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## **Fifth Annual Club Meeting**

by Craig O. Olsen

Don't miss our Fifth Annual IAMC Meeting to be held Saturday, February 18, 2012 at the Idaho Pizza Company, 405 E Fairview Ave, Meridian, Idaho 3642. This is the same place our meeting was held last year. We will recognize our 2011 Challengers, give out some good door prizes, and discuss the up coming year. See you there at 11:00 AM and bring your family or significant other. Please visit our website to opt-in if you have not already done so.

(http://motoidaho.org/node/756).



Some of our club members at our fourth annual meeting held last year.

# Final Update on the 2011 Challenge

by Craig O. Olsen



Officially, the 2011 IAMC Challenge ended on December 31, 2011. Since the update of this event in our last newsletter (December 2011 issue), there has been continued activity with 8 club members achieving additional tire levels in the standings. Currently, we have 4 bronze tire level winner (10-19 sites visited), 6 silver tire level winners (20-29 sites visited), 6 gold tire level winners (30-44 sites visited) and 6 platinum tire level winners (all 45 sites visited).

In our last newsletter we featured a summary from five of the platinum tire level winners, and we will feature the sixth and last winner achieving this level in this issue of the newsletter.

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## Final 2011 IAMC Challenge Platinum Tire Level Winner

### **Tim Webber**

(Aka: tweb)



Site #-16: Grime's Memorial at Grimes Pass.

I have always felt blessed to live in Idaho, in the USA. We have such freedom to enjoy (thank you veterans). I enjoy that freedom best by riding, camping, exploring, checking out history and enjoying God's entire signature. The adventures both with friends and solo are the best for me, on my bike.

As Ed was telling me about the IAMC and the challenge, he said the main purpose was to encourage us to get out and ride, enjoy, explore, and spend time with friends. And that's exactly what it does. I have definitely pushed myself. I visited 20 sites I have never been to and memories were made that I will never forget.

As for the 2012 challenge, I'm not sure I can do it and do some of the other places I have put off this last summer that I want to visit or revisit, but it will send me and others to places we have never been to, and it will continue to make unforgettable memories. (Although I have nightmares of missing out on all those historical

and beautiful places).

I would encourage you all to take the challenge, to push yourself, go riding more, pick a level and go for it. They will all be memories and stories that will last a lifetime. Use the web site to post rides and hook up with new and old friends.

My favorite site? ......Hmmm, hard to pick just one; but Hindman Lake sticks out. I did have friends to share that with and we did camp and spend time there soaking it all in. And it does have great facilities, if you know what I mean.



Site #-25: Hindman Lake (Tim was the first one to post to this site on 27 July 2011.)

Thanks to Ed, Terri, Craig and all the folks who work at making the IAMC work. You all have done a great job; it's an awesome site. And a special thanks to my wife who supports me with my hobby and adventures, she is the best.

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Site #-26: Black Rock Mine off of FR-197 up Germania Creek.



Site #-22: Doyle's Place. Tim commented on this, his last site, with: "WOW! What an adventure it has been." (Tim was the last one to post at this site in 2011 on December 18.)

## **Motorcycle Tools**

by Heath Hiatt

Venturing into the backcountry, far away from civilization, is one of the greatest draws to the dual-sport motorcycles. Extra large fuel tanks, long travel suspension and luggage capacity make these machines ideal for exploring off the beaten path, but with isolation comes danger. Have you ever thought about what would happen

if you had a major mechanical breakdown in the middle of nowhere? I once had a significant mechanical failure in the field. The splines counter shaft on my XR650L stripped out. causing the shaft to spin freely inside the sprocket. It was early in the season and beginning to snow. I was about 40 miles from blacktop in the remote canyon country near the Idaho/Nevada border. I had no overnight gear or extra food for a night in the field. After a quick delay and some bailing wire ingenuity, I was riding the 300 miles back home to research my next motorcycle purchase... Would you have what you need to get yourself and the bike home in the event of a major malfunction? A broken subframe? A hole in your engine case? Throwing your chain off the sprocket? What about something more minor like a broken shift lever or a plugged carburetor jet?

I've had several people talk to me about my motorcycle tool kit lately because my setup is relatively compact yet almost totally complete. I work on bikes at home using my travel tool kit almost exclusively (with the exception of extremely large fasteners like my steering head bolt) and have stripped two motorcycles down to the frame with what I carry on the bike daily. I think this is an essential part of getting a good tool kit together—working on your bike with what you carry. If you find you need something regularly, pick up a spare and put it in your tool kit. On the other hand, if you don't use something, take it out to save space and weight! You can strip your bike down as far as you feel comfortable, taking off anything you would be likely to need to remove in the field. Wheels, brake calipers, tank, seat, sprockets, body plastic, things like that. Make a list of what you use and pick up a tool kit and put it together for the trail.

If you find yourself in the position of having few tools and not knowing where to start, most Japanese dual sport bikes have a similar tool set. I built my tool kit on my KLR650 and it's worked on my DRZ, XRL, DR350, friends DR650s, XR650Rs and a slew of European bikes. I'll include the full list of my tools in at the end of the



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article for easy reference. The most basic thing in your tool kit is an assortment of box end wrenches. Every bike I've encountered has 10mm, 12mm, 14mm and 17mm fasteners throughout. More than a few have also included some 8mm bolts as well. Many aftermarket manufacturers use 13mm connections so it's best to include a 13mm box end as well. I duplicate all of these sizes in a 3/8" drive socket set with a ratchet and 6" extension. Occasionally you'll need two wrenches the same size as in suspension linkage bolts and a few other connections on the bike and the sockets and ratchet make life much easier. It would be possible to get by with just the wrenches and a crescent wrench but I'd strongly recommend the socket earlier.

That brings me to another point... A large crescent wrench is an invaluable tool to throw in the kit. They can be used as a leverage multiplier when placed on the end of a wrench for tough to remove bolts, they can fit oddball sizes as well as larger sizes than those I've previously mentioned. Most motorcycles have large bolts holding the front and rear axles in place and it's good to have a crescent wrench that has at least a 25mm span to accommodate axle bolts and anything you happened to miss in your tool kit. A vise grip can also save a ride. I've seen riders clamp them onto broken brake and clutch levers, as well as replacing shift levers and brake pedals with them (temporarily) to save a truck ride. They can also be handy with hard to manage bolts and screws with stripped heads.

A Phillips head and Flat head screwdriver are important too as many control devices and carburetors use screws. The six-in-one screwdrivers with removable bits work beautifully in a motorcycle tool kit. The handles can also make an impromptu hammer if necessary. In addition to the Phillips and Flat Head, an assortment of Allen wrenches should be included as well. I carry 3, 4, 5, and 6mm Allen keys, and 4, 5 and 6mm Allen wrenches for my 3/8" socket. Most European motorcycles use Torx fasteners, so BMW and KTM owners should

consider packing Torx wrenches or sockets in sizes T20, T25, T27, T30, T40, T45, T50 and T55. Most motorcycle factory tool kits include a spark plug wrench that should be suitable for any field maintenance for the plug. Additionally, it's always a good idea to carry a spare spark plug or two, just in case, although spark plug failures in modern four stroke motorcycles are rare.

Those tools should be enough to take your bike apart to take a look at what's going on or to tighten things that happen to rattle loose but fixing things that break require a whole other set of bits and pieces (as well as a little bit of creative engineering). Duct tape is a quintessential fix-itvourself option that should not be left out of the tool kit. Small rolls can be purchased that prevent you from having to lug the whole heavy roll around. A rider on an international trip recently told me about limping a worn out tire from Yellowstone National Park to Olympia Washington using Gorilla tape to hold his tire together. No less important is some form of twopart epoxy, like JB Weld. These epoxies can be used to permanently patch just about any hole. A friend successfully patched a punctured radiator shroud with IB Weld on the trail. Another friend patched a major hole in his engine case using a compound called Ouick Steel.

An assortment of nuts and bolts in 5mm and 6mm, ranging from 15mm to around 50mm in length, as well as a small assortment of washers for those bolts can be carried in a small watertight container should any of the abovementioned fasteners fall off. Once on the road I encountered a rider headed for Mexico whose header pipe clamp had vibrated free of his engine head. He had no additional hardware to fix the problem and his bike was running so poorly with the major exhaust leak he had no option but to sit beside the road and wait for help. Two minutes later I had him back on the road and headed to the next major town to pick up some bits and pieces to continue his ride.

Adjustable hose-clamps are also an invaluable tool for patching bikes up. I've personally



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buttoned together a crash-damaged luggage rack using a few hose clamps. I've seen a subframe repaired using a few more hose clamps and a tire lever, foot pegs re-attached, and other creative uses for these small metal straps. Zip ties can also be important for holding things together and are small and relatively lightweight. A few in different sizes can easily save a ride. Finally, one of my favorites is a small spool of "safety wire" which can be purchased from auto parts stores. It is a veritable panacea of field motorcycle repair and could, in a pinch, replace zip ties, hose clamps and duct tape, as well as the included collection of nuts, bolts and washers.

A flat tire is another fear of many motorcyclists. Tire changes are relatively easy to do in the field with some practice. Keep riding off-road and you'll get the opportunity I'm certain. I always carry three tire irons, front and rear tubes, a small electric air compressor and a patch kit on my bike. Many other riders include valve stem pullers, "bead buddy" devices to aid in keeping the bead in the groove in the rim, and talcum powder to act as a dry lubricant for setting the bead. Some riders also carry a mechanical bead breaker to assist in breaking the bead for tire removal. I've gotten (and changed) flat tires on my way to work as well as out in the wilderness. Having the tools is an important step in the process, but learning how to use them is almost as important. Next time you need to put on new rubber, call a friend and work on the experience together. There are several excellent tutorials online as well as YouTube videos to guide you through the process.



Motion Pro Chain Tool Kit

Collecting the various bits and pieces I've mentioned can seem a bit intimidating, but I think it's vitally important to do. Fortunately, there are several manufacturers who have simplified the process. BOLT Motorcycle Hardware has created a small plastic box full of assorted metric hardware that fits easily into tool bags that includes most fasteners mentioned previously. Cruz Tools and Motion Pro have prepackaged motorcycle tool kits that are well thought out, thoroughly filled and come with well-made tool holder. Slime products and Cycle pump make excellent compact air pumps to inflate tires quickly and easily, as compared to a small hand pump. With this assortment of hardware you should be much better prepared when heading out into the field and hopefully in getting home as well.

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Cruz Tools Roadtech Teardrop Tool Kit

This is a list of the tools and parts I carry on my motorcycle provided for reference.

#### Tools:

8mm box end wrench 10mm box end wrench

12mm box end wrench

13mm box end wrench

17mm box end wrench

Phillips screwdriver

Flat head screwdriver (the 8-in-one or ten-in-one screwdrivers with reversible ends work very well in motorcycle tool kits)

Allen wrench set ranging from 3mm to at least 6mm 3/8" drive ratchet

6" extension for 3/8" drive ratchet

8mm socket

10mm socket

12mm socket

13mm socket

17mm socket

Vice Grips Crescent wrench

Torx wrenches or sockets in sizes T20, T25, T27, T30, T40, T45, T50 and T55
Spark plug wrench

#### Other things:

An assortment of nuts and bolts in 5mm and 6mm, ranging from 15mm to around 50mm in length, as well as a small assortment of washers for those bolts.

Spark plug
JB Weld or some other heavy epoxy
Hose clamps in a couple of sizes
Zip ties

Headlamp or other flashlight Safety Wire Duct Tape

#### Tire repair:

Tire pressure gauge
Three 8" tire levers
Front and rear tubes
Patch kit
Small electric or hand operated air compressor
Talcum Powder

8"

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## **Navigating by GPS**

by Craig O. Olsen

Ed Hiatt and Tim Bernard presented a GPS and navigation clinic at Happy Trails on January 12, 2012 for club members. Those in attendance learned about some of the principles and terminology of the global positioning system (GPS), how to create waypoints and routes, and how to use tracks created by your GPS. They also learned how to exchange and save GPS files and tracks.



Tim Bernard introducing the GPS and navigation clinic.



Ed Hiatt demonstrating how to create waypoints and routes in Garmin MapSource.

#### The Global Positioning System

A wealth of information on GPS theory and practice is available on the Internet. [1-4] In a nutshell GPS is a space-based satellite navigation system maintained by the US Department of Defense, and it is made available to anyone with a GPS receiver. The system provides both time and location information in all weather anywhere on or near earth where there is an unobstructed line of sight to four or more of the 24 GPS satellites. The GPS receiver uses the messages received from the satellites to determine the transit time of each message and compute the distance to each satellite. Using various algorithms of trilateration the GPS receiver computes its location and displays it on a moving map or in latitude and longitude, often with elevation information included. [1,5] From this information direction as well speed can be calculated from the position changes. The accuracy of location (usually within a few to several feet) increases in proportion to the number of simultaneous satellite signals received by the GPS receiver.

Because of potential concerns with the availability of the current GPS system, which is run by the US military, the European Union and European Space Agency are developing a GPS system of 30 in-orbit satellites called Galileo with expected initial service by 2014 and completion by 2019. [6] This system will have the added feature of transponders able to transfer distress signals from a user's transmitter to a rescue coordination center that can initiate a rescue operation. At the same time, this system will provide a signal to the user informing them that their situation has been detected and that help is on the way. Our current system does not provide this capability.

#### **GPS** Receivers

A multitude of GPS receivers are in use daily including applications in military, aviation, marine, commercial, and consumer product applications (automobile, motorcycle, bicycle, hiking, cell phones, PDA's, smart phones, etc.). They come in a variety of sizes to small chips for



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tracking pets, handheld devices, and larger commercial devices. [2]

When it comes to GPS devices specifically made for motorcycles, the choices are limited - Garmin, TomTom and TeleType. These GPS devices all feature touch screen capability that works with gloved fingers, as well as Bluetooth capability to allow the rider to hear directional voice prompts. Some of the higher end models also have other bells and whistles allowing Bluetooth communication with your cell phone, MP3 player, FM traffic updates in real-time, and XM radio subscriptions to name a few. These units range in price from \$300 to \$800 depending on the model. All have the capability to create routes and search of preprogrammed points of interest, through this method of navigating becomes somewhat cumbersome if your route is more than just from point A to point B.

The TeleType WorldNav 3500 for motorcycles is a relatively new GPS. It does not come with PC based mapping software to allow for route or waypoint creation on a PC with the ability transfer them to the GPS unit, but it does have SD card capability to import maps, routes (GPX files). Routes and waypoints can be created on the GPS unit and exported via the SD card. This unit is good for point A to point B navigation on city streets or paved roads, but is not good for complex secondary or off-road navigation. Greg Drevenstedt gives a thorough review of this device in the October 6, 2011 issue of Rider. [7]

The TomTom Rider 2 has been around longer than the TeleType unit, but again it does not come with PC or Mac based mapping software to allow for route or waypoint creation with the ability to transfer them to the GPS unit. Using third party software, many dual-sport riders have found ways around this, and they use their TomTom Rider 2 successfully for complex secondary and off-road navigation by creating the routes and waypoints on their PC's or Mac's and then uploading them to their GPS units, as well as downloading tracks from their GPS units to their computers. Tyre is a free software program that allows you to create routes in

Google Maps and then integrate them into the TomTom Rider 2. ITN and Log Converter are also free software programs that support converting many different GPS route and track formats, as well as being a simple and efficient route planner. [8-9]

The Garmin Zumo (several models) comes with both PC and Mac based mapping software that allows you to create routes and waypoints on your computer and transfer them to the GPS unit. Similarly, tracks from the GPS unit can be transferred to your computer through this software. This allows for complex secondary and off-road route creation, and facilitates routes, waypoints and tracks from other sources to the GPS unit. Jeff Cobb reviews the Garmin Zumo 660 and TomTom Rider 2 in Motorcycle.com in the December 15, 2009 issue. [10] A series of 30 instructional videos on the features of several Garmin Zumo models can be found at gpscity.com. [11]

Garmin makes several other GPS units not specifically designed for motorcycles, but which have been adapted to motorcycle use quite successfully. The screens on these units are generally smaller, and the interface, especially with gloved fingers, is more difficult; but they are less expensive than the Zumo models and still have the same PC or Mac based mapping software capabilities. All these Garmin GPS units have the capability to enter waypoints in latitude and longitude coordinates while the TomTom and TeleType do not. Helpful reviews of some of these units and how to select a motorcycle GPS unit is reviewed in the references. [10,12-13] The cost of these units is more moderate from around \$100 to \$300.

#### **GPS Mounts**

In addition to the criteria for selecting a motorcycle GPS unit outlined in the references above, one additional consideration is how to securely mount it to your bike in a position that you can easily and safely view it and access it while riding. [14] It is also preferable to have your GPS unit hardwired to your motorcycle



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battery so that it is not dependant on its internal batteries that may jar loose causing you to lose your route, or worse yet, leave you totally stranded in the middle of nowhere when their end of life is unexpectedly reached. GPS units have very low amperage requirements and should not put a strain on your motorcycle battery.

#### **GPS Mapping Software**

Key to getting the most out of your GPS unit is its mapping capability, and in this regard as alluded to above, Garmin is king. A major reason Garmin GPS units are by far the most popular motorcycle GPS units is because of Garmin's advanced mapping capabilities. MapSource software has been the robust mainstay of Garmin's mapping capability for many years, but it has been recently replaced by BaseCamp that looks and feels a lot like MapSource. Both MapSource and BaseCamp are supported on PC and Mac computers, both work very well, and both can upload a variety of different digital maps from which routes and waypoints can be created and transferred to the corresponding Garmin GPS unit. Conversely, any routes, waypoints and tracks created on the Garmin GPS unit can be transferred to either MapSource or BaseCamp and manipulated within the digital maps. The most recent version of the MapSource User's Guide (2008) can be downloaded from the Garmin website [15], and there are instructional videos available that demonstrate some of the features of MapSource. [16] Stuffit Expander application software will be needed to unzip the .sit file for Mac users in order to view this video. This can be downloaded for free from the Internet. Many additional instructional videos can be found by doing a search of Garmin MapSource on YouTube. Garmin BaseCamp can be uploaded to your PC or Mac for free from the Garmin website, and there are 9 helpful instructional videos available at gpscity.com demonstrating many of its features [17], as well as others found by doing a similar search on YouTube.

The real versatility of Garmin MapSource and BaseCamp is that you can use multiple digital maps from various sources to create routes and waypoints. Among the most popular are Garmin City Navigator North America and Topo U.S. These and other Garmin digital maps can be displayed on the Garmin GPS unit. Recently. Garmin introduced nüMaps Lifetime™ North America that contains detailed maps of metropolitan areas throughout North America, including motorways, national and regional thoroughfares, and local roads (Forest Service, BLM and county roads). With this purchase updates are provided as often as every 3 months for life without monthly fees or other ongoing maintenance costs. [18]

It is also possible to use digital maps from sources other than Garmin, such as deLorme's National Geographic TOPO, to create waypoints or routes that can then be uploaded to your Garmin GPS unit, though the maps may not be transferred. It is also possible to display your GPS tracks in these digital maps and manipulate them. [19-20]

Another feature of Garmin MapSource and BaseCamp is the ability to view routes, tracks and waypoints in GoogleEarth or Google Maps, the former of which has a 3-D function that gives you a unique perspective of the terrain you either will or have traveled. It is also possible to create routes and waypoints in Google Maps and then transfer them to your GPS unit. Ray Jardine describes this process on his website. [21]

#### **Learning How to Use the Software**

Under even the best of circumstances a GPS and its digital maps are no replacement for good paper maps. They should be used in combination, especially when doing off-road routing. I prefer the Benchmark Road and Recreation Atlases because they are updated every few years, indicate topography and elevation, and show latitude and longitude grids and coordinates for better correlation with your GPS. Several Internet sources give detailed step-by-step instructions on how to use MapSource

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and BaseCamp to create routes and waypoints, and how to transfer them to your Garmin GPS, as well as manage tracks transferred from your GPS to these software programs. [22-25]

A careful review of the Internet references listed below should give you a very good insight into navigating by GPS and teach you new features and tricks for managing routes, waypoints and tracks.

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## **Safety and Motion Induced Blindness**by

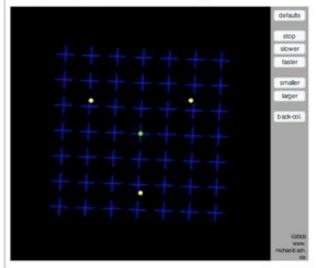
Craig O. Olsen

Ever wonder why some motorists say, "I just didn't see him," when they get involved in an accident with a motorcycle? It may be a case of motion-induced blindness, a phenomenon of "visual disappearance" in which salient visual stimuli disappear as if erased in front of the observer's eyes.

Motion Induced Blindness

#### What to see

Below you see a rotating array of blue crosses and 3 yellow dots. Now fixate on the centre (watch the flashing green spot). Note that the yellow spots disappear once in a while: singly, in pairs or all three simultaneously. In reality, the 3 yellow spots are continuously present, honest!



#### What to do

You can use the slower/faster buttons to change speed. Disappearance persists down to surprisingly low speeds. [If there are no buttons on the right, please <u>update</u> your Flash player.]

You can use the larger/smaller buttons to change size. Disappearance persists up to surprisingly large sizes.

You can use the "back-col" button to change the background colour. The vellow dots disappear into whatever colour the background has. The 'defaults' button at the top restores the standard settings.

#### Comment

According to Michael Bach, "Steady fixation favours disappearance, blinks or gaze shifts induce reappearance. All in all reminiscent of the Troxler effect, but stronger and more resistant to residual eye movements."

#### Source

This page provided by Prof. Michael Bach PhD, Ophthalmology, University of Freiburg, Germany, from his collection of Optical Illusions & Visual Phenomena.

In general, while fixating your vision on the center green dot without moving your eyes, the outer yellow dots will intermittently disappear. A visual demonstration of this phenomenon is given in the web link to the Motorcycle Safety Foundation (MSF). [1]

A detailed scientific explanation of this phenomenon of how and why it occurs is given in the October 2008 issue of the Journal of Neuroscience if you are interested to read it. [2]

Long before the scientific explanation was available, WWII pilots were aware of the phenomenon from years of combat flying experience. Ross Warner, one of our IAMC members, brought to my attention the fact that flight instructors, some of whom were WWII veterans, instructed their student pilots that the most effective technique to locate other aircraft was to scan the horizon for a short distance, stop momentarily and repeat the process. These experienced pilots emphasized repeatedly to not fix your gaze for more than a couple of seconds on any single object, and to continually keep your eyes moving and your head on a swivel because that was the best way to survive, not only in combat, but also from peace time hazards, such as a midair collision.

What does all this have to do with motorists and motorcyclists? It has everything to do with safety. In driving situations in which some night drivers should see stationary red tail lights of the preceding cars disappear temporally when they attend to the moving stream of lights from oncoming traffic may be a case in point. [3] In a similar fashion (day or night) a driver may not see a motorcyclist for the same reason.



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By the same token, motorcyclists may have motion-induced blindness when their vision becomes fixated on a single object for more than a few seconds. The basic instruction for safety in motorcycling is to continually scan with your eyes from side to side and from near to far, including your rear view mirrors. Potential riding hazards cannot be avoided until they are first visually recognized, and they will be recognized too late to avoid or missed altogether if our vision becomes fixated on a single object for too long.

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