

When I Think Back...

by Neville Williams

Murray H. Stevenson - 1: A pioneer who 'grew up' with our first commercial broadcast station

The son of a wireless/radio pioneer in the 1920's, Murray Herman Stevenson was himself a virtual co-founder of 2UE, Australia's oldest commercial radio broadcast station. For good measure, he went on to coordinate the technical resources behind ATN — key station of the successful Seven ('Prime') television network. We recount his story in this article and two which will follow.

I first became aware of the Stevenson family in the early 1930's, when as a country lad just out of high school, I stopped short outside 'Radio House' in Pitt St, Sydney — obliquely across the way from Anthony Hordern's (then) huge emporium. (It's now an equally huge development site.) I was fascinated by the Radio House display of electrical and wireless gadgetry: batteries, switches, wires, sockets, globes, bells, buzzers, nuts, bolts, lugs and terminals, condensers, transformers, valves, headphones, tools — everything enthusiasts ever dreamed about.

It was all there on show: new, shiny, tagged and meticulously arranged to catch the eye of passers-by.

The shop was run by the Stevenson family, I was told, father and sons — except for the eldest son, Murray, who had inherited the job of chief engineer of the family radio station, 2UE. To a kid with one hesitant foot on the bottom of the career ladder, to be 'chief engineer' of a radio station sounded quite awesome.

Little did I realise that Murray and I would one day become firm friends, and that it would be my privilege to summarise his life story in 'Australia's Top Selling Electronics Magazine'. This after several lengthy phone conversations to confirm the details, of course.

It turned out that the hearsay about 'Radio House' had been broadly correct.

The year it began

First-off, in thumbing through old magazines, I 'struck oil' immediately in the first issue of *The Australian Wireless Review* (January 1923), where a Mr C.

Stevenson was featured with a dozen or so other industry identities 'waiting to talk to' prospective readers about wireless and the likely introduction of public broadcasting later in the year. At the time, the only signals audible on air



Fig.1: C.V. Stevenson, the father of Murray, pictured in 1955 as 'The Grand old man of broadcasting'. Founder of 'Electrical Utilities' and 'Radio House', he was also a co-founder of 2BL and of 2UE, Australia's first commercial radio station.

were shipping traffic, impromptu amateur transmissions and occasional demonstration concert broadcasts.

Mr C. Stevenson (Fig.1) was listed as the proprietor of the Electric Utilities Supply Co in George Street, Sydney (Fig.2), which was said to have been operating for six years. He was described as a long time experimenter who had built up a reputation both as an equipment designer and component supplier. His specialty was in the use of 'the Myers valve', said to be notably gas-free, with five times the gain of normal types and an ability to oscillate with a plate supply in the range 3 to 200 volts.

(You'll find a section on Myers brand valves in John W. Stokes' helpful book *70 Years of Radio Tubes and Valves*.)

But was Mr C. Stevenson the father of Murray, and if so, how did Electrical Utilities of George Street, Sydney get to be Radio House in Pitt St?

The answer to the latter question was suggested by adverts in the February and March, 1923 issues of *AWR*, which carried the name 'Electrical Utilities' in small letters (this time, spelt with an 'al') but with 'RADIO HOUSE' emphasised in capitals (Fig.3) — signalling a pending name change.

It was at this juncture in my 'thinking back' that I rang a long-since retired Murray Stevenson at his Turramurra (NSW) home, and was greeted with a cheery response and gratifying recall of names and events from the early days of radio.

Murray confirms it

Yes, said Murray, the aforesaid C. Stevenson most certainly was his father

— C.V. Stevenson. A qualified electrical engineer, 'CVS' had set up business in George Street, becoming progressively more 'hooked' on wireless technology — an involvement that his family could scarcely ignore when, during World War I, he/they had set up home on vacant floors directly above the shop.

Murray said that he, himself, had been born in the original family home in Leichhardt, Sydney, on April 17, 1905. The eldest of four children, he was followed by Les (1907), Norman (1912) and Evelyn (1913).

He had attended Sydney Technical High, gaining a good pass in the leaving certificate and a scholarship to study chemical engineering at tertiary level. His heart wasn't in it, however, and as an avid reader of technical literature, he opted out to concentrate on electricity and wireless — with his father as mentor and guide.

After all, said Murray, his father had been dabbling in wireless since before the 1914 - 18 war, and had been receiving overseas transmissions on the primitive equipment of the era.

And yes, Murray had helped out in the family business in the city until he got caught up in 2UE. But in the longer term, his brother Les was the son most directly involved in Electrical Utilities/Radio House, especially following its move to the Pitt Street address.

I asked Murray about a smaller branch shop that I remembered further down Pitt Street, across the road from the Royal Arcade. That, I gathered, was an interim venture, the more lasting expansion being into the Royal Arcade itself, where the Stevenson family took over the historic shop formerly occupied by Miss F.V. (Vera) Wallace (later Mrs C.R. Mackenzie — see EA for April 1992, pages 47,49).

Appropriately, 'Radio House' advertisements in postwar magazines and catalogs (e.g., *R&H* May 1951) carry the address of both shops — 296-8 Pitt Street and 6 Royal Arcade.

(The current phone directory lists two or three 'Radio House' shops in the City and suburbs. Stocking made-up equipment rather than components, they are still managed by a Stevenson — Barry, son of Norman).

First broadcaster

But getting back to the George St premises, Murray recalls that after WW1 Electrical Utilities had to vacate the original building at 605 George Street, when it was targeted for re-development. The family itself moved into a

Scooping Smithy

When aviators 'Smithy' and P.G. Taylor were returning in the crippled aircraft Southern Cross from the abortive Jubilee Mail flight to New Zealand in May 1935, 2UE staffer Arthur Carr scored a memorable news scoop.

He was atop a water tank above 2UE's then Pitt St studios, maintaining contact with colleague Si Meredith who was among the many station representatives at Mascot awaiting the historic return.

From his vantage point, through a telescope, Carr spotted the Southern Cross flying in over Cronulla. Grabbing a pair of field glasses, he went on air at once, minutes ahead of everyone else.

new home at Maroubra while the company transferred into premises only a few doors away, at 619 George Street. Here, too, they had an upper floor, but it remained largely vacant during the early 1920's. It was in this space that the transmitter was assembled for 2BL — Australia's first public broadcasting station — on behalf of Broadcasters Ltd.

While the company name sounds suitably formal at this remote point in time, Murray says that, in reality, it was a 'scratch' group of wireless retailers, with a common desire to see a licenced broadcasting station on the air. The registered address was at the Stevenson's shop.

How the station was to be supported in operation was not clear. Ernest Fisk and AWA were promoting the sealed-set scheme in the face of strong opposition by the public. Broadcasters Ltd also opposed it, preferring unrestricted listening and sponsorship by advertisers. The position was resolved, some months later, with provision for both A-class and B-class stations, the former relying on licence fees collected and disbursed by the Government, and the latter on advertising revenue.

Meanwhile, firms like Anthony Horderns, David Jones, Colville and Moore, W. Harry Wiles, Vera Wallace, L.P.R.

Pioneer advertiser

According to C.V. Stevenson, the first 2UE advertiser to really show what radio could do in the selling field was probably 'Youth-O-Form' slimming tablets, which spent a few pounds per week on spot advertisements. Excess weight was apparently no less a problem then than it has been in later years.

"Each morning after we aired the spots, there would be long queues waiting outside the shop at Rosebery".

Bean, Bergin Electric and Electrical Utilities continued to contribute £5 per week to get the project under way, with publisher W.J. MacLardy as manager and C.V. Stevenson as treasurer.

Murray's story of what followed is more colourful than the account in Ray Allsop's biography in our February, 1990 issue. As he recalls, most of the actual construction work was done by a Mr E. Joseph, but the steel-framed transmitter was so bulky that it could not negotiate the doors and stairs leading to the street. (Yer gotta laugh!)

The only remedy was to pick a Sunday morning when George Street was deserted, remove a complete window assembly from the front of the building and hoist the transmitter out over the footpath to a waiting truck. In due course, it was set up on the roof of the *Guardian/Smith's Weekly* newspaper building as per the earlier story.

While the appearance on air of what became 2BL caused a mini-sensation in the wireless fraternity, the performance of the transmitter left much to be desired. So it was that young engineer Raymond Allsop, attached to New Systems Telephones Ltd, inherited the task of reworking the installation ready for the official opening on November 23, 1923 as a provisional A-class station.

By all accounts Ray did an excellent job, subsequently becoming chief engineer of the station. (In his biographical notes, Ray quotes the power rating as a nominal 500 watts.)

As a 'story on the side', Murray Stevenson recalls an occasion, shortly after the station went to air, when an itinerant salesman called into the family shop in George Street with a line of decorative salt and pepper shakers. Perhaps Mr Stevenson would like to carry them as a novelty?

Nothing came of the proposition but, while in the shop, the caller heard the sound of music: "What's that?" When told that it was from a wireless set tuned to the new broadcasting station, the man was vastly intrigued and inquired as to where the station was.

Not only did he later call to inspect it, but he talked himself into a job as announcer. "What's more", said Murray, "he became quite famous! His name — George Saunders!"

For me, the name stirred a faint chord of memory, but the only hint of it I could find in old 2BL programs was as one of the station's much publicised announcers/uncles — Uncle George. "That'd be him", said Murray, "I remember now, we used to call him just that!"

WHEN I THINK BACK

First commercial station

With A-class stations beginning to appear on-air, C.V. Stevenson learned from James (Jim) Malone, at the time Chief Manager of Telegraphs and Wireless for the Commonwealth, that the Government was ready to consider applications for a commercial station licence.

"Would I be eligible?" asked C.V. Stevenson, to which came the reply "Why not?"

So it was that a provisional licence was duly granted for 2EU (Electrical Utilities), with the suggestion by Jim Malone that they consider changing the proposed call-sign to 2UE — by reason of 'its more euphonious sound'. Feeling that he had made his fair contribution to 2BL, CVS sold his Broadcasters Ltd shares to Sir Samuel Hordern of Anthony Horderns Ltd.

Wasting no time, the Stevenson father and son repaired to the new family home at Maroubra where they set about to design, build and install a functional — if primitive — broadcasting station, complete with aerial.

In short, in 1925 and at age 20, when many of his peer enthusiasts would have been preoccupied with amateur style equipment, Murray was cutting his technical teeth on a family owned broadcasting station — destined to be Australia's first commercial (B-class) public broadcaster.

In a *B&T* magazine lift-out celebrating 2UE's 30th anniversary in 1955, the power of that first transmitter was said to have been one 500th of their prospective 5kW limit — which Murray insists is in error. It would have been 150W or more, he says, involving two jumbo-size triodes. One served as a self-excited oscillator, the other as a modulator, preceded by as many audio stages as necessary to boost the signal from a transverse-current carbon microphone.

From then on, the history of 2UE was marked by an on-going upgrade in technical facilities under the guidance of the Stevenson duo and covering transmitters, studios and associated facilities. Murray was officially installed as Chief Engineer in 1931 and as a director of the Company in 1940.

An early initiative, pictured in the abovementioned *B&T* lift-out, was a studio control box contrived by Stevenson Snr. With just four control knobs on the front and a turntable and electric pickup on top, it allowed discs to be played straight to air instead of through



WIRELESS.

Complete Sets (Crystal and Valve)
Parts to make your own Set.
Send for Price List.

ELECTRICAL UTILITIES SUPPLY COY.

605 GEORGE STREET, SYDNEY.

Fig.2: An advertisement from the Electrical Utilities Supply Co in the very first issue of 'Wireless Weekly', August 4, 1922.

a wind-up phonograph and a carbon mic. *B&T* magazine claimed it as a 'first' in Australian broadcasting.

As Murray recalls, the original allocated wavelength — near the middle of the band — was 292 metres (around 1025kHz). Before the widespread adoption of crystal control, it was the operator's responsibility to set and maintain the transmitter on the allocated wavelength, hopefully minimising frequency drift and/or 'wobble' with modulation.

Practical problems

The Stevensons' responsibilities in this respect were underlined when the transmitter was first put on air. An urgent phone call from Sydney's Garden Island Naval radio station informed them that their signal was interfering with a maritime emergency channel on 600m (500kHz).

It could have been a receiver problem, or the new transmitter might

somehow have been radiating a sub-harmonic. So without further ado, Murray and his father had to consult with the Radio Inspector, re-check their frequency and, as well, discover how best to suppress possible harmonic radiation.

The station finally opened on January 26, 1925, with programs each evening between 8pm and 10pm. Said Murray: "I looked after the equipment and my father did the talking."

It was an interesting period, with both men absorbed in their new hobby/occupation — albeit one that, at first, yielded little in the way of financial reward. Initially, the only advertising content was for their own shop!

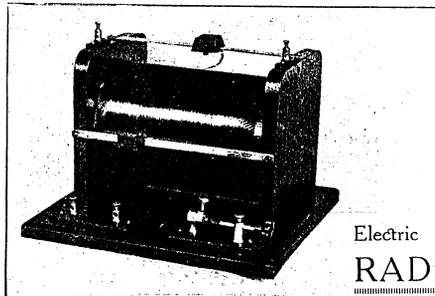
The hours of transmission were gradually extended, as also was the range of their activities, to keep pace with Stevenson initiatives and listener expectations.

Foreshadowing 2UE's ultimate reputation as a sporting station, they became involved in racing and football —

CRYSTAL RECEIVING SET

Comprising Double Slide Tuner finished in genuine maple with Detector and phone terminals on same base

Price (as illustrated below)	£2 14s. 0d.
Same Set, with Single head phones 1000 ohms	£3 18s. 0d.
.. .. with Double head phones 2000 ohms	£4 10s. 0d.



THIS is a beautifully finished set, with all terminals and detector mounted on polished ebonite. It is designed to receive up to 2000 metres wave and is suited for concert reception within a radius of about 20 miles of a moderate power broadcasting studio



Myers' Famous
High-Mu
Valve

Price: 35s.

Now in Stock

Electric Utilities Supply Co
RADIO HOUSE
605 GEORGE ST., SYDNEY

Fig.3: In this 1923 advertisement the 'Electric Utilities Supply Co' logo gives place to 'RADIO HOUSE'. It also promotes the Myers valve.

without the co-operation of the promoters. If they ventured inside the grounds, they were expected to pay at the gate, like everyone else! Their preferred ploy was therefore to 'borrow' a window or balcony overlooking the arena and broadcast from there!

In 1928, they got a break of a different kind when a committee set up by the Catholic Church in Sydney asked whether they would be prepared to broadcast proceedings at a coming Eucharistic Convention, with follow-up sessions during the succeeding months. The church would pay a modest fee to help cover expenses.

"Well, it's like this"

Murray said that he explained to the priests involved, Fathers Meany and Walsh that, as a Protestant, he was not familiar with Catholic formalities. Their response was to show him around Sydney's St Mary's cathedral, explaining the layout, the procedures and the areas where microphones would be required. They also indicated that space could be available in a temporary Convention office to serve as a talk studio.

In the Cathedral, Murray was conscious of private devotional activities and asked how communicants would react to people laying cables and setting up microphones in consecrated areas. "It would be no different", the priests said, "from any one else performing essential duties".

"In fact", one of them added with a twinkle, "we'd prefer it to be done by Protestants, because they wouldn't be expected to know any better"!

"What on earth would you have done for microphones?" I asked Murray while he was describing their Convention broadcasts.

"Transverse current types", he replied, "home-made out of wooden blocks fitted with a rubber diaphragm".

"A rubber diaphragm? — I've only ever heard of mica..."

Said Murray: "We always used dental type sheet rubber. It was of very high quality, uniform from batch to batch and easy to fit once you'd worked out how."

Responding to the challenge, the Stevensons also set up a city studio on the vacant floor above the George Street shop, with a phone link to Maroubra and a separate street entrance for broadcasters. Father Walsh, a Shakespearean scholar of note, became a regular visitor who was not above shedding his formal vestments on a hot day, to broadcast in comfort.

"In fact, I got to respect the priests as very human people", said Murray.

"The one man who remained studiously formal was Dr Rumble, an outspoken ecclesiastical scholar and a very contentious figure in those days. As a former Anglican cleric who had converted to Catholicism, he was given to debating the conflicting points of view and, at the drop of a hat, would launch into dissertations that were often over my head!"

"From our point of view, the Convention was a godsend. For months on end, the Catholic Church provided around six

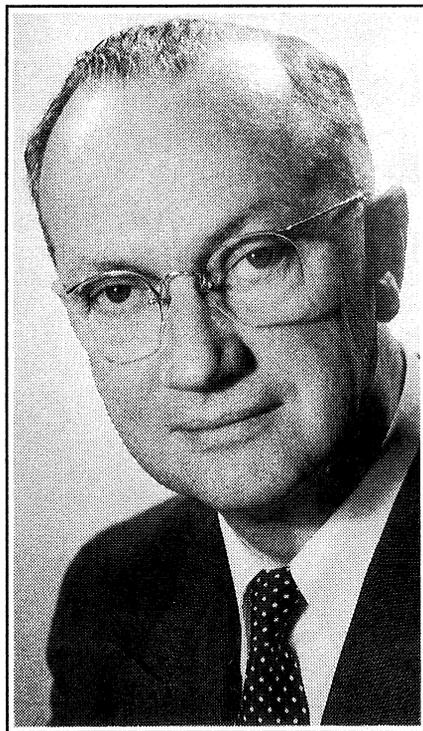


Fig.4: From the IREE (Aust) files, this photo of Murray Stevenson was taken in 1948-49. Having lived through the entire hifi era, he is loud in his praise of CD recordings played through a modern amplifier system.

hours of programming per day — including huge functions at the Town Hall and Randwick Racecourse. They publicised the station, rallied an audience — and paid us one pound per hour for the privilege'!

A major move

These days, it seems like a trifling amount but the Stevenson family appear to have managed, with C.V. deciding to brighten his middle age with a new 'weekender' on a bushland property at Lilli Pilli, on the southern fringe of Sydney — with easy access to Port Hacking — a popular fishing spot.

Why not transfer 2UE to the same site?

This involved construction of a

new and updated transmitter, along with a new antenna — a horizontal 4-wire 'birdcage', with a matching birdcage centre feed, supported between two 180ft (55m) windmill-type towers. It certainly looked the part, on rising ground, with a clear path to the city and beyond.

Unfortunately, it looked better than it actually performed. With hindsight, Murray explained that transmitting antennas were not well understood in those days. Station personnel tended to regard reception reports from far-flung locations as evidence of extensive coverage. They didn't quite realise that every watt of RF energy in random lobes, reflected by the distant ionosphere, was energy diverted from the station's basic regional coverage.

In commercial terms, advertisers needed to promote products to listeners in their own area — not over in Perth, Darwin or Auckland!

Reading up on the subject, Murray Stevenson realised that while the antenna was out in the clear, the ground beneath was mostly dry and non-conductive.

His answer was to install a counterpoise beneath the aerial, comprising an earthed wire mesh supported a few inches (or cm) above the ground.

In his book *Australian Radio — The Technical Story 1923-83*, Winston Muscio nominates Murray Stevenson (Fig.4) as a notable example of Australian station engineers who had designed and installed their own transmitters, rather than relying on traditional suppliers like STC and AWA.

As an indication of the scale of such an enterprise, he says that the 2UE installation at Lilli Pilli ended up with a pair of STC 4228-A water cooled valves in a final linear amplifier. He continues:

The valve filaments were heated by a motor-driven generator set and the high tension by two 2000 volt motor-driven generators connected in series.

Apart from valve replacement, maintenance of the water cooling system and frequent attention to the high voltage generators, this transmitter operated satisfactorily from 1930 to 1942.

Having traced the story of Murray Stevenson and the family radio station from their humble beginnings in 1925 to mid-term in the late 1930's, we progress in the next of these articles to the more elaborate and complex technology which emerged in the 1940's and 50's as radio broadcasting had to re-position itself to meet the challenge of television.

(To be continued) ♦