

**May 2017 Gridded Data Inventory**

The gridded data sets listed below are available for no additional charge to SuperPack®-Premium users on a reasonable request basis. These data sets can be accessed directly by users of the Speedwell Weather System via API. We are continuously adding gridded data and this list will therefore be updated on a regular basis.

Please contact us for further information relating to the provision of Settlement Data based on gridded data.

Cells in yellow show change from previous Marchupdate

Data Element Name	Data Provider Name	Brief description	Region	Earliest Data	Daily/Hourly?	Latest Data	Measure Units
Wind Speed 80 m	Speedwell Weather based on ERA Interim 0.75 * 0.75	European region proprietary Speedwell derived gridded data set providing wind speed at 80 m at a resolution of 5 km	Europe	01/Jan/79	Daily	31/Dec/16	m/s
Wind Direction 80 m	Speedwell Weather based on ERA Interim 0.75 * 0.75	European region proprietary Speedwell derived gridded data set providing wind direction at 80 m at a resolution of 5 km	Europe	01/Jan/79	Daily	31/Dec/16	degrees
Wind u + 80 m	Speedwell Weather based on ERA Interim 0.75 * 0.75	European region proprietary Speedwell derived gridded data set providing wind u at 80 m and at a resolution of 5 km	Europe	01/Jan/79	Daily	31/Dec/16	m/s
Wind v + 80 m	Speedwell Weather based on ERA Interim 0.75 * 0.75	European region proprietary Speedwell derived gridded data set providing wind v at 80 m and at a resolution of 5 km	Europe	01/Jan/79	Daily	31/Dec/16	m/s
Rain	ARC2	Africa region rainfall climatology using 3 hourly infrared satellite imagery (EUMETSAT) and hourly/24 hour rainfall totals from WMO reporting rain gauges (GTS).	Africa	02/Jan/83	Daily	05/Dec/16	mm
Rain	Bureau of Meteorology (Australia)	Reanalysis of quality controlled surface rainfall observations, projected to a 5 km resolution regular grid. Series is revised over time as further improvements in data quality applied.	Australia	01/Jan/00	Daily	20/Jan/17	mm
TMax	Bureau of Meteorology (Australia)	Daily TMax based on reanalysis of quality controlled surface maximum temperature observations, projected to a 5 km resolution regular grid with topographic correction for the estimated temperatures.	Australia	01/Jan/11	Daily	15/Jan/17	C
TMin	Bureau of Meteorology (Australia)	Daily TMin based on reanalysis of quality controlled surface minimum temperature observations, projected to a 5 km resolution regular grid with topographic correction for the estimated temperatures.	Australia	01/Jan/11	Daily	15/Jan/17	C
Solar Exposure	Bureau of Meteorology (Australia)	A model generated history of downward irradiance at the ground. Daily values based on underlying hourly data derived from satellite data and hourly cloud albedo on a 5 km resolution grid.	Australia	01/Jan/90	Daily	18/Jan/17	MJ/m2
Rain	CHIRPS version 2.0	A global rainfall estimate, derived from satellite imagery using algorithms to estimate rainfall at the surface based upon cloud top temperatures.	Global	01/Jan/81	Daily	31/Mar/15	mm
2m Dew Point Temperature	ERA 0.75 resolution	The data assimilation system used to produce ERA-Interim is based on a 2006 release of the IFS (Cy31r2). The system includes a 4-dimensional variational analysis (4D-VAR) with a 12-hour analysis window.	Global	01/Jan/79	Hourly	31/Oct/16	K
Mean Sea Level Pressure	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	Pa
Mean Wave Direction	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	degrees
Sea Surface Temperature	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	K
Significant Wave Height & Swell	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	m
Snow Depth	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	m
Soil Temperature Layer 1	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	K
Soil Temperature Layer 2	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	K
Soil Temperature Layer 3	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	K
Soil Temperature Layer 4	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	K
Surface Pressure	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	Pa
Surface solar radiation downwards	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	J m**2
Temperature 2m	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	K
TMax	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	K
TMin	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	K
Total Precipitation	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	m
Volumetric Soil Water Layer 1	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	m**3 m**3
Volumetric Soil Water Layer 2	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	m**3 m**3
Volumetric Soil Water Layer 3	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	m**3 m**3
Volumetric Soil Water Layer 4	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	m**3 m**3
Wind Direction	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	degrees
Wind Speed 10m	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	m/s
Wind u +10m	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	m/s
Wind v +10m	ERA 0.75 resolution	As above	Global	01/Jan/79	Hourly	31/Oct/16	m/s

**Coming Soon**

Data Element Name	Data Provider Name	Brief description	Region	Earliest Data	Daily/Hourly?	Latest Data	Measure Units
Wind Speed 80m	Speedwell Weather based on ERA Interim 0.75 * 0.75	Global proprietary Speedwell derived gridded data set providing wind speed at 80 m at a resolution of 16 km	Global	01/Jan/79	Daily	31/Dec/16	m/s
Wind Direction 80 m	Speedwell Weather based on ERA Interim 0.75 * 0.75	Global proprietary Speedwell derived gridded data set providing wind direction at 80 m at a resolution of 16 km	Global	01/Jan/79	Daily	31/Dec/16	degrees
Wind u 80 m	Speedwell Weather based on ERA Interim 0.75 * 0.75	Global proprietary Speedwell derived gridded data set providing wind u at 80 m at a resolution of 16 km	Global	01/Jan/79	Daily	31/Dec/16	m/s
Wind v 80 m	Speedwell Weather based on ERA Interim 0.75 * 0.75	Global proprietary Speedwell derived gridded data set providing wind v at 80 m and at a resolution of 16 km	Global	01/Jan/79	Daily	31/Dec/16	m/s
Wave Height	Speedwell Weather based on ERA Interim 0.75 * 0.75	A proprietary Speedwell derived gridded data set providing wave height data on a 16 km reduced global resolution.	Global	01/Jan/79	6-hourly	31/Dec/16	m
Wave Height	Speedwell Weather based on ERA Interim 0.75 * 0.75	A proprietary Speedwell derived gridded data set providing wave height data on a 5 km grid resolution across Europe.	Europe	01/Jan/79	6-hourly	31/Dec/16	m
Solar Radiation Surface Downwards	Speedwell Weather based on ERA Interim 0.75 * 0.75	A proprietary Speedwell derived gridded data set providing surface solar radiation downwards (short wave) on a 5 km resolution grid across Europe.	Europe	01/Jan/79	Daily	31/Dec/16	J/cm2
Solar Radiation Surface Downwards	Speedwell Weather based on ERA Interim 0.75 * 0.75	A proprietary Speedwell derived gridded data set giving surface solar radiation across the United States, with a 5 km resolution.	United States	1979-01-01	Daily	31/Dec/16	J/cm2
Wind Speed 10 m, 50 m and 100 m	Speedwell Weather based on MERRA2 0.5 * 0.625	A proprietary Speedwell derived gridded data set giving wind at a heights of 10, 50 and 100 m across the United States, with a 5 km resolution.	United States	1980-01-01	Daily	31/Dec/16	m/s
MODIS Vegetation Indices (NDVI)	MODIS - MOD13C1	Global 16-day composite of the MODIS Enhanced Vegetation Index (EVI) included in the MOD13C1 product at 5 km resolution	Global	2000-02-18	16days	18/Feb/17	NDVI
Rain	DWD - Regnie project	German gridded daily rain at 1 km resolution	Germany	1931-01-01	Daily	09/Mar/17	mm
Rain	NOAA	CPC Unified Gauge-Based Analysis of Global Daily Precipitation Project at 0.5 deg resolution across the globe	Global	1979-01-01	Daily	08/Mar/17	mm
Wind 10 m, 50 m and 100 m	Speedwell Weather based on MERRA2 0.5 * 0.625	A proprietary Speedwell derived gridded data set giving wind at a heights of 10, 50 and 100 m across South America, with a 5 km resolution.	South America	1980-01-01	Daily	28/Feb/17	m/s
Wind 10 m	Speedwell Weather based on MERRA2 0.5 * 0.626	A proprietary Speedwell derived gridded data set giving wind at 10 m across Europe only, with a 5 km resolution.	Europe	1980-01-01	Daily	28/Feb/17	m/s
T24 Ave	Speedwell Weather based on MERRA2 0.5 * 0.627	A proprietary Speedwell derived gridded data set giving Tave24 (Tmean) (Average of 24 hourly spot temperature readings) at 2m across Europe, with a 5 km resolution.	Europe	1980-01-01	Daily	28/Feb/17	° C
T2max (Europe only) 5km grid	Speedwell Weather based on MERRA2 0.5 * 0.628	A proprietary Speedwell derived gridded data set giving TMax at 2m across Europe, with a 5 km resolution.	Europe	1980-01-01	Daily	28/Feb/17	° C
T2min (Europe only) 5km grid	Speedwell Weather based on MERRA2 0.5 * 0.629	A proprietary Speedwell derived gridded data set giving TMin at 2m across Europe, with a 5 km resolution.	Europe	1980-01-01	Daily	28/Feb/17	° C
Precipitation	Speedwell Weather based on MERRA2 0.5 * 0.630	A proprietary Speedwell derived gridded data set giving accumulated precipitation across Europe, with a 5 km resolution.	Europe	1980-01-01	Daily	28/Feb/17	mm
Wind 10 m	Speedwell Weather based on ERA-I 0.755 * 0.75	A proprietary Speedwell derived gridded data set giving wind at 10 m across Asia only, with a 5 km resolution.	Asia	1980-01-01	Daily	31/Jan/17	m/s
T24 Ave	Speedwell Weather based on ERA-I 0.755 * 0.75	A proprietary Speedwell derived gridded data set giving Tave24 (Tmean) (Average of 24 hourly spot temperature readings) at 2 m across Asia, with a 5 km resolution.	Asia	1980-01-01	Daily	31/Jan/17	° C
TMax	Speedwell Weather based on ERA-I 0.755 * 0.75	A proprietary Speedwell derived gridded data set giving TMax at 2 m across Asia, with a 5 km resolution.	Asia	1980-01-01	Daily	31/Jan/17	° C
TMin	Speedwell Weather based on ERA-I 0.755 * 0.75	A proprietary Speedwell derived gridded data set giving TMin at 2 m across Asia, with a 5 km resolution.	Asia	1980-01-01	Daily	31/Jan/17	° C
Precipitation	Speedwell Weather based on ERA-I 0.755 * 0.75	A proprietary Speedwell derived gridded data set giving accumulated precipitation across Asia, with a 5 km resolution.	Asia	1980-01-01	Daily	31/Jan/17	mm
Solar Radiation Surface Downwards	Speedwell Weather based on ERA-I 0.755 * 0.75	A proprietary Speedwell derived gridded data set providing surface solar radiation downwards (short wave) on a 5 km resolution grid across Asia.	Asia	1980-01-01	Daily	31/Jan/17	J/cm2
Wind 10 m, 50 m	Speedwell Weather based on MERRA2 0.5 * 0.632	A proprietary Speedwell derived gridded data set giving wind at 10 and 50 m across South America, with a 5 km resolution.	South America	1980-01-01	Daily	28/Feb/17	m/s
T24 Ave	Speedwell Weather based on MERRA2 0.5 * 0.632	A proprietary Speedwell derived gridded data set giving Tave24 (Tmean) (Average of 24 hourly spot temperature readings) at 2 m across South America, with a 5 km resolution.	South America	1980-01-01	Daily	28/Feb/17	° C
TMax	Speedwell Weather based on MERRA2 0.5 * 0.632	A proprietary Speedwell derived gridded data set giving TMax at 2 m across South America, with a 5 km resolution.	South America	1980-01-01	Daily	28/Feb/17	° C
TMin	Speedwell Weather based on MERRA2 0.5 * 0.632	A proprietary Speedwell derived gridded data set giving TMin at 2 m across South America, with a 5 km resolution.	South America	1980-01-01	Daily	28/Feb/17	° C
Precipitation	Speedwell Weather based on MERRA2 0.5 * 0.632	A proprietary Speedwell derived gridded data set giving accumulated precipitation across South America with a 5 km resolution.	South America	1980-01-01	Daily	28/Feb/17	mm
Solar Radiation Surface Downwards	Speedwell Weather based on MERRA2 0.5 * 0.627	A proprietary Speedwell derived gridded data set providing surface solar radiation downwards (short wave) on a 5 km resolution grid across South America	South America	1980-01-01	Daily	28/Feb/17	J/cm2