



NATIONAL STADIUM, KALLANG, SINGAPORE 1439 • TEL: 3457111 CABLE: NATSTADIUM

FOR IMMEDIATE RELEASE

21 November 1984

AUSTRALIAN INSTITUTE OF SPORTS (AIS) -
REPORT BY MR TAN ENG CHAI

Mr Tan Eng Chai, a swimming coach with the Singapore Amateur Swimming Association, was awarded a scholarship from the Australian Institute of Sports for a training/coaching course in swimming. He was attached to the Institute from 5 March to 1 September 1984.

Attached herewith is a report on his course.

Attch

REPORT BY MR TAN ENG CHAI ON THE SWIMMING SCHOLARSHIP AT THE AUSTRALIAN
INSTITUTE OF SPORT IN CANBERRA, 5 MARCH 1984 TO 1 SEPTEMBER 1984

A. Brief resume of programme of the course

The general outlines are as follows:

1. To spend up to 30 hours per week involved in swimming with a high level of commitment and willingness to learn.
2. To organise own leisure time outside training times by pursuing a course of study or some other interest.
3. To design specialised programmes catering to the needs of each individual training group in a modern 8-lane 50 metre pool and an adjacent 25 metre pool - the pool is equipped with a moveable bulkhead enabling conversion of the pool into two 25 metre pools.
4. To analyse swimming strokes by biomechanical experts through the use of strategically located underwater windows and cameras providing the latest in video and high speed filming equipment.
5. To do weight training in an exceptionally large weight room featuring a computerised isokinetic circuit, designed specially for competitive swimming.
6. To provide an opportunity for exposure to high calibre international competition from an attractive travel budget.
7. To provide scientific evaluation and medical assistance by Australian Institute of Sport Science laboratory staff including at least one certified professional in the areas of physiology, psychology, biomechanics, medicine, nutrition and physiotherapy plus a number of highly qualified assistants.
8. To provide clinic and seminar instruction by visiting professionals from around the world.

9. To create an excellent coach/swimmer ratio, which permits individual attention in workouts and allows individual technique and skill sessions from a larger staff of full time professional coaches.
10. To provide an opportunity to pursue academic goals as well as swimming excellence through scholarship assistance.
11. To provide a development and talent identification programme which enables talented swimmers and coaches from each state to experience the above benefits of the swimming course programme for a limited period of time.
12. To upgrade the swimmers' and coaches' knowledge with journals, magazines, books and films on all aspects of sport in general and swimming in particular from the Sports Information Resource Centre.

B. Critical Appraisal of Course

1. Pre-Season Handbook and Team Brochure

The swimming team members are given specially prepared handbook and brochure by the Head coaches - Mr Bill Sweetenham (Women's Team) and Mr Dennis Pursley (Men's Team) covering information on AIS swimming scholarship benefits. 1983 progress review and results, 1984 calendar and outlook, 1985 proposed international meets, Team Pledge, programme commitments, and requirements, individual and team goals, competition and workout schedules, seasonal training plan and periodisation, dry land/weight programmes, training principles, psychological procedures and techniques, motivational quotations and slogans, nutritional guidelines and stroke drills.

2. Scholarships

Scholarship holders enjoy the following benefits - return economy airfares, board and lodging, incidental allowance, clothing allowance, medical care, all sports training and competition clothing, training and competition gear, education allowance, bus pass to travel around Canberra and overseas international competitions.

3. Accommodation

Presently three locations viz Australian National University's John XXIII and Burgman Colleges, Canberra College for Advanced Education's Anscott House. Scholarship holders under 16 years are placed with Canberra families and married athletes are given a rent subsidy. In mid-1985 initial accommodation units for AIS 250 students, 50 athletes under the National Training Scheme and 19 units for VIPs and married students are to be completed.

4. AIS Sports Information Resource Centre

This centre has in excess of 1000 monographs and audio visual items and about 250 periodical subscriptions to meet the increasing demand for information from coaches, sports medicine/science staff and athletes. There are four colour TV sets equipped with cassette tape recorders in the information centre for general and specific viewing.

5. Sports Science, Sports Medicine Building

This facility provides medical, scientific and technical services to coaches and athletes catering for sports medicine, physiotherapy, sports psychology, biomechanics, physiology/biochemistry, computing, electrical, mechanical and technical services.

6. Seasonal Programme Structure

6.1 Preparation Phase: 3-6 weeks

Early emphasis on technique gradually changing to a conditioning build up in preparation for the upcoming heavy workload. All types of conditioning work are implemented during this period.

6.2 Endurance Phase: 3-4 weeks

In terms of quantity, this is the most demanding training phase of the season emphasizing short rest drills (anaerobic threshold training) and overdistance swims so as to develop an endurance base essentially for every competitive swimming event.

6.3 Specialty Phase: 6-10 weeks

Different training programmes are designed for 1500, 800, 400, 200 and 100 specialists each group is proportional to the type of conditioning needed most for that particular event, emphasizing more quality (long rest, fast swimming) and less quantity than the previous phase.

6.4 Taper Phase: 3-6 weeks

Generally, the shorter the event, the longer the taper. During this phase all stresses are gradually decreased to a point of complete rest the last few days prior to peak performance.

7. Types of Conditioning Work

7.1 Sprinting (Anaerobic Work)

Long rest, short distance repeats (50-100 metres). Generally, a 3/1 to 6/1 rest/work ratio to be swum at maximum effort. Drill length about 3 or 400 metres (not including active rest).

7.2 Race Pace (Anaerobic Conditioning)

Moderate to long rest repeats or 'broken swims'.

7.3 Lactate Tolerance (Anaerobic Conditioning)

1/1 rest/work ratio repeats of about race distance (50-400). Drill length 8-1600 metres - maintaining an average repeat time possibly to the individual's best single effort. As fatigue sets in during the course of the drill, a maximum effort should be required to sustain the pace.

7.4 Maximum Oxygen Uptake (Aerobic Conditioning)

Moderate rest (30-60 secs) overdistance repeats. Drill length of 1200 metres and up. A descending effort and/or pace is usually applied.

7.5 Anaerobic Threshold (Aerobic Conditioning)

Short rest repeats (5-30 secs rest) of varying distance (50-400 m). Total drill length 1500-4500 metres. For best results the athletes should select the fastest pace which is possible to sustain throughout the entire drill.

7.6 Explosions (Alactic ATP-CP Anaerobic)

Very long rest (about 2 min between efforts) 12½ and 25 metre repeats to develop speed. Must be swum at maximum intensity preferably faster than race pace. Maximum drill length 300 metres (not including active rest).

8 General Training Principles

- 8.1 The proportion of each training session depends on the phase of the season and the particular event being prepared for. All types of conditioning are included to one degree or another for each swimmer throughout the training session.
- 8.2 The types of conditioning work are alternated or cycled within each weekly training plan so that the swimmers can recover from one form of stress while applying themselves to another.
- 8.3 For maximum results each swimmer must train 10½ months of the year, 8-11 pool sessions each week (depends on phase of the season and specialty event) should be supplemented with three additional gym sessions for strength development. In general each pool session should range from 4000-10000 metres in length depending again on the phase of the season and the specialty event.
- 8.4 To benefit from the training session, the swimmer must maintain a life style that allows adequate rest and a proper diet. In obtaining maximum results the intensity and degree to which the athletes apply themselves are more important than the programme design.

9 Dry Land Workouts

- 9.1 Weights done prior to workouts 3 times weekly 4.15-5.15 pm.
Weights recorded in individual training log book and on wall

charts. Stretching after weights and before swimming (15 minutes).

9.2 Isokinetic Circuit and Paramount Circuit

For building basic strength. All isokinetic work should be done at one setting higher than maximum power speed and results should be recorded.

10 Swimming Workouts

10.1 The AIS swimmers train two sessions a day with rest days on Wednesday morning and Sunday - AM session from 5.15 am to 7.30 am and PM session from 5.15 pm to 7.30 pm. On Saturdays there is a weekly team meeting from 8.00 am - 8.30 am followed by AM workout from 8.30 am - 10.30 am and PM workout from 4.00 - 6.00 pm.

10.2 Warm Up and Main Set

Every warm up drill is different covering an appropriate distance of 1500-2000 metres. Once a week, the swimmers have their own warm ups to encourage leadership training and variety. The main set caters for distance, middle distance, individual medley swimmers, sprinters according to the different phases of the seasonal training plan. An observation regarding the warm up and main set is as follows:

Spring warm up	-	overdistance main set
Overdistance warm up	-	spring main set
Freestyle warm up	-	speciality main set

10.3 Description of Training Drills

i Explosions (Alactic ATP-CP)

eg 8-12 x 12½ or 25 m on 2.00 min (with active rest).

ii Sprints (Anaerobic Peak)

3-400 m per set 50s on 3.00 min, 75s on 5.15 min, 100s on 8.00 min.

iii Lactate Tolerance

8-1200 m per set about 1 x 1/work/rest.

50s in 1.20 min, 75s on 2.00, 100s on 2.30 ... 400s on 7.40

iv Anaerobic Threshold (Challenging Short Rest)

	Free	Back/Fly	Breast
Middle Distance	2400-4800	2000-4000	1800-3600 m
Sprinters	1800-3600	1600-3200	1500-3000 m

10.4 Supplemental Drills

i Aerobic threshold (including overdistance)

Middle distance: 1800-2400

Sprinters : 1200-2400

ii Moderate rest sprints and explosions at the end of the training sessions.

iii Swimming with flippers and paddles.

iv Tethered swimming

v Pulling - explosions, race distance short rest (1800-2400), overdistance 1200 and up.

vi Kicking explosions with flippers, sprints, race distance short rest with flippers (usually 1200 m), race distance short rest without flippers (usually 1200 m), explosions without flippers, sprints with flippers.

11 Sports Science and Sports Medicine Units at AIS

11.1 These units work towards assisting top athletes achieve their peak levels of performance. The units do this by treating, testing and assessing athletes who attend the units, in the laboratory and in the field.

11.2 The units also conduct research programmes, designed to assist in the pursuit of excellence in sport or in activities related

to sports. The results of these projects are used to further develop training techniques and are disseminated to coaches, athletes, sports scientists, physicians, physiotherapists and interested individuals.

- 11.3 The Sports Science Unit consists of a co-ordinator and physiologist, two psychologists, bio-mechanist, computer engineer, two technical officers, five laboratory technicians (biochemistry, biomechanics, biophysics and physiology) publicators and research officer and a receptionist.
- 11.4 The Sports Medicine Unit consists of a medical officer, three physiotherapists, a masseur and a nurse.
- 11.5 The Sports Science Unit provides the coaches with greater insight into their athletes' performances - relative strengths and weaknesses of each athlete may be identified and the resultant information is used to design individualised training programmes. A specific programme profile of each athlete is constructed and is discussed with each coach and athlete to help plan subsequent training. Reassessment helps the evaluation of this training. The physiology, biomechanics and especially psychology staff often travel with teams as part of their service.
- 11.6 The Sports Medicine Unit develops preventive programme against common sports injuries, treats injuries and modifies training programmes as an integral part of the rehabilitation process. Members of the unit travel with sporting teams to competition to provide vital medical support. The unit is also actively involved in applied clinical research for dissemination of knowledge to athletes, coaches and sports administrators of the various sports.

11.7 The sports science and sports medicine personnel have specific rules to performance. It is important for these two units staff to work as a team and co-operation between them is most important in relation to both clinical work as well as performance analysis eg the physiologist and physician co-operate to monitor the health of the athletes in relation to the intensity of their training. The biomechanist can assist in the detection of technique inadequacies that may pre-dispose the athlete to injury. Co-operation with the diagnostic physician and the treating physiotherapist can enhance the chances of early recovery. The psychologist and physician have co-operated in dealing with the occasional emotional or motivational problems and stress of young athletes.

11.8 AIS Swim Team 1984 Projects

Coaching Clinic

Workout programme manual

Satellite coaching programme (country camp)

State-wide talent identification and development camps (swimmers and coaches visiting AIS)

Apprentice coach programme

Coaching assistance programme (visits by AIS coaches to aid summer coaches)

Training camps (located outside Canberra and with prominent swim squads - state - club)

Inclusion of one summer coach on AIS annual overseas tour.

The above projects will help to consolidate the AIS main role in Australian Swimming to offer an opportunity to Australia's senior elite swimmers to combine their work or study and still be able to realise and pursue their life-time career-swim goals and ambitions.

11.9 AIS Swim Calendar 1984

The main incentive of the swimmers' training programme is the opportunity to compete in overseas international/national championships which include the following:

Australian Nationals (selection trials) Feb 23-26
 New Zealand Nationals Mar 7 - 10
 Japanese Visit (camp) May 12-30
 Queensland Meet (Brisbane) June 9
 Olympic Camp two weeks Apr 23-May 6 (two intra-squad competitions)
 Win-Killarnery Meet June 15-17 (women's team)
 AIS-Queensland Meet (Canberra) May 29
 Santa Clara Meet, USA July 6-8
 LA Olympics July 29-Aug 4
 Six-day swim training camp - Bakersfield, California, Aug 6-12
 US Nationals, Fort Lauderdale Aug 16-19
 Australian Short Course Nationals, Melbourne Aug 24-26

11.10 Swim Results

The well-planned seasonal training programme has produced good results of the AIS swimmers. Fifteen of them on the 1984 Olympic Team. Their 1984 Olympic result:

5 Commonwealth records	(women 4, men 1)
3 Silver medals	(women 2, men 1)
2 Bronze medals	(women 1, men 1)

AIS swimmers competed on all men's and women's relay teams including the silver and bronze medal winners. The AIS swimming team also performed creditably well in the US National Championships. Three swimmers made history in becoming the first Australian-trained swimmers to win US Nationals.

5 individual gold medals)
) (women 1, men 2)
1 silver medal)

1 Commonwealth record

2 Australian records

The good 1984 Olympic and US Nationals swim results have augured well to the AIS swimming programme.

11.11 Academic or Working Opportunities

All the AIS scholarship holders are required to pursue a course of study or some other interest undertaking a 15-hour per week studies or work. Besides, those studying have to attend tutorial classes twice a week, two hours per session under the AIS counsellor. Attendance is compulsory. Monthly progress is submitted to the head coach - they have to maintain excellence in swimming and study.

C. Benefits Dervied from Course

1. My privilege to work and study under top Australian swim head coach, Mr Bill Sweetenham. His innovative and motivating training workouts have produced excellent results among the AIS women swimmers as evident in the LA Olympics, US Nationals and Melbourne Winter Nationals in which every woman swimmer improved her personal best times in one/two individual events. He is very knowledgeable - an authority in swimming - always willing to impart and share his great wealth of swimming coaching experience. Furthermore, he is a competent administrator and organiser - his swimming projects are the driving forces to steer Australian swimming performance to greater heights and excellence.

2. Australian Swimming Coaches Convention/Course
The one-week swimming course, organised by the Australian Swimming Union for swim coaches - Level 2 and 3, was most beneficial and comprehensive. The key speaker was Dr Ernie MacLischo, author of Swimming Faster. The topics covered were very interesting and applicable to sound swimming coaching at State, National and International levels. There were theoretical as well as practical sessions for the participants. Those aspiring to take the level 2/3 exams have to prepare a written assignment followed by written exam and practical supervision and exam. It was a great opportunity to meet fellow swim coaches from the different Australian States, New Zealand and US.

3. Coaching Course at the Canberra College for Advanced Education
As part of the scholarship was to pursue a course of study related to swimming or personal interest I enrolled myself in the CCAE for a coaching course (Theory and Practice) designed for the first batch of Third Year students majoring in sports journalism, sports

coaching and sports teaching. It was a useful experience to attend the college lectures for one semester. Course textbook 'Towards Better Coaching' the art and science of sports coaching by Dr Frank S Pyke. This book has been written as a text for the Level 2 General Coaching Course which forms part of the National Coaching Accreditation Scheme.

4. **Overseas/State Swimming Competitions**

4.1 It was a good opportunity to observe the AIS swim team competing in the AIS v Queensland Meet (Long Course) in May (Canberra), the Australian Short Course Nationals in August (Melbourne). The pre-race warm up and training sessions provided good experience at State/National level.

4.2 The Australian Olympic Team had a two-week training camp in AIS before proceeding to Stanford University for three weeks' tapering prior to the LA Olympics. The AIS Sports Science/Sports Medicine Team of biomechanist, physiologist, psychologist were on deck to monitor their swimming progress and performance. The centralised training with two intra-squad competitions was most beneficial to the final preparation for the Olympics.

4.3 **Overseas International Swimming Trips**

Thanks to the Singapore National Olympic Council for accreditation and the Australian Institute of Sport for sponsorship, my participation in the XXIII LA Olympic was most memorable and life-time experience. It was a very useful and educational experience to witness world class elite swimmers and coaches during the Olympic Swimming Competition. I had the opportunity to meet and talk to world renowned swim coaches from US, New Zealand, West Germany and Australia on swimming workouts and latest swimming techniques and psychology. After the Olympic swimming events I accompanied the AIS team to a six-day training camp in Bakersfield in California. This was an important exercise and the swimmers' progress and training were monitored closely

in the 15-day period between the events of Olympic swimming and the USA Nationals. While in Bakersfield, I met Dr Ernie Maclischo again and had a fruitful discussion on swimming techniques and training. The experience with the AIS Team in the USA Nationals in Fort Lauderdale was most interesting. I had the opportunity to observe and work with the AIS men's Team Head Coach, Mr Dennis Pursley whose dedicated training schedule had helped the AIS swimmers to produce good results - motivating the team to better performances after a disappointing first day's preliminaries. While in Fort Lauderdale, I was privileged to meet well-known swimming coaches and sports psychologists - a few had expressed keenness to conduct swimming clinic/seminar in Singapore.

5. AIS Sports Information Resource Centre

The resource centre is equipped with 4 sets colour TV with video cassette tape recorders and a large collection of video tapes on swimming techniques, coaching clinics, World/National Championships, Asian Games, Olympics Series, instructional swimming. Swimming journals from USA, Canada, England and all over the world are subscribed to. The AIS coaches and athletes have access to books on sports coaching, psychology, physiology and biomechanics. There are video cameras for coaches to film their athletes' training performances and to analyse their stroke techniques. This resource centre is a very important and useful avenue to gather latest knowledge and every aspect of sports coaching and skills. I have obtained some latest swimming books and video cassette tapes through the AIS education fund. I spent my time in between training periods at the AIS Resource Centre - viewing swimming video tapes and reading swimming books and

journals. The resource centre staff had been most helpful and kind in helping me to purchase all my requested swimming books and video cassette tapes. I had also gathered lots of printed handouts on different aspects of swimming training and coaching compiled by the Head coach, Mr Bill Sweetenham from his long years of successful swim coaching experiences.

6. AIS Sports Science/Sports Medicine Units

- 6.1 I had the privilege of observing the AIS psychologist, physiologist, and biomechanist at work with the AIS swim teams, and even at the LA Olympics. The biomechanist had filmed all swimmers during training sessions and compiled their swimming performances in International and National level into their personal video cassette tapes. The swimmers could view their own tapes to analyse their swimming strokes and techniques with their coaches.
- 6.2 The AIS physiologist conducted lactate acid tests on the swimmers during their training sessions to enable the coaches to monitor the swimming training programmes and to analyse the swimmers' lactate tolerance. Science laboratory tests were also conducted on the swimmers to gauge their cardiac vascular capacity and strength through power test.
- 6.3 The AIS psychologist conducted tests on every swimmer to compile their characteristic profiles. The swimmers also learn to control their arousal level and to self motivate themselves during pre-competition and competition sessions. This very important aspect of swim training helps the swimmers to prepare themselves mentally and to have the correct attitudes towards training and competing.

D. Recommendations or Proposals for Improving the Efficiency of Competitive/Instructional Swimming

1. Talent Identification and Development Programme

To introduce instructional swimming programme in selected Singapore Sports Council's swimming pools in which proper swimming techniques and skills can be taught to selected boys and girls who are non-swimming club members. Qualified swimming instructors will be engaged to implement this talent identification and development programme. A graded scheme to monitor the participants' swimming abilities and progress. Sponsors and incentives for swimming instructors and students are required to implement this programme successfully.

2. Upgrading of Swimming Instructors and Coaches

To encourage swimming instructors and teachers at Elementary level to upgrade themselves, an intermediate/advanced swimming coaching course should be organised by SSC/SASA to prepare and expose the Level 1 swimming teachers or instructors to more scientific coaching and teaching of swimming where not only the hows but also the whys are given to our more intelligent students in the pool. The biomechanical explanation of a certain swimming stroke/drill is essential to more efficiency in the students' swimming performance instead of just doing a drill without any understanding.

3. Singapore Sports Council Library

The swimming teachers, instructors and coaches should be encouraged to upgrade and improve themselves by reading the latest swimming journals, magazines and books from other countries and to view

the latest video cassette tapes on world class swimming competitions and instructional swimming drills and techniques. The SSC library can act as a source of information for schools, national sports associations and SASA affiliates with the latest sports/swimming documents and information.

4. Singapore Sports Science and Sports Medicine Unit

Information on sports physiology, biomechanics and psychology should be made available to National athletes and coaches. With the present emphasis on sports psychology, it is a useful recommendation to invite world renowned sports psychologists to conduct courses for the benefit of our National athletes and coaches. The SSC Sports Medicine Unit can conduct or organise an annual get-together for National athletes and coaches so that the latest researches in the field of sports science and sports medicine can be shared and disseminated to interested sports officials and athletes.

5. Mini Gymnasium

To help swimmers from non-swimming clubs and schools to undergo strength and power training mini-gym should be built at the selected SSC swimming pools to be used for centralised instructional swimming. Swimming instructors, coaches and teachers can undergo a course on gym workouts and with this added knowledge they can help to implement the Talent Identification and Development Programme more efficiently.

6. Swim Training Camp

As an incentive for the students involved in the Talent Identification and Development Programme, an annual swim training camp

can be held to expose selected swimmers/campers to an intensive swim programme, leadership training and social activities.

Sponsors can be solicited to organise this annual swim training camp.

7. Swim Journal/Magazine

Local and foreign news on swimming can be compiled and published quarterly in conjunction with SSC/SASA/ECAC. Latest swimming techniques, sports science and sports medicine can be highlighted for circulation among National swimmers, coaches and swimming instructors and teachers. An attempt should be made to publish information suitable to meet the needs of the swimming public - not too highly technical and scientific though the language used can be easily understood.

8. Swimming Coaches Seminar

The SSC and SASA (Coaches Committee) should organise a get-together session preferably during every school term vacation in order to enable active competitive swimming coaches, swimming instructors to upgrade themselves through an exchange of swimming knowledge acquired from overseas swimming courses. A healthy exchange of swimming knowledge and experience among local coaches is a step in the right direction to eliminate club rivalry, jealousy and politics and to work towards a common cause to improve the swimming standard in Singapore. There must be a constant awareness among swimming coaches to plan and implement a more scientific approach in their training programme - the need to know the 'whys' and not just the 'hows' in order to let the swimmers have a better understanding and motivation. The urgent need to expose our local swim coaches and swimmers to swimming psychology and to practise this important aspect of successful swimming coaching is a useful recommendation to adopt.

E. Suggested Follow-up Actions I would Like to Undertake

1. To organise intermediate/advanced swimming instructors' courses for SSC's qualified swimming instructors to coach at the designated/selected swimming pools as part of the Talent Identification and Development Programme.
2. To recommend more swimming video cassette tapes, books, magazines and publications to the SSC library in order to upgrade the library resource on swimming.
3. To seek the views and recommendation of the SSC sports medicine doctors the possibility of conducting sports psychology and sports medicine for national coaches and athletes as part of the SSC calendar in the year.
4. To seek financial support from SSC to set up mini gym at designated SSC pools to be used for instructional swimming programme so that this important area of strength building can be implemented for the swimmers' benefit.
5. To ask SSC/SASA to organise an annual swim training camp as part of the Talent Identification and Development Programme for those not involved in club competitive swimming - to select trainees from SSC centralised training pools as an incentive to sustain their interest in the swimming programme.
6. To ask SSC/SASA (Coaches Committee) to organise a get-together session preferably during every school term vacation to enable local swim coaches who have attended overseas swimming courses, clinic, or seminar to share and impart their knowledge and observations to their counterparts.

7. To ask SASA to include special swim events in the SASA swim calendar to cater for the above 17-year group of swimmers to meet their competition need in the course of the year. At present, there is not much competition for these senior swimmers.
8. To involve SSC/SASA/ECAC to inaugurate a swimming quarterly for the benefit of the local swimming circle.

F. Impression of Country Visited

1. The Australian Institute of Sport is situated in Canberra. The capital city has developed in harmony with its natural setting of valleys and hills. Millions of trees have been planted in Canberra and as a result it is described as a city in a park. Key buildings of significance are situated around Lake Burley Griffin. Canberra itself is a beautiful modern city, planned and built to serve Australia as its national capital. All sittings of the Federal Parliament are held here and most government departments are located in the city. Major research, educational and National institutions have their headquarters in Canberra and there are embassies, legations and high commissions representing more than sixty countries. Air, rail and road services give ready access to the state capitals while communications facilities link the city with the rest of Australia and the world. Canberra is within easy travelling distance of coastal beaches and alpine snowfields and enjoys a pleasant climate with an average of 7.2 hours of sunshine a day.

2. My association with the staff of the Australian Institute of Sport, Canberra College for Advanced Education and John XXIII College, ANU, has been most pleasant - everyone was friendly and helpful. The AIS Head swim coach was most dedicated in planning and implementing the vigorous swim training programme to culminate success in the LA Olympics and US Swimming Nationals. He has been a great mentor and friend to me during my six-month swimming coaching attachment with him in the AIS. The AIS counsellor, Mr Peter McDonald was very caring and helpful in looking after my welfare with regard to my personal needs.

3. All in all I am fortunate to experience staying and working with the AIS swim coaches in Canberra for six months and to have the golden opportunity to participate in the LA Olympics. Indeed, my swimming experience and knowledge have greatly benefited from the prestigious AIS scholarship.

Acknowledgement:

My appreciation and gratitude to
The Australian Institute of Sport
Singapore Sports Council
The Ministry of Education
The Singapore Amateur Swimming Association
The Singapore National Olympic Council
to make my six-month stay in Canberra and United States most
memorable and educational.

Submitted by: TAN ENG CHAI

/11c