

2015 GPS Review

We review the past year and look forward to the coming year.

Well for me the biggest change this year has been my retirement and handing over the reins of our company to my good friend Jon Monks and his team and the seamless way he has taken what we built over 10 years or so and is gradually taking the company forward whilst keeping the same ethos of customer support and great service. There will be more about our changes later in this review.

Hardware; what was new over the last year and what's on the horizon

For the outdoor users the quick answer is not a lot; on the hardware side of things there are still only three serious manufacturers of Outdoors GPS in the UK Garmin, Memory-Map, and SatMap. The key to making hardware comparisons is to not only compare the hardware but the unit software and how you access premium maps like OS in your GPS, on your computer and increasingly free maps like Open Street Maps. These maps are key for planning and turn by turn routing on road and footpaths (a growing area of interest).

Let's take the manufacturers in turn; there have been no new products from **Garmin** for the outdoors user this year just the usual unit software updates. However they have been busy in the fitness market with several new running and watch products. Has this stopped them consolidating their lead in the market place? No, their range of Outdoors GPS from the eTrex to Monterra still offers users the widest choice and pricing structure of any manufacture and the Oregon 600/650 is still the most popular device on the market.

Usually by this time of year we have an indication of which ranges may be updated in the coming year; so far this year all is quiet on the Garmin front but looking at the ranges the eTrex range is most in need of an update. The Dakota is to all intents now discontinued and a smaller touchscreen device in the full range is missed; a replacement is overdue, maybe we could have a reasonably priced touchscreen to replace the eTrex & Dakota?

The Oregon is well established as the lead device in the full range of outdoors range; it's difficult to imagine how it could be improved without adding internet connectivity like the Monterra which we see as a backdoor Montana upgrade. The GPSMap64 range was a necessary but minor upgrade; so overall apart from the eTrex Garmin seem to be no rush to update hardware this year.

It's possible they are evaluating the acceptance of devices like the Bluetooth Smart & Internet friendly Monterra which in all fairness is a fine device but suffers from being out of most but the deepest pockets. If they could add Internet & Android connectivity to an Oregon upgrade then I think it would be more acceptable. We'll let you know if we hear anything.

An important point from our point of view is that all but the most basic models in the Garmin Outdoors range offer guidance (like a Satnav) when combined with clever mapping. In our recent survey on OS mapping you were quite clear that you would like to see turn by turn routing on footpaths on the future; only Garmin handhelds offer this as standard.

The complete Garmin outdoors range is supported by BaseCamp a free mapping application for Windows and Mac; any maps installed on MicroSD and the device can be viewed in Basecamp, ensuring you don't have to purchase maps twice.

Memory-Map has added to their range of GPS over the past year with the addition of the TX range of waterproof robust Android GPS and a range of inexpensive GPS enabled Bike trip computers. We think the TX4 is a significant step up from the TX3 not only because of the improved and larger touchscreen and four times more internal memory but because it uses a far more recent and up to date version of the android platform which makes it compatible with many more android apps.

The TX4 is now the star in the range and far more like the sort of thing MM should be aspiring to; both TX & Adventurer run a mobile version of MM which is functional and allows users to add to the device from their existing MM map portfolio. MM mobile allows you to view your current location overlaid on the map which can be locked so it scrolls as you move and you can then open and follow routes & trails on the map page or by using the directional arrow.

However we still believe that MM's key strength is their PC software which is still by far and away the most user friendly mapping software on the market. So if you're a fan and considering a change of GPS then this could be a logical move for you even if the phone doesn't become your main phone it is a great backup for emergency use on the hill.

SatMap now offer both Active 10 and Active 12; both devices use the same housing but the Active 12 sports orange keys, a new hi-resolution screen, is Bluetooth smart and includes single axis electronic compass & barometric altimeter making it the new Active 12 a logical choice even if it costs just a little more. Interestingly the Active 12 uses more or less the same unit software as the Active 10 making it an easy step up for anyone thinking of upgrading.

The whole ethos of the Active 10/12 is easy navigation on the go and in this it excels; communication with a PC is by using SatSYNC a free application downloadable direct to your PC from the SatMap website.

Maps for the Active 10/12 can only be purchased from the company and come pre-installed in SD card. The best value way to buy your initial map set is bundled with the device; if you want to add additional premium maps then there is a wide choice available from the SatMap store. Another bonus is that all users get free access to their in the clouds planning & sharing application Xpedition and for a small annual fee you can upgrade to Xpedition Premium giving you access online to a wide range of maps from around the world including OS Explorer 25k scale mapping.

We compare Garmin Oregon 650, Memory-Map TX4 and SatMap Active 12



Smart Maps for your GPS & PC or Mac

It's a well-established principal now that GPS manufacturers offer a solution to maps for the GPS & PC issue ensuring you only pay map licence fees once; all the above devices offer users free access to a route planning solution. If you plan to manage your user data, review your performance after your trips and plan routes & trails in advance to send to your device then how you do so should be a very important part of your decision when purchasing a device.

The other important mapping issues are turn by turn routing and custom maps; most of us familiar with the principal of using a GPS to navigate when driving (Satnav) what is not generally understood is that if you are using enabled GPS and Maps then you can do the same on footpaths. Mapmakers in Germany offer turn by turn routing on road & footpaths already and as we found out in our recent survey a substantial proportion of folk here in the UK would like to navigate with directions on footpaths if it was available and would be prepared to pay a little more if it was available. All that is holding us back is the data from OS unfortunately to our knowledge there are no plans for this data to be available soon.

The clever way to purchase your premium maps is bundled with the GPS when you buy it as there is usually a subsidised mapping deal of some sort; how you purchase additional premium maps can be an expensive business as some companies ensure that you can only use digital maps in their devices purchased from them. Which is fine provided you as going to use the maps but can be expensive for use on a short trip or holiday.

Only one company (Garmin) allows you to freely add custom maps like Open Street Maps to GPS and PC software; we wish they all did but many companies make little money when selling a GPS and rely on the profit from maps to support them so naturally prefer you to purchase maps only from them.

Interested in using your device like a Satnav or installing Open Street maps from around the world then it's going to be a Garmin for you.

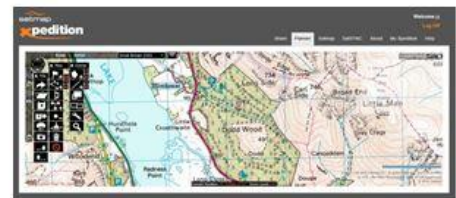




We've established that most companies' offer you access to maps on your computer in some way but how does each system work and how do they compare?

Remember the aim of all these systems is to allow users who have purchased premium maps from a supplier to be able to view those maps in both GPS and then on a PC/Mac for route planning whilst only paying a mapping licence once. Importantly for the mapmaker the system has to protect the licence and not permit copying and free sharing of licenced maps.

The computer software should be user friendly, provide good route planning tools, allow easy transfer of user data like routes & trails and maps if that's how the system works to/from a GPS, allow easy access to map downloads once again if that's how the system works, allow access to turn by turn routing and custom maps. Let's look at all three systems and see how they compare.



Garmin Basecamp with OSM - MM with OS 25k – SatMap Xpedition with OS 50k

In early days **Garmin** did not supply maps; however once the opportunity was on the horizon they devised a system that neatly delivers free computer software (Basecamp) and maps for both GPS and computer and protects the maps. Maps can be purchased in two ways either pre-installed on Micro SD card or in small chunks by BirdsEye Select download through BaseCamp.

Most users tend to buy Garmin devices bundled with something like Discoverer Whole GB OS 50K maps because the maps are discounted by £150. The maps come pre-installed to MicroSD card; once installed to a Garmin outdoors mapping device the GPS can be connected to a PC or Mac and viewed in BaseCamp. It's a clever solution that protects the licenced maps and allows the user to view maps with no need for an internet connection.

Garmin are the largest GPS manufacturer in the world and we don't believe they see maps as a primary source of income; more like something they are obliged to do to sell devices

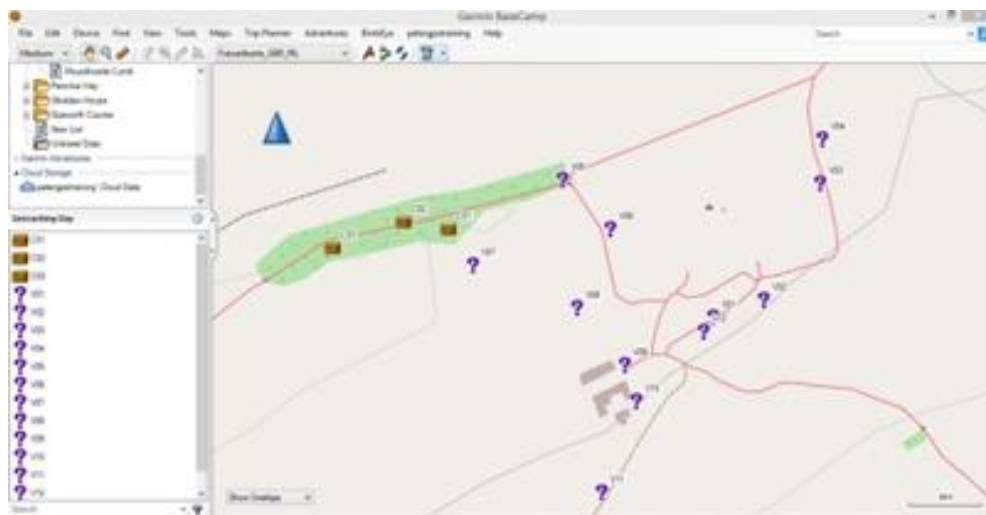
particularly in the UK. So in the case of OS 50k they are happy to subsidise maps to sell devices and then offer OS 25k Explorer maps via BirdsEye or installed on MicroSD card.

BaseCamp is available in either Windows or Mac format and is freely available from the Garmin website; once installed it allows the user to view maps installed to their connected GPS or installed in BaseCamp format to their computer.

Garmin Outdoors mapping devices offer guidance on road and footpaths (like a Satnav) when combined with clever mapping like their Discoverer maps and Open Street Maps and when combined with compatible mapping BaseCamp can auto-create routes for a range of activities and preferences with turn by turn directions for walkers, cyclists and drivers and then send to GPS. In the device these routes can be used like a Satnav. Garmin users already use their devices for on-road navigation but now that outdoors folk understand that turn by turn routing on footpaths is available on maps like OSM's it's the feature walkers & cyclists are hoping for on OS maps.

As Garmin GPS are truly international company they seem to have a relaxed attitude to custom maps such as Open Street Maps; we believe that whilst they would prefer to sell their own branded maps they are happy for users to use custom maps if it encourages the use of their devices around the world.

If you like sharing your experiences; then Garmin and BaseCamp offer a very clever solution called "Adventures". To share one of your walks or trails all you have to do is save the record of your trip (current track) to BaseCamp then a single click allows you to add track, text & images to your adventure once complete you can publish & share on the Garmin server.



As well as premium maps like OS BaseCamp allows you to add OSM's

How user friendly – BaseCamp has improved out of all recognition by way regular updates; we find that whilst it's not quite as sophisticated as some others but we find we can do pretty well everything we need to do route planning wise with the bonus of turn by turn directions when using compatible maps. In addition we can install custom maps to computer and GPS.

Compatible with Windows & Mac – Yes BaseCamp is available in Windows & Mac versions
Does it provide good route planning tools – Yes; all the tools you require for route planning point to point direct or with turn by turn directions

Do you need to be connected to the internet to view maps on your computer - No

Can user data be saved in GPX - Yes

Can you easily transfer of user data like routes & trails to/from GPS – One click transfer of user data and maps direct to a Garmin device.

Can it be used for copying maps to a compatible device – Yes; you can easily download and copy BirdsEye maps from the Garmin website to your Garmin mapping unit.

Allow easy access to map downloads – Yes; you can download small chunks of premium maps using BirdsEye Select

Permit turn by turn routing and custom maps – Yes; all Garmin outdoors devices offer turn by turn routing as a standard feature and allow the use of compatible custom maps. OSM's in Garmin format for a range of countries are available from GPST installed on MicroSD card for just £16.

Memory-Map is interesting as it was one of the very first companies to offer digital mapping software and digital maps at all scales like Ordnance Survey for use on a PC and send to GPS; in the early days they worked closely with companies like Garmin to allow users to send user data to a GPS using a serial or USB cable. At this stage of the development of GPS they were unable to offer sufficient memory to offer maps in the GPS; so initially there was no conflict between GPS and Mapping software companies as they had to work together as users had to plan routes on a PC using MM and then send to GPS and follow in the device with no map.

However as time has gone on and where devices are able to offer more memory either internally or on SD card then GPS manufacturers have taken the upper hand and seized the opportunity to offer mapping bundles tied to their products. All this initially hit MM hard forcing them towards sourcing their own GPS ranges and the mobile market.

Their system works this way; user's purchase a GPS like the TX4 bundled with OS Whole GB 50k installed on SD card. The MM multi-licence then allows the user to back load the maps to MM V5 software on a PC (not Mac) using one licence leaving you 4 more so you can transfer and use your GB maps on PC, iPhone, iPad or Android mobiles and tablets. Users who already own MM maps can copy them to a MM compatible device like the TX4.

MM permits import/export of user data in GPX file format allowing you to import shared routes from internet sharing websites like Trailzilla (MM owned) and Walkingworld.



MM V5 is a great planning tool especially when combined with premium maps

- **How user friendly** – we rate MM V5 as the most user friendly mapping software package around which unsurprising as it's been around for a long time and has reached a stage where it has been developed into the bench mark for other mapping software to aspire to.
- **Compatible with Windows & Mac** – Windows only; Mac using Parallels
- **Does it provide good route planning tools** – Yes, the complete package
- **Do you need to be connected to the internet to view maps on your computer** - No
- **Can user data be saved in GPX format** - Yes
- **Can you easily transfer user data like routes & trails to/from GPS** – it depends on what device you are sending to. It's going to be the only way now to send user data to older Garmin devices using serial or early USB cable connectivity. Sending overlay files to a compatible MM device is straight forward once you get your head around it which sometimes is a little obscure.
- **Can it used for copying maps to a compatible device** – Yes; maps can be purchased as complete multi-licence maps on DVD that installs both PC software and maps direct to your computer. It also allows you to add existing maps to a mobile or tablet with the MM app installed.
- **Allow easy access to map downloads** - Yes; maps can be purchased in small chunks direct from their website to MM V5 and then copied to licenced devices.
- **Permit turn by turn routing and custom maps** – No

When **SatMap** first launched the Active 10 they offered access to maps like OS pre-installed to standard SD card but no access to a computer; very soon after they launch they realised that to compete with the likes of Garmin & MM they would have to offer access to maps on a computer in some way. Their solution was to offer Active 10/12 users access to maps held online using a planning & sharing application called Xpedition; after registering their purchased device users have access to a standard version of Xpedition which offers some basic maps like OS Whole GB 50k and some OSM's but to gain access to premium maps like OS Whole GB 25k users have upgrade to Xpedition Premium for an annual fee which costs £20.

Xpedition Premium is value for money in that you have access to OS 25k and a wide portfolio of international maps for route planning & sharing; however you should bear in

mind that you don't own the maps and can't copy them to your device. Even if you use Xpedition for planning you will still have to purchase any maps you require for your device from SatMap.

To export routes created in Xpedition is a two-step process; first they must be saved to your computer as GPX file then the GPX file can be imported to your Active 10/12 using another application called SatSYNC (free to download from the SatMap website) which all quite straight forward once you understand the process.



Xpedition is often described as maps in the clouds

- **How user friendly** – Xpedition is a fairly basic route planning tool with the added complication of being maps in the clouds so access is only possible when you have broadband internet access.
- **Compatible with Windows & Mac** – As the maps are held on the SatMap server; provided you have broadband internet access they can be viewed using either PC or Mac.
- **Does it provide good route planning tools** – as we said before the planning tools are basic but sufficient once you get your head around the application.

- Do you need to be connected to the internet to view maps on your computer - Yes
- Can user data be saved in GPX – Yes by default
- Can you easily transfer of user data like routes & trails to/from GPS – Yes once you understand the two step method of data transfer using SatSYNC.
- Can it used for copying maps to a compatible device – No
- Allow easy access to map downloads - No
- Permit turn by turn routing and custom maps – No

All three companies offer a free route planning solution when you purchase GPS or maps from them. The limitation being that apart from Garmin; only maps from the GPS manufacturer are compatible with their GPS and free computer application.

We prefer a solution that doesn't require us to be online to view maps and we think that users will quickly see the benefits of custom maps and turn by turn routing be it on road or on footpaths. This isn't an issue if you just want to see where you are on a map that scrolls as you move but we think most users once they understand the technology demand more.

We believe that the features on offer in the mapping solution offered by the GPS system is as important as the features in the GPS itself and potential purchasers should think of the overall package of GPS and Maps.

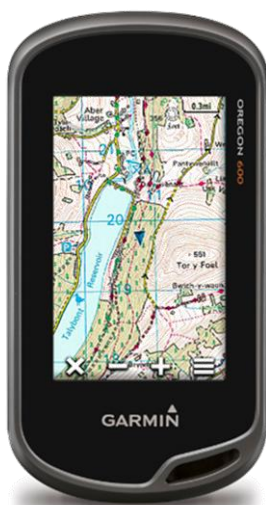
We compare the most popular devices bundled with whole GB OS Maps Memory-Map TX4, Oregon 650 and SatMap Active 12



Key Points to look out for when making choices on Which GPS & Maps

Before we make any comparisons between devices & maps here are a few basics that you should take into consideration when making choices on a GPS purchase:

- Whilst there is a market for GPS without mapping; our experience is that most users would prefer to use a GPS with mapping and the more detailed the map the better.
- Maps need a colour screen and memory so ensure your choice offers you memory options; in other words both internal & external memory (SD card slot)
- Whilst most bundled maps come pre-installed on an SD card there is a growing trend towards map downloads to the internal memory of the device so a decent chunk of internal memory is going to be useful.
- In the UK it has been standard for most outdoors mapping GPS ranges to at least offer a whole GB 1:50k Ordnance Survey Landranger mapping bundle and access to OS 25k in economical downloads or as whole GB.
- The best mapping comes with GB turn by turn routing included in the package. In the past this has been limited to on road routing now we see more mapping including off road routing for trail, tracks & footpaths.
- There is a growing awareness of the importance and quality of Open Street Maps as inexpensive mapping for use on short trips & holidays these are available as custom maps. Make sure your device is compatible.
- The best systems offer free access to computer software or free server based software for route sharing & planning; you should never have to licence maps for your computer & GPS twice.
- How you are able to combine the use of your GPS with your PC, Laptop or Mac and share mapping is now a key feature; gone are the days when you needed to buy maps for your PC and maps for your GPS.
- Interest in maps from around the world is growing; how you gain access to these maps can be a deciding factor when purchasing a device.
- Still key to customer satisfaction is how user friendly the GPS and mapping software is to use; sadly few manufacturers or map makers give too much thought to this issue.
- Most manufacturers see geocaching as a growth area in GPS use; check out how easy it is for you to download from groundspk to your device.
- How important is being able to use the phone & internet to you on the Go? If so then this could narrow your choices.



Garmin Oregon 650 with Discoverer Whole GB OS mapping 50k - £429.99 plus 2 free webinar covering GPS & BaseCamp (worth £39.98) free unlimited access to Garmin Online training resource (worth £9.99) free Setup, Oregon guide and on-going support from the GPS experts.

Garmin's best-selling GPS; offers waterproof & robust, sunlight readable colour touchscreen, full navigation features, 3 axis electronic compass, barometric sensors, Bluetooth smart, wireless sharing between compatible devices, SD card slot and 3.5GB internal memory and 8 mega pixel camera with geo-referencing

- **Water resistance & robustness** – Yes. Waterproof and very robust uses the equivalent of gorilla glass
- **Screen Size & quality** – 3" dual-orientation sun-light readable colour touchscreen

- **Recommended Batteries** – includes rechargeable battery pack (can use 2 x AA rechargeable batteries)
- **Compass & Barometric sensors** – 3 Axis Electronic Compass (no need to hold GPS level when navigating) and Barometric Altimeter
- **Camera & Geo-Referencing** – 8 mega pixel autofocus camera all images geo-referenced
- **Phone, Bluetooth and WiFi** – Bluetooth & Ant smart plus wireless sharing between compatible Garmin devices.
- **Internal Memory** – 3.5GB
- **SD card slot** – under batteries takes MicroSD cards up to 32GB
- **Base Map** - Worldwide base map
- **Other premium maps available** – Yes Garmin offer a wide range of international maps plus custom maps like Open Street Maps
- **One licence covers maps for GPS & PC/Mac** – Yes; Windows & Mac version of BaseCamp available plus view maps installed on SD card in BaseCamp or download BirdsEye Select or OSM's to view on both
- **Free access to route planning & sharing** – Yes through Basecamp
- **Waypoints, Routes & Tracks** – Full navigation on all three features plus track pause & profile on the Go.
- **How easy is it to send user data like above to/from device** – One click data transfer using standard USB cable
- **Device & Maps offer turn by turn routing on/off road** – Yes with compatible maps
- **Can you add inexpensive custom maps** – Yes to both GPS and BaseCamp

Memory-Map TX4 OS Whole GB Bundle - £379.99 – includes unlimited free access to MM online training resource (worth £9.99) and on-going support from the GPS experts.

The most recent addition to MM's range of Android GPS, the TX4 is feature packed and sits nicely in the hand, has an impressive colour touchscreen, faster processor and 4 times more memory than the TX3, camera and of course allows you to access the internet on the Go using the Android platform.

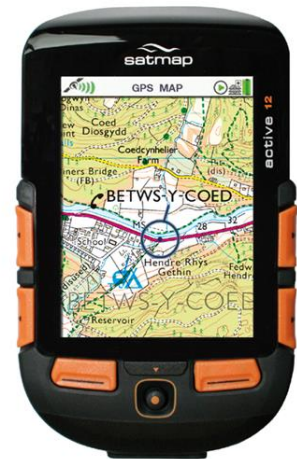


- **Water resistance & robustness** – Fully waterproof
- **Screen Size & quality** – 4" colour touchscreen
- **Recommended Batteries** – removable Lithium Polymer (included)
- **Compass & Barometric sensors** – No you can add apps from Google Play unlikely to be 3 axis compass
- **Camera & Geo-referencing** – 8 mega pixel images are geo-referenced
- **Phone, Bluetooth and WiFi** – 3G phone with Bluetooth capability that can access the internet when combined with a PAYG or Contract Sim card
- **Internal Memory** – 4GB
- **SD Card Slot** – Yes beneath battery takes full size SD cards Max size 32GB
- **Base Map** – UK 1:250k OS Road Map
- **Other premium maps available** – Yes direct from MM

- **One licence covers maps for GPS & PC/Mac** – Bundled multi-licence maps access to up to 5 devices including 1 computer. Not Mac compatible (unless run on parallel)
- **Free access to route planning & sharing** – Yes through MM V5 installed to computer not Mac unless you are using parallels
- **Waypoints, Routes & Tracks** – Basic navigation using MM Mobile.
- **How easy is it to send user data like above to/from device** – Sending overlay files to a compatible MM device is straight forward once you get your head around it which sometimes is a little obscure
- **Device & Maps can offer turn by turn routing on/off road** - No
- **Can you add inexpensive custom maps** – No will only accept maps purchased from Memory-Map

SatMap Active 12 with Whole GB 50k OS maps £424.99 – includes free SatMap webinar (worth £19.99), copy of SatMap guide, access to our SatMap & Xpedition online resource (worth £9.99), setup and on-going support from the GPS experts.

The Active 12 is essentially an upgrade for the Active 10; it still uses the same operating platform as the Active 10 but sports new keys & screen and is now Bluetooth smart.



- **Water resistance & robustness** – Weatherproof recommend waterproof cover
- **Screen Size & quality** – 4” colour touchscreen
- **Recommended Batteries** – removable Lithium Polymer (included)
- **Compass & Barometric sensors** – Yes single axis compass must held level when navigating
- **Camera & Geo-referencing** – No Camera
- **Phone, Bluetooth and WiFi** – No phone or WiFi - Bluetooth smart
- **Internal Memory** – Limited internal memory you can save user data to both internal memory and SD card.
- **SD Card Slot** – Yes takes full size SD cards with pre-installed maps from SatMap
- **Base Map** – UK 1:250k OS Road Map
- **Other premium maps available** – Yes direct from SatMap
- **One licence covers maps for GPS & PC/Mac** – free access to Xpedition included
- **Free access to route planning & sharing** – Yes through Xpedition.
- **Waypoints, Routes & Tracks** – Full navigation using Waypoints & Routes weak point is tracks not supported as they should be.
- **How easy is it to send user data like above to/from device** – Sending waypoints & routes from Xpedition is a two-step process involving saving to desktop and then sending to GPS using SatSYNC.
- **Device & Maps can offer turn by turn routing on/off road** – No
- **Can you add inexpensive custom maps** – No will only accept maps purchased from SatMap.

Summary

We hope you find this review useful and not too confusing; the main point we hope you will take on board is that whilst the GPS and it's features is important what is equally important is how you access route planning and map downloads to support the device.

Good luck in your search for the perfect device for your navigational & route planning needs; if you get stuck and would like to take through any points raised in this review then please don't hesitate to contact us.

About our changes

Last April saw GPS Training join forces with our good friends at Shepherds Walks a move that has delivered improved opportunities for both companies. Jon Monks CEO of Shepherds Walks runs the company day-to-day Peter (Judd) of GPST has now mostly retired helping out on a consultancy basis and with training courses.

GPS sales were always strong at GPST; the combined company is now the largest independent retailer of Garmin GPS in the UK driven by consumers taking advantage of our expertise, genuine advice, and aftersales support & training. Where else can you speak to GPS experts and get the help you need to ensure you purchase the best GPS & Maps for your navigational needs.

And it doesn't end there; we'll setup your unit for you (if required) and ensure you have the training tools you need to get the best from your new GPS & Maps. This includes free worksheets, webinars and online training. Many of our customers go on to attend one of the many hands-on training courses we offer around the country, uniquely whatever the GPS you purchase we have training & support for you and that device.

This year as well as continued growth in our Garmin & SatMap training courses sees the launch of our updated website with easier access to the GPS Shop and a range of new courses such as GPS in the Hills (Sussex & Lakes), 2 day Garmin Courses in Scotland and a series of training days to support Memory-Map and the TX range of GPS.

So we hope you'll agree that if you are in the market for a GPS then talking to us is the best way to ensure you end up with the right unit for you and you know how to use it!

GPS Review April 2015
Peter Judd – GPS Training

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