U.S. NAVY ELECTRONICS LABORATORY
Transducer Calibration Facility
San Diego 52, California

CALIBRATION DATA
on
SONAR DOME PAINTS

11 Jan 63

12 pp.
TABLE of CONTENTS

Diagram showing Mounting Arrangement ............... 1

TYPE 304 CHES TEST PANELS (5' x 4' x 0.05")

Test Panel No. 1 .................................................. 2 - 3
Uncoated

Test Panel No. 2 .................................................. 2 & 4
Sonar Dome Paints 13 mils thick:
Formulas 117*, 120*, 119*, 120*, 119*, 121* and 121

Test Panel No. 3 .................................................. 2
Sonar Dome Paints 12 mils thick:
(Chlorinated Rubber Primer), and 2 coats No. 134A-50

Test Panel No. 4 .................................................. 2
Sonar Dome Paints 15 mils thick:
Formula 117, Devran 201, 204 and 209, and 2 coats
Formula 121

HY-80 STEEL TEST PANELS (5' x 5' x 0.25")

Test Panel No. 5 .................................................. 5 - 6
Sonar Dome Paints 2 mils thick:
Formulas 117 and 119

Test Panel No. 6 .................................................. 5 & 7
Sonar Dome Paints 14 mils thick:
Formula 117, 4 coats 119, X10726-58-2 (Chlorinated
Rubber Primer), and 2 coats 134A-50

Test Panel No. 7 .................................................. 5 & 8
Sonar Dome Paints 11 mils thick:
Formula 117, 2 coats each of Laminar 4614, 4X41 and
441, and 2 coats Formula 121

Test Panel No. 8 .................................................. 5 & 9
Sonar Dome Paints 28 mils thick:
Formula 117, Gaco N-12, 10 coats Gaco N-29,
Formula 133, 2 coats 134A-50 (Front) and 2 coats
134 (Back)**

* Indicates forced drying of the particular coat of paint
with hot air at 120° F ± 10° F for one hour. Otherwise
all coatings air dried at ambient indoor temperatures.

** All panels coated similarly front and back except as noted.
Measured at Sweetwater Calibration Station  
19 December 1963

U.S. NAVY ELECTRONICS LABORATORY  
Transducer Calibration Facility  
San Diego 52, California

EFFECT of TEST PANELS No. 1, 3, 3 and 4 (COATED and UNCOATED) on SOUND FIELD

<table>
<thead>
<tr>
<th>Temperature: 13.3°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth: 3.90 meters</td>
</tr>
</tbody>
</table>

See Diagram, Page 1, for mounting arrangement.

* As there was no measurable difference between these panels they are shown as 1 curve.

<table>
<thead>
<tr>
<th>db</th>
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<tbody>
<tr>
<td>10</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>-10</td>
</tr>
</tbody>
</table>

Frequency in Kc  

U3769-2  R11,12,15 & 16
DIRECTIVITY PATTERN

U.S. NAVY ELECTRONICS LABORATORY
TRANSODUCER CALIBRATION FACILITY
SAN DIEGO, CALIFORNIA
Sweetwater Station

Test Panel No. 1
(UNC perspective)

19 December 1962

Panel Removed

With Panel

Frequency 14 Kc

Test Distance 1.25 meters
Temperature 13.2 C

Depth 3.90 meters

? See Diagram, Page 1, for mounting arrangement.

Scale 1 dp per radius division

220° 140°
DIRECTIVITY PATTERN

Test Panel No. 2 coated with SONAR DOMED PAINTS

19 December 1962

Panel Removed

With Panel

Frequency 14.3 Kc

9° is normal to Panel

Depth 3.90 meters

Test Distance 1.25 meters
Temperature 13.3°C

C3769-2 R10

* See Diagram, Page 1, for mounting arrangement.

scale: 1 dB per radial division
EFFECT of TEST PANELS No. 5, 6, 7 and 8 (COATED) on SOUND FIELD

Temperature: 13.3°C
Depth: 3.90 meters

See Diagram, Page 1, for mounting arrangement.

* As there was no measurable difference between these panels they are shown as 1 curve.
Directivity Pattern

Test Panel No. 5 coated with SONAR DUDE PINTS
14 December 1963

Panel Removed

* IS normal to Panel

Depth 3.00 meters

Test Distance: 1.25 meters
Temperature: 13.3 C

* See diagram, page 1, for mounting arrangement.
DIRECTIVITY PATTERN

Test Panel No. 6 coated
with SONAR DOME PAINTS
40
18 December 1903

Panel Removed

with Panel's

Frequency: 3 Kc
60° is normal to Panel

Test Distance: 1.25 meters
Temperature: 13.3°C

Depth: 3.90 meters

D 3760-1 RB
DIRECTIVITY PATTERN

Test Panel No. 7 coated with SONAR DOME PAINTS

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SAN DIEGO, CALIFORNIA
Sweetwater Station

Panel Removed

18 December 1962

With Panel

0° is normal to Panel

Frequency 3 Kc

Test Distance 1.25 meters Temperature 13.3 C

Depth 3.90 meters

See Diagram, Page 1, for mounting arrangement.
DIRECTIVITY PATTERN

Test Panel No. 8 coated with SONAR DOME PAINTS 18 December 1962

Panel Removed

With Panel

Frequency 3 Kc

Θ is normal to Panel Rotate

Depth 3.90 meters

Test Distance 1.25 meters  Temperature 13.3 C

*See Diagram, Page 1, for mounting arrangement.

Scale: 1 dp per radial division

U. S. NAVY ELECTRONICS LABORATORY TRANSDUCER CALIBRATION FACILITY SAN DIEGO, CALIFORNIA Sweetwater Station