

Grid Point Wind & Temperature forecasts

Grid Point Wind and Temperature forecast charts are generated using weather model data.

A Grid Point Wind and Temperature (GPWT) forecast provides a text-based display of forecast wind speed, wind direction and temperature at specified heights above mean sea level (AMSL). GPWT forecasts are displayed in charts for three different volumes of airspace, known as high-level, mid-level and low-level forecasts.

Mid- and high-level GPWT forecast charts are generated from data sourced from the World Area Forecast Centers (WAFCs) and the low-level charts are generated from the Bureau's ACCESS Numerical Prediction model. As charts are generated from different data sources, the GPWT forecast values may differ for the same location.

The charts are issued every six hours valid every three hours (low-level) or six hours (mid- and high-level) for the next 24 hours. Both valid and issue times are shown on each chart. For operations between validity times users can interpolate the data between charts. Receipt of a forecast for a particular validity time will automatically amend and supersede any prior forecasts issued for that validity time. Both issue and validity times are given on the chart.

High-level (FL180 – 450) charts are issued for the Australian and Tasman regions. Mid-level (5000FT – FL240) charts are issued for the Australian, Northeast, Southeast, West and Tasman regions. Low-level (1000FT – FL140) charts are issued for the Australian region and nine smaller areas. International Standard Atmosphere (ISA) temperature and pressure levels (hPa) are used in all charts. The tables to the right list the GPWT charts produced.

The data is presented in latitude and longitude squares (either 5° by 5°, 2.5° by 2.5°, or 1.5° by 1.5°) overlaid on a geographic background.

The values given represent the wind and temperature at specific heights for the mid point of each square. They are given in the formats **ddffftTT**, where:

dd	gives the wind direction in degrees true to the nearest ten degrees (the final zero is truncated)
fff	gives the wind speed in knots
t	gives the sign of the temperature (+ or -)
TT	gives the temperature in whole degrees celsius

High-level

FL450 – 150hPa

FL390 – 200hPa

FL340 – 250hPa

FL300 – 300hPa

FL240 – 400hPa

FL180 – 500hPa

Mid-level

FL240 – 400hPa

FL180 – 500hPa

FL140 – 600hPa

FL100 – 700hPa

FL050 – 850hPa

Low-level

FL140 – 600hPa

1000FT – 700hPa

7000FT – 800hPa

5000FT – 850hPa

2000FT – 950hPa

1000FT – 975hPa

Example GPWT forecast charts

High-level (Australia): FL180 – FL450

134	004	-66	10	008	-67	16	012	-67	20	015	-67	26	025	-67	27	040	-69	27	038	-69	30	029	-67	31	028	-67	32	018	-67	34	010	-67			
13	001	-52	23	013	-52	18	017	-51	19	019	-51	31	038	-53	27	043	-52	30	034	-52	33	036	-52	32	032	-52	36	031	-52	31	027	-52			
03	017	-40	23	010	-40	21	026	-40	18	034	-39	29	038	-40	31	035	-40	30	027	-40	31	037	-40	32	035	-39	33	025	-39	01	026	-39			
04	017	-30	25	008	-29	19	021	-30	22	009	-30	28	029	-30	29	028	-30	28	021	-30	30	031	-30	32	031	-30	33	019	-30	36	023	-29			
09	012	-15	07	008	-14	16	006	-13	14	011	-15	18	012	-15	22	015	-15	24	016	-16	24	018	-14	27	020	-14	28	018	-15	31	013	-14			
08	018	-04	00	005	-05	06	009	-04	10	015	-03	14	016	-03	18	015	-03	21	010	-04	29	010	-05	34	008	-04	35	004	-04	34	005	-04			
26	038	-67	26	028	-68	26	026	-67	24	032	-67	23	034	-67	24	033	-67	26	042	-68	29	063	-69	29	059	-69	30	054	-67	30	048	-68			
28	037	-51	27	034	-51	24	040	-52	22	042	-52	22	035	-52	23	039	-52	28	059	-53	30	069	-53	30	058	-53	31	057	-52	31	050	-51			
29	038	-40	25	043	-40	23	048	-40	22	051	-40	22	036	-40	26	034	-40	29	067	-41	28	069	-40	30	060	-40	30	058	-40	31	050	-40			
29	036	-30	26	037	-31	23	035	-31	21	039	-32	22	027	-33	25	028	-32	28	042	-32	29	043	-31	28	048	-30	29	056	-30	30	051	-29			
31	018	-14	30	006	-15	01	002	-16	18	007	-16	18	016	-17	19	027	-17	23	021	-17	27	026	-17	29	037	-17	29	047	-17	29	044	-17			
26	012	-03	34	013	-03	05	015	-03	12	013	-04	17	014	-04	19	015	-05	23	014	-06	28	014	-06	29	030	-09	27	049	-08	27	029	-07			
26	075	-66	26	068	-66	26	056	-66	25	060	-65	24	077	-67	24	080	-67	27	078	-66	28	084	-68	29	096	-69	29	114	-69	29	106	-69			
27	077	-53	27	074	-53	25	073	-52	24	078	-54	23	074	-53	23	082	-54	27	077	-55	28	091	-54	29	108	-54	30	108	-53	30	097	-53			
28	070	-41	27	071	-42	25	070	-42	24	061	-42	23	062	-43	24	069	-45	27	070	-44	27	083	-43	27	088	-42	28	098	-41	29	108	-40			
29	060	-32	28	052	-32	26	043	-34	24	043	-35	23	045	-36	23	058	-37	25	049	-37	27	058	-35	27	070	-33	29	076	-33	29	082	-32			
30	030	-18	31	032	-17	29	021	-17	25	024	-18	23	029	-19	22	035	-20	23	038	-21	25	035	-22	28	044	-24	28	043	-22	29	050	-20			
27	020	-06	28	024	-05	30	025	-04	26	015	-04	23	021	-05	21	024	-06	23	022	-10	26	010	-11	27	015	-10	27	019	-11	27	029	-10			
28	117	-66	27	115	-67	26	107	-67	25	096	-67	24	087	-67	24	064	-64	24	064	-63	27	046	-63	27	051	-63	28	069	-62	29	107	-64			
28	121	-54	27	113	-54	26	109	-54	25	100	-54	24	100	-55	23	076	-56	25	058	-59	26	046	-58	27	058	-57	29	073	-57	29	117	-55			
29	101	-45	28	094	-46	27	086	-46	26	083	-46	24	090	-47	24	064	-51	25	052	-51	26	038	-49	27	063	-47	28	081	-47	28	098	-44			
29	090	-37	28	078	-37	27	072	-38	26	067	-38	25	067	-38	24	056	-41	24	043	-42	25	039	-40	26	029	-43	27	059	-43	28	081	-40			
29	062	-22	28	058	-21	27	052	-20	26	048	-21	25	044	-22	25	034	-24	24	028	-25	25	023	-28	26	016	-29	25	023	-29	25	037	-29			
29	036	-11	28	034	-10	27	029	-09	27	023	-08	26	020	-11	24	015	-10	23	005	-15	23	005	-15	21	011	-16	18	004	-16	22	032	-16			
27	099	-59	28	090	-60	27	088	-62	26	076	-62	25	066	-62	24	049	-61	24	024	-62	24	018	-64	23	029	-61	25	037	-57	26	060	-55			
28	092	-58	28	092	-56	27	088	-57	26	088	-57	25	067	-57	25	045	-57	28	022	-61	20	026	-57	19	011	-58	24	027	-59	26	051	-56			
28	080	-50	28	075	-50	27	078	-48	27	066	-48	26	056	-50	25	033	-52	29	013	-53	20	025	-51	17	012	-55	22	028	-54	25	045	-53			
28	071	-42	28	064	-42	28	070	-41	27	073	-42	26	053	-42	27	025	-45	25	017	-45	25	017	-44	15	011	-47	21	036	-47	23	045	-46			
28	057	-28	28	045	-27	28	055	-26	27	047	-26	28	030	-27	27	022	-28	25	016	-28	18	004	-30	28	004	-30	28	039	-31	21	038	-32			
28	043	-16	28	039	-16	28	036	-16	28	034	-15	29	019	-16	26	017	-15	27	008	-17	19	007	-18	20	018	-19	20	018	-19	21	036	-21			
28	092	-52	28	079	-53	28	074	-57	27	061	-59	27	044	-60	27	028	-60	24	016	-61	25	019	-64	20	030	-63	20	033	-59	21	033	-55			
28	108	-54	29	101	-55	29	071	-60	28	048	-60	27	036	-60	28	029	-61	26	011	-62	26	011	-62	19	021	-61	17	050	-61	20	047	-58			
28	114	-55	29	100	-55	30	063	-54	29	041	-52	28	030	-54	28	025	-53	32	025	-62	22	002	-52	16	018	-53	17	050	-53	19	050	-55			
28	101	-49	30	086	-47	30	060	-45	29	045	-45	29	027	-45	27	022	-44	30	024	-44	25	011	-43	18	016	-43	18	045	-45	19	045	-47			
28	086	-34	29	078	-31	30	056	-29	29	044	-28	29	030	-29	29	030	-29	27	020	-29	27	017	-29	22	026	-30	20	054	-33	19	047	-34			
27	084	-20	29	062	-19	29	048	-17	30	035	-17	29	021	-17	29	025	-17	29	016	-18	28	017	-19	22	017	-20	21	032	-21	19	038	-22			
29	074	-45	30	077	-49	30	075	-52	30	065	-56	28	050	-59	29	037	-58	27	039	-59	25	029	-60	24	030	-62	21	033	-61	20	042	-57			
29	088	-45	30	092	-50	30	093	-57	30	073	-63	28	051	-63	27	031	-62	29	049	-61	28	041	-62	26	029	-64	21	043	-64	18	059	-63			

Mid-level (South-East): FL050 – FL240

23	037	-20	23	033	-21	23	040	-21	23	036	-22	23	037	-22	24	036	-23	26	031	-24	26	030	-26	27	034	-26	28	036	-24	27	038	-24	27	043	-23	27	047	-23	27	054	-22	27	061	-21			
24	023	-06	24	007	-07	23	015	-10	23	015	-12	23	015	-12	23	015	-12	23	015	-12	23	015	-12	23	015	-12	23	015	-12	23	015	-12	23	015	-12	23	015	-12	23	015	-12	23	015	-12	23	015	-12
02	003	+01	05	001	00	20	003	00	16	007	-01	15	008	-01	14	005	-01	12	012	-02	11	012	-03	12	012	-04	13	008	-04	18	000	-04	22	014	-04	23	021	-03	25	025	-03	25	025	-03			
08	014	+06	08	012	+06	09	011	+06	11	011	+07	09	014	+06	09	022	+06	11	021	+06	11	017	+05	10	012	+04	09	013	+04	15	010	+04	18	009	+04	21	013	+04	22	018	+03	23	020	+04			
07	013	+10	09	018	+11	08	024	+12	09	022	+11	09	026	+10	10	023	+10	10	021	+10	09	020	+10	08	019	+10	09	014	+10	09	023	+08	11	023	+08	15	025	+08	16	024	+07	17	023	+08			
25	038	-21	24	037	-22	23	037	-23	23	032	-24	22	033	-24	22	027	-27	25	024	-28	25	020	-29	26	026	-28	26	037	-27	26	044	-27	24	056	-26	26	065	-25	27	075	-24						
25	024	-06	24	020	-06	24	015	-11	21	011	-13	20	009	-15	23	009	-15	23	009	-15	23	009	-15	23	009	-15	23	009	-15	23	009	-15	23	009	-15	23	009	-15	23	009	-15	23	009	-15	23	009	-15
33	007	-02	34	004	-03	33	003	-03																																							

