

# STURT ADDRESS 2021

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## ***EXPLORING THE FRONTIER: FROM SOUTH AUSTRALIA TO MARS***

Distinguished guests, ladies and gentlemen; good afternoon. What an honour to be delivering the address for the 226th birthday of Captain Charles Sturt. Standing in front of the colonial home that the great man and his family started living in 180 years ago in 1841. A home where they raised their family for 12 years. This house is actually a portal to another time. A time when South Australia and Adelaide were recently established. A time of great energy and opportunity for free settlers to start a new life and to generate wealth.

What a wonderful tradition to celebrate the birthday of one of Australia's most influential figures and one of the founders of South Australia, Captain Charles Sturt. By remembering and studying Sturt, we can understand our past experiences and hence shape our future. We can also be inspired by the actions and achievements of Sturt.

For the first part of this address I would like to review the legacy of Captain Charles Sturt

Charles Napier Sturt was born on 28 April 1795 in Bengal, India, to British parents. He was the eldest son of 13 children and he travelled to England for his education at 5 years of age that culminated in him attending the prestigious Harrow School. Sturt joined the British Army in 1813 and served in several countries such as Canada, France and Ireland. He sailed to the colony of New South Wales in 1827 with a detachment of his regiment in charge of convicts, on the ship the *Mariner*. He was then supported by the Governor of New South Wales, Sir Ralph Darling, who appointed Sturt his military secretary and also Major of the brigade to the garrison. Little was however known of the geography of Australia at the time. Sturt's interest in exploration was piqued.

In 1828, Sturt set off on his first expedition to explore the Macquarie River through the Macquarie Marshes to a river that he named the Darling River. Then, he traversed the Macquarie, Bogan and Castlereagh rivers. This expedition started to establish Sturt's name and reputation. Shortly afterwards, Sturt was off on his second expedition in 1829 where he traced the Murrumbidgee River to where it intersected the Murray River and then onto the mouth of the Murray at Lake Alexandrina. Sturt's two expeditions, particularly of the Murrumbidgee and Murray Rivers, revealed extensive swaths of land in New South Wales and South Australia for future settlements and development activities of the young colony. His name and positive reputation were firmly established.

Sturt then wrote his extremely influential and well-received publication 'Two Expeditions into the Interior of Southern Australia', that was published in 1833. He wrote this in England while recuperating following the toll that exploration and the harsh Australian environment had on his health. This publication, as well as Wakefield's "England and America" that was published at about the same time, seeded the South Australian Foundation Act of 1834. This was an important milestone leading to the formation of Adelaide and the wider state of South Australia.

Sturt was instrumental in facilitating European expansion across our continent via exploration. I count him as a leader amongst the ranks of other explorers of the time. Since the arrival of the first British colonists in 1788 to the last of the great inland expeditions in the 1870s, there were numerous luminaries in the exploration space, such as Bass, Flinders, King, Blaxland, Lawson, Wentworth, Evans, Oxley, Howe, Cunningham, Hume, Hovell, Mitchell, Bourke, Wills, Gregory, Landsborough, Stuart, Eyre, Leichhardt, Kennedy, Forrest and Giles. This was Australia's own great age of discovery. There are many landmarks named after Sturt, in recognition of his profound influence. Examples include Sturt's Desert Pea, City of Charles Sturt, Sturt Street in Adelaide, Sturt Highway, Sturt's Stony Desert, Sturt National Park, and Charles Sturt University, to name but a few.

Sturt wore several hats with honour throughout his relatively long life and influential career. He was a soldier, an explorer, a surveyor, an author, a public servant, and a statesman, as well as a husband, a father and a mentor. He had the distinct ability to reinvent himself, depending on his stage in life and opportunities as they arose. His passion for exploration however did not waiver and he was even planning expeditions for the Royal Geographical Society of the United Kingdom when he was retired and living in England. Sturt would certainly have had a strong support network throughout his career that facilitated his achievements. Support provided for example especially by his beloved wife, Lady Charlotte Sturt. Sturt was acknowledged for his achievements. For example, he was awarded the Gold Medal from the extremely prestigious Royal Geographical Society. He was also nominated as KCMG in 1869 and unfortunately passed away on 16 June 1869 (152 years ago) before his knighthood could be conferred. Other notable achievements, and by no means a comprehensive list, includes Acting Surveyor General of South Australia in 1839, as well as Colonial Treasurer and Colonial Secretary of South Australia in 1849. Sturt returned to England for good in 1853.

Captain Charles Sturt led a rich and influential life. He travelled extensively, from the United Kingdom, to Europe, India, North America and Australia. Given the mode of transportation of the time, this usually amounted to long horse or ship journeys for months on end. I believe that Sturt's experiences with multiple cultures developed in him empathy. A quality that would have helped him assemble effective teams of people and to keep the teams together through the thick and thin of exploration. It also resulted in a unique ability to connect in a respectful manner with the Aboriginal inhabitants he encountered on his expeditions.

In order to better understand Sturt as a person, I am drawn to a quote about him from the book titled "Life of Charles Sturt" written by Mrs Napier George Sturt in 1899. A quote made by a young James Smith who personally knew Sturt during his expeditions:

*"He was one of Nature's noblemen, generous and unselfish to a degree; always kind and considerate always sympathising and ready to oblige or help others in every way he possibly could.*

*As a companion he was invariably pleasant and genial; full of life and fun, and at the same time clever and scientific.*

*No wonder he was universally popular among all who knew him; it may be truthfully said that he never made a single enemy."*

For the second part of this address, I would like to review the legacy of other members of the Sturt family based in Australia.

I was always fascinated growing up about the connection on my mother's side to Captain Charles Sturt. This connection was made through George William Milner Sturt, who was an early pioneer of the Tumut Planes. George Sturt, who was a first cousin of Captain Charles Sturt, was the son of Reverend George and Mary Sturt and was born in England in 1803. He arrived in Sydney in about 1833 when he was 30 years of age, and his original occupation was that of a mariner. Ironically, the convict ship that Charles Sturt initially arrived in Australia upon was called the *Mariner*.

George Sturt married Anne Bolton, an Irish immigrant, in Sydney in 1840. Shortly afterwards, they ventured out and settled in the Tumut district. This is bravery in itself; willing to separate from established city centres like Sydney to remote outposts. Certainly, a lot of brave people at the time, and in the years to come as more and more people moved from their native countries in the search of a new life and opportunity.

Tumut is located in the Riverina region of New South Wales, on the north-western foothills of the Snowy Mountains. Approximately 110 km north-east of Wagga Wagga along the aptly named Sturt Highway. Wagga Wagga in turn is located adjacent to the Murrumbidgee River. The river that Captain Charles Sturt explored on his second expedition in 1829-1830. In fact, the limit of the official settlement in 1829 was near the junction of the Murrumbidgee and Tumut Rivers.

My grandmother on my mother's side, Ethel Florence Fanny Sturt, was a great granddaughter of George and Anne Sturt, and a first cousin three times removed from Captain Charles Sturt. She was born in 1913 in Katoomba and when she was in her early 20s moved to the eastern suburbs of Sydney, namely Surry Hills. My mother was born and raised in Surry Hills. I too was born in Sydney. My wife Lisa, son Kaiden and I, are most privileged to now be living in Adelaide. In memory of Charles Sturt, my wife and I chose *Charles* for our son's middle name.

I am sure that we all have stories to recount of our ancestors and the bravery that they would have exhibited in their own time.

For the third and final part of this address, I would like to dwell on the future of exploration and draw upon the positive influence that Captain Charles Sturt can provide.

So what does the future have in store in terms of exploration? One future I would like to share a few thoughts about is exploration of the final frontier of space. I will also comment on the roles that Adelaide and the wider state of South Australia will play in this future.

Adelaide was built as a planned city for free settlers. It is a city that caters for the wellbeing of its citizens through large public squares and a CBD surrounded by parklands. Today, Adelaide is ranked as one of the world's most liveable cities. It is also a key hub for innovation and the technology industry. Seven of the world's top ten defence companies are based in the wider state and there is also a strong core of defence-related small-to-medium enterprises (SMEs). Adelaide also has a burgeoning space industry articulated through start-ups and SMEs.

Adelaide will play a very important role in the exploration of space, just as it played a very important role in the exploration of young Australia. In July 2019, the Australian Space Agency was established. It is based in Lot 14, thus making Adelaide and South Australia the epicentre of space activities and leadership in Australia. In September 2019, the Australian Federal Government committed \$150 million Australian dollars for a Moon to Mars mission of exploration.

In the 1800s, Adelaide was the launch pad (pardon the pun) for expeditions into the interior of Australia, such as Sturt's third expedition. Adelaide is now figuratively the launch pad of Australia's exploration of space. South Australia in turn is also a viable location for the practical launch of rockets.

Astronauts have travelled into orbit since the 1950s and have landed on the moon since 1969. These journeys of exploration have been very much of a short-term nature from earth though. We can see similarities to the explorations of Sturt, where the journeys were of a limited duration that usually required ending at the point of origin. We have now experienced decades of technological advancement and scientific discoveries since first entering orbit, although we have not been back to the moon since the early 1970s. For the last 20 years, humans have however continuously lived and worked aboard the International Space Station that is located about 400 kms above Earth.

It is interesting to note that humans first set foot on the moon over 50 years ago. When Charles Sturt first set forth on his first expedition in 1838, the young colony was celebrating its 50th anniversary since the arrival of the first fleet. As of today, we are now in a new era of space exploration being driven in part by NASA which is known as the Artemis program. Named after the twin sister of Apollo, Artemis is the Goddess of the Moon. The aim of Artemis

is to have a sustained human presence on the moon by the end of this decade. To establish sustainable living arrangements where occupants can live off the land, so to speak, via utilisation of in-situ resources. This is the situation the young city of Adelaide found itself when settled by Sturt. That is, a city needing to be self-sufficient. Australia and indeed South Australia can make important contributions to the Artemis program. For one, we can capitalise on our expertise navigating and surviving in harsh environments.

The Moon will be used as the stepping stone for our next greatest adventure—human exploration of Mars. There are eerie similarities between the moon, Mars and the land that Sturt explored, particularly Sturt's third expedition. All three places are dry, barren and apparently lifeless, and hence exploration is linked to locating water sources. There are also temperature extremes. The Australian outback is notorious for its heat (can exceed 50 degrees Celsius). The moon also suffers from temperature extremes. When the sunlight hits the moon's surface, the temperature can reach over 120 degrees Celsius. When the sun goes down, temperatures can drop to over minus 170 degrees. Astronauts, however, have environmentally controlled space suits although they can still be vulnerable to the adverse effects of radiation. The life-size statue of Sturt located in Victoria Square gives a very good over-view of the equipment at Sturt's disposal. Working pants, knee high boots, open-necked shirt, broad brimmed hat, with a compass, telescope, map and water bottle. Boy how the times have changed in how we protect ourselves from the elements.

It is an approximately 400,000 km journey to the Moon, and then about a 225 million km journey to Mars. Such journeys are complex and they cover massive distances, thus requiring significant planning and investment. Sturt's expeditions were of the thousands of kilometres however they were also complex. His journeys were commensurate with the time, utilising the technologies at hand. Horses and boats for transportation and a compass for direction. How did they ever survive without GPS and a satellite phone!

The physical toll on explorers' bodies is tremendous. Sturt pushed himself to his limits. A combination of extreme heat in the Australian summer, as well as a lack of food and water and basic nutrition played havoc with his eyesight and physical health. He also suffered from scurvy on occasions. The toll on his health unfortunately limited his career. Astronauts are certainly no exception to health issues, and they have experienced muscle loss and bone decay in a microgravity environment. They are also vulnerable to cosmic radiation. The bravery of explorers, such as Sturt as well as astronauts, has helped us better understand the impact of extreme environments on the human body. This has led to the discovery of medicines as well as treatments.

All such explorations whether into the internal regions of Australia or another planet exhibit the same fundamentals. They require a bold vision, assembly of multi-skilled teams, as well as effective program management, modern systems development and mission operations, in addition to funding (usually from multiple sources) and support from society at large via our leadership through government. We also need to factor in the human qualities dimension.

The following excerpt from Sturt's obituary captures very well in my opinion the qualities that we need in today's explorers. In fact, qualities that could serve many well.

*"His energy, mental and physical, was extreme; his perseverance indomitable. As a leader he was resolute and fearless but withal so considerate that those associated with him were ready to follow him through every obstacle."*

## Conclusion

We find ourselves in a very exciting time of history making as we push the frontiers of human exploration. Let us, however, remember those pioneers who have come before us. Pioneers who can show us the way by learning from their experiences. The famous quote "If I have seen further it is by standing on the shoulders of Giants" attributed to Sir Isaac Newton, captures well the excellent platform that Sturt laid for explorers of his time, as well as today's explorers.

Today we celebrate the birthday of Sturt. Happy Birthday Captain Charles Sturt!