

Wanted: A New Space Program

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As we approach the beginning of the second decade of this century, in this three part series Paul Minett argues that we need a new space program.

Back in 1960 US President Kennedy announced a decade-long challenge to put a man on the moon. It was a US-centric challenge that caught the world's attention. It took mankind to new frontiers, led to development of new technologies, and paid significant dividends that can be traced down the subsequent decades and found to be benefiting us all today.

As we approach 2010 we need a new space program, one that is much more down to earth. We need a program to win back the space on our roads. And we might need a decade of focus to do it.

During the past year, we are told, for the first time ever, more than half of humanity dwelt in urban areas. They not only dwelt in those urban areas, but if they could afford to they also drove a car in their urban area, and with few exceptions they contributed to traffic congestion in their urban area. People everywhere aspire to the freedom of a personal automobile, and many perceive the automobile as an engine of economic growth. It is certainly a powerful symbol of economic success, and the price points now make it accessible to all but the very poor.

We need a new space program because in the coming decade there will be millions of additional vehicles added to our urban roads. Most of the growth will be in urban areas, and the battle for road-space, and the cost of traffic congestion, is likely to skyrocket. This cost is felt in terms of wasted time, wasted energy, excess tailpipe emissions, traffic accidents, and higher costs of doing business for the organisations that move goods or people around urban areas.

The space program we need is one that results in much more effective use of our existing road-space. It is not rocket science, but there is bound to be some science involved. We need research and development to deliver better understanding and possibly new technologies that enable us collectively to have fewer cars on the roads at busy times, delivering greater throughput at lower total cost.

Mode shares vary across nations, but in urban areas where there is most congestion there is also often a high single-occupant-vehicle (SOV) share, especially during peak periods for the journeys to and from work. SOV mode-share-to-work is about 75% in the USA. The other 25% of people either car- or van-pool, take public transport, bicycle, or walk to work, or work from home. As we know, the time taken to commute to work has been creeping up over recent years.

In the US alone it is estimated that there are in excess of 300 million empty seats going to work each day, alongside 140 million workers. And while the current economic climate might have brought some congestion-relief as fewer people have jobs, unless we do something differently, when the jobs return we will get back to the same traffic problems we had before. Now is the time for a space program.

A beauty of the first space program, back in the sixties, was that the target of a man on the moon seemed totally believable. It was clearly a stretch, but with what was known of rocket science in the early sixties it was possible to imagine success. It was conceivable that the unknown elements could be figured out, and that was enough to convince the people whose support was needed. The rest, as they say, is history.

To date our new space program lacks a crunchy goal. It is easier to visualise one man on the moon than millions fewer cars on our roads. It is exciting to watch a rocket launch as a nation takes its high risk space shot with a human cargo. It is much less exciting to think about the millions of daily launches of individual commuters out of their homes to get to work by some other means than the default option of getting into the car and driving alone.

In the coming decade we might see a massive shift to vehicles that do not run on fossil fuels. These will help reduce the negative impacts on the environment, but they will not solve the space problem. Alternative energy sources or vehicles with more energy-efficient engines will not change the default option and they will not free up road-space.

In Part 2 of this three part series we will bravely explore the universe for a crunchy vision for the new space program, a goal that is a stretch but sufficiently believable to convince the people whose support is needed, to back a research and development program to win back the space on our roads.

End of Part 1.

Paul Minett is the co-founder and Chief Executive of Trip Convergence Ltd, a New Zealand based company focused on making it easier and more rewarding for people to share rides. See www.tripconvergence.com for more information. He is also co-chair of an upcoming workshop entitled 'Reinventing Carpooling' to be held at the Transportation Research Board Annual Meeting in Washington DC in January 2010.

If you would like to read parts 2 and 3 when they come out, please email Paul: paulminett at tripconvergence dot co dot nz.