current Meter, Tape	2
Acoustic Release	5
Glass Balls, 16"	45
Glass Balls, 10", with lights	4
Anchor, 600 lb. Weight	2
Anchor, Danforth, 100 lbs.	1
Anchor, Stimson, 3,000 lbs.	2

Wire

Test #1

None

Test #2

None

Test #3

500 m. 9/32" 3 x 19 swaged aluminized ACCO wire rope with jackets
and boots - 9000 RBS

500 m. ditto

500 m. ditto

Nylon

Test #1

500 m. 9/16" plaited nylon

500 m. ditto

500 m. ditto

500 m. ditto

360 m. ditto

60 m. 5/8" plaited nylon

2 m. ditto

50 m. ditto

Test #2

10 m. 9/16" plaited nylon

10 m. ditto

10 m. ditto

20 m. ditto

20 m. ditto (extra, to be used for long-term reset)

Test #3

500 m. 9/16" plaited nylon

438 m. ditto

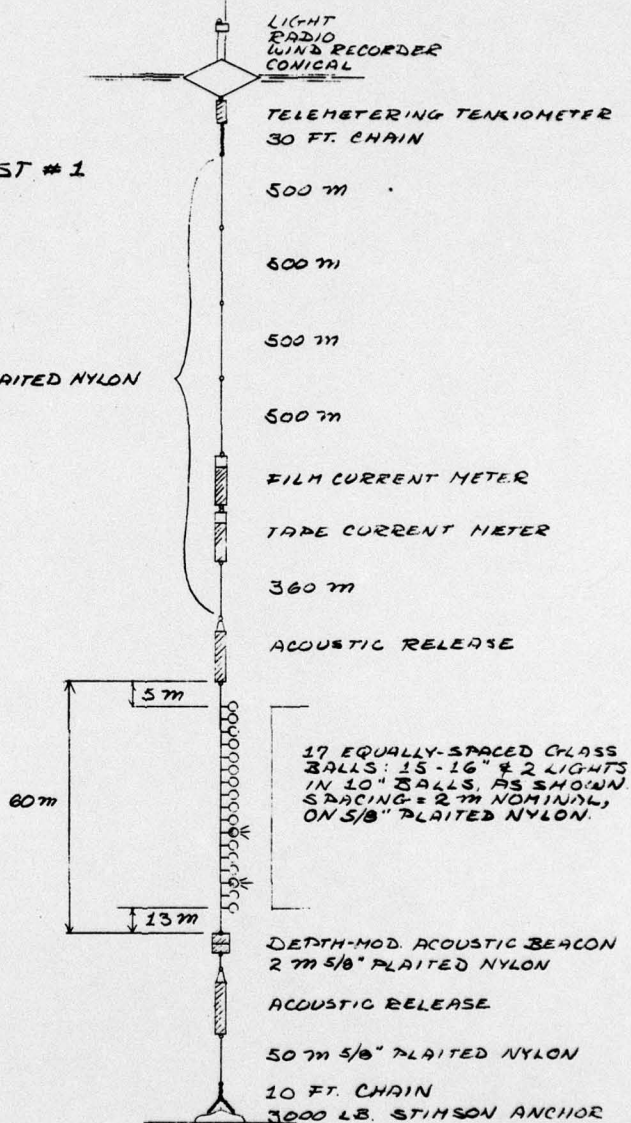
85 m. 5/8" plaited nylon

2 m. ditto

2 m. ditto

50 m. ditto

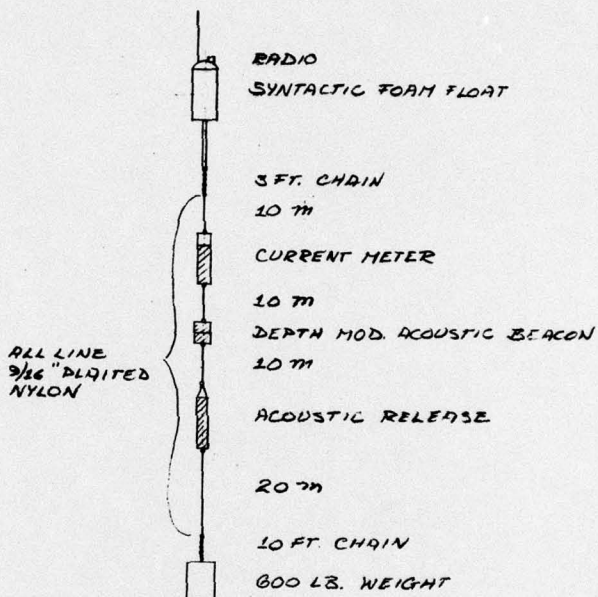
ENGINEERING TEST # 1
APRIL '68



NOTES: PLACE STOPPER KNOTS ON 60 m 5/8" NYLON SHOT, W/5 EXTRA KNOTS PAINT ORANGE ALL 15" GLASS BALLS STAMP WIRE ROPE TERMINATIONS

WOODS HOLE OCEANOGRAPHIC INSTITUTION
PROJ. WOODS HOLE MASS BY EDG
SHEET 1 OF 3 DATE

TITLE
TEST # 3
APRIL '68



BOTTOM MOORING
 APRIL '68 CRUISE

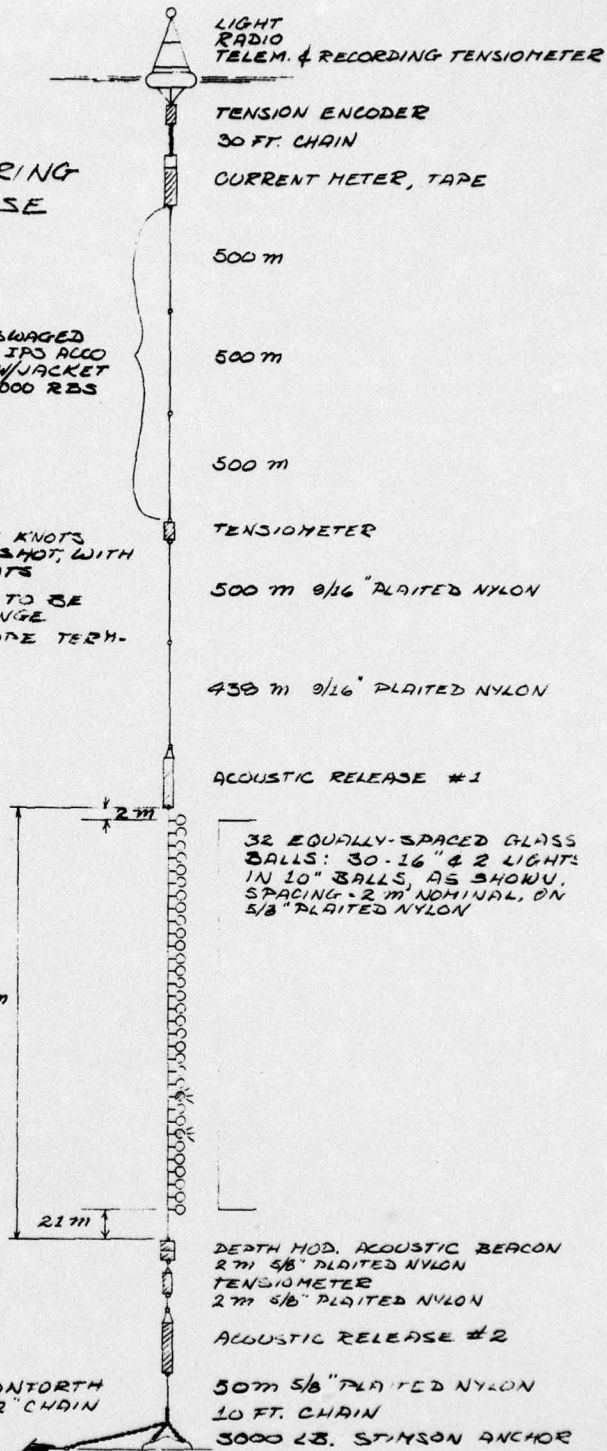
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 WOODS HOLE, MASS.
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TITLE
TEST #2
APRIL 1968

LONG-TERM MOORING
APRIL '68 CRUISE

9/32" 3x19 SWAGED
ALUMINIZED IPS ACCO
WIRE ROPE W/JACKET
& ROOTS - 9000 RBS

NOTES: PLACE STOPPER KNOTS
ON 5/8" - 85 M 240T, WITH
5 EXTRA KNOTS
ALL 16" BALLS TO BE
PAINTED ORANGE
STAMP WIRE ROPE TERM-
INATIONS



WOODS HOLE OCEANOGRAPHIC INSTITUTION
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BY EGG

TITLE
TEST # 5
APRIL 1968

100 LB. DANFORTH
WITH 20' 1/2" CHAIN

DEPTH MOD. ACOUSTIC BEACON
2 M 5/8" PLAID NYLON
TENSIONMETER
2 M 5/8" PLAID NYLON
ACOUSTIC RELEASE #2

50 M 5/8" PLAID NYLON
10 FT. CHAIN
3000 LB. STIMPSON ANCHOR