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CG STATUS

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DMC A; REVIEW: GCEC JUNE 2010

DEFENCE RESEARCH BOARD

PACIFIC NAVAL LABORATORY

INTERNAL MEMORANDUM ESQ.-4

— REPORT ON H.M.C.S. "UGANDA" AND H.M.C.S. "SIOUX"
AFTER PAINTING WITH INTERNATIONAL PAINTS --
AUGUST - SEPTEMBER 1949. >>

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Pacific Naval Laboratory,
Esquimalt, British Columbia.

30 JUNE 1950

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G.D. memo.
REPORT NO. ESQ-4

REPORT ON H.M.C.S. "UGANDA" AND H.M.C.S. "SIOUX" AFTER PAINTING
WITH INTERNATIONAL PAINTS - AUGUST-SEPTEMBER
1949

HISTORY OF DRYDOCKING:

H.M.C.S. "UGANDA"

Drydocked 1315 August 11th, 1949.
Wet sandblasted August 15th to August 25th.
Inhibiting wash of Na_3PO_4 and $\text{K}_2\text{Cr}_2\text{O}_7$ in water.

Painting:

3 coats of Silver Primocon - 1 brushed, 2 sprayed.
2 coats of Interplast Antifouling - 2 sprayed.
2 coats of Interplast Boottopping - 2 sprayed.
Silver Primocon applied at waterline in place of
antifouling August 22 - August 26. During this
period temperature averaged 69°F. and rain fell
only on the afternoon of the 24th August.
Antifouling applied August 29-30.

Undocked 0900 August 31st, 1949.

H.M.C.S. "SIOUX"

Drydocked 1120 September 2nd, 1949.
Wet sandblasted September 6th to September 14th.
Inhibiting wash same as for "Uganda".

Painting:

Same as for "Uganda".
Silver Primocon applied September 20 & 21.
Antifouling applied September 22.
Rain fell from September 13 to 16th, inclusive.

Undocked 1415 September 23rd, 1949.

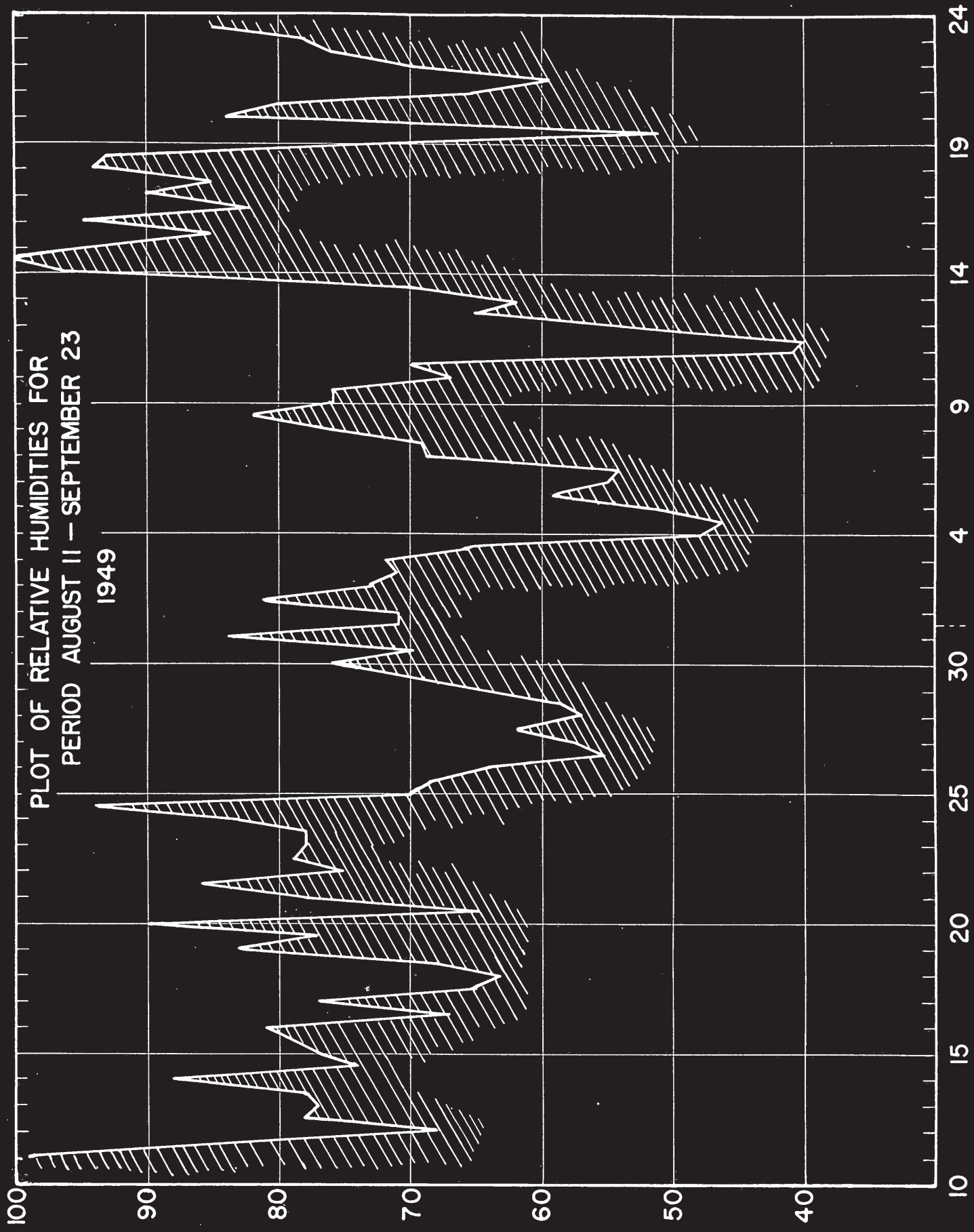
Enclosed is a plot, Fig. 1, of relative humidities^{*} for
the period August 11th to September 23rd, covering the dry-

* These were supplied by the Gonzales Heights Meteorological
Observatory, Victoria, B. C.

docking of H.M.C.S. "UGANDA" and H.M.C.S. "SIOUX". It may be noted that the relative humidity is unfavourable for a greater period during the drydocking of H.M.C.S. "SIOUX" than for H.M.C.S. "UGANDA".

Following undocking of these two ships, hull potentials were measured at intervals as indicated in Fig.2. The hull potential of H.M.C.S. "SIOUX" dropped off to the normal rusting level of 630-640 millivolts in a relatively short period, approximately 3-1/2 months.

A hull potential above 760 millivolts as measured against a standard Ag-AgCl reference cell indicates that no corrosion is taking place. Below 760 millivolts there is corrosion. It is to be expected then, that H.M.C.S. "UGANDA" should be in better condition when docked than H.M.C.S. "SIOUX".



PLOT OF RELATIVE HUMIDITIES FOR
PERIOD AUGUST 11 - SEPTEMBER 23
1949

AUGUST 1949
SEPTEMBER 1949

FIG. 1

PLOTS OF HULL POTENTIALS FOR H.M.C.S. UGANDA AND
H.M.C.S. SIOUX FOR PERIOD INDICATED

- H.M.C.S. UGANDA
- x H.M.C.S. SIOUX
- ⊗ HULL GROUNDED (UGANDA)

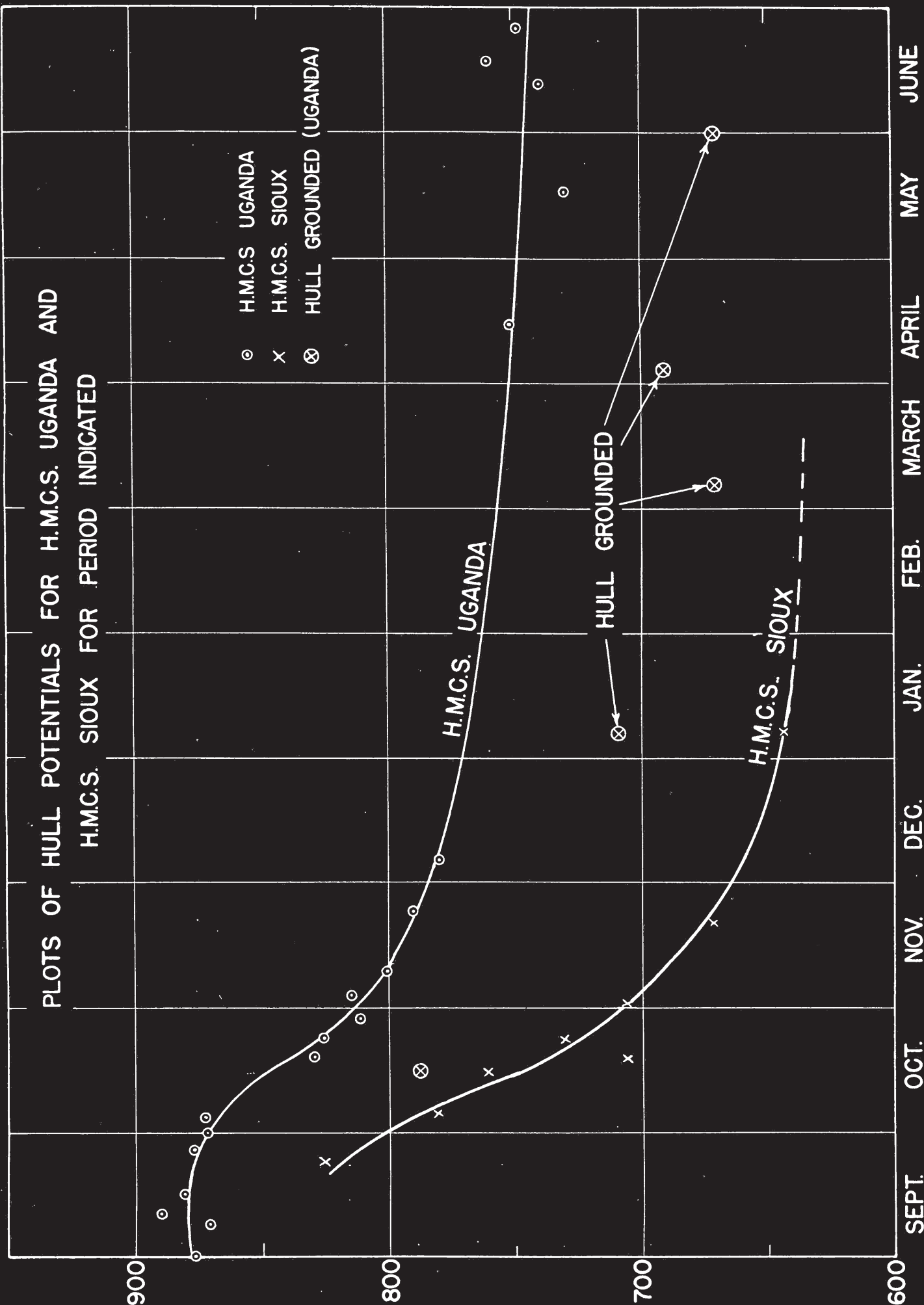


FIG. 2