

## Chapter 10

## A Rogues Gallery



*There are some that use the cyclotron  
To fulfil their life's ambition  
But I maintain the hammer  
Is enough for nuclear fission.*

*Drawn by Bruce Cousin, Jack Blamey's brother-in-law.*

## A ROGUES GALLERY - DIRECTORS AND DEANS

### Sir Mark Oliphant 1950-1963

In the present context, it would seem almost sufficient to state simply, “Founder of the School”. His biography details the seminal contributions to low energy nuclear physics, including the discovery of tritium with Rutherford, at Cambridge, his involvement with the development of the magnetron at Birmingham and later transfer of the technology to the US and his very significant intervention in the very early days on what was to become the Manhattan Project.

In common with many associated with that project, Oliphant was to join the post-war campaign for non-proliferation of nuclear weapons. Yet, his role in 1941 in compelling senior US officials to direct their attention to the contents of the British MAUD (a code name) report was pivotal in changing the emphasis of effort in the US from nuclear energy to the realities of a bomb. The MAUD report had addressed the issues in some detail, based largely on the work of Rudolf Peierls and Otto Frisch. After the war, Leo Szilard is quoted<sup>1</sup> as saying:

“If Congress knew the true history of the atomic energy project, I have no doubt but that it would create a special medal to be given to meddling foreigners for distinguished services, and Dr Oliphant would be the first to receive one.”

The sentiment was echoed in James Conant’s secret history<sup>2</sup> in which the change of direction from

nuclear energy to a bomb was attributed to the fact that:

“the all-out advocates of a head-on attack on the uranium problem had become more vocal and determined.”

In this regard, Oliphant’s influence was the first mentioned.<sup>3</sup>

Post-war, Oliphant returned to Birmingham and began construction of a 1 GeV proton synchrotron. The preceding chapters trace his early participation in the founding of the ANU in 1946 through to his retirement in 1965. It can only be hoped that the extent and importance of Oliphant’s personal contributions to both the ANU and the School, aside from the distinction and credibility he brought to both, are clearly evident, however inadequate the expression of them.

Between 1972 and 1976, he served a term as a distinguished, if sometimes controversial, Governor of South Australia. Later, Oliphant returned to Canberra to reside. He has contributed to a number of anniversary and celebratory events in recent years - most notably, that marking the sixtieth anniversary of the discovery of the neutron by Chadwick at Cambridge in 1932, and of course Founder’s Day since its inception in 1981 to celebrate his eightieth birthday.

### John Jaeger 1964-1965

John Jaeger was appointed Dean on January 1 1964, following the resignation of Oliphant as Director.



In many respects, he was placed in a difficult situation, assuming responsibility for an organisation from which he wished overtly to dissociate the Department of Geophysics and Geochemistry.

From the outset, it was clear that Jaeger regarded the Deanship as mainly an administrative role. He occupied the former Director's office on several designated afternoons each week. One story has it that soon after Jaeger took over, attendances of seminars dropped sharply. It was soon found that notices for them were not reaching noticeboards. Jaeger, forgetting his position, had been perplexed at getting bundles of notices for each seminar. The extra copies went into the waste-basket.

It was very much a period of "steady as she goes". The only significant event of the two year term was the formation of the Department of Engineering Physics, subsequent to Oliphant relinquishing headship of Particle Physics in mid 1964. Jaeger died in 1979.

### Sir Ernest Titterton 1966-1973

Titterton was Dean between January 1966 and September 1968 before being appointed to a five year term as Director.

In both capacities, he worked hard to get the School functioning as efficiently as possible within available funding. He instituted administrative reforms and was ever vigilant for any sign of *laissez-faire* that would harm the image of the School.

Two new departments, those of Applied Mathematics and Solid State Physics, were established during his term.

His stewardship included several turbulent periods involving the separation of Geophysics and Geochemistry to form the new School of Earth Sciences and the dispute over control of the Anglo-Australian telescope with the Vice-Chancellor, John Crawford. Never one to back away where actions



*Mark Oliphant enjoying a joke with former colleagues at Founder's Day. Jimmy Edwards is clearly visible on the right.*

*John Jaeger graciously welcoming the Duke of Edinburgh at the entrance of Geophysics. Onlookers are mainly family members of School staff. In those days of innocence, security was scarcely apparent (November 1956).*



ran counter to his usually shrewd judgement of what was proper, he took on both issues aggressively, though he was unsuccessful with the former.

Seemingly tireless, Titterton closely monitored all activities within the School and fought his battles, yet at the same time played a major role in the installation of the 14UD accelerator in Nuclear Physics. He negotiated the contract for it, hounded the builders of the tower to stay on schedule and participated in most decisions of detail regarding the entire installation and initial testing.

Titterton's five year term was not extended. In the months before September 1973, both School and Chancery opposition to an extension became apparent. Much of that in the School had been generated by his unwise handling of the question of the chairmanship of Faculty<sup>4</sup>. Wider afield, it is hard to look past the dispute over control of the telescope as a reason, though there had been other issues he had contested with the Chancery, involving disposition of the interest and the appreciation due to currency variations attracted by the accelerator grant of 1969.

The matter became a public one and rather unpleasant. Correspondence relating to it was leaked to the *Canberra Times*. All in all, it was an unfortunate episode for the School and the Chancery, ending what had been a positive and open Directorship

and one that brought much to benefit the School.

Titterton returned to Nuclear Physics. Modest travel funds were made available to him to maintain a watching brief on accelerator developments overseas, especially those relating to super-conducting linacs. He retired in 1981.

The retirement period was marked by further controversy during and after the McClelland Royal Commission. As chairman of the Australian Safety Committee appointed to monitor the British tests during the fifties, Sir Ernest was sharply criticised and accused of near treason in the final report. Rarely has it been more evident that the past is the proper territory of thoughtful historians. Hindsight, conditioned by political and scientific changes evolving over a thirty year period, cannot and should not be used to judge the past.<sup>5</sup>

On September 19 1987, he was involved in a car accident and, as a result, was paralysed from the neck down. He died on February 8 1990.

### **Robert Street 1974-1978**

Street came from Monash where he had founded the highly successful Department of Physics. Aside from a respected research record in solid state physics, he brought with him the reputation of having been the peripatetic father-figure at Monash, frequently doing the rounds of the department and familiar at a personal level with everyone.

In Canberra though, it seemed that he never really settled comfortably into the position of Director. Heavy involvement with various committees and related activities caused frequent absences, especially during the first year or so, that exacerbated the problem. Though he was affable and well-informed, with a sharp sense of humour, Street put these characteristics aside to be an aloof and formal Director, insistent on "proper procedure".

He was a fervent disciple, if not creator, of the catchcries of the seventies - accountability, resource allocation, pursuit of excellence and research planning, all thrust forward as new ideas with no evident recognition of the extent to which such concepts were already current practice.

The major event of his Directorship was the review of the School - the first such School-wide review in the Institute. It resulted in the restructuring of the



*Robert Street (circa 1974). A search for a more informal photograph was greeted with the response “but he was never here”.*

Department of Engineering Physics and the formation of the Plasma Physics Laboratory. Otherwise, it was widely regarded as a source of unnecessary and unproductive turmoil for the School. Regrettably, the review reinforced a feeling that the Director was an adversary rather than a supportive leader. Somewhere, the balance between constructive critical appraisal and mere criticism went astray. Street resigned in 1978 to become Vice-Chancellor of the University of Western Australia.

### **John Carver 1978-1992**

Carver came to the School from the University of Adelaide, where he had been the Elder Professor of Physics (as he has often remarked, the first of such professors to go unknighthood). Nonetheless, he was familiar with both the School and the ANU, having been awarded an ANU travelling scholarship in 1949 for postgraduate study at Cambridge. Thereafter he was a Research Fellow and later Senior Fellow in Nuclear Physics for over eight years prior to the appointment in Adelaide in 1961.

He admitted several times during the latter stages of his Directorship that he had always wanted to be Director. The ambition, surprising at first hearing, undoubtedly was the foundation of his success. He came with ideas - a vision even, of how to establish a strong, unified School.

Carver hastened slowly to address the question of image. Founder’s Day was introduced in 1981, along with the beginning of the tradition of pre-

▼ *Top left. Ernest Titterton “discusses a problem with a student” according to the caption of this photograph when it appeared in the Melbourne Age. The student is Trevor Ophel (early 1958).*

*Two (or three, counting Titterton) for the price of one. Both John Carver (front row, third from the right) and Erich Weigold (right hand end of back row) appear in the first Nuclear Physics group photograph (November 22 1960). The other members of the group are identified at the end of the section<sup>6</sup>.*



senting pins for 30 years of service to the School. Simple enough, but the exercise proved remarkably successful, evolving to a morning of entertaining and informative talks, followed by a luncheon. The assembly of all of the School together for a combined professional and social occasion rekindled a sense of unity that, once so strong in the early days, had gradually attenuated with the expansion of the numbers of activities. Later, he succeeded in overcoming another major problem of image, that of the run-down condition of much of the School's fabric. The price paid by the School for being the pioneer was all too evident in the appearance and condition of its buildings. The link building and refurbishment of the Oliphant Building in 1991 were followed by a dramatic upgrading of the accelerator wing, aptly named the John Carver Building, in 1994.

Perhaps Carver's greatest attribute was the ability to manipulate the fashions of the times and trends of University policy - invariably it seemed by anticipating them, always to the advantage of the School. The introductions of the Department of Systems Engineering in 1981 and of the Department of Electronic Materials Engineering, the first of the strategic initiatives, provide good examples. Long before the Stephen Review of 1990 recommended Advisory Boards for Schools, Carver had established a Tenure Committee, with substantial external representation, to consider strategic allocation of one or two tenured posts per year.

He paid close attention to the administrative organisation and maintained a keen awareness of staff performance throughout the School. There was always a feeling that few events occurred by chance or unexpected circumstance, everything seemed carefully orchestrated.

Budgeting innovations were another feature of Carver's Directorship. First there was the negative provision - a euphemism for deficit, that had to be whittled down by various devices each year. Later, the system of holding back funds to be distributed on the basis of student numbers provided incentive for sections to increase their student intake. He was responsive and supportive, to the modest extent possible, with supplementary funding to meet pressing needs in sections. Typically, when Nuclear Physics was given the opportunity to acquire millions of dollars worth of equipment from Daresbury, Carver instructed the Business Officer to "find the

funds" to cover transportation. In comparison, the first response from the Chancelry had been "don't expect any more technicians".

Several other strategies that Carver introduced occasioned more ambivalent responses. Pursuits were introduced to provide a "true cost" indication of each activity in the School. Each section had to nominate a number (initially 3 or 4 were suggested) of pursuits, along with associated staff, to identify the discrete activities going on within the section. Perhaps relevant to some degree and therefore implemented earnestly (though probably unwisely) in some sections, it certainly was not in others, such as Nuclear Physics where it was basically ignored. In combination with the trend to categorise all expenditure in detail, pursuit budgeting meant that each of the many categories was subdivided yet again for separate reporting of the pursuits.<sup>7</sup> If best practice means efficient and accurate simplicity, pursuits were never part of it.

Likewise, Carver introduced the concept of the General Physics and Engineering Divisions in 1988. They had been recommended by the Wilkinson Review. In a sense, divisions were the flavour of the month in a constant confusion of administrative reforms occurring at the time. However, his intention was to appoint Associate Directors for each division as a means of reducing the routine administrative load faced by Directors. Nuclear Physics and Theoretical Physics, for not particularly logical reasons, however stubbornly expressed, refused to be associated with a division. Moreover, Faculty Board was suspicious of "another layer of administration" so that Associate Directors did not eventuate. Divisions subsequently were abandoned.

A small research group, the Ultra-Violet Physics Unit, was established so that he could continue work on the modelling of planetary atmospheres. As well as being a member of various boards, including the Anglo-Australian Telescope Board, he was chairman of the United Nations Scientific and Technical sub-committee on the Peaceful Uses of Outer Space for twenty five years.

Carver retired in 1992. Shortly thereafter, he served as Acting Director of the Institute prior to the appointment of Susan Serjeantson. In the new role, he took the opportunity to introduce budget strategies to stimulate Schools, rather than the mere sections of earlier days.

## Erich Weigold (1992 -)

Erich Weigold assumed the directorship in October 1992. He was appointed following the newly-introduced selection procedures where by the four short-listed candidates were brought to the School as a group, to meet with staff prior to the final interviews. Previously, as Professor of Physics at Flinders University in Adelaide, he had achieved an international reputation for research in electron physics.

Weigold had also had previous experience with the School, having been a graduate student in Nuclear Physics between 1959 and 1962. He renewed the association as a member of the Wilkinson Review Committee in 1987.

As operating budgets have steadily decreased, Weigold has already faced a difficult term of office, yet now even more stringent cuts are foreshadowed. It has scarcely been a time for innovation or expansion. Merely maintaining a viable School research program has become challenge enough.

Highlights during Weigold's directorship include the Garmire Review of the School, followed by the Boardman Review of the Institute in 1995, the recognition of the Heliac as a Major National Facility in December of the same year, and the dedication of the Nuclear Physics Linac in July 1996.

## Ken Le Couteur (1956-1985)

No section about Directors and Deans can be complete without recognition of Le Couteur's contributions as Acting Director on many occasions. It has often been remarked whimsically that he was the longest serving Director - true for the span of his duty perhaps, if not for total time. He took over the helm to steer the School through two potentially difficult periods, each of about one year in duration, between the directorships of Titterton and Street and then of Street and Carver. His gentle manner disguised an astute knowledge and understanding of School matters.

During both of those two interludes, and whenever the Director of the day was away, the affairs of the School were in safe hands.

<sup>1</sup> The remark is cited in *The Making of the Atomic Bomb* by Richard Rhodes (Simon & Schuster Inc, NY 1986) p372. The book, now available as a Pen-

guin paperback, provides a detailed history of the Manhattan Project and explains the nuclear physics aspects lucidly and accurately.

2 James Bryant Conant was president of Harvard and a member of the US National Defence Research Council.

3 Reference 1., p372.

4 J.O.Newton, *Historical Records of Australian Science*, Vol. 9 (2) 167-187, December 1992

5 Excerpt from an obituary: T.R. Ophel, *Australian Physicist* 27 (1990) 44.

6 Complete identification of the Nuclear Physics group photograph is as follows:

*Back Row (L to R)*

Tony Bastin, Norman Bowkett, George Power, John Harrison, John Gower, Tony Bull, Ray Sherwood, Erich Weigold.

*Third Row (L to R)*

Geoff Symons, Harry Owen, George Lawrence, Bo Lawergren, Ray Taylor, Graham Bailey, Alan Gregory, Ian Mitchell, Graham Coote.

*Second Row (L to R)*

Tony Brinkley, Carol Easton, Daphne Earwaker, Pauline Cregan, Chris Bartholomews, Isobel Oliver, Willy Deuchars.

*Front Row (L to R)*

Dale Hebbard, Trevor Ophel, Peter Treacy, Ernest Titterton, John Carver, Robert Glover and Les Lawrence.

7 Nuclear Physics graciously paid for an ANU coat of arms for display in the AINSE Council Room at Lucas Heights. Immediately afterwards, the itemised budgets included "medals, prizes and medallions" with a portion of the \$120 cost charged to each pursuit. On another occasion, the category "fringe benefits tax", similarly apportioned to pursuits, appeared on the weekly statement. No one seemed to know why.

