



## **AS IT HAPPENED**

**BY**

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### **POST-WAR TECHNIQUES OF A NAVIGATOR**

Leaving school the year after World War 2 started, my first job was as a clerk, then as a survey cadet with the South Australian Department of Lands.

At age 18, I joined the RAAF, and on graduating from ITS, I was the only volunteer from a course of 200, to train as an Observer (later 'Navigator'). At the time, it seemed to me to be a logical extension of my training in survey work, and could be of advantage to me in my survey career post-war. That instinctive decision was to lead me to my life's work as you will see.

My Member's Profile records my experience in the RAAF, and upon demobilization, I returned to my pre-war occupation, but the 'flying bug' was well and truly resident in my veins. I realized that I had a creative capacity within me which became a strong and enthusiastic desire to develop and improve the standard of navigation in aerial photo surveying, thus combining both of my interests.

Choosing as a 'trial horse', a DH Fox Moth with an open cockpit and an enclosed cabin in the nose, I designed and supervised modifications appropriate to my requirements.

A demonstration to the South Australian Department of Lands proved its effectiveness, and I was asked to set up an aerial survey unit. Funds were provided to charter an Avro Anson, and to purchase the latest Wild aerial survey camera and allied navigating equipment.

Although photo survey had been performed for some time by the RAAF and private companies, South Australia was the pioneer in raising the standards in this field. Later, because of my experience, I was consultant to the Departments of Lands in NSW, WA and Tasmania when those Departments decided to set up similar units. In addition, I educated students under the Colombo Plan of training.

Being fascinated by the art of precise and accurate navigation, I was self-driven to research and develop techniques to improve tracking standards and to eliminate gaps. Those gaps had been regular features of survey flying for many years, and they required costly additional flying to fill the missing detail necessary to provide complete photographic coverage.

In those early days, I was navigator, radio operator (using a Morse key), and camera operator.

The survey flights were made at 18 500 feet, and despite fur-lined flying suits and boots, both the pilot and I froze on each flight.

At that height, old explorer tracks, not visible to the naked eye at ground level, could be picked up by the camera and recorded on film. Aerial photography was, and still is, of great use in archaeological exploration.

For twelve years, up to 1962, I stayed with the Aerial Survey Unit. During that period, Trans-Australia Airlines (TAA) had won the contract with a DC3, so I was now flying in shirt-sleeved comfort and operating at 27 000 feet. Expert overseas comment was made at that time, that the particular DC3 was the best-set-up aerial survey aircraft in the world. It was complete with darkroom and an array of sophisticated navigational equipment, installed to my design and layout.

However, after that period of time, I felt that my creative ability was being stifled by the bureaucracy, so I resigned to set up a private consultancy in survey techniques.

Some time later, I accepted the position of Operations and Sales Manager with Aero Service Corporation, an American survey company involved in photographic and geophysical surveying. Having not previously been involved with mineral search using airborne magnetometers, I found that the same stringent parameters for flightline control applied. That situation provided a further challenge, as operations were at heights of between 150 and 500 feet. New problems had to be solved!

In 1966, I was appointed by HUPL to the position of Field Manager for the Bureau of Mineral Resources helicopter gravity survey contract in the remote Cape York Peninsula area.

The contract began in April, continued until the wet season just before Christmas, then recommenced the following April and ran until July.

During that time, I was not only administrator, but also airstrip and helipad builder, doctor, cook, handyman and 'father confessor'.

The constitution of the work party varied, but was usually of the order of 3 to 4 helicopters, 2 fixed-wing aircraft, 5 vehicles and up to 32 people. Food and fuel had to be flown in, airstrips surveyed and prepared, and camps broken and set up again in different areas throughout that vast and lonely land.

Pre-planning was detailed, vital and never-ending. The responsibility was great and the problems were diversified and many. Decisions had to be made on the spot and justified in retrospect, as reference back to Sydney Head Office was time-consuming and sometimes impossible due to lack of adequate communication.

On completion of that contract, I returned to Sydney and joined the Marketing Division of 'Airfast', becoming the Director of that Division. The company represented a number of overseas companies which manufactured a wide range of items associated with the Aviation Industry. In fact, we covered all of the Aviation Industry and all of its peripherals.

In that position, I spent a considerable time overseas, visiting the principals of the firms we represented, or selling their equipment, much of which was very complex, successful sales often being very lucrative to my firm.

Mentally, I have changed the expression 'Sydney or the Bush' to 'Sydney AND the Bush', for I was at home in either place. Developing an intimate knowledge of Australia's virtually uninhabited interior through my work, has given me a unique understanding of the nexus between the 'Dreamtime' and the present.

I surveyed and cut airstrips with the help of the Central Australian Pitjantjara tribe, of which I am a blood brother, and some of those airstrips are still usable in an emergency.

Having flown over 15 000 hours as aircraft aircrew, I have never held a pilot's license, nor have I wished to. As an aside, my ability to pilot an aircraft once saved my life - but that's another story.

In the retired aviation fraternity, there are many who, when asked what their role in life was, will reply 'Pilot'. In my case, when asked that question, I reply simply (with a degree of pride) 'Navigator'.