

3

METEOROLOGICAL  
LOG  
FOR 4 MONTHS

B. A. E.  
06







**Position.** The position is given as accurately as possible for every four hours instead of giving course &c as laid down in the form.

**Current.** Current observations having been made a special feature are recorded in a book by themselves.

**Special observations of a Non Meteorological character:** Zoological Hydrographical, and other subjects being each made a special study of, are recorded in their own books.

**Colour of Sea.** The numbers found under this heading refer to "Code des Couleurs classes d'après la méthode Chevreul simplifiée par Paul Klincksiek et Th. Valette.

**Colour.** When colour is mentioned with a number it refers to the above code.

**Temperatures.** When given without a decimal point istte the nearest degree only. If read closely and is an exact degree, it is logged thus: 67.0

**Cloud Velocity.** The following scale is used:-  
(0) Stationary. (1) Slow (2) Fast.  
(1/2) Very slow (2) Moderate (4) Very fast.

**Cloud density.** Indicated by the suffixes 0, 1, 2, 3 Thus 10<sub>2</sub> ; 6<sub>4</sub>.  
0. Very light cloud  
1 Light cloud  
2 Moderately heavy cloud.  
3 Heavy dark cloud.

**Green Flash.** When sun sets on a clear horizon immediately it has disappeared, a tiny patch of brilliant green is sometimes seen where he was. Entries are made of this phenomenon, when observed under this heading.

**Nimbus.** This name has been used for rain clouds even when rain is not falling at the actual moment.

**Rain** is classified as follows;

Drizzle	Heavy
Slight	Very heavy
Moderate	Torrential

**ly** is used when only an approximate direction can be given, for instance in the case of waves or swell at night, light quarterly winds with the ship under weigh, direction of a confused sea &c. Thus:-  
N-E ... somewhere in the direction of N.

When a suffix is not used it is considered that the exact direction has been obtained.

Time 11 1/2 hours fast on 9.14.5 miles  
otherwise stated

Form 131.

# METEOROLOGICAL LOG.

Name of Vessel *"Terra Nova" Rys* Steam & Sail Rig *Barge* Gross Register Tonnage  
Captain's Name *Lieut. H.H. Pennell. R.N.* Log kept by *Asst. Paymaster J.R. Drake. R.N. (Retd.)*  
*and assisted by Lieutenant H.E. P. Rennie R.N. Wm. Bruce R.N.*

When filled, or nearly full, this log is to be returned, as quickly as possible, to the Meteorological Office, 63, Victoria Street, London, S.W., whence it will be duly acknowledged. Should a considerable interval be likely to occur between successive voyages, owing to the ship being laid up or a similar cause, the log is to be returned without delay.

## ADMIRAL BEAUFORT'S SCALE OF WIND FORCE.

- 0 Calm.  
1 Light air - Just sufficient to give steerage way.  
2 Light breeze - { With which a well-conditioned ship-of-war of 1 to 2 knots.  
3 Gentle breeze - { Admiral Beaufort's time (1800-1850), with all 3 to 4 knots.  
4 Moderate breeze - { full, from - - - - - 5 to 6 knots.

For SHIPS RIGGED WITH DOUBLE TOPSAILS.\*

at sails.  
jib, &c.  
pper topsails and courses.  
sails and courses.  
ain-topsail and reefed foresail.  
ations were made to meet the require-  
able topsails, introduced since Admiral  
ime.

How was the screen containing the dry and wet bulbs situated?

Where was the Meteorological Office barometer located?

Please note that a dot (.) is now to be used under any letter to augment its significance; instead of a bar (-).

In the space marked—Log kept by—the names of all those who have assisted in keeping the Log should be noted.

14767—500.

consideration is required for the speci-  
the scale for use on board steamships.  
purpose it is recommended that as  
ity occurs use be made of the equiv-  
ven in Col. 2. Thus, when the ship is  
in a calm at 15 knots, the wind felt  
posed position on board will be a  
reeze, which, according to the table,  
n 4 and 5 on the Beaufort scale, and,  
ilar breeze is felt when the ship is  
at 15 knots right before the wind, the  
peed of the wind will be 30 knots,  
6 and 7 on the Beaufort scale,  
g to the table of equivalents.

rtunities occur from time to time for  
ug the speed of the wind with the  
the ship. A hand anemometer may  
yed if used judiciously and if proper  
e be made for the motion of the ship.

River.

		Objects indistinct, but navigation unimpeded.
f2)	Moderate Fog ... ..	Lights, passing vessels, and landmarks generally visible at working distances.
f3)	...	Lights, passing vessels, and landmarks generally indistinct under a mile. Fog signals are sounded.
f4)	Thick Fog ... ..	Ships' lights and vessels invisible at 1/2 mile or less ...
f5)	...	Navigation suspended.

\* If the horizon is indistinct, but still just visible, the symbol "m," for mist, should be used exclusively in the weather column.

## LETTERS TO INDICATE THE STATE OF THE WEATHER.

b Blue Sky.	e Wet without rain.	h Hail.	o Overcast.	r Rain.	u Ugly (threatening appearance of Weather).
c Clouds (detached).	f Foggy.	l Lightning.	p Passing Showers.	s Snow.	v Visibility. Objects at a distance unusually visible.
d Drizzling Rain.	g Gloomy.	m Misty.	q Squally.	t Thunder.	w Dew.
					z Haze.

NOTE.—A dot (.) under any letter augments its signification: thus, r heavy rain; r very heavy rain; but to express the intensity of the fog the scale should be used. A figure preceding a letter shows how many hours that style of weather had prevailed since last observation: thus, 4 r means four hours' rain; 2 1/2 l means two and a half hours of vivid lightning, &c., &c. It is well to bear in mind that w=dew, but d=drizzle and e=wet without rain; p=passing showers of rain, and q=squalls, but s=snow.

## SEA DISTURBANCE SCALE (Provisional. See Explanatory memorandum separately issued).

Scale.	Description.	Height of Waves in feet from crest to trough.	Condition of Surface.
0	Calm ... ..	...	Glassy.
1	Smooth ... ..	...	Rippled.
2	...	...	...
3	Slight to moderate ... ..	Under 5 feet ... ..	Rocks buoy or small boat. Furrowed.
4	...	...	...
5	Rough to very rough ... ..	5 to 10 feet ... ..	Much disturbed; deeply furrowed.
6	...	...	...
7	High to very high ... ..	11 to 15 feet ... ..	Rollers with steep fronts.
8	...	16 to 35 feet ... ..	...
9	Phenomenal ... ..	36 feet and above ... ..	Precipitous; towering.
10	...	...	...

NOTE.—The same scale numbers and the corresponding heights from crest to trough may be used for Waves or for Swell, for which separate columns are provided. Care should be taken that the respective directions and amounts of disturbance are entered in their proper columns. If confused, write "Confused" in its respective direction column, stating its chief direction or directions; thus, "Confused N.E. and S.E.," "Confused S.W."

(14767—24.) Wt. 22539—7196. 500. 11/09. D & S.



**Position.** The position is given as accurately as possible for every four hours instead of giving course &c as laid down in the form.

**Current.** Current observations having been made a special feature are recorded in a book by themselves.

**Special observations of a Non Meteorological character:** Zoological Hydrographical, and other subjects being each made a special study of, are recorded in their own books.

**Colour of Sea.** The numbers found under this heading refer to the colours classes d'après la methode Chevreul simplifiée

The suffix -ly is used when only an approximate direction can be given, for instance in the case of waves or swell at night, light quarterly winds with the ship under weigh, direction of a confused sea &c. Thus:-  
N-ly ... somewhere in the direction of N.

When a suffix is not used it is considered that the exact direction has been obtained.

Time 11 1/2 hours fast on 9.14.5 miles  
otherwise stated

Form 131.

# METEOROLOGICAL LOG.

Name of Vessel *"Terra Nova" Rys* Steam *8* Sail Rig *Barge* Gross Register Tonnage  
Captain's Name *Lieut. W.H.W. Pennell. RN* Log kept by *Asst. Paymaster J.R.H. Drake. RN. (Retd)*  
*and assisted by Lieutenant H.E. P. Rennie RN. Wm. Bruce RNR*

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## ADMIRAL BEAUFORT'S SCALE OF WIND FORCE.

0	Calm.					
1	Light air	-	Just sufficient to give steerage way.			
2	Light breeze	-	With which a well-conditioned ship-of-war of Admiral Beaufort's time (1800-1850), with all sail set, would go in smooth water, and "clean full," from	1 to 2 knots. 3 to 4 knots. 5 to 6 knots.		
3	Gentle breeze	-				
4	Moderate breeze	-				
5	Fresh breeze	-		Royals, &c.		FOR SHIPS RIGGED WITH DOUBLE TOPSAILS.*
6	Strong breeze	-		Single-reefed topsails and topgallant sails.		Topgallant sails.
7	Moderate gale	-	To which she could just carry, in chase, "full and by"	Double-reefed topsails, jib, &c.		Topsails, jib, &c.
8	Fresh gale	-		Triple-reefed topsails, &c.		Reefed upper topsails and courses.
9	Strong gale	-		Close-reefed topsails and courses.		Lower topsails and courses.
10	Whole gale	-	With which she could scarcely bear close-reefed main-topsail and reefed foresail.			Lower main-topsail and reefed foresail.
11	Storm	-	Which would reduce her to storm-stay-sails.			
12	Hurricane	-	Which no canvas could withstand.			

\* These modifications were made to meet the requirements of double topsails, introduced since Admiral Beaufort's time.

## ALTERNATIVE SPECIFICATION.

Admiral Beaufort's Numbers.	Description of Wind.	Probable actual velocity of the wind in statute miles per hour.	Probable equivalent pressure in pounds upon a circular disc one square foot in area.	Mode of estimating on board Sailing Vessels.	Criteria for steamships.
0	Calm	Under 1	Less than .01		
1					
2	Light breeze	From 1 to 12 inclusive, average about 7	Between .01 and .04	Sufficient wind for working ship.	
3					
4	Moderate breeze	" 13 to 24 " " " 19	" .05 " 18	Forces most advantageous for sailing with leading wind and all sail drawing.	Special consideration is required for the specification of the scale for use on board steamships. For this purpose it is recommended that as opportunity occurs use be made of the equivalents given in Col. 2. Thus, when the ship is running in a calm at 15 knots, the wind felt in an exposed position on board will be a moderate breeze, which, according to the table, is between 4 and 5 on the Beaufort scale, and, if a similar breeze is felt when the ship is running at 15 knots right before the wind, the actual speed of the wind will be 30 knots, between 6 and 7 on the Beaufort scale, according to the table of equivalents.
5					
6	Strong wind	" 25 to 38 " " " 32	" .19 " 44	Reduction of sail becomes necessary even with a leading wind.	Other opportunities occur from time to time for comparing the speed of the wind with the speed of the ship. A hand anemometer may be employed if used judiciously and if proper allowance be made for the motion of the ship.
7					
8	Gale force	" 39 to 54 " " " 47	" .45 " 89	Considerable reduction of sail necessary even with wind quartering.	
9					
10	Storm force	" 55 to 75 " " " 65	" .90 " 170	Close reefed sail when running; or hoist to under storm sail.	
11					
12	Hurricane	Above 75	More than 17	No sail can stand even when running.	

## SCALE OF FOG INTENSITY.

Scale.	Name.	On Sea.	On River.
f0	No Fog or Mist	Horizon clear.	
f1	Light Fog or Mist*	Horizon invisible, but lights and landmarks generally visible at working distances.	Objects indistinct, but navigation unimpeded.
f2			
f3	Moderate Fog	Lights, passing vessels, and landmarks generally indistinct under a mile. Fog signals are sounded.	Navigation impeded, additional caution required.
f4			
f5	Thick Fog	Ships' lights and vessels invisible at 1/4 mile or less	Navigation suspended.

\* If the horizon is indistinct, but still just visible, the symbol "m," for mist, should be used exclusively in the weather column.

## LETTERS TO INDICATE THE STATE OF THE WEATHER.

b Blue Sky. e Wet without rain. h Hail. o Overcast. r Rain. u Ugly (threatening appearance of Weather).  
c Clouds (detached). f Foggy. l Lightning. p Passing Showers. s Snow. v Visibility. Objects at a distance unusually visible.  
d Drizzling Rain. g Gloomy. m Misty. q Squally. t Thunder. w Dew. z Haze.

NOTE.—A dot (.) under any letter augments its signification: thus, r heavy rain; r. very heavy rain; but to express the intensity of the fog the scale should be used. A figure preceding a letter shows how many hours that state of weather had prevailed since last observation: thus, 4 r means four hours' rain; 2 1/2 l means two and a half hours of vivid lightning, &c., &c. It is well to bear in mind that w=dew, but d=drizzle and e=wet without rain; p=passing showers of rain, and q=squalls, but s=snow.

## SEA DISTURBANCE SCALE (Provisional. See Explanatory memorandum separately issued).

Scale.	Description.	Height of Waves in feet from crest to trough.	Condition of Surface.
0	Calm		Glassy.
1			
2	Smooth		Rippled.
3			
4	Slight to moderate	Under 5 feet	Rocks buoy or small boat. Furrowed.
5			
6	Rough to very rough	5 to 10 feet	Much disturbed; deeply furrowed.
7			
8	High to very high	11 to 15 feet	Rollers with steep fronts.
9			
10	Phenomenal	16 to 35 feet	
		36 feet and above	Precipitous; towering.

NOTE.—The same scale numbers and the corresponding heights from crest to trough may be used for Waves or for Swell, for which separate columns are provided. Care should be taken that the respective directions and amounts of disturbance are entered in their proper columns. If confused, write "Confused" in its respective direction column, stating its chief direction or directions; thus, "Confused N.E. and S.E.," "Confused S.W."



## Meteorological Log kept on board P. &amp; O. Steamship "China."

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 361		Thermometers.		
Year 1902.		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force 0 to 12.	Height of Cistern above Sea 39 feet.		Dry Bulb.	Wet Bulb.
Month VII.						True Course.	Log. Distance by					Uncorrected Reading.			
Day. Civil Time.	Hour.	Current in last 24 hours		mls.										No. 5237	
25	4									True		In Chart Room in good		In the screen.	
	8									throughout		position. Ship's Mercurial		which is fixed on	
	NOON	{		{						voyage.		each day at noon below		the Chart Room	
	4	{		{		Various				S. S. W.	4	30.00	62	from sun, rain,	
	8	{		{			by				S. S. W.	3	30.02	62	63
	MIDT.	{		{		Coast Line.				S. S. E.	4	29.98	62	62	60
26	4					S. 87° W. Various.	14 12			S.	4	29.76	60	60	59
	8					S. 18 W. S. 62 W. S. 69 W.	4 10 51	19° W.	S. 86° W.	S.	5	29.61	61	60	58
	NOON	{		{		S. 68 W.	61			S.	5	29.48 (29.60)	62 (62)	63	60
	4	{		{				S. 25 W.	48						
	8	{		{		S. 25 W.	48			S. W.	8	29.52	62	61	60
	MIDT.	{		{		S. 25 W. S. 28 W.	6 49	19° W.	S. 47° W.	W. S. W. W.	8 8	29.72 29.80	62 61	60 58	
27	4					S. 28 W.	51			W. W.	8 8	29.89 29.94	60 60	59	56
	8					S. 28 W.	54	19° W.	S. 47° W.	W.	7	30.10	63	63	59
	NOON	{		{		S. 28 W.	60			W. S. W.	6	30.17	65		
	4	{		{				S. 35 W.	53			N. W. by W.	6	30.26 (30.40)	65 (64)
	8	{		{		S. 35 W.	58	20° W.	S. 55° W.	N. W. by W.	4	30.41	63	62	58
	MIDT.	{		{		S. 35 W. S. 1 W.	46 13			Calm N. E. by N.	0 3	30.40	63	61	59
28	4					S. 1 W.	60	19° W.	S. 20° W.	N. E. N. by E.	4 5	30.32	62	61	57
	8					S. 1 W.	60			N. N. W.	6	30.29	67	68	62
	NOON	{		{		S. 1 W. S. 8 E.	5 62			N. N. E.	4	30.28 (30.39)	68 (66)	70	64
	4	{		{				S. 8 E. S. 7 W. S. 12 E.	16 42 2			N. E.	4	30.24	67
	8	{		{		S. 12 E.	62			N. by W.	4	30.21	69	70	66
	MIDT.	{		{		S. 42 E. S. 71 E.	12 19	17° W.	S. 54° E.	N. W. by W. Calm	3 0	30.20 30.20	68 66	66	62
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage, noting whether it is mercurial or aneroid.  
 † In the Form of Log now issued separate columns are given for the Names of Upper and Lower Clouds.

Captain T. S. Angus,

from London

to Australia.

Hour.	Clouds.†		Weather.		Sea Surface.						Remarks.	
	Names.	When Lower Clouds do not move with the Wind, give the Direction they come from in the "Remarks." (For Plates see "Instructions.")	According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.		Swell.		Temp. by No.	Spec. Grav. by No.	Time of Remark.	Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)
					Direction from.	Disturbance. 0 to 10	Direction from.	Disturbance. 0 to 10				
					Also record when Confused.				5880	1214		
4												
8												
NOON												
4	Cum.-s.	6	cb		—	0	—	0	—		1:33	Left Tilbury.
8	Cum.	8	c		—	0	—	0	—		3:7	Passed Nore L.V.
											4:35	Passed Tongue. 6'2. East Goodwin, French coast and distant objects remarkably clear and distinct. Rainy appearance to W. and N.W.
MIDT.	Cum.   Nim.	10	or		—	0	—	0	—		10:30	Passed Beachy Head.
4	Cum.   Nim.	3	bed		S.	3	—	0	57		3:7	Rainy appearance. St. Catherine's Light N. 25° W., 4 miles. Sky clearing.
8	Cum.-s.	7	c		S.S.W.	4	—	0	58			
NOON	Cum.-s.	7	cm	1	S.S.W.	5	—	0	58	29		Wind and sea increasing.
4	Cum.-s.	10	or		S.W.	6	W.	4	58			Steep head sea. Ship pitching and rolling heavily.
8	Cum.-s. Nim.	10	op		S.W.	7	W.	5	58		8:0	Ushant Light N. 87° E., 10 miles. Cum.-s. rapidly from S.W.
MIDT.	Cum.	4	bcpq		S.W.	7	W.	5	60			Detached cum. moderately from Westward.
4	Cum.-s. Cum.	4	bcp		W.	5	N.W.	3	60			Cum. from S.W. slowly. Cum. round horizon.
8	Cir. Cum. Cum.-s.	3	bc		W.	5	N.W.	3	61			Cir. from N.W.
NOON	Cum.	4	bc		W.	4	—	—	64	28		
4	Cum.	3	bc		W.N.W.	4	N.W.	3	63			
8	Cir.-c. Cum.	2	bc		W.N.W.	4	N.	3	61		8:0	Villano Light S. 16° W. Cir.-c. from N.E.
MIDT.	Cum.	1	bw		W.	3	Confused	4	60		11:40	Finisterre S. 89° W., 16 miles. Stars very clear and bright.
4	—	0	bw		N.E.	3	W. and N.W.	3	62			
8	—	0	b		N.N.E.	3	W. and N.W.	1	66			
NOON	—	0	b		N.N.E.	3	N.W.	3	67	27		
4	—	0	b		N.N.E.	3	N.N.W.	4	67			
8	—	0	bm		N.N.W.	3	—	—	67		10:15	St. Vincent Light N. 48° E., 3 miles.
MIDT.	—	0	bw		—	0	W.	2	65			
2a	17	18	19	19a	20	21	20a	21a	22	23	24	25

so that in the event of the Office Barometer being broken, the Ship

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.  
 14767



# Meteorological Log kept on board "Tessa Nova" R/V

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163		Thermometers.		
Year 1911		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	Wind Velocity By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. 9 feet.		Dry Bulb.	Wet Bulb.
Month July		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Colours	True Course.					Uncorrected Reading.	Att. Therm.	No.	No.
Day, Civil Time.	Hour.	are in working order; the dry bulb being free of moisture, and the wet bulb being unsaturated by salt water.													
10 <sup>th</sup>	4														
	8														
	NOON	43	27	173	05					SE 4	29.80	52		47	
	4	Current in last hours mls.						18		SE 3	29.81	52		47.6 42.0	
	8									SE 3	29.84	58		48.5 44.0	
	MIDT.									SE 2-3	29.81	53		49.8 45.5	
	4														
	8														
	NOON	Current in last hours mls.													
	4														
	8														
	MIDT.														
11 <sup>th</sup>	4							17		SE 3	29.76	52		50.2 46.2	
	8									SE 2	29.75	55		51.0 47.0	
	NOON	42	06	175	13	405	0	-		SE 2	29.74	57		51.0 49.0	
	4	Current in last hours mls.								SE 3	29.71	56		51.5 50.2	
	8									SE 3	29.72	57		52.0 51.0	
	MIDT.									SE 4	29.72	58		52.8 50.8	
12 <sup>th</sup>	4									SE 5/6					
	8									SE 5	29.70	53		52.0 49.0	
	11.0	40	45	177	15					SE 5	29.69	52		50.5 47.5	
	NOON	Current in last hours mls.				410	-18	16		South 5	29.64	51		50.5 48.0	
	4	40	26	177	44					South 5	29.60	52		51.6 48.0	
	8									South 5	29.71	57		51.2 47.5	
	MIDT.									South 4.5	29.70	54		53.0 48.5	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16



# Meteorological Log kept on board "Terra Nova" R/V.S.

DATE.		Latitude.		Longitude.		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163	Thermometers.	
Year 1911		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.				Height of Cistern above Sea 9 1/2 feet.	Dry Bulb.	Wet Bulb.
Month July		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Of Compass used for Wind, being Variation and Deviation combined.		Wind by same Compass as Wind.	Direction, subject to Compass Error, to Variation.	Force, 0 to 12.	Uncorrected Reading.	Att. Therm.
Day.	Civil Time.											
13 <sup>th</sup>	Hour.											
	4								SW by S 6	29.70 54	53.0	50.0
	8								SW by S 5	29.78 55	57.9	50.2
	NOON					430 .02			SE by W 3	29.82 57	51.5	47.5
	4								SE by S 2	29.82 57	53.8	49.9
	8								SE 2	29.82 60	53.9	52.0
	MIDT.								ESE 1/2	29.84 57	54.1	52
	4											
	8											
	NOON											
	4											
	8											
	MIDT.											
14 <sup>th</sup>	4								SE 2 1/2	29.84 57	55.0	51.6
	8								SE 3/4	29.90 58	56.0	52.4
	NOON					429 .0			E by S 5/6	29.95 64	56.4	53.2
	4								ESE 6	30.02 60	57.0	53.8
	8								ESE 6	30.09 63	58.8	52.2
	MIDT.								East 6	30.12 61	58.0	57.0
15 <sup>th</sup>	4								ESE 7/6	30.20 59	53.5	
	8								NE 5	30.28 57	56.8	
	NOON								ENE 5	30.30 60	59.0	
	4								East 5	30.30 59	58.5	
	8								East 5	30.35 63	58.5	
	MIDT.								East 5	30.35 60		

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

# Captain Hunt. H.H. Pennell from Sounding Cruise to the 60 of New Zealand.

Clouds.		Weather.		Sea Surface.		Remarks.	
The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.		Waves. Swell.		Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)	
Hour.	Names.	Force.	Direction.	Direction.	Direction.	Time of Remark.	
Upper.	Lower.	0 to 10.	0 to 10.	0 to 10.	0 to 10.		
4	cu	9	bed	SSW 6	South 6	Evening.	light showers occasionally.
8	ast	3	bc	S 5	South 6	3.0	Colours of sky varying from light to pale blue.
NOON	ast	1	bc	S 3	8 65.4	4.30	Col. of Sky varying from light to pale blue.
4	ast	1	bc	S 3	8 57.0	4.30	Col. of Sky: Eastern - To South South South East, blue, orange, dull purple.
8	cu	5	bc	SSE 6	59.5		to horizon. approx alt: where orange merges on blue 6°
MIDT.	ast	5	bc	ESE 2	5 5	4.33	To ESE a cold blue grey to same altitude. then blue.
4							2 Westward. irregular ast. prevailing tinge orange, yellow, red.
8							4.43 Colours faded away.
NOON							5pm Corona: white, yellow, dull red, green, purple, from in out.
4							8pm H Cu clouds from N (2).
8							9pm 22 1/2° Halo round moon (white) & slight corona in centre.
MIDT.							Midn. Halo round moon.
4	cu	2		SE 2	5 11	4.0	Clouds moving from West.
8	cu	5	bc	E 3	5 62.4	4.0	Wind very variable between ESE & SSE from force 2 to 5.
NOON	cu	4	bc	E 4	5 62.0	PM	Sunset. Wind eased to 5: very fine detached cumulus prop. of clouds 4, rain shared to WSW from Cu-ut clouds.
4	cu	5	bc	E 4	5 62.4	6.30	Short lightning to E. Wind increasing slight.
8	cu	6	bc	ESE 5	6 61.0	7.0	Slight phosphorescence.
MIDT.	cu	6	bc	ESE 5	6 61.0	9.5	Aurora of corona.
	cu	6	bc	ESE 5	6 61.0	Midn.	Occasional passing light showers Corona round moon.
4	cu	9	bc	ESE 6	6 6	7.15	Occasional showers - moderate.
8	cu	7	cr	ESE 5	6 60.2	8.15	Corona. White, yellow, reddish brown, bluish green, purple. Angular distance centre of moon to centre of reddish brown ring 0° 48'; being a particularly small corona.
NOON	cu	9	oc	ESE 5	6 61.9	9.0	Rainbow: purple, green, orange, yellow the brightest.
4	cu	9	oc	East 5	6 62	10.0	Showers about.
8		1	bc	East 5	6 61.8	10.35	Slight phosphorescence in water.
MIDT.	cu	6	bc	East 5	6 6		Lightning visible to W.N.W.

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board *Hy "Terra Nova" R.Y.S.*

DATE.		Latitude. <i>S</i>		Longitude. <i>E</i>		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163	Thermometers.
Year 1911.		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	Wind, By same Compass as Wind.	Direction. State of sky or subject to Compass Error, or only to Variation.	Height of Cistern above Sea 9 feet.	Dry Wet Bulb. Bulb.
Month <i>July</i>		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Colour of Sky.	Colour of Sea.	Distance from Land.	Force. 0 to 12.	Uncorrected Reading.	Att. Therm.
Day.	Civil Time.										
Hour.	Hour.										
16 <sup>th</sup>	4										
	8										
	NOON	South of				404 00					
	4	Three									
	8	Kings.									
	MIDT.										
17 <sup>th</sup>	4										
	8										
	NOON	Soundings North West				404 00					
	4	Three Kings									
	8										
	MIDT.										
18 <sup>th</sup>	4										
	8										
	NOON	Nine to West of				405 01		19 E.A.M.			
	4	Three Kings									
	8										
	MIDT.										
19 <sup>th</sup>	4	4.0 Proceeded									
	8										
	NOON	34 33 171 56				403 16					
	4										
	8	How to.									
	MIDT.										

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

# Captain *Heath H.H. Russell. R.N.* from off North Coast of to New Zealand.

Clouds.		Weather.		Sea Surface.		Remarks.	
The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.		Waves. Swell.		Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Dorellots. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)	
Names.		Fog Intensity.		Direction from.		Time of Remark.	
Upper. Lower.		0 to 5.		0 to 10.			
				Also record when Confused.			
4	acu Hcu		c			middle upper clouds travelling fast from E.N.E.	
8	acu Hcu	5	bc	East 4	East 5 61.2	Wind varying considerably in distance and force.	
NOON	ast Hcu	3	b	East 4	East 5 59.5	P.M.	
4	cu	1	b	East 4	East 5 60.2	4. Sky light blue.	
8	Hcu	3	bc	East 4	East 5 59.8	Wind and sea dying	
MIDT.	ast.	2	bc	East 3	East 4	Corona visible.	
4	ast cu	3	bc	East 4	East 4		
8	ast cu	8	c	SE 4	SE 5 58.8	P.M.	
NOON	ast cu	5	bc	4	under 4 5 58.9	4.0 upper clouds very thin & numerous.	
4	ast cu	7	bc	3	4 5 58.5	Colour of sky, light blue & lightish green on horizon.	
8	st	4	bc		5 59.0	4.15 Remarkably fine cu clouds.	
MIDT.	ast Hcu	6	c	East 4	East 5	Curious silvery appearance of sky in vicinity of sun.	
4	cu	8	op	ESE 5	ENE 6	8.0 Slight phosphorescence.	
8	—	9	c	PSE 4	ESE 5 59	First Occasional showers.	
NOON	—	9	cp	East 4	East 5 59.2	11.50 Slight showers.	
4	ast	9	cp	—	4 — 5 58.5	Fine rainbow alt 6°. very near to observer, colours in, out: lt green, purple, blue, green, yellow, orange, red. Brightest colour green.	
8	—	6	bc	—	4 — 6 58.5	4.0 Colour of sky. Lt blue.	
MIDT.	nt Hcu	4	bop	ENE 5	ENE 6 60.8	Occasional squalls till 7.0 pm force accompanied by heavy rain.	
4	nt Hcu	10	ocg	ENE 5	ENE 6	Midt. Occasional passing showers, squally.	
8	ast cu	9	c	EN 5	EN 6 59.0	middle. Heavy squalls of wind & rain.	
NOON	cu	2	b	—	6 — 7 60.2	Heavy squalls of wind & rain till 6.30 am.	
4	cu	10	oc	—	6 — 7 60.2	Very thin wisps of cirrus. Sky light blue.	
8	st Hcu	10	ocp	—	7 — 7	2.0 Sky clouded over and glass ceased falling.	
MIDT.	st Hcu	10	ocp	—	7 — 7	8.0 Passing light showers. Phosphorescence in water.	

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

"Terra Nova" Rys.

DATE.		Latitude. S		Longitude. E		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163	Thermometers.				
Year 19 11	Month July	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	Wind Velocity By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea 9 feet.	Dry Bulb. No.	Wet Bulb. No.		
Day.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Colour Type of sea.					Uncorrected Reading.	Att. Therm.			
20 <sup>th</sup>	2									8					
	4								E by S	7	29.73	60	57.5 56.0		
	8								-	7	29.64	60	57.5 56.2		
NOON		34 47 171 05				383	Not used.		-	7	29.55	61	59.8 58.5		
	4	Current in last hours mls.							East	3	29.49	63	60.8 59.8		
	8								E by N	5	29.58	67	61.0 60.0		
MIDT.									E by E.	3 1/2	29.61	63	60.5 59.2		
21 <sup>st</sup>	4								East	3 1/4	29.65	62	60.0 60.0		
	8								E by E	3	29.72	62	60.0 58.9		
NOON		34 36 171 12				403 02			-	2	29.70	63	61.5 59.8		
	4	Current in last hours mls.							E by N	3 1/4	29.71	65	61.8 59.1		
	8								-	3 1/4	29.77	68	59.8 58.5		
MIDT.									East	2 1/3	29.78	63.8			
22 <sup>nd</sup>	4								E by S	3	29.74	63.0	59.2 57.5		
	8	off New Bay.							S by E	3	29.77	63.0	59.9 58.3		
1 pm NOON		Great King.				403 035			-	2	29.80	59	62.9 59.2		
	4	Current in last hours mls.							SE	3	29.77	61	61.9 59.0		
	8								E by S	1	29.80	69	59.5 57.5		
MIDT.									hr NW by air		29.80	61	58 57		
23 <sup>rd</sup>	4								Variable	1/2					
	8								WSW	2 1/3	29.75	60	57.0 56.5		
NOON		34 30 172 20				403 04			SW	3	29.80	59	58.0 53.5		
	4	Current in last hours mls.							SW by W	4	29.80	61	60.0 55.8		
	8								-	4	29.75	60	59.4 58.0		
MIDT.									WSW	4	29.75	61	58.5 53.9		
									-	3	29.72	61	59.6 54.0		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain H. H. Pennell, R.N., from off North Coast of New Zealand.

Clouds.		Weather.		Sea Surface.		Remarks.	
Hour.	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.	According to Beaufort Notation.	Fog Intensity.	Waves.	Swell.	Temp. by No.	Spec. Grav. by No.
Names.	Prop. of Sky Clouded, 0 to 10.	0 to 5.	0 to 10.	Direction from.	Direction from.	0 to 10.	0 to 10.
Upper.	Lower.						
4	St	10	ocgr	E 8	E 8	8	
8	St	10	ocgr	E 7	E 8	8	
NOON		10	ocgr	E 7	E 8	8	
4		10	ocgr	E 7	E 8	8	
8		9	ocp	E 7	E 8	8	
MIDT.	St	1	b				
4	St	2	bc	E 4	E 6		
8	St	8	c	E 4	E 5	602	
NOON	low St	6	bc	E 3	E 5	605	
4	St	6	bc	E 3	E 5	600	
8	St	5	bc	E 3	E 5		
MIDT.	St	3	bc	E 3	E 6		
4	St	1	b	E 2	E 6		
8	St	1	bc	" 2	" 6	62	
NOON	low St	3	b	Conf. 2	Conf. 7		
4	St	5	bc	" 2	" 7	62	
8	St	4	b	" 2	" 6		
MIDT.	St	7	bc	" 2	" 5		
4	St	3	bc	W 1	E 5		
8	St	5	bc	W 3	S 4	602	
NOON	low St	5	bc	" 3	" 5	619	
4	St	5	bc	" 3	" 5		
8	St	4	bc	" 3	" 5		
MIDT.	St	4	bc	W 3	W 5		

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



Meteorological Log kept on board "Terra Nova" Rys

DATE.		Latitude.		Longitude.		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.*		Thermometers.			
Year	Month	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	Ship's Head.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. 9 feet.	Uncorrected Reading.	Att. Therm.	Dry Bulb. No.	Wet Bulb. No.
The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.															
Day.	Hour.														
1911	July														
24	4								108W	4/5	29.71	60		59.0	55.5
	8								"	4	29.73	61		61.4	55.5
	NOON	34	20	172	07	403	05		108W	3/4	29.76	63		58.0	55.4
	2	Current in last hours		mls.					"	3/4	29.74	64		59.0	55.1
	4								SW	3/4	29.75	63		58.5	55.2
	5								SW	3/4	29.78	60		58.5	55.2
	8								SW	3/4	29.78	60		58.5	55.2
	MIDT.								SW	3/4	29.78	60		58.5	55.2
25	4								W	3	29.78	59		58.0	55.0
	8								SW	2	29.80	62		58.8	55.0
	NOON	34	19	172	07	403	12		SW	2	29.83	66		59.8	54.0
	4	Current in last hours		mls.					NE	3	29.76	65		59.5	55.0
	8								NE	4	29.74	67		59.4	56.2
	MIDT.								NE	4.5	29.70	59		58.2	52.0
26	4								NE	5/6	29.67	62		57.0	54.0
	8								NE	3	29.67	62		56.5	54.8
	NOON	34	35	172	0	405	16		NE	2	29.65	63		57.0	54.8
	4	Current in last hours		mls.					NE	2	29.68	61		55.5	54.5
	8								"	2	29.65	65		57.0	54.5
	MIDT.								Variable	0-1	29.78	65		58.0	55.2
27	4								NE	2	29.78	62		57	55
	8								NE	3	29.84	63		59.0	55.8
	NOON	off Great King				405	07		NE	3.4	29.85	62		59.9	56.2
	4	Current in last hours		mls.					NE	3	29.85	64		58.5	56.5
	8								"	3	29.88	65		59.2	57.0
	MIDT.								NE	1.2	29.92	64		59.9	56.6
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain *W H Pennell* from *off North Coast of* to *New Zealand*

Hour.	Clouds.		Weather.		Sea Surface.						Remarks.	
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.		Swell.		Temp. by No.	Spec. Grav. by No.		Time of Remark.
	Names.				Direction from.	Disturbance. 0 to 10.	Direction from.	Disturbance. 0 to 10.				
	Upper.	Lower.										
4		St Cu 3	bc		W 3	SW 6						10.0 Rainbows colours, in-out, light green, yellow, purple, blue, green, yellow, orange, red. how are. Green the brightest.
8	ac Cu	St Cu 3	bc		" 11	W 6	60.6					2.0 swell + wind increasing
NOON	ast	St Cu 6	bcp		" 4	" 7	60.5					2.52 Rainbows same colours, but blue the brightest.
2							8					
4		" 8	cp		" 5	" 8	60.5					afternoon. Showers frequent.
8		St Cu 10	bc		" 5	" 8						10.0 Wind falling.
MIDT.		" 4	bc		SW 3	SW 7						
4		St Cu 3	bc		N 3	SW 7						6.0 Swell running up to 24 feet high.
8	all ac Cu	St Cu 3	bc		Conf 3	SW 8	60.4					8.30 Light drizzle for 3 minutes
NOON	ac Cu	St Cu 5	bc		" 2	SW 7	59.5					6 Heavy rain shower for about 20 minutes.
4	ast ac Cu	" 7	c		" 2	" 7						
8		nb 10	och									
MIDT.		nb 10	och									Mid. Wind increasing. Phosphorescence in water.
4		St nb 10	och		ENE 4	-						12.1 Heavy rain squall with vivid lightning.
8	St Cu nb	10	OC 3 1/2		4	ENE 6	60.0					4.30 Rain commenced heavy.
NOON	nb St Cu	10	OC 4 1/2		2	" 6	60.0					6.0 Fresh to moderate.
4	do.	10	"		2	" 5	60.0					7.00 Rain ceased
8	St Cu 4	bcp			2	" 5						4.40 Bright patch of blue sky on horizon to W.
MIDT.	St 2	bc			var 0.1	2 5						4.40 Rainbows: colours in-out. Purple blue, green, yellow, orange, red, purple, orange colour predominating.
4		St 1	b			4						4.30 Sky cleared rapidly
8	ac Cu	St Cu 5	bc		ENE 2	ENE 4	60.2					4.30 light variable airs from N.E. to S.E.
NOON	nb St Cu	9	cp		NE 3	NE 5	59.0					5.00 Showers from 4 to 6. Very heavy threatening clouds but no wind & only moderate rain in them.
4	do.	8	cp		" 3	" 5	58.5					Occasional flashes of short lightning to Eastward during watch.
8	St Cu 4	bc			" 3	- 11						9.0 Wind eased.
MIDT.		St Cu 2	bc									
2a	17	18	19	19a	20	21	20a	21a	22	23	24	25

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



Meteorological Log kept on board Terra Nova Rys

[illegible]

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain H. H. Pennell from off North Coast of New Zealand.

[illegible]

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board Terra Nova R/V

DATE.		Latitude. <i>S</i>		Longitude. <i>E</i>		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. <i>1963</i>	Thermometers.				
Year <i>1911</i>	Month <i>Aug:</i>	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	Wind. <i>Wind by same Compass as Wind. <i>State if true, or subject to Compass Error, or only to Variation.</i></i>	Direction. <i>Force, 0 to 12.</i>	Height of Cistern above Sea <i>9</i> feet.	Uncorrected Reading.	Att. Therm.	Dry Bulb. No.	Wet Bulb. No.	
Day. Civil Time.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				True Course. <i>Distance in Log.</i>							State if true, or subject to Compass Error, or only to Variation.	Force, 0 to 12.	Uncorrected Reading.
<i>1st</i>	<i>4</i>														
	<i>8</i>								<i>W</i>	<i>1</i>	<i>30.13</i>	<i>57</i>	<i>58.5</i>	<i>55.5</i>	
	<i>NOON</i>	<i>Trangomui</i>				<i>00</i>			<i>NE</i>	<i>2</i>	<i>30.11</i>	<i>62</i>	<i>63.2</i>	<i>57.1</i>	
	<i>4</i>	{ Current in last hours mls. }											<i>55.4</i>		
	<i>8</i>								<i>W</i>	<i>1</i>	<i>30.07</i>	<i>50</i>	<i>55.0</i>	<i>54.1</i>	
	<i>MIDT.</i>														
<i>2nd</i>	<i>4</i>														
	<i>6.30</i>	<i>Proceeded for North Cape</i>													
	<i>8</i>	<i>34</i>	<i>52</i>	<i>173</i>	<i>32</i>				<i>W</i>	<i>2</i>	<i>30.10</i>	<i>58</i>	<i>56.5</i>	<i>55.2</i>	
	<i>NOON</i>	<i>34</i>	<i>38</i>	<i>173</i>	<i>19</i>	<i>15</i>	<i>403</i>		<i>SW</i>	<i>3.4</i>	<i>30.15</i>	<i>62</i>	<i>60.5</i>	<i>58.8</i>	
	<i>4</i>	{ Current in last hours mls. }							<i>SW</i>	<i>2</i>	<i>30.15</i>	<i>62</i>	<i>64.5</i>	<i>55.0</i>	
	<i>8</i>	<i>In bay S of N Cape.</i>							<i>SSW</i>	<i>2</i>	<i>30.23</i>	<i>60</i>	<i>61.0</i>	<i>56.5</i>	
	<i>MIDT.</i>	<i>anchored S of North Cape</i>													
<i>3rd</i>	<i>4</i>														
	<i>6.0</i>	<i>off North Cape</i>							<i>SW</i>	<i>1</i>					
	<i>8</i>								<i>SSW</i>	<i>2</i>	<i>30.32</i>	<i>61</i>	<i>64.2</i>	<i>57.0</i>	
	<i>NOON</i>	<i>34</i>	<i>25</i>	<i>173</i>	<i>13</i>	<i>00</i>	<i>429</i>		<i>SSW</i>	<i>2</i>	<i>30.33</i>	<i>64</i>	<i>59.1</i>	<i>55.5</i>	
	<i>4</i>	{ Current in last hours mls. }													
	<i>8</i>	<i>In Port Bowen Bay</i>													
	<i>8.0</i>	<i>S of North Cape</i>							<i>W</i>	<i>1</i>	<i>30.35</i>	<i>68</i>	<i>57.2</i>	<i>55.2</i>	
	<i>MIDT.</i>	<i>Proceeded for New King</i>							<i>SSW</i>	<i>1</i>					
<i>4th</i>	<i>4</i>								<i>SW</i>	<i>2 1/3</i>	<i>30.35</i>	<i>59</i>	<i>58.5</i>	<i>55.0</i>	
	<i>8</i>								<i>SW</i>	<i>2</i>	<i>30.43</i>	<i>62</i>	<i>58.8</i>	<i>56.0</i>	
	<i>NOON</i>	<i>34</i>	<i>12</i>	<i>172</i>	<i>0</i>	<i>00</i>	<i>428</i>		<i>SW</i>	<i>2</i>	<i>30.45</i>	<i>66</i>	<i>61.5</i>	<i>58.0</i>	
	<i>4</i>	{ Current in last hours mls. }							<i>WSW</i>	<i>2</i>	<i>30.40</i>	<i>64</i>	<i>59.5</i>	<i>56.5</i>	
	<i>8</i>								<i>SE</i>	<i>3</i>	<i>30.45</i>	<i>67</i>	<i>58.4</i>	<i>55.5</i>	
	<i>MIDT.</i>								<i>SE</i>	<i>2 1/3</i>	<i>30.47</i>	<i>63</i>	<i>58</i>	<i>55.2</i>	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

# Captain L.H. Pennell from off North Coast of New Zealand.

Hour.	Clouds.		Weather.		Sea Surface.				Remarks.
	Upper.	Lower.	According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves. Direction from.	Waves. Disturbance. 0 to 10.	Waves. Direction from.	Waves. Disturbance. 0 to 10.	
4									
8	alt Cu	Cu	4	bc					8.15 Heavy rain until 4.30.
NOON	"	"	7	bc					6.0 Corona round moon.
4									Outside deep orange to blue inner.
8	alt Cu	Cu	4	bc					
MIDT.									
4									Quartz. Calm. Wind in valleys.
8	-	Cu	1	b	-	2	W 4	61.5	Rainbow. Low arc. Colours in our Green, purple, blue, yellow, red, for the brightest.
NOON		Cu	3	bc	SW 3	W 4	62.5		another low reddish blue a little higher in sky
4		Cu	2	bc	SW 2	W 4	61.2		
8		Cu	2	bc	-	2	-	3	
MIDT.									
4									
8		Cu	1	b	-	2	-	3	
NOON		Cu	3	bc	-	2	-	3	off Cape
4									
8		Cu	1	b					Influenced by land
MIDT.									
4		Cu	2	bc	SW 2	WSW 4			
8		Cu	1	b	SW 1	WSW 4	63.2		
NOON	alt Cu	Cu	1	b	SW 1	SW 4	56.0		
4	alt Cu	Cu	1	b	SW 1	SW 4	59.0		4.0 Colours of sky. Pale blue above to whitish blue on horizon & between the few clouds around horizon.
8	-	Cu	1	b	SW 1	SW 4			
MIDT.		Cu	3	bc	SE 2	SW 4			
2a									

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board Terra Nova RYS

DATE.		Latitude. S		Longitude. E		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163	Thermometers.	
Year 19 11	Month Aug.	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	Wind, by same Compass as used for Variation.	Force, 0 to 12.	Height of Cistern above Sea. 9 feet.	Dry Bulb. No.	Wet Bulb. No.
Day, Civil Time.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				True Course.		Direction. State if true, or subject to Compass Error, or only to Variation.		Uncorrected Reading.	Att. Therm.	
5 <sup>th</sup>	4							SE	4	30.47	60	57.5 55.0
	8							SElyE	8	30.53	60	57.5 53.0
NOON		34	15	171	0	403 00	403	"	8	30.50	66	63.4 55.5
	4	Current in last hours mls.						South	3	30.50	67	57.4 53.1
	8							SE	8	30.55	67	56.5 52.0
MIDT.								SElyE	3	30.55	61	56.1 51.6
6 <sup>th</sup>	4							SE	3	30.55	59	55.5 52.0
	8							SE	2	30.58	61	57.5 54.0
NOON		34	08	171	53	403 00	403	SElyS	3	30.60	65	58.0 54.0
	4	Current in last hours mls.						SE	4	30.51	61	56.9 52.5
	8							SE	4	30.52	60	57.5 53.5
MIDT.								ESE	4	30.58	59	57.5 53.0
7 <sup>th</sup>	4							SE	4	30.55	58	56.5 52.5
	8							SE	4.5	30.52	60	57.0 51.8
NOON		34	03	171	55	428 00	428	SE	4	30.57	61	57.2 52.5
	4	Current in last hours mls.						SE				
	8							SElyE	5	30.54	62	59.0 54.0
MIDT.								ESE	5	30.53	60	57 56
8 <sup>th</sup>	4							East	6	30.49	59	58.5 51.5
	8							do	5	30.50	58	56.8
NOON		33	37	171	30	428 00	428	SElyE	5	30.47	60	57.0 50.8
	4	Current in last hours mls.						do	5	30.38	59	57.0 52.5
	8							do	5	30.37	61	56.4 51.5
MIDT.								ESE	4	30.38	59	57.5 50.8

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

# Captain Hhh Pennell. from north of New Zealand.

Clouds.				Weather.		Sea Surface.						Remarks.	
Hour.	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.			According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.		Swell.		Temp. by No.	Spec. Grav. by No.	Time of Remark.	Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)
	Names.		Prop. of Sky Clouded. 0 to 10.			Direction from.	Disturbance. 0 to 10.	Direction from.	Disturbance. 0 to 10.				
	Upper.	Lower.											
4		cu	2	bc		SE	3	SE	4			am	
8	ci	cu	4	bc		SE	3	SE	4	59.0		9.30	Sky streaked all over with thin wispy cirrus + ci.
NOON	ci. cu	do	6	bc		-	3	SE	4	58.5		2.0	Acu hwp " S.
4	ast	cu	2	bc		South	3	S	4	58.5		9.20	Crown round moon showing following: white, yellow, brick red, green, yellowish, red, green, red, green, red, the last two being very faint.
8	Acu	-	6	bc		South	3	Conf'd	4				
MIDT.	Acu	-	4	bc		SE	2	SE	4				
4	ast		1	bc		SE	2	-	4				
8		cu	1	bc		SE	2	-	4	59.5			
NOON		cu	6	bc		-	2	-	4	59.9		noon	Colour of sky pale blue to whitest blue on horizon.
4	ci	cu	5	bc		SE	4	SE	5			5.15	Sunset. Sky almost covered with faint cirrus; otherwise, very little cu on horizon.
8		cu	4	bc		SE	4	SE	5			11.0	22 1/2 halo round moon, wind freshening.
MIDT.	c	cu	5	bc		ESE	4	ESE	5			hudd.	Halo, wind squally.
4	ci	cu	1	bc		SE	4	-	4			2.0	Occasional heavy cu. passing over.
8		cu	4	bc		SE	4	SE	5	59.0			
NOON	ci	cu	3	bc		-	4	-	5	59.0			
4												8.0	light Corona round moon.
8		cu	3	bc		-	5	-	6				
MIDT.	ci	cu	5	bc		Conf'd.	5	SE	6			hudd	Crown round moon.
4	ci		1	bc		SE	5	SE	5				
8	ast	cu	1	bc		Conf'd.	5	SE	6	59.0			
NOON	ci	cu	2	bc		do	6	do	7	59.5			
4	do	cu	4	bc		do	6	do	7	59.5			
8		cu	5	bc		"	6	do	7				
MIDT.		cu	8	c		SE	5	do	7				
2a	17	18	19	19a	20	21	20a	21a	22	23	24	25	

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board "Terra Nova" Ryd.

DATE.		Latitude. S		Longitude. E		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163	Thermometers.
Year 19	11	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	Wind, By same Compass as used for Variation.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. 9 feet.
Month Aug.		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Temp. of Air.	Temp. of Sea.	Temp. of Wind.	Temp. of Dew.	Temp. of Rain.	Temp. of Surface.
Day.	Civil Time.	Hour.									
4											
8											
NOON											
4											
8											
MIDT.											
10 <sup>th</sup>											
4											
8											
NOON											
4											
8											
9.0											
MIDT.											
11 <sup>th</sup>											
4											
8											
NOON											
4											
8											
MIDT.											
12 <sup>th</sup>											
4											
8											
NOON											
4											
8											
MIDT.											

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

# Captain H.H. Pennell. from off north of New Zealand.

Clouds.		Weather.		Sea Surface.		Remarks.	
Hour.	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.	According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.	Swell.	Here give any important Remarks as to phenomena, with the times of their occurrence - especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)	Time of Remark.
Names.	Upper.	Lower.	Prop. of Sky Clouds.	Direction from.	Disturbance. 0 to 10.	Temp. by No.	Spec. Grav. by No.
4							
8							
NOON							
4							
8							
MIDT.							
4							
8							
NOON							
4							
8							
MIDT.							
4							
8							
NOON							
4							
8							
MIDT.							
4							
8							
NOON							
4							
8							
MIDT.							
4							
8							
NOON							
4							
8							
MIDT.							
4							
8							
NOON							
4							
8							
MIDT.							
4							
8							
NOON							
4							
8							
MIDT.							

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



Meteorological Log kept on board Tessa Lora Rye

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1162		Thermometers.	
Year 1911	Month Aug.	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By Sample Compass as Wind. Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. 9 feet.		Dry Bulb.	Wet Bulb.
Day. Civil Time.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				True Course.	Distance by Log.				Uncorrected Reading.	Att. Therm.	No.	No.
13th	4													
Continued	8													
	NOON	{ Current in last hours mls. }												
	4													
	8													
	MIDT.													
13th	4.0	Anchored South of North Cape.								SEW	1	30.00	57	55.5
	8	at anchorage								SEW	1	30.06	58	55.
	NOON	{ South of }				02				SEW	1	30.10	56.3	57.3 54.2
	4	{ Current in last hours mls. }												
	8.0	Proceeded.								SEW	1	30.09	64	
	10.0									Calcu				
	MIDT.	34	20	172	48					Calcu		30.11	60	59.0 52.2
14th	4	34	16	172	30					Calcu	0	30.10	59	59.2 54.0
	8									NE	2	30.10	62	59.5 54.0
	NOON	34	15	172	13	429	00			NE	3	30.11	62	59.5 54.0
	4	{ Current in last hours mls. }								NE	3	30.08	62	59.0 53.8
	8									NE	3	30.08	63	59.5 54.0
	MIDT.									N	3.4	30.10	61	61 52
15th	4									North	4	30.08	61	57.5 55.5
	8									NE	4	30.09	61	59.5 55.4
	NOON	34	15	172	02	430	06			NE	4/5	30.05	63	60.2 57.0
	1/4	{ Current in last hours mls. }								27 NE	7	29.99	61	60.5 57.0
	8									do	7	29.98	61	58.5 56.5
	MIDT.									NE	2-3	29.98	59	57 -

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain H. H. Pennell from North of New to Zealand

[illegible]

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

"Terra Nova" Rys

DATE.		Latitude. S		Longitude. E		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163	Thermometers.
Year 1911		Observed.		Observed.		Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. 9 feet.
Month Aug.		Dead Reckoning.		Dead Reckoning.							
Day.	Civil Time.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.									
Hour.											
16 <sup>th</sup>	1230										
4									North	4	29.99 59
8									North	3	30.05 59
NOON		34	32	172	20	430 1.11 13			North	2 1/3	30.05 64
4		Current in last hours		mls.					Calcu	0	30.01 62
8		34	34	172	18				SW	0 1/2	30.03 64
MIDT.		34	34	172	18				SW	1.2	30.05 60
17 <sup>th</sup>									South	2	
4									SSW	3	30.02 59
8									SSW	2	30.05 62
NOON		34	30	172	15	429 .07			SSW	2	30.04 64
4		Current in last hours		mls.					SW	3	30.04
8									SW	3	30.04 63
MIDT.									SSW	3	30.04 61
18 <sup>th</sup>									SSW	3 1/2	30.03 59
4									SSW	2	30.10 61
8									S	3/4	30.10 65
NOON		Current in last hours		mls.					S	3	30.08 65
4		34	30	172	15	429 .02			S	3	30.08 63
8									S	3	30.10 60
MIDT.									S	3	30.09 60
19 <sup>th</sup>									S	3	30.10 59
4									S	3	30.10 64
8									Sly W	4	30.05 60
NOON		34	38	172	17	429 01			Sly W	4	30.10 61
4		Current in last hours		mls.					SW	5	30.08 60
8		34	20	172	46						
MIDT.		34	26	170	12						

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain H.H. Pennell

from off north of New Zealand.

Clouds.		Weather.		Sea Surface.		Remarks.	
The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.		Waves.		Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)	
Hour.		Fog Intensity.		Direction from.		Time of Remark.	
Names.		Direction from.		Disturbance.			
Upper.		Lower.		Also record when Confused.			
4	St	10	ocr	n	5	7	8
8	ast	8	c	n	5	7	598
NOON	ast	6	bc	n	3	7	592
4	do.	6	bcp.	—	2	7	590
8	—	2	bc	—	0	7	7
MIDT.	Cu	2	bc	—	1	n	6
4	Cu	4	bew	SW	2	7	6
8	acu	4	bc	SW	2	7	6
NOON	Cu	—	bc	SW	2	7	6
4	—	—	—	—	—	—	—
8	Cu	5	bc	—	—	—	—
MIDT.	StCu	3	bc	SW	3	7	6
4	Cu	5	bch	SW	2	7	5
8	Cu	—	bc	—	2	7	5
NOON	acu	2	bc	S	4	7	6
4	do	4	bc	S	3	7	6
8	—	2	bc	—	3	7	6
MIDT.	StCu	8	c	—	—	—	—
4	Cu	2	b	S	3	7	6
8	Cu	4	bc	S	3	7	6
NOON	acu	3	bcp	S	3	7	6
4	acu	4	bcp	S	3	7	6
8	Cu	1	b	—	3	7	6
MIDT.	StCu	6	c	—	—	—	—

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



Meteorological Log kept on board *Terra Nova* 1895.

DATE.		Latitude. <i>S</i>		Longitude. <i>E</i>		Course and Distance.		Total Compass Error.		Ship's Head.		Wind, at the time of observation.		Barometer.* No. <i>1163</i>		Thermometers.	
Year <i>19 11</i>		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea <i>9</i> feet.		Uncorrected Reading.	Att. Therm.	Dry Bulb. No.	Wet Bulb. No.
Month <i>Aug.</i>		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				True Course.	Distance by Log.										
Day. Civil Time.	Hour.																
<i>20th</i>																	
	4	<i>34</i>	<i>45</i>	<i>173</i>	<i>32</i>					<i>Shy W</i>	<i>5</i>						
	8	<i>Mangonui</i>								<i>SSW</i>	<i>4</i>	<i>30.04</i>	<i>58</i>			<i>56.0</i>	<i>52.0</i>
	NOON	{ Current in last hours }						<i>14</i>		<i>SSW</i>	<i>2</i>	<i>30.06</i>	<i>59</i>			<i>55.4</i>	<i>52.0</i>
	4	{ Current in last hours }															
	8																
	MIDT.																
<i>21st</i>																	
	4																
	8	<i>Mangonui</i>								<i>NE air</i>	<i>1</i>	<i>30.10</i>	<i>55</i>			<i>52.5</i>	<i>49.5</i>
	NOON	{ Current in last hours }															
	4	{ Current in last hours }															
	8									<i>Calm</i>	<i>0</i>	<i>30.12</i>	<i>62</i>			<i>52.0</i>	<i>47.0</i>
	MIDT.																
<i>22nd</i>																	
	4																
	8									<i>Calm</i>	<i>0</i>	<i>30.12</i>	<i>57</i>			<i>56.5</i>	<i>53.2</i>
	NOON	{ Current in last hours }															
	4	{ Current in last hours }															
	8									<i>NE air</i>	<i>1</i>	<i>30.11</i>	<i>62</i>			<i>51.5</i>	<i>48.4</i>
	MIDT.																
<i>23rd</i>																	
	4	<i>Mangonui</i>															
	8.0	<i>8.0 Proceeded.</i>								<i>Calm</i>	<i>0</i>	<i>30.13</i>	<i>54</i>			<i>51.2</i>	<i>49.5</i>
	NOON	<i>34</i>	<i>39</i>	<i>173</i>	<i>28</i>	<i>428</i>	<i>-</i>			<i>W 4</i>	<i>2</i>	<i>30.13</i>	<i>60</i>			<i>57.0</i>	<i>53.0</i>
	4	<i>34</i>	<i>32</i>	<i>173</i>	<i>27</i>					<i>SW</i>	<i>2</i>	<i>30.10</i>	<i>61</i>			<i>58.8</i>	<i>52.5</i>
	8	<i>34</i>	<i>25</i>	<i>173</i>	<i>21</i>					<i>SW 8</i>	<i>2</i>	<i>30.10</i>	<i>60</i>			<i>57.0</i>	<i>51.4</i>
	MIDT.	<i>34</i>	<i>16</i>	<i>172</i>	<i>59</i>					<i>W</i>	<i>1</i>	<i>30.14</i>	<i>59</i>			<i>56.0</i>	
1	2	3	4	5	6	7	8	9	10	11	12	13	14			15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain *H.H. Russell*, from *H. North of New* to *Zealand*.

Clouds.		Weather.		Sea Surface.				Remarks.	
The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.		Waves.		Swell.		Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)	
Hour.	Names.	Prop. of Sky Clouded.	Fog Intensity.	Direction from.	Disturbance.	Direction from.	Disturbance.	Temp. by No.	Spec. Grav. by No.
Upper.	Lower.	Prop. of Sky Clouded.	0 to 5.	0 to 10.	0 to 10.	0 to 10.	0 to 10.	0 to 10.	0 to 10.
4	<i>Cust</i>	<i>1</i>	<i>b</i>	<i>SSW</i>	<i>2</i>	<i>mil.</i>			
8	<i>cu Cust</i>	<i>2</i>	<i>bch</i>						
NOON	<i>cu Cust</i>		<i>bch</i>						
4									
8									
MIDT.									
4									
8	<i>cu Cust</i>	<i>2</i>	<i>bc</i>						
NOON									
4									
8	<i>Cust</i>	<i>4</i>	<i>bc</i>						
MIDT.									
4									
8	<i>acu</i>	<i>cu Cust</i>	<i>4</i>	<i>bc</i>					
NOON									
4									
8	<i>Cust</i>	<i>2</i>	<i>bc</i>						
MIDT.									
4									
8	<i>alt</i>	<i>cu Cust</i>	<i>5</i>	<i>bc</i>	<i>2</i>				
NOON	<i>cu Cust</i>	<i>5</i>	<i>bc</i>		<i>2</i>	<i>El</i>	<i>4</i>		
4	<i>acu</i>	<i>Cust</i>	<i>4</i>	<i>bc</i>	<i>2</i>	<i>11</i>	<i>4</i>	<i>618</i>	
8	<i>Nil</i>	<i>Stm</i>	<i>4</i>	<i>bc</i>	<i>2</i>	<i>1</i>	<i>3</i>		
MIDT.	<i>Nil</i>	<i>Stm</i>	<i>10</i>	<i>omphd</i>	<i>1</i>	<i>2</i>			
2a									

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



Meteorological Log kept on board "Terra Nova" Rys.

DATE.		Latitude.		Longitude.		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163	Thermometers.				
Year 19 11		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea 9 feet.		Dry Bulb. No.	Wet Bulb. No.	
Month Aug:		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Uncorrected Reading.					Att. Therm.				
Day, Civil Time.	Hour.					Colour of Sea	Direction of Surface Current								
24 <sup>th</sup>	10						E		Calm	0					
	4	34	11	172	38				ENE	3	30.06	60	59.2	54.5	
	8						13		E						
									ENE	3	30.06	58	58.2	53.5	
	NOON	34	13	172	15	429.50			ENE	5/6	29.90	58	57.5	55.0	
	20	Current in last hours mls.							ENE	9	29.80	59			
	4								ENE	4.5	29.76	60	58.8	57.5	
	8								ENE	2/3	29.78	63	59.5	57.8	
	MIDT.								ENE	3	29.80	60	58.8	57.2	
	4								NNW						
	8														
	NOON	Current in last hours mls.													
	4														
	8														
	MIDT.														
25 <sup>th</sup>	4								WNW	4	29.77	60	57.0	56.0	
	8								WNW	4	29.79	61	58.8	56.5	
	NOON	Off South of Three Kings. Current in last hours mls.							WNW	3	29.80	65	61.2	58.5	
	4								WNW	3	29.77	62	59.5	57.0	
	8								WNW	2	29.79	63	58.5	56.0	
	MIDT.								WNW	1.2	29.79	60	58	57	
26 <sup>th</sup>	4								WNW	2	29.79	60	58.2	56.8	
	8								WNW	2	29.83	62	61.8	57.2	
	NOON	Off South of Three Kings. Current in last hours mls.							WNW	2	29.87	63	60.8	57.2	
	4								WNW	2	29.77	65	60.0	59.0	
	7								WNW	1					
	8								WNW	3	29.78	62	57.0	53.2	
	MIDT.								WNW	3					
									WNW	2	29.78	61	58	55	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain H.H. Pennell. from off North of New to Zealand.

Clouds.		Weather.		Sea Surface.		Remarks.	
The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.		Waves.		Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)	
Hour.	Names.	Force.	Fog Intensity.	Direction from.	Direction from.	Time of Remark.	
Upper.	Lower.						
4	St	10	0	NE	2	4	Thunder. Rain slight to moderate & fog dense, increasing to 2 at 7.0 am.
8	Wb	10	04	1	2	11	Thunder. Wind increasing gradually all forenoon. Rain mod. to heavy.
NOON	Wb	10	04	1	NE	4	12.10 Wind increased to 7 and heavy.
4	ast	9	00	3	NE	5	4.00 Wind increased to 9 at 2 pm & then fell suddenly. bar. rising sharply for about .08 inch & then falling again slowly (see graph). Rain eased & finally ceased at 3.0 o'clock, though rain storms still about at 4.0 o'clock.
8	ast	1	02	2	NE	3	
MIDT.	St	1	04	2	NE	6	
4							6.30 Wind W. 2-3. Sheet lightning to eastward. Clouds St. Puff. 1.
8							8.0 Sheet lightning vivid & frequent to E.
NOON							Mid. frequent & vivid sheet lightning to E. just above horizon.
4							
8							
MIDT.							
4		0	6	NE	2	NE	
8	St	1	1	NE	2	NE	PM. 2.30 Wind eased to 2
NOON	ast	8	10	NE	2	NE	3.0 Wind increased again to force 3.
4	ast	8	10	NE	2	NE	3.30 Eased to 1.5
8	ast	8	10	NE	2	NE	4.0 Sky pale blue to pale green where showing.
MIDT.	ast	8	10	NE	2	NE	7.0 Much phosphorescence in water. Df. after dark, sheet lightning to E. occasional.
4	St	1	1	NE	2	NE	Mid. lightning.
8	ast	2	10	NE	2	NE	
NOON	ast	7	10	NE	2	NE	PM. 2.0 to 4.0 Slight drizzle.
4	ast	5	10	NE	2	NE	1.0 Day. Showers of slight rain from heavy looking rain clouds.
8	ast	5	10	NE	2	NE	2.0 Day. ditto with sheet lightning all round horizon from time to time.
MIDT.	ast	5	10	NE	2	NE	

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

Ternura Ays

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163		Thermometers.		
Year 1911		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea 9 feet.		Dry Bulb.	Wet Bulb.
Month Aug.		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Clouds.	True Course.					Uncorrected Reading.	Att. Therm.		
Day.	Civil Time.	Hour.													
27 <sup>th</sup>	4							7W	2		2	29.74	59	57.5	56.7
	8							69S			2	29.76	60	57.8	56.2
	NOON	34	26	172	17	428.00	SW by W				3	29.74	61	58.0	55.0
	4	Current in last hours						W by W			3	29.73	61	58.5	54.9
	8							W by S			2	29.75	61	58.0	54.8
	MIDT.							W by S			2	29.75	60	59.0	55.0
28 <sup>th</sup>	4							W by S			1.2	29.74	60	60.0	55.0
	8							SE by S			3	29.78	59	57.2	53.8
	NOON	34	14	172	10	428.01	SW				3	29.80	65	57.8	54.0
	4	Current in last hours						SW			3/4	29.85	65	58.4	55.0
	8	Proc. d. for Spirits Bay.						SW			5	29.94	62	57.5	54.2
	MIDT.	34	19	172	18			S			3.5	30.01	60	57.0	53.0
29 <sup>th</sup>	4	34	18	172	40					SW	4	30.05	61	57.0	53.0
	8-0	Anchored in Spirits Bay								SW	4	30.16	59	58.5	54.0
	NOON	Spirits Bay								South	8	30.20	63	59.5	54.0
	2.0	Current in last hours								S	4				
	4	on North Coast.								South	3	30.20	64	57.5	54.0
	8									"	3	30.25	60	58.0	54.2
	MIDT.														
30	4														
	5.30									SE	3				
	8									SE	3	30.27	57	56.5	52.5
	NOON	Spirits Bay				00									
	4	Current in last hours													
	8									South	1	30.43	64	57.0	53.0
	MIDT.														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain

H.H. Pennell

from

North Coast of New Zealand.

Clouds.		Weather.		Sea Surface.		Remarks.	
The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.		Waves.		Swell.	
Names.		Fog Intensity.		Direction from.		Direction from.	
Upper.	Lower.	0 to 5.	0 to 10.	0 to 10.	0 to 10.	0 to 10.	0 to 10.
4	St	1	t	W	1	W	1
8	Alcu	3	bc	W	2	N	5
NOON	Alcu	6	bc	W	3	N	5
4	Alcu	8	bc	W	3	N	5
8	Alcu	3	bc	"	3	"	5
MIDT.	St	1	t	"	1	W	1
4	St	8	bc	W	2	W	4
8	Alcu	4	bc	-	2	W	5
NOON	Alcu	2	bc	-	3	W	5
4	Alcu	2	bc	-	3	W	5
8	Alcu	6	bc	-	5	W	6
MIDT.	Alcu	4	bc	-	4	W	6
4	Alcu	1	bc	SW	3	W	4
8	Alcu	4	bc				
NOON	Alcu	5	bc				
4	Alcu	3	bc				
8	Alcu	2	bc				
MIDT.							
4	St	2	bc				
8	Alcu	1	bc				
NOON							
4							
8							
MIDT.							

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

"Terra Nova" R.Y.S.

DATE.		Latitude.		Longitude.		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.		Barometer.* No. 1163	Thermometers.	
Year 1911	Month Aug.	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea 7 feet.	Dry Bulb. No.	Wet Bulb. No.
Day.	Civil Time.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Aloud Type Code.	Uncorrected Reading.		Att. Therm.	and the wet bulb being unattended by salt water.			
31st.	4	Spirito Bay.										57.8	53.5
	6.0	Perc. to 1000 fms. 144.											
	8												
	NOON	34	27	172	84	60			SSW 3	30.50	60	65.2	60.3
	4	Anchored in Spirito Bay.							SSW 3	30.45	64	62.4	57.0
	8								SSW 3	30.49	63	58.2	55.5
	MIDT.												
1st.	4												
	8								SSW 3	30.54	62	60.2	57.0
	NOON	Spirito Bay.				00			SW 4	30.52	64	60.8	57.0
	4								SW 3	30.50	66	59.5	57.0
	8								SSW 2	30.50	64		
	MIDT.												
2	4								SE 1.2				
	8								SE 1.2	30.54	62	57.5	56.5
	10	Spirito Bay.				00			W 3	30.50	68	64.8	60.0
	NOON								SE 2	30.49	66	64.0	59.1
	4								SE 1	30.50	65	58.0	56.0
	6												
	8												
	MIDT.												
3rd.	4								SE 1	30.47	64	60.8	58.0
	8								W 2	30.48	71	66.8	60.5
	NOON	Spirito Bay.				00			W 2.3	30.43	68	62.0	57.3
	4								W 2	30.43	64	60.8	57.2
	5												
	8												
	MIDT.												

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain W.H. Pennell

from North of New Zealand to

Clouds.		Weather.		Sea Surface.		Remarks.	
Hour.	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.	According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves. Direction from. Disturbance 0 to 10.	Swell. Direction from. Disturbance 0 to 10.	Temp. by No. Spec. Grav. by No.	Time of Remark.
Upper.	Lower.	Front of Sky Clouded. 0 to 10.	Also record when Confused.				Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)
4							
8	Cu	2	bc				
NOON	acu	Cu	3	bc	SSW 3 SW 4	60.5	
4	acu	Cu	2	bc			
8		Cu	3	bc			humid. Wind eased 1. 2
MIDT.							
4							
8	acu	Cu	5	bc			
NOON		Cu	8	bc			
4	acu	as	1	b			
8		Cu	1	b			
MIDT.							
4							6.0 Westerly swell running in.
6.0	ast	W 8					6.30 hum came up.
8	ast	W 6	bc				per
NOON	acu	Cu	8	c			9.45 wind which had been NE 1. 2. all latter part of afternoon shifted to SE.
4	ast	Cu	8	c			4.0 much appearance of rain to SW. a little to N. with very heavy looking clouds.
8	acu	Cu	8	c			4.30 Drizzle.
MIDT.							6.30 a few spots of rain.
							8.0 a few spots of rain.
4							
8	acu	Cu	3	bc			
NOON	as	Cu	4	bc			
4	acu	Cu	8	c			
8	acu	Cu	1	b			
MIDT.							
2a	17	18	19	19a	20	21	20a 21a 22 23 24 25

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

"Terra Nova" Rys

DATE.		Latitude. <i>S</i>		Longitude. <i>E</i>		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. <i>1163</i>	Thermometers.				
Year <i>19 11</i>	Month <i>Sept.</i>	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	By <i>Wind</i> as <i>Wind</i> <i>not</i> <i>used</i> <i>by</i> <i>hand</i>	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea <i>9</i> feet.	Dry Bulb. No. <i>52968395</i>	Wet Bulb. No. <i>52948292</i>		
Day. Civil Time.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Colours Type Cause. <i>Sea breeze</i>					Uncorrected Reading.	Att. Therm.			
<i>4<sup>th</sup></i>	<i>4</i>														
	<i>5.30</i>														
	<i>6<sup>o</sup></i>								<i>Calms</i>						
									<i>ESE</i>						
									<i>Wby E</i>	<i>1.2</i>	<i>30.42</i>	<i>61</i>	<i>60.4</i>		
	NOON	<i>34</i>	<i>02</i>	<i>172</i>	<i>40</i>	<i>428 00</i>					<i>30.39</i>	<i>62</i>	<i>60.4 535</i>		
		Current in last hours				mls.									
	<i>4</i>								<i>Elly N</i>	<i>3</i>	<i>30.33</i>	<i>65</i>	<i>60.2 548</i>		
	<i>8</i>								<i>Elly N</i>	<i>2</i>	<i>30.35</i>	<i>62</i>	<i>59.5 56.0</i>		
	MIDT.								<i>SW by S</i>	<i>2</i>	<i>30.30</i>	<i>60.8</i>	<i>59 54.2</i>		
<i>5<sup>th</sup></i>	<i>4</i>								<i>ENE</i>	<i>2</i>	<i>30.30</i>	<i>61</i>	<i>59.5 55.0</i>		
	<i>8</i>								<i>Nelly E</i>	<i>3</i>	<i>30.34</i>	<i>62</i>	<i>61.0 56.2</i>		
	NOON	<i>34</i>	<i>23</i>	<i>172</i>	<i>08</i>	<i>428 00</i>			<i>Nelly E</i>	<i>2</i>	<i>30.35</i>	<i>66</i>	<i>61.2 57.8</i>		
		Current in last hours				mls.									
	<i>4</i>								<i>ENE</i>	<i>3</i>	<i>30.31</i>	<i>67</i>	<i>62.0 57.5</i>		
	<i>8</i>								<i>ENE</i>	<i>3</i>	<i>30.33</i>	<i>62</i>	<i>58.5 55.5</i>		
	MIDT.								<i>ENE</i>	<i>3</i>	<i>30.33</i>	<i>61</i>	<i>59.0 56.2</i>		
<i>6<sup>th</sup></i>	<i>4</i>								<i>ENE</i>	<i>4</i>	<i>30.29</i>	<i>60</i>	<i>59.2 53.2</i>		
	<i>8</i>								<i>East</i>	<i>4</i>	<i>30.32</i>	<i>61</i>	<i>59.8 56.5</i>		
	NOON	<i>34</i>	<i>25</i>	<i>172</i>	<i>10</i>	<i>405 00</i>			<i>ENE</i>	<i>5</i>	<i>30.35</i>	<i>63</i>	<i>60.4 54.8</i>		
		Current in last hours				mls.									
	<i>4</i>								<i>Nelly E</i>	<i>5</i>	<i>30.25</i>	<i>62</i>	<i>60.4 56.0</i>		
	<i>8</i>								<i>Nelly E</i>	<i>6</i>	<i>30.40</i>	<i>63</i>	<i>60.2 56.0</i>		
	MIDT.								<i>E N.</i>	<i>4/5</i>	<i>30.32</i>	<i>61</i>	<i>58 56</i>		
<i>7<sup>th</sup></i>	<i>4</i>								<i>ENE</i>	<i>7/6</i>	<i>30.29</i>	<i>60</i>	<i>59.0 54.5</i>		
	<i>8</i>								<i>Nelly E</i>	<i>6</i>	<i>30.40</i>	<i>59</i>	<i>58.5 53.5</i>		
	NOON	<i>34</i>	<i>33</i>	<i>171</i>	<i>36</i>	<i>379 1</i>			<i>do</i>	<i>5</i>	<i>30.33</i>	<i>61</i>	<i>59.2 54.9</i>		
		Current in last hours				mls.									
	<i>4</i>								<i>do</i>	<i>5</i>	<i>30.28</i>	<i>60</i>	<i>59.5 53.2</i>		
	<i>8</i>								<i>NE</i>	<i>5</i>	<i>30.28</i>	<i>62</i>	<i>59.2 54.9</i>		
	MIDT.								<i>ENE</i>	<i>4.5</i>	<i>30.28</i>	<i>60.8</i>	<i>59 56</i>		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain H.H. Pennell

from off north of New Zealand.

Clouds.		Weather.		Sea Surface.		Remarks.	
Hour.	Hour.	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.	According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves. Direction from. Distance. 0 to 10.	Swell. Direction from. Distance. 0 to 10.	Spec. Grav. by No. by No.
Upper.	Lower.	Names.	Names.	Names.	Names.	Names.	Names.
4							
8		cu 3	bc	-	2	mb 3	61.0
NOON		cu 2	bc	-	2	" 3	61.5
4		acu cu 1	b	-	3	" 3	62.0
8		acu cu 3	bc	-	3	" 3	
MIDT.		cu 2	bc	-	3	" 3	
4		ast. 2	bc	-	2	mb 3	61.0
8		acu cu 2	bc	-	2	mb 3	61.0
NOON		acu cu 4	bc	-	2	mb 3	61.0
4		acu cu 5	bc	-	2	mb 3	61.0
8		acu cu 4	bc	-	2	mb 3	61.0
MIDT.		acu cu 7	c	-	2	mb 3	61.0
4		ast. 8	c	-	2	mb 3	61.0
8		acu cu 6	bc	-	2	mb 3	61.0
NOON		acu cu 5	bc	-	2	mb 3	61.0
4		acu cu 7	c	-	2	mb 3	61.0
8		acu cu 9	c	-	2	mb 3	61.0
MIDT.		acu cu 10	c	-	2	mb 3	61.0
4		ast. 1	bc	-	2	mb 3	61.0
8		ast. 8	c	-	2	mb 3	61.0
NOON		acu cu 6	bc	-	2	mb 3	61.0
4		do do 3.	bc	-	2	mb 3	61.0
8		acu cu 9	c	-	2	mb 3	61.0
MIDT.		acu cu 8	bc	-	2	mb 3	61.0

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

Terra Nova R.Y.S.

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163		Thermometers.		
Year 19 11		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. 9 feet.		Dry Bulb.	Wet Bulb.
Month Sept.		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Colours of Sky.	Time of Day.					Uncorrected Reading.	Att. Therm.	No.	No.
Day.	Civil Time.	Hour.													
8 <sup>th</sup>		4						13		Nbly E	5	30.23	61	59.5	59.5
		8								Nbly E	5	30.21	60	59.9	56.5
	NOON		34	41	171	02	429	00.		Nbly N	5	31.19	63	60.5	56.9
		4	Current in last hours							Nbly E	5	31.11	62	60.5	56.7
		8								Nbly N	5	30.08	62	60.4	56.5
	MIDT.									Nbly N. 5.6		30.09	62	60.8	57.5
9 <sup>th</sup>		4								Nbly E	7	30.05	60	60.0	57.2
		8								Nbly	6	30.09	60	60.4	56.2
	NOON		34	50	170	27	429	02		Nbly E	7/8	30.10	62	60.8	55.4
		4	Current in last hours							Nbly	7/8	30.10	62	60.0	56.0
		8								Nbly	8	30.13	62	60.0	55.4
	MIDT.									Nbly	6	30.17	61	60.0	56
10 <sup>th</sup>		4								Nbly	6	30.15	61	60.0	56.0
		8								Nbly N.	4	30.19	61	60.0	57.0
	NOON		35	07	169	57	428	00		"	4	30.18	63	60.8	58.0
		4	Current in last hours							Nbly	4	30.15	62	60.5	58.2
	6.0		Proc. Toward C. Maria V. Diemen							Nbly	4	30.13	62	60.4	58.5
	8									Nbly	4	30.12	61	60.8	59.
	MIDT.									Nbly	4	30.12	61	60.8	59.
11 <sup>th</sup>		4								Nbly N	5	30.07	61	60.2	58.5
		8								"	5	30.04	60	60.2	58.5
	NOON		35	51	171	07	434	08		"	7	29.99	60	59.8	58.5
		4	Current in last hours							Nbly	8	29.88	62	59.5	58.5
		8								Nbly	8	29.88	64	60.0	59.0
	MIDT.									Variable	0.1	29.89	61	56	56
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain H.H. Pennell. R.N. from off North of New Zealand to

Hour.	Clouds.		Weather.		Sea Surface.						Remarks.		
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.		Swell.		Temp. by No.	Spec. Grav. by No.			
	Names.	Prop. of Sky Clouded. 0 to 10.			Direction from.	Disturbance. 0 to 10.	Direction from.	Disturbance. 0 to 10.					
												Upper.	Lower.
4		St	9	0		ENE 6	ENE 6	6				5.30	few minutes slight rain.
8	ast acu	Sten	9	C		NE 6	NE 6	7	60.8				
NOON	acu	Sten	7	C		"	"	6					
4		Sten	9	C		"	"	7	60.4				
8	acu ast acu	Sten	6	bc		"	"	7					
MIDT.	acu	Sten	7	C		"	"	6					hull. Corona (sunset) round moon.
4	acu	Sten	9	C		"	8	"	6				moon. 2 showers. moderate rain.
8	acu	Sten	8	C		"	7	"	7	60.8			
NOON	ast acu	Sten	8	C		"	7	"	7				
4	acu	Sten	9	C		"	7	"	7	59.4			acu clouds. Corona. Clouds in out. - white yellow* red from yellow red. * the brightest.
8		Sten	9	cg		"	7	"	7				
MIDT.	acu	hull	9	bc		"	7	"	7				
4	acu	hull	8	bc		"	6	"	8				
8	acu	Sten	10	C		"	6	NE 8	59.5				Forenoon. few drops of rain at 10 & 11 am.
NOON		Sten	10	oc		"	6	NE 6	6				Afternoon. few drops of rain.
4		Sten	10	oc		"	5	NE 6	6	59.5			
8		Sten	10	oc		"	4	"	6				11.0 Passing light showers
MIDT.		Sten	10	C		NE 4	NE 6	6					
4		Sten	10	oc		NE 5	NE 6	6					10.0 Commenced to rain. Drizzle with passing showers of moderate.
8		"	10	oc		"	5	"	6	59.5			2.0 Wind backed to north in a squall, after squall gradually returning to NE.
NOON		Sten	10	oc		"	6	"	7	59.0			4.0 moon showing through. Clouds from N (3)
4		"	10	oc		"	7	"	7	59.0			morning. Rain slight all watch.
8		Sten	10	oc		"	7	"	7				1.0 Wind freshening.
MIDT.		Sten	10	oc		"	7	"	7				11.0 Commenced to rain. moderate.
2a		Sten	10	oc		"	7	"	7				2.0 Wind backed to north
17		Sten	10	oc		"	7	"	7				afternoon. Rain moderate.
18		Sten	10	oc		"	7	"	7				4.15 Rain very heavy in strong
19		Sten	10	oc		"	7	"	7				
20		Sten	10	oc		"	7	"	7				
21		Sten	10	oc		"	7	"	7				
20a		Sten	10	oc		"	7	"	7				
21a		Sten	10	oc		"	7	"	7				
22		Sten	10	oc		"	7	"	7				
23		Sten	10	oc		"	7	"	7				
24		Sten	10	oc		"	7	"	7				



# Meteorological Log kept on board

"Terra Nova" Rys

DATE.		Latitude. <i>S</i>		Longitude. <i>E</i>		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer. No. 1163	Thermometers.		
Year 19 <i>11</i>	Month <i>Sept.</i>	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if lower or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea <i>9</i> feet.	Dry Bulb. No. <i>5396</i>	Wet Bulb. No. <i>5395</i>
Day, Civil Time.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Color of Sky.	Time of Day.	Time of Day.	Time of Day.	Time of Day.	Time of Day.	Time of Day.	Time of Day.
<i>11<sup>th</sup></i>	4												
	8												
	NOON	{ Current in last hours mls. }											
	4												
	8												
	MIDT.												
<i>12<sup>th</sup></i>	4								<i>W 1/2 N</i>	<i>12</i>		<i>55.5</i>	<i>56.2</i>
	8								<i>W 1/2 N</i>	<i>14</i>		<i>59.6</i>	<i>58.0</i>
	NOON	{ <i>35 20</i> <i>12 10</i> }				<i>428</i>			<i>W 1/2 N</i>	<i>3</i>		<i>60.5</i>	<i>57.8</i>
	4								<i>W 1/2 S</i>	<i>23</i>		<i>60.4</i>	<i>57.0</i>
	8								<i>W 1/2 S</i>	<i>2</i>		<i>59.5</i>	<i>57.0</i>
	MIDT.								<i>West</i>	<i>3-4</i>		<i>59.8</i>	<i>57.0</i>
<i>13<sup>th</sup></i>	4	<i>34</i>	<i>56</i>	<i>172</i>	<i>112</i>				<i>W 1/2 N</i>	<i>4 1/2</i>		<i>60</i>	<i>57</i>
	8	<i>34</i>	<i>44</i>	<i>172</i>	<i>39</i>				<i>W 1/2 N</i>	<i>3</i>		<i>58.0</i>	<i>55.0</i>
	NOON	{ <i>34 40</i> <i>172 33</i> }				<i>380</i>			<i>W 1/2 S</i>	<i>5</i>		<i>60.5</i>	<i>58.0</i>
	4								<i>W 1/2 S</i>	<i>3 1/2</i>		<i>60.5</i>	<i>58.5</i>
	8								<i>West</i>	<i>4 1/2</i>		<i>56.5</i>	<i>52.0</i>
	MIDT.								<i>West</i>	<i>4.5</i>		<i>59.5</i>	<i>53.2</i>
	4												
	8												
	NOON	{ Current in last hours mls. }											
	4												
	8												
	MIDT.												

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain *Whitcomb*. RN from *North of New Zealand*.

Hour.	Clouds.		Weather.	Sea Surface.				Remarks.
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.	Names.		Waves.		Swell.		
				Direction from.	Disturbance.	Direction from.	Disturbance.	
	Upper.	Lower.	According to Beaufort Notation.	Fog Intensity.	Direction from.	Disturbance.	Temp. by No.	Spec. Grav. by No.
	Also record when Confused.							
	Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)							
<i>Continued</i>								
<i>4</i>	<i>W 1/2 N</i>	<i>1</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>3</i>	<i>W 1/2 N</i>	<i>7</i>	<i>Mid to 2 am. Parallel N. N. W. wind. 1. to 2 constant shower.</i>
<i>8</i>	<i>W 1/2 N</i>	<i>6</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>4</i>	<i>W 1/2 N</i>	<i>5</i>	<i>2.4 Wind shifted, sky cleared.</i>
<i>NOON</i>	<i>W 1/2 N</i>	<i>4</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>3</i>	<i>W 1/2 N</i>	<i>5</i>	<i>3.0 Wind shifted, sky cleared.</i>
<i>4</i>	<i>W 1/2 S</i>	<i>4</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>3</i>	<i>W 1/2 N</i>	<i>5</i>	<i>4.0 Wind shifted, sky cleared.</i>
<i>8</i>	<i>W 1/2 S</i>	<i>3</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>3</i>	<i>W 1/2 N</i>	<i>4</i>	<i>5.0 Wind shifted, sky cleared.</i>
<i>MIDT.</i>	<i>W 1/2 S</i>	<i>7</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>3</i>	<i>W 1/2 N</i>	<i>5</i>	<i>6.0 Wind shifted, sky cleared.</i>
<i>4</i>	<i>W 1/2 S</i>	<i>10</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>3</i>	<i>W 1/2 N</i>	<i>4</i>	<i>7.0 Wind shifted, sky cleared.</i>
<i>8</i>	<i>W 1/2 S</i>	<i>10</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>4</i>	<i>W 1/2 N</i>	<i>5</i>	<i>8.0 Wind shifted, sky cleared.</i>
<i>NOON</i>	<i>W 1/2 S</i>	<i>5</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>4</i>	<i>W 1/2 N</i>	<i>5</i>	<i>9.0 Wind shifted, sky cleared.</i>
<i>4</i>	<i>W 1/2 S</i>	<i>6</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>4</i>	<i>W 1/2 N</i>	<i>5</i>	<i>10.0 Wind shifted, sky cleared.</i>
<i>8</i>	<i>W 1/2 S</i>	<i>5</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>4</i>	<i>W 1/2 N</i>	<i>6</i>	<i>11.0 Wind shifted, sky cleared.</i>
<i>MIDT.</i>	<i>W 1/2 S</i>	<i>4-6</i>	<i>bc</i>	<i>W 1/2 S</i>	<i>5</i>	<i>W 1/2 N</i>	<i>7</i>	<i>12.0 Wind shifted, sky cleared.</i>
<i>4</i>								<i>13.0 Wind shifted, sky cleared.</i>
<i>8</i>								<i>14.0 Wind shifted, sky cleared.</i>
<i>NOON</i>								<i>15.0 Wind shifted, sky cleared.</i>
<i>4</i>								<i>16.0 Wind shifted, sky cleared.</i>
<i>8</i>								<i>17.0 Wind shifted, sky cleared.</i>
<i>MIDT.</i>								<i>18.0 Wind shifted, sky cleared.</i>

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

"Terra Nova" R/V

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163		Thermometers		
Year 1911		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea 9 feet.		Dry Bulb.	Wet Bulb.
Month Sept		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Color	Time of Day.					Uncorrected Reading.	Att. Therm.		
Day, Civil Time.	Hour.					Sea	State								
14 <sup>th</sup>	4							13		SE 8	4	29.74	58	55.0	63.0
	8									SW 8	3	29.82	59	56.5	62.0
	NOON	34	38	172	16					SW 8	3	29.87	64	58.5	64.0
	10	Current in last hours North Cape. mls.								SW 8	7	29.87	62	59.0	64.5
	4	34	23	172	24					SW 8	7	29.87	62	59.0	64.5
	8	34	20	172	51					SW 8	7.8	29.90	61	57.5	65.0
	MIDT.	34	22	173	11					SW 8	6.7	29.93	61		
	4														
	8														
	NOON														
	4														
	8														
	MIDT.														
15 <sup>th</sup>	4	Anchored S of N. Cape.								SW 8	6				
	8	North Cape anchorage.								SW	5	30.05	61	60.4	66.4
	11.30									South	6				
	NOON									SW	6	30.10	70	61.5	65.0
	4	Current in last hours mls.								SW	10	30.14	64	62.0	65.5
	8									SSW	2	30.18	65	57.5	65.0
	MIDT.														
16 <sup>th</sup>	4									WNW	2.3				
	8									W	2	30.22	67		
	NOON	North Cape anchorage.								NW	3	30.22	74	60.5	
	4	Current in last hours mls.								NW	5	30.19	75	64.5	68.5
	8									NW	3	30.16	69	61.5	67.5
	MIDT.														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain H.H. Pennell, R.N. from 14<sup>th</sup> North of New Zealand to

Clouds.		Weather.		Sea Surface.		Remarks.	
The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.		Waves.		Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts.	
Names.		Fog Intensity.		Swell.		Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)	
Upper.		Direction from.		Direction from.		Time of Remark.	
4		10		2		12.3	
8		1		3		4 to 1.	
NOON		4		4		about 3-4.	
4		3		5		shifting to SE. in rain squall at 3.30.	
8		8		4		Wind very variable in force + direction in SW quadrant from 1 to 5.	
MIDT.		4		4		noon. Land becoming hazy. afternoon. Wind steadily increasing to force 4 at 3 o'clock. Heavy showers till two. Rep. much rain to windward + over land.	
4						After 5 occasional rain squalls over ship with wind force 8.	
8						Mid. Rain squalls more frequent + shorter. Sky clearing over + partially clearing rapidly till 9.30. after which very occasional showers with little increase of wind; wind generally easing a little. During rain squalls wind backed to SE.	
NOON							
4							
8							
MIDT.							
4						12.30. Partial lunar rainbow.	
8						Forenoon + afternoon.	
NOON						Wind very steadily in direction between SE + SW probably moving to land.	
4						5.0 pm Wind decreasing.	
8							
MIDT.							
4							
8							
NOON						afternoon. Light as mackerel, giving a windy appearance	
4							
8							
MIDT.						Considerable swell setting into anchorage all day	

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

Terra Nova Rys.

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No.		Thermometers.			
Year	19	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	Ship's Head.	Wind, at the time of observation.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. feet.		Dry Bulb.	Wet Bulb.
Month	11												Uncorrected Reading.			
The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.																
Day.	Civil Time.	Hour.					Log.									
Cape Anchorage																
17	30	430							13		N	6.7				
		8									N	6.7	30.04	69	62.5	57.0
		NOON					00				N	8	29.94	68	64.0	58.0
	2.15	4	Current in last hours mls.							97	N	8	29.80	64	64.9	59.5
		8									N	8	29.80	64	69.5	59.5
	10.45	MIDT.									NW	8	29.70	64	62.4	57.5
											NW	8	29.64	632	63.2	59.0
18																
		4									NW	7/8	29.55	61	60.3	57.2
		8									NW	7	29.59	70	60.8	57.5
	NOON	4	Current in last hours mls.				12				SW	7	29.63	74	62.2	67.2
		8									W	7	29.65	74	60.6	58.5
		MIDT.									W	6	29.67	72	60.0	54.1
19																
		4									SW	8			53.2	0
		8									SW	4	29.70	57	54.0	49.5
	NOON	4	Current in last hours mls.								SW	6	29.71	65	57.3	51.0
		8									SW	7	29.71	65	57.5	49.5
		MIDT.									SW	8	29.74	58	54.4	48.8
Before accepting the readings of the dry and wet bulb thermometers, the observer should satisfy himself that both are in working order; the dry bulb being free of moisture and the wet bulb being unsaturated by salt water.																
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																



Meteorological Log kept on board "Terra Nova" By S.

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163		Thermometers.		
Year 19 11	Month Sept.	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. 9 feet.		Dry Bulb.	Wet Bulb.
Day. Civil Time.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Colour.	True Course.					Uncorrected Reading.	Att. Therm.	No.	No.
20 <sup>th</sup>															
	4.30	Anchaep off North Cape								SEW	3	29.78	56	52.9	49.8
	8									West	3	29.90	60	52.4	52.0
	NOON						09			SEW	3	29.96	685	69.0	57.0
	1.0	Current in last hours mls.								South	2.3	29.96	685	69.0	57.0
	4	34	25	173	68					SWW	4	29.95	62	57.8	53.0
	8	34	19	172	53					SEW	4	30.01	57	55.6	52.0
	MIDT.	34	15	172	38					SEW	3.4	30.08	58	53.8	51
21 <sup>st</sup>										South					
	4									SEW	2.5	30.08	54	53.0	50.0
	8									SW	5	30.20	56	54.6	51.8
	NOON	34	11	172	16		02			SEW	4.5	30.26	64	56.0	50.8
	4	34	11	172	25					SEW	5	30.22	59	56.2	51.8
	8									SEW	4.5	30.30	60	54.4	51.8
	12.20	34	18	172	54					SEW	3	30.33	58	55.2	50.2
22 <sup>nd</sup>															
	4	34	21	172	35					SE	3/4	30.33	58	57	52
	8	34	30	172	13					South	3/4	30.35	58	57.5	51.4
	NOON	34	39	172	17	429.00				SEW	3/4	30.41	67	57.0	53.0
	4									SEW	3/4	30.37	60	57.0	51.8
	8									SEW	4	30.36	60	57.0	49.5
	MIDT.									SEW	3.4	30.35	58	67.0	49.5
23 <sup>rd</sup>															
	4.45	35	0	172	52					SEW	4				
	8	35	3	172	52					S	3	30.34	59	57.4	
	NOON	34	53	172	43	379.00				SEW	3	30.37	60	57.5	51.0
	4	34	36	172	28					SEW	3	30.33	59	57.5	51.0
	8	34	24	172	30					SEW	3/4	30.35	60	57.0	50.9
	MIDT.	34	20	172	53					SEW	2	30.35	57.5	56.2	50.7
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain H. H. Russell from off north of New Zealand to

Hour.	Clouds.		Weather.		Sea Surface.						Remarks.	
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.		Swell.		Temp. by No.	Spec. Grav. by No.		
	Names.	Prevalent Sky Condition 0 to 10.			Direction from.	Disturbance 0 to 10.	Direction from.	Disturbance 0 to 10.				
												Also record when Confused.
Upper.	Lower.										Time of Remark.	
4		Hcn	2	bc								2.30 Wind backed to S + increased 3-4
8		Hcn	5	bc								
NOON		do	5	bc								
4		do	4	bc								
8		Hcn	3	bc								
MIDT.		Hcn	5	bc		Sh 4	SW 5					11.0 Wind fresh to S by E.
4		Hcn	8	cpq		Sh 3	SW 6					2.4 Wind to SW in light rain squalls.
8	acn	cu	6	bc		Sh 4	SW 6	58.4				2.30 to 3.45. Heavy & Lower Wind SSW
NOON		cu	2	bc		Sh 5	SW 6	59.0				8.0 S.W. small the grades.
4	acn	cu	7	c		Sh 5	SW 6	58.2				
8	st		1	b								10.30 Wind easing.
12.20 MIDT.		Hcn	3	bc								
4		st	9	c		Sh 3	SW 4					Forenoon. Generally a few light showers about, only very occasionally coming to ship.
8	acn	Hcn	6	bc		S 4	S 6	58.5				
NOON		det cu	1	b		Sh 3	SW 6	59.5				
4		Cu	3	bc		Sh 3	SW 6	59.4	26.5			
8		do	5	b								11.0 Wind veered to SSW.
MIDT.		st	9	c		Sh 4	SW 5					
4		st	10	bc								
8		Hcn	10	c		Sh 3	SW 5					5.0 Wind 1. 2.
NOON		st cu	8	c		" 3	" 5	59.5				Sunset. Very brilliant golden sunset kind of - st. and C. clouds a little roll over land = prop. cloud 7.
4		do	8	c		" 3	" 5	59.0	26.5			6.30 Wind freshened to 3.
8		Hcn	2	bc								
MIDT.		Hcn	4	bc								
2a	17	18	19	19a	20	21	20a	21a	22	23	24	25

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

"Terra Nova" R.Y.S.

DATE.		Latitude. <i>S</i>		Longitude. <i>E</i>		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. <i>9163</i>		Thermometers.		
Year <i>1911</i>	Month <i>Apr</i>	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. <i>9</i> feet.		Dry Bulb. No.	Wet Bulb. No.
		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Uncorrected Reading.	Att. Therm.								
Day.	Civil Time.														
Hour.	Hour.														
<i>24<sup>th</sup></i>	4	<i>34</i>	<i>30</i>	<i>173</i>	<i>21</i>			<i>14</i>		<i>SSW</i>	<i>8</i>	<i>30.31</i>	<i>58</i>	<i>56.3</i>	<i>50.0</i>
	8	<i>34</i>	<i>30</i>	<i>173</i>	<i>40</i>					<i>SE</i>	<i>2</i>	<i>30.35</i>	<i>59</i>	<i>57.5</i>	<i>52.0</i>
	NOON	<i>34</i>	<i>55</i>	<i>174</i>	<i>02</i>	<i>430</i>	<i>00</i>			<i>Calm</i>	<i>0</i>	<i>30.34</i>	<i>65</i>	<i>60.2</i>	<i>52.4</i>
	4	Current in last hours				mls.									
	4-30	anchored off Russell.													
	8	Bay of Islands.								<i>Calm</i>	<i>0</i>	<i>30.25</i>	<i>59</i>	<i>57.2</i>	<i>52.5</i>
	MIDT.														
<i>25<sup>th</sup></i>	4														
	8									<i>Calm</i>	<i>0</i>	<i>30.20</i>	<i>70</i>	<i>57.5</i>	<i>52.5</i>
	NOON	Russell, Bay of Islands								<i>W</i>	<i>3</i>	<i>30.17</i>	<i>65.5</i>	<i>63.5</i>	<i>57.0</i>
	4	Current in last hours				mls.				<i>"</i>	<i>2-3</i>	<i>30.14</i>	<i>62.2</i>	<i>60</i>	<i>56.2</i>
	8									<i>W</i>	<i>2</i>	<i>30.12</i>	<i>620</i>	<i>58.0</i>	<i>55.1</i>
	MIDT.														
<i>26<sup>th</sup></i>	4									<i>Calm</i>					
	8									<i>Calm</i>	<i>0</i>	<i>30.10</i>	<i>57</i>	<i>58.0</i>	<i>55.0</i>
	NOON	Russell, Bay of Islands								<i>SW</i>	<i>3</i>	<i>30.09</i>	<i>67</i>	<i>55.8</i>	<i>57.2</i>
	4	Current in last hours				mls.				<i>W</i>	<i>1</i>	<i>30.08</i>	<i>59</i>	<i>56.5</i>	<i>49.4</i>
	8									<i>W</i>					
	MIDT.														
<i>27<sup>th</sup></i>	4														
	8									<i>W</i>	<i>1</i>	<i>30.13</i>	<i>63</i>	<i>53.5</i>	<i>53.5</i>
	NOON	Russell, Bay of Islands				<i>00</i>				<i>SW</i>	<i>3</i>	<i>30.10</i>	<i>67</i>	<i>64.8</i>	<i>57.0</i>
	4	Current in last hours				mls.				<i>SW</i>	<i>3</i>	<i>30.06</i>	<i>67</i>	<i>64.0</i>	<i>56.7</i>
	8									<i>SW</i>	<i>2</i>	<i>30.05</i>	<i>64</i>	<i>57.0</i>	<i>54.0</i>
	MIDT.														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain *Lieut H.H. Pennell* from *off North of New Zealand* to *Russell Bay of Islands.*

Hour.	Clouds.		Weather.		Sea Surface.						Remarks.
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.		Swell.		Temp. by No.	Spec. Grav. by No.	
	Names.				Direction from.	Disturbance. 0 to 10.	Direction from.	Disturbance. 0 to 10.			
	Upper.	Lower.									

4		St	9	o		SES	2	nil				3am	sky clouded over.
8		St	9	c			2	SW	3	60.5			
NOON	Al	Cu	7	bc			0	.	2	61.8		noon	St Cu clouds high. might be called low a-cu
4													
8		Cu	9	c									
MIDT.													

4													
8	Al	Cu	4	bc									
NOON	Al	Cu	8	bc									
4	-	Cu	10	cp									
8		Cu	9	cd								5.0	Passing light rain squall.
												5.30	drizzle till 8pm.
MIDT.													

4		Al	bc	bc								6.0	Trist in river valleys & low lying parts.
8		Cu	2										
NOON	Al	St	5	bc									
4			bc	bc									
8													
MIDT.													

4													
8	Al	St	6	bc								noon	Considerable amount of Al-St during watch.
NOON	Al	do	8	c									
4	Al	Cu	7	c									
8	Al	Cu	7	c									
MIDT.													

2a

17

18

19

19a

20

21

20a

21a

22

23

24

25

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

"Terra Nova" R.N.S.

DATE.		Latitude.		Longitude.		Course and Distance.	Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163	Thermometers.				
Year 19 11	Month Sept	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.	Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true; or subject to Compass error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. 9 feet.				
Day, Civil Time.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				Clouds	Distance				Uncorrected Reading.	Att. Therm.			
28	4	Russell Harbour.													
	8						14		Calm						
	NOON	Waingamini Harbour.				404			W 1/2 N	1	30.02	65			
	4	35	25	174	42				W 1/2 N	3	29.96	62			
	8	35	37	175	08				SW 1/2 W	3	29.95	60			
	MIDT.	35	49	175	40				SW 1/2 W	3.4	29.90	58.5			
29	4	36	01	176	07				W 1/2 N	6	29.87	58			
	8								-11-	6	29.88	58			
	NOON	36	43	177	13	430	00		W 1/2 S	6	29.77	60			
	4	Current in last hours mls.							SE 1/2 S	5	29.80	65			
	8	37	11	178	04				SE	3	29.90	59			
	MIDT.	37	20	178	16				SE	3	29.96	55			
30	4								SE	5	30.00	50			
	8	37	35	178	38				SE 1/2 S	5 1/2	30.01	51			
	NOON	Kaua Kawa Rds. Auckland.				-	00		SE 1/2 W	5 1/2	30.09	57			
	4	Current in last hours mls.							SE	4	30.11	60			
	8								SE 1/2 S	3	30.14	59			
	MIDT.														
Oct 1	4	Kaua Kawa Rds.													
	8	Proceeded.							W 1/2 S	4	30.15	56			
	NOON	37	49	178	39	376	00		W 1/2 S	3	30.17	63			
	4	38	06	178	36				W 1/2 S	2	30.16	70			
	8								SE	2	30.10	62			
	MIDT.								W 1/2 N	1.2	30.11	59			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain H. H. Pennell

from Russell, Bay of Islands to Kaua Kawa Rds. Auckland.

Hour.	Clouds.		Weather.		Sea Surface.						Remarks.		
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.		Swell.		Temp. by No.	Spec. Grav. by No.	Time of Remark.	Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts, Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)	
	Names.				Direction from.	Disturbance. 0 to 10.	Direction from.	Disturbance. 0 to 10.					
	Upper.	Lower.											
													Also record when Confused.
4											6.00	Twist over river.	
8		Str cu	3	bc								6.20	Twist coming out harbour.
NOON		cu Str	6	bc		1	-	0	6.09			7.0	Wind S by E.
4	acu	cu cu	8	c			2	-	2	6.22 26.5	6.25	7	Wind backed to SSW. Two spots of rain.
8	acu	cu	5	bc			3	conf	4				
MIDT.	-	cu	4	bc			4	SE	4			11.0	Wind commenced to freshen, veering to Westward.
4		cu	9	c			4					1.00	Wind varied to W by S
8	cu	cu	7	c		W	4	W	5	5.99		1.20	afternoon. Many showers about after 1.0
NOON		cu	9	c		W	4	do	5			2.0	to 2.0. Wind variable. W by S to SW.
4	acu	cu	4	bcy		SE	4	SE	5	6.02		3.0	Wind backed in squall to SSE
8		cu	1	b		SE	4	conf	5			4.0	occasional showers during first day. Wind unsteady between S by N + SE + easing in strength.
MIDT.			0	b		Under the cloud.							
4		cu	0	b			SE		4				
8		cu	2	bc		SE	5	S	6	5.55		5.0	from Showers slight about 2 minutes.
NOON		cu	6	bcy									
4		cu	5	bc									
8	acu	cu	7	c									
MIDT.													
4												5.30	Calms.
8	cu	cu	3	bcy									from. Wind very veering as East Cape was rounded.
NOON	-	cu	1	b		-	3	SE	5	5.58			afternoon. Wind slowly veering all afternoon.
4	-	cu	0	bcy		-	3	SE	5	5.58		4.0	Very little cu over land.
8	-	cu	0	bcy		-	2	SE				5.0	Calms.
MIDT.	-		0	bcy		W by N	2	SE	4			10.30	Wind W. light from 1. to 2. Swell S by E + E 4-5.
2a	17	18	19	19a	20	21	20a	21a	22	23	24	25	Wind dropping light.

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

"Terra Nova" Rys

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.	Barometer.* No. 1163	Thermometers.			
Year 19 11	Month Oct	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction, State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea 9 feet.		Dry Bulb.	Wet Bulb.
						True Course.	Distance by Log.					Uncorrected Reading.	Att. Therm.		
The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.															
Day, Civil Time.	Hour.														
2nd															
4								15		West	4	30.10	56	53.46	53.95
4.42		39	11	178	37					WNW	4	30.10	57	54.0	54.0
8										WNW	4	30.10	57	54.0	54.0
NOON		39	40	178	21	443	60			SW	3	30.13	63	59.2	51.8
		Current in last hours				mls.				WSW	3	30.13	63	59.2	51.8
4										SW	2	30.15	63	59.0	54.6
6.20		40	00	178	08					WSW	2	30.15	63	59.0	54.6
8										SE	5	30.14	59	55.0	54.0
										SE	5	30.14	59	55.0	54.0
MIDT.										Calm	0	30.17	57	56	53.7
3rd															
4								16		Calm	0	30.15	55	53.2	51.0
4.45		40	34	177	33					WNW	8	30.14	58	56.0	52.8
8										WNW	4	30.09	60	55.0	54.0
NOON						Between 379 and 430		00		WNW	4				
		Current in last hours				mls.				WNW	4				
4										WNW	2				
8										WNW	4	30.15	59	55.2	52.5
MIDT.										SE	4	30.17	55	54	52.2
4th															
4								17		South	2 1/3	30.18	51	52.5	49.5
7.0		41	43	175	37					SE	1.2	30.22	56	53.0	48.0
8										SE	1.2	30.22	56	53.0	48.0
NOON		41	51	175	16	379	00			SE	2.3	30.22	60	52.5	48.9
		Current in last hours				mls.				NE	4	30.15	58	52.8	49.8
4		41	57	174	57					NE	4	30.15	58	52.8	49.8
8										NE	3	30.13	56	52.0	50.8
MIDT.										NE	2	30.14	54	52.0	51.2
5th															
4		42	13	174	13					NE	3 1/4	30.09	53	50.8	49.0
8															
NOON															
		Current in last hours				mls.									
4															
8															
MIDT.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain H.H. Pennell RN. from Kawa Kawa Pass to Kikoura.

Hour.	Clouds.		Weather.		Sea Surface.						Remarks.	
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.			According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.		Swell.		Temp. by No.		Spec. Grav. by No.
	Names.		Direction from.			Disturbance. 0 to 10.	Direction from.	Disturbance. 0 to 10.				
	Upper.	Lower.							Also record when Confused.			

4	Nil.		b		W 3	S 9	4							
8	cu	1	b		W 3	S 9	4	55.8					noon.	Wind varying 3 pts.
NOON	cu	1	b		W 3	S 9	4	55.8					4.0	a little cu & alt. in sky.
4		0	b		"	3	S	6	57.8				afternoon.	Wind very variable in direction.
8		0	bw		-	3	S.	5					10.30	Wind dying.
		0	bw		-	3	S.	5					11.00	Calms. dew falling.
MIDT.	cu	1	bw		nil	0	SSW	4						

4	Nil	0	bw		Nil	SSW	6						6.0	light N <sup>th</sup> air.
8	"	0	b		-	2	S	7	55.5				noon.	Passed floating kelp.
NOON	"	0	b		-	2	S	6	56.5					
4	det cu	1	bry		-	2							4.30	2ell calm.
8	cu	10	oo		-	11	S	6					7.30	sky clouded over.
	cu	10	oo		-	11	S	6					7.30	Wind variable.
8	cu	10	oo		-	11	S	6					11.00	Wind steady S 1/2 E.
MIDT.	ci	cu	7	bc	S 1/2 E	4	S 1/2 E	5						Wind. Coona.

4	cu	3	bc		S 1/2 E	2	S 1/2 E	3					1.00	Heavily overcast. Cu at 10
8	cu	5	bc		-	2	S 1/2 E	5	57.8				3.30	sky partially cleared.
NOON	cu	1	bc		-	2	S 1/2 E	5	54.2	22.5			6.0	Wind E 1/2 S 1/2 E. air very clear. Mount.
4	cu	1	b		-	2	S 1/2 E	5	55.0					Tapuamika clearly visible distant 88 miles.
8	nil	0	b		-	2	S 1/2 E	5						
MIDT.	cu	3	bc		nil	2	S 1/2 E	4						

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2a	17	18	19	10a	20	21	20a	21a	22	23	24	25
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so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



Meteorological Log kept on board

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.		Barometer.*		Thermometers.	
Year 19		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. feet.		Dry Bulb.	Wet Bulb.
Month		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				True Course.	Distance by Log.					Uncorrected Reading.	Att. Therm.		
Day.	Civil Time.	Hour.													
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		4	Current in last hours												
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		MIDT.													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain from to

Hour.	Clouds.		Weather.		Sea Surface.				Remarks.			
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.		Swell.		Temp. by No.	Spec. Grav. by No.	Time of Remark.	Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts, Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)
	Names.				Direction from.	Dis- turb- ance 0 to 10.	Direction from.	Dis- turb- ance 0 to 10.				
	Upper.	Lower.			Also record when Confused.							
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2a	17	18	19	19a	20	21	20a	21a	22	23	24	25

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



Meteorological Log kept on board

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.		Barometer.*		Thermometers.	
Year 19		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea.....feet.		Dry Bulb.	Wet Bulb.
Month		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				True Course.	Distance by Log.					Uncorrected Reading.	Att. Therm.		
Day.	Civil Time.	Hour.													
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain from to

Hour.	Clouds.		Weather.		Sea Surface.				Remarks.			
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.		Swell.		Temp. by No.	Spec. Grav. by No.	Time of Remark.	Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)
	Names.				Direction from.	Disturbance. 0 to 10.	Direction from.	Disturbance. 0 to 10.				
	Upper.	Lower.			Also record when Confused.							
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2a	17	18	19	10a	20	21	20a	21a	22	23	24	25

so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



# Meteorological Log kept on board

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.		Barometer.*		Thermometers.	
Year 19	Month	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. feet.		Dry Bulb.	Wet Bulb.
Day.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				True Course.	Distance by Log.					Uncorrected Reading.	Att. Therm.	No.	No.
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	NOON	{ Current in last hours mls. }													
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	MIDT.														

\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain

from

to

Hour.	Clouds.		Weather.		Sea Surface.				Remarks.			
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.		According to Beaufort Notation.	Fog Intensity. 0 to 5.	Waves.		Swell.		Temp. by No.	Spec. Grav. by No.	Time of Remark.	Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)
	Names.				Direction from.	Disturbance. 0 to 10.	Direction from.	Disturbance. 0 to 10.				
	Upper.	Lower.			Also record when Confused.							
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so that in the event of the Office Barometer being broken, the Ship's can be taken into use, and its error can be ascertained.



Meteorological Log kept on board

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.		Barometer.*		Thermometers.	
Year 19		Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea feet.		Dry Bulb.	Wet Bulb.
Month		The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				True Course.	Distance by Log.					Uncorrected Reading.	Att. Therm.		
Day, Civil Time.	Hour.														
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\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain \_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_

Hour.	Clouds.		Weather.	Sea Surface.				Remarks.							
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.			Waves.		Swell.									
	Names.			According to Beaufort Notation.	Fog Intensity. 0 to 5.	Direction from.	Disturbance. 0 to 10.	Direction from.	Disturbance. 0 to 10.	Temp. by No.	Spec. Grav. by No.	Time of Remark.	Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts, Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)		
	Upper.	Lower.												Also record when Confused.	
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2a	17	18	19	10a	20	21	20a	21a	22	23	24	25			

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# Meteorological Log kept on board

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.		Barometer.*		Thermometers.	
Year 19	Month	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea.....feet.		Dry Bulb. No.	Wet Bulb. No.
Day.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				True Course.	Distance by Log.					Uncorrected Reading.	Att. Therm.		
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\* Please give Readings of the Ship's Barometer, say at Noon, at various times during the voyage noting whether it is mercurial or aneroid.

Captain

from

to

Hour.	Clouds.		Weather.	Sea Surface.				Remarks.
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.			Waves.		Swell.		
	Names.			Direction from.	Dis-turb-ance.	Direction from.	Dis-turb-ance.	
	Upper.	Lower.		Temp. by No.	Spec. Grav. by No.			
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# Meteorological Log kept on board

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.		Barometer.*		Thermometers.	
Year 19	Month	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. feet.		Dry Bulb. No.	Wet Bulb. No.
Day.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				* True Course.	Distance by Log.					Uncorrected Reading.	Att. Therm.		
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Captain

from

to

Hour.	Clouds.		Weather.	Sea Surface.				Remarks.					
	The direction from which the upper clouds are moving, and also that of the lower clouds when they do not move with the wind, should be noted when determinable.			Waves.		Swell.		Temp. by No.	Spec. Grav. by No.	Time of Remark.	Here give any important Remarks as to phenomena, with the times of their occurrence; especially the times of Changes in Direction and Force of Wind, as well as the Direction, Veering or Backing, Force and Duration of Squalls; the direction from which upper clouds are moving; the Position of Ice and of Derelicts. Also note the hour at which the Ship arrives in or leaves Port. (See "Instructions" for further particulars.)		
	Names.			According to Beaufort Notation.	Fog Intensity. 0 to 5.	Direction from.	Disturbance. 0 to 10.					Direction from.	Disturbance. 0 to 10.
	Upper.	Lower.											
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# Meteorological Log kept on board

DATE.		Latitude.		Longitude.		Course and Distance.		Total Compass Error.	Ship's Head.	Wind, at the time of observation.		Barometer.* No.		Thermometers.	
Year 19	Month	Observed.	Dead Reckoning.	Observed.	Dead Reckoning.	Each four hours.		Of Compass used for Wind, being Variation and Deviation combined.	By same Compass as Wind.	Direction. State if true, or subject to Compass Error, or only to Variation.	Force. 0 to 12.	Height of Cistern above Sea. feet.		Dry Bulb. No.	Wet Bulb. No.
Day, Civil Time.	Hour.	The D.R. position is needed daily, in addition to that by Observation, but it should be the result of careful calculation, in order to give any value to the estimation of the current.				True Course.	Distance by Log.					Uncorrected Reading.	Att. Therm.		
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Good J. Koyne  
Dinner 25  
Supper 25

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