







EasyWeather provides a direct weather interface from SA Weather Services to EasyCockpit as overlays on your EasyCockpit map. This service is available in South Africa only. By using your 3G or 4G internet connection, real-time weather can be accessed before flight and even during flight if in cell phone reception range. The weather data is shown in easy-to-understand graphic images and provides a good overall picture of the weather situation.

At a glance you can view **Forecast weather data** covering South Africa which is available for different flight levels. Weather symbols showing the wind Speed, direction, temperature. by tapping on the symbol, more detailed forecast data for that grid point can be viewed, i.e. cloud cover, relative humidity and dewpoint.

METARs and TAFs are shown in coded and decoded text format under the Airfield information where weather data is available. You can also search for the TAFs & METARS by Airport Location Indicator: under Map Options select TASFs/METARs, then search for the airfield. The Metars and TAFs will come up.

Satellite images provide a general overview of weather conditions in Southern Africa, they are infra-red and update every 15 - 30 minutes. (Auto Update can be selected).

Radar - overlay radar images are displayed to show precipitation whereby e.g. thunderstorm activities are easily visible on the map. Radar images update every 15 - 30 minutes. (Auto Update can be selected).





South African Weather Service









DOWNLOADING EASYWEATHER FILES

STEP 1 :

If you are subscribed to this product, tap on the Easy Weather symbol (which on the iPhone is only available in Landscape mode)



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Go to MAP OPTIONS or tick on Weather Android – tap EasyWeather Downloads



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STEP 2 :

A new window will show the available Weather Files:

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you have the various Forecast Files for a 48h period at different Zulu times: tick a few of them for the time and duration of your flight,

select Radar, Satellite, TAFs/METARs and select tap/click DOWNLOAD

The App will confirm when the Download is Complete

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EasyCockpit



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STEP 4 :

Tap on the Easy Weather Symbol (available in landscape in iPhones) OR

Weather under Map Options, the Weather Forecast data shows the following :

Forecast data (the date and time required) Select a Forecast Level Satellite Data and the Radar Data come on automatically but they can be turned off. You can also set your Weather downloader to Auto Download the Satellite and Radar information during flight. The Weather Forecasts will be fixed

according to the Forecast Data. Once the Download is complete, you can exit/go back to Easy Cockpit Map View.

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READING & UNDERSTANDING WEATHER SYMBOLS

The weather/wind forecast Circles are showing on the map grid and can be selected at different Forecast Levels in Easy Cockpit (full SA Grid compliments of Easy Plan).

These symbols have three parts:

- a Circle, visually indicating cloud cover but also showing additional information when hovering over.
- Wind Barbs show Feathers or Flags indicating the wind speed (eg. 18 Knots)
- The Wind speed is indicated by feathers at the top of the vane. These feathers show wind speed adjusted to the nearest 5 or 10 Knot.
- A 50 knot wind is depicted by a Flag or Pennant.
- the Staff indicates the wind direction is **INTO** the Circle **FROM** the end of the weather barb (eg. 313°). Wind direction is shown as a compass degree.

As a quick reference, when tapping on the Weather/Wind Forecast Circles, the speed/direction and temperature shows. Further selection shows the selected Flight Level, Windspeed, Direction, Temperature, Cloud Cover, Relative Humidity and Dew point. So, at a glance, you have all the vital information available.

Tip: if Temperature & Dewpoint are the same or close, cloud or mist can be expected.

Cloud Cover





FORECAST DATA

- Forecast files are updated every 24 hours for the successive (following) 48 hour period. These are located on a grid as per data supplied by SA Weather Grid
- Tap on the Weather Barb you would like to view and the Forecast data will be displayed, including:
 - Forecast Level Wind Speed Wind Direction Temperature Cloud cover Relative Humidity Dew-point



METARS & TAFS

- To view: select an airfield, right click and select "View". Scroll down, where you will find the METARs and TAFs that you downloaded with EasyWeather
- METARs and TAFs are only available for airfields that have Weather Stations, once you have downloaded EasyWeather.

This information can be viewed a number of ways once it has been downloaded:

- 1) Tap on TAF/METARs in the Map Option & Select an Airfield
- 2) On your Map view, Tap on the Airfield

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ICAO: FAGC 27th at 10:00 UTC WIND: wind direction 020 degrees at 06 knots VIS: 8000m TEMP AND DEW: 26/09 PRESSURE: Q1019 UNMATCHED: NSC

SATELLITE & RADAR

EasyCockpit

Satellite images provide a general overview of weather conditions in Southern Africa. They are infra-red, and updates are available every 15 - 30 minutes. (if Auto Update is selected EasyCockpit will update the data when it receives G3/4 data). This focuses on cloud cover views from space but does not give cloud base. Overlay radar images are displayed to show precipitation in the clouds. This will provide you with a good overview of e.g. thunderstorm activities. Updates are available every 15 - 30 minutes. (Auto Update is selected).

Please take note that various atmospheric and environmental conditions can negatively affect radar data and caution should be exercised when interpreting the information.

Some of these effects include:

- Returns from mountains and other non-meteorological targets
- Attenuation of the radar signal when viewing weather echoes through areas of intense precipitation (with C-band radars)
- Temperature inversions in the lower layers of the atmosphere which bend the radar beam in such a way that ground clutter is observed where normally not expected
- The "bright band" which is a layer of enhanced reflectivity caused by the melting of ice particles as they fall through the OC level in the atmosphere and which can result in over-estimation of rainfall.
- There is also a possibility that the Radar is switched off or not running. A warning will appear on the screen.

EasyWeather was developed by Aviation.Direct (Pty) Ltd, in conjunction with South African Weather Services. Downloads are subject to subscriptions. A valid EasyCockpit subscription is required before the weather module can be used.





return:

Ca	olour	Radar Reflectivity	Rain Rate	mm/hr	Comments
	Pink	65 dBZ	60	~ 200	Extremely heavy rain, severe thunderstorms, hail likely
	Red	55 dBZ	50	~ 50	Heavy rain, thunderstorms, some hail possible
	Orange	45 dBZ	40	~ 10	Moderate Rain, showers
	Yellow	35 dBZ	30	~ 3	Light rain
	Green	25 dBZ	20	~1	Drizzle, very light rain
	Blue	15 dBZ	10	~ 0.2	Significant but mostly non-precipitating clouds



Troubleshooting – cell phone reception

To obtain and update Weather overlays in EasyCockpit, your phone or tablet needs to have Cell phone signal and data.

Weak Data or No Service can be attributed to following circumstances:

- Low Battery: Enough energy is required to hold a quality signal sufficient for receiving or sending radio waves. A low battery is incapable of maintaining reliable signal strength from the tower.
- Weather: The cell phone works by relaying and receiving radio waves. These waves are easily interfered with by elements such as thunder and lightning, humidity, rain and thick cloud cover; ice and snow.
- Geography : high mountains, hills, valleys all can have an effect on cell phone signal
- Altitude: a cell phone mast is designed to direct their signals to the ground, not up into the air. But reception can still be obtained up to about 10,000ft, or higher, depending on the area.
- Speed: speeds in excess of 135kts per hour can make it difficult to maintain a connection, as the device has to switch from tower to tower.
- Solar flares in space can also disrupt satellite and cell phone communications.

Fixing Cell phone reception issues

- Toggle Airplane ON for about 5 seconds, then turn it OFF again.
- Turn off your cell phone, and re-boot or turn it on again.
- Or disable data in Settings on your device and re-enabling it almost instantly. Re-enabling data connection allows the device to check for available signals afresh.
- Best cell phone reception can normally be obtained by following highways or near towns and major settlements.
- Make sure your mobile device is charged, or on a charger. Any navigation app depletes your battery significantly.
- Make sure your mobile device is ventilated. An overheated device will not work properly or could just stop working.
- Automatic Network Search. On some newer smartphones the feature "search network automatically" can be selected.
- In EasyCockpit / EasyWeather the AutoDownload can be set at certain intervals, where the devices updates the Radar and Satellite overlays when cell phone reception is available.



EasyCockpit Helpline

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