

How could such a simple, obvious idea take so long to be accepted?

Address to HUMS Conference – Peter Warren

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I am delighted to be here today, together with my sister Jenny, to talk briefly about our late father, David Warren, and his idea for the flight recorder. When my father first came up with the idea of a voice and data cockpit flight recorder in 1953 he was to find that the most frustrating and challenging aspect of developing his idea was to have it accepted in the first place. It was to take more than 10 years before even the smallest, and in some cases begrudging, acknowledgments began to come from authorities like the RAAF and Department of Civil Aviation (DCA). And this was despite enthusiastic interest from the highest levels in the UK and Canada. And it was to take nearly 50 years for David to be personally recognized for his efforts with a series of awards culminating in the Order of Australia in 2002.

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The idea was simple – record both instruments and pilots voices (and cockpit sounds) on a continuous wire recorder that was placed in the tail of the aircraft and could be recovered after an accident. The main inspiration for the actual device was the world's first portable wire recorder – the Minifon – made by a German company which David discovered at a Melbourne trade fair in the early 1950's. David was fascinated by this device and saw a number of uses for it. The first idea had for it had nothing to do with flight recorders – he toyed with the idea of taking it to his favourite music concerts, recording the music and selling it afterwards. It was when he began investigating the Comet disasters as a combustion specialist that the idea of using it as a flight recorder began to take shape.

As time went by, David began to reflect on the difficulty he was having getting this idea across. Those who worked closest to him saw its worth and were keen to work with him. And management one and two levels above him were highly supportive – to the extent that they conspired to disguise the project so they could continue to support and fund its development. No, the problem was the high level authorities such as the RAAF, DCA and Department of Defence that responded negatively. Patents were not sought, offers from overseas companies to form alliances for manufacture were dismissed and the rights were effectively given away. And this was despite that by this stage (1963), the government had made it mandatory to have flight recorders in all commercial civilian aircraft.

It was not that David was short of skills and qualities to advocate his invention. He had considerable experience as a school teacher and knew the persuasive value of good demonstration, articulation and showmanship. As children, we would frequently find ourselves at the other end of his

persuasive arguments. Taking a position with David was a real challenge. It took me years to master the cut and thrust of the many debates and discussions that we had around the dinner table. Despite these skills he was always mystified at the fickleness of people's behaviour. Years later, as energy advisor to the Victorian Government, he would complain – "I have no problem convincing these politicians one-on-one about my ideas, but then they all go into the party room together and the buggers all vote the other way".

David was also very persistent. And it was this persistence that eventually resulted in a chance meeting with the Secretary of the UK Air Registration Board who was so impressed with his invention that he was immediately invited to London to demonstrate it. That was the major breakthrough – acceptance, success, development and manufacture. But not in Australia.

David made observations of his experience with getting his idea accepted. There were three main stages to pass through –

1. Good ideas tended to come from younger people – i.e. creativity is inversely proportional to age – and a non-traditional idea from a single person, by definition, is labelled eccentric.
2. Close supporters see the vision versus conservatives who find every reason to resist it
3. And thirdly, the band wagon effect – acceptance without question; the idea now considered self-evident.

It was estimated that this process took about 7 years. In David's case it took 8 years to become law and 10 years to manufacture.

To David, the problem was clear –

In our hierarchical systems, there is too much regimentation and control. There are weak links in the hierarchy and there is no way around them. We need mechanisms to be able to bypass them.

His advice for management: If you want creativity

1. Don't suppress your youngest staff. Motivate them instead
2. Streamline idea appraisal, patenting and exploitation
3. Cut the red tape – remove the blind eyes
4. Engineer ways around psychotic blocks in upper level management.

His advice for individuals

1. Don't be afraid to think outside your specialized sphere
2. For getting things done – "It is easier to ask for forgiveness after the event than to ask for permission before"