

Twickell

R/V CAPE HENlopen
15-20 MAY, 1978
GEOPHYSICS LOG

NALP 100321
78012

GMT			TIME ZONE	SHIPS		NAVIGATION		
DAY	MO	YR		TIME	±	COURSE	SPD	Y
15	05	78	Φ 415					Z
16	05	78	0115					
	0146		03850			504622	. 702095	.
	0200		039055			504456	. 702077	.
	0215		04055			504268	. 702037	.
	0224		08155			504165	. 702011	.
	0230		08155			504102	. 702019	.
	0245		08155			503966	. 702041	.
	0300		08155			503847	. 702060	.
	0315		07450			503697	. 702078	.
	0330		07650			503545	. 702090	.
	0336		06050			503500	. 702097	.
	0345		06050			503403	. 702039	.
	0400		05950			503229	. 702080	.
	0415		05550			503076	. 702073	.
	0430		05550			502895	. 702060	.
	0445		05550			502719	. 702043	.
	0500		05550			502556	. 702032	.
	0515		05550			502388	. 702021	.
	0527		05560			502242	. 702011	.
	0530		05555			502221	. 702010	.
	0548		05555			502023	. 701994	.
	0600		05555			501884	. 701981	.
	0615		05855			501710	. 701966	.
	0630		05655			501544	. 701952	.
	0645		05655			501381	. 701935	.

OPS
35KHz
CSP
MAG
GRAY
SONO
STA

COMMENTS AND OBSERVATIONS

1415L - Left Atlantic City on our way at 13 Kts to survey area on OCS south of RI and Cape Cod.

At beginning of survey + gear streamed. Getting equipment tuned + coming around on course.

Steaming to start of line 1

COURSE CHANGE ; START TRACK FOR LINE 1

BAR 29.90 steady ; WIND NE 5-10 MPH ; SEAS 1-3 ft from NE ; fog ; 55°F

COURSE CHANGE 060°

INCREASE SPEED TO 6.0 KTS. to keep Side scan from hitting bottom.
Decrease to 5.5 kts.

New watch

GMT			TIME ZONE ±	SHIPS		NAVIGATION	
DAY	MO	YR		TIME	COURSE	SPD	Y
16	05	78	0700	05755	5012376.	7019259.	Z
			0715	05655	5010420.	7019092.	
			0730	05555	5008963.	7018960.	
					40°08.5'	71°17'	
			0745	05555	5007253.	7018862.	
			0800	06155	5005681.	7018793.	
			0815	06055	5003963.	7018715.	
			0830	05955	5002271.	7018647.	
			0845	06555	5000656.	7018611.	
			0900	06355	5000216.	7018585.	
			0915	06255	4998502.	7018557.	
			0930	06055	4996822.	7018550.	
			0945	06055	4994844.	7018467.	
			1000	06055	4993855.	7018421.	
			1015	06055	4992184.	7018377.	
			1030	05955	4990569.	7018269.	
			1045	06055	4988829.	7018176.	
			1100	05855	4987373.	7018029.	
			1115	06055	4985495.	7017820.	
			1130	05955	4984050.	7017630.	
			1145	06055	4982145.	7017412.	
			1151		4981441.	7017310.	
			1215	15555	4981938.	7016995.	
			1230		4982338.	7017884.	
			1245		4984137.	7017848.	
			1300	06555	4983716.	7017420.	
			1315	06755	4981979.	7017310.	
			1330	06755	49803.05	7017214.	
			1345	06855	4978567.	7017080.	
			1400	07155	4976931.	7017010.	

OPS
12 KHz
3.5 KHz
CSP
MAG
GRAV.
SONO
STA

COMMENTS AND OBSERVATIONS

Circle to starboard - side scan dragging on the bottom
CIRCLING FOR WINCH REPAIRS

"

"

CONTINUING ON LINE - SIDE SCAN DOWN - WINCH CHAIN BROKEN

GMT			TIME ZONE ±	SHIPS		NAVIGATION	
DAY	MO	YR		TIME	COURSE	SPD	Y
16	05	78	1415		069 5.5		49752.40.
			1430		069 5.5		70169.20.
			1445		069 5.5		49747.2X.
			1500		059 5.5		70170.8X.
			1515		059 5.5		49729.6X.
			1530		059 5.5		70167.6X.
			1545		059 5.5		497124X.
			1600		059 5.5		70167.2X.
			1615		091 5.5		.
			1630		0925.5		.
			1645		067 5.5		49586.40.
			1700		068 5.5		70158.14.
			1715		068 5.5		49567.12.
			1730		068 5.5		70157.00.
			1745		065 5.5		49548.26.
			1800		065 5.5		70155.80.
			1815		067 5.5		49530.50.
			1830		066 5.5		70154.70.
			1845		068 5.5		4951205.
			1900		066 5.5		70153.27.
			1915		063 5.5		49493.88.
			1930		064 5.5		70151.72.
			1945		065 5.5		49475.97.
			2000		260 5.5		70150.99.
			2015		220 5.5		4944780.
			2030		181 5.5		4940579.
			2045		181 5.5		7014697.
			2100		183 5.5		4938892.
			2115		184 5.5		7014580.
			2130		181 5.5.		4937290.
							7014508.
							4935839.
							7014057.
							4937425.
							7014492.
							4939367.
							7014860.
							4941228.
							7015600.
							4943180.
							7016360.
							4945206.
							7017162.
							4947042.
							7017899.

OPS
12 KHz
35 KHz
CSP
MAG
GRAY
SONO
STA

COMMENTS AND OBSERVATIONS

(TELEDYNE FIX) BOTH LORAN'S S/N LINE SIMRAD NOT TRACKING
EXPECT Y RATE 10 USEC HIGH

LORAN'S NOT TRACKING -

TDL(FIX POOR)
SIMRAD BACK ON C/C TO LINE
C/C ON LINE
↳

Last reading on line #1 - approaching circle north for line #2
in turn for course on line #2
" " " 1 " " " "
on line #2

GMT				TIME ZONE ±	SHIPS		NAVIGATION	
DAY	MO	YR	TIME		COURSE	SPD	Y	Z
16	05	78	2145		1805.5		4949002.	7018672.
			2200		1825.5		4950876.	7019430.
			2215		1785.5		4952738.	7020207.
			2230		1785.5		4954556.	7020999.
			2300		1835.5		4958076.	7022520.
			2315		1815.5		4959878.	7023290.
			2330		1795.5		4961721.	7024070.
			2345		1795.5		4963503.	7024818.
			2400		1795.5		4965265.	7025558.
17	05	78	0015		1795.5		4967000.	7026342.
			0030		1795.5		4968683.	7027077.
			0045		1795.5		4970355.	7027833.
			0100		1795.5		4971955.	7028500.
			0115		1795.5		4973768.	7029325.
			0130		1795.5		4975472.	7030070.
			0145		1795.5		4977199.	7030815.
			0200		1795.5		4979102.	7031654.
			0215		3106.5		4979669.	7031683.
			0230		3146.5		4978921.	7030887.
			0245		3146.5		4978191.	7030069.
			0300		3146.5		4977475.	7029300.
			0315		3146.5		4976750.	7028448.
			0330		3006.5		4976390.	7027728.
			0345		2936.5		4976326.	7027037.
			0400		2936.5		4976509.	7026420.
			0415		3106.5		4976369.	7025727.
			0430		2826.5		4976718.	7025169.
			0445		2826.5		4977331.	7024680.
			0500		2826.5		4977920.	7024160.

12 KHz	
35 KHz	
CSP	
MAG	
GRAY	
SONO	
STA	

COMMENTS AND OBSERVATIONS

last reading on line #2

in turn for course on line #3

~~Principles for course on line #3 Line #3~~

Line #4

GMT			TIME ZONE	SHIPS		NAVIGATION	
DAY	MO	YR	TIME	±	COURSE	SPD	
17	05	78	0515		2826.5		49784088. 7023620.
			0530		2826.5		4979101. 7023096.
			0545		2827.0		4979630. 7022508.
			0600		2807.0		4980223. 7021930.
			0615		2807.0		4980875. 7021372.
			0630		2807.0		4981505. 7020749.
			0645		2807.0		4982346. 7020188.
			0700		2807.0		4983332. 7019698.
			0715		2807.0		4984387. 7019230.
			0802		3207.0		.
			0815		3257.0		4984291. 7018576.
			0830		3277.0		4983572. 7017674.
			0845		3327.0		4982784. 7016768.
			0900		3257.0		4982070. 7015870.
			0915		3257.0		4981359. 7014911.
			0930		3237.0		4980690. 7013950.
			0945		3237.0		4980192. 7013050.
			1000		3107.0		4980218. 7012170.
			1015		3107.0		4980283. 7011266.
			1030	c/c	7.0		4980398. 7010408.
			1045		2387.0		4982509. 7010439.
			1100		2387.0		4984730. 7010520.
			1115		2387.0		4986877. 7010640.
			1130		2387.0		4989140. 7010763.
			1145		2387.0		4991332. 7010858.
			1200		2387.0		4993190. 7010930.
			1215		2387.0		4995707. 7011029.
			1230		2387.0		4997998. 7011144.
			1245		2387.0		5000177. 7011211.

OPS
12 KHz
35 KHz
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COMMENTS AND OBSERVATIONS

END LINE #4 CIRCLING FOR RECORDER(ETC) P.M.

START LINE #5

END LINE #5 START LINE #6

Side-scan back in water + working.

GMT				TIME ZONE	SHIPS		NAVIGATION	
DAY	MO	YR	TIME	±	COURSE	SPD	Y	Z
1705	78	1300			2387.0		5002320.	7011320.
		1315			238 ⁴⁵ ₃₀		5004382.	7011446.
		1330			2384.5		5006286.	7011527.
		1345			2384.5		5007796.	7011610.
		1400			2954.5		5008658.	7011350.
		1415			2954.5		500883.	700996. Questionable
		1430			2954.5		500918.	700894. Readings
		1445			29 ^{05.0} ₀₅		500960.	700808.
		1500			29 ^{05.0} ₀₅		500970.	700700.
		1515			29050		50 ¹²³ ₁₃₇ .	700821.
		1530			29050		50 ¹³⁰ ₁₃₄ .	700754.
		1545			2905.0		5013719.	7006851.
		1600			2905.0		5014418.	7006253.
		1615			2905.0		5015132.	7005581.
		1630			2905.0		5015913.	7004911.
		1645			0 ¹⁷ ₁₇ 5.0		5016198.	7004329.
		1700			0 ¹⁷ ₁₇ 5.0		5014727.	7003790.
		1715			0 ¹⁷ ₁₇ 5.0		5013142.	7003199.
		1730			0 ¹⁷ ₁₇ 5.0		5011519.	7002620.
		1745			0175.0		5009930.	7002021.
		1800			0175.0		5008393.	7001426.
		1815			01750		5006795.	7000823.
		1830			01750		5005199.	7000200.
		1842					5003897.	6889703.
		1845			0755.0		5003655.	6999664.
		1900			07950		5002097.	6999870.
		1915			08250		5000565.	7000060.
		1930			08250		4999063.	7000285.
		1945			08150		4997542.	7000510.
		2000			08050		4996054.	7000727.

OPS
12 KHz
35 KHz
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GRAY
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COMMENTS AND OBSERVATIONS

SLOWING DOWN SPEED FOR SOME GOOD PROFILING

END LINE #6 START LINE #7

7
'S MAY BE INCORRECT - NOT READ FROM SIMRAD
but FROM TEL GUYING

COURSE CHANGE END LINE 7 BEGIN LINE 8

COURSE CHANGE TO 080° END LINE 8, BEGIN LINE 9

GMT			TIME ZONE	SHIPS		NAVIGATION	
DAY	MO	YR	TIME	±	COURSE	SPD	
17	05	78	2015		08050		Y
			2030		08050		Z
			2045		08050		
			2100		08050		
			2115		08050		
			2130		08050		
			2145		08050		
			2200		08050		
			2215		07850		
			2235		07850		
			2245		08050		
			2300		08050		
			2315		08050		
			2330		08050		
			2345		08050		
18	05	78	0000		08050		
			0015		0805.0		
			0030		07550		
			0045		0655.0		
			0100		06050		
			0115		0805.0		
			0130		0756.0		
			0145		07050		
			0158		1445.0		
			0200		1445.0		
			0215		1445.0		
			0230		1445.0		
			0245		1405.0		
			0300		13550		

12 KHz
3.5 KHz
CSP
MAG
GRAV
SONO
STA

COMMENTS AND OBSERVATIONS

CHANGE OF WATCH

COURSE CHANGE; 144° END LINE 9, BEGIN LINE 10

GMT			TIME ZONE ±	SHIPS		NAVIGATION	
DAY	MO	YR	TIME	COURSE	SPD	Y	Z
1	05	78	0315	1355.0		49607.35.	70080.04
			0330	1355.0		4961028	70086.40
			0345	1355.0		4961269	70092.94
			0400	1355.0		4961560	70098.79
			0415	1355.0		4961867	70105.91
			0430	1355.0		4962188	70111.95
			0445	1355.0		4962528	70117.50
			0500	1355.0		4962825	70123.90
			0515	1355.0		4963181	70130.19
			0530	1425.0		4963576	70136.60
			0545	1435.0		4964140	70143.00
			0600	1435.5		4964700	70149.36
			0615	1445.5		4965249	70156.00
			0630	1435.5		4965749	70162.50
			0645	1435.5		4966250	70168.76
			0700	1455.5		4966819	70175.34
			0715	1445.5		4967425	70181.70
			0730	1445.5		4968089	70188.37
			0745	0195.5		4968435	70193.49
			0800	0195.5		4966850	70188.14
			0815	0395.5		4964959	70183.08
			0830	0355.5		4963055	70179.36
			0845	0345.5		4961305	70175.47
			0900	0255.5		4959460	70170.60
			0915	0165.5		4957482	70164.40
			0930	0105.5		4955734	70158.20
			0945	0095.5		4954084	70151.90
			1000	0105.5		4952441	70146.00
			1015	0105.5		4950633	70139.99
			1030	0105.5		4948971	70133.20

GMT			TIME ZONE ±	SHIPS		NAVIGATION	
DAY	MO	YR	TIME	COURSE	SPD	y	z
18	05	78	1045	01255		4947336	701270.0
			1100	01355		4945708	7012155
			1115	01355		4944060	7011520
			1130	01355		4942383	7010976
			1145	01355		4940736	7010380
			1200	01355		4939076	7009795
			1215	01455		4937259	7009135
			1230	1865.0		4936255	7008590
			1245	18655		4937952	7009160
			1300	18655		4939640	7009740
			1315	1685.5		4941196	7010361
			1330	1255.5		4941707	7011000
			1345	1255.5		4941845	7011563
			1408	1255.5		4942000	7012406
			1415	1255.5		4942096	7012680
			1430	1285.5		4942304	7013270
			1445	1315.5		4942604	7013829
			1500	1315.5		4942967	7014390
			1515	1345.5		4943394	7014990
			1530	1335.5		4943944	7015750
			1545	1325.5		4944288	7016230
			1600	1315.5		4944685	7016795
			1615	1315.5		4945206	7017448
			1630	1315.5		4945640	7018020
			1645	1325.5		4946105	7018631
			1700	2115.5		4946869	7019155
			1715	2095.5		4948450	7019540
			1730	2075.5		4950020	7019960
			1745	2035.5		4951700	7020460
			1800	2035.5		4953242	7020933

OPS
12 KHz
3.5 KHz
CSP
MAG
GRAY
SONO
STA

COMMENTS AND OBSERVATIONS

fish up for check - end of line - prepare for turn.

prepare to turn on line #12 - Hunter ^{deployed} ~~████████~~

prepare to turn on line #12

" "

" "

" "

Begin line #12

Line #13

GMT				TIME ZONE ±	SHIPS		NAVIGATION	
DAY	MO	YR	TIME		COURSE	SPD	Y	Z
18	05	78	1815		2035.5		4954822	7021417
			1830		2035.5		4956471	7021940
			1845		2035.5		4958140	7022466
			1900		2155.5		4959706	7022970
			1915		2155.5		4961416	702336.0
			1930		2155.5		4963040	7023745
			1945		2155.5		4964797	7024146
			2000		2155.5		4966365	7024499
			2015		2155.5		4968056	7024883
			2030		2155.5		4969745	7025290
			2045		2155.5		4971466	7025718
			2100		2185.5		4973178	7026112
			2115		2225.5		4974877	7026492
			2130		2225.5		4976658	7026840
			2145		2225.5		4978438	7027161
			2200		2195.5		4980166	7027471
			2215		2195.5		4981971	7027840
			2230		2195.5		4983797	7028145
			2240		4c 5.5		4985020	7028324
			2245		3455.5		4984963	7028190
			2300		3455.5		4983766	7027466
			2315		3455.5		4982568	7026748
			2330		3455.5		4981315	7026019
			2345		3435.5		4980166	7025291
19	05	78	0000		3435.5		4978975	7024552
			0015		3435.5		4977855	7023838
			0030		3435.5		497676	702307.0
			0045		3405.5		4975668	7022333
			0100		3405.5		4974638	7021624
			0115		3405.5		4973620	7020918

12 KHz	OPS
35 KHz	
CSP	
MAG	
GRAV	
SONO	
STA	

COMMENTS AND OBSERVATIONS

g/c END LINE # 13
START LINE # 14

GMT				TIME ZONE	SHIPS		NAVIGATION		
DAY	MO	YR	TIME		±	COURSE	SPD	Y	Z
190	S	78	0130		30	37	5.5	4972674	7020203
			0145		33	37	5.5	4971659	7019480
			0200		21	55	5.5	4972470	7019365
			0215	S	21	55	5.5	4974214	7019707
			0230		22	18	5.5	4976068	7028068
			0245		21	85	5.5	4977825	7020374
			0300		21	85	5.5	4979736	7020780
			0315		21	85	5.5	4981566	7021071
			0330		21	85	5.5	4983396	7021388
			0345		21	55	5.5	4985155	7021680
			0400		20	85	5.5	4986908	7021990
			0415		20	85	5.5	4988608	7022438
			0430		21	55	5	4990210	7022860
			0445		21	55	5	4991990	7023210
			0500		21	85	5	4993780	7023498
			0515		21	85	5	4995579	7023801
			0530		20	85	5	4997340	7024134
			0545		33	05	5	4998920	7024410
			0600		34	55	5	4998046	7023713
			0615		34	05	5	4997028	7022959
			0630		34	35	5	4995859	7022110
			0645		34	54	0	4995077	7021590
			0700		34	54	0	4994230	7021100
			0715		34	54	0	4993410	7020586
			0730		34	54	0	4992630	7020165
			0745		34	54	0	4991788	7019734
			0800		34	54	0	4991076	7019281
			0815		30	04	0	4991143	7018914
			0830		30	04	0	4991290	7018544
			0845		30	04	0	4991475	7018182

12 KHz
35 KHz
CSP
MAG
GRAV
SONO
STA

COMMENTS AND OBSERVATIONS

BEGIN LINE 15 END LINE 14

BEGIN LINE 16 TERMINATION OF LINE 15

C/SPEED TO 4.5 KNOTS

GMT			TIME ZONE ±	SHIPS		NAVIGATION	
DAY	MO	YR		TIME	COURSE	SPD	Y
19	05	78	0900	30040	4991730.	7017858.	Z
			0915	30440	4991890.	7017510.	
			0930	30440	4992100.	7017100.	
			0945	30240	4992288.	7016720.	
			1000	30390	4992506.	7016299.	
			1015	15040	4992492.	7016342.	
			1020		.	.	
			1030	30440	4993037.	7016510.	
			1045	30440	4993199.	7016099.	
			1100	30590	4993329.	7015689.	
			1115	30640	4993450.	7012221.	X
			1130	30740	4993585.	7014750.	
			1145	30740	4993828.	7014258.	
			1200	30746	4993997.	7013870.	
			1215	30740	4994157.	7013440.	
			1230	30740	4994356.	7012968.	
			1245	30740	4994575.	7012521.	
			1300	30740	4994826.	7012045.	
			1315	29740	4995402.	7011570.	
			1330	32440	4996000.	7011228.	
			1348	32450	4995871.	7010428.	
			1400	32450	4995735.	7009855.	
			1415	32950	4995517.	7009109.	
			1432	32650	4995158.	7009239.	
			1445	32550	4994641.	7007493.	
			1500	32550	4994581.	7006961.	
			1518	32050	4994176.	7006033.	
			1530	19850	4994056.	7005449.	
			1545	19550	4995456.	7005853.	
			1600	18550	4996630.	7006384.	

OPS 12 KHz 35 KHz CSP MAG GRAY SONO STA	COMMENTS AND OBSERVATIONS
	C/C TO 302° END LINE 16 , START LINE 17
	haul side scan, and circle to make radio communication
	circling back on course
	SQUARED AWAY ON COURSE
	START LINE 18 ; END LINE 17
	START LINE 19 ; END LINE 18

GMT			TIME ZONE ±	SHIPS		NAVIGATION	
DAY	MO	YR		TIME	COURSE	SPD	X
19	05	78	1615	1955.0	4997656	7006954	Z
			1630	1955.0	4998900	7007630	
			1645	1955.0	5000054	7008172	
			1700	1955.0	5001560	7008113	
			1715	1955.0	5002660	7009180	
			1730	1955.0	5004201	7009820	
			1745	2085.0	5005553	7010267	
			1800	2085.0	5006840	7010647	
			1815	2085.0	5008387	7011099	
			1830	2205.0	5009839	7011443	
			1845	2205.0	5011375	7011770	
			1900	2205.0	5012933	7012095	
			1915	2205.0	5014704	7012450	
			1930	2215.0	5016113	7012731	
			1945	2265.0	5017695	7013053	
			2000	2205.0	5019160	7013398	
			2015	2205.0	5020889	7013786	
			2030	2205.0	5022592	7014150	
			2045	2205.0	5024251	7014518	
			2100	2205.0	5025718	7014798	
			2115	2205.0	5027654	7015189	
			2130	2205.0	5029465	7015550	
			2145	2205.0	5030925	7015850	
			2200	2215.0	5032606	7016130	
			2215	2225.0	5034284	7016434	
			2230	3175.0	5034767	7016048	
			2245	3175.0	5034645	7015353	
			2300	3175.0	5039481	7014660	
			2315	3175.0	5034844	7014012	
			2330	2905.0	5035404	7013490	

OPS	COMMENTS AND OBSERVATIONS									
12 KHz										
3.5 KHz										
CSP										
MAG										
GRAY										
SONO										
STA										
<i>course change onto line #20</i>										
<i>2118 turn onto lost leg - line #21</i>										

12 KHz
3.5 KHz
CSP
MAG
GRAV.
SONO
STA

COMMENTS AND OBSERVATIONS

Pulled in equipment

Docked at Capt. Starns Dock in Atlantic City.

24
3
7.2

Line #	Length	Length	Cumulative	Hours at 4 kts		Cumulative
			Time	Hours	Time	Hours
1	91	91	23	23	18	18
2	40	131	10	33	8	26
3	16	147	4	37	3	29
4	22	169	6.5	42.5	4.5	33.5
5	18	187	4.5	47	3.5	37
6	24	211	6	53	5	42
7	19	229	4.5	57.5	3.5	45.5
8	12	241	3	60.5	3	48.5
9	43	284	11	71.5	9	57.5
10a	33	317	8	79.5	7	64.5
11a	25	342	6	85.5	5	69.5
12a	46	388	12	97.5	9	78.5
10b	26	310	7	78.5	5	62.5
11b	18	328	4.5	83	4	66.5
12b	14	342	3.5	86.5	3	69.5
13b	19	361	5	91.5	4	73.5
14b	23	384	6	97.5	4.5	78
15b	13	397	3	100.5	3	81
16b	17	414	4	104.5	3	84
17b	11	425	3	107.5	2	86
18b	14	439	3.5	111	3	89
19b	21	460	5	116	4	93
20b	4	464	1	117	1	94
21b	28	492	7	124	6	100

40221 AT 49714 - 70190

49796
70250

49751
70223

