



The World's Fastest...



Humans love speed. We all get a thrill from going fast or twisting and turning on a speeding roller coaster, or even running really fast down a hill. What makes us love speed, is actually fear. When our body experiences fear, it releases a huge amount of **endorphins** and **dopamine** which are **neurotransmitters** (chemicals that take messages to the brain). These act in a similar way to drugs like opium or morphine, by attaching to specific **receptors** in our brains. In turn, this makes us feel good. Because we love speed and the rush it provides so much, we are always trying to go faster and set or beat world records.

Running really fast gets us excited and runners and supporters alike, get a rush from watching the 100 m sprints at events like the Olympic Games. The first officially recognised recorded result for a 100 m sprint was by American Donald Lippincott in 1912, with a time of 10.6 seconds. Since this first record was set, men have dedicated their lives to shaving seconds or even milliseconds off the previous record holder's time and become the fastest man on Earth. It wasn't until 1968, fifty six years later, that the record set was under 10 seconds. The current 100 m sprint record holder is Usain Bolt of Jamaica with a time of 9.58 seconds. Usain himself has set and beaten his own record three times. He first set the record in May 2008 with a time of 9.72 seconds then beat this in August 2008 with 9.69 seconds and exactly a year later set the current record.



Usain Bolt wins the 100 metres again in 2012.

It isn't just on the running track where humans try to set speed records, numerous attempts are made each year to break land speed records too. In 1898, the first official wheel driven land speed record was set by Frenchman Gaston de Chasseloup-Laubat with a speed of 63 km/h. This might seem a bit ridiculous nowadays, given that the speed limit in most towns is 50 km/h, but with the prehistoric vehicles of the time usually only travelling at 3 km/h, this record was really very fast. In 1906, American Fred Marriott was the first man to reach speeds of over 200 km/h and he used a steam powered car. By the 1940's, records were being set at speeds over 600 km/h. Around the 1960's, cars with jet propulsion engines started being used and these were able to reach much faster speeds. The first record was set by Craig Breedlove at 893 km/h and is currently held by Andy Green with a speed of 1227 km/h that he set in 1997.



A 1900 steam automobile in the Brighton to London veterans race, 2012.

Table Showing the Way Top Speeds have Changed in Motorcycle Land Speed Records Over the Years

Year	Speed (km/h)	Year	Speed (km/h)	Year	Speed (km/h)
1903	103	1932	244	1966	395
1907	219	1934	246	1970	410
1920	165	1935	256	1975	487
1923	174	1936	272	1978	509
1924	191	1937	279	1990	518
1926	195	1951	290	2006	564
1928	200	1955	297	2008	580
1929	207	1956	345	2009	591
1930	242	1962	361	2010	605

Note: The value in blue is an unofficial record.

These land speed records are also attempted in other types of vehicles including motorcycles, with the first record of this type set in 1903 at 103 km/h. In 1958, New Zealander Russel Wright set the record, reaching 297 km/h in Christchurch. The movie 'The World's Fastest Indian', focuses on another kiwi motorcycle fanatic Burt Munro, who also set land speed records but for motorcycles with smaller engine sizes. In his garage, Burt Munro modified his bike which had a previous world record speed of 89 km/h. In 1967, he reached speeds of 296 km/h, a record which still stands today. The current record for larger engine motorcycles was set by Rocky Robinson in 2010 at 605 km/h.

There are many more records for the worlds' fastest vehicles, ranging from radio controlled cars at 325 km/h, a wind powered car at 203 km/h, a human powered car at 133 km/h and even a manned rocket sled which runs on train tracks reaching 1017 km/h. Aircraft also have records from the very slow, a human powered craft that reached 44 km/h, to the very fast, an unmanned rocket which reached 21245 km/h. Going this fast is really very dangerous and many people have been seriously hurt or have died attempting to set speed records. However, if you are looking for a safer way to fill your need for speed, you could always try the world's fastest roller coaster in the United Arab Emirates which reaches 240 km/h, or even the Tower of Terror II in Dreamworld Australia which gets up to 160 km/h. Humans will always try to be the fastest and hold records but remember, speed is deadly and roller coasters, eating chillies or doing exercise, can give the same enjoyable chemical rush to your brain.



Mini-Biographies of Three Famous New Zealanders



John Britten

John Britten was born on the 1st of August, 1950 in Christchurch. He had a twin sister but they had different birthdates, this isn't what makes him a remarkable man but it is quite interesting. John was born just before midnight and his sister just after midnight and therefore on a different day, hence the different birthdates. He suffered from **dyslexia** and found school very hard. Despite these difficulties, he **persevered** and through the help of reader/writers, he graduated from university and became a successful engineer and architectural designer.

John Britten had a passion for motorcycles and spent many years designing and building **custom** machines with unique modifications. In 1992, he began manufacturing racing motorbikes through his company the Britten Motorcycle Company. His homemade bikes broke and set new world records in many big races. He surprised professional riders when the bike he made came second and third in an important American race. The bike he designed and produced had some radical innovations for its time. Many of his designs and ideas are now common place in racing bikes. Special features that his design included were:

- Carbon fibre body and some structural components.
- The radiator was under the rider's seat instead of under the handle bars near the front of the engine.
- The **chassis** had no frame and used the engine as structural support.
- The engine had computers that recorded data from rides.



Motorcycle legend Bruce Anstey on a Britten V1000.

His company produced and sold only a few of these motorbikes and they are now located in private collections or museums all over the world. Te Papa in Wellington has one of the 10 Britten V1000 motorcycles on permanent display. Unfortunately this 'can-do kiwi' died in 1995 at the age of 45 due to illnesses related to skin cancer. He truly was a motorcycle engineering pioneer who revolutionised motorbike design.