

Tabular Observation Files

User guide – version 1.0 – updated 1 August 2023

This user guide provides a summary of the METAR/SPECI (IDY03100) and synoptic (IDY03000) observations for Australian stations available to Registered Users via FTP. Information on decoding the observation messages in these products is included in the appendices.

Products

Table 1 provides a description of the tabular observation files (IDY03100 and IDY03000).

Product Code	Product Description
IDY03100	METAR (a routine report of meteorological conditions at an aerodrome) and SPECI (a special report of meteorological conditions, issued when one or more elements meet specified criteria significant to aviation) message data from Australian stations
IDY03000	Synoptic observations (SYNOPS) for Australia – manual observations supplemented by automatic weather stations

Table 1 Product codes and descriptions for the tabular observation files (IDY03100 and IDY03000)

Product Issue Time

Files are issued every fifteen minutes (about nine minutes after the observation time). Note that the source messages are generally issued at hourly or three-hourly intervals for IDY03000, and hourly or half-hourly intervals for IDY03100.

File Location

Files appear in the /fwo subdirectory of Registered Users' directories.

Files are also available via anonymous FTP at: <ftp://ftp.bom.gov.au/anon/gen/fwo/>. Please note that use of data from anonymous FTP should be in accordance with the [copyright notice](#) and [disclaimer](#).

File Naming Convention

Product files conform to the following naming convention:

IDYnnnn.yyymddhhmm.ext

<u>File-name key</u>	
IDY03nnn	Product Code as listed in Table 1
yyymddhhmm	generation time of the message in UTC
ext	file-type extension (axf, dbf, shp, or shx)

Message Types

IDY03100 includes METAR and SPECI message data. Information on decoding METAR/SPECI messages can be found in [Appendix 1](#).

IDY03000 includes SYNOP message data. Information on decoding SYNOP messages can be found in [Appendix 2](#).

Each file displays observation messages received since the previous file was issued. Most observation messages appear in the file showing the corresponding time. However, a number of observations are delayed and appear in files time-stamped later than the observation time.

Station Information

Station information can be found by referring to the WMO number in the following list:
http://www.bom.gov.au/climate/data/lists_by_element/stations.txt

Appendix 1

Table 2 lists the fields included in the decoded IDY03100 (and IDY03101) METAR and SPECI message data files. Missing data is indicated by -9999.

Field	Description
ID_num	WMO index number, normally a unique id, but can be missing
ID_name[6]	Abbreviated name, used to identify the observing site
Date	Date, Year (4 digits), Month (2 digits), Day (2 digits)
Time	Time, Hour (2 digits), Minutes (2 digits) UTC
Lat	Latitude, decimal degrees, S -ve, N +ve
Lon	Longitude, decimal degrees, E +ve, W -ve
Wdir	Wind direction, degrees true
Wspd	Wind speed, knots
T_DB	Temperature (dry bulb), degrees Celsius
DP	Dew point, degrees Celsius
QNH	Aircraft altimeter setting, hPa
RF9am	Rainfall since 9AM local time, mm
RF10m	Rainfall in last 10 minutes, mm
Vis	Visibility, m
Avis	Automatically measured visibility, m
Gust	Maximum wind gust last 10 minutes, knots
Wx1Int	First (most important) present weather intensity, see Table 3
Wx1Dsc	First (most important) present weather qualifier, see Table 4
Wx1Wx1	First (most important) present weather type, see Table 5
Wx1Wx2	Additional weather type for mixed precipitation
Wx1Wx3	Additional weather type for mixed precipitation
Wx2Int	Second (less important) present weather intensity, see Table 3
Wx2Dsc	Second (less important) present weather intensity, see Table 4
Wx2Wx1	Second (less important) present weather intensity, see Table 5
Wx2Wx2	Additional weather type for mixed precipitation
Wx2Wx3	Additional weather type for mixed precipitation
Cld1Amt	Lowest cloud layer amount, code, see Table 7
Cld1Typ	Lowest cloud layer type, code, see Table 6
Cld1Base	Lowest cloud layer base, m

Field	Description
Cld2Amt	Second cloud layer amount, code, see Table 7
Cld2Typ	Second cloud layer type, code, see Table 6
Cld2Base	Second cloud layer base, m
Cld3Amt	Third cloud layer amount, code, see Table 7
Cld3Typ	Third cloud layer type, code, see Table 6
Cld3Base	Third cloud layer base, m
Cld4Amt	Fourth cloud layer amount, code, see Table 7
Cld4Typ	Fourth cloud layer type, code, see Table 6
Cld4Base	Fourth cloud layer base, m
Ceil1Amt	Lowest cloud layer amount measured by ceilometer, code, see Table 7
Ceil1Base	Lowest cloud layer base measured by ceilometer, m
Ceil2Amt	Second cloud layer amount measured by ceilometer, code, see Table 7
Ceil2Base	Second cloud layer base measured by ceilometer, m
Ceil3Amt	Third cloud layer amount measured by ceilometer, code, see Table 7
Ceil3Base	Third cloud layer base measured by ceilometer, m

Table 2 Elements included in the IDY03100 (and IDY03101) files

Table 3 lists the codes for weather intensity (Wx1Int and Wx2Int) and their descriptions. Please note that this a Bureau of Meteorology (Bureau) specific local code table and is not an official World Meteorological Organisation (WMO) table.

Code	Description
0	Light
1	Moderate or not applicable
2	Heavy (e.g. for rain) or thick (e.g. for fog)
3	In the vicinity but not at the station

Table 3 Codes for weather intensity (Wx1Int and Wx2Int)

Table 4 lists the descriptive qualifiers for weather phenomena (Wx1Dsc and Wx2Dsc). Please note that this a Bureau specific local code table and is not an official WMO table.

Code	Description
0	No descriptive qualifier
1	Shallow (e.g. for fog, mist)
2	In patches (e.g. for fog, mist)
3	Partial (e.g. for fog, mist covering part of station)
4	Drifting (e.g. for sand, snow, dust)
5	Blowing (e.g. for sand, dust, snow)
6	Showers (e.g. for rain, snow)
7	With thunderstorm (e.g. for rain, snow, or alone without other weather)
8	Freezing (e.g. for rain, fog)

Table 4 Descriptive qualifiers for weather phenomena (Wx1Dsc and Wx2Dsc)

Table 5 lists the descriptive qualifiers for weather type/phenomenon (Wx1Wx1, Wx1Wx2, Wx1Wx3, Wx2Wx1, Wx2Wx2, and Wx1Wx3). Please note that this a Bureau specific local code table and is not an official WMO table.

Code	Description
0	None (should only occur with thunderstorm)
1	Drizzle
2	Rain
3	Snow
4	Snow grains
5	Ice crystals
6	Snow pellets
7	Hail
8	Soft hail
9	Mist
10	Fog
11	Smoke
12	Volcanic ash
13	Dust
14	Sand
15	Haze
16	Dust devils

Code	Description
17	Squall
18	Funnel cloud (tornado, water spout)
19	Sandstorm
20	Duststorm
21	Unknown precipitation (e.g. by automated station unable to distinguish)
22	Spray

Table 5 Codes for weather type/phenomenon (Wx1Wx1, Wx1Wx2, Wx1Wx3, Wx2Wx1, Wx2Wx2, and Wx1Wx3)

Table 6 lists the cloud type codes and their descriptions (Cld1Typ, Cld2Typ, and Cld3Typ). Please note that this is a subset of a larger table (WMO international BUFR code table 0 20 012, CREX code table B 20 012) from which not all values are used.

Code	Description
0	Cirrus
1	Cirrocumulus
2	Cirrostratus
3	Alto cumulus
4	Altostratus
5	Nimbostratus
6	Stratocumulus
7	Stratus
8	Cumulus
9	Cumulonimbus
32	Towering Cumulus (Cumulus congestus)

Table 6 Codes for cloud type (Cld1Typ, Cld2Typ, and Cld3Typ)

Table 7 lists the cloud amount codes and their descriptions (Cld1Amt, Cld2Amt, Cld3Amt, Cld4Amt, Ceil1Amt, Ceil2Amt, and Ceil3Amt). See WMO international BUFR code table 0 20 011, CREX code table B 20 011.

Code	Description	Use
0	None	Not used in METAR
1	1 okta	Rarely user in METAR
2	2 oktas	Rarely user in METAR
3	3 oktas	Rarely user in METAR
4	4 oktas	Rarely user in METAR
5	5 oktas	Rarely user in METAR
6	6 oktas	Rarely user in METAR

Code	Description	Use
7	7 oktas	Rarely user in METAR
8	8 oktas, overcast	
9	Obscured	Not used in METAR
10	Partially obscured	Not used in METAR
11	Scattered, 3-4 oktas	
12	Broken, 5-7 oktas	
13	Few, 1-2 oktas	

Table 7 Codes for cloud amount (Cld1Amt, Cld2Amt, Cld3Amt, Cld4Amt, Ceil1Amt, Ceil2Amt, and Ceil3Amt)

Appendix 2

Table 8 lists the fields included in the IDY03000 (and IDY03010) decoded synoptic data files.

Field	Description
WMO_id	WMO station index number, uniquely identifies station
Name[31]	Observing station name
Abbr[6]	An abbreviated name (normally 4 characters) used for the station
Date	Date, Year (4 digits), month (2 digits), day (2 digits)
Time	Time, Hours (2 digits), minutes (2 digits), UTC
Lat	Latitude, decimal degrees, S -ve, N +ve
Lon	Longitude, decimal degrees, E +ve, W -ve
Stn_typ	Station type
Stn_ht_m	Station height (in metres)
Total_cld	Total cloud cover in oktas, 9 = Sky Obscured by smoke, fog, ...
Wdir	Wind direction, degrees true
Wspd_mps	Wind speed, metres per second
Vis_m	Visibility, metres
Wx[9]	Present weather, abbreviated
Pw1	Past weather (last 3-6 hours), see Table 12
Pw2	Past weather (Used so more than one variation can be reported)
Msl_P	Mean Sea Level Pressure, hPa
Stn_P	Station level pressure, hPa
P_tend_typ	Type of the pressure tendency, numerical code, see Table 9
P_tend_val	Pressure tendency (change) in last 3 hours, hPa
Cor_P_tend	Pressure tendency in last 3 hours corrected for diurnal variation
T_DB	Temperature (dry bulb), degrees C
DP	Dew point, degrees C
Low_cld_amt	Amount of low cloud, oktas, 9 = Sky obscured by fog, smoke, ...
Low_cld_typ[4]	Type of low cloud, abbreviation
Cld_base_m	Base of lowest cloud, m
Cld_dir[4]	Direction of motion of low cloud, compass point
Mid_cld_typ[4]	Type of middle level cloud, abbreviation
Hi_cld_typ[4]	Type of high cloud, abbreviation
Rf_int_h6	Interval for which rain is reported in next field, hours

Field	Description
Rainfall6	Rainfall, mm, usually at 9 or 3 AM/PM
Rf_int_h4	Interval for which rain is reported in next field, hours
Rainfall4	Rainfall, mm, usually since last observation
Sea_state[5]	Sea state, abbreviation
Swl_state[9]	Swell state, abbreviation
Swl_dir[4]	Swell direction, abbreviation
Max_T	Maximum temperature, 24h to 9AM or 6h to 3PM local time, degrees C
Min_T	Minimum temperature, 24h to 9AM local time, degrees C
Min_grnd_T	Minimum ground temperature, 24 h to 9AM local time, degrees C
Snow_depth_m	Depth of snow on ground, metres
Low_cld_code	Code for low level cloud type, see Table 13
Mid_cld_code	Code for middle level cloud type, see Table 14
Hi_cld_code	Code for high level cloud type, see Table 15
Max_T(Int)	Maximum temperature for international exchange
Min_T(Int)	Minimum temperature for international exchange
Plain_lang[51]	Plain language comments

Table 8 Fields included in the IDY03000 (and IDY03010) decoded synoptic data files

Table 9 lists the pressure tendency type codes and their descriptions (P_tend_typ).

Code	Description
0	Increasing, then decreasing, current pressure same or higher
1	Increasing, then steady or increasing more slowly
2	Increasing
3	Decreasing or steady, then increasing, or Increasing, then increasing more rapidly, current pressure higher
4	Steady
5	Decreasing, then increasing, current pressure lower
6	Decreasing, then steady or decreasing more slowly
7	Decreasing
8	Steady or increasing, then decreasing, current pressure lower, or Decreasing, then decreasing more rapidly

Table 9 Pressure tendency type codes and their descriptions (P_tend_typ)

Present Weather Field (Wx[9])

This consists of a two- or three-digit code figure as well as, when relevant, abbreviated text. The abbreviations used (frequently together, e.g. XXRA for heavy rain, FZDZ for freezing drizzle) are listed in Table 10.

Abbreviation	Description
BL	Blowing (usually sand or snow)
DR	Drifting (usually sand or snow)
DZ	Drizzle
FC	Funnel cloud (tornado, water spout)
FG	Fog
FU	Smoke
FZ	Freezing (usually rain or fog)
GR	Hail
HZ	Haze
MI	Shallow (can be applied to Fog etc.)
RE	Ice pellets
PO	Dust devils
RA	Rain
RE	Recent (in the last hour, but not at the observation time)
SA	Sand
SG	Snow grains
SH	Showers
SN	Snow
SQ	Squall
TS	Thunderstorm
XX	Heavy or intense (usually rain or snow)
Lightn	Lightning
Virga	Virga
RIA<5k	Precipitation in the area, less than 5km distant

Table 10 Abbreviations included in Present Weather Field (Wx[9])

Table 11 lists the two- or three-digit codes included in the Present Weather Field (Wx[9]) and their descriptions. Please note that this is a subset of a larger table from which not all values are used (see WMO international BUFR code table 0 20 003, CREX code table B 20 003).

Code	Description
00	Clouds not observed
01	Cloud decreasing
02	State of sky generally unchanging
03	Cloud increasing
04	Smoke or volcanic ash
05	Haze
06	Widespread dust suspended in the air, not raised locally at the time of observation
07	Dust or sand raised locally by the wind at the time of observation, but no well-developed dust devils, sandstorm, or duststorm
08	Well-developed dust devils, but no sandstorm or duststorm
09	Duststorm or sandstorm
10	Mist
11	Patches of shallow fog
12	More or less continuous shallow fog
13	Lightning visible, but no thunder heard
14	Precipitation in sight, but not reaching the ground or sea (virga)
15	Precipitation in sight, reaching the ground, but more than 5km away
16	Precipitation in sight, reaching the ground, near but not at the observing station
17	Thunderstorm without precipitation
18	Squalls
19	Funnel clouds (tornado, water spout)
20	Recent (within the last hour) drizzle
21	Recent (within the last hour) rain, but not freezing rain
22	Recent (within the last hour) snow
23	Recent (within the last hour) mixed rain and snow or ice pellets
24	Recent (within the last hour) freezing drizzle or freezing rain
25	Recent (within the last hour) showers of rain
26	Recent (within the last hour) showers of snow or mixed rain and snow
27	Recent (within the last hour) showers of hail or mixed rain and hail
28	Recent (within the last hour) fog or ice fog
29	Recent (within the last hour) thunderstorm

Code	Description
30	Slight or moderate duststorm or sandstorm, has decreased in the last hour
31	Slight or moderate duststorm or sandstorm, with no appreciable change in the last hour
32	Slight or moderate duststorm or sandstorm, has begun or increased in the last hour
33	Severe duststorm or sandstorm, has decreased in the last hour
34	Severe duststorm or sandstorm, with no appreciable change in the last hour
35	Severe duststorm or sandstorm, has begun or increased in the last hour
36	Slight or moderate drifting snow, generally below eye level
37	Heavy drifting snow, generally below eye level
38	Slight or moderate blowing snow, generally above eye level
39	Heavy blowing snow, generally above eye level
40	Fog or ice fog at a distance but not at the station
41	Patches of fog or ice fog
42	Fog or ice fog, sky visible, has become thinner in the last hour
43	Fog or ice fog, sky invisible, has become thinner in the last hour
44	Fog or ice fog, sky visible, no appreciable change in the last hour
45	Fog or ice fog, sky invisible, no appreciable change in the last hour
46	Fog or ice fog, sky visible, has become thicker in the last hour
47	Fog or ice fog, sky invisible, has become thicker in the last hour
48	Fog, depositing rime (freezing fog), sky visible
49	Fog, depositing rime (freezing fog), sky invisible
50	Slight intermittent drizzle, not freezing
51	Continuous slight drizzle, not freezing
52	Moderate intermittent drizzle, not freezing
53	Continuous moderate drizzle, not freezing
54	Heavy intermittent drizzle, not freezing
55	Continuous heavy drizzle, not freezing
56	Slight freezing drizzle
57	Moderate or heavy freezing drizzle
58	Slight drizzle and rain (mixed)
59	Moderate or heavy drizzle and rain (mixed)
60	Slight intermittent rain, not freezing
61	Continuous slight rain, not freezing

Code	Description
62	Moderate intermittent rain, not freezing
63	Continuous moderate rain, not freezing
64	Heavy intermittent rain, not freezing
65	Continuous heavy rain, not freezing
66	Slight freezing rain
67	Moderate or heavy freezing rain
68	Slight rain and snow or drizzle and snow (mixed)
69	Moderate or heavy rain and snow or drizzle and snow (mixed)
70	Slight intermittent snow
71	Continuous slight snow
72	Moderate intermittent snow
73	Continuous moderate snow
74	Heavy intermittent snow
75	Continuous heavy snow
76	Diamond dust, with or without fog
77	Snow grains, with or without fog
78	Isolated star-like ice crystals, with or without fog
79	Ice pellets
80	Slight rain shower or showers
81	Moderate or heavy rain shower or showers
82	Violent rain shower or showers
83	Slight shower or showers of mixed rain and snow
84	Moderate or heavy shower or showers of mixed rain and snow
85	Slight shower or showers of snow
86	Moderate or heavy shower or showers of snow
87	Slight shower or showers of snow pellets or small hail, with or without rain or mixed rain and snow
88	Moderate or heavy shower or showers of snow pellets or small hail, with or without rain or mixed rain and snow
89	Slight shower or showers of hail, with or without rain or mixed rain and snow, but no thunder
90	Moderate or heavy shower or showers of hail, with or without rain or mixed rain and snow, but no thunder
91	Slight rain now, with thunder during the last hour

Code	Description
92	Moderate or heavy rain now, with thunder during the last hour
93	Slight snow, mixed rain and snow, or hail now, with thunder during the last hour
94	Moderate or heavy snow, mixed rain and snow, or hail now, with thunder during the last hour
95	Slight or moderate thunderstorm with rain or snow but no hail
96	Slight or moderate thunderstorm with hail
97	Heavy thunderstorm with rain or snow but no hail
98	Thunderstorm combined with a sandstorm or duststorm
99	Heavy thunderstorm with hail
100	No significant weather
101	Cloud decreasing
102	State of sky generally unchanging
103	Cloud increasing
104	Haze or smoke or suspended dust, visibility \geq 1km
105	Haze or smoke or suspended dust, visibility $<$ 1km
110	Mist
111	Diamond dust
112	Distant lightning
118	Squalls
120	Recent (during the last hour) fog
121	Recent (during the last hour) precipitation
122	Recent (during the last hour) drizzle, not freezing, or snow grains
123	Recent (during the last hour) rain, not freezing
124	Recent (during the last hour) snow
125	Recent (during the last hour) freezing drizzle or freezing rain
126	Recent (during the last hour) thunderstorm
127	Blowing or drifting snow or sand
128	Blowing or drifting snow or sand, visibility \geq 1km
129	Blowing or drifting snow or sand, visibility $<$ 1km
130	Fog
131	Patches of fog or ice fog
132	Fog or ice fog, has become thinner in the last hour
133	Fog or ice fog, no appreciable change in the last hour

Code	Description
134	Fog or ice fog, has become thicker in the last hour
135	Fog, depositing rime (freezing fog)
140	Precipitation
141	Slight or moderate precipitation
142	Heavy precipitation
143	Slight or moderate liquid precipitation
144	Heavy liquid precipitation
145	Slight or moderate solid precipitation
146	Heavy solid precipitation
147	Slight or moderate freezing precipitation
148	Heavy freezing precipitation
150	Drizzle
151	Slight drizzle, not freezing
152	Moderate drizzle, not freezing
153	Heavy drizzle, not freezing
154	Slight freezing drizzle
155	Moderate freezing drizzle
156	Heavy freezing drizzle
157	Slight drizzle and rain
158	Moderate or heavy drizzle and rain
160	Rain
161	Slight rain, not freezing
162	Moderate rain, not freezing
163	Heavy rain, not freezing
164	Slight freezing rain
165	Moderate freezing rain
166	Heavy freezing rain
167	Slight rain and snow or drizzle and snow
168	Moderate or heavy rain and snow or drizzle and snow
170	Snow
171	Slight snow
172	Moderate snow

Code	Description
173	Heavy snow
174	Slight ice pellets
175	Moderate ice pellets
176	Heavy ice pellets
180	Shower or showers or intermittent precipitation
181	Slight rain shower or showers or slight intermittent rain
182	Moderate rain shower or showers or moderate intermittent rain
183	Heavy rain shower or showers or heavy intermittent rain
184	Violent rain shower or showers or violent intermittent rain
185	Slight snow shower or showers or slight intermittent snow
186	Moderate snow shower or showers or moderate intermittent snow
187	Heavy snow shower or showers or heavy intermittent snow
190	Thunderstorm
191	Slight or moderate thunderstorm without precipitation
192	Slight or moderate thunderstorm with rain showers and/or snow showers
193	Slight or moderate thunderstorm with hail
194	Heavy thunderstorm without precipitation
195	Heavy thunderstorm with rain showers and/or snow showers
196	Heavy thunderstorm with hail
199	Tornado
508	No significant weather
509	Data not available
510	Data expected to have been reported but wasn't

Table 11 The two- or three-digit codes included in the Present Weather Field (Wx[9]) and their descriptions

Table 12 lists the past weather codes (Pw1 and Pw2) and their descriptions (see also WMO international BUFR code table 0 20 004, CREX code table B 20 004). Please note that if only one type of weather has occurred in the last 3-6 hours, Pw1 and Pw2 will be the same. If there has been more than one type of weather in last 3-6 hours, Pw1 and Pw2 should be different, with Pw1 reflecting the "more important" past weather. Code figures 0-9 normally apply to manned stations, 10-19 to automated weather stations.

Code	Description
0	Cloud covering less than 1/2 the sky
1	Cloud covering more than 1/2 the sky part of the time and less than 1/2 the sky part of the time
2	Cloud covering more than 1/2 the sky

Code	Description
3	Sandstorm, dustorm or blowing snow
4	Fog, ice fog, or thick haze
5	Drizzle
6	Rain
7	Snow, or mixed rain and snow
8	Showers
9	Thunderstorm
10	Nothing significant detected
11	Reduced visibility
12	Blowing phenomena (sand, dust, snow, ...) reducing visibility
13	Fog
14	Precipitation (rain, snow, hail, ...)
15	Drizzle
16	Rain
17	Snow or ice pellets
18	Showers or intermittent precipitation
19	Thunderstorm

Table 12 Past weather codes (Pw1 and Pw2) and their descriptions

Table 13 lists the low cloud codes (Low_cld_code) and their descriptions. Please note that this is a subset of a larger table from which not all values are used (see WMO international BUFR code table 0 20 012, CREX code table B 20 012).

Code	Description
30	No low-level cloud
31	Cumulus humilis, or Cumulus fractus (not of bad weather), or both
32	Cumulus mediocris or congestus, with or without Cumulus humilis or fractus or Stratocumulus, all bases at the same level
33	Cumulonimbus calvus, with or without Cumulus, Stratocumulus or Stratus
34	Stratocumulus cumulogenitus
35	Stratocumulus other than stratocumulus cumulogenitus
36	Stratus nebulosis or Stratus fractus (not of bad weather), or both
37	Stratus fractus or Cumulus fractus of bad weather or both (pannus)
38	Cumulus and Stratocumulus other than stratocumulus cumulogenitus, with bases at different levels
39	Cumulonimbus capillatus with or without Cumulonimbus calvus Cumulus, Stratocumulus, Stratus or pannus

Table 13 Low cloud codes (Low_cld_code) and descriptions

Table 14 lists the middle level cloud codes (Mid_cld_code) and their descriptions. Please note that this is a subset of a larger table from which not all values are used (see WMO international BUFR code table 0 20 012, CREX code table B 20 012).

Code	Description
20	No middle level cloud
21	Altostratus translucidus
22	Altostratus opacus or Nimbostratus
23	Altostratus translucidus at a single level
24	Patches (often lenticular) of Altostratus translucidus, continually changing and at one or more levels
25	Altostratus translucidus in bands, or one or more layers of Altostratus translucidus or opacus, progressively invading the sky
26	Altostratus cumulogenitus or cumulonimbogenitus
27	Altostratus translucidus or opacus in two or more layers, or Altostratus opacus in a single layer, not progressively invading the sky, or Altostratus with Altostratus or Nimbostratus
28	Altostratus castellanus or floccus
29	Altostratus of a chaotic sky, usually at several levels

Table 14 Middle level cloud codes (Mid_cld_code) and descriptions

Table 15 lists the high level cloud codes (Hi_cld_code) and their descriptions. Please note that this is a subset of a larger table from which not all values are used (see WMO international BUFR code table 0 20 012, CREX code table B 20 012).

Code	Description
10	No high level cloud
11	Cirrus fibratus, sometimes unicus, not progressively invading the sky
12	Cirrus spissatus in patches or entangled sheaves which usually do not increase
13	Cirrus spissatus cumulonimbogenitus
14	Cirrus unicus or fibratus or both, progressively invading the sky
15	Cirrus (often in bands) and Cirrostratus or Cirrostratus alone, progressively invading the sky, but continuous cloud less than 45 degrees above the horizon.
16	Cirrus (often in bands) and Cirrostratus or Cirrostratus alone, progressively invading the sky, but continuous cloud more than 45 degrees above the horizon without covering the entire sky
17	Cirrostratus covering the entire sky
18	Cirrostratus not covering the entire sky and not progressively invading it
19	Cirrocumulus alone, or Cirrocumulus predominant

Table 15 High level cloud codes (Hi_cld_code) with descriptions



Contact us

Connect with us via webreg@bom.gov.au