Transcript of Worsley's Navigational Log Book

Brad Morris (you may contact me thru the NavList) Version 3.4 2Feb2017

Any transcription errors remain my own.

This text is difficult to read and I am writing what I see. It may not be correct.

The spacing of characters is not exactly as shown.

Each page is kept separate, as it is in the log.

The following individuals have directly contributed to this transcript George Huxtable. Lars Bergman. Robin Stuart. And the NavList in general.

KEY

- □ A character I cannot read
- O Lower Limb of Sun Symbol, as Worsley drew it O
- O Midpoint of Sun Symbol, as Worsley drew it O

Note:

- (1) the log has now been updated with the missing data, 30 April 1916 thru 3 May 1916
- (2) the log has now been corrected via traverse calculations
- (3) I have received a better image of page 99, 4May thru 6 May 1916. This changes almost all of the illegible characters to legible!
- (4) For Monday 8 May the breezes are listed as NNWEWNW. Worsley did NOT use punctuation here. It could read NNW E WNW, but other combinations occur. This was a note to himself, not a record for us. It would have made sense to him for his DR.
- (5) After carefully re-reading the handwritten log and the Dennett transcription, I have modified the text associated with 24 April 1916.
- (6) Added journey planning feature ahead of 24April1916
- (7) Modest changes to some characters as equation checks provide clarity.
- (8) Typographical errors on 7May and 26April found and corrected.
- (9) Updated planning data for 29April based upon equation checks
- (10) Updated a single character for 4May, based upon analysis of Robin Stuart.
 - a. Was "DR N45°E40" 49.5 49.5 = 88"
 - b. Now is "DR N45°E70" 49.5 49.5 = 88"
- (11)Updated the departure for 1May, based upon analysis of Lars Bergman
 - a. Was 23+19=35
 - b. Now is 23 19.3 = 35
- (12) Updated 4 May, with correlating updates from Lars and Robin
 - a. Was 44°50′13" Now is 44°50′15" for the resultant longitude
 - b. Was 27.23.8 Now is 22.23.8 for the apparent time
- (13) Updated 5 May,

- a. Was DR N50°E90^m, Now is DR N50°95^m. Worsley appears to correct himself, as both numbers are present, with the 5 larger and heavier, and the 0nthe same size as the 9.
- (14) Updated 6 May, based on analysis of Lars Bergman
 - a. Dlong was 52' Now is 152'
- (15) Updated 7 May, based on analysis of Lars Bergman
 - a. Was 16.1 36.7 Now is 3.1N 36.7
 - b. PM Time sight adding 23 instead of 25 to 39°11, obtaining 39.34
- (16) Updated 29 April.
 - a. The noon latitude calculation
 - i. There is a tear in the page due to the logs binding.
 - ii. The observed altitude should read 16.43
 - iii. Due to the tear, the text reads 6.43
 - iv. The corrected altitude of 16.52.30 is very clear
 - v. The observed altitude must be closer than 10 degrees to the corrected altitude
 - vi. The Transcript has filled in this character for completeness, but due to the tear, is not present in the actual log.
 - b. Calculation of course and distance
 - i. It reflects the latest thinking, yet further errors may remain
- (17) Updated course run on 4May to N36E 52 42 from N36E 52 41
- (18) Updated chronometer to $1^{\frac{m}{4}}4^{\frac{s}{4}}$ from $1^{\frac{m}{4}}4'$ on 27 April
- (19) 28 April. Update sum to 79 46 from 19 46 (Worsley's 7's look like 1's)
- (20) Used O and O, to better display the log as Worsley wrote it. These are the lower limb and midpoint of sun observation indications, IE> Observation is the lower limb.
- (21) 7 May, the time of 5.10.14 has floatingnnumbers, as if Worsley tried to get an observation at different times. The floating 39 was updated from a floating 30.
- (22) April 29th. Time transformation from 3^h22^m6^s to arc. Arc was 50°31′34″. Should actually be 50°31′30″. Quite murky in log. Updated based upon equations.
- (23) 7May, Longitude in top right corner read 39° 3′6, updated to 39°36, with the 'moved to the line above

Cape Belsham 61°4'S 54°50'	Sec C	10.196	649	
46'W of Wallis 54°4' 39°0'		+logDLat	2.6232	5
<u>420</u> <u>950</u>		=Log Dist	2.8197	4 = 661
Cos M Lat 57°34'= 9.729.42			To Wal	lis= <u>27</u>
Log D Long 950 2.977 72				688
12.707 14		To Lei	th Harb	62
-Log D Lat 420 2.623 25				750
=Tan Co =N50°30'E10.083 89 -				

Monday, April 24th Wild Camp for Rating Chron 262 Slow 10.51 8°21 ½' AM ⊠⊠⊠ No Obs for Lat 24.40.1 0 + 153 315.34 cd be obtained + 61.4 011.03 Long. Of C. Belsham being 24 41 54 102.51 ½ 827.95 only approx tly known to 21. 4.35 172.17 990.05... us, allow 1minute+4sec more 3.37.19 86. 8 ½ 144 37...slow = $11^{min}55^{sec}$ slow 54°19'.45" 77.47

Took departure from Wild Camp in "James Caird" at 12 Steered NNE $8^{\underline{m}}$ then $E1^{\underline{m}}$ to a break in the stream ice here being E+W. Mean of courses to noon on 25^{th} = $N64^{\underline{m}}$ Wind to 4^{P} WNW to 6A.SE to North tuesday to noon West 6-

Tuesday April 25th

North 64 ^m from	CWild = WSW 6 o'cast	60°0'S 54°50'
	High NW swell cross seas	
Chron <u>192</u>	April 25 th 12 ^M 0" slow losing 5 sec	
262	26 th 12 5	
	27 th 12 10	
	28 th 12 15	
	29 th 12 20	
	30 th 12 25	

			a cth
Wednesd	lav	Aprıl	26

DR N45E110 = 77.8	77.8 = 153	59	9°50′			58°42′ 52°17
2.23.29			$\boxtimes \boxtimes$		NE	
26 7	2.26.6 <u>O</u>	15°50 /	٩M			59°46′ 50°49′
<u>30 10</u>	+ 2.15	59 50	298.85			
79. 46	2 28.21	103.32	012.23			
2.26. 35						16°28′
Fast 29	23 6.11	179.12	843.93	WSW gale		16 37
<u>2.26. 6</u>	3.22.10	89.36	982.33	sq. cloudy		73. 20 🗵
	50°32′30″	73.46	137 34	Heavy Seas		<u>13 32 ⊠</u>
	+ 16					59 47.44
	50.48.30					

Thu<u>rsday 27th April</u>

Chron 192/262 $12^{\frac{m}{2}} 10^{s}$ slow 59°46′ 50°48′ N^{IV} gale o'cast + misty squally

Friday 28thApril

59°52′S 50°0′W allowing AM o'cast PM cloudy
Light NW to fresh W^{lv} o'cast+misty High NW swell

 $1^{\underline{m}}4^{\underline{s}}$ more slow for rating from Wild Camp = $50^{\circ}16'$ Chron $12^{\underline{m}}15^{s}$ slow $59^{\circ}52'$ $50^{\circ}16$

Satu<u>rday</u> 29thApril

16° 43′			
16 . 52. 30			<u>58.42′</u> <u>48°40</u>
73. 7.30	N35	E85DR 24hrs	
14. 29. 45		12 9.8 6.9 = 13	<u>58°38′</u> <u>50°0′</u>
<u>58. 37. 45</u>		27 ^m W. of Wallis	27 ^m W Wallis
24. 59. 5	11°21′AM	=54°4′39°0′	N53E 458m
+ 2. 42	58. 48 285.65	58.38 50.0.	to Leith <u>90</u>
25 1 47	104.28 013.99	274 660=365.8	548
21. 39. 41	174.37` 671.74	137 330	$\boxtimes \boxtimes$
3. 22. 6	87.18½ 986.83 56	184.5	Fresh W ^{ly} to WSW breeze
50° 31 30	75. 57½ 958.21 57°	179.7	Cloudy+misty High
		4.8	Lumpy sea
		1.6	
		182.9	
		365.8	

	S	unday 30	0 th April		
N			•	58.38	50° 0
DR N35°E 78 mile 63.9 44.7	′ = 84			<u>57.34</u>	<u>48.36</u>
Hove to SW/S gale Heavy se	ea o'cast				
	N	Monday	1 st May		
				57.34	48.36
DR			23 19.3=35	<u>57.11</u>	<u>48. 1</u>
N40°E 30 ^m					
drift SSW mod gale heavy lu	• •				
Boat lying to sea {boat anc	hor symbol dr	awn he	re} heavily iced	up. o'ca	st
	_		and a a		
NEODE 45 ^m		uesday 2	2 iviay	5744	400 47
	SW/S breeze			57.11	48° 1′
o'cast lumpy sea	28.9. 34.5			<u>56.42</u>	<u>46 58</u>
	W	ednesda	y 3 ^d May		
SW/S to W/S mod br A chro			<u> </u>	56°42′	46°58′
N55°E 85 48.8 69.6 = 125	;			<u>55 53</u>	44°53′
Slow 46					45°38′
24.27.9 11°14′ <u>O</u> AM	N38°E 12 = 12′	E			
24.27.55 56.23	256.78	Bird I	To W.P. ^t B.I. No	53°E	294
+ 3.11 105.40	016.44	54°0'S	38°0'W To Leit	h Harb	<u>53</u>
24.31. 6 173.17	767.75	56.13.	45.38		<u>347</u>
21.27.44 86.38 ½	985.76	133.	458=262		
3. 3.22 75.24 ½	026 73	66			
45°50½ W -12 ½ E = 45°38′\	<u>N</u>				

Blue sky passing cloud

PM Mod WSW to SSE light mod sea. S ly swell. Fine clear weather Able to reduce some parts of our clothing from wet to damp

1916 -Thurs<u>day 4thMay</u>

DR N45°E 70 ^m 49.5	5 49.5 = 88	3			_	<u>56.13</u> <u>4</u>	<u>5.38</u>
Chron A N50°E 5 ^m	¹ 3.2N 3.8F	E = 7'		55°23′		55.23 4	<u>4.10</u>
25.6.26 <u>O</u>	15°26′30	"AM eye	10 ft	15 59 1	6	55°31′ 4	<u>14.43</u>
Slow 12.45	9.30			71.22.16	6	N36E 52	<u>42</u>
				18 37 44			
25 10 11	15°36′			10 4		s N69E 2	F0m
25.19.11		247.64		18º 27	_		
+ 3.18	55.34	247.61			Leith Ha		
25.22.29	<u>105.58</u>	017.09				<u>30</u>	<u>)3</u>
22.23. 8	177. 8	398.18	SE mod bro				
2.59.21	88.34	980.52	B.C Fine+c	lear r	mod sea		
44°50′15″	72.58	643.40					
			Fr <u>iday 5</u>	ith May			
SE fresh breeze sq	ually o'cas	st lumpy				<u>55.31</u> 44	1 .43
confused sea SW	swell clea	r 🗵				1. 1	2. 7
DR N50° E95 ^m						54°30 4	2.36
Wallis 54°4'S 38°	^o 14'W						
Breeze fairly to 8P					Bird Is	N79°E 1	63
Shifted to NNE ligh		tv			Wallis	N80°E 1	
Silited to MILE IIBI	it and gas	- '			wanis	1100 L 1	55
			Saturday	6 th May	V		
Mod NW gale o'ca	ıst clear w	eather			,	54° 30′ 4	12°36
lumpy N ^{ly} sea 1PM			/V				1 52
to carry on			,			54° 26′ 4	
DR N30E 16	13.9 8.0	54	4 38 14			<u> </u>	
to 1PM S80E 58	10.1 57.		22 150		Wallis I ^{<u>d</u>}		
10 11 W 300L 30	3.8N 65		22 130		N76E 91 ^m		
	3.014 03	.1L			IN/OL 31		

1916 Sunday 7th May

			Suriday	7 Iviay
NNW gale High	า N ^{ly} se	ea		
Hove to till 1A	M ther	n carr ^d on again fo	or	54°26′ 40°44′
the land. Mod	NW/N	N w sea + high	3 <u>1 4</u>	
NW swell. BC	to 6 A	when it became	<u>54°23′</u> <u>39 40</u>	
DR S60° E 12 ^m	6.5	10.4E		,
N70° E 28	9.6 2	26.3		54°38′ 39°36
Slow 13 ^m 0 ^s	3.1N	36.7		
25.24.51	0	16°55 AM	⊠ ⊠.44	Bird I ^d NE56° 68 ^m
+ 3.32		54.39	237.64	Leith Harb <u>53</u>
25.28.23		106.49	018.98	<u>121</u>
22.48.19		178.23	149.45	
2.40. 4		89.11½	978.88	
40° 1′		72.16½	384 95	Most unfavorable con-
				ditions for obs ^{ing} . Misty with
23.19.38	0	7°21' AM		boat jumping like a flea
+ 3.32		54.41½	238.09	+no limb for early AM
23.23.10		106 47½	018.92	sight. Noon lat prob
20.44.22		168.50	988.08	ably correct within
2.38.48		84.25	988.84	a 10 mile limit
39°42′		77. 4	233 93	
39 16				
5.10.14 26	<u>O</u>	9°49′P.M.	N68°E 14 <u>m</u>	5.2 13.0 = 23'
+ <u>13</u>		54 ° <u>8</u>		
5.23.14		9°57		Lat proved to be correct within
+ 3.33		54.33	236.58	^{about} ^2 ^m Long. ditto but chron was
5.26.47		106 52	019.10	much slower than I had
2.50 3		171.22	876.62	allowed which made us
2.36.44		171.22 85.41	986.40	about 20 mile so distance further
2.36.44 39 ⁰ 11'		85.41 75.44	986.40 118 70	astern than ob ⁿ showed
		/3.44	110 /0	astern than on showed
23 20 24 Noon				
<u>39.34</u> Noon				

Monday 8th May

Mod to strong NNWEWNW breezes o'cast 54° 38 39 34 misty and foggy with some clear intervals 19 $\frac{2}{32}$ W^{1½} + N^{1½} swells + lumpy confused sea $\frac{54^{\circ}.19}{2}$ 37. 2 DR N78°E 90^m 18.7 88.0 =152

12.30 PM sighted land about 9^m ahead, extending 2 miles off Bad Reef

{ Here Worsley sketches what he can see of South Georgia Island, noting another "island to the NE", a "Big Bay to NE of this Island", a "Glacier" between two mountain peaks and finally that "Bad Reef extends $1^{\underline{m}}$ N.W of Id"}

3P.M. stood off Star tack wind NxE 5-6 OMR From $2^{\underline{m}}$ off shore Heavy $W^{\underline{N}}$ swell Very bad lumpy confused sea Stood by for night wind WNW increase.g to a gale with Rain snow sleet + hail