

CARD CONTENT					SOURCE CONTENT	
Col- umns	Item	Code	Code Definition	Remarks	Units or Symbols	Reporting and Coding Practices
1-2	Ship Number	01	Kinjo-Mar	Period of Record: 7 Dec 1954 - 21 Mar 1955 No. Obs. 763 Type of Ship: Whaling Ship	Tonnage 11,052	General operational Area: From the southwest coast of Australia southward to the Balleny Islands. From the shores of southern Australia to the entrance of the Ross Sea. From the shores of southern Australia to the entrance of the Ross Sea. From the northern part of the Ross Sea to the Balleny Islands. From the Indian Ocean and southern Sea of Australia to entrance of the Ross Sea. From the shore of Adelie Land, Antarctica, to the vicinity of the Balleny Islands, to the entrance of the Ross Sea. From the central part of the Pacific Ocean to the central part of the Ross Sea. From the south coast of Australia to the entrance of the Ross Sea. From the Balleny Islands to the northern and central part of the Ross Sea. From the southeastern part of the Indian Ocean to the entrance of the Ross Sea, thence to the Balleny Islands. From the south coast of Australia to the entrance of the Ross Sea.
		03	Tadotsu-Mar	12 Dec 1950 - 18 Mar 1951 760 Refrigerator Ship	9,870	
		04	Daini Tenyo-Mar	16 Dec 1950 - 16 Mar 1951 694 Refrigerator Ship	10,611	
		05	Settsu-Mar	22 Dec 1951 - 16 Mar 1952 673 Refrigerator Ship	10,611	
		06	Nisshin-Mar	11 Nov 1951 - 14 Mar 1952 1071 Whaling Ship	16,774	
				13 Dec 1952 - 25 Mar 1953 695		
				4 Dec 1953 - 26 Mar 1954 849		
				17 Nov 1954 - 3 Apr 1955 553		
		07	Tonan-Mar	21 Dec 1952 - 27 Mar 1953 387 Whaling Ship	19,320	
				19 Nov 1953 - 25 Mar 1954 990		
		16 Nov 1954 - 3 Apr 1955 554				
3-4	Season	05	1950			
		06	1951			
		07	1952			
		08	1953			
		09	1954			
5-6	Year	50-55	1950 - 1955			
7-8	Month	01-12	January - December			
9-10	Day	01-31	Day of month			
11		Blank	Not used			
12	Octant	0	0° to 90°W	Northern Hemisphere.	Q	
		1	90° to 180°W			
		2	180° to 90°E			
		3	90° to 0°E			
		5	0° to 90°W	Southern Hemisphere.		
		6	90° to 180°W			
		7	180° to 90°E			
		8	90° to 0°E			
13-15	Latitude	000-900	0.0° to 90.0°N	Column 12 punched 0-3.	L _a L _a L _a	
		000-900	0.0° to 90.0°S	Column 12 punched 5-8.		
16-18	Longitude	000-999	0.0° to 99.9°W	Column 12 punched 0, 1, 5, 6. Hundreds digit omitted	L _o L _o L _o	
		000-800	100.0° to 180.0°W	Column 12 punched 1 or 6. in reporting and punch-		
		000-999	0.0° to 99.9°E	Column 12 punched 2, 3, 7, 8. ing values from 100° to		
		000-800	100.0° to 180.0°E	Column 12 punched 2 or 7. 180°.		
19-20	Greenwich Mean Time	00-23	00 - 23 hours GMT	00 Midnight of Day Beginning.	GG	
21		Blank	Not used			
22	Total Cloud Amount (Eighths)	0	No clouds			
		1	1/8 of the sky covered	< 1/10 to 1/10 of the sky covered.		
		2	2/8 of the sky covered	2/10 to 3/10 of the sky covered.		
		3	3/8 of the sky covered	4/10 of the sky covered.		
		4	4/8 of the sky covered	5/10 of the sky covered.		
		5	5/8 of the sky covered	6/10 of the sky covered.		
		6	6/8 of the sky covered	7/10 to 8/10 of the sky covered.		
		7	7/8 of the sky covered	9/10 of the sky covered.		
		8	8/8 of the sky covered	Overcast.		
		9	Sky obscured			
		Blank	Unknown			
23-24	Wind Direction	00	Calm			
		01-36	10 to 360 degrees	Wind speed 0 to 99 knots.		
		51-86	10 to 360 degrees	Wind speed 100 to 199 knots.		
		Blank	Unknown			

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25-26	Wind Speed	00-99	0 to 99 knots	Wind direction punched 00-36.		
		00-99	100 to 199 knots	Wind direction punched 51-86.		
		Blank	Unknown			
27		Blank	Not used			
28-29	Visibility	X0	Less than 20 meters	Codes X0-X9 represent increments of 20 meters.		1949 Synoptic Code used through 1954.
		X1	20 meters			
		X2	40 meters			
		X3	60 meters			
		X4	80 meters			
		X5	100 meters			
		X6	120 meters			
		X7	140 meters			
		X8	160 meters			
		X9	180 meters			
		00	Less than 200 meters	Codes 00-80 represent increments of 200 meters.		
		01-80	200 to 16,000 meters			
		81	20 kilometers	Codes 81-85 represent increments of 20 kilometers.		
		82	40 kilometers			
		83	60 kilometers			
		84	80 kilometers			
		85	100 kilometers			
		86	150 kilometers	Codes 90-99 represent increments similar to those in the 0-9 synoptic code of earlier years.		
		87	200 kilometers			
		88	300 kilometers			
		89	500 kilometers or more			
		90	Less than 50 meters			
		91	50 meters			
92	200 meters					
93	500 meters					
94	1 kilometer					
95	2 kilometers					
96	4 kilometers					
97	10 kilometers					
98	20 kilometers					
99	50 kilometers or more					
Blank	Unknown					
28-29	Visibility	00	< 100 meters	Codes 00-50 represent increments of 100 meters.		1955 Synoptic Code effective 1 January 1955.
		01-50	0.1 to 5.0 kilometers			
		51-55				
		56-80	6 to 30 kilometers	Codes 56-80 represent increments of 1 kilometer.		
		81-88	35 to 70 kilometers	Codes 81-89 represent increments of 5 kilometers.		
		89	> 70 kilometers			
		90	Less than 50 meters	Codes 90-99 represent increments similar to those in the 0-9 synoptic code of earlier years.		
		91	50 meters			
		92	200 meters			
		93	500 meters			
		94	1 kilometer			
		95	2 kilometers			
		96	4 kilometers			
		97	10 kilometers			
		98	20 kilometers			
99	50 kilometers or more					
Blank	Unknown					
30-31	Present Weather	00-49		No precipitation at the station at time of observation.	ww	

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Col- umns	Item	Code	Code Definition	Remarks	Units or Symbols	Reporting and Coding Practices	
30-31	Present Weather (Continued)	00-19		No precipitation, fog, duststorm, sandstorm or drifting snow at the ship at the time of observation or during the preceding hour, except for 09.			
		00-03	No hydrometeors except clouds	Characteristic change of the state of the sky during the past hour.			
		00	Cloud development not observed or not observable				
		01	Clouds generally dissolving or becoming less developed				
		02	State of the sky on the whole unchanged				
		03	Clouds generally forming or developing				
		04-09	Haze, dust, sand or smoke				
		04	Visibility reduced by smoke	e.g., veldt or forest fires, industrial smoke, or volcanic ashes.			
		05	Dry haze				
		06	Widespread dust in suspension in the air	Near the ship at time of observation, not raised by wind.			
		07	Dust or sand raised by wind	At or near ship at the time of observation, but no well developed dust devil(s) and no duststorm or sandstorm seen.			
		08	Well developed dust devil(s)	Seen at or near ship within the last hour but no duststorm or sandstorm seen.			
		09	Duststorm or sandstorm	Within sight of ship or at ship during the last hour.			
		10	Light fog	Visibility 1,000 m.; 1100 yards or more.			
		11	Patches of shallow fog	At the ship, not deeper than 33 feet.			
		12	More or less continuous shallow fog				
		13	Lightning visible	No thunder heard.			
		14	Precipitation within sight	But not reaching ground at ship.			
		15	Precipitation within sight	Reaching ground but distant (estimated to be > 3 miles from ship.)			
		16	Precipitation within sight, reaching sea	Near to, but not at ship.			
		17	Thunder heard	No precipitation at the ship.			
		18	Squall(s) within sight	During the past hour.			
		19	Funnel cloud(s) in sight	During the past hour (tornado or waterspout).			
		20-29	Precipitation, fog or thunderstorm	At the ship during the preceding hour but not at the time of observation.			
		20	Drizzle (not freezing)	Not falling as showers.			
		21	Rain (not freezing)				
		22	Snow				
		23	Rain and snow				
24	Freezing drizzle or freezing rain						
25	Shower(s) of rain						
26	Shower(s) of snow or of rain and snow						
27	Shower(s) of hail or of hail and rain						
28	Fog						

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Col- umns	item	Code	Code Definition	Remarks	Units or Symbols	Reporting and Coding Practices
30-31	Present Weather (Continued)	29	Thunderstorm	With or without precipitation.		
		30-39	Duststorm, sandstorm or drifting snow			
		30	Slight or moderate duststorm or sandstorm	Has decreased during the preceding hour.		
		31		No appreciable change during the preceding hour.		
		32		Has increased during the preceding hour.		
		33	Severe duststorm or sandstorm	Has decreased during the preceding hour.		
		34	Severe duststorm or sandstorm	No appreciable change during the preceding hour.		
		35		Has increased during the preceding hour.		
		36	Slight or moderate drifting snow	Generally low.		
		37	Heavy drifting snow			
		38	Slight or moderate drifting snow	Generally high.		
		39	Heavy drifting snow			
		40-49	Fog	At the time of observation		
		40	Fog at a distance	At the time of observation, but not at the ship during the last hour, the fog extending to a level above that of the observer.		
		41	Fog in patches			
		42	Fog, sky discernable	Has become thinner during the preceding hour.		
		43	Fog, sky not discernable			
		44	Fog, sky discernable	No appreciable change during the preceding hour.		
		45	Fog, sky not discernable			
		46	Fog, sky discernable	Has begun or has become thicker during the preceding hour.		
		47	Fog, sky not discernable			
		48	Fog depositing rime	Sky discernable.		
		49		Sky not discernable.		
		50-99	Precipitation at the ship	At the time of observation.		
		50-59	Drizzle	At the time of observation.		
		50	Drizzle, not freezing, intermittent	Slight at the time of observation.		
		51	Drizzle, not freezing, continuous	Slight at the time of observation.		
		52	Drizzle, not freezing, intermittent	Moderate at the time of observation.		
		53	Drizzle, not freezing, continuous			
		54	Drizzle, not freezing, intermittent	Thick at the time of observation.		
		55	Drizzle, not freezing, continuous			
		56	Drizzle, freezing,	Slight.		
		57		Moderate or thick.		
		58	Drizzle and rain	Slight.		
		59		Moderate or heavy.		
		60-69	Rain	At the time of observation.		
		60	Rain, not freezing, intermittent	Slight at time of observation.		
		61	Rain, not freezing, continuous			

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Col- umns	Item	Code	Code Definition	Remarks	Units or Symbols	Reporting and Coding Practices
30-31	Present Weather (Continued)	62	Rain, not freezing, intermittent	Moderate at time of observation.		
		63	Rain, not freezing, continuous			
		64	Rain, not freezing, intermittent	Heavy at time of observation.		
		65	Rain, not freezing, continuous			
		66	Rain, freezing	Slight		
		67		Moderate or heavy.		
		68	Rain, or drizzle and snow	Slight		
		69		Moderate or heavy.		
		70-79	Solid precipitation	Not in showers at time of observation.		
		70	Intermittent fall of snow flakes	Slight at time of observation.		
		71	Continuous fall of snow flakes			
		72	Intermittent fall of snow flakes	Moderate at time of observation.		
		73	Continuous fall of snow flakes			
		74	Intermittent fall of snow flakes	Heavy at time of observation.		
		75	Continuous fall of snow flakes			
		76	Ice needles	With or without fog.		
		77	Granular snow			
		78	Isolated starlike snow crystals			
		79	Ice pellets			
		80-99	Showery precipitation	Or precipitation with current or recent thunderstorm.		
		80	Rain shower(s)	Slight.		
		81		Moderate or heavy.		
		82		Violent.		
		83	Shower(s) of rain and snow mixed	Slight.		
		84		Moderate or heavy.		
		85	Snow shower(s)	Slight.		
		86		Moderate or heavy.		
		87	Shower(s) of soft or small hail, with or without rain or rain and snow mixed	Slight.		
		88		Moderate or heavy.		
		89	Shower(s) of hail with or without rain or rain and snow mixed, not associated with thunder	Slight.		
		90		Moderate or heavy.		
		91	Slight rain	At time of observation, thunderstorm during the preceding hour but not at time of observation.		
		92	Moderate or heavy rain			
		93	Slight snow or rain and snow mixed or hail*	*Hail, small hail, soft hail.		
		94	Moderate or heavy snow or rain and snow mixed or hail*			
95	Thunderstorm, slight or moderate without hail* but with rain &/or snow	At time of observation.				

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30-31	Present Weather (Continued)	96	Thunderstorm, slight or moderate, with hail*	*Hail, small hail, soft hail.			
		97	Thunderstorm, heavy, without hail* but with rain and/or snow				
		98	Thunderstorm combined with duststorm or sandstorm				
		99	Thunderstorm, heavy, with hail*				
		Blank	Unknown				
32	Past Weather	0	Clear or few clouds		W		
		1	Partly cloudy or variable clouds				
		2	Cloudy or overcast				
		3	Sandstorm or duststorm or drifting or blowing snow				
		4	Fog, smoke or thick dust haze				
		5	Drizzle				
		6	Rain				
		7	Snow or rain and snow mixed or sleet				
		8	Shower(s)				
		9	Thunderstorm with or without precipitation				
Blank	Unknown						
33		Blank	Not used				
34-36	Sea Level Air Pressure	000-399	1000.0 - 1039.9 mb.				
		400-600	940.0 - 960.0 mb.				
		601-999	1040.0 - 1060.0 mb.				
		Blank	Unknown				
37-38	Air Temperature	00-99	0° to 99°F	Negative temperatures indicated by subtraction from 100	TT		
		00-99	-100° to -1°F				
		Blank	Unknown				
39-41		Blank	Not used				
42	Low Cloud Amount (Eighths)	0	No clouds				
		1	1/8 of the sky covered				< 1/10 to 1/10 of the sky covered.
		2	2/8 of the sky covered				2/10 to 3/10 of the sky covered.
		3	3/8 of the sky covered				4/10 of the sky covered.
		4	4/8 of the sky covered				5/10 of the sky covered.
		5	5/8 of the sky covered				6/10 of the sky covered.
		6	6/8 of the sky covered				7/10 to 8/10 of the sky covered.
		7	7/8 of the sky covered				9/10 of the sky covered.
		8	8/8 of the sky covered				Overcast.
		9	Sky obscured				
Blank	Unknown						
43	Type of Low Cloud	0	No low cloud		CL		
		1	Cu with little vertical development				
		2	Cu developed, generally towering, bases all at same level				

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Col- umns	item	Code	Code Definition	Remarks	Units or Symbols	Reporting and Coding Practices
43	Type of Low Cloud (Continued)	3	Cb without clearly out- lined tops, but not cirriform			
		4	Sc formed by spreading out of Cu			
		5	Sc not formed by spreading out of Cu			
		6	St or Fs, but not Fs of bad weather			
		7	Fs and/or Fc of bad weather			
		8	Cu and Sc other than those formed by spread- ing out of Cu; bases at different levels			
		9	Cb with cirriform top, often anvil-shaped			
		X	Sky obscured or unknown			
		Blank	Unknown			
		44	Height of Low Cloud	0	0 ft to 150 ft	0 meters to 50 meters.
1	150 ft to 300 ft			50 meters to 100 meters.		
2	300 ft to 600 ft			100 meters to 200 meters.		
3	600 ft to 1000 ft			200 meters to 300 meters.		
4	1000 ft to 2000 ft			300 meters to 600 meters.		
5	2000 ft to 3000 ft			600 meters to 1000 meters.		
6	3000 ft to 5000 ft			1000 meters to 1500 meters.		
7	5000 ft to 6500 ft			1500 meters to 2000 meters.		
8	6500 ft to 8000 ft			2000 meters to 2500 meters.		
9	No clouds below 8000 ft			No clouds below 2500 meters.		
X	Sky obscured or unknown					
Blank	Unknown					
45	Type of Middle Cloud	0	No middle cloud		CM	
		1	Thin As, Semi-transpar- ent everywhere			
		2	Thick As or Ns			
		3	Thin Ac, not changing much, at a single level			
		4	Thin Ac in patches, changing, and/or at more than one level			
		5	Thin Ac in bands, or a layer spreading over sky and thickening			
		6	Ac formed by spreading out of Cu			
		7	Double-layered Ac, or a thick layer of Ac, not increasing; or As and Ac both present at same or different levels			
		8	Ac in form of Cu-shaped tufts or Ac with turrets			
		9	Ac of chaotic sky, dense Ci in patches usually also present			

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45	Type of Middle Cloud (Continued)	X	Sky obscured or unknown			
		Blank	Unknown			
46	Type of High Cloud	0	No high cloud			
		1	Filaments of Ci, scat- tered and not increasing			
		2	Dense Ci in patches, or twisted sheaves, usually not increasing			
		3	Ci, often anvil-shaped, from or with Cb			
		4	Ci, hook shaped, spread- ing and thickening			
		5	Ci and Cs, often in converging bands, or Cs alone, not reaching 45° altitude			
		6	Ci and Cs, often in converging bands, or Cs alone, exceeding 45° altitude			
		7	Cs covering entire sky			
		8	Cs not increasing and not covering entire sky			
		9	Cc alone or predominant			
		X	Sky obscured or unknown			
		Blank	Unknown			
47-56		Blank	Not used			
57-59	Dry Bulb Temperature	000-499	0.0 to +49.9°C			
		500-999	-0.0 to -49.9°C	500 added to indicate negative values.		
		Blank	Unknown			
60-62	Wet Bulb Temperature	000-499	0.0 to +49.9°C			
		500-999	-0.0 to -49.9°C	500 added to indicate negative values.		
		Blank	Unknown			
63-64	Sea Temperature	00-99	0° to 99°F			
		00-99	-100° to -1°F	Negative temperatures indicated by subtraction from 100.		
		Blank	Unknown			
65-67	Dew Point Temperature	000-499	0.0 to +49.9°C			
		500-999	-0.0 to -49.9°C	500 added to indicate negative values.		
		Blank	Unknown			
68-78		Blank	Not used			
79-80	Dew Point Temperature	00-99	0° to 99°F			
		00-99	-100° to -1°F	Negative temperatures indicated by subtraction from 100.		
		Blank	Unknown			