MAGNETIC LINEATIONS

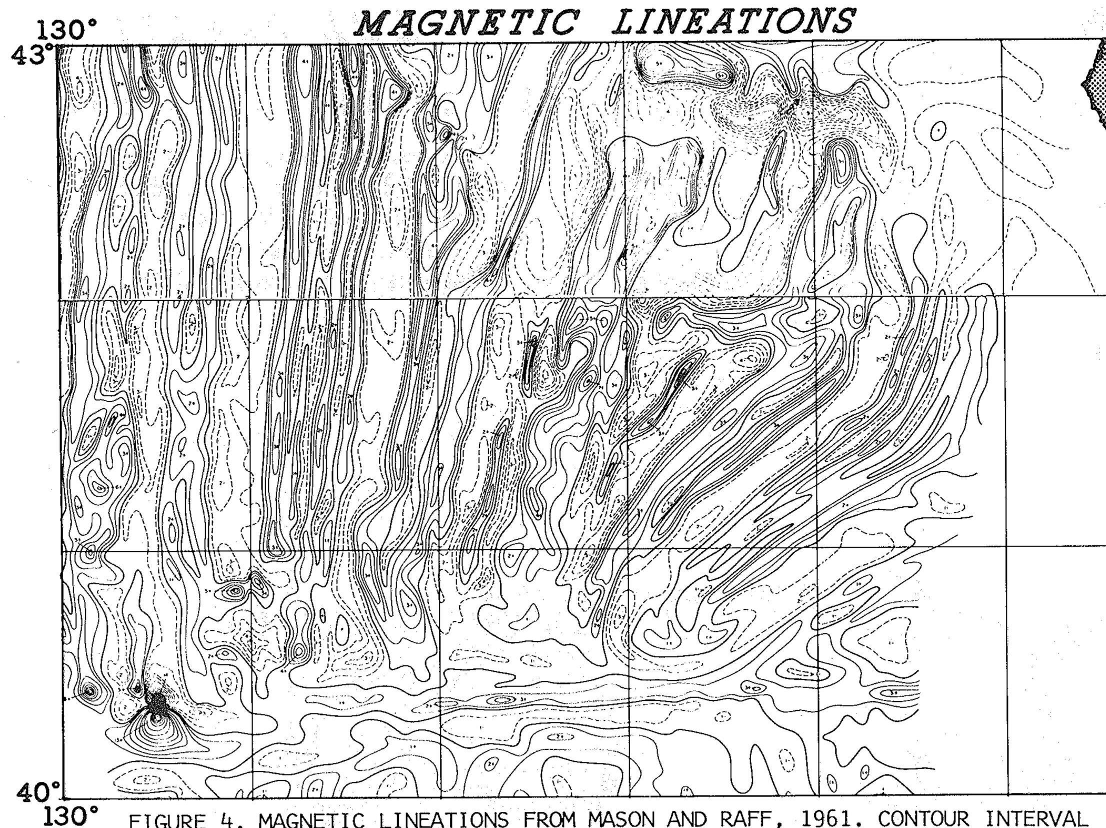


FIGURE 4. MAGNETIC LINEATIONS FROM MASON AND RAFF, 1961. CONTOUR INTERVAL IS 50 GAMMAS.

GRAVITY ANOMALY

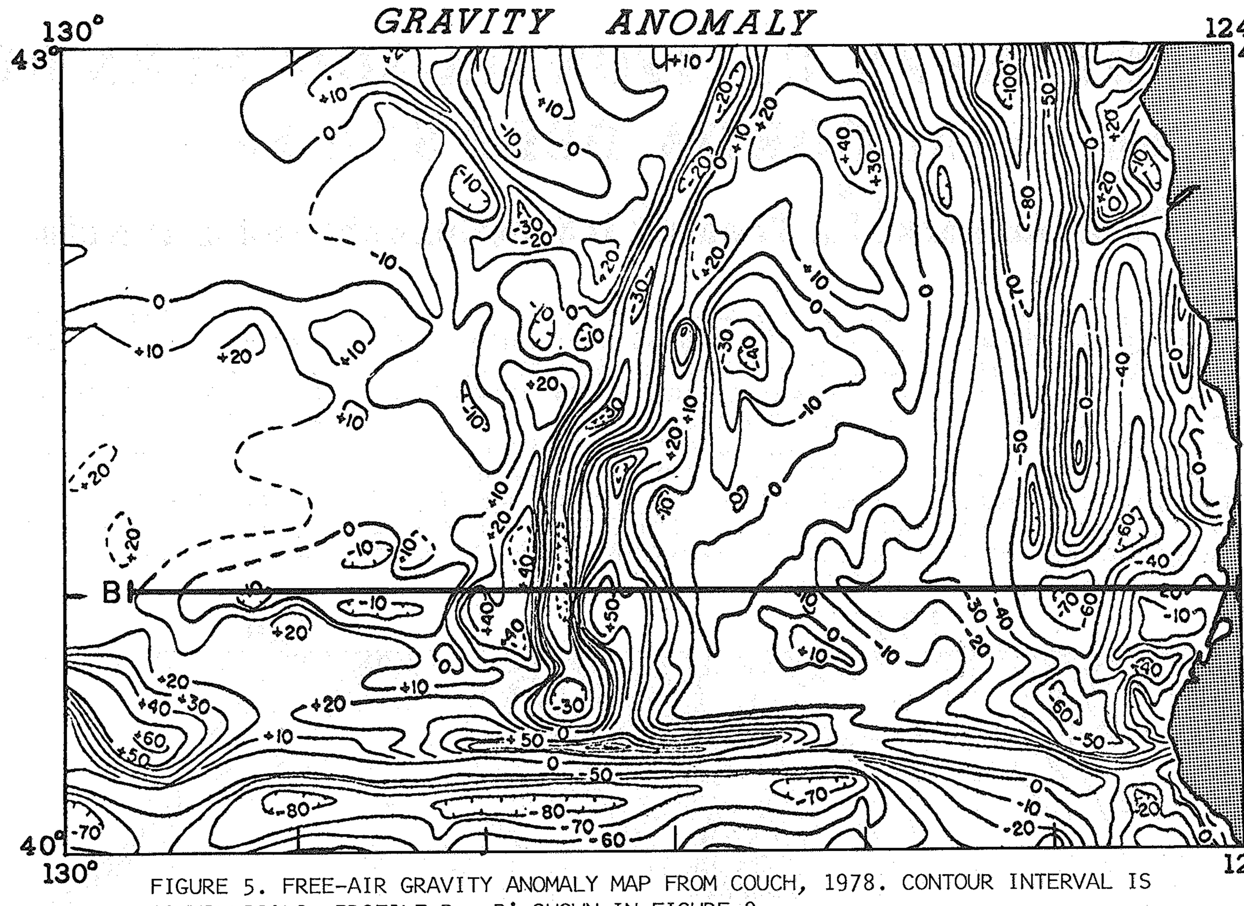


FIGURE 5. FREE-AIR GRAVITY ANOMALY MAP FROM COUCH, 1978. CONTOUR INTERVAL IS 10 MILLIGALS. PROFILE B - B' SHOWN IN FIGURE 9.

SEISMIC REFLECTION & REFRACTION

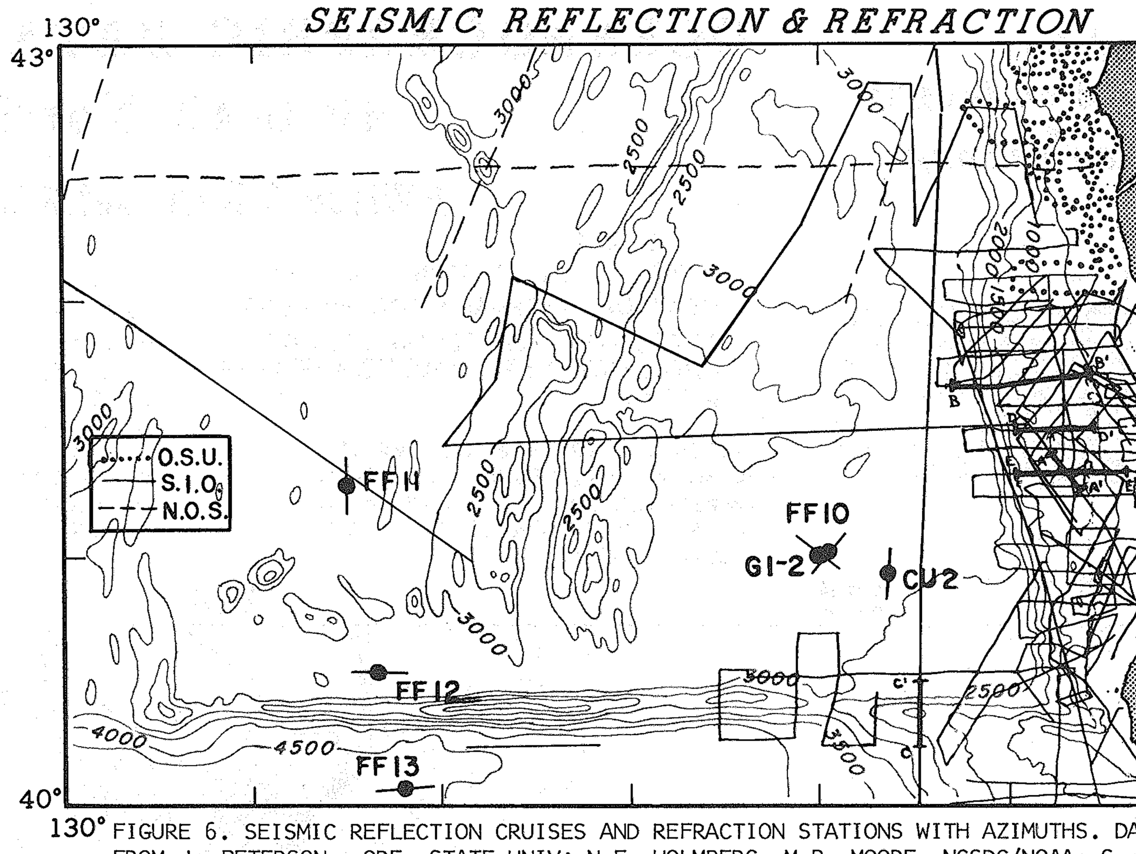


FIGURE 6. SEISMIC REFLECTION CRUISES AND REFRACTION STATIONS WITH AZIMUTHS. DATA FROM J. PETERSON, ORE. STATE UNIV; N.F. HOLMBERG, M.B. MOORE, NGSDC/NOAA; S. M. SMITH, SCRIPPS INSTITUTION OF OCEANOGRAPHY. CONTACT S.L. LAMBDIN ABOUT NOS DATA. SELECTED PROFILES SHOWN BELOW. SEE FIGURE 8 FOR INFORMATION ABOUT THESE CRUISES.

COASTAL REFLECTION SURVEYS

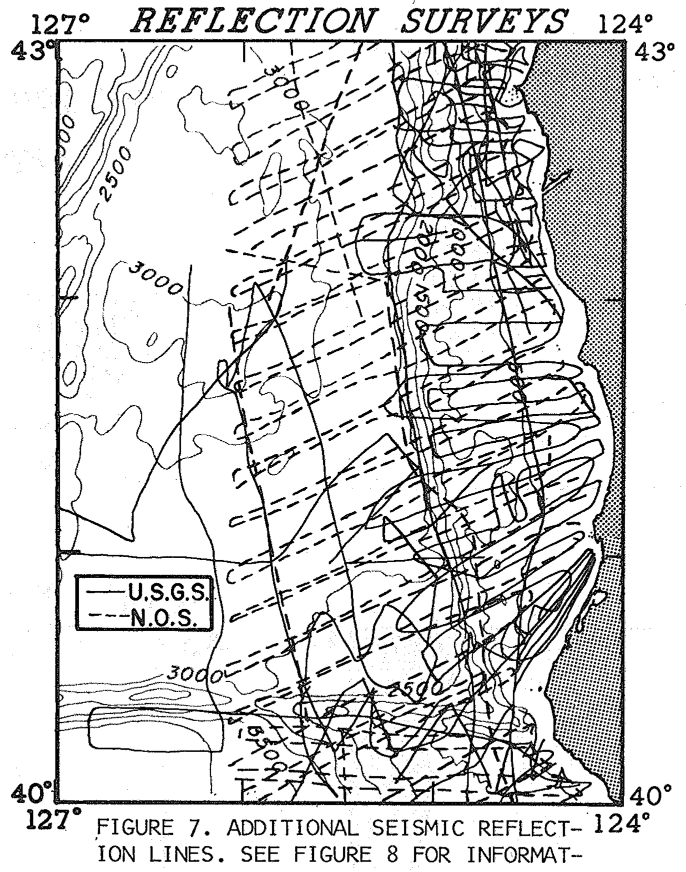


FIGURE 7. ADDITIONAL SEISMIC REFLECTION LINES. SEE FIGURE 8 FOR INFORMATION.

FOR INFORMATION ABOUT THE SEISMIC REFLECTION CRUISES SHOWN, CONTACT THE FOLLOWING: OREGON STATE UNIVERSITY-J. PETERSON; SCRIPPS INSTITUTION OF OCEANOGRAPHY-SIO GEOLOGIC DATA CENTER, S.M. SMITH; NATIONAL OCEAN SURVEY-M.B.MOORE OR S.L. LAMBDIN, NATIONAL GEOPHYSICAL AND SOLAR TERRESTRIAL DATA CENTER, BOULDER, COLORADO; U.S. GEOLOGICAL SURVEY, T.E. CHASE, MENLO PARK, CALIFORNIA.

OREGON STATE UNIVERSITY

NAME	YEAR	SCIENTIST-IN=CHARGE
CAY 6807	1968	L.D. KULM
CRI 6707	1967	L.D. KULM
CRI 6708	1967	L.D. KULM

SCRIPPS INSTITUTION OF OCEANOGRAPHY

WILDCAT	1967	E.A. SILVER
CHANEEL	1967	W.R. NORMARK
KAYAK B	1963	J.R. CURRAY
SCAN 1	1969	G.W. MOORE
7-TOW	1970	E.A. SILVER
ANTIPODE 2	1970	G.G. SHOR
G.C. 18(DSDP)	1971	L.D. KULM AND R. VON HUENE

NATIONAL OCEAN SURVEY

NOS IDOE (OSS SURVEYOR)	1971
WEST COAST CON MARGIN	1972

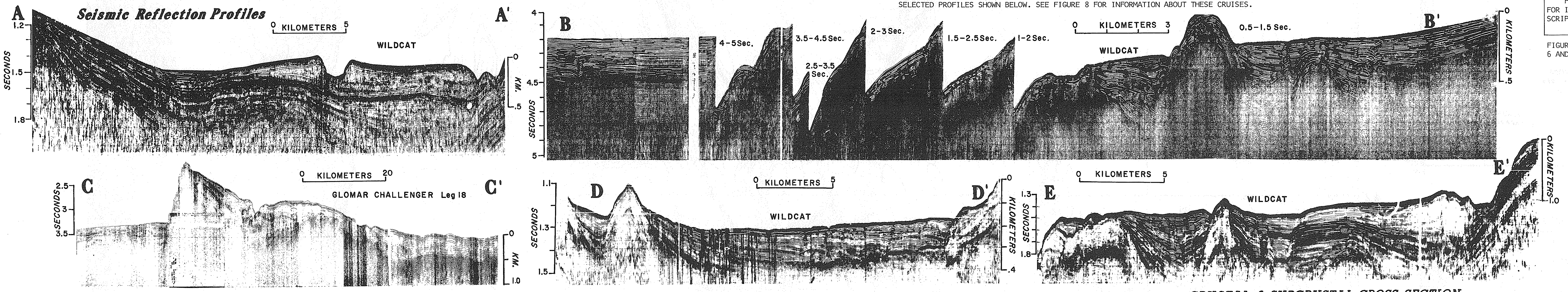
SEISMIC REFRACTION SURVEYS

NAME	AZIMUTH	MOHO DEPTH (KM.)
G1-2	128°	7.00
CU 2	005°	7.82
FF 10	040°	5.96
FF 11	180°	6.46
FF 12	091°	6.55
FF 13	085°	10.84

FOR INFORMATION ABOUT THESE SURVEYS, CONTACT D. MC GOWAN, SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CALIFORNIA.

FIGURE 8. LISTS OF SURVEYS AND CRUISES SHOWN IN FIGURES 6 AND 7.

Seismic Reflection Profiles



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CRUSTAL & SUBCRUSTAL CROSS SECTION AND GRAVITY PROFILE

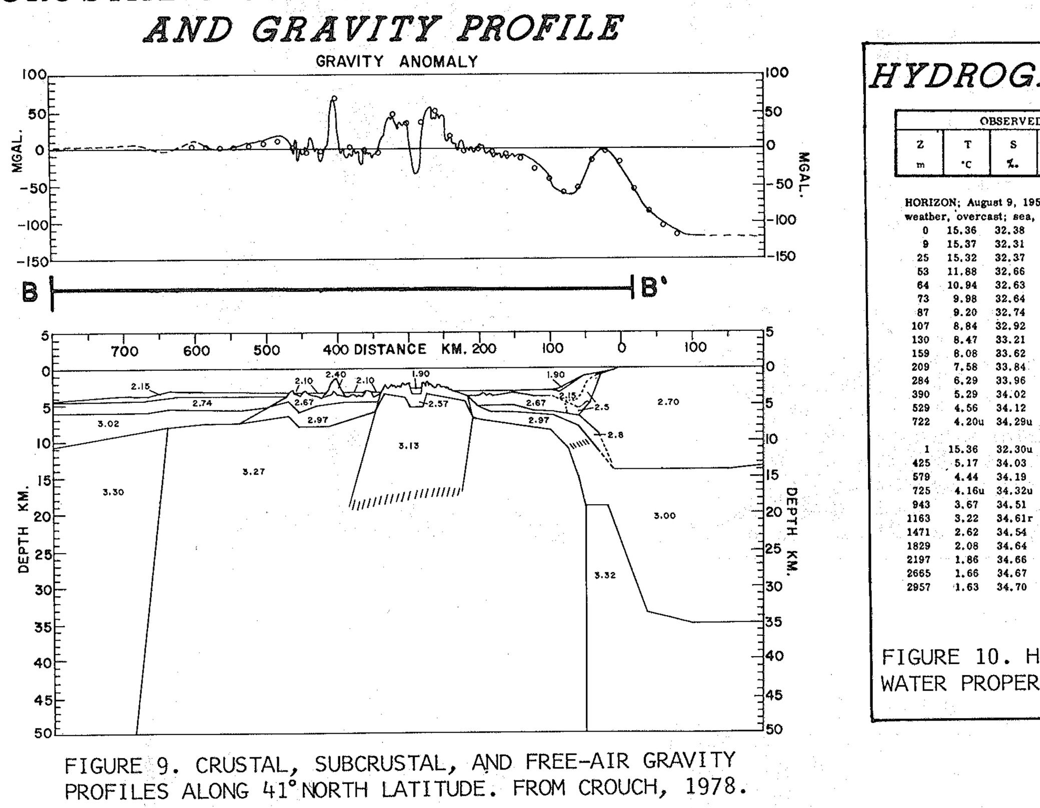

FIGURE 9. CRUSTAL, SUBCRUSTAL, AND FREE-AIR GRAVITY PROFILES ALONG 41° NORTH LATITUDE. FROM CROUCH, 1978.

MONTHLY SURFACE CURRENTS BY DEGREES & SEA SURFACE TEMPERATURES

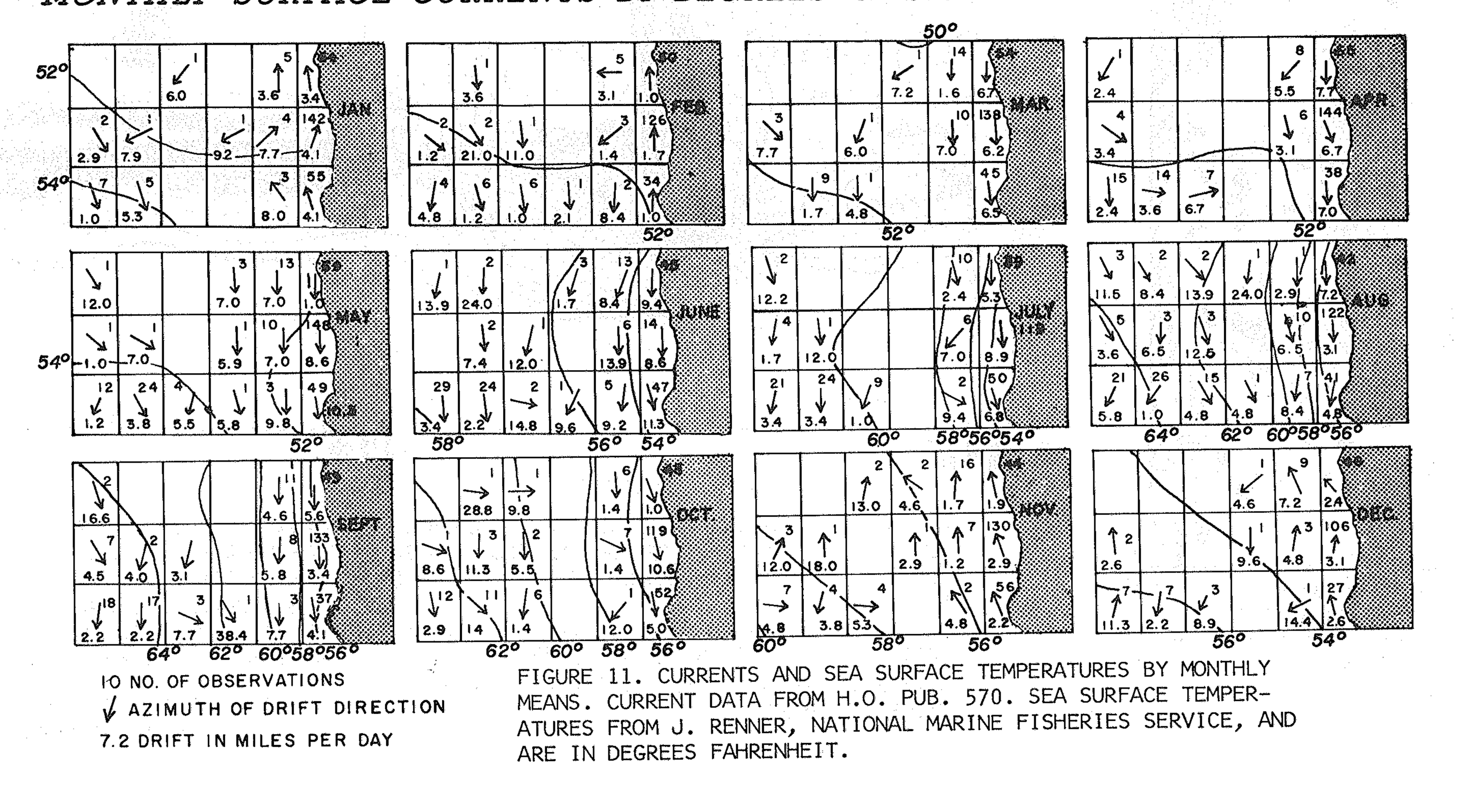

FIGURE 11. CURRENTS AND SEA SURFACE TEMPERATURES BY MONTHLY MEANS. CURRENT DATA FROM H.O. PUB. 570. SEA SURFACE TEMPERATURES FROM J. RENNER, NATIONAL MARINE FISHERIES SERVICE, AND ARE IN DEGREES FAHRENHEIT.

HYDROGRAPHIC STATION

OBSERVED					COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	σ_t g/L	δ_T $10^5 cm^3/g$	ΔD dyn. m

HORIZON; August 9, 1955; 2155, 2316 GCT; 42°03'N, 129°19'W; sounding, 1820 fm; weather, overcast; sea, rough; wire angle, 15°, 30°. wind, 345°, force 4;

Z	T	S	O_2	PO_4-P	Z	σ_t	δ_T	ΔD
0	15.36	32.38	6.10	0.4	0	23.90	401.4	0.000
9	15.37	32.31	6.07	0.5	10	23.85	406.5	0.040
25	15.32	32.37	6.06	0.5	20	23.88	403.4	0.081
53	11.88	32.66	6.08	0.6	30	24.02	390.0	0.121
64	10.94	32.63	6.61	0.7	50	24.73	322.4	0.192
73	9.98	32.64	6.58	0.9	75	25.20	277.2	0.267
87	9.20	32.74	6.33	1.0	100	25.49	250.2	0.334
107	8.84	32.92	5.82	1.3	150	26.11	191.4	0.445
130	8.47	33.21	5.13	1.5	200	26.41	162.8	0.535
159	8.08	33.62	4.09	1.9	250	26.60	144.8	0.614
209	7.58	33.84	3.62	1.9	300	26.76	129.3	0.684
284	6.29	33.96	3.01	2.1	400	26.89	116.8	0.811
390	5.29	34.02	1.75	2.4u	500	27.01	105.5	0.927
529	4.56	34.12	1,02	2.8u	600	27.14	93.9	1.034
722	4.20u	34.29u	0.30	3.0	700	27.22	86.1	1.128
					800	27.28	80.1	1.218
1	15.36	32.30u	6.10	0.5u	1000	27.47	62.5	1.376
425	5.17	34.03	1.70	2.4u	1200	27.51	58.1	1.515
579	4.44	34.19	0.74	2.7u	1500	27.58	51.4	1.706
725	4.16u	34.32u	0.31	3.1u	2000	27.72	38.1	1.978
943	3.67	34.51	0.33	3.0	2500	27.75	35.9	2.211
1163	3.22	34.61r	0.45	3.0	3000	(27.79)	(32.1)	(2.430)
1471	2.62	34.54	0.81	2.9				
1829	2.08	34.64	1.33	2.8				
2197	1.86	34.66	1.87	2.7				
2665	1.66	34.67	2.25	2.8r				
2957	1.63	34.70	2.56	2.7u				

FIGURE 10. HYDROGRAPHIC STATION SHOWING WATER PROPERTIES.

COASTAL WAVE REFRACTION("A.B.C.")

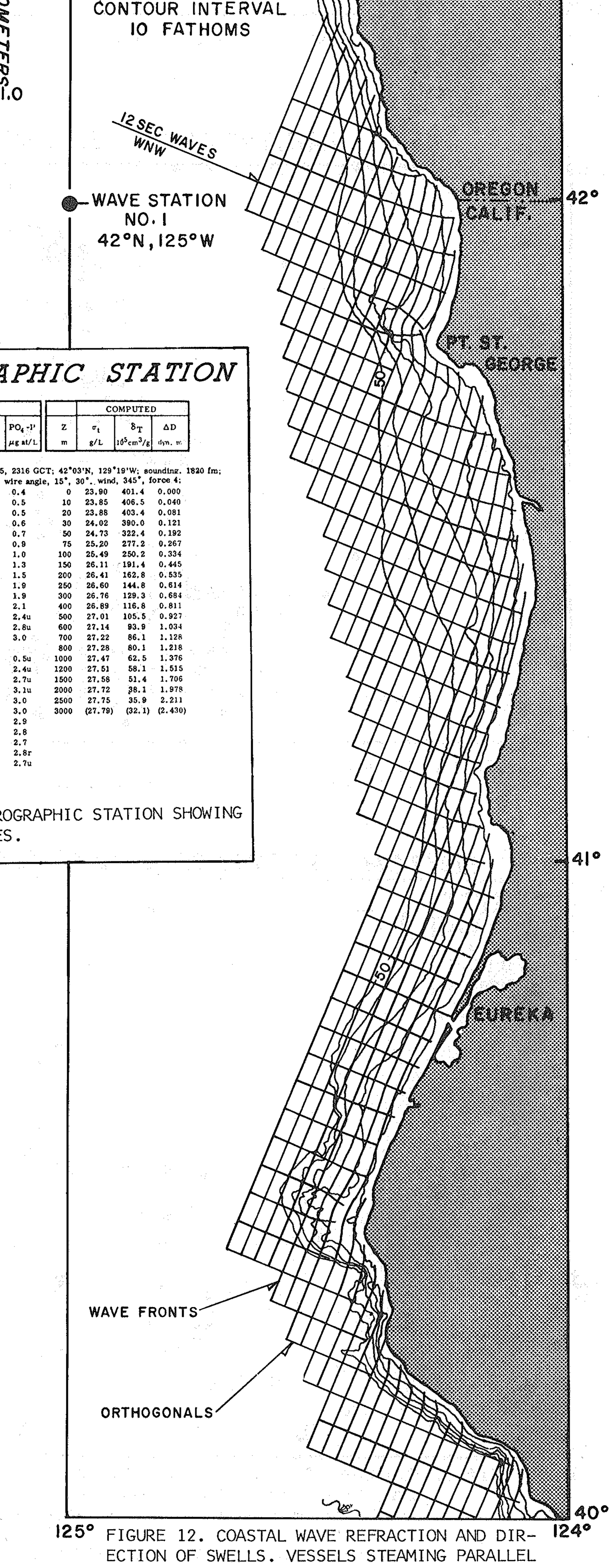

FIGURE 12. COASTAL WAVE REFRACTION AND DIRECTION OF SWELLS. VESSELS STEAMING PARALLEL TO WAVE FRONTS WILL BE IN TROUGHS OF VARING INTENSITIES. FROM ZELLER, 1962.