An American visiting professor is assisting the University's Institute of Aviation to finalise the curriculum for the aviation course and introduce advanced flight training technology.

Emeritus Professor Stanley Roscoe retired from New Mexico State University in 1986 after an extensive career as pilot, flight instructor, research scientist, author, director of research and academic. He is President of Illiana Aviation Sciences Ltd., a contract research and consulting group, in Illinois.

The University last year established the Institute of Aviation, with Assoc. Professor Ross Telfer as Director, to co-ordinate the new course in Aviation.

The aviation science degree is the first professional course for pilots to be offered by a university in Australia and is being developed with considerable input coming from the Australian Aviation Industry.

The University entered into an agreement with the Civil Air Training Academy (CATA) at Cessnock to provide students with access to flight training to the level of commercial pilot with full instrument rating.

Professor Telfer said that in addition to the normal subjects required of a pilot (navigation, meteorology, the physics of flight, etc.) the course would provide opportunity to study topics in aviation law, aviation medicine, man/machine interaction and resource management.

He said the demand for places in the new course was very strong. The planned first year intake of 20 students had been easily met. The new students would begin their aviation studies at the University on February 22 and begin working to obtain their flying licences at CATA in March. Their first flights will take place in the fourth week of first term.

A large part of Professor Roscoe's visit will be taken up by helping the Institute to co-ordinate the academic part of the course and introducing instructors to flight training equipment.

He will give tuition to flight instructors at CATA on the proper use of a very advanced flight simulator.
He said the Manager of CATA, Mr Jim Spark, had been very keen to introduce computer-assisted simulator flight training, and Dr David Allerton, a visiting professor in Electrical and Computer Engineering, had embodied a computer programme in the simulator used at Cessnock.

Professor Roscoe is working with Professor Telfer and Dr Allerton on the compilation of a guide to the simulator for use by flight instructors.

The Institute of Aviation will shortly take delivery of another innovative item of equipment—a system for the selection and assessment of pilots called the WOMBAT®.

The system has been built by Illiana Aviation Sciences Ltd. and is the next generation of the PortaBAT, the system designed by the company for the US Air Force to use.

Professor Roscoe says WOMBAT will be used to test flying students at the Training Academy at Cessnock and professional pilots.

The system was able to measure a person's ability to attend to a variety of information inputs concurrently, assess their relative importance, or criticality, and allocate his/her attention accordingly.

'These are the attributes we now believe distinguishes airmanship from mere intelligence and skill,' he said.

WOMBAT will also be of use to test prospective aviation students. Professor Telfer intends to assess the intake for next year's first year course by using the system, while gathering data for a longitudinal study on the WOMBAT's predictive validity.

When the News went to press Professor Roscoe was in New Zealand for a programme of university visits and trout fishing. He will visit Massey University for discussions on the University's aviation course and Otago University for talks with Dr David O'Hare, his collaborator on the textbook, Flight Deck Performance; The Human Factor, to be released by Iowa State University Press.

Professor Roscoe will explain his work on WOMBAT during a one-day workshop for students, staff and interested persons from the aviation industry at the University on March 16.

"WOMBAT stands for 'wondrous original method for basic airmanship testing'.

SEARCH IS ON FOR HISTORIC RECORDS

MEMBERS of the University and other Hunter Valley residents have been invited to take part in the Australian Bicentennial Historic Records Search. Field officers, Ms Barbara Gaudry and Mr David Perkins, have been appointed to the region for this major heritage project.

Ms Gaudry explained that thousands of Australians had records which were historically significant. The records include letters, diaries, photographs, minute books and business papers; she said, 'and people may not realise the importance of their records. Everyday important documents from homes, businesses and community groups are being sent to the tip.'

The Historic Records Search was aimed at locating and recording privately-owned papers which told us about our past.

'These records can provide valuable insight into daily life,' Ms Gaudry said, 'the development of small and large businesses and the work of community organisations. Documents of this kind can bring the history of our country alive.'

The aim of the Search was not to collect records but to describe and register them for future research. The register would be available at major libraries across the country.

'The Search also aims to make the community aware of the need for preservation of historical materials. Owners will be advised of simple methods of caring for their records,' she added.

For further information please contact Ms Gaudry by telephoning 29 4531, Extension 616, or 69 4141 (home).

FIRST YEAR LECTURES will be cancelled on the first day of First Term, February 22, so that new students can participate in a special programme which will introduce them to university life.

Besides having been invited to attend a colourful official welcome in the Great Hall, the new students will have the chance to join small groups and be taken on guided tours of the campus and the library. Senior students will act as guides.

At faculty meetings after the campus tours, the Deans and Faculty Secretaries will present introductory talks on courses and procedures.

The official welcome will get under way at 9.30 am with a procession of senior staff wearing their academic dress. Speeches will then be given by the Vice-Chancellor, Professor Keith Morgan, the Dean of Students, Professor Ken Dutton, the President of the Sports Union, Dr Bernie Curran, and the Secretary/Manager of the Union, Mr John Broughton.

The new students will also be able to learn about surviving first year—at a session to be presented by University Counselling in the Great Hall at 3.45 pm.

The Union has organised a programme of social events for Orientation Week, which will commence on February 22. On that day new students will be able to enjoy entertainment in the Union in their lunch hour.

The Union and the Students' Representative Council will jointly sponsor a spit roast in the Courtyard of the Union in the evening. New Students have been invited so they can learn about the student clubs and societies operating at the University.
The former Equal Opportunity Officer with Brisbane College of Advanced Education has been appointed EEO Co-ordinator at the University and the Hunter Institute of Higher Education. Ms Susan Jones has been appointed with Brisbane College of Advanced Co-ordinator at the University and the Hunter Institute of Higher Education. New Newcastle, sees as one of the early Ms Susan Jones says she has not yet been able to look at the management plans thoroughly. However, the main stages have been completed and only a few things remain to be integrated into the procedures of the two institutions.

Miss Susan Jones

The former Equal Opportunity Officer with Brisbane College of Advanced Education has been appointed EEO Co-ordinator at the University and the Hunter Institute of Higher Education.

A BA, LLB from the University of Melbourne, Ms Susan Jones has been a solicitor practising for private law firms and a CAE administration officer. Susan, a recent new arrival in Newcastle, sees as one of the early challenges in her new post making the jigsaw to the HIHE several times a week.

She says that whereas the University and the Institute are different institutions with different outlooks, her experience in the field of equal employment opportunity should assist her to orient herself quickly.

Susan Jones has taken over responsibility for implementing EEO management plans for both the University and the HIHE and carrying out the Federal Government's associated requirements, replacing Dr Monica Hayes, the first EEO Co-ordinator, who resigned at the end of last year.

She says she has not yet been able to look at the management plans thoroughly. However, the main stages have been completed and only a few things remain to be integrated into the procedures of the two institutions.

Asked about the way in which she hopes to bring about the successful implementation of the new policies, she replied: 'I am not fond of hierarchies and believe in consultation and a co-operative style of management. Persuasion is much more effective than prescription.'

Because Susan is interested in hearing from employees about their experiences within the two organisations, she is happy to listen to any queries which staff have.

Susan has a particular interest in staff development as an EEO strategy and is planning several activities in this area this year.

After university she returned to her hometown, Ballarat, where after doing her articles she practised as a solicitor. She was a solicitor in a legal office in Brisbane before moving into the administrative ranks at Brisbane CAE.

She says there was an increasingly more concentrated focus on equal employment opportunity at the CAE. She served as secretary of the Director's Advisory Committee on Equal Opportunity in Work and Education before taking up the appointment as EO Officer late in 1985.

Susan said she was pleased to be able to move to Newcastle because of her family's links with both the city and the University.

She is a daughter of Mr Russell Jones, a Newcastle Herald Sub-Editor, and Mrs Mary Jones, a journalist and well-known community worker. The Joneses have three daughters and three sons. Linden, Assistant Principal at Wallsend Catholic School, is a student at this University. Her husband, Mr Joe Drzyzga, is a former staff member of the Bursar's Division.

Stephen and Brendan are graduates of this University and Deborah, a graduate and former tutor in Drama, is a Sub-Editor on The Australian in Sydney. Quentin Jones is a press photographer with the Sydney Morning Herald.

The EEO office at the University has been moved from the ground floor of the McMullin Building to where the Staff Office was previously located on the lower ground floor. The telephone number is Extension 317.

- Book mutilation concerns Senate

Senate has agreed that anybody caught mutilating books in the Auchmuty Library should be brought before the University's Discipline Committee for punishment under the committee's powers.

The Library Committee, responding to the Senate's concern about the mutilation of library books, said the existing practice was for the Librarian to admonish severely anybody who was caught.

The committee said it felt the problem should be brought under the authority of the Discipline By-laws and when the Discipline Committee is imposing penalties it should be mindful of the seriousness with which the offence is regarded.

- Physics Demonstrators wanted

Vacancies will exist for part-time demonstrators in the Physics I and Physics II laboratories in 1988. Demonstrators usually find the experience to be interesting, and valuable for their future careers.

Present remuneration is approximately $42.69 per three-hour laboratory session.

Applicants should preferably have a degree with a substantial background in physics. For the Physics I laboratory demonstrating, senior undergraduates in science, engineering or mathematics will be considered.

Those interested should leave details at the Physics Department Office, including their curriculum vitae, address and telephone number. Enquiries may be directed to Ron Roberts, Physics Department (Extension 387).
Letters to the Editor

Dear Sir,

We, the undersigned, would like to protest in the strongest terms to the manager of the Co-op bookshop relating to the state of the Co-op community which the university community has to endure in its one and only bookshop.

The crowded conditions of the bookshop have been worsening year-by-year without any remedy being found by the Union's managers. A spacious and well-stocked bookshop is second only to the library as the heart of a university campus. Yet our bookshop is ridiculously small in comparison with any other university in Australia. (Indeed, the Newcastle Technical College bookshop is larger than the University's, which is an interesting indication of thinking on this campus.) Entering the bookshop is like stepping into the back of a truck to do business. It is impossible to browse through the shelves for any length of time. There is little incentive to go on voyages of book hunting and it is a positive embarrassment to take academic visitors from other campuses or overseas anywhere near the place because of its size and crowded surroundings.

The Union's manager will reply that there is no room for extensions, yet the stationery shop next door has just been enlarged, the previous second-hand bookshop has been taken over for commercial purposes, and every other shop in the building has enjoyed renovations or extensions in the last few years. The bookshop has remained untouched, unextended. When will this University get its priorities right?

It is not sufficient to say plans are afoot to re-house the bookshop some way down the track. The bookshop has needed increased space for years and is in critical need of it now. Every member of the University community should make his or her protest known to the Secretary/Manager of the Union, Mr. John Broughton, and demand that conditions be improved immediately up to the standards enjoyed by other universities. A word of sympathy to the staff of the Co-op who have to work there would also help their morale.

c.c. John Broughton.

Dear Sir,

I have received a copy of the letter relating to the state of the Co-op Bookshop and appreciate the opportunity to respond to some obvious misconceptions held by those signatories.

I take exception to the tenor of the letter which implies the Union and the Secretary/Manager are responsible for the 'primitive squalor' of the bookshop operating out of the 'back of a truck to do business'.

I should point out that the bookshop is a tenant in the Union and accordingly the management and organisation of that space is the prerogative of the bookshop manager.

In December I held discussions with the Bookshop Liaison Committee concerning space for the bookshop. Several options were examined including the rental of a temporary annex to serve as a store and unpacking room. This suggestion was discussed as a matter or urgency with the General Manager, however, the bookshop decided not to proceed.

The Union like so many other facilities on campus is feeling the pinch of coping with increasing student numbers, I refer your readers to the article in News, December, 1987 outlining plans for major developments.

This year the Union Board has addressed the problem of providing additional food services, hence the conversion of the second-hand bookshop to a snack bar.

Oh, by the way, the stationery shop has in fact been reduced in size as it now incorporates the cashier and second-hand books. This has been achieved through upgrading equipment and reorganisation.

Commercial development planning has started and it is hoped that work will commence by the end of the year. The bookshop has been invited to participate in that development.

John Broughton, Secretary/Manager, University Union.

JANUARY SENATE

The Vice-Chancellor brought members of Senate up-to-date on developments in the preparation of a response to the Green Paper on higher education.

A working party had been formed, Professor Morgan said, to prepare a draft statement on the issues which were raised in the Federal Government's policy paper and of concern to the University.

The working party (the Vice-Chancellor, the Deputy Vice-Chancellor [Academic], Professor M. Carter, the Deputy Chairman of Senate, Professor R. MacDonald and the Deans) was working hard, Professor Morgan said, and, hopefully, a document would be completed before the February Senate.

Professor MacDonald said he had written a paper highlighting the problems the University would face if it kept up with the rate of change envisaged in the Green Paper.

Professor Carter outlined to Senate the main points in the preliminary response. He said the University had to prepare an educational profile.

There ought to be recognition by the Federal Government of the University's special responsibilities to the Hunter Region and the fact that was a variant of a metropolitan university he said.

It was agreed that the response to the Green Paper be tabled at the next Council meeting and Council be informed that the intention was to present a final response to it in April.

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The Librarian informed Senate that the re-abostosing of the ceiling in the Humanities Monograph Reading Room in the Auchmuty Library would take four to six weeks longer than expected and things would be returned to the room by the end of July.
The Organising Committee for the ANZAAS Centenary Congress to be held at the University of Sydney in May has released details of the programme. The University of Sydney hosted the inaugural Congress in 1888.

Some of the topics to be covered include:

**Biotechnology: Your Genes and You** — How can genetics be manipulated to make profits and/or help mankind? When will a vaccine be developed for such a common ailment as congenital herpes? Mr Ed Penhoet, whose California-based company was the first to develop the Hepatitis-B vaccine, will discuss the issues involved in this area of research.

**Ten Years of Technological Change** — A number of papers will review the technological changes which have taken place in Australia over the past 10 years and suggest those that have been beneficial and those which have not. Such changes include the radical shift in office technology and the impact of plastic money.

**The New Reproductive Technologies; (and Their Threat to Women)** — Since 1984 an active group of women who are part of an international network on reproductive and genetic engineering have challenged the increasing male control over women's procreative abilities. A panel of these women, members of FINNRAA, the Feminist International Network of Resistance to Reproductive and Genetic Engineering, will discuss these technologies, the increasing social control of women which they indicate, and identify the threats they pose.

**Kicking the Nuclear Habit: Where has the Arms Race Led Us?** — A paper will examine SDI and ASAT technologies and proposals for verifying military space activities. Scientists drawn to the research funds and glamour are faced with a moral dilemma as even non-nuclear weapons are capable of mass destruction, including chemical, biological and the fuel-air explosives.

There will also be sessions on Common Cancers in Australia, Inequalities in Health, Mathematics and Money, Australia 1995, Education for the Future, Industrial Conflict, Criminology and more.

The official opening of the Congress will take place on the evening of May 16 in the University's Great Hall with the first ever joint degree conferring ceremony by the three metropolitan universities. Three honorary degrees will be presented.

The Presidential Address will be given by Professor David Penington, former Chairman of the National AIDS Task Force and Vice-Chancellor of the University of Melbourne.

The Information Office (Extension 328) holds copies of the Congress programme.
PROFESSOR Says He Has Community Role

THE UNIVERSITY'S new Professor of Environmental and Occupational Health says that a commitment to promoting occupational health in the Hunter will be prominent among his range of interests.

Professor David Christie says that in conjunction with medical staff from the Mater Misericordiae Hospital he intends to develop a community service which involves visits to the workplace and consultations with patients in his unit at the hospital.

'If the health problem is occupationally-based, I hope to be able to see the particular working conditions and get information about the management structure. Nowadays, most company managers agree that they have a lot to gain if they allow trained occupational physicians access to their premises,'

He says speaking generally he is very interested in investigating any workplace health problem that is perceived by managers or workers to be significant.

Professor Christie held the rank of Reader in Community Medicine and Head of the Unit of Epidemiology and Health Services Research at the University of Melbourne before taking up his appointment.

His Chair (Environmental and Occupational Health) has been funded through the Federal Government's grant to the University to permit the Centre for Clinical Epidemiology and Biostatistics (CCEB) to extend postgraduate courses in public health to Australian doctors. The Government has pledged $1.47 million over the next seven years.

Although he has no direct links with Newcastle, he previously visited the city as a lecturer at the CCEB and a researcher. He is Scientific Director for the Australian Petroleum Industry Health Surveillance Programme and directs a national study into the effects on non-ionising radiation on Telecom employees.

Professor Christie says he is very interested in joining the staff of the Newcastle Medical School, which has received very wide attention and has adopted a philosophy which he strongly supports.

His teaching work with undergraduates will mainly involve providing them with occupational health perspectives. In the postgraduate area, he intends to collaborate with the CCEB and participate in joint ventures with the Hunter Institute of Higher Education, such as the Associate Diploma in Occupational Health and Safety.

Professor Christie is Chairman of the Regional Committee of the Australian College of Occupational Medicine. The college consists of specialist occupational health physicians.

He is 52 years of age with degrees of MB, BS from the University of Queensland and MD from the University of London. His wife, Margaret, is a psychiatric social worker. They have three grown-up children.

Adelaide Festival

The University will be the venue for 'farewell' performances by the Footlice Comedy Theatre.

The theatre group has been selected to participate in the prestigious Fringe 88 programme which is part of the Adelaide Arts Festival.

They will put on shows in the Drama Theatre on March 2, 3, 4 and 5.

In Adelaide, Footlice will be listed with other companies selected in Fringe 88 for showings in the Union Theatre at the University of Adelaide.

The group will present Annie Get Your Chainsaw, a compilation of its sketches and songs.

The Footlice Comedy Theatre, which comprises 10 actors, is an outgrowth of the University Revue. Since last August it has been based at The Last Resort, upstairs in the Newcastle RSL Club.

The only other Newcastle group invited to the Adelaide Festival is the Castanets.

Members of Footlice Comedy Theatre, from left, Bill Keir, George Merryman, Vanessa Bates and Jan Hurt (lying down) rehearse for their Adelaide performances (by courtesy of The Newcastle Herald).
Getting to the University - on the buses

MORE THAN 60 BUSES will run to the University and the Hunter Institute of Higher Education every day from Monday to Friday this year.

According to Assoc. Professor Colin Keay, the Urban Transit Authority (UTA) has achieved marked improvements in bus services to the University in recent years. The latest timetable provides bus services on nine routes and the services are vastly better than ever before, he says.

The various bus services available are Nos. 100, 105, 220, 225, 228, 233, 236 and 238 and all, except 233, arrive at and depart from bus stops at the front of the University. (The 233 stops in Moore Street, on the west side of the University.)

The first daily buses on the University route are the 7.10 am 233 and the 7.17 am 100, departing from Parnell Place, Newcastle.

The first on the highly successful 238 service, departs from Charlestown, at 8.20 am and runs hourly throughout the day.

The last bus on the Newcastle route at night is the 100 bus, departing from the University at 10.13 pm.

The last 238 bus leaves the University at 5.21 pm.

The main bus link is the 100 service, which operates at least once an hour every day from Monday to Friday.

The 105, 220, 225, 228 and 236 services provide additional bus trips to cope with the demand during the busy times of the day.

The No. 105 runs to the University direct through Tighes Hill and Mayfield, the 220 runs through Georgetown and North Lambton, the 225 passes Broadmeadow and Waratah Stations, the 228 runs through Broadmeadow and Waratah West and the 236 runs through Bar Beach, The Junction, Adamstown and Lambton.

For those people who live in Swansea, Belmont, Redhead, Valentine, Eleebana and Warner's Bay, the 238 bus provides an interchange at Charlestown.

Professor Keay says further improvements in bus services to the University will be achieved if recommendations in the Public Transport Study are implemented. The recommendations, made by traffic consultants, include linking of the 100 and 236 routes to form a continuous service, thus increasing the number of 236 buses to at least 12 every day.

Other proposals include increasing the number of bus/rail interchanges at Broadmeadow and Waratah Stations, thus helping people who travel on trains, improving the Maryland/University service and introducing bus/bus interchange tickets.

Professor Keay says for some time he has received suggestions from students and staff about the need for a new service to the University direct from Belmont, via Valentine, Eleebana, Warner's Bay, Cardiff and Elermore Vale. He agrees the service should be a success and thinks it should connect with trains at Cardiff Station. 'Although the UTA has not turned down the idea, the availability of bus drivers at peak times of the day is a problem,' Professor Keay said.

He adds that he has recommended that the UTA change the bus system in Newcastle from a destination-oriented one to a direction-oriented one, like that operating in Toronto, Canada, which allows people to transfer between buses — normally a north/south route and an east/west route — in order to travel anywhere in the city.

Professor Keay intends to present a submission to the Transport Study urging a direction-oriented system of buses in Newcastle with provision for extension of services to the suburbs west of Glendale. Such services will make life a lot easier for students and staff living in that area.

'Better bus services mean fewer cars on campus,' said Professor Keay, 'and if you can't ride a bus, ride a bike!'

Copies of the University timetable can be obtained from the Student Administration Office in the McMullin Building.

* Professor Keay acts as an advisor on traffic and transport matters to the Buildings and Grounds Committee of Council. He is President of Newcastle Cycleways Movement and Chairman of the Newcastle Bikeplan Co-ordinating Committee.
Dr Bruce King (Physics) explains polarisation of light through refraction to Tony Inder and Mellisa Cronin, both from Merriwa High School.

Science school meets local demand

The UN was host recently to the first Rotary Summer Science School, which was attended by more than 100 Year 12 students.

Directed by Professor R.J. MacDonald, the school was organised to meet the demand from local students.

The main aim of the Newcastle school was to demonstrate to the Year 12 participants the advantages of choosing science and/or engineering as a career.

The emphasis of the school was on exposing the participants to local industrial sites and having skilled people explain to them how modern science and technology plays a part in those industries.

They heard what sorts of problems were being researched using modern developments and learnt of the contributions a graduate in science or engineering could make to industry.

Lectures were given by university staff and by others involved in science and technology, on particular themes which have an important contribution to make in modern industry.

The school highlighted the need for young people embarking on a career to be aware of the major changes occurring in Australian industry and the resultant increased demand for people with technology skills.

ENROLMENT '88

The early arrival of new students wanting to enrol (left) was the first indication that this year's enrolment exercise would again be a busy time. More than 1,100 new students enrolled on the first day, compared with 960 last year.

Tops: Gemma Robinson, Steven MacArthur and Warwick Sommer (crutches 'n all) enrol in the Great Hall.
Drama syllabus scrutinised

THE DRAMA DEPARTMENT on February 6 held an all-day programme of lectures and workshops for teachers returning to work and wishing to meet the challenges of the new drama syllabus. At present the syllabus covers junior high school, but it is intended to embrace Years 11 and 12 also by 1990.

Professor Victor Emeljanow, in his welcoming address, remarked enthusiastically on the representation of almost 20 schools from as close as Jesmond and as far away as Erina High on the Central Coast.

All systems — private, public and church — were represented, as were primary and high schools. This indicates the breadth and depth of interest in drama: teaching for the region — from Singleton to Newcastle, from Hamilton to Raymond Terrace and from Toronto to Dungog.

The keynote lecture was delivered by Professor Michael Ewans, a signatory to the new Drama Syllabus, who eloquently outlined the logic and intentions behind the document and demonstrating the ways in which it might be interpreted by teachers, on whom the responsibility for its implementation ultimately falls.

At the heart of the drama syllabus are improvisation and play-building, which involves putting dramas together from group ideas rather than scripted texts.

Mr David Berthold, newly appointed Tutor in Drama, crammed his vast experience of the subject into two hours, while Mr Gary Fry, Tutor and doctoral student in Drama, laid bare the anatomy of play-building in a lecture/demonstration after lunch.

The day ended with convenor, Mr Barry O'Connor, Lecturer in Drama, moving that a Hunter Chapter of the Educational Drama Association be formed to provide an organisation to accommodate the rapidly growing interest in drama teaching in this region and also to ensure that further such meetings will be possible.

In fact, the group resolved to have its next meeting on March 5, when the particular problems experienced by individual drama teachers in their schools can be shared and help given. The time and place — Drama Studio, 9.30 am.
LAKE MACQUARIE POLLUTION SURVEY WELL-TIMED

A cruise on the showboat Wangi Queen — organised by the Department of Community Programmes — took place only a day after the State Government granted $380,000 to help clean up some of the lake's most polluted areas.

The trip was arranged because of concern in the Lake Macquarie community about the deterioration in the quality of water in the lake because of pollution caused by sedimentation, thermal discharges, sewage treatment and the disposal of household wastes.

The Wangi Queen was full and many people were disappointed when they enrolled too late.

Passengers included residents, environmentalists, representatives of government departments, the Hunter District Water Board, the University, progress associations and the tourist industry, aldermen and members of parliament.

'We need to alert politicians and citizens to the need for much more to be done to protect the environment of the lake,' said Dr Jim Croft, Chairman of the University's Board of Environmental Studies.

Captain Graham Burgess, skipper of the Wangi Queen, directed the boat on a course which enabled those on board to see some of the most polluted parts of the northern section of Lake Macquarie.

Captain Burgess pointed out that the Wangi Queen used to take passengers into Cockle Creek, but no longer could because of serious sedimentation. Pollution from collieries, run-off from dissected quarries and urban areas and discharge of detergents from homes had helped to destroy seagrass in areas where fish previously bred. Fallout from power stations was probably causing die-back of trees, he said.

Some participants commented how sedimentation had been accelerated by the run-off from residential development. One said: 'In the northern end of the lake, which receives storm water from Cardiff, Rankin Park, Speers Point, Warner's Bay and Valentine, the effects are most apparent.'

A representative of the State Pollution Control Commission said the Commission and the Soil Conservation Service were advising local government bodies on the control of sediment from urban run-off.

'At the Sulphide Corporation's licence for the discharge of waste water into Cockle Creek has been tightened. Further, a lot of research has been done into the heavy metals in sediments at the northern end of the lake.'

He said that with the aim of reducing nutrient loads the Water Board had been ordered to remove phosphorus and turbidity from discharges at Edgeworth and Toronto sewage treatment plants.

A participant warned against dredging Swansea Channel because the disturbance would destroy mudflats and cause more fish to die.

Some speakers called for the establishment of a single lake management body to co-ordinate the work of departments, councils and residents, similar to the Lake Illawarra Authority.

University assists to clean-up the Lake

Lake Macquarie City Council has set aside $40,000 this year for research into the environmental problems confronting Lake Macquarie and its catchment. This is double the allocation made by the Council in 1987.

The Council has said that problems arising from accelerated sedimentation and increasing nutrient levels are of greatest concern and, while applications for projects related to them are especially welcome, other relevant environmental projects are also acceptable.

Researchers from the University who have been granted funding for projects are:

Professor Bill Pickering, of the Department of Chemistry, who has been given $9,300 for a project in connection with nitrogen and phosphorus distribution in shallow waters and surface sediments in Lake Macquarie.

Ms Loretta Hughes, of the Department of Geography, who has been granted $2,000 for a project on the work supervised by Dr Bob Loughran on hillslope soil erosion.

Ms Susan Curtis, of the Department of Geology, who has been granted $2,000 for work supervised by Dr John Conroy on the effects of sedimentation on seagrass.

Ms Pam Dean-Jones, who works for the Sherrington Wetlands Centre, has received a $9,000 grant for an investigation into the problems arising from nutrients entering the lake.

The priorities for funding under the terms of the Council's $40,000 allocation for environmental research are determined by a committee representing the Council, relevant public authorities, private industry and the University.
DEPARTMENT HARD AT WORK IN VACATION

THE DEPARTMENT OF MATHEMATICS was kept moving in January organising mathematics meetings.

The 12th Biennial Conference of the Australian Association of Mathematics Teachers (AAMT), the Australian Mathematical Society's (AMS's) Bicentennial Summer Research Institute and the Newcastle Mathematical Association's (NMA's) 20th Summer School occupied four weeks of the long vacation.

The AAMT's conference is the biggest meeting of mathematics teachers held in Australia. For this year's conference, there was a registration of 260 teachers from primary and secondary schools and tertiary institutions.

Newcastle Mathematical Association, whose members are teachers from regional schools and lecturers from this University and Newcastle CAE, presented the event, assisted by the New England Mathematical Association.

Mr Barry Jones, Federal Minister for Science and Small Business, opened the conference.

A number of internationally-known mathematicians presented lectures. They include Professor Claude Berge, of the Centre de Mathematique Sociale, Paris, Professor Paul Erdos, of the Hungarian Academy of Sciences, Budapest, Professor Keinosuke Fukunaga, of Purdue University, US, Dr Henry Pollak, Past President of the Mathematical Association of America, and Professor David Matthews, of the University of Waterloo, Canada.

Topics ranging from mortality analysis to spatial statistics and finite fields were discussed. Professor Timo Hakulinen, of the University of Tampere, Finland, gave an intensive one-day workshop on cancer survival analysis.

More than 70 mathematicians registered.

When he officially opened the Summer Research Institute, the Vice-Chancellor, Professor K. Morgan, acknowledged the AMS's thanks for the sponsorships provided by Qantas, IBM Australia, BHP's Central Research Laboratories, Australian Universities, Eastern Australian Airlines, Newcastle City Tourist Association, the Hunter District Water Board, Tema Aluminium Company and the Senate Research Committee.

The NMA's Mathematics Summer School was attended by 120 budding mathematicians from regional high schools. The visitors have completed Year 11 and will sit for the HSC at the end of this year. The topics dealt with by the lecturers mainly related to non-HSC mathematics.

Bicentennial Directory of the Hunter Valley

Hunter Valley Directory: 1841 is a glossary of the towns and the inhabitants two decades after the valley was opened up to free settlement.

Historian, Elizabeth Guilford (an Assistant University Librarian), has compiled and published the book to mark the Bicentenary.

The book includes a list of some 10,000 adults who lived in the Hunter Valley. Where available, occupation, whether free or convict, location and employment are recorded. If the person was a convict, the ship and date of arrival is given.

The other main part is a general directory embodying a town by town listing of population, schools, businesses, industries, societies and other things pertaining to the valley at the time.

The Directory of Inhabitants and the General Directory come to a total of 248 pages.

Ms Guilford said many kinds of sources were used in the compilation of the book. These included newspapers, census returns, parish registers, ticket of leave butts and shipping indents.

The directory had come into being to serve two main purposes: to pay tribute to the early pioneers and to provide a useful reference tool for future scholars and family historians.

'Vermy work showed how much progress the people were able to achieve within two decades of the opening up of the Hunter Valley for free settlement,' she said.

'It was such a buoyant and vigorous age with rapid changes being made to the character of the various settlements, the make-up of the population and the nature of their lifestyle.

'It was also a period of remarkable diversity and contrast — of prosperity and depression, of law and disorder, of high morals and licentiousness, of free versus non-free, and of bush versus town life,' Ms Guilford said.

Hunter Valley Directory: 1841 is available at the University Co-operative Bookshop and Angus and Robertson Bookshops. It sells for $45. Copies are also available from the author.
UNTANGLING THE GRAPEVINES

THE UNIVERSITY NEWS came into being in 1970. Although the University was small then, grapevines tended to get tangled and an organ of communication was required to serve one main purpose: to distribute factual information about ourselves to ourselves. Since then the University’s activities have been reported in a total of 375 issues distributed fortnightly throughout the academic year.

The News reaches an extensive readership not only among staff and students but also outside the campus by virtue of distribution to newspapers and radio and television stations. We are hoping to be able to enlarge the readership to have a greater impact on members of the Hunter community, whether parliamentarians, school pupils or people who use public libraries.

With this issue, the first for 1988, we welcome our readers, old and new. We welcome your contributions and your involvement so that the newspaper can be verbally stimulating and interesting, and a reflection of the free exchange of ideas and comment that is a vital element in the university system.

If you want to get a message to members of your club or society — if you know somebody who has received a prestigious award, or won a sporting contest — if you want to sell your house, car or surfboard — if you are keen to write a letter to the Editor. In all these cases you can use the News.

Campus happenings, reports of meetings and special events, news about academic visitors, diary entries (concerts, lectures, seminars and other events), advertisements and photographs are included in the News. Advertisements are accepted free of charge from members of the University.

Letters to the Editor are particularly welcome, but should be no more than 300 words (shorter letters are preferred) and must be signed, with the name and address of the writer clearly written. Telephone numbers must be provided so the letters can be verified. The topics must relate to University affairs. Were the News to publish a libellous letter, both the News and the author could be held liable. Consequently, if there is a chance of a letter being libellous, legal advice is obtained. All letters are published at the discretion of the Editor.

The publication dates for the News for First Term are: February 15, February 29, March 14, March 28, April 11 and April 26.

Stories and other items should reach John Armstrong or Linda Aurelius, C/- Rooms 171 and 172 respectively in the McMullin Building, by 5 pm on the Friday before the Friday before the publication date.

Back at University as a staff member

MRS KATE CORRIGAN has returned to the University as a Professional Officer 11 years after having graduated. She was the first woman to complete a civil engineering degree.

In between completing work with the Department of Main Roads and resuming her career with the Department of Public Works, she gave birth to her three sons, David, Sean and Nicholas.

She says Dr Sue McNeil, a civil engineering graduate and currently Assistant Professor at MIT in the United States, was a year behind her as a student. She believes that only one other woman has completed a civil engineering degree since then.

'As another indication of the small proportion of women studying engineering, I have come across just two other women professional civil engineers in Newcastle. The Public Works Department employed them and me.'

Kate Corrigan regrets that few young women wish to participate in tertiary engineering courses. She came to this University from Barraba, in the North-West, and enrolled in engineering because she loved science and mathematics at school. Her parents hadn’t said that girls were not supposed to be good at these subjects.

She says she is looking forward to the day when the number of women taking engineering at university rises, as is happening in the US, and a woman engineer is no longer news.

At Civil Engineering and Surveying, Mrs Corrigan is working in the laboratory assisting postgraduate students, directing operations in soils, fluids and concrete and designing special test equipment.

She is married to a mechanical engineer whom she met at church.

Interested? Plan for a reading group

Interested in current critical theories? If so, you might like to attend a get together, perhaps every three weeks, to discuss a chosen topic.

The topics might include Marxism, political theories, psychoanalysis, or deconstruction.

If you could tell use by Wednesday, February 17, about your particular interests and give an indication of what times might best suit you (perhaps a late afternoon, or early evening?), then we can organise an initial meeting, perhaps at the end of the first week of term.

Jane Goodall (Drama, Extension 527), Marea Mitchell (English, Extension 319) or Keryl Kavanagh (English).
AVCC TO MONITOR ACADEMIC STANDARDS

The Australian Vice-Chancellor's Committee will establish a series of academic standards panels in major university disciplines, beginning this year with physics and history.

The move follows a comprehensive three-year investigation by the AVCC of issues relating to the maintenance and monitoring of academic standards across the university system.

Establishment of the panels was recommended as a result of the review, conducted by a Sub-committee appointed in 1985 under the chairmanship of Professor Kwong Lee Dow, Dean of the Faculty of Education at the University of Melbourne.

The Acting Chairman of the AVCC, Professor Brian Wilson, said it was a prime responsibility of universities to maintain, and be seen to maintain, quality standards. This had added focus given current emphasis on public accountability and cost efficiency.

Professor Wilson said that central to the award of most postgraduate scholarships, and probably to the employment of many graduates, was the assumption that the class of an honours degree should signify something similar if awarded in the same subject field by any of the Australian universities, and if awarded across different subject fields within a university or between universities.

The Sub-committee, therefore, accorded high priority to considering the criteria and standards for the award of honours degrees, and to investigating the feasibility of a system of external examining. The Sub-committee also considered means for maintaining Australia-wide pass degree standards.

The Sub-committee recommended that instead of a system of external examining, a more cost-effective approach was the establishment of a series of subject panels of people respected in their disciplines.

The Sub-Committee found no evidence that any one university maintains inappropriate standards across the institution. Where variations in standards appeared to exist, these were principally between subject areas within institutions.

Professor Wilson said universities considered it important to maintain high academic standards and to strive for comparability and consistency between their courses. An effective mechanism by which honours candidates could be assessed against a reliable comparable standard would be of great assistance.

The new academic standards panels would carry out their task through visits to university academic departments to discuss and review matters relating to curriculum, assessment and gradings, and through review of selected samples of students' work.

Initially, universities would be invited to accept visits from the panels. In return, they would receive advice as to their own standards in relation to the appropriate national standard. While the initial priority would be with honours courses, the panels could also assist with maintenance of appropriate pass degree standards.

When fully operational, the scheme would lead to a pool of some 100 experienced people who as panel members, had developed an expert knowledge of the standards and standing of departments in their disciplines, and who could influence the academic community at large, Professor Wilson said.

The scheme would offer greater potential for effective advice to the AVCC and to departments than would the appointment of individual external examiners independently by the universities, he said.

The AVCC proposed to phase in the scheme over three to four years, beginning in 1988. The disciplines of physics and history were chosen initially because they were widely taught and were representative of the sciences and the humanities. Following experience in reviewing 1987 graduation results in these disciplines, further panels will be established to commence in 1989.

The AVCC wishes to ensure for students, for the Australian universities and for the community at large that standards are appropriate and comparable throughout the university system, and are being maintained through regular and systematic peer review, said Professor Wilson.
Anti-intellectual period challenges mathematicians

AUSTRALIA is passing through a profoundly anti-intellectual period, the Federal Minister for Science, Mr Barry Jones, says.

The number of students studying mathematics, physics and chemistry in higher education in Australia has fallen significantly, he says.

The Minister gave the opening address at the 12th biennial conference of the Australian Association of Mathematics Teachers at the University attended by about 270 mathematicians.

In his address Mr Jones recounted how some executives of the Westpac Banking Corporation had earned more than $1.5 million last year.

'Young people with a number-crunching affinity are far more likely to be attracted to the money, career prospects and high visibility in accounting, economics, management, banking and insurance than to mathematics in science, physics, chemistry, engineering or statistics,' he said.

Australia needed to see a definite shift towards a more technologically sophisticated industrial base, across all sectors of industry, including both the manufacturing and the service sectors, and a more technologically literate population able to respond positively to the opportunities presented by technology to raise their quality of life and range of skills necessary to survive in the new environment.

'In the 1950s, Australia was by far the best educated nation in the Pacific Rim,' he said. 'Japan was far behind and Korea hardly worthy of consideration in the education stakes.

'Now, however, 40 per cent of Japanese labour force entrants have tertiary qualifications — five times higher than Australia. In Japan even process workers often have degrees. Korea is investing heavily in education and expects to catch up with Japan by the 1990s.

'Needless to say, most of the educational emphasis in these countries, as in Hong Kong, Singapore, Taiwan, etc, has been on technological skills. These nations have determined that they will make maximum use of their intellectual, brain-based, resources.'

Mr Jones stressed the increasing importance of workforce education and skills to our industry development and, ultimately, to our international competitiveness.

He said it was now well recognised that it was impossible to have a high quality manufacturing sector without high quality inputs and mathematics teachers therefore had a very vital role to play.

He suggested that mathematicians evolve a strategy. 'Think carefully about your role in shaping Australia's future and how you can work with your teaching colleagues in other disciplines, especially in science, to make a maximum beneficial contribution to that future.'

The Minister said such a strategy, perhaps, could address issues such as how to make mathematics teaching more creative and relevant to more students than it has, perhaps, been in the past and how to relate mathematics more directly to the real world.

Mr Jones concluded his address by pointing out that the Federal Government was giving very close attention to what sort of Australia it would like to see in the future.

'A key component is developing a technologically literate society and industry. Two government initiatives which will help in this area are the National Science and Technology Centre and the Commission For The Future,' he said.

Tenure finishes for Simon

In his period as a Lecturer in Computer Science, Simon became a real personality around the campus. He recently left because his three-year contract had finished.

Simon says he enjoyed his association with the University (he commenced teaching in 1977 — in Mathematics) but he felt grieved because even though a member of staff could be completely satisfactory he or she could be replaced by somebody else.

'If you have a temporary position, you have to spend most of your time developing new courses,' Simon said. 'You are left with little opportunity to get involved in the research you need if you are to get permanent employment.'

He said he had several publications, including four books, and agreed that this did not really compare with the quantity being produced by some academics.

Simon said he is applying for positions in Australia and overseas.

While on the staff he was a presenter on the radio station, 2NUR-FM, and acted as an EEO Grievance Adviser appointed by Council.

Simon discarded two of society's mores — he dropped three of the four names he received from his parents and never wore long pants and shoes.
STAFF MOVES

APPOINTMENTS

- Mr Robert J. Beardwood, Teaching Assistant, Department of Physics.
- Mr Paul V. Bernhardt, Teaching Assistant, Department of Chemistry.
- Professor Michael P. Carter, Deputy Vice-Chancellor (Academic).
- Professor David G.S. Christie, Professor of Environmental & Occupational Health, Faculty of Medicine.
- Mrs Pamela J. Clark, Stenographer, Faculty of Architecture.
- Mrs Jeanie L. Curran, Tutor, Department of Classics.
- Professor Kenneth R. Dutton, Vice-Chancellor (Students).
- Miss Helen FInegan, Junior Stenographer, Department of Psychology.
- Mr Scott A. Hanna, Junior Attendant, Secretary's Division (Printery).
- Mr Frans A. Henskens, Senior Tutor, Department of Computer Science.
- Dr Robert W. Howard, Lecturer, Department of Education.
- Ms Susan M. Jones, EEO Coordinator, EEO Unit.
- Dr Anne Murcott, Visiting Lecturer, Faculty of History.
- Mrs Sheila R. Gray, Lecturer, Department of History.
- Dr Brian Smith, Director, Department of Community Programmes.

RESIGNATIONS

- Dr Rosemary E. Barnard, Senior Lecturer, Department of Geography.
- Dr Monica H. Hayes, EEO Co-ordinator.
- Mrs Judith D. Henry, Word Processor Operator, Department of Commerce.
- Ms Lynette Manwarring, Senior Technical Officer, Faculty of Medicine.
- Miss Jody E. Nowland, Apprentice Electrical Fitter/Mechanic, Faculty of Engineering.
- Mrs Margaret T. Pratt, Stenographer, Department of Physics.

RETIREEs

- Mr Neville Broadbent, Maintenance Supervisor, Property Division.
- Mr John A. Grahame, Professional Officer, Department of Chemical and Materials Engineering.
- Mrs Sheila R. Gray, Lecturer, Department of History.
- Dr Brian Smith, Director, Department of Community Programmes.

Communications officer for AVCC

A former Editor of The Australian's Higher Education Supplement has been appointed Public Relations Officer for the Australian Vice-Chancellors' Committee.

A Bachelor of Arts from the University of Western Australia, Ms Helen Trinca will increase the reportage of the AVCC's activities and university affairs in general.

She has spent the last nine years with The Australian, except for one year on the ANU Reporter, the newspaper published by the ANU.

As a journalist located in The Australian's Sydney office, she was in the team that launched The Higher Education Supplement in 1980.

Before taking up her position with the AVCC, Helen Trinca was Chief of Staff of The Australian's Canberra Bureau.

She has a wide experience in reporting university affairs and as part of lifting the AVCC's profile will target members of the Press Gallery in Canberra.
Advertisements

For Sale

Spacious cavity brick home on tree-studded four acres at Williamtown. Features include: four bedrooms, study, huge family room, lounge room, dining room, semi-detached rumpus and pool (only twenty minutes from the University). Asking price: $168,000. Please telephone 65 1595.

Home grown herb plants (some rare varieties of Basil). Please contact Warren Hirst, Attendant, University Union Building or telephone 51 2116 (evenings only).

Moving House Sale — lounge suite, $80; Simpson automatic washing machine, $150; dining table and three chairs, $75; HMV black and white television set, $25; refrigerator, $100; 1977 VW Passat automatic station wagon (registered until May 10, 1988), $2,500. Please telephone R. Sathiewdra Kumar at Extension 750 or 52 5185.

Nature magazines, 1971-1987 inclusive, $300 or near offer. Please telephone 46 8856 after 5 pm.

Seven pine open bookcases, and fibreboard, from $15 to $95 each plus linen cupboard louvre door, $50. Please telephone 51 5219 or Extension 560.

Wetsuit — men's 5mm thick 'Moray Challenger'. Features include, full long john lowers and long sleeve jacket in new condition, $250 or near offer. Two double hung timber framed windows, one aluminium screen door and one timber framed screen door, $15 each plus stainless steel single sink, $20. Please telephone 52 3724.

One 6' Mark Richards tri-fin channel surfboard, $240 and one 6' Egan single-fin surfboard, $100 (both are in very good condition), offers considered. Please telephone 52 8610 after 5 pm.

Wanted to Buy

Second-hand high chair in good condition. Please contact Bo Wahlberg at Extension 632.

Pine or cedar unrestored old furniture, plus bric-a-brac. Cash buyer will call. Please telephone 59 2319.

For Sale by Tender

One GEC Coldspace bar refrigerator. May be inspected at the University General Store. Tenders should be forwarded in a sealed envelope marked 'Tender for Refrigerator', addressed to the Purchasing Officer. Tenders close 11.30 am, February 24, 1988.

Position Vacant

English tutor for Year 9 student in the Windale area (male preferred or older woman). Please telephone Sue Crewther at Extension 523.

Accommodation Wanted

From February, 1988, occupancy of a house/townhouse or flat for one year. Emeritus Professor and wife could care for your home during your study leave. Please telephone 52 7870 (home), 67 9826/7 (work) or the University's Accommodation Officer at Extension 520.

Position Wanted

The following persons would like to type these: reports, occasional papers etc: June Bailey — telephone, 61 1923 or Anne Ford — 52 4578.

Anglican Fellowship

Thursdays 1-2 pm in the Helmore Room, University Union (mini Eucharist, discussion, prayer and friendship), everyone welcome.

Orientation Week in the Union

This year's Orientation Week entertainment programme combines rock'n'roll, jazz, welcomes, a ball, revue, films and a barbecue. The programme:

- Monday, February 22, 12.30 pm
  Rock'n'roll band, Aspect, in the Union Courtyard. Admission free.
  5 pm to 6 pm
  Split Roast and Keg in the Union Courtyard. Opportunity for new students to meet representatives of established clubs and societies and join various groups.
  8 pm to 11 pm
  Caracas Werenuts (madcap Footloose Comedy Theatre Band — in the style of The Blues Brothers), in the Bar. Admission free.
  Tuesday, February 23, 12.30 pm
  Fabulous Sydney band, Hat Trick.
  8 pm to 1 am
  Union Night featuring Big Blast and Hat Trick in the Common Room. Admission free.
  Wednesday, February 24, 1 pm
  SRC President, Glen Beatty, Introduction to New Students.
  1.10 pm
  Footloose Comedy Theatre (the University's own revue company — humour, mayhem and chainsaws), in the Union Courtyard. Admission free.
  6 pm to 10 pm
  SRC and Union combined twilight jazz and barbecue in the Union Courtyard. (Savour your steak with chilled wine and cool jazz, played by the COM Dudes). Tickets: $5 only — available at the SRC office in the Union Building.
  Thursday, February 25, Noon to 10 pm
  Movie Marathon in the Comm. Room:- The Gods Must be Crazy, Gorky Park, Stand By Me, Platoon and Ruthless People. (50cents donation)
  Friday, February 26, 8 pm to 2 am
  Orientation Ball — the biggest beach party blast featuring:-
  The Beatnix (60s), The Cadillacs (50s), A Band Named Armstrong (funk), Kookaburras (bush) and Mj Barker (jazz). Guests should have beach gear. Tickets: $9 students and $11 guests (includes supper) and are available at the Second-hand Bookshop at the back of the Stationery Shop (no door sales).

Financial Support for Study

AUSTUDY officers will be in NEWCASTLE Job Centre from 27 January to 8 April 88.

For more information contact the AUSTUDY officers at
North Sydney City Centre
by Phone: City Cat and Daily Line
Telephone: 49 24 222