

BURN CARBOHYDRATES, NOT HYDROCARBONS!



ITS JUST A HILL – GET OVER IT!



August Spokesman Contents...

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YOUR COMMITTEE APRIL 2017 – MARCH 2018

PRESIDENT	Annette Collins	021 257 7365	president@acta.org.nz
SECRETARY	Louise Sinclair	021 268 1155	info@acta.org.nz
TREASURER	Geoff Phillips	022 301 1604	treasurer@acta.org.nz
COMMITTEE	John Billinge	021 039 7164	johnbillinge@gmail.com
	Ron Jackson	027611 1013	rojac@xtra.co.nz
	Sally Johannesson	027 627 7613	sallyjohannesson@gmail.com
	Sarah Ley	027 498 5186	sley@xtra.co.nz
	Ron Smith	09 815 1043	ron_n_smith@hotmail.com
	David Ward	09 445 3639	david-ward@clear.net.nz
	RIDES LIST	Tony Simmons	09 6272900
WEB MASTER	Roel Michels	09 473 6434	webmaster@acta.org.nz
	EDITOR	Stuart Andrews	021 185 3088

www.acta.org.nz

REGULAR CLUB RIDES

Saturday rides depart at 9:00am from regular departure points around the city. These rides include a mid-ride café stop, so remember to bring a few dollars. Rides are about 30-40kms and are usually completed by midday. For detailed ride information, view the Club's website and select 'Rides Programme' from the menu.

Sunday rides depart at 9:00am from differing venues. This is an all-day ride, usually in the country, and can be anything from 50-100kms. A café stop is hopefully included mid-morning. Also, remember to bring your lunch! For detailed ride information, view the Club's website and select 'Rides Programme' from the menu.

Wednesday rides leave at 9:30am from The Bakehouse Café, Kumeu. This is a ride in the country and can be anything from 30 - 60kms, including a mid-morning café stop. Remember to bring your lunch!

1st Wednesday Month Ride 9.30am departure from somewhere in central Auckland (often from the CBD Ferry Terminal). Members are advised of details in advance.

3rd Wednesday Month Ride 9.30am departure from Ron Keat Drive, Papakura at the back of the railway station. This ride will wait for the 9.20am train to arrive. A leader will be decided on the day but Bill Pepler peplers@ihug.co.nz, 09 266 6846, 021 073 7019 is the coordinator and contact for new people who want to try out this ride. **NB: Despite the 1st and 3rd Wednesday rides, the usual Wednesday rides from Kumeu remain unchanged.**

Disclaimer: The opinions expressed in this magazine are those of the contributors and do not necessarily reflect the views of the ACTA editor and/or ACTA. committee. Readers should exercise their own judgement when considering technical matters or any other information/advice.

Hi and welcome to your August Spokesman...

I mentioned in the May 2017 Issue that my wife, Gaye, and I were undertaking three overseas cycle tours this year, which is not only unusual, but also very special and enjoyable for us.

We went to Japan with 8 other ACTA members in April, which is the stunning “sakura” or cherry blossom time in Japan. My sincere thanks to Sarah Ley Bucherer who wrote a fantastic article, which epitomised the wonderful time we had, and which was included in the May Issue of the *SPOKESMAN*. As a result of that article, should any of you be interested in undertaking a similar tour in April 2018, you may like to contact either one of the other members who undertook the Tour, or myself, and we can provide you with contact details of the fantastic Leader who truly immersed us in Japanese culture.

In July, we flew to Ho Chi Minh City (Saigon) where we joined a group of 11 “Kiwis” including one other ACTA member, John Briers, plus a young Aussie lady as a late addition. We rode in sections through tourist highlights up to Hanoi. An article about this tour is included in this August issue.

I also mentioned in the May issue that it is was my intention to include some helpful information in respect of e-bikes in forthcoming issues, even though information related to e-bikes can always be “googled”. Subsequently, I have reflected on this, and realised that, because the *SPOKESMAN* is issued quarterly, it could be quite frustrating for those of you wanting to invest in an e-bike soon, to have to wait for the series of articles to be completed. As a consequence, I decided to consolidate it all into one rather lengthy article and include it in this issue, which I sincerely hope will prove useful to ACTA members.

I am pleased to report the Editor now has a good relationship with Auckland Transport Cycling. It turned out they endeavoured to contact me via the email address editor@acta.org.nz, which, at the time, had not been diverted to my personal email address. This has now been rectified and I am most grateful for the regular information they intend to provide me with.

Just a reminder that *The SPOKESMAN* is issued in mid- to late- February, May, August and November. *Happy reading*, and I hope the forthcoming issues are of interest to you. Also, *happy riding!*



Your Editor,

Stu Andrews

Message from your President...

As I sit here writing this, looking out at the sun after a lovely cycle through the Chiltern countryside from Henley on Thames back to London, I do feel mildly guilty about being over here for nearly 4 weeks and experiencing a mostly fine and sometimes even too hot, English summer. I realise NZ hasn't been having the greatest weather since we left, but our ACTA cyclists are all out there turning the pedals, so we wish them well!!

It was excellent to hear that the Solstice week in Nelson went well and the weather was kind to them. Thanks to Garth and Judy for organising this.

Our newly formed tours group is working hard and coming up with a programme of tours for the next couple of years. As you are aware we are trialling running two supported tours, that is the usual November tour with a repeat in April to try and spread the numbers out and give members "two shots at the cherry"!

So, the ACTA President and Treasurer, plus Steve, are heading off for a tour around Scotland Isles soon. A number of our members have done a version of this and recommended it, so we will be off to do our version starting in Glasgow on 3 August.

Happy Cycling to all!!



Cycling Along “Ninety Mile” Beach by Kit O’ Halloran

Last year, at last, I got to ride “Ninety Mile” beach on my *fat tire Kona bike*. This had been a long-held ambition of mine.

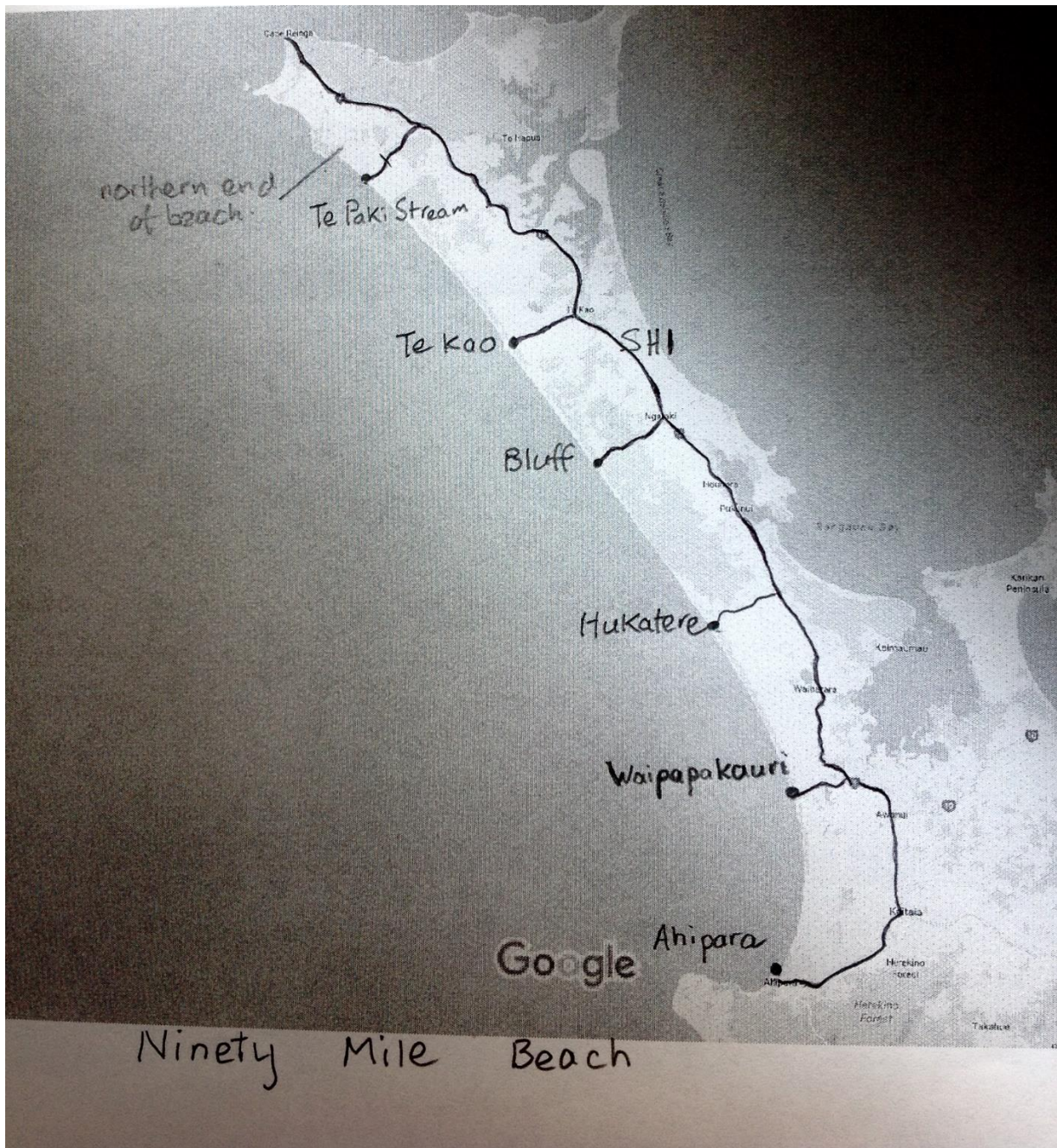


Kit riding “Ninety Mile” Beach on his “fat tire” Kona bike

Here are some notes on my experience that may be of use to others.

Low tide on “90 Mile” Beach provides the longest flat ride you will find in New Zealand. Maybe not the ninety miles reflected in the beach’s name, but the truer distance of 84km is a long carpet of sand with only the ocean on one side and undulating sand dunes on the other. This remote cycling experience is only interrupted by the occasional tour bus or 4-wheel drive vehicle of surf fishermen.

However, once you have reached the sand, there is some urgency about your endeavour, because you must find your way off the beach ahead of the incoming tide. The cycling guide books advise that you can enjoy just 2 hours either side of low tide when the sand will be firm enough to ride on.



Access to Ninety Mile Beach from State Highway 1

So, if you ride from the northernmost entry point at the **Te Paki** Stream all the way to **Ahipara**, you will have an 80km ride, which, if riding at 20km/hr, will not give you any time for stopping for a thermos of tea or for searching for the elusive **toheroa**¹ shell fish beds.

¹ The **toheroa** was once considered a prime shellfish seafood delicacy of New Zealand, but its population crashed after years of overharvesting

Other features of the ride are the high tide island (*Te Wakatehaua*) at the **Te Kao** road access and the extensive *tuatua*² shell fish beds that can be found at **intervals** along the whole length of the beach. The high tide island can be reached from the beach except on the full tide. However, on the ocean side it is always exposed to the full force of the waves. The *tuatua* beds are evident from the tiny tubes of sand pushed up by every individual shell-fish around the mid-tide mark.

Road access to the beach is available at the locations shown on the map above and referred to in the table below.

DISTANCES	
Northern end to Te Paki Stream	3.9km
Te Paki stream to Te Kao	19.5km
Te Kao to Bluff	12.4km
Bluff to Hukutere	17.1 Km
Hukutere to Waipapakauri	17.5km
Waipapakauri to Ahipara	13.5km
Total	83.9km

The Te Paki Stream access is the one most used for the northern end of the beach. However, this requires following a stream bed for the first 2 kms from the beach. The creek is not tidal, but has a variable sandy bed that makes it difficult to stay on your bike. Only the most experienced mountain bikers are able to ride the whole length of this. Most will choose to walk their bike over the greater part of the creek section. For all riders, it is very likely that sand will find its way into your disc brakes and will acquaint you of this by emitting a horrible scraping noise. Sand will also get onto your chain and sprockets. The sand damage is unlikely to be catastrophic, but should be inspected and attended to upon leaving the creek. I recommend a dry lube of your chain and rings, before you start, because the sand will either not stick to these or can be easily washed off. The adjoining road section of the link to State Highway 1 has a gravel surface.

Accesses to the beach at *Te Kao*, *Bluff* and *Hukatere* are on hard to find unsealed, unmarked roads, mostly through pine forests.

The *Waipapakauri* access is a good sealed road, and I used this as the starting point for my ride up the beach. I left the beach at the *Te Paki* Stream.

Accommodation is available in cabins close to the beach at *Waipapakauri* (Ninety Mile Beach Holiday Park) and *Ahipara* (Ahipara Holiday Park).

At the northern end, the only accommodation available is at the *Waitiki* Tourist Complex, where there is a shop, cabins, bar and restaurant. This is 5kms south from where the *Te Paki* Stream access road joins SH1.

²**Tuatua** is an edible clam with an asymmetrical shell, whereas it's closest relative, the Pipi, has a symmetrical shell

Winter Solstice Tour Nelson, Takaka, Farewell Spit

by Sarah Ley Bucherer

Ten keen ACTA riders arrived by air mostly accompanied by bike boxes on a fine and sunny Nelson winter day to start our Winter Solstice ride. Getting to our accommodation was thankfully quick and easy as we certainly couldn't all fit with bike boxes into one trailer and van. After Auckland, we noted it was quite crisp, but very pleasant. It wasn't till later that we realised we were definitely in the South Island.



Bike Boxes Upon Arrival



Group at the Start of the Tasman Great Taste Cycle Path

Putting bikes together again proved a speedy job on the whole with plenty of assistance for those that needed it (e.g. me!). Our accommodation at Tahuna Beach helpfully allowed us to leave boxes in their garage until we returned. Then we were off to check out the cycle trails of Nelson along the coast and towards Cable Bay. However, we soon realised that Cable Bay was a step too far after starting late, so we headed for the centre of NZ which was of course up a steep hill! Once the road degenerated into a dirt track some of us chose to check out the city instead. I am told it was a wonderful ride with splendid views. Judy had booked the Nelson Community Club for dinner, which was a great choice and allowed those interested to watch Lions vs All Blacks match as well.

Next day started very crisp (after an early wake up to watch America's cup) as we set off hugging the coastline on the Tasman Great Taste cycle path. With the sun rising over a calm sea, we were rewarded with many beautiful early morning vistas as we made our way towards Rabbit Island where Louise met us with the van and provided hot drinks beside a sandy beach. Then, on to the ferry to Mapua which was thankfully running for day trippers - it was marvellous to see so many families and groups taking advantage of the terrific off-road options available so close to Nelson. Lunchtime saw us at Mapua with an opportunity to check out the numerous cafes and tourist shops. With a reasonable headwind to keep us concentrating on the way ahead, we then continued on inland to Motueka via the Tasman lookout. As we had cycled around 60km mostly off-road, I think we were all pleased to have chosen mountain bikes for this trip.

Motueka proved to have good craft beers and cider on tap which was just what most of us were in need of, as well as a good meal at "The Sprig and Fern". After a good night's sleep, we were once again rising early to enjoy another successful set of boat races whilst trying to get ready for a day's climbing – the much talked about Takaka Hill! A bit of miscommunication prevailed at this stage causing us to wait to start the ride and poor Judy, the designated van driver, found to her horror the windscreen had iced up for the second time in just 10 minutes! The riders layered up large to start with, which, by Riwaka, were being shed in preparation for the Hill. The plan was to find a place to stop either part way or at the top – a slow grind of about 16km. Thankfully, the lorry and car drivers were very good on the whole and we found the van easily in time for a hot drink and food. We had a brief glimpse of the snowclad peaks ahead, so then added as many layers as possible before the downward freezing spin to our lunch spot. Here in the valley, it was sunny but still very cold so none

of us spent a lot of time standing around before jumping on the bikes and traversing the unsealed picturesque back route to Takaka and our gorgeous location for the night at Pohara Beach. The sunset and the fading light on the beach were simply stunning.

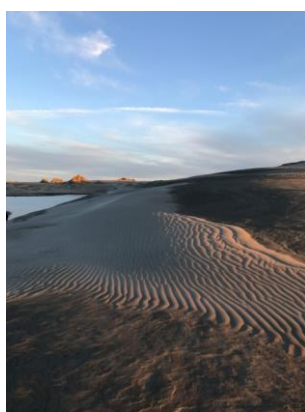


Takaka Hill



Pohara Beach

Being Monday night, Pohara had no options for food so, once again Judy searched out a great dining spot which necessitated a drive to “The Gumboot and Morepork” in Takaka. Somehow, we managed to sandwich 10 of us into the van – luckily we had all showered. Once again craft beers and local ciders on tap provided plenty of choice. Next morning’s sunrise was once again spectacular and the windscreen was coated in ice again despite being only metres from the sea. The ride to Collingwood of 35km via Patton Rocks for morning tea was, I am told, very cold so a good day to choose to drive the van. Once in Collingwood it was good to see the sun, but even so people were sitting around in blankets and coats trying to warm up. The local camp kindly let us check in early and after hot showers we were all feeling better and ready to board the Eco Tour bus to Farewell Spit. I think we all agreed that afternoon more than met our expectations with visits to Cape Farewell where we were able to have a short walk around the headland, then along the beach to Fossil Point. Here we stopped to look at the ancient rock formations and fossils before boarding the bus and the long fast ride through wet sand and the occasional streams to reach the lighthouse and the remaining houses, one of which is used by DOC and also the Eco Tour operator who brewed us a hot drink. Journeying back the way we had come we had an opportunity to climb one of the crescent shaped (barchan or barckan) dunes with amazing crescent shape sand patterns sculpted by the wind. More lovely sunsets as we headed back to Collingwood ensured this day was one out of the bag.



Farewell Spit



The Light House

For our rest day, the plan was to cycle out and back to Whanganui Inlet, Mangarakau Swamp and Westhaven, a ride of about 60km. Some of us reneged or choose a shorter ride giving us more time to enjoy the Courthouse Café, but it appeared we missed a stunning ride that will simply have to wait for another time.

The “Mussel Inn” microbrewery proved a great place to eat and taste the local liquids on tap that night. Then it was back to Pahora via Pupu Hydro Dam, a 5km bush walk and Pupu Springs walkway (which turned out to be fine for cycling along). A very interesting day was had all round - spotting white herons, Judy and Garth having some Collingwood experiences over breakfast (buy your own milk, imagine the wood fire which isn't built yet), and news of a new edition to my family. Being Thursday, the local restaurant was open and much time was spent talking tactics about the forthcoming unsealed and steep ride to the Cobb River Dam lookout about 20km off the main road to be followed by another climb over Takaka Hill making it “a big day out” in Garth's words.



Whanganui Inlet



Setting off on last day's ride Motueka to Nelson

Yet another early start was necessary with the van packed by 7.30am. In the end, most elected to miss the dam ride (Andrew and Garth took up the challenge), but all of us managed to get quite cold with the freezing fog and mist. The Riwaka Cafe was a very welcome sight at the bottom of the hill and much needed chance to warm fingers and toes before heading on to Motueka. Most of us headed off to inspect the excellent local cycle shop and check out the bargains before dinner. Three of the team managed to polish off “The Armstrong Special” – donut, icecream, oreo biscuits and chocolate with salted caramel sauce delivered in a hypodermic syringe. Once again there were discussions about the next day's ride which is due to be 90km (Motueka to Nelson via the inland or valley route of the Great Taste Trail) and the forecast is for rain all day. The start was to be 7.30am in the dark as sunrise was listed as 7.54am.

After a night of pouring rain continuing on into the morning, our start was delayed to 10.30am. We all set off at different times via Ngatimoti, Woodstock, Thorpe planning to meet the van at Dovedale School for lunch. This may have been called the Great Taste Trail, but there were no cafes or food until Wakefield, around 60km away. With a head wind and driving rain as we cycled along the Motueka river, we were all cold by Dovedale. Farmers were spotted close to the river hurriedly moving stock further up and one yelled “your mad” as I cycled past! A number of slips, falling branches and streams of muddy water gushing across the road did make us question our sanity. Garth found a new use for plastic bread bags as effective outer rainwear for hands and feet. Some of us turned back to the van just after Dovedale whilst others enjoyed a wild but exhilarating ride into Wakefield. Of course, the food and hot drinks were much appreciated and the pie warmers an excellent way to warm up the back! Some hardy souls carried on to complete the ride into Nelson in driving rain and gathering gloom at the end of the day. After hot showers and fresh clothes, we were out the door quick smart to take in yet another rugby test match at the local community club.

Our final day in Nelson was supposed to be the “latte ride” of the tour at last, but we all chose to box our bikes whilst dodging downpours. Many took earlier flights home with Air NZ very happy to have us stagger our exodus from Nelson on their small planes. Another great Winter Solstice ride thanks Garth and Judy and watch out for the next one in 2018. I understand another South Island venue is planned.

Impressions of Vietnam Tour (Ho Chi Minh City (Saigon) to Hanoi) by Stu Andrews and John Briers

The Cycle Tour

The group consisted of 11 Kiwis (3 from ACTA being Stu, Gaye and John Briers) and the late addition of a young Aussie lady. The tour covered 16 days of which 11 were cycling days led by Trong, a fit young Vietnamese guy with fluent English. We also had a Vietnamese Tail End Charlie and a support vehicle that provided not only cold drinking water but also re-hydration sport drinks that were essential in the hot humid weather as well as snacks. Accommodation was in 3-star hotels except for one night when we rode a distance on the overnight south to north train that the Vietnamese refer to as the Reunification Express Train.

DAY	LOCATION	CYCLING	COMMENTS
0 – 5 July	HCMC (Saigon)		Arrive in HCMC
1 – 6 July	HCMC (Saigon)		Cyclo (Rickshaw Tour) and visit to War Remnants Museum and old Presidential Palace
2 – 7 July	HCMC (Saigon)	25 km	Visited Cuchi Tunnels dug by Vietnamese during the “American” war
3 – 8 July	HCMC to Dalat	40 km	Through coffee plantations and uphill to plateau town of Dalat
4 – 9 July	Dalat to Nga Trang	100 km	Rode past hectares of berry hot houses and climbed up to pass where temperature dropped considerably. Then 30 km ride downhill with switchbacks.
5 – 10 July	Nga Trang		Beach resort popular with Russians. Went out on boat and did swimming and snorkelling before visiting an aquarium
6 – 11 July	Nga Trang to Tuy Hoa	95 km	First, we cycled about 20km alongside the coast then back roads through villages
7 – 12 July	Tuy Hoa to Quang Ngai	70 km	After a hill climb the road was then relatively flat and the group went at a good speed
8 – 13 July	Quang Ngai to Hoi An	50 km	First, we rode to My Lai, the site of one of the worst massacres of unarmed villages (including women and children) by US troops then a loop back to the main highway.
9 – 14 July	Hoi An		The ancient town in Hoi An is world heritage and one of Vietnam’s tourism “jewels in the crown”
10 – 15 July	Hoi An to Hue	100 km	A lot of coastal beach resorts are being built on the way to Da Nang. Da Nang is where the French first landed in Vietnam due to its inner harbour. Hard climb up to Hai Van Pass. Experienced heavy rain on way down other side. 44km along coast toward Hue.
11 – 16 July	Hue to Ninh Binh	25km	In Hue took boat along Perfume river to visit Buddhist Temple and then visited ancient imperial citadel of the Nguyen royal dynasty. Took evening train north to Ninh Binh, which was delayed due to bad weather.
12 – 17 July	Ninh Binh to Cuc Phuong National Park	40 km	Cuc Phuong National Park is another of Vietnam’s beautiful and protected areas with prominent limestone rock areas, forest and rare animals. We stayed in an interesting resort.
13 – 18 July	Cuc Phuong to Haiphong	40km	Rode through jungle to visit pre-historic cave. Then visited primate rescue centre run by Kiwi lady before riding through hectares of pineapple plantation
14 – 19 July	Hai Phong to Ha Long Bay	30km	Wet and slushy mountain bike riding. Boarded 4 star cruise vessel in Hal Long Bay, which is one of Vietnam’s tourism “Jewels in the crown”
15 – 20 July	Ha Long Bay to Ha Noi		In morning explored Ha Long Bay including floating fishing village and pearl farm. In afternoon drove to Ha Noi
16 – 21 July	HaNoi		Visited Ho Chi Minh Mausoleum, Presidential Palace, old town and attended water puppet show in evening
17 – 22 July	HaNoi		Depart HaNoi for flight back to Auckland

Impressions from Stu!

TRAFFIC

Nationally, Vietnam is a country full of motor bikes! (When referring to motor bikes, I am referring to light motorbikes, mopeds and scooters). Apparently, only two percent of households throughout the country own a car. It would seem that serious pressure is being put on Ho Chi Minh City (HCMC) and Hanoi. It also seemed to me that the number of motorbikes could well be the same as the total population in each city. In the opinion of Stu and Gaye, the threat looms that HCMC and Hanoi could turn into another

traffic-riddled city like Jakarta or Manila where we have previously lived. It would also be fair for me to say that road safety is definitely not one of Vietnam’s strong points. While nominally traffic is supposed to drive on the right, motor bikes in the cities think nothing of driving down the left against opposing traffic. Likewise, they can pull out of side streets or driveways without looking at what traffic is coming. While there are pedestrian crossings in the cities, they basically mean nothing to motorbikes that carry on and cross the pedestrian crossing even when pedestrians are on it. Therefore, not only cyclists, but also pedestrians, need to be extremely vigilant. While footpaths are provided in the cities, they have now become motorbike parks meaning pedestrians either have to manoeuvre around them or walk on the side of the road. In consequence of all of this, we were driven in and out of larger cities in our support vehicle before commencing cycling. When cycling along rural roads we still needed to be vigilant. What was disconcerting is that, while concentrating on the road surface or the surrounding scenery, we may be unaware of a large truck or bus coming up behind us until they give us a blast of their loud air horns warning that they want to pass.



HCMC Peak Traffic



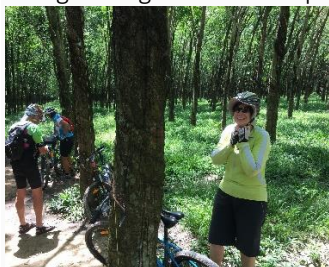
Hanoi Peak Traffic



Motor Bike Parking

CYCLING ENVIRONMENT

While we did ride on some relatively major roads outside of cities, which were not too badly maintained, we also spent time riding on rural roads, which tended to have a number of pot holes and those that were not surfaced transformed themselves into a sea of mud in places when the weather turned bad. It was just as well we had “Giant” bikes with soft fronts and hard backs plus knobby tires. Not only did we ride through agricultural areas, but also plantations such as coffee, rubber and pineapple and pine forest vegetation. We also had several hills to climb with two being prominent. The first was on our way to Nga Trang where, after a long steady hill climb, we had a ride of 30km downhill with numerous switch backs and fabulous scenery. The second major climb was up to the Hai Van Pass after leaving Da Nang on our way to Hue. Upon descending the other side of the Pass, we were subjected to localized heavy rain which was hitting the face and eyes like needles. We were drenched upon reaching the bottom, where we had lunch. However, we dried out as we rode the remaining 44km along an interesting coastal rural road. A few days later, we had an interesting ride through the Cuc Phuong National Park jungle before riding through hectares of pineapple plantations.



Rubber Plantation



Coffee Plantation



Pineapple Plantation



30km downhill ride on way to Nga Trang



Scenery on way up to Hai Van Pass



Riding through jungle in Cuc Phuong National Park

Impressions from Sloop (John Briers)!

My 2017 world trip culminated in a 17-day bike tour of Vietnam UP THE EAST Coast from Saigon to Hanoi...it's a bloody long way, so we spent some time in the support vehicle getting to places safe to ride, (seriously culled in case of boredom)

Boredom was relieved by lots of laughs, music, singing and some basic harmonica recitals courtesy of me

I flew in from Manchester UK to join up with other 11 persons, 10 kiwis and one Aussie chick

Myself, Stu and Gaye representing ACTA (the slow ones smelling the roses)!



The 3 ACTA Members standing at the entrance to the Pre-Historic Cave in Cuc Phuong National Park



The whole group at the plateau town of Dalat with Sloop middle of front row

We were all kitted out with oldish mountain bikes, (very necessary for the rough terrain we encountered on our Journey)

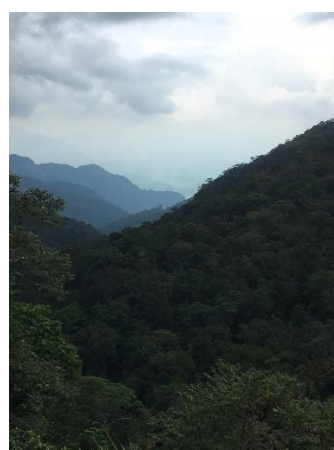
A typical day began after an excellent breakfast with a 7.30 departure, and, depending on the day, a 50 to 100 Km ride. After about 20/30 km we would stop for road side refreshments, (just in case we didn't pig out enough at breakfast)



Daytime Snacks



One of the longer Hills



Scenery from one of the hills

We needed lots of water (most on the head for me!), about 8 liters per day to keep the temp down. One day we climbed up for 10 km to the Hai Van Pass in 34 deg of heat and glorious sunshine, only to be welcomed with HAIL STONES on the way down...talk about from the **SUBLIME TO THE RIDICULOUS!**



Gaye nearing top of Hai Van Pass



Stu & Gaye drenched after coming down other side



Some of the group being disrespectful in ancient Hoi An town!

Lunch was another highlight of the day, very tasty and lots of it. However, it took a few days before some of the group relaxed enough to have a beer with lunch, but then it became more of a norm. Most day rides finished between 4 and 5 pm depending on the distance needed to be covered each day. We then stayed in very nice 3-star plus Hotels, some with great pools!



Hoi An Trails Resort Pool



Ancient Hoi An Town



Ancient Hoi An Town

One of the Tourism highlights in Vietnam is Ha Long Bay!



Scene from Ha Long Bay



Our Tourist Vessel in Background



Floating Fishing Village Ha Long Bay



A GUIDE FOR THOSE WANTING TO INVEST IN ELECTRIC BIKES



With acknowledgements to: Meloyelo and Electric Bike Report.com among others

Editor's Comment

The Auckland Cycle Touring Association (ACTA) is NOT advocating that all members should consider buying electric bikes (*e-bikes*). Being a cycling club, we expect the “motor” used by the majority of members to be their own bodies and specifically their legs providing “pedal power” (*viz.* muscular energy) when riding regular conventional bicycles. However, despite this, we would also encourage some of our older members, who feel they might be getting a bit slow on regular organized ACTA rides, to consider investing in an *e-bike* in order to maintain not only their fitness, but also their membership and continue camaraderie with ACTA members. While I have endeavoured to keep up with ever fast-changing technology, I have also included some of the historic basics in regard to e-bikes. For those with computers, information related to *e-bikes* can always be “googled”. Despite this, while not guaranteeing that the technology mentioned below is strictly up-to-date bearing in mind the SPOKESMAN is only issued on a quarterly basis, I decided to include this article in ***the hope that it provides some helpful information in a logical format for those considering investing in an e-bike.***

What is an e-Bike?



An electric bicycle, also known as an *e-bike*, is a bicycle with an integrated electric motor, which can be used for propulsion, together with battery, both of which are built into the bike. In most instances, you can still pedal, steer, brake and change gears like you would on a regular bike, but the extra power will let you go further and faster.

Electric bicycles are not new technology. In fact, the first motor-propelled bicycles were documented with various US patents in the late 1890s, but the technology never really gathered steam, so to speak. In their modern incarnation, electric bicycles with torque sensors and power controls were developed in the 1990s.

Why use an e-Bike and what are the benefits?

With the rapid global trend toward urbanization, and the welcome retreat of car-dominance on city streets, e-bikes are now quickly growing in popularity around the world. They “flatten” every hill and turn every headwind into a tailwind. In other words, they take the bits that aren’t fun out of cycling, leaving you with the enjoyable bits.

- Ride faster versus a conventional bike
- Enjoy riding up hills and into head winds
- No need to sweat
- Easy on the joints – *e-bikes* put less pressure on knees, hips and other joints
- Ride further afield without worrying about having enough energy to ride back
- Keep up with younger or fitter conventional riders
- Avoid using the car – Save money – Save CO2 emissions
- For *Commuters*, won't break a sweat on the way to work - Parking is a breeze - No more waiting in traffic
- For *Health*, you can continue to remain active, fit and burn calories as well as continuing to spend time out in the fresh air
- Have more fun!



What are New Zealand Regulations? Do you need a License?

Current New Zealand Regulations state that a power assisted pedal cycle that has an auxiliary electric motor with a **maximum power not exceeding 300Watts** will apply to the same rules as those that apply to conventional bicycles. i.e such an *e-bike* does not require registration and does not need a Driver's or any other License and can go anywhere that a regular bike is allowed to go – cycle paths, cycle lanes, rail trails and other shared paths etc. With changing technology, electric motors with power of 250-300Watts provide excellent torque and acceleration. The following examples are **not** power-assisted cycles (*e-bikes*), but are regarded as “mopeds” or motor bikes:

- Cycles fitted with petrol motors
- Low powered scooters/mopeds
- Cycles designed primarily to be propelled by an engine without any assistance from the muscular energy of the rider i.e. not able to be pedalled by the rider e.g. motor bike

Types of e-Bikes (Pedal-Assisted / Pedelec or Throttle Modes)

There are a great variety of *e-bikes* available worldwide, from *e-bikes* that only have a small motor to assist the rider's pedal-power (commonly known as either “**Pedal-assist**” or “**Pedelecs**” **Mode**) to somewhat more powerful *e-bikes*, which have a **Throttle-assist Mode** and tend to be closer to a moped-style functionality. All, however, retain the ability to be **pedalled** by the rider and are, therefore, **not electric motorcycles or mopeds**, and apply to the same rules as conventional bikes. E-bikes use rechargeable batteries and the lighter varieties can travel up to 25 to 32 km/h, depending on the laws of the country in which they are sold, while the more high-powered varieties can often do in excess of 45 km/h (28 mph).

Throttle-Assist Mode

The *throttle-assist mode* is similar to how a motorcycle or scooter operates. There are different types of throttle such as twist grip, thumb or push button. When the throttle is engaged, the motor provides power and propels you and the bike forward. A throttle allows you to pedal or, alternatively, just kick back and enjoy a “free” ride! Most throttles can be fine-tuned like a volume dial between low and full power.

Pedal-Assist / Pedelec Mode

The *pedal-assist/ pedelec mode* provides power only when you are pedalling. If you are used to riding a conventional/ traditional bike, the *pedal-assist mode* has a more intuitive feel compared to the throttle mode. It is also nice because you can focus purely on your pedalling and you don't have to either pre-set or continue to hold the throttle in a certain position. Since you have to pedal, the *pedal-assisted mode* will generally give you more range when compared to the throttle mode, but will not put excessive strain on your legs. A lot of *pedal-assist* bikes have different levels of assistance. While some may have 4-6 settings, the example below is for low, medium, or high assistance, which tends to be more common.

Low pedal assist (referred to by some manufacturers as Economy or “Eco”) = you are feeling pretty good on the bike. Low assist provides a little electric assist while you provide more pedal power and get more of a workout.

Medium pedal assist (referred to by some manufacturers as Trail or Touring) = you have a nice tailwind everywhere you go. Medium pedal assist can be a nice balance of your pedal power and the motor power.

High pedal assist (referred to by some manufacturers as “Turbo”) = you feel like superman! High pedal assist is when you want to get somewhere quickly and with minimal effort. This could be useful if you want to get to work without sweating too much. On the way home you could use the low pedal assist to work out the stress of the day.

There are different *pedal-assist* types on the market; the **torque sensor** and the **cadence sensor** systems.

The **torque sensor pedal-assist** systems measure the amount of power you are putting into the pedals and it will **increase or decrease the electric assist based on your pedalling power**. The torque sensor systems have a very **intuitive** ride feel because they emulate your pedal power very well. They are also generally found on the more expensive e-bikes or e-bike kits.

The **cadence sensor pedal-assist** systems provide assistance when the cranks of the bike are turning. Compared to the torque sensor system, the cadence sensor will just provide assistance based purely on the “assist level” you have selected and it will not increase or decrease assistance based on your actual pedal power. You could be pedalling very lightly, or very hard, and it will provide the same level of assistance.

Some e-bikes come equipped with **both the throttle-assist and the pedal-assist modes**. On some e-bikes, you can be operating the bike in the *pedal-assist mode* and then get an additional boost by twisting the throttle. There are also some e-bikes that have both modes, but they cannot be used at the same time.

Which Mode would be best for ACTA Members?

Most ACTA Members enjoy pedalling and keeping fit. Therefore, it is recommended that you consider selecting the *Pedal-assist / Pedelec Mode* in order to have a more intuitive e-bike. However, if you want the option to simply cruise along and pedal or not pedal, then you should consider a throttle-assist e-bike. More and more e-bikes are being supplied with **both systems**, so you may have the option of using either mode, depending on your mood.

Comparison of e-Bike Motor Types and Their Positions

In general terms, there are two types of motors and three positions in which they can be mounted. The first are referred to as **“hub motors”**, which are positioned either at the middle of the front or rear wheels and when the bike is “powered off” they function much like a traditional hub (connecting the tire, rim and spokes to the axle). The second are referred to as **“mid-drive or crank”** motors, which tend to be predominantly *Pedal-assist / Pedelec*. They power through the drivetrain (transmission) of the bike thereby enabling the motor to help with long & steep climbs and power up to high speeds on flat roads.

There’s a decision that some people planning to purchase an e-bike might not even know about – what sort of motor do you want for your electric bicycle: **“mid-drive/ crank”** or **“hub”**? While some may take this decision for granted, and think that “an electric bike is an electric bike,” choosing the right setup can make a world of difference when it comes to affordability, ease of use, riding comfort, power, and more.



Rear Hub Motor

Mid-Drive/ Crank Motor

Front Hub Motor

Front Hub Motors



In general, a front hub motor **pulls you along**

PROS	CONS
<ul style="list-style-type: none"> It can create an all-wheel drive bike because the motor drives the front wheel and you can power the rear wheel with your pedal power. 	<ul style="list-style-type: none"> Since there is much less weight over the front wheel, there is a tendency for the wheel to spin when accelerating on roads that have a layer of loose material (gravel, dirt, sand, snow, etc.) or when climbing a steep hill.
<ul style="list-style-type: none"> Because it is a front hub motor, any type of bike drivetrain (gears) can be used: traditional gears with cogs, chain and derailleurs or internal geared hubs (IGH) with a chain or belt drive. 	<ul style="list-style-type: none"> Because front hub motors are not connected to the bike drive train they would normally be in <i>Throttle Mode</i>. However, while it is possible for a front hub motor to provide a <i>cadence sensor pedal assist</i>, it would be rare for it to provide a torque sensor based pedal assist system.
<ul style="list-style-type: none"> Front hub motor systems are easy to install or remove from the bike because there are no gear systems to deal with (chain, derailleur, etc.) when compared to a rear hub motor. 	<ul style="list-style-type: none"> Front hub motors generally need a sturdy fork and, possibly, larger spokes and sturdy rims, especially for higher powered motors. As a consequence, they are generally focused on a lower power range that meets NZ requirements (300 Watts). Higher power is not common because the front fork of the bike does not provide as much of a structural platform when compared to where rear hub motors are located (refer bike frame picture above).
<ul style="list-style-type: none"> Front hub motors can provide for a more balanced bike weight distribution if the battery is mounted in the middle or back part of the bike. 	<ul style="list-style-type: none"> Front hub motor systems have a tendency to “bog down” on long steep climbs.

Rear Hub Motors



In general, rear hub motors **push you along** and they offer a wide range of power level options

PROS	CONS
<ul style="list-style-type: none"> Most people are familiar with the rear wheel driving the bike forward because that is the way virtually all bikes are built. 	<ul style="list-style-type: none"> Rear hub motors are a little more cumbersome to install or remove because the gears (chain, derailleur, etc.) need to be worked around.
<ul style="list-style-type: none"> The bike's frame provides a good structural platform to handle high torque from the motor thereby enabling a wide range of power options (250 watts to 750 watts even though NZ Regulations require a max of 300 watts only) 	<ul style="list-style-type: none"> They have a tendency to "bog down" on long steep climbs. Refer mid drive motors below for climbing long and steep hills.
<ul style="list-style-type: none"> Rear hub motors can provide either throttle-assist mode and/or cadence or torque sensor pedal assist-mode. 	<ul style="list-style-type: none"> Bikes that have a rear hub motor with a rear rack battery are back heavy and that can affect the handling of the bike. Back heavy e-bikes can be hard to handle while lifting onto a car rack or carrying upstairs. Removing the battery can help with this.
<ul style="list-style-type: none"> Some direct drive rear hub motors provide <i>regenerative braking</i> (see below). 	<ul style="list-style-type: none"> More powerful (viz. higher torque) rear hub motors need larger spokes and sturdy rims.

What is Regenerative Braking?

Regenerative Braking (often referred to as "Regen") means that the electric motor is used to slow you down when stopping and generating electricity, which is fed back into the battery pack thereby increasing your efficiency and range. The "regen" braking system offered on electric bikes is much less sophisticated than the ones offered on electric cars. E-bike regen is usually just "on or off" and has mild stopping power and is used in addition to manual brakes. Usually on an e-bike, regen happens when you softly apply pressure on the brake handle and you feel the regen brake kick in. Compress the brake handle more and the regular brake activates. Regenerative brakes on an e-bike create a bit of extra drag, even when not using the brake. This is because the motor is always engaged in an e-bike with a regen system, so the motor is always turning even when you are "coasting". This drag is so small its imperceptible when riding. However, it does cut down a small bit on the efficiency of the bike. Despite this, the positive effect on efficiency of a regen system, greatly outweighs the small negative effect created by this drag. Regenerative braking can drastically reduce your brake wear and also keep your brakes from getting to hot on extended down hills. Also, it never squeaks and has a nice smooth feel to it. It's a nice and liberating feeling to be charging your battery while riding, rather than creating friction and heat with traditional brakes.

All-In-One Hub/ Wheel Motors

With changing technology, all-in-one electric bike wheels have been developed that house everything in the hub or wheel being the motor, battery, controller etc. They can come in either front or rear wheel configurations and the pros and cons listed above still apply. In addition to the above, there are some more Pros and Cons for these all-in-one systems.

PROS	CONS
<ul style="list-style-type: none"> They claim to be easy to install or remove simply involving replacement of the front or rear wheels 	<ul style="list-style-type: none"> Repairing or replacing system components may be more difficult than other electric bikes and the whole wheel may need to be sent back to the manufacturer for service
<ul style="list-style-type: none"> They keep the look of the bike to be “clean” like a conventional bike and they may not be recognized as an electric bike 	<ul style="list-style-type: none"> Most all-in-one systems have just one size of battery pack, whereas more traditional e-bikes have the option to increase the battery size for more range
<ul style="list-style-type: none"> With changing technology, some have “smart phone” integration with an app providing an array of features (refer below) 	<ul style="list-style-type: none"> Housing the battery close to the motor can expose it to excess heat, thereby affecting its range and lifespan.

Mid-Drive / Crank Motors



In general, a mid-drive motor **powers through the drivetrain (transmission)** of the bike, which enables the motor to help with long & steep climbs and power up to high speeds on flat roads. Mid-drive systems benefit from many of the same mechanical drivetrain systems as the rider (the use of gears for climbing or going fast)

PROS	CONS
<p>Mid-drive systems are known for being able to climb long steep hills because they can leverage the lower gears of the bike and keep their rpm’s in an efficient range without getting “bogged down” like a hub motor. This is a good feature if you ride in areas that have consistently long and steep climbs. These motors can also leverage the higher gears of the drivetrain to cruise along at high speeds on the flat or inclined roads.</p>	<ul style="list-style-type: none"> Since the power is being transferred through the drivetrain of the bike there can be <i>more wear</i> applied to the drivetrain components (chain, cogs, derailleur, etc.). Higher power systems will add significantly more wear and those components may need to be replaced on a more frequent basis.

PROS (continued)	CONS (continued)
<ul style="list-style-type: none"> Since the motor is at the crank of the bike it provides for a low- and centred-weight distribution. If the battery is mounted in the centre of the bike that also adds to better weight distribution, which is good for the handling of the bike, as well as making it easier to lift onto a car rack or carry upstairs. 	<ul style="list-style-type: none"> To keep the mid-drive motor operating efficiently, you need to be shifting the gears properly for climbing hills or cruising along the flats. If you are used to shifting the gears properly on a conventional bike, then this is nothing new.
<ul style="list-style-type: none"> Removing the front or rear wheel is easy because there are no motor wires or hardware to remove (compared to hub motors). The bike can use almost any wheel type along with quick releases front and rear. 	<ul style="list-style-type: none"> Some mid-drive systems can sense when you are going to shift gears and they will reduce power for a smoother shift. There are some systems that don't have these sensors and that can lead to abrupt shifts when the motor is applying full power.
<ul style="list-style-type: none"> Most mid drive systems use what is regarded as conventional chain, cogs, and derailleur drivetrains, while some systems are compatible with internally geared hubs 	<ul style="list-style-type: none"> The majority of mid-drive motors have a <i>single chainring</i> which limits the gear range to the rear cassette/ cluster or to the gear range of an internally geared hub. For most riding conditions this is okay because the motor makes up for the gear range that is missing and the gear range of rear cassettes/ clusters can be pretty wide these days.
<ul style="list-style-type: none"> Most mid-drive systems tend to use <i>torque sensors</i>, while some use <i>cadence sensors</i>, <i>pedal-assist (pedelec)</i>. However, it is possible for mid-drive systems to also use <i>throttle mode</i>. With changing technology, some mid-drives are becoming pretty sophisticated with sensors that measure the pedal power, wheel speed, and crank speed to provide assistance that blends with the rider's power to create a <i>very intuitive ride feel</i>. There are also sensors that will reduce power when the system senses that the rider is going to shift gears to make the shift smoother. In addition, there are some mid drives that are integrating with electronic shifting systems. 	<ul style="list-style-type: none"> Most of the more-advanced technology mid-drive systems, which are becoming more popular, tend to be only available when purchasing a completely new e-bike with specific frame mounts. There are not many retro-fit mid-drive motor kits to choose from right now, but it seems that there may be more on the horizon.

Friction Drive Motor



While, perhaps, more confined to history now, it may still be possible to purchase a retro-fit friction drive motor with a roller that sits on a bike wheel and uses friction to transfer power from the roller to the bike wheel. While its efficiency can be affected by wet weather and the type of tire it is rolling on, it does offer quick installation and removal on a wide range of conventional bikes.

e-Bike Batteries

It is very important to choose the right type of battery. E-bike batteries are not only one of the most important components of an e-Bike, but also the most expensive and fragile. Without a good electric bike battery, you're not going anywhere! Battery technology is evolving rapidly, so it's hard to know what type of battery is best.

Lead-acid Batteries

Lead-acid electric bike batteries are cheap and easy to recycle. However, they are sensitive to bad treatment, and they don't last very long. They are not a good choice if you're serious about actually using your bike to commute. Lead-acid batteries are cheap for several reasons: they weigh twice as much as NiMh batteries, and three times as much as lithium batteries. They have much less usable capacity than NiMh batteries or lithium batteries. They only last for half as long as nickel or lithium batteries.

Nickel-cadmium (NiCd) Batteries

Weight for weight, nickel-cadmium (NiCd) batteries have more capacity than lead-acid batteries, and capacity is an important consideration on an e-Bike. However, nickel-cadmium is expensive and cadmium is a nasty pollutant and hard to recycle. On the other hand, NiCd batteries will last longer than lead-acid batteries. But the reality is that because they are so hard to recycle or get rid of safely, NiCd batteries are rapidly becoming a thing of the past. As a consequence, they are also not a good choice of battery type, regardless of price.

Nickel-metal Hydride (NiMh) Batteries

NiMh batteries are somewhat more efficient than NiCd batteries, but they are also more expensive. Most people report that NiMh offers little improvement in range over NiCd. On the other hand, they will last longer and are easier to dispose of correctly. Nonetheless, NiMH batteries are also becoming a rarity, because the market place is being taken over by Lithium-ion (Li-ion) batteries.

Lithium-ion (Li-ion) Batteries

These have become pretty much the default battery, capturing over 90% of the market. But to complicate matters, there are many different kinds of Li-ion batteries. On the plus side, Li-ion batteries last longer and generate more power for their weight than other batteries.

Lithium-ion Polymer (Li-pol) Batteries

These are relatively new technology and promise to be no better than the Li-ion battery type in terms of range, weight and price. However, these batteries can be molded into interesting shapes. They contain no liquid, so they don't require the heavy protective cases that other batteries need. Also, this absence of free liquid theoretically means that they should be more stable and ideal for use in high capacity, low power applications – such as e-bikes.

Lithium Cobalt (LCO) and Lithium Manganese (LiMg204) Batteries

Again, these are two relatively new technologies offering optimum power in light and compact packages. Lithium Manganese Batteries are the same technology used in the Nissan Leaf electric car.

Battery Positions, Access and Life

Rear cargo carrier rack mounting can make an e-bike more difficult to lift and move around. This would be further compounded if the bike has a rear hub motor.

Triangle Mounting is a good place to locate the battery especially if it is close to the centre of the frame and as low as possible.

When purchasing a completely new e-bike, the battery may be either triangle mounted, or actually enclosed in a wider diameter *tube frame (Frame Integration)* with key access to remove it and provision for plugging in to charge it.



Rear Cargo Carrier Battery Mounting



Frame Integration Battery



Detachable Frame Integration Battery

More modern batteries should be good for about 8-9 years and approximately 1000 full charge cycles. Modern batteries should still work after that, but will age over time resulting in some loss of capacity and hence e-bike range.

The Walk-Assist Function

With a conventional road or racing bike, you'd normally just push it up a slope or lift the bike up when walking up steps. Due to the increased weight of e-Bikes resulting from the electric motor and battery (approximately 19-25kg), pushing the bike up a relatively steep slope or stairs can prove to be difficult. As a consequence, it is recommended that you ensure the e-Bike includes a "Walk-Assist" function. This function is designed to allow the motor to push the bike along while you walk beside it, either up a slope or upstairs.

e-Bike Software Technology

e-Bike Software Technology is evolving rapidly and especially in the case of *mid-drive torque sensor pedal-assist* systems where the software *optimizes and tunes* the e-bike. Based on the torque sensor, as mentioned above, the software measures the amount of power you are putting into the pedals and it will *increase or decrease the electric assist based on your pedalling power*, thereby providing a very *intuitive* ride feel because the software emulates your pedal power very well. In many cases, this tuning software tool can also be conveniently controlled with a Smartphone App, which is usually free, using Bluetooth Connectivity. Whereas in the past, several devices may have been needed to provide specific functions and information, one of the big advantages of this evolving technology is that it offers an unusually large number of configuration options that bring together the real and virtual worlds thereby providing users with added value. In other words, elementary functions such as the e-Bike control system merge with other useful features such as *navigation* and sophisticated *training* programs. Prior to riding and as part of the “tuning”, it is possible on the smart phone app to set up the expected distance, power (motor current), acceleration and also the amount (percentage) of battery life required to be left over at the end of the journey.

When *riding*, important basic real-time information such as pedal power, speed, trip odometer and distance travelled, remaining battery range and status, actual time and time spent riding can be shown at a glance on an electronic display console/ computer on the e-bike handle bars as well as on the smart phone app. Naturally, by means of using the switch on the handle bars, the level of assistance or power can be changed during the journey. The combination of cycle computer, e-Bike sensors and a smartphone app opens up completely new possibilities.



Handle Bar Display Consoles



Smart Phone Display

Some Smart Phone App software for e-Bikes also includes *navigation* and *route planning*. In addition to classic navigation guiding the rider from point A to point B, some provide similar sophistication to well-known apps such as “*Strava*” and “*Ride with GPS*” including bike-optimized route calculations such as helping to avoid busy main roads.

Some of the Smart Phone App software for pedal-assist e-Bikes can also have a *Fitness Display* that records, saves and analyzes data such as cadence, pedal power and calories burned, thereby providing a training facility for the rider.

Tips to increase your e-Bike's Range

Electric bike range is a common concern among e-bikers. Some of these tips are obvious, but others may help you add a few more miles or kilometers to your e-bike range.

1. The most obvious is to make sure your **battery is fully charged**. Create a routine so that you immediately plug in your battery when you get home.
2. **Pedal harder!** This may be obvious too, but it needs to be mentioned. You may find you need to ride further than expected and realize that you don't have that much "juice" (charge in your battery) left. You could reduce the "assist-setting" (or use less throttle) and pedal more to compensate for a low battery. It is possible to "limp" an e-bike home this way without totally draining the battery. Another big tip is to pedal harder at the right time. A lot of energy is consumed when you accelerate from a stop. If you pedal hard to get your bike off the line this will help conserve your battery energy. Additionally, hills take a lot of energy so, pedalling a little harder on the hills will help improve your range.
3. **Take it easy and enjoy a slow ride.** Wind resistance can really drain you and your battery's energy. If you need to extend your range, riding a little slower will reduce the wind drag as well as being safer.
4. **Buy a second battery?** If you undertake long bike tours, or have a really long commute, it may be worth buying a second battery to add to your bike. Some electric bike manufacturers offer the option of adding a second battery to double your range. Check with your local shop or e-bike manufacturer for more info. Of course, adding a second battery would not only extend your range, but would add further weight to your e-bike.
5. **Keep your tire pressure up.** This will make a big difference in how much energy (both electric & human) is required to move you and your e-bike around. Low tire pressure can make your electric bike feel sluggish. For normal city style e-bikes, a tire pressure of 50-60 psi is recommended. Don't over inflate your tires though, because it can lead to a very rough ride.
6. **Replace your old battery.** If you have had your e-bike and battery for quite some time, the amount of energy your battery can hold is likely to decrease over time. It is recommended that you replace your battery once the decreased range gets annoying. Your local electric bike shop can help you with this or you could contact your e-bike manufacturer.
7. **Use the regenerative braking feature.** Some electric bike systems have a regenerative braking feature that turns the motor into a generator in order to act like a brake and put a little bit of charge back into your battery. Typically, this is activated by a sensor on one of the brake levers (usually the rear brake lever -LHS in NZ). Please note that there is debate in the e-bike world as to how much energy is actually recaptured using regenerative braking.
8. **Take care of your battery!** If you can, store your battery at room temperature. Batteries don't tend to like really cold or hot temperatures. In general, it is a good idea to charge your battery often to keep it topped off. If you don't ride your electric bike much in the winter, store your battery fully charged and charge it every couple of months. Try not to leave it plugged in for more than 24 hrs.
9. **Oil your chain.** This will improve your pedalling efficiency and, if you have a motor that powers through the cranks of your bike, it will improve your motor's efficiency too.

Your Editor's Personal Opinion

Through my research, I have endeavoured to cover in this article not only the history of the evolution of e-bikes, but also the broad range of e-Bike options that are available. It should also be appreciated that I do not yet own an e-Bike myself, and, depending on personal circumstances, it could be several years yet before I decide to invest in one, in which case e-Bike technology is most likely to have evolved even further. However, having regard to the various options that are available now, and individual personal budgets, there are bound to be differing opinions among ACTA Members on what to buy. So, what is my own personal opinion?

ACTA is a cycle touring club and participating in the various Club rides and tours can only but help keep us fit. *Therefore, I, personally, would be unlikely to invest in an e-bike using solely the throttle mode.* Assuming I have the budget available, I would seriously consider investing in an e-bike with a *pedal-assist mid-drive motor* with at least three assistance levels and the latest sophisticated software allowing for “pre-tuning” and “intuitive” riding plus “Bluetooth” connectivity allowing for a smart phone app. Such an approach would help continue to maintain fitness. In addition, I would expect the e-Bike to have at least one light weight compact battery of the latest technology (Li-Pol, LCO, LiMg2O4) providing long range and optimum power. I would also expect this battery to be integrated into the frame, but being readily accessible for charging.



Auckland Transport Cycling Information by Kathryn King, Auckland Transport's Manager for Walking, Cycling and Road Safety



IN ASSOCIATION WITH



AND



Kathryn King

AT's Manager for Walking, Cycling and Road Safety

2017 has so far been a big year for cycling in Auckland. We have opened some key parts of the cycle network for Auckland in suburbs including Grey Lynn, Sandringham, Mangere and Mt Roskill and have begun work on some others such as the extension to the Nelson Street Cycleway which will complete the central city loop by the end of this year.

Auckland Transport's mission is to give people transport choice and we know that bikes are a key part of this, along with high quality public transport and roads. Cities that embrace cycling are internationally successful cities and places where people want to live and visit. Two years ago, we joined with Auckland Council and the NZ Transport Agency to deliver a \$200 million Urban Cycleway Programme for Auckland and we are progressing well.

Our infrastructure building programme is on a fast track and last year we completed 14.2km of cycling facilities and recorded almost one million trips across our counters around Auckland's cycling network. We are also engaging with lots of Aucklanders through our events such as skills training sessions and opportunities for people to get their bikes fixed up for free and learn from our experts.

People tell us that they want to take their bike to work, study and the shops but want to be separated from fast and heavy traffic so they feel safe on their journey. So, where possible, that's what we are building. In some areas, due to constraints such as cost or space on the road, we are building on road facilities, but these still provide an improved experience for riders.

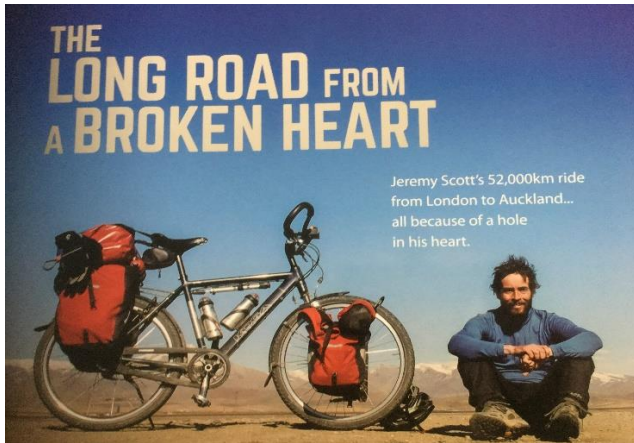
Each year, in a major survey, we ask people about their cycling habits and what they think about the state of cycling in Auckland. Visit our website for the full report, which showed great results for Auckland becoming a city for bikes. Thirty-five percent of Aucklanders are now cycling, up from 15% in 2014 and a typical cyclist is changing as more women and younger people join the ranks of Aucklanders adopting pedal power to get where they need to go.

We also found out that over half of Aucklanders (53%) think that a lot is being done to improve the state of cycling for the city. Last year 45, 000 new riders joined the ranks of Aucklanders leaving the car at home and taking the bike so there is a lot to celebrate. Check out our website at at.govt.nz/cycling for more information about what's being built around the city and have your say in our consultations on various projects. Find routes that you might not have tried and information about our events. You can sign up to the newsletter and get regular updates on what's happening for people on bikes around Auckland.

Snippets...

❖ Jeremy Scott's 52,000km Ride London to Auckland

Contribution from the Editor



My wife, Gaye, and I attended a presentation by Jeremy Scott at the Remuera Library just a few days after the SPOKESMAN May Issue was published. One might think the title of his book relates to separation from a partner, thereby causing a “broken heart”. Jeremy was born in Auckland with a debilitating illness, which was subsequently diagnosed as a hole in his heart. Eventually, when he reached 4 years old, he underwent Open Heart Surgery in 1977 to repair a very large hole in his Aorta Valve by Sir Brian Barratt-Boyes at Greenlane Hospital, which changed his life allowing him to live an active, healthy existence he wouldn't have otherwise been able to experience. It was his young nephew who said he rode around the world because he had a broken heart!

34 years after his operation, Jeremy decided to quit his job in London and set off around the World on a bicycle. He chose a KOGA bike that was built by hand in the Netherlands. It never “missed a beat” and he only experienced 7 punctures throughout the entire journey. In just over 2.5 years he pedalled 52,000km through 29 countries on his way from London to Auckland. After riding through Europe, Turkey and Iran he chose to go north of the Himalayas through Turkmenistan, Uzbekistan and Kyrgyzstan into northern China. There, he experienced sand storms riding through the Taklamakan Desert, which was an extremely hostile environment for bike riding often referred to as the “Desert of Death”. He also needed to load up with extra food and water for this part of his journey. He then crossed the East China Sea to South Korea and Japan before returning to China and riding down to Vietnam, Laos, Cambodia, Thailand, Malaysia and Indonesia. He then crossed to Darwin in Australia and then rode across to Cairns and down the East Coast to Melbourne before flying to Christchurch and riding up to Auckland.

His journey was filled not only with euphoric highs, but also deep depressing lows. The highs included innumerable heart-warming acts of kindness from total strangers who really could not afford to provide such generosity. The lows included encounters where he genuinely feared he might be murdered. As a result of his journey, Jeremy has also been able to support numerous international heart foundations and charities dealing with cardiac disease. Should any of you wish to borrow and read Jeremy's book, feel free to contact your “Spokesman” Editor. Also, should ACTA Members be interested, it might be possible to contact Jeremy and get him to attend an ACTA pot-luck dinner and make a presentation to us.

❖ What's causing that Squeak?

Contribution from Tony Simmons

Have you ever had a squeak, rattle or other sound on your bike that is annoying, but you cannot find what's causing it? Well, I did recently... I am one of those people who notices when there is a 'new sound' on the bike and I will do almost anything to find out what it is... because it is so annoying, and it can also sometimes be the start of a bigger issue.

I recently purchased two new wheels for my bike. After purchasing and installing rim tape, I changed over the tyres and tubes from my old wheels. There was one small issue - the new rims had valve holes suitable for schraeder (larger) valves, whereas my old rims had holes for presta (smaller) valves. I did not think it was an issue, so I used the presta-valved tubes in the new rims. All seemed to be fine on my first short test ride with the new wheels - yay! However, when I went on an ACTA Sunday ride, there was a sort-of 'cracking/clicking' sound as I rode. Naturally, I thought it must be something to do with the new wheels because that is what I had changed recently. I checked spoke tension, wheel true, wheel bearings, the chainring bolts and more, yet there were no identifiable issues. The one thing that I noted was that after about an hour of riding, the sound went away - now why would that be? Back at home, I checked the bottom bracket bearings and they were fine also.

Reading the internet about bicycle 'cracking/clicking' noises, one suggestion was that the smaller presta-valved tube in the larger schraeder-sized hole could move against the rim and cause an irregular clicking sound. Yippee I thought, this will be the problem, so I made a rubber collar to fit around the presta valve where it passes through the schraeder-sized hole in the rim. With glee, I made the change and refitted the wheels. A short test ride and there was no noise. Great, all fixed ... or so I thought.

On the next long ride, I had the exact same problem as before, the 'cracking/clicking' sound was still there, but again, it stopped after about an hour! Obviously, my rubber collars for the presta valves must not be working, so I blew the budget and purchased two new tubes with schraeder valves. After fitting the new tubes and going for a long ride, the 'cracking/clicking' sound was still there! Ahhhh! So annoying!

Back home, and after more thinking, I wondered if the eyelets through the rim were the problem? I stripped the wheels and put a drop of oil around each eyelet, wiped off the excess oil and then de-stressed the wheels before refitting the tubes and tyres. Another short test ride up and down my street and things seemed fine. Then I did a longer ACTA ride and the sound was back! By this time, I was more than frustrated with my inability to identify the problem and was wondering if I should go to a bike shop... but, being stubborn, I decided against this.

The noise continued during the following weeks and I just hoped that it would eventually go away as, I thought, the wheels got more kilometres in them. However, the reality was that there was no difference and the sound continued! One day, a few weeks later, I went on a short ride of about 10kms and there was no annoying noise. Wow, brilliant - maybe the wheels have finally settled in, at last.

I then wondered some more about what had changed from my previous longer rides? After much thought, I realised that when I went on the short 10km ride, I had only half-filled my water bottle, whereas on all the other rides over the past month or two I had always started out with a full water bottle. Disappearing back into the basement, I took a very close look at the *aluminium water bottle cage* and there was my answer - the weld was broken on one side, hence the 'cracking/clicking' sound! Now you may still be wondering about the sound going away after about an hour's riding - well, the only thing that I can think of is that as I started each ride with a **FULL** water bottle, therefore the weight of the water bottle was enough to cause the broken part of the water bottle cage to grate and cause the 'cracking/clicking' sound. However, after about an hour's riding, I had obviously had plenty to drink and the weight of the water bottle had reduced to the point where it was not heavy enough to cause the broken metal parts to grate and so the 'cracking/clicking' sound ceased! I replaced the broken water bottle cage and have been on several longer rides subsequently and, at long last, there has been NO more 'cracking/clicking' sound.

By the way, the new wheels had nothing to do with the issue – it was all just coincidence and timing.



Footnote

*The last time I had a similar clicking sound, which I ignored when it occurred, ended up with me being stuck on tour as the right rear frame-stay eventually broke at Hicks Bay. So, I had to hitch-hike, with a broken bike, to Gisborne. **It is worthwhile following up on any strange sounds emanating from your bike before they become major. I learnt my lesson the hard way....***

❖ First Aid St. John Level One

Contribution from Sarah Ley Bucherer

Here are some tips I learned and thought might be useful for ACTA members. I don't have any medical or nursing training so I found the course useful.

On road accident –

- Slow or stop traffic – St Johns recommend at least **8** people on traffic patrol for busy road
- Move anything off injured person if needed
- Phone 111 for help – be very precise with location as many road names are replicated in NZ and we as a nation are known to “under call” for ambulances
- Blankets are useful for covering – ask motorists
- Take photos for ID of cars, accident scene, allocation responsibility etc
- Broken bones – call ambulance to talk through advice and don't give pain relief. St Johns staff advise that setting of broken bones will not be within 4 hours of accident so keeping victim safe and comfortable is most important whilst you wait.
- Wound with bleeding – apply direct pressure to wound (not tourniquet), raise injured part if possible, don't try to remove any foreign body unless very small, place person at total rest in position of greatest comfort. You can help with dressing and bandage, direct pressure if bleeding continues, reassure, do not give food and drink, monitor until medical aid available.

Stroke –

- Recognise a stroke and get help **FAST**
- **F**ace – Smile - is one side drooping?
- **A**rms – raise both arms – is one side weak?
- **S**peech – speak – unable to? Words jumbled, slurred?
- **T**ime – Act fast and call 111. Time lost may mean brain lost.

Heart Attack –

Chest pain – other possible causes besides heart attack e.g. asthma, but if **any doubt call 111** and ask for ambulance. Keep person warm, calm, sitting down. Whilst waiting you can also ask if this has happened before, if so did person see a doctor, and also are they carrying with them an angina medication - GTN spray for tongue.

❖ Ride from Miranda Sunday 16 July

Contribution from Bill Pepler



Six ACTA Members left the Miranda Camp Site taking cars and bikes to Kopu Bridge. From there they took the cycle track to Thames and then up the coast to Waiomu Café. After morning coffee, they proceeded further up the coast to near Wilson Bay for lunch. The weather was great with no wind, but the roads were a little busy.

Future Events

❖ Project Glow Wear Sat 26 August - tickets on sale now!

Tickets are now on sale for [Project Glow Wear Runway Show](#) in Auckland. The competition boldly goes where no other has gone before by challenging designers to create reflective clothing and accessories that marry high fashion with high visual impact.

Come along to a great night out at Unitec on **Saturday 26 August**. Tickets are \$15 and include a non-alcoholic drink and nibbles.

[Buy tickets](#)



❖ Bike Skills and Maintenance Drop-in Session Wed 13 Sept

Primarily for those still learning to ride a bike. Includes cycling skills lessons and simple bike maintenance.

It is also a good opportunity to come along and ask one of AT cycling regional coordinators for more info on riding locally. So, if you are keen to master the art of riding a bike or want to learn to fix a flat... pop in. Bikes are available on a first-come, first-served basis.

Unable to stay for the full time? No sweat. Stay for as little or as long as you like.

WHEN AND WHERE

The Cloud, Quay Street, Auckland Central

WHEN

Wednesday 13 September from 5.30pm to 7.30pm

❖ Pedal 4 Prostate Sun 8 Oct

Join the fight against prostate cancer! You will be able to compete in a relay event on the track at Hampton Downs – this may be the one and only time you will get a chance to race on such a track. Pedal4Prostate is a one-of-a-kind cycling relay race which tackles the bends, hills and straights of Hampton Downs to help raise funds and drive awareness of prostate cancer in New Zealand. To find out more, get in touch with Carol Roche, Events Manager at events@prostate.org.nz or give her a call on **09 415 2004**. Then grab your mates, colleagues and riding squad and head to pedal4prostate.org.nz to register.

❖ ACTA Twin Coast Cycle Trail Frid 1-Sun 3 Dec



Based in Kaikohe from Friday night we will ride on Saturday morning down to Opuia for lunch (approx 43km) and then either take a shuttle back for those who want to, or ride back on a steady light incline to Kaikohe, so approx 86km easy flatish days' ride - check out www.twincostcycletail.kiwi.nz



On Sunday we will ride down to Horeke on the Hokianga harbour through some awsum scenery to the pub for lunch and then on to the Mangungu Mission Station, 3kms along from pub.

Again a shuttle will be available to take you back to Kaikohe, or for the more adventurous and those who really like steep hills can ride back, so another 85km day! You ride as much or as little as you want!

Terraine: All gravel – but fairly well compacted with only a few loose bits

Bikes: Most suitable would be mountain bikes- touring bike is ok but you will feel all the bumps – road bike with skinnies definitely not!!

Accommodation: There are 2 motels as well as the Cow Shed camping area

Food: Sort your own Dinner on the Friday night. Saturday dinner can be either at RSA in Kaikohe (Out of a packet deep fried only!) from \$10, or at Malaahi restaurant which has a good quality menu from \$21.

Cut off date for confirmation is Nov 1st

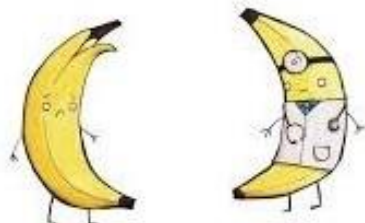
I will make a booking once I know who wants what.

Contact: Simon Bucherer 021985186 or sbucherer@xtra.co.nz

So if you are into a great fun weekend please contact me and I can forward further info.

OH NO! Surely not some more groan-worthy cycling-related jokes!

Why did the banana go to the doctor?



Because it wasn't peeling well

- *I went on a long bicycle ride yesterday. Farcical?*
- *What is a ghost-proof bicycle? One with no spooks in it.*
- *When is a bicycle not a bicycle? When it turns into a driveway.*
- *My mate punched a car driver for pulling into a bike lane. He's a bit of a cycle-path.*
- *There was a massive storm while I was out on an ACTA ride. I decided to cyclone!*
- *A cyclist lying on his death bed asked his best friend to do him a favour when he had passed away. "Anything" replied his friend. "Just don't let my wife sell my bikes for what I said I paid for them!" he begged.*

**SEE THE NEXT PAGE TO LEARN ABOUT
LIFE BEHIND BARS!**



LIFE BEHIND BARS



CONTRIBUTIONS TO THE SPOKESMAN

The Spokesman is your club magazine and as such it needs interesting articles and items to be published each quarter. The Spokesman is issued mid- February, May, August and November. The articles/ items can be full editorial articles about trips or interesting snippets of information you may have. When supplying these items to me please send in an electronic format with text as an unformatted "WORD" document and the images or photos as separate files. This will make it easier for me to edit and insert the article into the template I use for publishing. Within the word document indicate where the photos should appear and add a caption. Contributions of other separate photos are appreciated, so I can fill spaces and have something interesting for the front and back covers. However, they need to have a good resolution so the printed version looks ok. Please give each photo a specific name. Articles and information on Future Events can be sent to either:

editor@acta.org.nz or stu.andrews@xtra.co.nz.

Stu Andrews



TAIL END CHARLIE is at THE END