

THE
ROYAL AIR FORCE
COLLEGE



JOURNAL

CRANWELL

SPRING 1962

VOL. XXXIV No. 1

**THE
ROYAL AIR FORCE COLLEGE
JOURNAL**

SPRING 1962 VOL. XXXIV NO. 1

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Contents

	<i>Page</i>
College Notes	15
Old Cranwellian Notes	32
<i>Articles</i>	
Messerschmitt 262	36
The Changing Map of Africa	39
Check-List for Leadership	42
Beagling	44
Cranwell's Supersonic Wind Tunnel	50
The Legend of Byard's Leap	56
Design for a Hovercraft	58
<i>Short Story</i>	
Cindy	53
<i>Photographs</i>	
Moses	46
The Cloisters	47
<i>Book Reviews</i>	
The Amender's Art	48
An Introduction to Linear Network Analysis	49
<i>Activities and Societies</i>	
Ocean Sailing	62
Ski-ing	65
Film, Potholing	73
Printing, Field Shooting, Riding, Gliding	75
Karting, Jazz and Folk Music	77
Fine Arts, Chess, Music, Debating	79
Dramatic, Engineering	81
College Sport	83
<i>Miscellaneous</i>	
Commissioning List, No. 80 Entry	29
Cadet Wing Lists	30



Her Majesty the Queen—a recent portrait by Norman Hepple



College Notes

Last term the portraits of Her Majesty The Queen and His Royal Highness The Duke of Edinburgh, painted for the College by Norman Hepple, R.A., R.P., were hung in the Main Entrance Hall. Throughout the summer the portrait of Her Majesty The Queen hung in the Royal Academy Exhibition, where it aroused so much interest that the Council of the Academy published a large reproduction of it in full colour, copies of which can still be obtained on application to the Academy.



During the past term there were two significant changes in the flying syllabus. Firstly, the number of flying hours on Chipmunk aircraft has been increased, for pilots and navigators, from six hours of air experience per term to a total of 39 hours of dual instruction spread over three terms. This flying is carried out in the second, third and fourth terms, and each cadet reports to the Chipmunk Flight once per week. As far as possible each cadet has the same instructor throughout his stay in the flight, and the aim is to send as many cadets solo on the Chipmunk as possible. Of 83 Entry, out of 55 pilot and navigator cadets who flew the Chipmunk, 26 went solo.

Secondly, the first Jet Provost Mark 4 arrived at Cranwell on 2nd December. This was the first of fourteen which is the present allocation of these aircraft to Cranwell. The intention is to allocate these aircraft equally among all the squadrons. Basically, the Mark 4

is the same aircraft as the Mark 3 but has a much superior performance. The Mark 4 has a Viper Mk. 202 engine which develops 2,500 lb. static thrust at sea level compared with the Jet Provost Mk. 3 which has a Viper Mk. 102 engine developing 1,750 lb. static thrust at sea level. The Mk. 4 can climb to 30,000 feet in about twelve minutes without tip tanks and has a top speed of 400 knots, a marked improvement over the Mk. 3 which takes 26 minutes to climb to 30,000 feet and has a top speed of 350 knots.



Three officers who have served recently at Cranwell appeared in the New Year Honours list. Wing Commander J. F. J. Dewhurst, D.F.C., A.F.C., who formerly commanded Basic Flying Wing and is now at H.Q. N.E.A.F. was awarded the O.B.E. Flight Lieutenant J. V. Radice and Flight Lieutenant J. R. Whittam, former commanders of 'E' and 'H' flights, received the Queen's Commendation for Valuable Services in the Air.



Air Marshal G. A. Walker, C.B., C.B.E., D.S.O., D.F.C., A.F.C., M.A., succeeded Air Marshal Sir Hugh Constantine, K.B.E., C.B., D.S.O., as Air Officer Commanding-in-Chief, Flying Training Command in September. The new Commander-in-Chief entered the Royal Air Force with a University Commission and commanded a bomber squadron, bomber stations and a bomber base during the Second World War. His recent appointments have included Commandant of the Royal Air Force Flying College ; Air Officer Commanding, No. 1 Bomber Group ; and Chief Information Officer at the Air Ministry.

Air Marshal Walker was a noted stand-off half (he was the captain of the Royal Air Force XV), and played rugby for England in 1939.

Air Marshal G. A. Walker





Air Marshal Walker with the Commandant and Mr John Tanner

Air Marshal Walker paid his first official visit to the College as Commander-in-Chief on 16th October. Later in the term he attended the Recruitment of Aircrew Conference, and visited the Royal Air Force Selection Board. Air Marshal Walker was awarded the K.C.B. in the New Year Honours List.

Before taking up his appointment as Commandant of the Imperial Defence College, Air Marshal Sir Hugh Constantine paid an informal farewell visit to the College on 20th September.



Wing Commander E. J. Brice, O.B.E., completed his tour at Cranwell at the end of the Autumn Term. A member of the Physical Fitness Branch, and widely known throughout the Service in the fields of sport and parachute jumping, he filled with distinction the post of College Administrative Officer from September 1960. In this rôle, and in his duties as President of the College Mess, Cadets' Games and the Outdoor Activities Group, he exerted a far-reaching influence upon the extra-mural life of the College; officers and flight cadets alike benefited from his wide experience and wise counsel. He goes to No. 1 School of Royal Air Force Technical Training at Halton, with well-deserved promotion; we wish him, his wife and family all happiness and success in the future.

In his place we welcome Wing Commander W. J. Randall, M.B.E., from Headquarters Technical Training Command, and we extend our best wishes to him for a happy tour at the College.



Visits made by flight cadets during the Autumn term included :
On 1st October, the equipment cadets of No. 82 Entry to No. 27 M.U., Shawbury, for three days, to study aircraft storage methods.

On 2nd October, 13 flight cadets to Derby, to attend a Royal Aeronautical Society lecture.

On 6th October, three officers and eight equipment and secretarial cadets to Olympia to study modern office methods displayed at the Business Efficiency and Electronic Computer Exhibition.

On 16th October, three officers and 13 flight cadets of No. 80 Entry to the Aeroplane and Armament Experimental Establishment, Boscombe Down, to study developments in aircraft and air navigation equipment ; and the equipment cadets of No. 80 Entry to Stanlow Refinery.

On 17th October, thirteen flight cadets of No. 80 Entry to the Royal Air Force Flying College, Manby.

On 27th October, the navigator cadets of No. 80 Entry to Malta as part of their overseas flight.

On 13th November, equipment cadets of the Senior Entry to Royal Air Force Abingdon for five days, to gain practical experience of air movement and equipment procedures.

On 20th November, a number of senior flight cadets to English Electric Aviation Limited at Warton for two days.

On 27th November, the B stream flight cadets of No. 83 Entry to the College of Aeronautics, Cranfield.

On 1st December, 13 navigator cadets of No. 80 Entry to the Royal Aircraft Establishment, Farnborough, to study developments in navigation, bombing and instrument systems.

During the Christmas vacation groups of cadets visited Royal Air Force stations at Coltishall and St. Mawgan ; others went ski-ing in Switzerland and Norway ; five linguists studied for a week at the Joint Services Language School at Tangmere.



The Queen's Colour was paraded on 17th September, on 12th November, and on 9th December at the Commandant's Parade. On the first occasion the Colour was handed over by 'A' Squadron to 'C' Squadron which was Sovereign's Squadron last term.

In the competition for the Chimay Cup, 'B' and 'D' Squadrons tied for first place, but, by winning the Knocker Trophy and the Ferris Drill Competition, 'A' Squadron regained the title of Sovereign's Squadron for the Spring Term.

A landmark in the development of the College has been the arrival this term of the first R.A.F. Regiment cadet. He will train with the 32 pilots, two navigators, three equipment and two secretarial cadets who have joined No. 86 Entry.

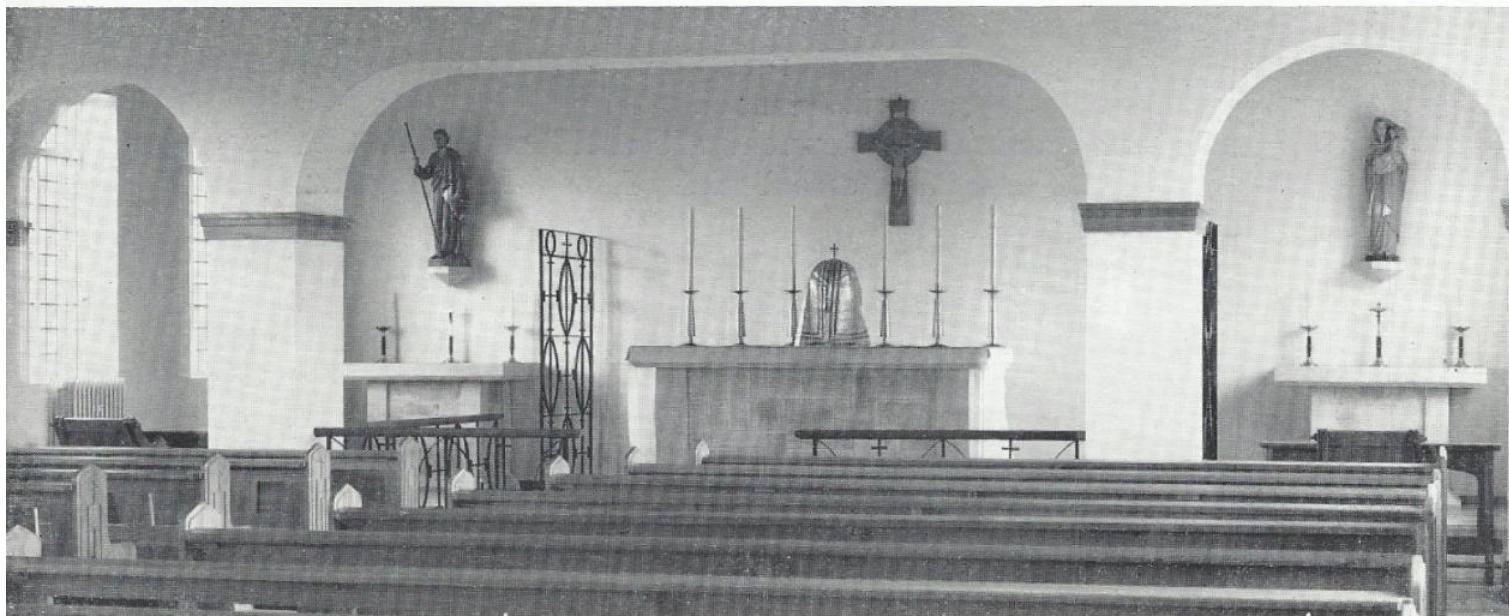
The College numbers 290 flight cadets at the beginning of the Spring Term. There are 243 pilots, 26 navigators, 20 equipment and secretarial cadets and one Regiment cadet.

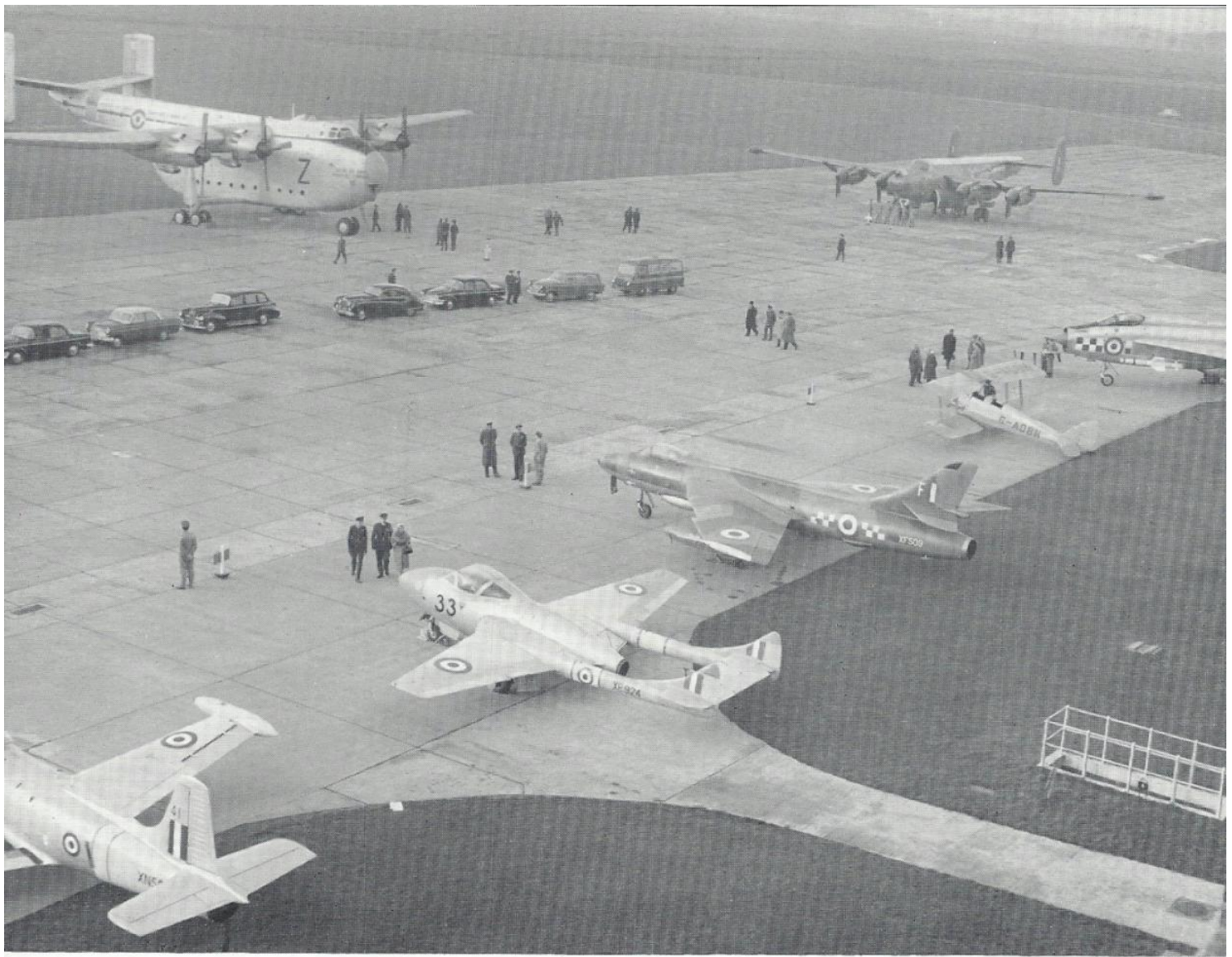


The Roman Catholic Church to the east of the College has been modernised and transformed into a new Church. His Lordship, Bishop E. Ellis of Nottingham solemnly blessed the Church at a dedication ceremony held on 7th January and attended by the Commandant and Mrs Nelson, the Assistant Commandant and Mrs Seymour, Group Captain and Mrs W. O. Davies and by many officers and men with their families.

At the opening Mass, the Bishop of Nottingham presided, and Monsignor O'Connell, C.B.E., V.G., preached; the High Mass was sung by the Reverend J. McBrearty, the Cranwell R.C. Chaplain. Music and choir was provided by the Seminarians of the College of the Holy Ghost Fathers, Upton, Newark.

Modification of the Church began in 1961. Its interior is now devotional and liturgical. The sanctuary is tiled in solstone and Italian grey marble; the altars are in Portland stone. In the body of the church are natural-oak pews. The cost so far has been £5,000. Plans are being made to improve the exterior of the church which, when complete, promises to be among the best in use in the Royal Air Force.





On 20th and 21st October, the College acted as host for an Aircrew Recruiting Study Conference organised by the Air Ministry. The members of the conference visited a static aircraft display and a short air display.



Visiting preachers last term were :

On 8th October, The Reverend C. E. Moxley, M.A., Principal, Royal Air Force Chaplains' School.

On 22nd October, The Reverend Albert Holland, D.D., Chairman, Navy, Army and Air Force Board of the Methodist Church in Ireland.

On 5th November, The Bishop of Maidstone, Bishop to the Forces, The Right Reverend Stanley Betts, M.A.

On 19th December, the Service of Dedication for No. 80 Entry was conducted by The Bishop of Lincoln.

On 5th October the Air Officer Commanding-in-Chief's Commendation was presented by the Commandant, Air Commodore E. D. McK. Nelson, C.B., to Mr Francis Henry Etty in the Main Lecture Hall of the College. Mr Etty has been Head Chef of the Senior Flight Cadets' Mess for 14 years ; apart from his war service he has been employed as a cook at Cranwell since 1928.



In the sports matches against the Britannia Royal Naval College played at Dartmouth on 11th November, the College won the Badminton, but lost the Rugby, Shooting and Cross-Country. At home a week later to the Technical Cadets, Henlow, Cranwell gained victories in the Hockey and Shooting but sustained defeat at Rugby. Playing against the Royal Military Academy, Sandhurst, on 25th November, we lost the Cross-Country, but gained a resounding success in the Soccer and narrower but notable victories in the Rugby, Badminton and Shooting.



The Air Officer Commanding-in-Chief's Commendation has been awarded to Chief Technician A. W. Whitby, and to Sergeants A. Titmarsh, C. W. Ross and D. J. Betteridge. The Air Officer Commanding's Commendation has been awarded to Flight Sergeant N. Chapman, Sergeant T. McGrath, Corporal A. W. Hobson, Senior Aircraftman N. T. Clipson and Senior Aircraftman F. J. Richardson.



Visitors to the College last term included :

On 2nd October, Mr Edward Holloway, Honorary Secretary of the Economic Research Council who lectured on "The Radcliffe Report."



Officers of the Yugoslav Air Force at Cranwell

On 5th October, Lieutenant-Colonel General V. Bujanj, Chief of Staff to the Commander-in-Chief of the Yugoslav Air Force, and five Yugoslav Air Force officers.

On 6th October, Colonel Farolan and Colonel Feraren of the Philippine Air Force, as part of their tour of British Service Establishments.

On 12th October, the Director of Education for Kesteven ; the Headmasters of Aberdeen Academy, Batley Grammar School, Charterhouse, Earls Colne Grammar School, Gosport County Grammar School, Kent College, Kirkham Grammar School, Mill Hill School, Royal Hospital School and Weymouth Grammar School ; the Careers Masters of Bedford School, Bemrose School, Derby, Calday Grange Grammar School, Dulwich College, Durham School and Harrow School ; the C.C.F. Masters of Eton College, Shrewsbury School and Winchester College.

On 16th October, Professor T. E. Jessop, O.B.E., M.C., M.A., Litt.D., who lectured on "The Moral Basis of the Nuclear Deterrent."

On 20th October, the Right Honourable Julian Amery, M.P., Secretary of State for Air.

On 21st November, Wing Commander Asghar Hussein of the Pakistan Air Force to study some aspects of the education provided at the College.



The Commandant presented wings and prizes to No. 80 Entry on the eve of their passing out. In his speech he referred to the achievements of the graduating flight cadets :

"One thing is certain ; they have produced the first Navigator to be awarded that great distinction, the Sword of Honour. They have produced, for the first and last time, two winners of the R.U.S.I. Award, which is given for a thesis written on a selected subject. On this last occasion on which cadets will be required to write a thesis, there were two of such high standard that we persuaded the R.U.S.I. to part with two Life Membership awards.

They will be the last entry to be trained on the "old" academic syllabus. The new three-stream syllabus incorporates a General or A Stream, and two smaller specialist streams, B for Science and C for Humanities. I only hope this syllabus remains "new" for a long time as I have great faith in this approach to the course.

Concurrent with the introduction of the new syllabus in academic subjects, came the abolition of advanced flying as a stage in the flying training at Cranwell, so that 80 Entry pilots will be the last to pass straight to an operational conversion unit and with them, rather sad to relate, go the Vampires.

To mark the farewell occasion we were fortunate enough to arrange a special trip to Germany for 8 pilots of 80 Entry with their

Vampires and instructors. They felt it had been even more successful than planned as they were trapped by the weather for an extra day. This was not their first visit to Germany ; I gather that before I became responsible for them, they had already left their mark at Laarbruch during a previous visit !

Those following them will have to proceed to an Advanced Flying School to be trained on the Gnat or the Varsity after completing their basic training here on Jet Provosts.

There are one or two things that 80 Entry will perform for the last time, the most significant being, I know, in the opinion of the Director of Studies, that they will be the last entry in which it has been difficult for cadets not to pass the academic exams.

However, they have achieved the standard that was set for them and this is an important attainment.

They have also set a creditable example throughout the College at Sports and between them collected no less than 23 colours, their greatest strength being at swimming and water-polo."

The Commandant went on to give " advice on what to do with criticism " :

" Criticism can come in several variations of coinage, or denomination ; it can either praise or denigrate the subject, and the human instinct is to be either encouraged by the one, or discouraged by the other.

If you believe laudatory criticism, it is right to be encouraged by it, but if you believe the adverse critic, it is wrong to be discouraged by him. When you are discouraged you become resentful of advice and unable to accept it. Not all of us have equal facility for expressing our thoughts. However, very few officers in the Service lack reasonable judgement and sincerity — so, and here comes the nub of this matter, you should, except in the unlikely event that you hold the author of criticism in great disrespect, you should esteem his advice as pure gold — some of his coins may be bright and shiny and more attractive than those of others, old and battered (like some of us) but they mostly have the same face value, and you will seldom find a spurious coin amongst them.

So capitalize on this currency of the experience of others, which is always available to you, whether you like it or not, and it will save you much expenditure on your own part, sometimes at bitter cost to yourselves."

The Passing Out Parade of No. 80 Entry took place on the morning of 19th December 1961, when the 35 cadets of the entry graduated from the College. The Reviewing Officer was Air Chief Marshal The Earl of Bandon, G.B.E., C.B., C.V.O., D.S.O., and the parade was commanded by the winner of the Sword of Honour, Senior Under Officer D. R. Conran-Smith. The four squadrons were under the command of Senior Under Officers J. A. du C. Wilkinson, A. Green and W. D. Thomson and Under Officer R. I. Morris.

A faint, and momentary, gleam of sun was seen just as the Reviewing Officer came through the main gates, but the flypast had to be cancelled, though the rest of the parade went according to plan. After the presentation of the Sword of Honour and the Queen's Medal, the Earl of Bandon gave the following address :

“ This is one of the proudest moments of my life. Little did I think all those years ago when I was standing on parade as you are today that before I left the Service I should be given this great honour.

I find it difficult to remember who took my Passing Out Parade and I understand cadets don't usually remember what is said by the Reviewing Officer. However, I am told this doesn't exonerate me from saying a few words and perhaps you may remember something that may be useful to you in the future.

The Reviewing Officer inspects the Cadet Wing



There are a few officers sitting behind me here who were with me at Cranwell, who won't believe that I remembered anything. However, they will be surprised to hear that I do remember one good bit of advice at least and it still holds good today. There was at that time an Assistant Commandant at Cranwell, a Wing Commander Rees, who had a Victoria Cross, who stuttered very badly and he said, "I hope you will learn to speak better than I can; you will find it very valuable." I have tried to take his advice and I hope I'm not letting him down today. He was a wonderful chap.

Then later in my career I was serving under Air Marshal Newall who became Chief of the Air Staff and is now Marshal of the Royal Air Force, Lord Newall. One of your ex-commandants (you can guess who it was) and I got into trouble when we were Flight Lieutenants together in Cairo. We were sent for by the A.O.C., Air Vice-Marshal Newall, who gave us a very well-deserved rocket of no ordinary thrust; it was almost a two-stage rocket. As we were leaving the office, he recalled us and we returned, our knees trembling even more furiously than before. He then said, "Having told you what I think of you, I would like you to know that I believe young officers with spirit make the best commanding officers in the end." I tell you this particularly, because there seems to be a sort of idea (but I may be wrong, I hope so), an idea that everyone should be of a pattern. We don't want that in the Royal Air Force. We want chaps with an enquiring mind, chaps with character and with initiative and spirit. We want them today as much as ever we did. This, of course, doesn't give you carte-blanche to burn the College down tonight.



The Reviewing Officer presents the Sword of Honour to Senior Under Officer D. R. Conran-Smith

Now three bits of advice of my own. A few words about luck. Of course luck plays a part. I could not possibly stand here without remembering that lovely tune out of "My Fair Lady" — "A Little Bit of Luck" — it is one of my favourite tunes, because without it I obviously wouldn't be standing here today in front of you. Just remember I was only a perfectly ordinary cadet like you, but you see where an ordinary cadet can get with a little bit of luck.

But the great thing to remember about luck is *not* to get disheartened when your luck appears to be out, because life, you will find, consists of a series of ups and downs. Anyone can do a job well which they like (the lucky posting). It is when you get a job you don't like that your worth is proved. If, when you think you are unlucky, you keep your sense of humour, if you don't get depressed and if you do a difficult job well, that is when you'll make an impression, and that is when your luck will turn. In fact, I really believe what people call luck largely depends on yourself.

Another thing to remember. The more you put into life, the more you get out of it. Often people wonder what they are going to get out of the Service. This is thinking the wrong way round. The important thing is what you give to your Service and your country. That is the thing that matters. But, funnily enough, I can assure you that the more you put into it, the more you yourself will get out of it. But if you put nothing into it, you will get nothing out of it.

One final thing. Xenophon, a famous general, said thousands of years ago, "The good carpenter knows the names of all the tools he works with. The good general should know the names of all his men ; they are the tools he works with." This is as true today as it was then, no matter how good the equipment you are given, some man has got to keep it serviceable and work it. Even if the Royal Air Force became a push-button Service, which of course it won't, some man has got to press the button — in the end it is always the man that counts. It is the men in the Royal Air Force from the most junior airman to the most senior officer that make the Service. That is why your most important job is to get to know and look after your men, for they are the Royal Air Force.

That is enough advice for this morning. I will now tell you how sensible you are to have decided to join the Royal Air Force. You have joined a wonderful Service which has made its great history and great traditions during the century in which we are at present living. An astounding achievement.

There are enormous possibilities in front of you. When I was here, aircraft had a top speed of 60 m.p.h. Look what has happened in the



Pilot Officer D. V. Zotov showing the Queen's Medal to the winner of the Sword of Honour, Pilot Officer D. R. Conran-Smith

intervening 40 years. If any cadet had predicted then what is actually happening today, we would have considered he was mad. I have no doubt that in the next 40 years more incredible things will happen and for these things you will be responsible. So besides your terrific opportunities, you also have great responsibilities.

You are going to have a fascinating, interesting and enjoyable life. But never forget because of all the fun, that you also have these grave responsibilities. Upon you will rest the safety of your country and the world. I have no doubt from what I have seen today and from what I have heard, you are fit to take these responsibilities.

The Parade today is just one example of how good you are. You are better than when I was here and we thought we were jolly good !

Old chaps like myself need never worry about the future of the Royal Air Force (a future I will always watch with interest and pride, because once in the Royal Air Force it becomes your life, as it will become yours, I'm certain) we need not worry when we see that it is left in the hands of a fine bunch of cadets like you who stand in front of me today.

Good luck to you all and God bless."

COMMISSIONING LIST

No. 80 Entry

GENERAL DUTIES BRANCH

- D. R. CONRAN-SMITH, Senior Under Officer ; The Sword of Honour ; J. A. Chance Memorial Prize ; Squash (1st V Captain, Full Colours); Cricket (3rd XI, Captain) ; Golf ; Rugby ; Fine Arts ; Choral ; Film ; Music ; Ski-ing ; Mountaineering ; Motor ; Gliding.
- J. A. du C. WILKINSON, Senior Under Officer ; Sir Philip Sassoon Memorial Trophy ; L'Ecole de l'Air Trophy for French Studies ; Cricket (3rd XI, Captain) ; Rugby ; Beagling ; Field Shooting (Captain) ; *The Journal* ; Music ; Film ; Debating.
- A. GREEN, Senior Under Officer ; Hockey (1st XI Vice-Captain, Secretary, Full Colours) ; Cricket (1st XI) ; Boxing (1st Team) ; Rugby ; Film ; Music.
- W. D. THOMSON, Senior Under Officer ; Dickson Trophy and Michael Hill Memorial Prize ; Soccer (1st XI Captain, Full Colours) ; Water Polo (Vice-Captain, Full Colours) ; Swimming ; Athletics ; Bridge ; Film ; Sub Aqua ; Dramatic.
- M. J. DUNLOP, Under Officer ; Hockey (2nd XI Captain) ; Golf ; Debating (Secretary) ; Dramatic ; Film.
- J. A. W. S. LAURENSEN, Under Officer ; Basketball (1st V, Captain, Full Colours) ; Cricket ; Athletics ; Field Shooting ; Sub Aqua ; Motor ; Bridge ; Film.
- S. A. H. MAFFETT, Under Officer ; Athletics ; Rugby ; Motor (Secretary) ; Sub Aqua ; Choral ; Dramatic ; Film.
- C. P. MANVILLE, Under Officer ; Tennis (1st VI) ; Boxing (1st Team) ; Soccer ; Squash ; Field Shooting ; Bridge ; Film ; Motor.
- R. I. MORRIS, Under Officer ; Water Polo (Captain, Full Colours) ; Swimming (Full Colours) ; Rugby (1st XV) ; Bridge ; Fine Arts ; Dramatic ; Film ; Music ; Field Shooting ; Motor.
- I. H. NELSON, Under Officer ; Swimming (Captain, Full Colours) ; Water Polo (Full Colours) ; Basketball ; Cross-Country ; Printing (Secretary) ; Dancing ; Film ; Bridge ; Mountaineering ; Motor.
- OMAR BIN SAMAN, Under Officer ; Hockey ; Shooting ; Golf ; Badminton ; Photography ; Film ; Radio.
- D. M. PAUL, Under Officer ; Royal United Services Institute Award ; Canoeing ; Chess ; Fine Arts ; Dramatic ; Debating ; Film.
- R. G. BENCKE, Senior Flight Cadet ; Swimming (Full Colours) ; Water Polo ; Rugby ; Photographic ; Music ; *The Journal* ; Motor ; Film ; Mountaineering ; Canoeing.
- H. J. CRONE, Senior Flight Cadet ; Swimming ; Water Polo ; Fencing ; Basketball ; Mountaineering ; Canoeing ; Film.
- P. V. DEAKIN, Senior Flight Cadet ; Soccer (1st XI, Full Colours) ; Cricket (1st XI, Full Colours) ; Tennis (1st VI) ; Bridge (Captain) ; Mountaineering (Captain) ; Film ; Dancing ; Potholing ; Motor.
- C. B. H. HARDIE, Senior Flight Cadet ; Cross-Country (Captain, Full Colours) ; Athletics (Full Colours) ; Squash ; Golf ; Tennis ; Ski-ing ; Printing ; Radio ; Photographic ; Engineering ; Film ; Motor.
- P. H. G. HAWKEN, Senior Flight Cadet ; Soccer ; Mountaineering ; Potholing ; Canoeing ; Gliding ; Dramatic ; Motor.
- M. G. HEAD, Senior Flight Cadet ; Soccer (1st XI) ; Cricket ; Potholing ; Mountaineering ; Film ; Music ; Motor.
- J. R. LEGH-SMITH, Senior Flight Cadet ; Rugby (1st XV) ; Dinghy Sailing (Secretary) ; Ocean Sailing ; Chess ; Debating ; Motor.
- K. F. G. E. MILES, Senior Flight Cadet ; Rowing (1st IV, Vice-Captain) ; Sub-Aqua ; Gliding ; Film ; Dramatic (Stage Manager) ; Photographic ; Go-Karting ; Engineering ; Gliding.
- M. J. O'ROURKE, Senior Flight Cadet ; Rugby ; Canoeing ; Mountaineering ; Dramatic (Secretary) ; Film.

- L. S. PENNY, Senior Flight Cadet ; Fencing (Vice-Captain) ; Swimming ; Water Polo ; Film (Secretary) ; Ski-ing ; Canoeing ; Bridge ; Dramatic.
- K. R. L. READ, Senior Flight Cadet ; Athletics ; Cross-Country ; Sub Aqua ; Choral ; Dancing ; Film ; Motor.
- K. C. H. SIMPSON, Senior Flight Cadet ; Basketball (1st V, Full Colours, Secretary) ; Cricket ; Canoeing ; Sub-Aqua ; Bridge ; Film.
- J. SWAINE, Senior Flight Cadet ; R. M. Groves Memorial Prize and Kinkead Trophy ; Athletics (Full Colours) ; Angling ; Photographic ; Printing.
- A. L. TERRETT, Senior Flight Cadet ; Soccer (1st XI, Captain, Full Colours) ; Cricket (Secretary, Full Colours) ; Athletics ; Jazz ; Bridge ; Film ; Riding ; Dramatic ; Music.
- M. A. THESEIRA, Senior Flight Cadet ; Badminton (1st Team, Captain, Full Colours) ; Fine Arts ; Film ; Photographic ; Dramatic ; Printing ; Canoeing ; Sailing.
- J. B. H. WOOD, Senior Flight Cadet ; Rugby ; Motor Club (Captain) ; Film ; Photographic ; Engineering.
- D. V. ZOTOV, Senior Flight Cadet ; Queen's Medal ; Institute of Navigation Trophy ; Air Ministry Prize for Navigators ; Abdy Gerrard Fellowes Memorial Prize ; Air

Ministry Prize for Commonwealth and War Studies ; Royal New Zealand Air Force Trophy ; Royal United Services Institute Award ; Gliding (Captain) ; Chess (Captain) ; Aeromodelling ; Radio.

EQUIPMENT BRANCH

- C. F. DIXON, Senior Flight Cadet ; Air Ministry Prize for Equipment Studies ; Rugby (3rd XV, Captain) ; Tennis (2nd VI, Secretary) ; Mountaineering ; Sub Aqua ; Film ; Aeromodelling.
- A. R. J. EIDSFORTH, Senior Flight Cadet ; Rugby ; Rowing ; Canoeing (Captain) ; Boxing ; Mountaineering ; Gliding ; Music ; Film.
- D. L. HAMPTON, Senior Flight Cadet ; Badminton (2nd VI, Captain) ; Cricket ; Beagling ; Bridge ; Film ; Canoeing ; Chess ; Photographic ; Motor.
- M. L. LEEDHAM, Senior Flight Cadet ; Tennis (Captain, Colours) ; Soccer ; Jazz (Secretary) ; Film ; Motor ; Mountaineering.
- R. T. W. MIGHALL, Senior Flight Cadet ; Badminton (1st VI, Secretary, Full Colours) ; Swimming (Colours) ; Water Polo ; Dramatic ; *The Journal* ; Mountaineering ; Film ; Radio ; Fine Arts ; Bridge.
- S. REED, Senior Flight Cadet ; Shooting (Captain) ; Printing ; Photographic ; Riding ; Film.

CADET WING LISTS PROMOTIONS

No. 81 ENTRY

'A' Squadron : Flight Cadet Senior Under Officer C. J. Thomson. Flight Cadet Under Officers N. B. Baldwin, J. Nottingham.

'B' Squadron : Flight Cadet Senior Under Officer G. H. Rolfe. Flight Cadet Under Officers J. R. Hambleton, J. V. Harding.

'C' Squadron : Flight Cadet Senior Under Officer R. B. Thomson. Flight Cadet Under Officers C. B. Adcock, R. P. O'Brien.

'D' Squadron : Flight Cadet Senior Under Officer J. V. McCarthy. Flight Cadet Under Officers A. B. Stephens, R. A. F. Wilson.

No. 86 ENTRY

'A' Squadron : R. B. Blagbrough, Woodhouse Grove School, Bradford. J. R. Caborn, King Edward VI Grammar School, Louth. D. A. Z. James, St. Nicholas Grammar School, Northwood. M. P. Kaye, Reading School. P. D. Markey (E), Ranelagh School, Bracknell. R. J. Milsom, King Edward VII School, King's Lynn. C. F. Redmond, St. Bede's College,

Manchester. B. E. Tolladay, Archbishop Tenison's School, Kennington. C. S. Wilkinson, Ryde School, Isle of Wight.

'B' Squadron : R. W. I. Allison, Beaumont College, Old Windsor. I. J. Childs, Wilson's Grammar School, Camberwell. I. Clarke, Chipping Sodbury

Grammar School. S. P. B. Durnford, King's School, Canterbury. J. C. Featherstone (S), Wisbech Grammar School and Royal Air Force Bircham Newton. M. G. Jeffries, Waverley Grammar School. M. B. Langham, Worthing Technical High School. J. W. Lanham, Christian Brothers' High School, Dunedin, New Zealand. C. T. Moore (N), Hendon County School. C. H. Pocock, Ranelagh School, Brighton. R. H. W. Wakelin, Steyning Grammar School.

'C' Squadron : D. B. Ainge, King Edward VI Grammar School, Louth. M. A. Clegg, Manchester Grammar School. E. A. Doyle (R), Woodhouse Grove School, Bradford. D. J. Hargreaves, King's School, Pontefract. J. E. Jeffrey, Kimbolton School. J. Mawhinney, Rainey Endowed School. T. R.

Perkins (N), Foster's School, Sherborne, and Royal Air Force Halton. C. M. Rice (E), Eastbourne College. P. J. Seymour, Bedford School. B. T. Stableford, Churchill School, Rhodesia. E. W. Tyack, Methodist College, Belfast.

'D' Squadron : E. C. R. Dicks, Berkhamsted School. B. J. Doyle, St. Fintan's High School, Sutton, County Dublin, Eire. N. I. Hamilton (S), Doctor Morgan's Grammar School, Bridgwater. A. B. Hughes-Lewis, Wellington College. L. F. Marriott, St. Boniface College, Plymouth. J. R. Mugridge (E), Whitchurch Grammar School. T. Pearson, Worksop College. D. J. Rump, City of Norwich School. N. G. Warner, Colchester Royal Grammar School.



Photo by B. J. S. Studios

THE SENIOR ENTRY, AUTUMN TERM, 1961

Back row (left to right) : S.F.C. M. L. Leedham, S.F.C. R. T. W. Mighall, S.F.C. J. R. Legh-Smith, S.F.C. J. Swaine, S.F.C. M. G. Head, S.F.C. C. L. S. Penny, S.F.C. R. G. Bencke, S.F.C. A. L. Terrett, S.F.C. M. O'Rourke, S.F.C. K. C. H. Simpson, S.F.C. K. F. G. E. Miles, S.F.C. D. L. Hampton.

Centre row (left to right) : S.F.C. S. Reed, S.F.C. C. F. Dixon, S.F.C. A. R. J. Eidsforth, S.F.C. P. H. G. Hawken, S.F.C. P. V. Deakin, S.F.C. K. R. L. Read, S.F.C. C. B. H. Hardie, S.F.C. D. V. Zotov, S.F.C. M. A. Theseira, S.F.C. H. J. Crone, S.F.C. J. B. H. Wood.

Front row (left to right) : U.O. Omar Bin Saman, U.O. M. J. Dunlop, U.O. J. A. W. S. Laurenson, U.O. R. I. Morris, S.U.O. W. D. Thomson, S.U.O. J. A. du C. Wilkinson, S.U.O. D. R. Conran-Smith, S.U.O. A. Green, U.O. S. A. H. Maffett, U.O. I. H. Nelson, U.O. C. P. Manville, U.O. D. M. Paul.

OLD CRANWELLIAN NOTES

HONOURS AND AWARDS

Our congratulations go to the following Old Cranwellians who appeared in the New Year Honours List :

C.B.—Air Vice-Marshal T. A. B. Parselle, C.B.E. ; Air Vice-Marshal H. B. Wrigley, C.B.E. ; Air Vice-Marshal C. S. Moore, C.B.E. ; Air Vice-Marshal W. I. C. Innes, O.B.E.

K.B.E.—Air Vice-Marshal W. P. G. Pretty, C.B.

M.B.E.—Squadron Leader R. L. Lees.

A.F.C.—Squadron Leader J. L. Price.

PROMOTIONS

Our congratulations go to the following Old Cranwellians on their recent promotion :

Air Vice-Marshal T. N. Coslett, C.B.E., O.B.E. ; Air Commodore L. D. Mavor, A.F.C. ; Wing Commander G. M. Hermitage ; Squadron Leaders J. C. Newby, G. W. Payne, B. A. Phillips, N. Chamberlain, A.F.C., J. D. B. Christey, B. H. Newton, E. A. Peters, R. D. Brittain, P. H. Champriss, A. I. Alder, D. Allison, P. J. Armstrong, J. H. Bishop, J. G. Bourn, D. J. House, R. A. Lees, R. J. Littlejohn, J. McLeod, A. R. Martin, J. A. Fryer, R. V. Stephenson, D. F. Smith, J. D. B. Christey, E. F. Banks, J. E. Bastin, R. S. Blockey, R. G. Boyer, P. A. Law, R. L. Lees, A. B. McGuire, M.B.E., J. E. Maitland, L. R. Francis, J. F. H. Tetley, H. T. Price, J. Wilkinson ; Flight Lieutenants M. J. H. Walker, A. L. Watson ; Flying Officers P. J. Symes, D. J. W. Taylor, K. C. Quin, A. R. Read, A. J. Ross, W. G. Chapman, E. R. Cox, R. A. K. Crabtree, G. C. Crumbie, J. H. Laming, D. E. Leppard, A. A. MacKay, V. B. Howells, D. Packman, M. J. Porter, M. H. Wilson, R. W. A. Woodhead, W. J. Wratten, M. C. Wright, I. E. D. Montgomerie, P. A. Nelson, A. R. Oliver, J. R. Oliver, P. G. Pinney, D. Lawrence, R. H. Lloyd, N. C. V. Ireland, D. M. O'Herlihy, C. S. Parkin.

ANNUAL RE-UNION

Will all members of the Old Cranwellian Association please note that the next Annual Re-union will be on Saturday, 16th June. Full particulars will be circulated in the Annual Report. The Venerable F. W. Cocks, C.B., Chaplain-in-Chief to the Royal Air Force will be the Guest of Honour at the dinner.

BIRTH

We congratulate Flight Lieutenant I. D. Wilkinson (62 Entry) on the birth of a son, David Bruce.

DEATHS

We regret to record the death in a motoring accident on 20th December, 1961 of Pilot Officer Malcombe John Greenwood. Plt. Off. Greenwood came to the College from Bishop Gore's School, Swansea. He joined No. 79 entry in September, 1958 was posted to 'B' Squadron and was promoted to Under Officer in his final term. A good all-round sportsman, he was elected Captain of Badminton and vice-captain of tennis. In both sports he was awarded colours. He was in the jazz band, with whom he played the drums, and regularly joined in the Motor club rallies and activities. He was quiet yet cheerful, a reliable and sincere young man. His death is a great loss to the Royal Air Force, to his family and to the many friends he made during his short life.

We have learned with regret of the death of four other Cranwell graduates :

On 12th September, Flying Officer D. M. Nicholls of No. 74 Entry, 'A' Squadron.

On 17th October, Flight Lieutenant J. W. Burgess of No. 7 (Secretarial) Entry.

On 26th October, Flight Lieutenant N. B. Youd of No. 71 Entry, 'A' Squadron.

On 26th October, Flying Officer J. Geldart of No. 75 Entry, 'C' Squadron.

NEWS OF OLD CRANWELLIANS

Two old Cranwellians who are now Air Commodores have recently taken up new appointments. Air Commodore H. N. G. Wheeler, C.B.E., D.S.O., D.F.C., A.F.C., formerly Assistant Commandant of the College, was appointed Air Member of the Defence Research Policy Staff in January. Air Commodore W. Pitt-Brown, C.B.E., D.F.C., A.F.C., became Senior Air Staff Officer and Principal Assistant Air Attaché on the British Defence Staff in Washington last summer.

Flying Officer N. Bonnor, formerly of No. 77 Entry and S.U.O. of 'B' Squadron was presented in September with the sword awarded annually by the Argentine Air Force to the top cadet graduating from the College. The presentation was made at Royal Air Force, Cottesmore, by Dr. J. Pena Gaona, Counsellor at the Argentine Embassy in London. Flying Officer Bonnor is now a navigator in No. 10 Squadron flying Victors.

Last year Flying Officer I. W. Strachan, formerly of No. 75 Entry, became the youngest British glider pilot to gain the F.A.I. Gold Certificate with two Diamonds. The awards were for a gain in height of 24,000 feet in a thundercloud in 1960, and for a flight of 300 kilometres along a previously declared route in June, 1961. Flight Lieutenant J. Delafield (of No. 74 Entry) obtained a Gold Certificate with one Diamond for a similar distance goal flight in August.

Flight Lieutenant Delafield is at present Chief Flying Instructor of the East Anglian Club of the Royal Air Force Gliding and Soaring Association. Flying Officer Strachan is a member of the Fenland Club of the R.A.F.G.S.A. and operates from R.A.F. Swanton Morley. Both officers were College Captains of Gliding and serviced their own sailplane when they were at Cranwell.

SOME OLD CRANWELLIANS AT CRANWELL

With the arrival in February of Squadron Leader M. Foster, who has been posted to Flying Wing, there are now five Old Cranwellians of No. 52 Entry serving at the College. The other four are Squadron Leader T. Devey-Smith, Officer Commanding 'B' Squadron, Squadron Leader M. Hughes, Officer Commanding No. 3 Squadron, Squadron Leader J. A. McArthur, A.F.C., P.S.O. to the A.O.C., and Squadron Leader B. M. Burley, who is with the Selection Board.

Squadron Leaders Foster and McArthur came to Cranwell from the Royal Air Force Staff College, Bracknell.

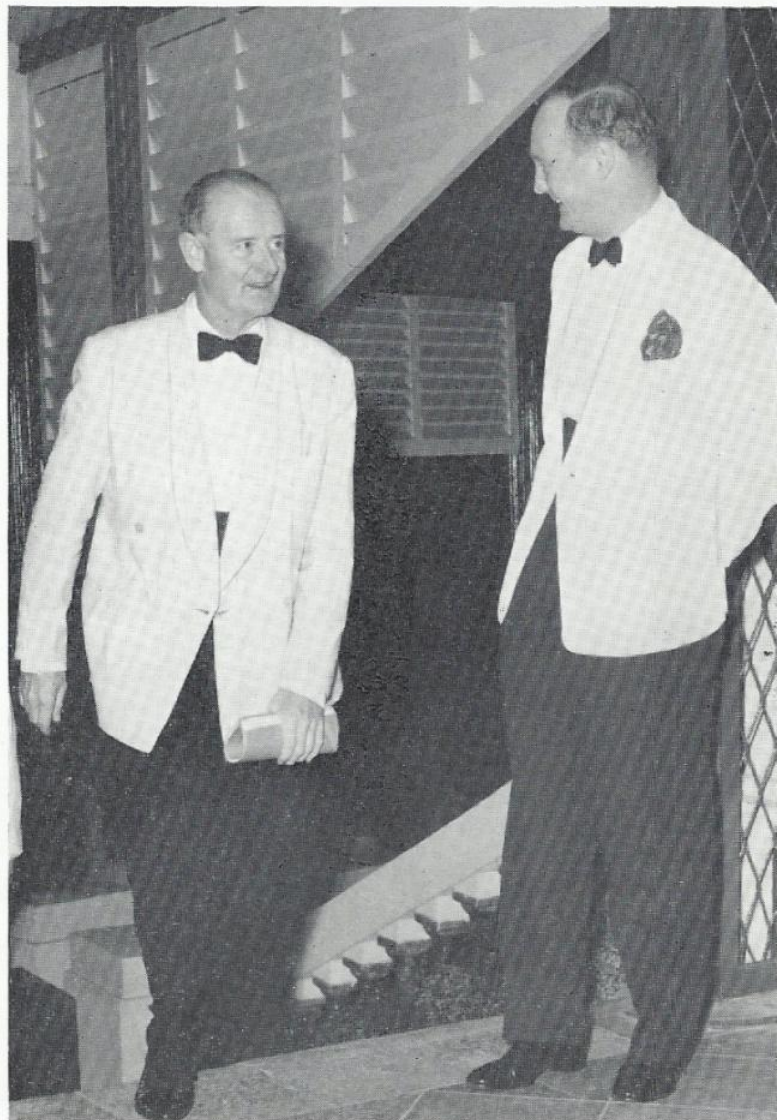
REPORT OF 13th ANNUAL RE-UNION IN THE FAR EAST

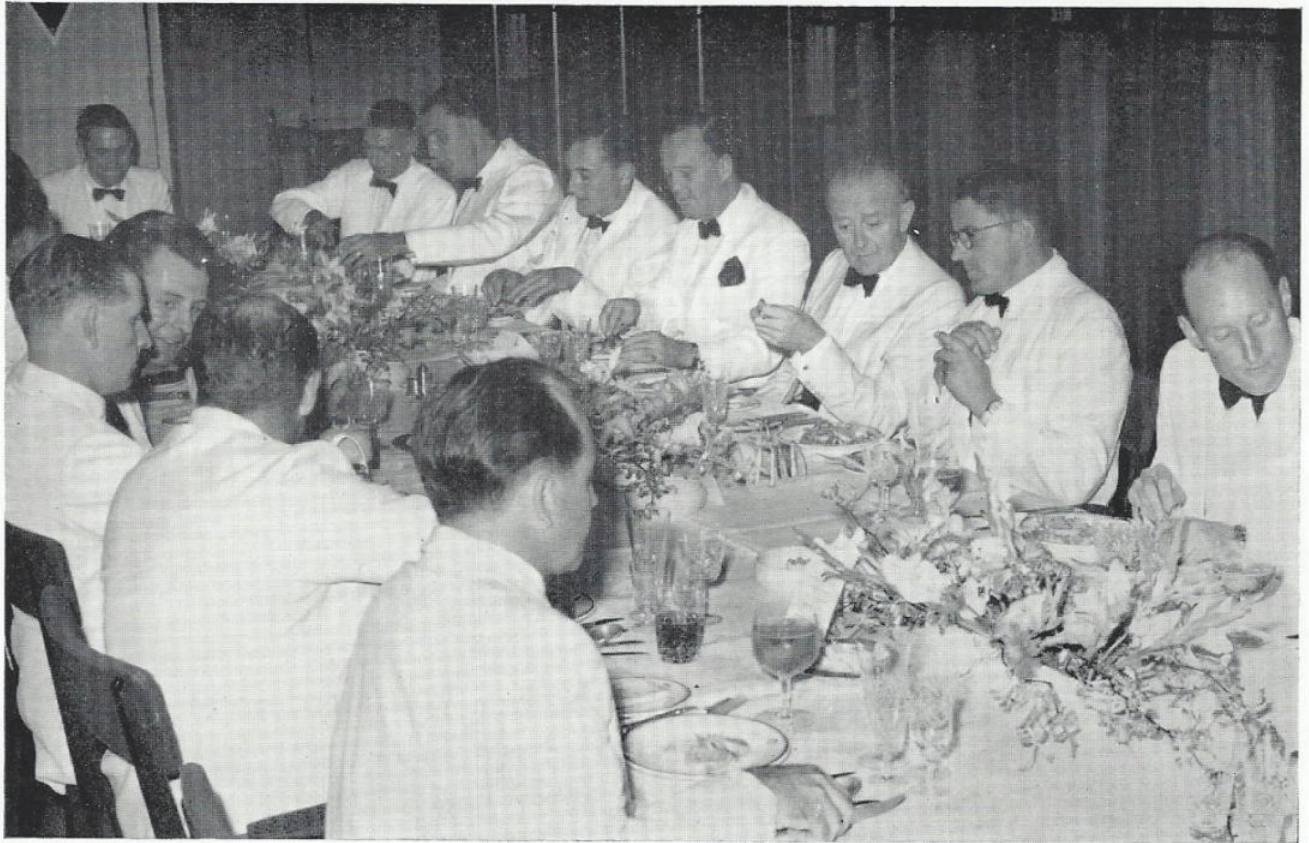
The 13th Annual Re-union of Old Cranwellians in the Far East was held on 15th December, 1961 in the Tanglin Club in Singapore.

25 Old Cranwellians, including Air Marshal Sir Anthony Selway, K.C.B., D.F.C., met at 8 p.m. for drinks before dinner. Unfortunately, very few Old Cranwellians from outside Singapore Island were able to attend, and we greatly missed those of the Royal Ceylon Air Force who were with us last time. It was good to see once again Wing Commander J. F. Powell, O.B.E., an Honorary O.C.A. Member, who is well-known to most generations of post-war cadets.

We sat down to an excellent dinner at 9 p.m., after which the Commander-in-Chief proposed the loyal toast. The Commander-in-Chief then delighted everyone with an informal chat which was entirely in accord with the mood of the evening. He talked at length about the Royal Air Force from the time when Lord Trenchard was Chief of the Air Staff down through the years to the present day. It was a most entertaining and enlightening talk which was greatly appreciated by all of us. After dinner we returned

Air Marshal Selway and Group Captain Maynard





Some Old Cranwellians at the 13th Annual Re-Union in the Far East

From top Left, round the table : *Flt Lt Taylor, Fg Off Webb, Flt Lt Clark, Sqn Ldr Culvert, Gp Capt Maynard, Air Marshal Sir Anthony Selway, Wg Cdr Powell, Flt Lt White, Flt Lt Davis, Flt Lt Coleman, Sqn Ldr Williams, Sqn Ldr Wood*

to the bar, and the Tanglin Club did not close its doors until the early hours of 16th December. It was quite clear that everybody had thoroughly enjoyed the evening.

CRANWELL'S NEW CHURCHES

Cranwell's new Station Church is now almost completed, and it is expected that the opening ceremony will take place at the beginning of June. Every item of furniture and embellishment thought desirable by the Committee has been ordered, so that the Church will be seen in its final and complete form from the day of its dedication.

The new Roman Catholic Church is already complete, and was dedicated by the Right Reverend The Lord Bishop of Nottingham at the beginning of the Spring term.

Work is now well-advanced on the improvements to the P.M.U.B. Church, for which a very fine decorative scheme has been drawn up by a leading firm of specialists in this field.

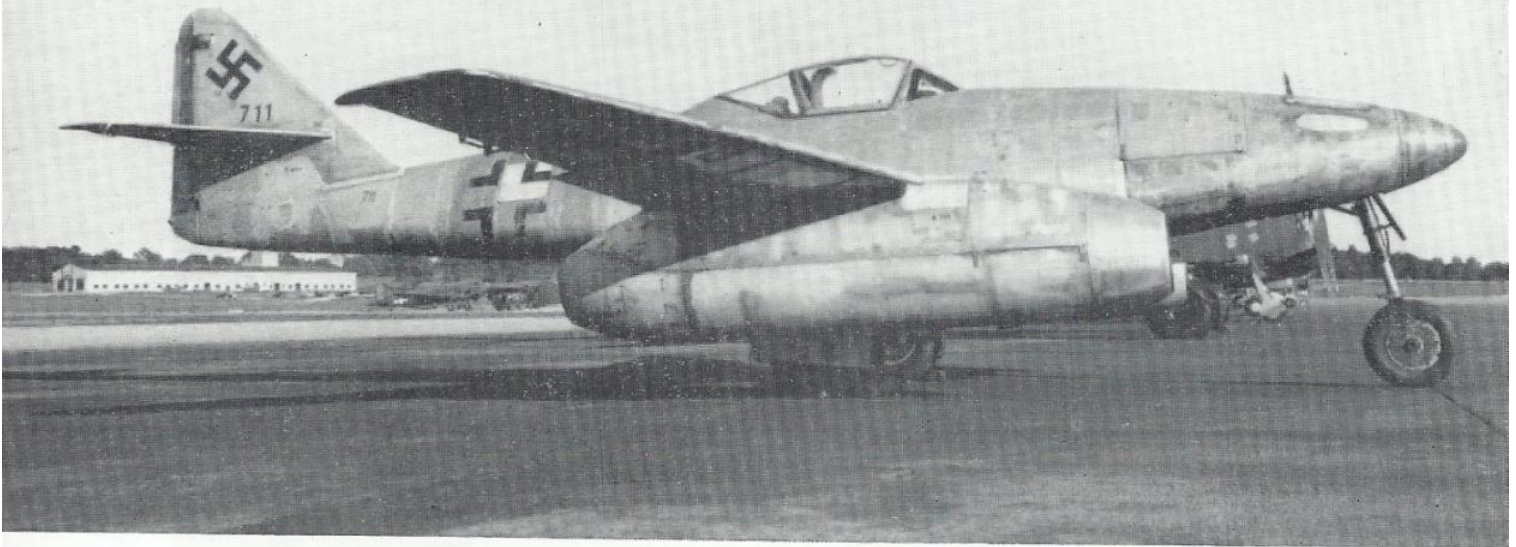
All three Churches, however, are still very short of the money needed for these great projects, and all who read *The Journal* are asked to subscribe if they possibly can, to the official appeal. Donations, with a note of the Church which is to benefit, should be sent to :

Mr John Tanner, M.A.,
Hon. Treasurer, Church Embellishment
Fund,
Royal Air Force College,
Cranwell,
Sleaford,
Lincolnshire.

The new Roman Catholic Church was dedicated by the Lord Bishop of Nottingham



MESSERSCHMITT 262



On March 18th, 1945, a group of sixteen U.S. Army Air Force Marauders flew steadily into the German hinterland, escorted by Mustang long-range fighters flying high above them, watchful and ready.

Suddenly, a group of four enemy fighters was seen approaching. The two formations closed at terrific speed, and at a range of six hundred yards, the Germans fired salvos of rockets and cannon shells into the American bombers. Three bombers exploded immediately, and five others were crippled and subsequently crashed.

The defensive fighter screen hurled itself down upon the attackers, but the four Germans calmly re-formed and disappeared so quickly that the Mustangs had hardly a chance to fire a shot.

Once again the Messerschmitt 262 Schwalbe, or Swallow, had proved itself in the defence of "das Vaterland." The phenomenal successes which this little-known fighter achieved were, however, too late to have much effect on the war in the air, and the history of the 262 is short, but fascinating.

The Me 262 airframe was first designed early in 1938, and was flown using a Jumo 211 piston engine in 1940. When the aerodynamic qualities had proved satisfactory, two airframes were fitted with early mark Jumo 009A gas turbine units. These two prototypes, the Me 262 V-1 and V-2 flew early in 1942 and fulfilled all expectations.

The great delay between the time of the first propellor-driven flight and the first turbine-powered flight in 1942 was not merely because there were no jet engines available, but simply because of a lack of foresight by the German political leaders.

Four days before the start of World War II, on August 27th, 1939, the first jet aircraft in the world, the Heinkel He. 178 flew in Germany. The first British jet, the Gloster Whittle E.28/39, flew on May 15th, 1941, showing that at this time the Germans were about eighteen months ahead on the British in this branch of research.

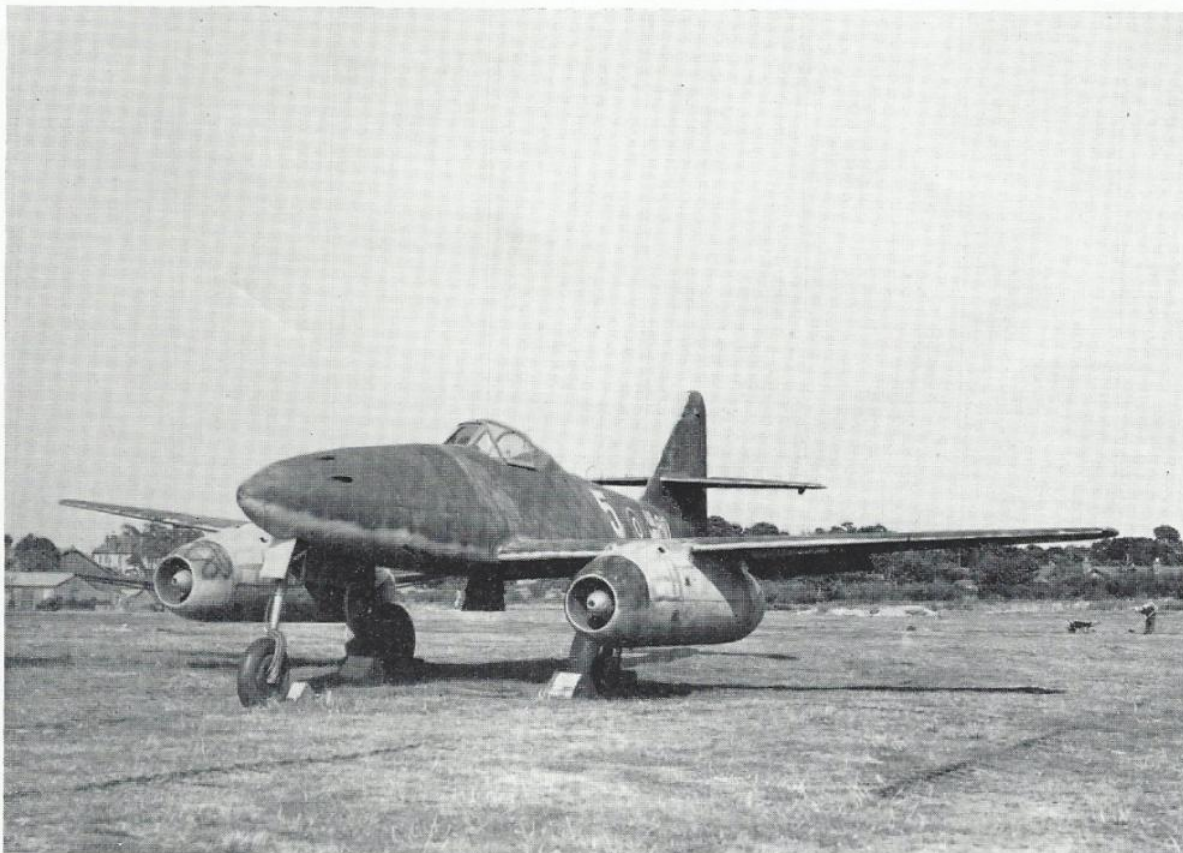
In early 1943, General Galland, General of Fighters, flew one of the prototype Me 262s and was immediately convinced that the fullest priority should be given to the production of this fighter, which he himself considered sensational. However, the enthusiasm of the German High Command was only lukewarm, and Hitler himself ordered that there should be no rash development programme, because he was already distrustful of Goering's unfulfilled promises. Besides, even in 1943, Hitler was thinking in terms of a new 'Blitz Bomber' to drive off the forthcoming Allied invasion of Europe, and certainly not of a new fighter. In December, 1943, the Me 262 was demonstrated to Hitler at Insterburg. Hitler asked Goering, "Can this aircraft carry bombs?" The answer was, "Theoretically, yes, my

Führer." Hitler thereupon acclaimed the aircraft as his new 'Blitz Bomber.'

Naturally no one took him seriously, and development of the Me 262 continued as a fighter. American bombing slowed the rate of development, and in 1944, when mass production was just starting, Hitler discovered that his 'Blitz Bomber' was being produced solely as a fighter, and flew into an uncontrollable fury. He forbade all reference to the aircraft as a fighter and ordered all Me 262s to be converted to bombers. The Me 262, however, was completely unsuitable for bombing. With two 1100 lb. bombs, its speed was cut down by 120 m.p.h.

from his post as General of Fighters because of his continued agitation for the Me 262s as fighters. Eventually, when the air situation over Germany became intolerable, Me 262s were changed back to fighters again and production was placed in the hands of the S.S. By now it was too late, and the factories were completely incapable of providing enough aircraft to stem the flood of Allied bombers and fighters.

Only about a hundred Me 262s found their way into service, but they wrought havoc wherever they met the Allies. They were superior in every way, and the only jet fighter unit, J.V.44. reaped a large number



Messerschmitt 262 A. captured aircraft with allied markings.

to within the range of Allied fighters, and its manoeuvrability was greatly restricted. Increased fuel consumption led to inadequate range and there was no provision for bomb sighting at all.

This change from fighter to bomber led to violent repercussions and furious arguments in the Luftwaffe High Command. The training of bomber crews for the Me 262 failed lamentably and Galland was dismissed

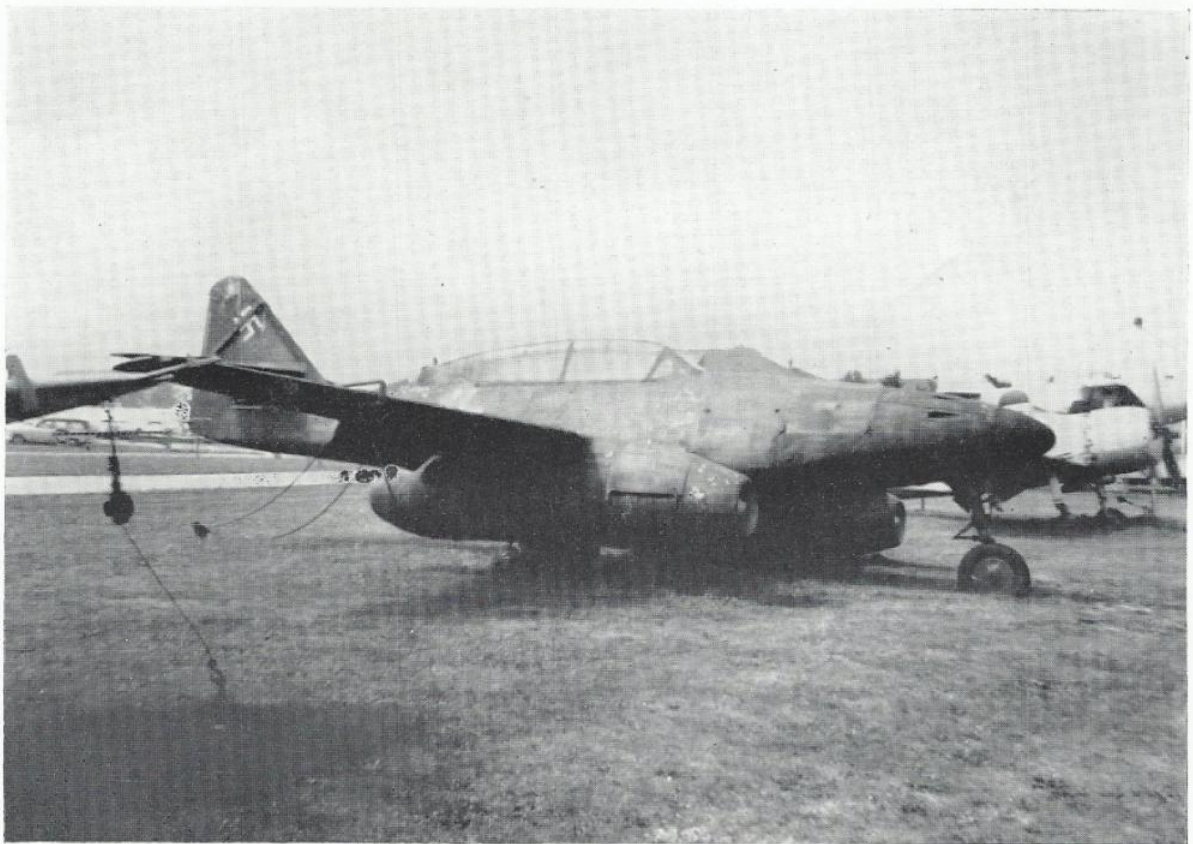
of successes. The technical superiority of the aircraft was amply demonstrated when Wing Commander J. E. Johnson's squadron of Spitfire XIVs met a lone Me 262, which, after shooting down one Spitfire, climbed away unscathed from the formation, rolling contemptuously. The Me 262, although possessing excellent handling characteristics, was no novice's aircraft. The throttles had to be coaxed with the utmost caution to

prevent flame-outs, compressor stalling, and turbine fires, and the landing speed was very high.

As well as the standard single seater, numerous versions were projected, and built. A two-seat radar equipped night fighter was tested and flown, and rocket-boosted models were experimented with. The basic design was years ahead of contemporary fighters ; the nose-wheel undercarriage, 30 mm. cannon, rocket armament, and of course the axial flow turbo jets were all innovations which staggered the Allies. The rocket armament especially had devastating results. On 7th April, 1945, a squadron of Me

in the war had a maximum speed of 413 m.p.h. and a climb rate of 3,000 ft/min. The rocket boosted version, the Me 262C, flew only in prototype form, could obtain " 38,400 ft. in 4.5 minutes from a standing start." In the last few months of 1945, the Me 262 had priority over every other production in the German war machine, but it was to no avail.

The significance of the Me 262 can be seen in the fact that in 1944 when the effects of this new fighter were first felt, General Doolittle, i/c. American Army Air Forces in Britain considered that unless Me 262 production could be paralysed immediately,



Messerschmitt 262 B-1, bomber version

262s launched their missiles outside the defensive range of a formation of "Fortresses" and shot down twenty-five without loss to themselves !

The performance was as follows : the maximum speed was 540 m.p.h. at 30,000 ft., climb rate 4,000 ft/min. and service ceiling 40,000 ft. In comparison the last Mustangs

he would have to curtail all American daylight bombing raids over Germany. This might well have altered the whole course of the war. Only incompetence on the part of the German war leaders, especially Hitler himself, prevented the Luftwaffe from regaining vital air superiority in the European theatre, with perhaps disastrous consequences to the Allies.

THE CHANGING MAP OF AFRICA

“Always something new out of Africa.” This remark, made by Pliny, has been echoed in more recent times by Mr Harold Macmillan in his Cape Town speech in February, 1960. The wind of change to which he referred has blown throughout the continent of Africa with considerable force and with some remarkable results during the last decade, and especially within the last two years. At last this great continent is emerging from an era of colonialism and exploitation : it is erupting on to the political landscape with some vigour, and we have a spectacle of millions of people being transformed almost overnight from the primitive tribal mode of life to the almost aggressive membership of a modern mid-twentieth century society. Africa is no longer the dark continent ; it is flashing with vivid light and is bathed in the youthful glow of growing nationalism.

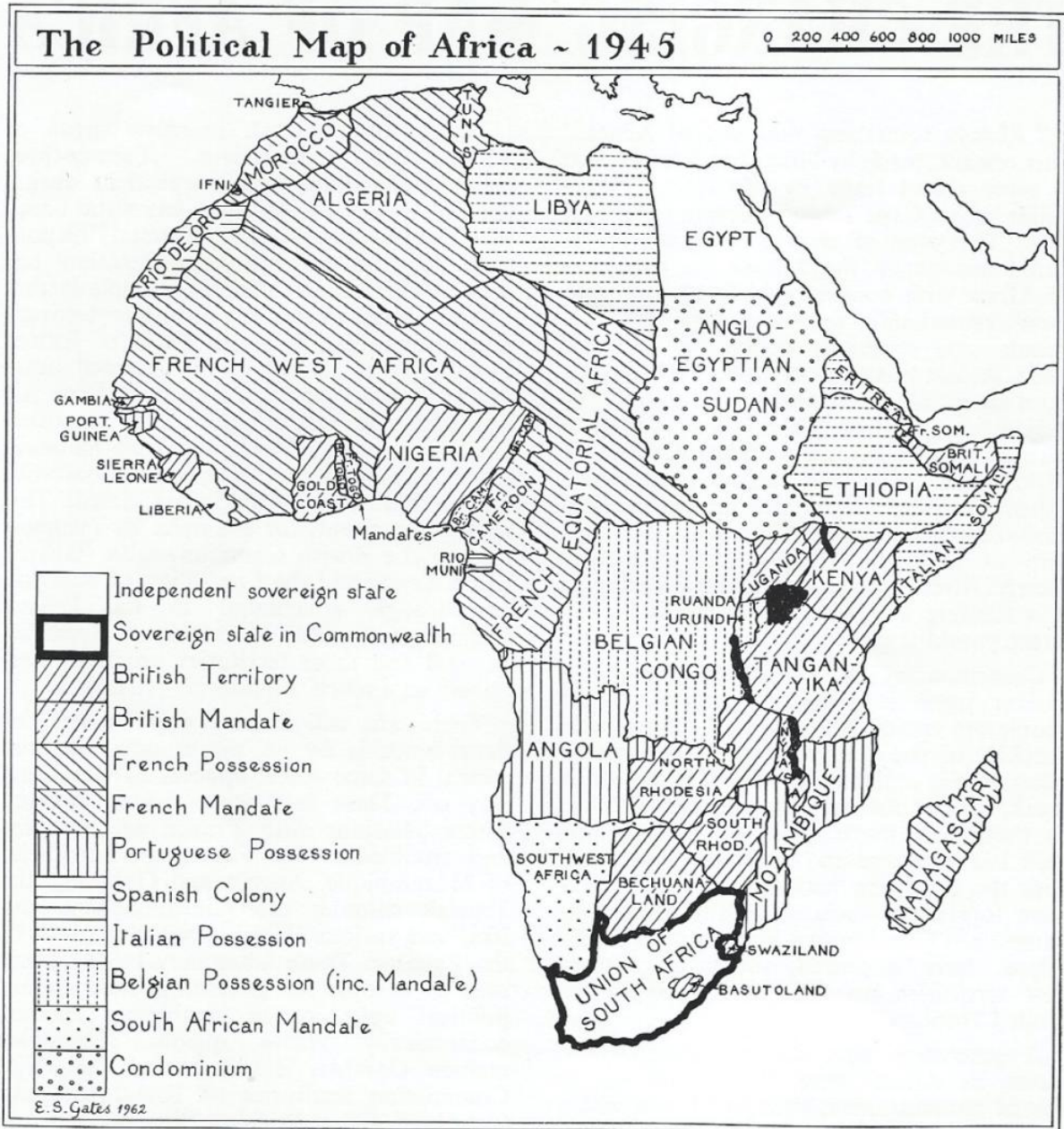
Contemporary Africa is emerging with violent speed into modern times, and its people are rapidly throwing off the political shackles of the colonial powers and everything which smatters of colonialism. As a result, the political map has been transformed, as more and more countries have gained their independence and loosened their bonds with the European nations with which they were formerly associated. Many unfamiliar names, not found in any but the most recent atlases, have appeared, and most of these new territories now have a voice in the United Nations.

A generation ago, the only independent states in Africa were those with rather special circumstances, such as Liberia which was created by the American Colonisation Society in 1816, a private organisation formed to transport freed slaves to Africa ; the Union of South Africa, to which dominion status was granted in 1910 ; Egypt, whose independence was decided by agreements with Britain in 1922 and 1936 ; and Ethiopia, whose independence has remained inviolate for centuries except for a short spell of five years following its conquest by Italy in 1935. Figure 1 (p. 40) portrays the political state of Africa in 1945, and illustrates clearly the influence of the European powers on the map of Africa at that time.

Today, by contrast, immense areas of Africa are independent. Twenty-three countries have become independent during the last five years. In some cases the break with the European country formerly responsible for the region's administration has been complete. An obvious example is that of the Congo Republic, formerly territory administered by Belgium. Parts of former French West Africa have obtained total independence, yet retain certain economic ties with the metropolitan area. In other cases large parts of tropical Africa maintain connections with the European nations with whom they were formerly associated. This may come about, for example, by membership of the British Commonwealth (Ghana, Sierra Leone and the Federation of Nigeria), or through attachment to the French Community (as with the Malagasy Republic, Senegal and those territories originally described as French Equatorial Africa).

There are still several areas where independence is by no means complete and which, in some cases, appears to be a long way off. These territories include Algeria, whose relations with France are complex and troubled ; the Portuguese territories of Mozambique, Angola and Guinea ; the Spanish colonies of Guinea, Sahara and Ifni, and various British territories south of the Equator. These latter may be too small ever to become self-governing, independent political units, or be unable to become economically viable regions. Examples include Gambia, Zanzibar and the High Commission territories of Basutoland and Swaziland. Other British territories are those where European minority groups are established and where plural societies exist. Such examples are Kenya and the Rhodesias.

Figure 2 (p.41) shows the political units in Africa at the end of 1961. The scene is totally different from that portrayed in the earlier map, and it has become evident in recent years that these new states have posed many new world problems. Many are unstable politically and economically, and lack the cohesion of older nations. Many in fact lack the essential quality of a nation state, namely, a consciousness of unity.

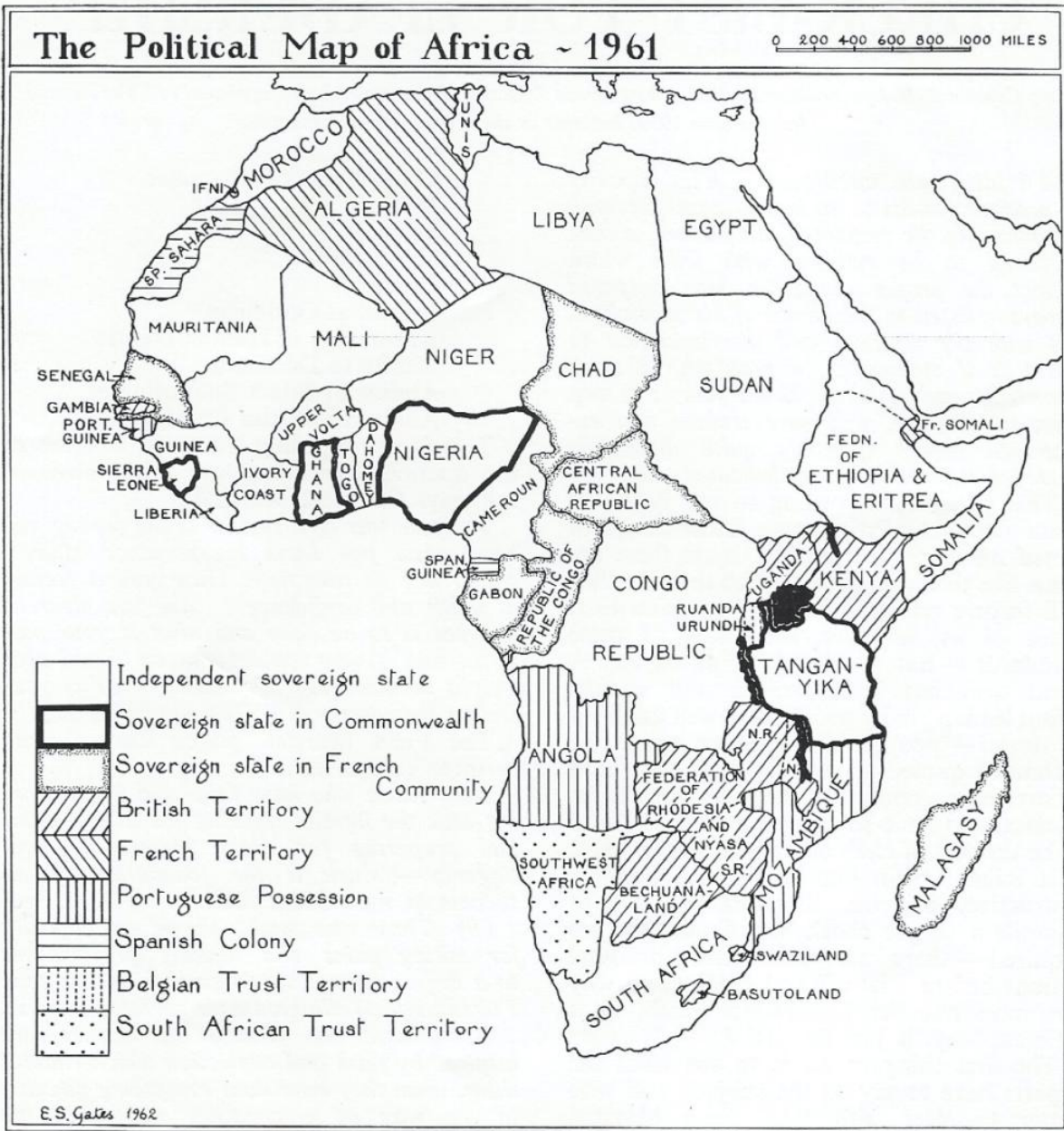


Nevertheless, Africa is a challenging continent and it is vital to the western world because of its strategic and economic value. Africa may be described as the West's Last Frontier. The continent is a rich prize for either the East or West, and it is plain that the West has much to gain politically and economically by helping Africa.

Imperialism is dead in Africa and the old colonial powers must recognise the ability of Africans to govern themselves, even if their interpretation of democracy differs

somewhat from that defined in Westminster. The European powers, formerly branded as colonial exploiters, can save their position by reform of their outlook and by direct assistance to African Africa.

The white man is not finished in Africa, although his rôle must inevitably change. The continent is now overflowing with vigorous new nations, keen and eager to enter the world on equal terms with the older states. They speak with a loud voice in international discussions at the United



Nations Organisation, and they possess personalities whose importance in the eyes of the African is equally as high as that of many Western statesmen. Many of these African

leaders fervently aim at Pan-Africanism. In a world that is now split into two political camps, a third and powerful force, situated in a "liberated" Africa, may be no bad thing.

THE JOURNAL

The Royal Air Force College Journal is published three times a year, at the end of the Spring, Summer and Autumn terms. Contributions are invited of articles, poems, photographs and drawings. These need not be confined to Royal Air Force and flying topics, but should be of general rather than technical interest. They should be addressed to 'The Managing Editor of *The Journal*, Royal Air Force College, Cranwell, Sleaford, Lincolnshire.' Unsuitable material will be returned. The Managing Editor, Editor and Staff will be glad to advise intending contributors.

CHECK-LIST FOR LEADERSHIP

Group Captain E. H. Lynch-Blosse, O.B.E., whose article "Queen of the Battlefield" appeared in "The Journal" for Autumn 1959, has sent us these thoughts on Leadership.

A fighting man, intelligent, with the capacity to produce results ; an honest man, forceful, commanding the respect of his juniors, a man prepared to be ruthless with frills which deflect the proper aim ; a man prepared always to listen to the advice of his specialists, but with the strength and discrimination to reject it if unsound : a man who absorbs knowledge and wisdom with the years : a man who, at the end, will have trained and encouraged others (possibly quite differently made) to succeed him ; a dedicated man.

This paragon, according to my Battle of Britain Souvenir Programme, is *The Compleat Royal Air Force Officer*. No doubt there are some like this, and good luck to them — they will feature regularly in the promotion lists. Most of us, however, fall short of these standards — but not for lack of advice. A great deal has been written and spoken about leadership by people very well qualified to do so — people who measure up to the standards quoted above, but what they have to say can be confusing, since it seems to be necessary to have so many qualities in order to be the sort of chap one would like to be.

It might be an interesting, and possibly instructive, exercise, therefore, to try to compile a simple check list of the qualities required — there are check-lists for vital actions before take off and landing, so why not have one for Leadership which, in a different way, is just as vital ?

The first thing to do is to see what the experts have to say on the subject, and who better to start with than Field Marshal Viscount Montgomery ? First, his definition of Leadership :—

The capacity and the will to rally men and women to a common purpose, and the character to inspire confidence.

The qualities listed by the Field Marshal as necessary to a Leader are many, and, include :

- Force of Character
- Determination
- Conviction
- Sound Judgement
- Self Confidence

- Good Judge of Character
- Honesty
- Sincerity
- Self Control
- Courage
- Infectious Optimism
- Knowledge of Human Nature
- Ability to Dominate
- Ability to Select Subordinates
- Ability to Master Events

This is an imposing list, even if some of the qualities mentioned are fairly obvious, but, says the Field Marshal :

The true test of a Leader is the feeling you have when you leave his presence after a conference or interview. Have you a feeling of uplift and confidence ? Are you clear as to what is to be done and what is your part in the task ? Are you determined to pull your weight in achieving the object ? or is your feeling the reverse ? ("The Sunday Times").

The Field Marshal places Commanders in three categories :

(A) *Those who have faith and inspiration, but lack the infinite capacity for taking pains and preparing for every foreseeable contingency — which is the foundation of all success in war. These fail.*

(B) *Those who possess the infinite capacity for taking pains and making preparations to a degree amounting to genius. Of this type I would cite Wellington as a perfect example.*

(C) *Those who possess this quality, are inspired by faith and conviction which enables them, when they have done everything possible in the way of preparation and when the situation favours boldness, to throw their bonnet over the moon. There are moments in war when to win all one has to do this*

General Sir Ian Hamilton, in his excellent book "The Commander" summed up rather more briefly the main qualities required in a Leader of Men. They are :

- Self Confidence
- Initiative
- Moral Courage
- Perception
- Ability to Organise
- Ability to Inspire

General Sir Brian Horrocks has studied the subject in another medium. In a television series he high-lighted the careers of four British heroes — Cromwell, Wellington, Marlborough and Nelson — in an attempt to answer the question “What makes a great captain ?” In his studies, the General drew attention to four qualities which these Commanders all had and which contributed greatly to their success, namely :

The art of administration and attention to detail.

The ability to extract the maximum of advantage from topography (“an eye for country”).

Personal leadership in battle.

The ability to maintain *that calm courage in the midst of tumult, that serenity of soul in danger, which is the greatest gift of nature for command.* (Voltaire).

It is interesting, if incidental, to note that Cromwell became a great soldier in his forties and Marlborough won most of his victories in his fifties — so none of us need despair !

Lord Wavell was another great commander who was very hot on administration — *The real crux of Generalship* he called it, and he went on to warn against the dangers of peace-time training. *It is in peace* he wrote *that regulations and routine become important and that the qualities of boldness and originality are cramped.*

Among the really great operational Royal Air Force Commanders of World War II was Air Chief Marshal Sir Basil Embry. Some of his views on leadership are expressed, with characteristic force, in his book, “Mission Completed” :

... *The Commander should, by his force of character and personal example in the air and on the ground, influence and inspire his subordinates If the leader knows less about the practical problems of flying and fighting in the air than his subordinates and has not shared with them their common dangers, how can he command their respect ? The first essential of good leadership is to have leaders who will fight, or in peace prepare to fight, and who can inspire their subordinates to do likewise.*

As all who knew him will recall, the Air Chief Marshal practised, more than most, what he preached.

And so on. Most of the great commanders of our time have written and spoken on the subject of leadership and it is a pity that one cannot quote them all. However, throughout the books, articles, broadcasts, lectures and speeches there is the one theme — the need to develop and make use of those qualities without which no leader can succeed. These qualities are many and opinions on their relative importance vary.

It may seem impertinent to comment on the extracts quoted above, but, on considering them, it does seem possible to come to some conclusions :

(A) Many of the qualities required are ordinary Christian virtues which are not peculiar to any one class, profession, grade or rank and which the great majority of people have to some degree or other.

(B) Others, which have a more specifically military application, can be developed fairly easily by study and practice in the normal course of service life.

(C) There remain a very few qualities, which seem to be based largely on individual personality, which are apparently hard, but by no means impossible, to come by.

Is it possible, then, to devise a short and simple check-list for those of us who have much to learn on the subject of Leadership but are keen to try ?

Here, as a basis for argument, is one :

AIM. Know it, explain it and maintain it.

INITIATIVE. “Who dares wins.”

RELAX, but be ruthless when necessary.

MORALE.

ADMINISTRATION. Attention to detail.

NEVER pass the buck.

SINCERITY, Sound judgement.

HONESTY is always the best policy.

INSPIRE your subordinates by

PERSONAL example.

Inn Sign of the Hare and Hounds.
 It portrays Air-Commodore L. G. Levis
 Master of the Per Ardua (R.A.F.) Beagles
 in the Uniform of the Hunt.
 The sign was unveiled by the Master
 on 25th. November 1961.



BEAGLING

“WHAT pleasure do you get from chasing a poor little hare all over the countryside?” I have been asked this question many times whilst I have been at Cranwell. The answer is that beagling does not consist of chasing a hare all over the countryside. Beagling is a sport in the truest sense of the word. It combines all the skills of hunting a wild animal and all the health-giving exercise of rugger or soccer. Added to this the day almost always ends with a delicious tea, which should attract all those who have to endure the rigours of high tea on Wednesdays and Saturdays.

On the North Airfield at Cranwell, just beyond Married Quarters, is a collection of wood and corrugated-iron buildings. These are the kennels of the Per Ardua (R.A.F.) Beagles. This pack was formed in 1951 by the present Master, Air Commodore L. G. Levis. The pack consists of 20 couples, which are expertly looked after by Mr Jack Pipes, the Kennel Huntsman. The post of Kennel Huntsman is far more important

than it seems at first sight. If you have kept a sporting dog, you will realise that the work involved in keeping 40 dogs in the peak of physical fitness is a full-time job. The Kennel Huntsman has to get to know every hound as well as a normal person would know their family pet. He has to grow equally fond of all of them, and have no favourites. Hounds can be very jealous animals. It is the Kennel Huntsman's job to feed and nurse them throughout the year.

The Master, however, is virtual owner of the pack. They are his responsibility. In a pack of beagles the Master is usually the Huntsman as well. That is, he is in charge of the pack in the hunting field. He decides where to draw for the hare and he controls the pack throughout the day's hunting. He does this by means of his voice and by sounding different calls on his horn. He will convey his wishes either directly to the hounds or to the whippers in, who are usually known as “whips.” The whip's job is to carry on the Master's orders, in turning

the pack, stopping them hunting a certain line and various other tasks. Whips must be fit and know the hounds and country nearly as well as the Master.

So far it sounds like hard work, without any fun. This is not so. Hounds, and beagles especially, are charming animals. They have a great deal of character, and are very intelligent. Their keenness could well be a lesson to some humans. It can't be argued that they hunt for food because they are hungry. It is true that they eat the hare once they have killed it. However I believe that they chase the hare mainly for the pleasure of following the scent. This can best be shown by the case of a puppy, who on coming upon the hunted hare completely exhausted did not kill it, but nudged it with his nose, as if to say "Come on, you are ruining my sport by just sitting there." The sound of hounds in full cry after their quarry is one that would excite even the most unmusical ear, and the sight of them casting about to pick up a line which they have lost, amazes even those who have hunted for years.

Now to the "poor, helpless little hare." The hare is an animal whose numbers have to be kept within limits. Anyone who has hunted the hare at all, would tell you that

she is neither poor nor helpless. She is one of the most nimble-footed animals in the British Isles. Added to this, nature has endowed her with cunning equal to that of the proverbial fox. A hare was seen to run out into the middle of a field, turn around and run straight back to the hedge, and then take a tremendous bound to one side. When hounds followed the scent into the middle of the field they were at a total loss. Another hare was seen to run in a complete circle in the middle of a field and then jump well to one side. This also baffled the hounds for a good time. The hare is not a timid animal either. Some of the feats of sheer foolhardy valour which they perform are beyond comprehension. One hare, having been put up, was seen to indulge in a fierce fight with another hare until hounds were nearly on top of her, and only then did she make good her escape.

An added enjoyment to be gained from beagling is that it gives one a chance to meet some of the local population. Yes, there is some local population in Lincolnshire. What is more some of the local population even have daughters!

So you see beagling is more than just a blood sport, it is a form of recreation, and a very pleasant one at that.

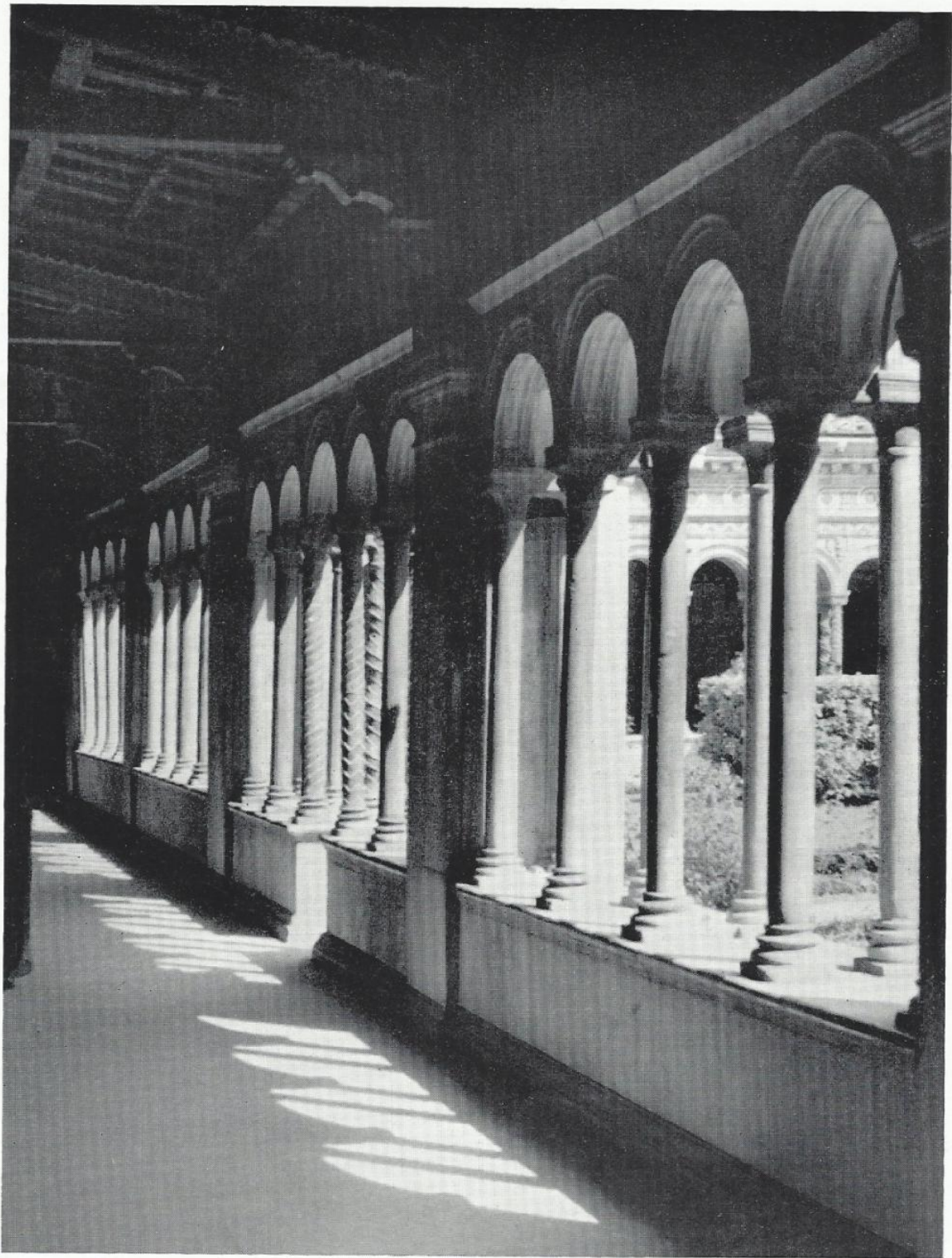


"Moving off at Fulbeck"



MOSES

These two Photographs taken by Senior Flight Cadet Sawyer



THE CLOISTERS

were part of an Exhibition held last term

The Amender's Art

("The Lost Art: A Study in Frustration" by Professor Gimbal: Finer Arts Society: 5.5 Royals).

It all began simply. Professor Gimbal, of the Institute of Post-Nuclear Studies, stumbled across a badly roneo-ed slip of paper in the World Archives (Sec. XXIV, Brit.), bearing the words "Amendment List No. 1. *Delete* para. 6(a) (iii) *in toto*: *Insert* 'There is six conditions'". These slips were fairly common, though their origin somewhat obscure, but this one struck him as unusual. He was reminded of the old Action painters who filled their canvases with paint, bits of wood, a crushed cello or bicycle, and coated the whole thing with corrosive acid. This slowly destroyed the object, and beauty was seen in its gradual decay and destruction. Similarly, this piece of paper carried, pregnantly, its own next change, i.e., Amendment List No. 2., viz., "*Delete* 'is' *Insert* 'are'." Could there possibly have been any connection with other art forms of the Age?

This set Professor Gimbal on an exciting chase. The original form of amendment he found, was a slip of gummed paper carefully shaped so that it did not quite cover the errata, thus neatly causing confusion. Later, there was a subtle distinction between manuscript amendments and printed leaves, which seemingly gave the amender a wider scope of activity.

For the archaeologist, the original gummed slips provide a treasure chest. Gimbal, for example, by slowly and carefully peeling off successive layers of these slips was able to reveal a slice of history. The original word of one layer was apparently "balloon." This was replaced by "heavier-than-air craft," then by "biplane," followed by "monoplane," "jet," "missile," and "anti-missile being developed" in quick succession, and finally, *delete in toto*. What exciting story lies hidden here?

Gimbal began to perceive an art form. This was, as his book so well reveals, the pursuance of Art for Art's sake. The beauty of an amendment to an amendment was not lost to him. But this, clearly, was a blind alley, as it had to stop somewhere. Its only perfection lay in the ultimate amendment

(A.L.25), replacing the original paragraph in its first form. This cyclic movement offered little or no variation. Nevertheless, the Professor catches the excitement of the true amender at his best even in this form. The majestic sweep of A.L.14, dated 1954, "*Replace* 'his' *for* 'hers' *throughout*, 'king's' *for* 'queen's'". What marginal annotations and incorporation sheets were excitedly completed by a whole race of amendment clerks!

Nor were the ploys of amendmentship missed as the whole story was revealed. For example, the deliberate mistake. A.L.6 is followed rapidly by A.L.8 amending "6" to read "7". Here is the perfect product of a quiet afternoon in the great era of industrial redundancy.

The exciting innovation of publications with loose leaf binding was indeed a *tour de force*. The great question eagerly pursued was whether or not the covers would take all the amendments. This called for a skilful juggling of which only the sharpest minds were capable. Chap. 22, from pages 396 to 397 incl., were replaced by the new pages 396A to 397Z. This would be counter-balanced by A.L.13, which replaced pages 111 to 1101 (note the possibilities of confusion with the numbers) by a single new leaf bearing the single word RESERVED. What, one asks, was wrong with all those pages, and what will eventually appear? Careful scrutiny of the discarded pages failed to reveal even a compositor's error.

Further, this binding was constructed so that there was the maximum opportunity afforded to omit the last sheet but three in the clips on completion, also making it fairly certain that amendments could be confined to the rear. Having to undo, insert, and reclose the covers at least twice, and possibly three times, gave the holder the chance to spend as much time as possible on amendments, thus increasing their importance in daily routine.

To trap the unwary, four amendment lists could be issued simultaneously. Each

apparently alters the preceding except that a small part of No. 4 would *not* amend No. 3. The unscrupulous and quick-witted incorporator would attempt to short-cut the system by merely including the last list. It would not until, say, A.L.18, become obvious that the whole publication had been thrown out of joint. It was considered that having to start from scratch was sufficient punishment. Gimbal does not, unfortunately, reveal to what extent this built-in time fuse exploded the minds of the guilty.

The purest art form was nearly achieved in the publication of periodic orders, themselves cunningly divided into "Temporary" and "Permanent," containing an appendix of amendments to previous orders. Gradually the gap between Orders and Amend-

ments closed. The situation was very nearly reached where an annual single order was sufficient to produce bi-monthly issue of amendments.

The art was not without its humour seemingly. Was it deliberate that "Protection against Diseases offered by the Service," remained unaltered? Or the single sheet of paper bearing, "*after* 'senior officer' *insert* (dagger) '†' "?

Gimbal concludes this fascinating study by bemoaning the fact that apparently the ultimate in the Art was never achieved. The closest the artists ever came to this was in producing the publication and the amendment at the same time, but nobody succeeded in producing the amendment before the publication.

An Introduction to Linear Network Analysis

by P. S. Farago.

The English Universities Press pp. xii 335.

The amount of literature which has appeared in the field of electrical engineering in recent years makes one apprehensive of any new additions. This work, however, is a valuable contribution to the understanding and applications of the basic principles of electronics. The field covered is sufficient to give a thorough background in the subject. Chapter 1 deals with the basic laws and theorems necessary for the linear analysis of direct current networks. The valuable Thévenin and Reciprocity theorems for example, are admirably explained.

The treatment of transient states in circuits is well presented in Chapter 2. Here, the seldom referred to Principle of Duality is illustrated. In this chapter, and throughout the book, the practical interpretations introduced as asides are most helpful.

Alternating current theory is conventionally treated in Chapter 3 with copious use of reactance plots; this is a useful aid. The latter half of this chapter deals very fully with four-terminal networks, leading to the theory of transmission lines in the next chapter.

Chapter 4 on transmission lines, includes both polar and rectangular impedance diagrams, and is a complete treatment.

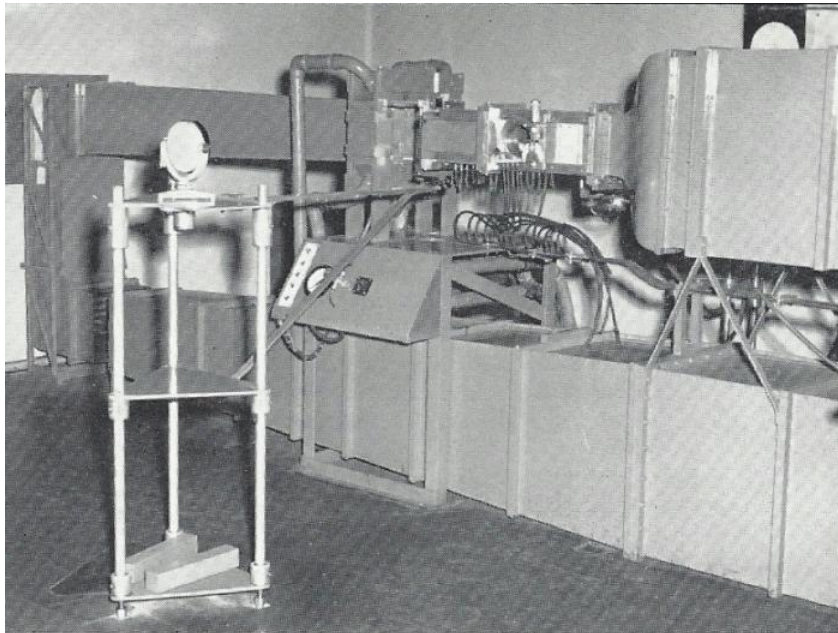
Wave guides are included in this chapter, and once again, the inclusion of practical detail is most valuable.

The final chapter is concerned with valves operating linearly. Analysis is used to produce the "valve equation" for triodes; the use of this equation is most valuable in the examination of any valve circuit operating linearly. The equation also enables "equivalent circuits" to be derived conclusively, without the use of unconvincing postulates. Unfortunately, negative feedback is not treated as generally as it could be by using the valve equation. Instead, the classical and often confusing method of block diagrams, using the "feedback fraction" is employed.

The idea of an appendix, in which the basic mathematics used throughout the book may be referred to, is excellent.

The addition of a chapter of problems is also valuable to the student.

The volume should be of considerable value to post-graduates in the electronics field. The undergraduate specialising in the subject will also find it helpful, as it contains so many useful practical interpretations of the results obtained by analysis.



CRANWELL'S SUPERSONIC WIND TUNNEL

General view of tunnel

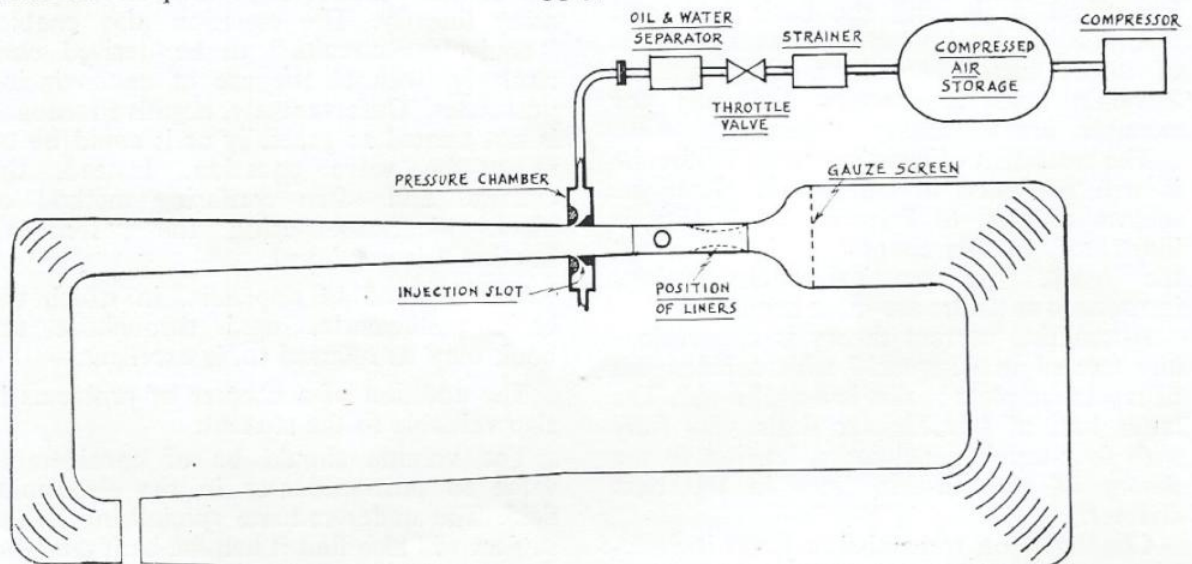
DURING the early 1950's it was felt that there was a need for a high speed wind tunnel at Cranwell. The cost of even a small tunnel would obviously be high. It was therefore decided to construct one using the resources available in the Science Wing. Although some work was done on this project it was not until 1956 that a complete development programme was set in motion.

The tunnel is an induced-flow type. Air is compressed and stored in a reservoir ; it is then released and passes through slots downstream of the working section causing the air in the tunnel to flow through the working section, giving the required airspeed round the model for a short period.

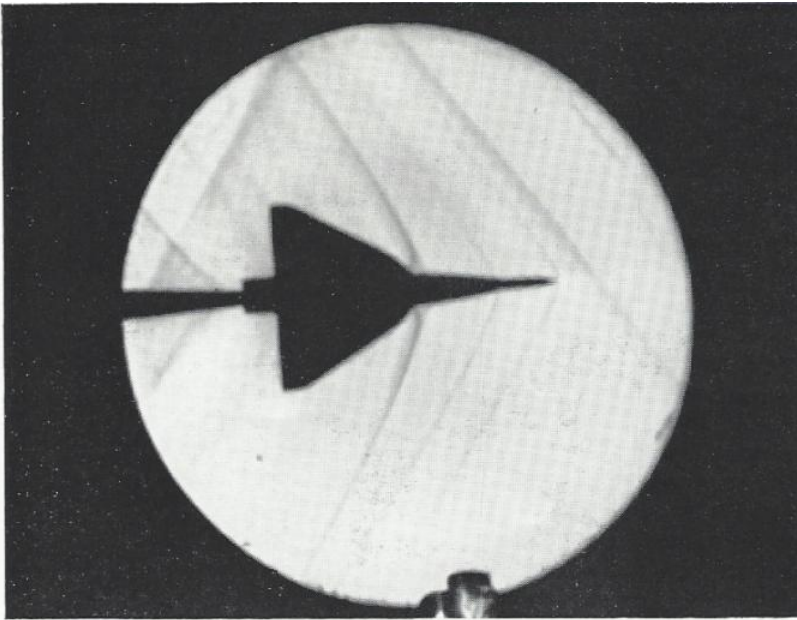
This type of tunnel enables high speeds to be attained without large-power requirements, but has only a limited running time. This means that the compressed air storage system must be re-charged after two or three runs. Running times vary from about 4 minutes at $M = 0.5$ to 15 seconds at $M = 1.55$ with a model at 6° of incidence. This latter period has proved to be quite adequate for pressure plotting, and the re-charge time is about 30 minutes.

Compressed-air Supply

A two-stage single-acting air compressor is driven by a 15 H.P. 400 V. D.C. electric motor modified to operate from a 200 V. D.C. supply, which was available in the Thermodynamics



The Tunnel is an induced flow type



*Model of Fairy Delta 2
at $M = 1.3$*

Lab. This motor, originally used in the Station Workshops, became redundant during the final stage of the D.C./A.C. conversion at Cranwell. The compressed air-storage tank of approx. 200 cu. ft. capacity is charged to a pressure of 200 p.s.i. This tank is a relic of the days of airships at Cranwell !

The storage tank and 4 inch diameter compressed air line are fitted with water traps and oil and water separators and a phosphor-bronze strainer to remove any particles of scale that may be carried in the air from the storage tank.

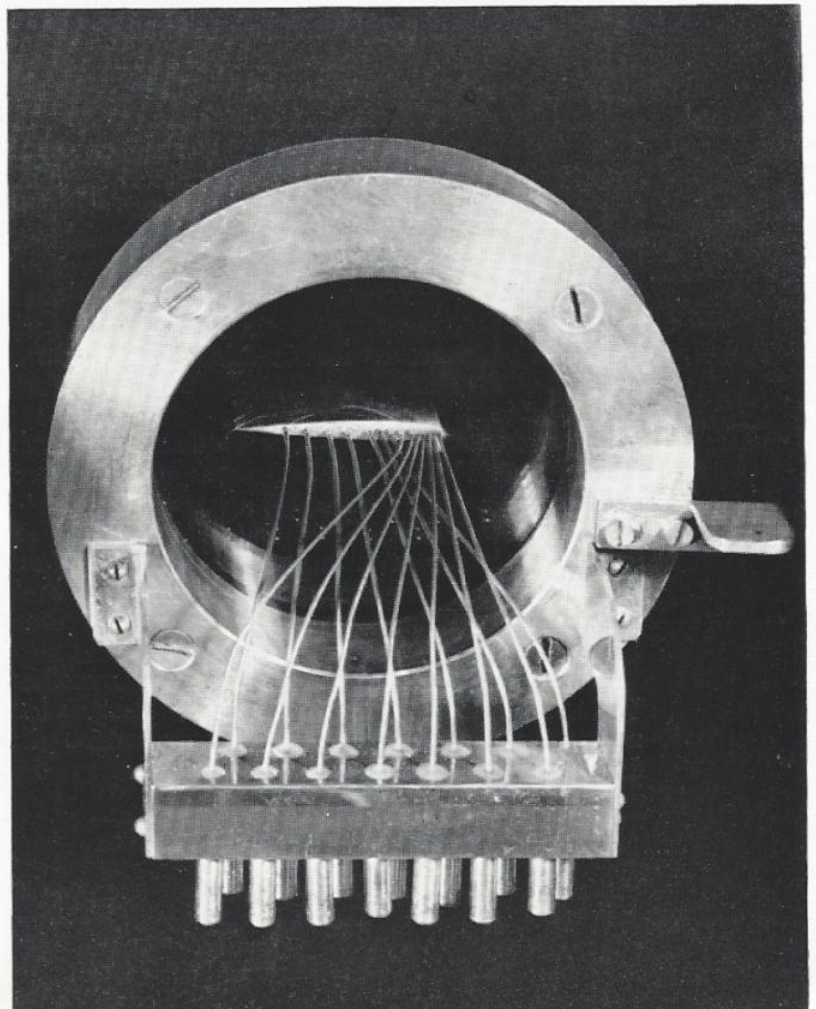
During tunnel runs the air supply from the storage tank to the tunnel must be regulated to give a constant-speed airflow in the working section. This is done by throttling the air as it passes through the control valve.

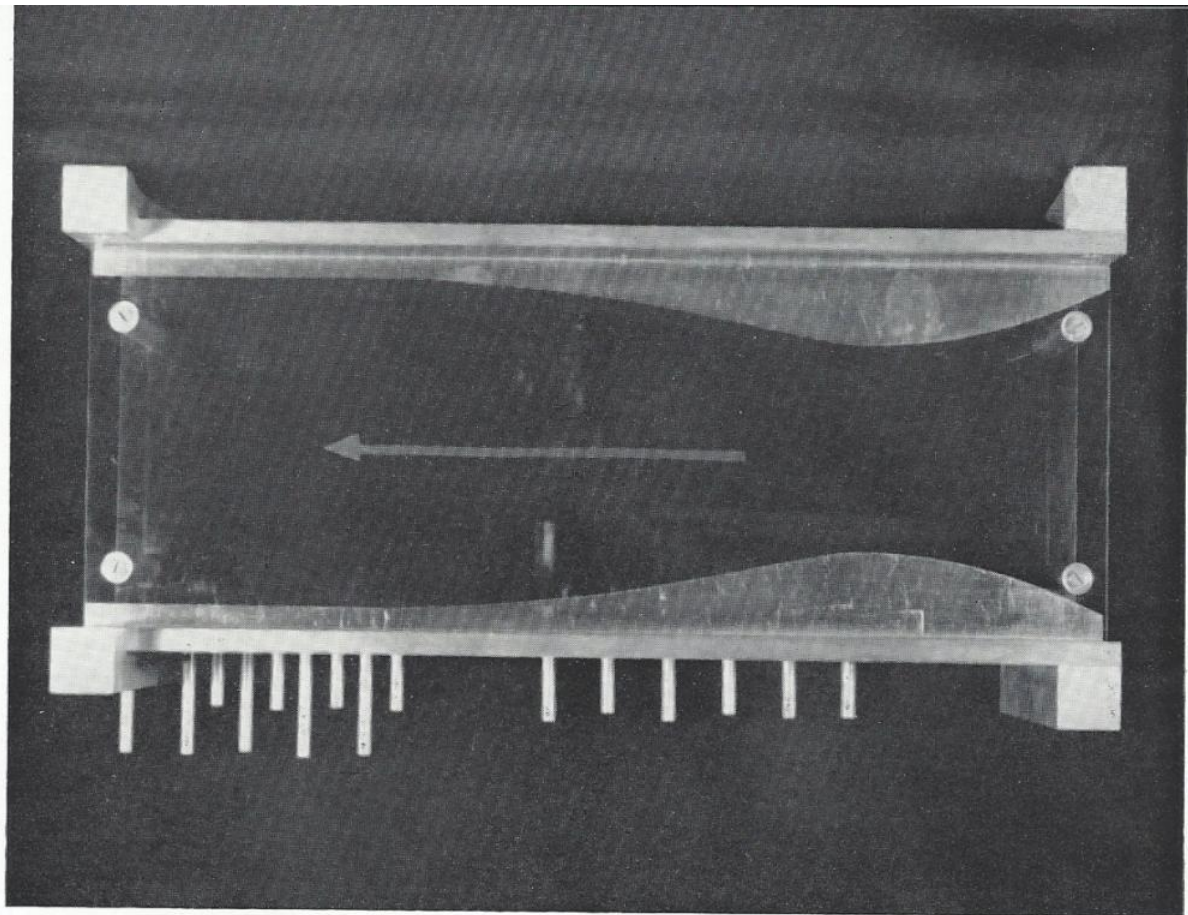
After passing through the control valve the compressed air enters the pressure chamber. This chamber is connected to the tunnel by four slots, one on each side of the tunnel, each slot being 0.050 ins. wide. The slots are so shaped that the compressed air is forced to flow downstream of the working section thereby causing the air in the tunnel to flow round the tunnel circuit. As the blowing pressure is increased so the velocity of the air is increased. The opening following the second corner allows some of the air to escape and the stagnation pressure of the tunnel is at atmospheric pressure.

Working Section

The working section is 6 ins. high and $2\frac{1}{2}$ ins. wide. For subsonic speeds the walls are parallel except for boundary layer allowance on the top and bottom walls. The two side walls are parallel since they contain the windows of the optical system. Aerofoils may be tested at Mach numbers up to approximately $M = 0.9$ depending on size of aerofoil and angle of incidence. For tests in the transonic range, $M = 0.9$ to $M = 1.10$, perforated walls are fitted in the working section.

Hypodermic tubing is used to connect the pressure points on the model





Liners form a nozzle

This system avoids blockage problems which make tests with solid walls virtually impossible at transonic speeds. Each wall contains approximately 1500 holes, those in the first 3 ins. of the wall being graded in size to ensure a reasonably smooth flow.

In supersonic testing the walls of the working section, known as liners, form a convergent-divergent nozzle. Mach number changes in the supersonic range can be obtained only by changing the contour of the supersonic nozzle since, for each contour, only one specific Mach number can be obtained. These liners are required to be machined to very fine limits in order that the air flow may be smooth. Liners for use at $M = 1.35$ and $M = 1.55$ have been designed and manufactured at Cranwell.

Optical System

In order that the shock wave pattern on and around the aerofoil may be observed a 4 inch Schlieren system is used. Either black and white or a coloured pattern is available.

Model Making and Measurements

For quantitative work pressure plotting is used. Due to the restrictions in model size, chord length from $1\frac{1}{2}$ to 2 ins. and a thickness/chord ratio from 10 per cent to 8 per cent, model making presents a problem.

All models are machined from aluminium alloy and are fitted with from four to fourteen pressure points. Hypodermic tubing, external diameter 0.040 ins. is used to connect the pressure points on the model to adaptors on the outside of the tunnel working section and so to a manometer bank. The manometer tubes can be clamped and readings taken after shutting down the tunnel.

Contrary to accepted practice, each pressure plotting aerofoil is mounted on its own window. The window is made from $\frac{1}{4}$ in. "Perspex." It has been found that the use of "Perspex" does not materially effect the optical quality of the picture since the optical system is only used for demonstration purposes.

Cindy

A Fairy Tale of the Sixties

ONCE upon a time there lived a blonde teenage-girl called Cindy. She lived in a small first-floor flat with two other girls who were slightly older than herself. Cindy was a comptometer operator and she worked for a dairy. Her flat-mates, Jane and Sarah, were shorthand-typists. Jane worked as private secretary to the director of a moped marketing concern. Sarah held a similar job with a packaging company which specialized in making sleeves for long-playing records.

Cindy had shared the small flat with Jane and Sarah for some six months. Previously the two other girls had had the place to themselves but the wicked landlord, a man named Waters, had increased the rent and it had been necessary to find another party to contribute to the costs. Cindy had replied to an advertisement which Jane and Sarah had inserted in an advertisers' weekly which Cindy always read.

It became clear, before Cindy had been there very long, that the two other girls looked upon her as someone who merely helped to pay the rent. They never offered to take her along to the parties to which they always seemed to be going, and they made it quite clear from the beginning that they considered her of a lower status than themselves, because whilst she always made a little pack of sandwiches to eat at midday *they* had luncheon vouchers. Cindy also found that she was expected to do more than her fair share of housework and cooking. When once she complained to the other two girls of this injustice, Sarah reproved her :

"You should consider yourself very lucky to be sharing this place with us," she said, "there were plenty of other applicants for the spare place in our little household you know."

"We would have no difficulty in finding someone to take your place," added Jane, "accommodation is hard to come by, you should be grateful for what you have."

Cindy knew that they were right. Accommodation would be hard to find in the town, and she desperately wanted to hold on to her job at the dairy, for the pleasant young fellow who worked out the gallonage figures for the Milk Marketing Board rebate had at long last started to take an interest in the comptometer-girl who checked his daily totals and worked out his percentages. So, when Jane and Sarah were out, as they so often were, Cindy busied herself with dusting things, and mending and washing, thinking all the time of Mr Robinson.

One day Jane and Sarah came home from their offices bursting with excitement. Cindy (who always arrived at the flat first in the evening because the others usually stopped for a coffee in town) had prepared the evening meal.

"What's all the excitement over?" she asked, as she poured tea for the other two girls.

"Dahling," said Jane, in that upper-crust way of hers, "*the most fantabulous thing.*"

"Out of this world," cried Sarah, uttering each word with measured deliberation and raising her eyes to the ceiling. Cindy frowned.

"Well, what? Tell me, please," she implored.

"Do you think we ought to tell her, dahling," piped Jane, forking a piece of toast expertly and conveying it to her mouth with spaghetti dangling precariously.

"Oh! I suppose so, no harm in it," said Sarah resignedly. Jane sucked the last piece of spaghetti into her mouth and dabbed the tomato sauce from the corner of her mouth with a napkin. She paused before speaking.

"Well," she began, "you must have heard that Marty Robert is appearing *in person* at the Easter Ball at the Adelphi next Thursday night." Cindy assured them that she had heard this news: all the girls at the dairy had been talking about it, but with tickets costing two guineas each, none could

afford to go despite the high esteem in which Marty was held. Jane continued.

"It so happens that, by the most fantabulous stroke of good fortune, Sarah and I have managed to get our hands on two tickets; not that we had to pay for them, dahling, two absolutely *angelic* men who we lunch with occasionally actually asked us along. At two guineas a ticket it is just too utterly *dreamy* for words."

"Gosh!" said Cindy, mustering a brave smile, "you really have had a break." Sarah looked pityingly towards her, and made an unconvincing attempt to console:

"Of course we did ask if somehow the boys could rustle up a spare ticket for you Cindy dear," she purred, "but you *do* realize how terribly difficult it must be, don't you?" Cindy said that she realised, and quietly continued her meal.

On the day of the Ball Jane and Sarah did not stop in town for coffee after their day's work was over. They hastened back to the flat. Because of this they were already at home when Cindy arrived, having been delayed by a traffic tangle on the outskirts of the town.

Cindy hoped that perhaps they would have prepared the meal for her as she had done so many times for them. But when she reached the top of the stairs leading to the flat she knew she would be disappointed. There was no smell of cooking coming from the kitchen and from the large bedroom she could hear Jane and Sarah mewing to each other. Each had succeeded in arranging a hairdressing appointment during the lunch hour and now they were indulging in a little session of mutual admiration.

"Dahling, it is just too, too divine." It was Jane admiring Sarah's style.

"But, my dear," Sarah's voice now, "it really is just *ordinary* compared to yours. Jacques is a *genius*, I know, but Vittorio is an *artist* — there's something madly *Mediterranean* about all that he does." Sarah often talked in italics.

Cindy entered her own bedroom quietly, stepped out of her shoes, and padded around softly taking off her coat and her cardigan and hanging the coat carefully in her small wardrobe, folding the cardigan neatly and laying it on her bedside chair. She put on her felt slippers and went into the kitchen.

Presently Jane and Sarah emerged from the large bedroom which they shared. They had undressed and were now wearing their long quilted house-coats, Jane's lilac, Sarah's pink. They went to sit in the lounge.

"Don't make too much for me, dahling," called Jane, "I hear there's going to be an absolutely gargantuan *bouff-ay*."

"Nor for me, Cindy dear," added Sarah.

Cindy decided that omelettes would be the thing. She broke five eggs into the mixing bowl and placed a small nub of fat in the pan. When she went into the lounge to lay the table Sarah offered to beat the eggs. Jane was seated in the armchair plucking her eyebrows with a tiny pair of tweezers.

"Cindy, you are an absolute gem, you really are," she said. Cindy smiled, and continued her work.

"What time are the boys coming for you?" asked Cindy quietly, as they sat down to eat their meal, some minutes later.

"Well, they're not exactly *boys*, dahling," said Jane, "but I expect they'll be here around nine."

"Nine's a little late isn't it?" Cindy asked, "and the Adelphi's not an easy place to get to at the best of times." Jane smiled, and looked rather patronizingly at Cindy.

"The Ball goes on until three, so it isn't really late at all and getting to the Adelphi will cause no problem to us — Simon has a Jaguar." She made this last announcement with a hint of triumph in her voice.

"Simon is the one Jane goes for," Sarah interposed, in an aside to Cindy, then, turning to her friend, "*personally*, I think Roger is much more *mature* and infinitely more elegant."

But he only has an Austin, thought Cindy.

After they had finished eating Cindy busied herself clearing the table and washing the dishes whilst the other girls smoked their cigarettes. She dearly wanted to go to the Ball herself, not only because of Marty Robert whom she admired very much, but also because everybody who was anybody in the town would be going along. What a sensation she would be in the office tomorrow morning if she could recount the happenings at the Ball. What a surprise Sarah and Jane would have if she were to turn up there!

But such thoughts only flashed through Cindy's mind. She had decided how to spend

the evening. She would stay in the flat until the other girls left, they would probably appreciate her help in preparing themselves for the Ball. Then she had decided she would take a walk down to "El Toro," the small coffee-bar which was only a few minutes away. Here, on any Thursday evening, there would be a small gathering of young people drinking coffee or chocolate, playing the latest pops on the juke-box, discussing the current programme of the Regal and the Rialto. She would probably find Lillian, a fellow comptometer-girl from the dairy, there with Peggy, who worked in the Bottling Department, and Betty and Christina who were waitresses in a local restaurant.

At seven o'clock Cindy ran a bath for Sarah who had "booked" the first turn. Then, later, whilst Jane was bathing she helped Sarah dress. Both the girls had fairly new evening dresses. Sarah had bought a new one for the New Year's Eve Dance which had been held at a roadhouse just outside the town. Jane had a black gown which had been given to her by a moped salesman with whom she had spent a good deal of her time the previous summer. Both had bought new shoes especially for the Ball; Jane's were of pink satin with unbelievably high heels, Sarah's were a soft white leather.

As she helped Sarah dress Cindy reflected that it was perhaps fortunate that no one had asked her to the Ball. She had no evening dress; the only glamorous gown she had was a short full-skirted white dress which she had worn for the regional heat of the "Miss Dairy Queen" Contest the previous June. Amongst all the long dresses that would be worn at the Ball she would have felt quite uncomfortable.

It was eight-fifteen before Jane emerged from the bathroom smelling of perfumed bath-salts and expensive talc.

"Cindy, do be an absolute dahlings and give me all the help you can," she appealed as she swept into the bedroom. "How I shall be ready for nine I just cannot imagine." Cindy followed her into the bedroom, where Sarah was adding the final touches to her make-up with eyebrow pencil and lipstick and hair lacquer.

"Do hurry, Jane dear," she said, "it would be quite *unforgivable* to keep the boys waiting."

Cindy had carefully laid out Jane's underclothes and the elegant black gown, so Jane was able to dress surprisingly quickly. It was only just after half-past eight when she settled before the large mirror of the dressing table to attend to her make-up.

"Dahlings!" she called presently, and as Sarah turned to her, "How am I expected to decide which lipstick to wear in this light? Flaming Coral looks *just* like Firebrand, and Deep Scarlet looks shades lighter than Passion Pink. Do be an absolute angel, dahlings and advise me." Sarah advised Flaming Coral. A matching nail varnish was chosen and soon Jane too had reached the final stages of eyebrow-pencil and hair lacquer.

The little travelling clock on the chimney-breast in the lounge showed three minutes past nine when a screech of tyres, a slammed door, a fanfare of two-toned horns and a brisk sounding of the doorbell announced the arrival of Sarah and Jane's escorts.

"Bye, Cindy dear," shouted Sarah as she prepared to go down the stairs.

"Have a good time," called Cindy.

"Bye, dahlings," said Jane, as she gave Cindy a light kiss on the cheek before drifting down in an aura of "Amour Intime."

Cindy heard the huge car drive away. For the next half-hour she occupied herself with a number of minor household jobs. She cleared away the debris in the large bedroom and generally restored order to where Sarah and Jane had left chaos. She began to feel tired and wondered whether the effort of tidying herself to go down to the coffee bar would be worthwhile. She decided that it would be better if she did go out, but she settled in the big armchair beside the electric fire for a few minutes rest before going to her room to get ready.

It was while she was sitting there that there was a knock on the door to the flat. Cindy stiffened in her chair. Why should anyone wish to call at the flat at such an hour? Who could it be?

She rose quietly from the chair and crossed the lounge and went out into the small hall of the flat. When she was within only a yard of the door there was a second knock, a little harder and more impatient than the first. Cindy placed her hand on the door-handle and opened it cautiously.

"Hi ! chick !" It was the voice of a man in his middle-twenties who now stood not a yard from her.

"What do you want ?" asked Cindy, quietly and rather nervously, "who is it you wish to see ?" The stranger smiled.

"It's you I wish to see, Cindy darlin'", he said, "my friends Simie and Rog told me they were takin' two of the birds who roost here to the Ball, so I said to myself, well, well, well, poor Cindy, the li'l chick alone in the nest will be very unhappy because her friends have gone to the Ball, so I say to myself, you can be li'l Cindy's Fairy God-Daddy-O, so I eased over here and looked you up." Cindy looked up at her visitor, he was not really tall but at the same time he

was good-looking in a way, and he sounded pleasant enough. She smiled at him.

"Are you trying to say that you'd like me to come to the Ball with you ?" she asked, hopefully. The stranger laughed, a short, sharp laugh.

"That's fairy-tale stuff, kid," he laughed, "why go to the Ball ? I just thought with no one to disturb us you 'n me could have a quiet li'l night up here."

At this Cindy recoiled and slammed the door in the stranger's face. Tears welled in her eyes and she rushed to her tiny bedroom and sobbed for the rest of that night. And she lived in a state of acute nervous tension ever after.

THE LEGEND OF BYARD'S LEAP

LEGENDS of witchcraft may seem singularly out of place in this journal but as the scene of this story is only half a mile from the College, it will doubtless be of more interest than most. It is the story of how the spot at the junction of the Ancaster and Grantham roads, known as Byard's Leap, received its name.

The story begins in Ancaster at some indeterminate time in the past and concerns the village beauty, an extremely attractive girl named Peggy. She was never short of attention from admirers, but the young man with whom she fell in love, a fellow called Jim, though attracted by her beauty, left the village to join the army. Soon after this there was a new arrival in the village, another young man. Neither Peggy nor the other villagers knew where he came from, and several people found him rather strange, but Peggy was attracted very strongly to him and discovered that he seemed to be a perfect-mannered and fascinating companion. It was not long, however, before she began to realise that there was something mysterious about the influence which he had over her and she found herself unable to break away from it. This did not worry her, however, as she loved to be in his company and agreed to everything he asked, especially when he promised her everlasting youth and beauty and power over the people and things of the village. In return, she agreed to sell her soul to him. To seal the promise, he asked her

to sign her name in her blood on the contract he would give her. Then he would have to leave her for a time, but he would return in a few years, on a certain day, to take her away to be with him forever. Peggy was disappointed at the parting, but consoled herself with the thought that she could spend the time practising her new powers, and she eagerly signed the contract as her lover had asked. As she did it, however, the realisation of what she had done, and the fact that her lover was the devil, suddenly dawned upon her. There was no turning back, though, as he quickly snatched the paper and disappeared from view. She was doomed — and alone.

In the next few days, the villagers saw an amazing change in Peggy. Despite her lover's promise, her beauty completely faded away, leaving her ugly and wizened and, though she was still young, she was nicknamed "Old Meg." She began to take a fiendish delight in causing as much trouble and misfortune as possible to the villagers. Finally, feared and shunned by everyone, she went to live by herself in a little hut near the present road junction, taking with her, in the best witchlike traditions, an old black cat and a big black pot.

Jim, returning to the village from the army several years later, refused to believe that the tales he heard about his old friend could be true. Taking pity on her, he went to visit the hut, but his attempts to renew their

friendship were in vain as she would not speak to him. This, and the atmosphere of terror in the village, and especially the fear of his new sweetheart, Sue, caused him some anxiety. Then one morning he woke up to find the village in an uproar. During the night all the cattle and crops had died, and a farmworker, going home late the night before, had seen Meg brewing a mixture in her pot which had given off a foul smelling smoke covering the fields, and apparently causing the damage.

This incident convinced Jim that Meg was a witch, and that the villagers were right after all. Furiously he went to her hut and demanded an explanation, but she merely boasted unashamedly of her deeds. Returning to the village, he openly vowed to kill her, and rid the neighbourhood of its troubles. His mother and Sue both tried to dissuade him fearing that Meg, with the devil's help, would kill him. Jim stayed firm, however, and that evening went to church and received the blessing of the priest for his fight against the evil spirits.

Next morning, Jim began to make preparations for his fight, and set about choosing a horse. He decided to let providence guide his choice, and accordingly asked all the villagers to bring their best horses down to the pond. He himself brought his old, blind warhorse, Byard, though he did not contemplate using him. He asked that all the horses should be allowed to drink from the pool, then he would throw a stone into the middle of the pond, and would use the horse which first raised its head — as this would presumably be the most spirited animal. To everyone's amazement, this horse turned out to be Byard, none of the other horses taking any notice of the splash. Moreover, Byard seemed to have thrown off his old age and was prancing eagerly about. Jim was no less surprised than the other onlookers, but decided to use the old horse, so mounting Byard and taking up his sword, he started slowly down the road from the village towards Meg's hut.

In the hut, Meg was in a furious temper, for this was the day on which her lover was supposed to come to fetch her, but as he had not fulfilled all of his other promises, she did not know whether he would come, and she was cursing herself for being so stupid as to

believe in him. At this point Jim appeared in front of the hut and shouted at her to come out, but she did not immediately obey him, as it was a few minutes before midday at which time the devil would come for her. If she could delay the battle for these few minutes, she might gain his assistance, but whatever happened, she was determined to kill Jim, as she regarded him as the indirect cause of her downfall.

Outside the hut, Jim waited, and suddenly she rushed out of the hut at him and leapt on the horse's back, digging her fingernails in his flanks, and this caused the horse to leap in agony, and four leaps carried him the fantastic distance of three hundred feet. These leaps, however, failed to unseat Jim or dislodge the witch, but Jim managed to turn and drive his sword into Meg's heart.

Suddenly there was a great crash of thunder and an explosion which blew Jim to the ground. When he regained his senses, he found himself entangled with the dead bodies of Byard and the witch, and it was some time before he could free himself and stagger back along the road to Ancaster, where he met the anxious crowd of villagers, who had not dared come any closer, but who were now overjoyed to hear that his mission had been successful.

That is really the end of the story. When Jim recovered, he and the men of the village went back to the hut. Meg's body had disappeared — her lover had presumably claimed her at last, and all that was left were the dead Byard and the enormous hoof marks made by his great leap. Of course, the horse was buried with great honour.

While living in the hut, Meg had had two small children, though it was not certain who the father was, and these were taken from the hut and were looked after, but they soon showed signs of following in their mother's footsteps and so they were smothered before they could cause any more trouble. Jim and Susan duly married and continued to live in the village.

This, then, is the story of Byard's Leap, a story which contains all the standard ingredients of the usual witch story, even down to the black cat. Is it based on fact, or is it just a legend? Well, a set of hoof-prints can still be seen at Byard's Leap by anyone who cares to go and look for them.

DESIGN FOR A HOVERCRAFT

SOMETHING that resembled a flying saucer moved down the runway. It looked as though it was flying — strictly low level stuff — at a height of twelve inches, but it had no wings. The object slowed down from its cruising speed of sixty knots and halted. Surely now it would fall to the ground? No — it remained static, sitting on a layer of air and gently bobbing about like a table tennis ball on a fountain of water. This “thing” has been called a Hovercraft, a Cushioncraft, a Germ and so on, but, whatever the name, they all refer to Ground Effect Machines.

Any jet through which air is passing is acted on by a force in a direction opposite to that in which the air is moving. If the jet of air impinges on a solid surface soon after it emerges, then that force is augmented, and in the case of an annular jet the augmentation factor runs into hundreds. The simple annular jet is shown in Figure 1.

The annular jet of air contains a cushion of air and it is the pressure of this cushion that supports the craft. For a given hoverheight the cushion pressure depends upon

the velocity of the air curtain, the jet angle and the jet-thickness. (Figure 2), For small craft it is usual to take the jet thickness as about one quarter of the hoverheight.

For maximum cushion pressure the value of the jet angle is about 30° . However, to give the maximum lift : drag ratio, the optimum value of θ lies between 45° and 50° . When the jet is inclined inwards there is a reduction of cushion area. By decreasing θ from 45° to 30° there is a 10% decrease in cushion area. Although the air curtain method of containing the cushion makes for greater mobility and amphibious capability there is a tendency for the cushion to ‘leak’ out through the curtain. Sidewalls can be used to reduce this loss. The sidewalls themselves are not necessarily rigid. In fact, Britain’s largest commercial Hovercraft employs flexible sidewalls. This use of flexible sidewalls reduces cushion losses whilst retaining the full amphibious capabilities of the craft.

At this point it is convenient to point out that in designing a Hovercraft there are spray and dust hazards to be considered.

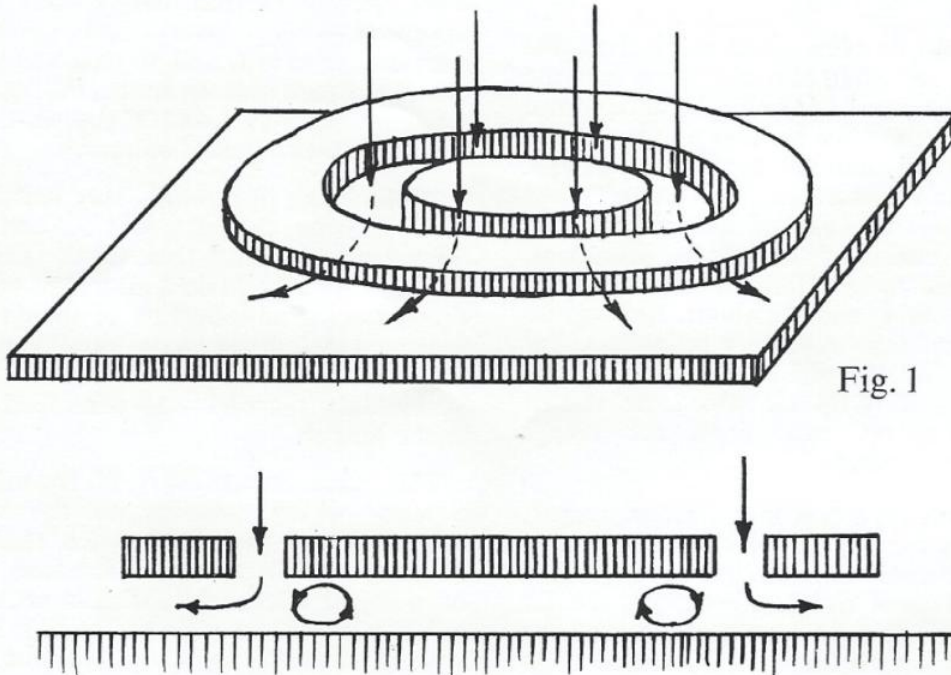
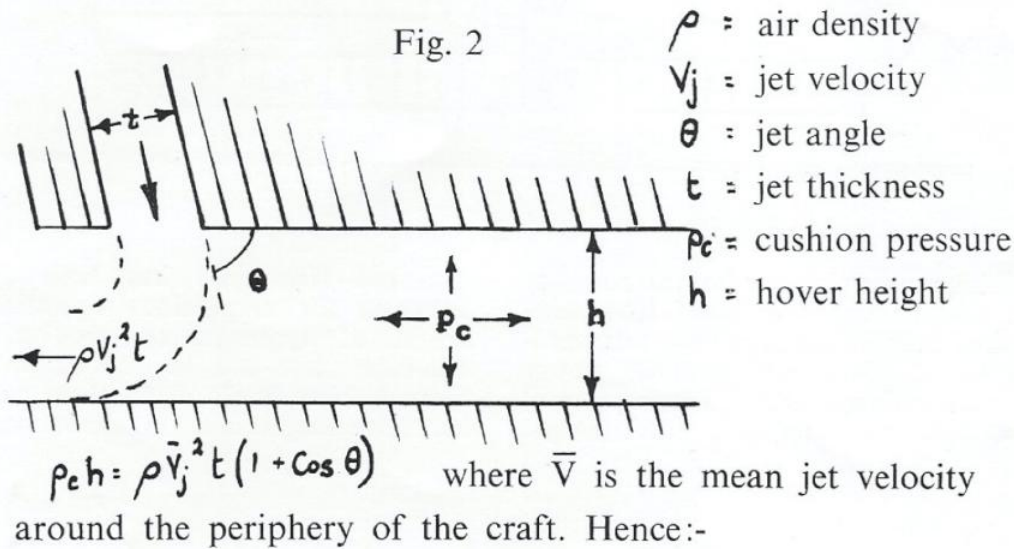


Fig. 1

Obviously the spray and dust must be kept to a minimum and to do this a low cushion pressure is necessary. However, such a low cushion pressure would entail a very large

in turn : the axial flow impeller needs extensive ducting to guide the air flow. This can be seen more clearly by studying Figure 3. The use of this ducting causes frictional



- ρ = air density
- V_j = jet velocity
- θ = jet angle
- t = jet thickness
- ρ_c = cushion pressure
- h = hover height

cushion area to carry a given pay load. This payload could be carried by a very much smaller craft if a higher cushion pressure is used.

The jet being annular, it is not unreasonable to presume that the craft planform should be circular. In fact, the circular planform is most efficient for static hovering. But as the design forward speed of the craft is increased so the length : breadth ratio must increase also. A suggested optimum value for this ratio is between 2 : 1 and 4 : 1. This would indicate that an oval planform is the most suitable. Unfortunately, such a planform introduces complicated compound curves, so, to ease construction, a compromise is usually made.

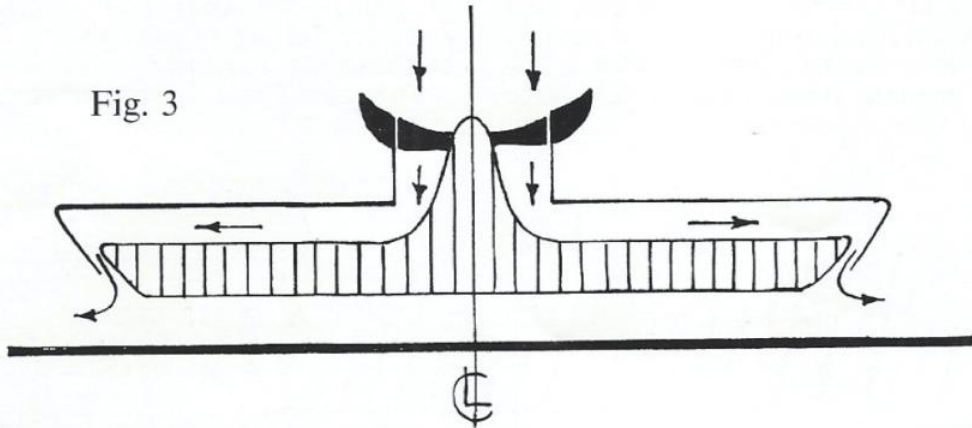
The layout of the craft is now mainly determined by the type of impeller used to create the air curtain. There are two main types of impeller — the axial flow and the radial flow. With the axial flow type the air passes through the impeller blades parallel to the axis of rotation, whereas with the radial flow type the air flows into the impeller and comes out along the radii having been turned through 90°. Considering each

losses and the overall efficiency of the craft is impaired. Despite this the axial flow impeller is the popular choice, perhaps because it is smaller than its radial flow counterpart. The fact that the radial flow impeller turns the airflow through 90° has already been mentioned, so immediately it is obvious that there is no need for extensive ducting. A typical radial flow impeller layout is suggested in Figure 4.

Other factors that must be taken into account when deciding which type of impeller to use are the air intake area, the power required and the r.p.m. that must be maintained. The intake area should be a minimum so as to give the maximum area for carrying payload. Usually the maximum continuous power and r.p.m. are fixed by the type of powerplant used and so the impeller is designed to these specifications.

Forward propulsion of the craft can be by one of several means — jet engine, sail, propeller or simply by tilting the craft in the required direction. (This tilting causes air to spill from the cushion and by action-reaction the craft moves along). Drive for the propulsion can be taken from either the

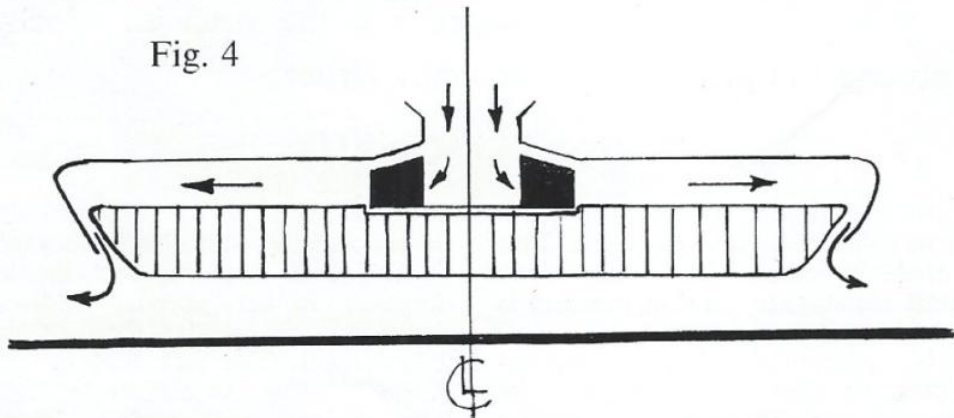
Fig. 3



main lifting power plant, or from an auxiliary engine. Despite common belief that near-frictionless motion requires very little propulsive power, this is not true. (70% power is required for lifting and 30% for propulsion) At first sight the propulsive power might

Cranwell Hovercraft has been designed. Intended for amphibious operation at a height of approximately six inches this one-man craft will be capable of speeds around thirty knots. Both these quantities, i.e. hoverheight and forward speed, will

Fig. 4



seem excessive but this is merely the power required to reach the hump speed; this being the speed at which the maximum drag occurs. Once the hump speed has been attained then only a fractional power increase is necessary to increase the speed.

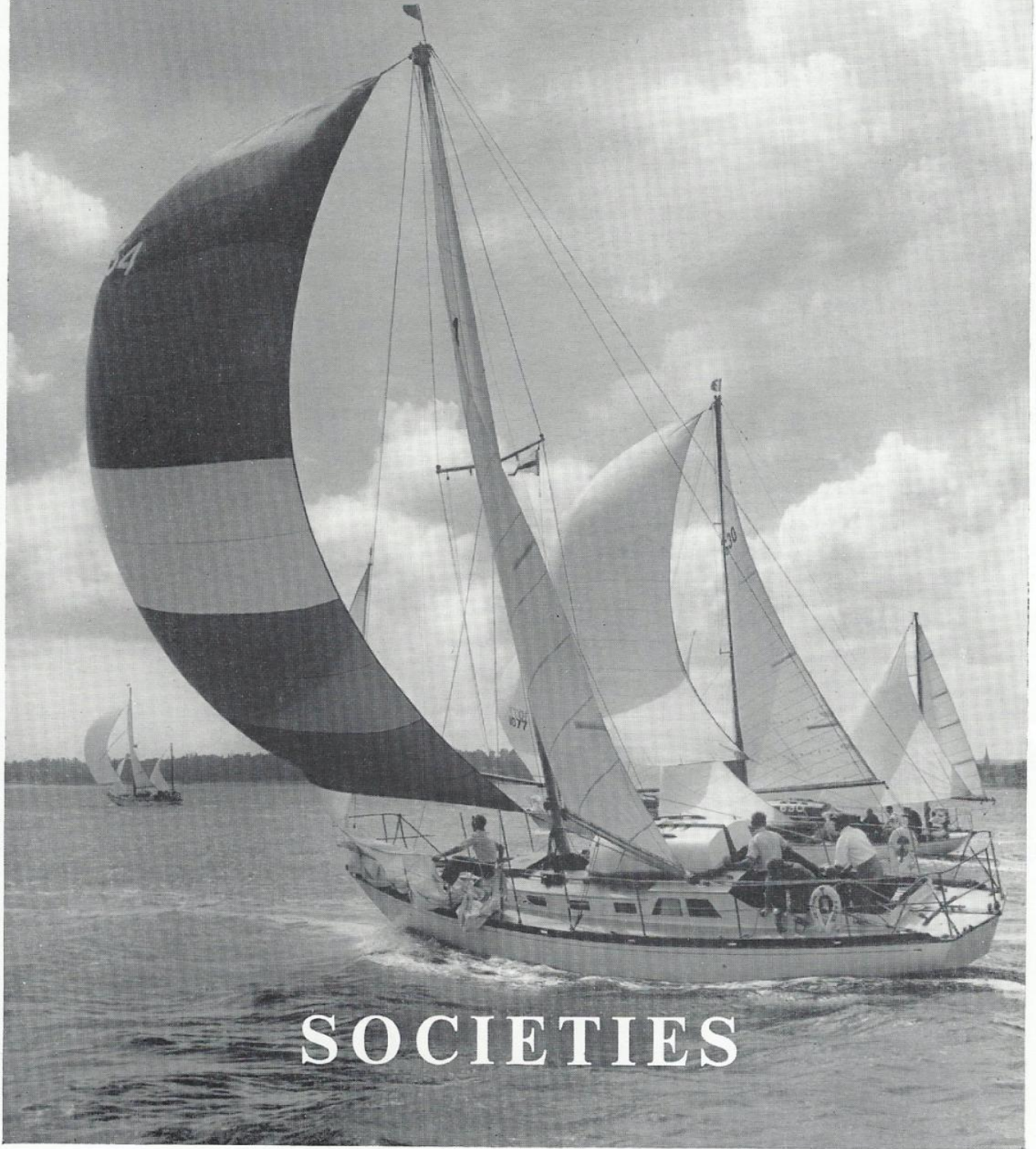
To control the craft, once again, there is not just one method but many. Even so, positive control is difficult to realise and Hovercraft will be liable to drift.

The study of Ground Effect Machines is only in the early stages so there is no definite theory that can be applied when designing a craft. However, a mixture of proven theory, empirical formulae and crude guess work is available for the designer. Bearing all the foregoing points in mind, and using perhaps more crude guesswork than is scientific, the

depend to a large degree upon the impeller and propulsive power used.

In conclusion, just a look into the future. The Hovercraft will not be developed to replace either ships or aircraft. It will be used as the "in-between" craft — to travel faster than ships and at lower speeds (and altitudes!) than airliners. A great advantage that the craft has over ships and aeroplanes is that it has a $33\frac{1}{3}\%$ — 50% payload as compared with about 20% for an ocean liner and 12.7% for such an airliner as the V.C.10. Despite this, the Hovercraft will probably only be employed as fast, comparatively small, short-haul ferry craft. The "air cushion" principle will also be applied to mono-rail trains. Above the Motorways will be a monorail with air-lubricated trains travelling from 200 to 500 m.p.h. There ought to be a great future for Hovercraft.

ACTIVITIES



SOCIETIES

Photo by Beken

OCEAN SAILING

The summer of 1961 saw the College putting to sea in greater numbers than ever before—to the consternation of certain others of the yachting fraternity. In fact, never in the field of “oggin” activity have so many miles been sailed in so few boats by so many cadets.

Out of consideration for our gentle readers and avid supporters we waft your minds to thoughts of billowing canvas, rolling seas, summer sunshine and “mornings after.” Only two of our six cruises and races are recorded below, but they epitomise life on the ocean wave as seen through the eyes of aviating mariners.

PLYMOUTH-BENODET RACE

It was a bright, gusty Tuesday morning when we joined the throng in Plymouth Sound for the start of the St. Nazaire race. At 11.30 a.m. the race started and we crossed the line in second place with over thirty yachts struggling behind. Once beyond the harbour walls the fleet began to fan out and the larger, faster yachts forged ahead. The crew of “Jethou” consisting of Flight Lieutenant Toyne, Pilot Officer Adams and Flight Cadets Jones, Giles and Rees, now divided into two watches, each watch being on for six hours during the day and four at night.

Our first course was southerly for Ushant and with a beam wind we pounded along at six knots. At nightfall, all yachts switched on their navigation lights with the notable exception of one Frenchman who careered through the fleet spreading alarm around him. At two o'clock in the morning we picked up the Ushant light, and dawn found us abeam the lighthouse with a favourable tide. We could soon pick out the remnants of the armada who were scattered around us. The wind dropped slightly and shifted astern, enabling us to break out the large spinnaker. This increased our speed and we soon began overhauling our rivals. The Sapper yacht “Annisina” followed our example and we fought it out for the remainder of the voyage. That evening it began to blow and the helmsman was soon in difficulties trying to hold her straight.

His lot was not improved when the compass light gave up the ghost, forcing him to rely on a torch. At midnight the spinnaker wrapped itself eight times around the forestay and refused to become unravelled. It took three people nearly two hours to free it, and it was then quickly replaced with the large ‘genoa.’ The remainder of the night was uneventful and in the morning we reached the outer roads of St. Nazaire. After a final neck and neck race with “Annisina” we crossed the line forty-eight hours and twenty minutes after leaving Plymouth.

It was a relief to tie up in the lock to the inner harbour, but our peace was soon shattered by the Frenchman who scraped in at the last minute and disdained to tie up. As the water swirled in at five knots he crashed from yacht to yacht to the accompaniment of a string of oaths from everyone. Once clear of the lock we motored gently into the inner basin and made fast at a prudent distance from the Frenchman. An



inspection party, consisting of the entire crew, then went ashore to discover whether or not the French sold food and wine. It returned two hours later in a more benevolent frame of mind and slept for six hours before sallying forth for dinner.

On Sunday, we sailed out of St. Nazaire for the start of the race to Benodet. We made another good start though we were nearly rammed by another yacht, oddly enough, the Frenchman. The French frigate "La Hardie," which acted as time keeper, accompanied us on the first stage of the race around the Ile d' Yeu, and as the evening drew in and the wind increased, it was reassuring to see her there. By nightfall it was blowing hard from the north as "Jethou" beat out into the Bay of Biscay. We were soon sailing under shortened sail but even so life was exceedingly uncomfortable. The spare petrol can leaked into the bilges and the resulting fumes did not enliven proceedings. At dawn the wind dropped slightly and backed towards the west allowing us to go about for Benodet. We maintained this tack throughout the day and in the late evening arrived in the outer reaches of Benodet harbour. Unfortunately we were unable to distinguish a buoy which formed the last mark of the course and this, coupled with a suspect handbearing compass, decided the skipper against going in that night. At 5 a.m. we negotiated the rock-strewn channel, and by 10 a.m. were safely anchored in the harbour.

Benodet proved a restful spot. We were once again most hospitably entertained by the local yacht club and the captain and officers of the French frigate. The latter we invited aboard on the second evening and they departed affirming that though we were not the fastest yacht we were without doubt the best.

At five o'clock the following morning we departed for L'Abervrac in company with "Annisina." At lunchtime we were compelled to anchor off the Raz de Seine for five hours in order to stem a five knot tide but at 8 p.m. we hauled up the anchor and headed for the Channel de Four between Ushant and the mainland. This proved a most exhilarating sail since we had both wind and tide with us. It was dark when we entered the Channel and the skipper and

helmsman spent a busy hour as we raced through at ten knots. We were soon clear, but shortly before reaching L'Abervrac were engulfed in fog and reluctantly decided to make direct for Guernsey. A following wind allowed us a pleasant day's sail along the coast of Brittany and soon after nightfall we passed the Roches Douvres and picked up the lighthouse on the southern tip of Guernsey. We entered harbour at 2 a.m. and slept until 7 a.m. when we were rudely awoken by the customs officials. We spent a pleasant day in St. Peter Port finishing with a gigantic dinner at the best restaurant in town. Early next morning we departed for Cherbourg in order to pick up our bonded stores and prepare for the final crossing to England. We reached Cherbourg at lunchtime and after six hours rest set out for Hamble. An interesting night was spent dodging tankers in mid-Channel but dawn found us safely off the Needles and a few hours later we moored beside the "Ditty Box" at Hamble.



THE SECOND CRUISE

The crew assembled at the 'Captain's Cabin' on 11th August with its skipper elect, Pilot Officer Adams. An overnight train whisked us to Plymouth, where we descended on the super-market to buy our food stores. We then patiently sat in the sun awaiting the arrival of "Sperling." She did not arrive, and the crew spent the night as grateful guests of the Officers' Mess, Royal Air Force, Mountbatten. We lost Pilot Officer Adams to "Jethou" to fill a vacancy in her crew, and on 13th August "Sperling" at last arrived.

We set course for Alderney with a pleasant following breeze, lashed the sails in the "goose-winged" position and settled down to our watches, hoping for a fast night crossing. Dusk saw Start Point vanishing behind us and dawn saw the lights of Alderney and the Casquets winking their welcome. It was a marvellously exhilarating sail with few problems or discomforts. We sailed the 85 miles in only 14 hours — exceeding all expectations.

Two hours were spent in Alderney shopping whilst waiting for the Alderney race to change. We surprised the other yachtsmen in the harbour by sailing out only two hours after sailing in, but we caught the 8 knot tide rip through the Swinge and despite some extremely short, steep, and uncomfortable seas, we raced past the rocks and set course for Guernsey. We arrived and anchored 2½ hours and 25 miles later in St. Peter Port. The Harbour Master was surprised to see "Sperling" back with a new crew less than 48 hours after having left for Plymouth, so we considered this to be a suitable reason for a party — which we duly held.

The next morning saw us disappearing again under full canvas with a fine breeze in the general direction of Jersey. Five hours of wind, sun and fine sailing, saw us safely esconced in St. Helier and eating a huge meal at the "Harbour Café." This was followed by a trip to one of the island's highspots of night life where a good cabaret entertained us for an hour. Wednesday brought high winds and we spent the day doing odd jobs, shopping, and generally sightseeing.

Thursday was fine and sunny, and as we had some guests on board we decided to sail round the island to St. Ouen's Bay to watch some motor racing on the sands

there. Spectating from one's yacht in this sandy bay bathed in sunshine engendered a fine feeling of opulence. We had an enjoyable run back to St. Helier in the evening — cleaning the boat as we sailed.

Friday was spent in dodging rain and high winds, and trying to revive rather damp spirits. This decided us to head for France and in due course we were to be seen beating down channel, making for L'Abervrac. This was our roughest leg, with wind force 6 and persistent gale force squalls. "Sperling" was taking rather a pounding and it was soon decided to divert to Lézardrieux. Using our patent M.E.S.C. navigational system we made a most unfortunate error and nearly sailed into Paimpol harbour but realised our mistake in time and spent a couple of hours circumnavigating innumerable rocks and beacons before anchoring very gratefully in a very sheltered and beautiful inlet, at the head of which is the town of Lézardrieux.

We hurried ashore and enjoyed a vast meal in a tiny café before returning to the boat for some welcome sleep. Sunday was spent very peacefully in fishing and swimming. One small plump fish was caught, but as there was no enthusiasm for eating it, it was returned to its natural habitat. The evening was occupied by a long sing-song with a group of French student teachers whom we had met on the previous evening. We didn't understand some of their words, nor they ours, but the idea was there! Next day we entertained, with some success, a party of a dozen or more schoolchildren who wanted to see over the boat. An early night prepared us for the sail back to Guernsey the next morning.

The return trip to Guernsey was a fast broad reach all the way and was most enjoyable if a trifle wet. That evening saw us renewing old acquaintances in St. Peter Port.

Time was running out, so, on Wednesday evening course was set for the Needles and home. Because the wind died just after we set out we were stuck almost motionless in the Race of Alderney, as "Sperling" was unable to make up against the tidal race. Once free of this however, we romped across the Channel, narrowly missing the "S.S. United States," on her way to America. We reached Hamble at 5 o'clock in the afternoon. Friday was spent cleaning and repairing "Sperling" ready to be handed over by a contented crew after a most enjoyable cruise.

SKI-ING

Over the Christmas leave, three parties of flight cadets went abroad for ski-ing holidays. Seven went to Zermatt on the Royal Air Force scheme, fifteen to Mjölfjell in Norway, and a team of six to St. Moritz for the first British Services Colleges Ski Championships.

ZERMATT

Of the seven who went to Zermatt, only two, Cane and Hood, had not ski-ed before, and with the expert Zermatt instruction they were soon on the more difficult upper slopes.

The runs, everyone discovered, were made very tricky by peculiar weather conditions. At the end of November, Zermatt had had three feet of snow but the temperature suddenly rose and it rained. The rain and melted snow then froze again, leaving whole mountain sides sheer glistening sheets of ice. Many of the *pistes* were closed as they were too dangerous for ski-ing, and, in places certain patches of ice on the runs that were open were quite treacherous, the 'Gallery' in particular. Someone developed the theory that ice should be taken straight in the hope that after the ice, there would be some snow on which to stop. This proved disastrous in the runs winding through the trees!

However, periodic light falls of snow and warm sunshine, which broke up the ice, made the ski-ing much more pleasant.

In the evenings, there was the usual night life and *après ski*. Many excellent parties were held in 'The Broken Ski,' the 'Walliserkanne' and the other haunts of Zermatt.

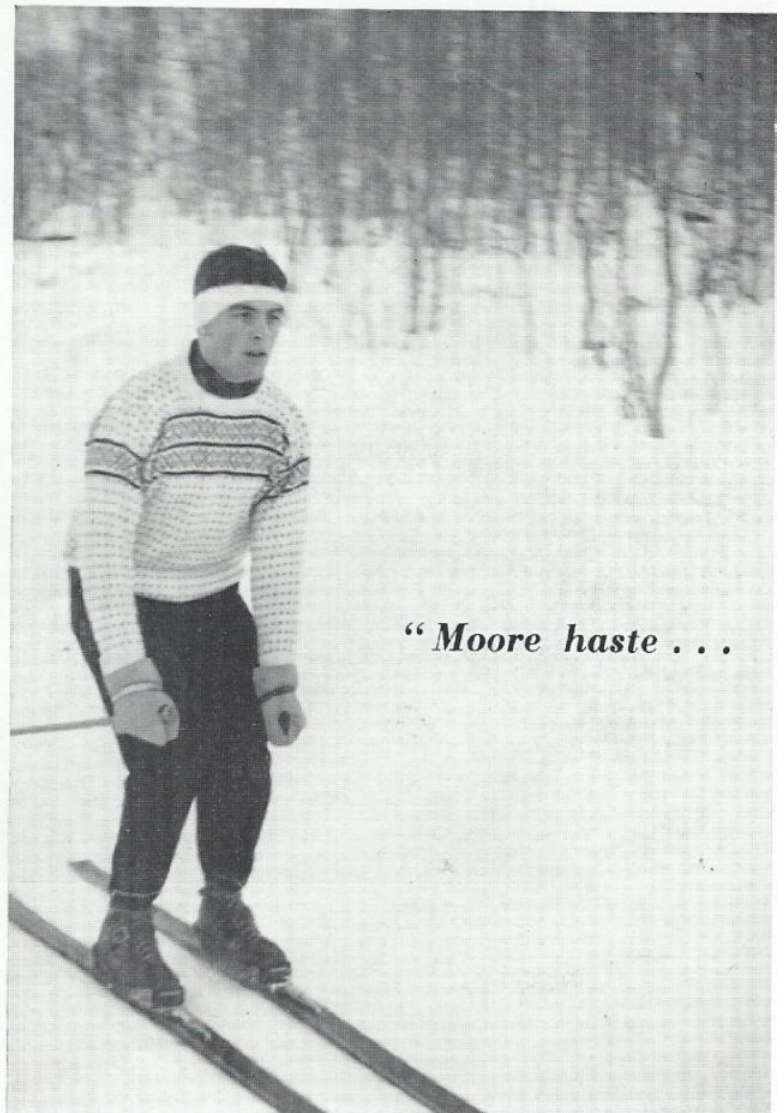
The time had come for the Cranwell race. As there were only six of us, Hughes having left to join the team at St. Moritz, the race this year took the form of a team race against the Royal Agricultural College, Cirencester. Our indomitable trio, Shaw, Busfield and Pile swept to victory. Shaw's time broke last year's record by 25 seconds, though it is fair to say that the race last year was slowed by a ski-class in its path. However, it was a notable time, considering a blizzard was blowing!

Then, all too soon, after a last evening in the 'Walliserkanne,' the party was heading back to England.

NORWAY

S.U.O. Thomson was in charge of a party of fifteen flight cadets who visited Norway during the Christmas vacation. The object was to provide facilities for learning to ski and, at the same time, have an enjoyable holiday. The majority of the members of the party were complete beginners, but by the end of the ten days, everyone could ski with reasonable proficiency.

Just two days after the end of term, the cadets assembled at Newcastle. Having boarded the "S.S. Leda" and left the murk of Newcastle behind, we settled down to a night on board ship. The crossing was very smooth for that time of year, and, on awakening the next morning, we were already steaming up a long fjord to our first port of call, Stavanger. Here we all had our first sight of Norway, being allowed ashore for a couple of hours



"Moore haste . . ."

before the ship sailed on to Bergen. During the day we steamed up the coast to Bergen, where we were to stay the night.

Bergen was reached during the early evening. However, there was a lack of night life, and by ten o'clock there were remarkably few places remaining open. We left Bergen by train the next morning. Although there was little snow at Bergen, as soon as we left the city the snow became deeper. Eventually, after a great number of tunnels and cuttings, we arrived at Mjølfjell. On looking out from the "station," (a single platform about thirty yards in length), we could see some of the ski-ing slopes on the far side of the valley. Between them and us lay the Mjølfjell Youth Hostel, about three hundred feet almost vertically below us. After much sliding and slipping we all arrived safely at the hostel, where we were glad to find a hot meal awaiting us. During this period, the hostel keeper introduced himself, and told everyone just how the place worked.

Not being able to wait to get on skis, every one of the party "had a bash" at ski-ing that first afternoon. After the initial tendency to sit down heavily had been overcome, most of the party thought that everything was going to be easy. The next day, however, started with one of several periods of ski instruction. We began to learn that there was more to it than just a "straight belt" down a hill. By the end of our ten days stay, everyone had achieved a First Star Standard and several members had become Second Star Standard skiers.

We organised several dances during our stay and everyone seemed to enjoy themselves enormously. There were special celebrations on Christmas Day, and a very amusing revue was put on by the different nations on New Year's Eve.

There had been plenty of snow, and towards the end of our stay, the main runs became fairly fast. It was with regret that we said goodbye to the country and people that had given us such an excellent holiday.

ST. MORITZ

Last autumn the College accepted a challenge from Sandhurst and Dartmouth to race at St. Moritz during the Christmas vacation. The race was to be held at the end of a fortnight's ski-ing. A group of six were required with four in the team and two reserves also racing. Only three of the four counted in the team result. Six of us, including one beginner, flew out to Zurich with the Combined Services party on the 22nd December. Hughes completed the team by coming from Zermatt two days before the race.

St. Moritz is certainly the queen of ski-resorts, as the glossy travel brochure would have us believe. The ski-ing is varied and well supplied with lifts and railways. At Christmas the crowds are large and you have to rise early to avoid an hour's wait for the railway. It was also one of the few resorts that had any reasonable snow. Unfortunately several of the runs were closed on account of the ice. Our giant slalom would have been held on the Olympic downhill course if it had been open. Compared with the cosy little village of Zermatt, St. Moritz is vast. It straggles along one side of a ribbon lake. The shops, restaurants and hotels are numerous and of a high standard, but the prices are also high. Besides ski-ing there is skating, curling, ice hockey and the Cresta Run. There is even a Casino with rather poor odds. Our gambling wizard, Morrow, won 30/- on 2/- stakes in an evening but lost it all again and gave up, £1 down.

When we arrived, the snow was firmly packed with ice patches here and there. There had been no snow for a fortnight and the hot sun had melted some of the exposed faces which re-froze to produce ice. The



... less speed"

hard going made the first few days rather painful as we regained our ski-legs. Black thighs made us even more determined to stay on our feet. As usual, the ski school started with a grading session. Trying hard to get into a high class, a turn is attempted that ends, if you are lucky, with your skis wide apart and pointing straight downhill. Due to the increased sine \ominus term your skis rapidly accelerate and you enter the snow rearwards. For those who are less fortunate, the skis suddenly cross, resulting in a flailing human snowball.

For the first five days the weather was hot and clear. The *piste* was fast and our skiing improved rapidly. The ski school did a lot for our style but we seemed to spend most of the time waiting for somebody to put their skis back on. At the end of class you worked off your frustration by having a "burn up"—a high velocity descent with little control and much danger. Skiers are gregarious animals and tend to follow each other's tracks when control permits. Every well used track became an ice sheet after a few days. Control is rather difficult on ice because ice is fast and skis are reluctant to bite when you try to turn. A turn at speed ends up as a broadside skid unless you edge your skis properly. The ice seemed to cause many accidents judging by gossip and numerous sightings of the ambulance. The rescue service was very prompt.

As soon as a call went out, the first aiders would come up the ski lift, towing a stretcher, and ski down to the accident. Fortunately nobody in our party had a serious accident.

We had been hoping for days for snow to cover up the ice and rocks, and then it came. The first fall was a few inches and made conditions excellent. Alas, the warm *föhn* wind had also heard us and we were plastered with wet snow until two days before the end of the holiday. On the upper slopes the strong wind blew the snow almost horizontally and made life very unpleasant. The deep fresh snow made control difficult and a new technique was required. The poor visibility caused by cloud and falling snow made it easy to become lost.

One morning we visited the Cresta Run. The Cresta Run is a great outpost of the Empire. It is dominated by the British Winter Sportocracy of St. Moritz. The idea is to ride a toboggan as quickly as possible down a course made of ice—complete with banked turns. The rider wears a large crash helmet, knee guards and steel gauntlets to protect his hands from the walls. Special boots are worn with a steel plate sticking out from the toecap. The plate has a saw-tooth edge which is raked into the ice to achieve braking and assist in turning. The sled is four foot long and two foot wide. The seat can slide forwards so that skilled riders can turn by shifting their weight

St. Moritz



instead of losing time by raking. The course is laid out so that you are certain to come off at the corners unless you keep your speed down and apply a turning force. The most famous corner is 'Shuttlecock' where many a beginner and expert have gone over the top of the banking and done a succession of flick rolls. Ideally the aim is to round each turn just below the lip of the banking, but if judgement is faulty there are always the bales of hay to land on. All those who come off are eligible to wear the tie of the Shuttlecock Club. In order to have a ride on the Cresta, one pays £5 for a temporary membership which entitles the member to five free runs. After that they are £1 each.

The other teams took the race very seriously from the start. Sandhurst had the finance to hire the best instructor for half of every day; he worked on their style. Captain Rayner of the Army Ski Team taught them for the rest of the day to go flat out down mountains. The net result was a lot of shaken soldiers, a twisted knee that could not be skied on and a scalp wound from a ski. As the race approached, they concentrated on slalom. Dartmouth hired an instructor morning and afternoon. They took things steadily and their final showing was quite creditable for their experience. We were left to our own devices as regards training. In ski class we worked on our style and went flat out downhill or worked on slalom for the rest of the day. Slalom requires far more skill than downhill racing and the race marking system is biased in favour of slalom. We persuaded a girl in the British Junior Team to arrange some slaloms and give us some coaching. The whole course had to be stamped to make it firm beforehand and the nearby lift was expensive so that you had to climb back after each run. There were also the gates to be put back and holes filled in after each attempt. When our coach demonstrated anything, it only went to show how much more we had to learn.

The race was planned for our last but one day with a giant slalom in the morning and the slalom after lunch. Our team consisted of Dick, Hughes, Millar and Conran-Smith (Captain) with Sawyer and Morrow racing as reserves. Also racing with the Service Teams was the British Junior Team who were working up for the British Junior Championships. We had to catch the 8 a.m.

train in the morning so that the race would be over before the crowds arrived. When we got to the top, cloud was swirling around us. We followed Carlo Mühlbauer down as he set the course and a fleet of volunteered instructors helped us stamp the course. The visibility was still only 30 yards by 10.30 so the giant slalom was postponed for a day. We were thus obliged to have two early nights in succession!

After lunch it was perfectly clear for the slalom. Carlo had set us a very fast course of 28 gates. We were allowed to look at it beforehand, but not to ski through it. The course was so fast that it was easy to get out of control unless you made a strong check at nearly every gate. Cranwell was drawn first so Dick was first off. He ski-ed superbly and put up the fastest cadet time of 36.1 secs. Christopherson, who was second in the British Junior Championships last year only did 33.0 as the fastest individual time. The rest of the team got down with several falls. Morrow went out of control on the last gate and headed straight for the judges with skis wide apart and crashed headfirst into the scorer's blackboard. All the reserves, except Sawyer, were disqualified from the second run for taking over a minute. On the second run Dick went down even faster but fell and took 40 seconds. Millar lost a ski and Hughes and Sawyer missed a gate and were disqualified. Dick was the individual winner of the slalom but Sandhurst came first with Dartmouth just ahead of us.

The final morning was beautifully clear. Carlo had set a very fast giant slalom. In fact it was really a fast downhill course, but since the rule book says that crash hats must be worn for downhill, and we hadn't enough to go round, it was called a giant slalom. The course had nine gates. It started with a very fast *schuss* straight down a steep slope and then a series of sharp lefts and rights every 30 yards. Most of us tried to go flat out all the way but fell around the seventh gate. Millar had a very good run and came second. The overall result and the giant slalom result were the same; Sandhurst first, Cranwell second and Dartmouth third. Black of Sandhurst (an ex-British Junior) won the giant slalom and the individual title, with Dick winning the slalom and being placed second overall. Conran-Smith was fifth and Millar tenth.

FILM

With the autumn term there were some innovations. Programme notes were written for each programme to give members some information about the directors and background to the films. Also, a sound-proof box was produced to cut down interference from the projectors, and finally, a second secretary was appointed to look after publications.

The programme included a wide selection of films. On the whole the audiences appreciated the films and supported them well. Nearly every Sunday evening was a full house and it is hoped that this support will continue through the spring term.



The term's showings opened with the Japanese film "The Seven Samurai." Unfortunately, the film was not in a very good condition and certain scenes were not easily distinguished. This was followed by the French gangster film "Touchez Pas Au Grisbi" which was a replacement for the Polish "Eroica." Four well-known and popular films were shown in the mid-section of the term. These were "The Apartment," "Psycho," "Richard III" and "3.10 to Yuma." Probably the best film of the term was the Swedish "Frenzy." It was popular because of its theme which was at times close to home! The term ended on a light-hearted note with Italian comedy gangster film "I Soliti Ignoti."

POTHOLING

During the autumn term the section held four meets. The first two trips were to Derbyshire, and were followed by trips to Yorkshire, Somerset and Monmouthshire. All of these meets were successful and the term was one of the section's busiest for some time.

Derbyshire

As is usual the section organised some training meets to enable new members of the section to gain experience in relatively short, easy caves. Flight Cadet Cleave led a meet of four cadets, and after visiting Peak Cavern they visited Gawtries Hole to spend an enjoyable, if somewhat wet, afternoon underground.

A second meet led by Flight Cadet Hughes shortly afterwards explored Carlsark Cavern.

Yorkshire

A party of four Flight Cadets, Duckenfield, Cleave, Coulson and Ellender set off from Cranwell at around eleven o'clock. At dusk, after an uneventful trip, the party arrived at Bull Pot Farm. In a short time the party, clad in "goon suits," moved off to find the entrance to Lancaster Hole, accompanied by some friendly Yorkshire potholers.

The 110 foot entrance pitch was negotiated without undue delay. The party moved off to explore the stream passage in the upstream direction. Due to the low level of the stream which tore round the corners of the passage, a lengthy exploration could not be made upstream. The party returned to explore downstream to the sump and then the main system of high level chambers and passages.

After twelve hours of enjoyable caving and several mugs of "coffee au Cleave" the party emerged into the grey drizzle of a Yorkshire morning. It was, we all agreed, a magnificent cave.

Somerset

During the mid-term break Flight Cadets Coulson and Cleave spent several enjoyable hours caving in the Mendips.

On the Saturday, Eastwater Pot was explored. This difficult cave was made no easier by the rock falls which had occurred recently. The cave however, is an extremely interesting, if arduous, one.

After a day of rest, August Hole was explored on Monday morning. This is another hard cave with many arduous crawls, and yet the sight of the formations in the stream passage made it well worth while.

Monmouthshire

By good fortune, College transport was available in the form of a dormobile, and so a party of nine were able to visit Agen Allwedd Cave (the second longest in Britain). Flight Cadet Cleave led the party across a bleak, Welsh hillside, in the dark, to reach the entrance.

After an initial crawl the party moved down the main chamber for 1000 yards. This cave is huge and yet its main attractions are the little gypsum crystals which emerge from the mud floor like crystal trees.

The party moved down through boulder chokes to the stream bed. Here, after mugs of Cleave's famous brew, the party explored downstream to the siphon and about one and a half miles upstream.

Ten hours after entering, nine happy but tired cadets emerged into the morning mist.

PRINTING

The society has had a busy autumn term, and a wide variety of printing jobs have been completed. Several members have become proficient with the new powered machine, and the rate of printing for larger orders has consequently increased.

New members are invited to use the section and take full advantage of the excellent equipment now available. The beginner can start by printing his own note-paper, a profitable pastime. The range of items which it is possible to print is only limited by the patience and ingenuity of the printer.

The variety of work completed by members of the printing section was on show in the College Society's Exhibition at the end of term.

FIELD SHOOTING

Last autumn term six shoots were held on Barkston airfield, the usual daily bag consisting of about three brace of pheasant, half a dozen hares and perhaps a partridge or two. Despite the obvious enthusiasm of those who shot, partridge were singularly elusive, preferring the open-air life to being

plucked and roasted in the College kitchens, and only 4½ brace were shot. 15 brace of pheasant, 27 hares and 7 pigeons were also accounted for. During the winter leave, Flight Lieutenant Williams and Flight Cadets Pearce, Sutton, Gaynor and Carrington were to have visited Ireland for rough shooting in County Clare; unfortunately the British winter sabotaged the travel arrangements and the expedition was cancelled. It is hoped that some wild-fowling on the Wash can be arranged during the spring term.

RIDING

During most of the autumn term the riding section had to make do with only two horses suitable for riding by cadets. This lack of horses necessarily curtailed the amount of riding that they were able to do. Sunday afternoon was a very popular time to ride, but only four cadets were able to ride in every two hours available.

Mr Edgeley's hunting commitments also prevented them from riding on Saturday mornings, which would have been very popular.

The Jorrocks Trophy competition held on the North Airfield on November 26th, 1961, was a test of the rider's ability to control his mount whilst performing certain manoeuvres such as jumping and riding in pairs. The Trophy was won by 'B' squadron with 'C', 'D' and 'A' squadrons following in that order. Each squadron entered a team of two riders.

It had been hoped that a few cadets would be able to hunt this season, but this has not been possible.

GLIDING

No significant flights were made during the autumn term, but this was only to be expected considering the time of year. In addition, the Olympia and Prefect only made brief appearances during the term, due to the unsuitable weather and the absence of the Chipmunk, which required servicing.

Considerable support, however, was had from the Junior Entry. The two T.21s and the Tutor were used extensively for dual instruction and early solo flying. Several cadets from 85 Entry gained their A and B certificates, and two were checked out on the Prefect.

KARTING

There has been a Kart Club in existence for some time now in the College, but its presence was not widely publicised. It was begun by Senior Flight Cadets and membership was restricted to these exalted people. This was because of the small number of karts available.

However, at the beginning of the winter term the Club was thrown open to all-comers and suddenly grew in size from the initial select band of about ten people to an overwhelming crowd of some forty persons. This was a vast number to cater for with the small number of karts available. The position was relieved somewhat by the merging with the Airmen's Kart Club, but even now the situation is by no means satisfactory. But despite all these drawbacks the society has been an overwhelming success.

The College Club has only two karts at the moment while the Airmen's Club has six, but with the amalgamation of the two concerns eight karts were made available for use to all members. Of course, the airmen's side of the group were able to offer some expert servicing of the karts and the cadets were organised into syndicates to help in this sphere of the Club.

Because petrol and tyres are not the cheapest commodities, and because they were both used at such a phenomenal rate, a nominal fee was demanded of all "karters." A charge of two shillings for a five-lap race was made and was found to be sufficient to cover the main cost.

As far as the cadets were concerned there were no set fixtures during the autumn term, although dates have been made for future competitions. But competition between members often developed into affairs of honour, and the standard of racing improved as the term progressed.

Although there are a great number of cadets already patronising the society there is always room for new blood, and if the demands of the Club grow it may be possible to increase the number of karts that belong to cadets so that we can be on an equal footing with the airmen. So if there are any cadets who have not experienced the thrills and spills of Kart racing they are welcome to try their hand any Sunday afternoon when the society meets on the tarmac near the Navigation Squadron.

JAZZ AND FOLK MUSIC

This term has been most successful for the Jazz and Folk Music Society. There have been three visits to concerts. The "trad" fans went to see Acker Bilk at Nottingham, whilst the "modernists" paid a visit to



Leicester to see the great Brubeck quartet. Not to be left out, the folk music lovers went to a Nina and Frederick concert in Leicester.

Without doubt the most active part of the society has been the jazz band, After playing at College functions for the first half term,

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the band accepted an invitation to play outside the College. It turned out to be a full evening of playing at Lincoln Training College, which was well received. The second engagement was at Leicester Domestic Science College, which was also a success.

With a little encouragement, the band produced some good, driving jazz, and the front line and rhythm section combined well. Jensen, clarinet, was the mainstay of the front line, making some brilliant breaks at times. Terrett, clarinet, and Jarron, trumpet, backed him up well, whilst Haysom struggled valiantly with his trombone. Leedham on drums, "Kiwi" Thomson on piano and Davies, bass, kept the rhythm section going well. Mitchell delighted on his banjo.

FINE ARTS

The Fine Arts Society has continued to function this term mainly because of the support of the "old faithfuls." It seems a pity that not more members of the College take advantage of the materials made available in the Fine Arts room. But despite this fact, there does seem to be some genius lying dormant in the sleepy corners of the College. This became apparent with the Society's Exhibition held at the close of the autumn term. As far as the Fine Arts Society was concerned the exhibition was most successful, claiming considerable interest from the onlookers.

For the College play, "Nude with a Violin," came a commission for a portrait of the same name. Two cadets of the society with their tongues in their cheeks, duly shared the honours. The laugh, however, was on them, when the painting was considered something of a masterpiece by those we consider should know.

Members were also asked to produce a number of paintings for the Graduation Ball of 80 Entry. Flight Cadet Piggott completed a number of excellent Toulouse Lautrec reproductions which did a great deal to further the "Parisienne" atmosphere of the ball. Other cadets completed a number of more "ad lib" paintings to help with the atmosphere.

But compared to other terms it was pleasing to note that the society has been much more active. Also we are pleased to note that the Wives' Club has taken the plunge into the world of art and we hope

that their interest will not flag, for they have managed some excellent pieces of work during the time that they have been painting.

CHESS

The Chess Section had a quiet term. The main activity was practice for the spring term. With the departure of 80 Entry, we lost four members of the College team, but the Section's members have been swelled by the Junior Entries where considerable talent is apparent.

We look forward to an active spring term in which our main fixtures will be against Sandhurst, Lincoln and Horncastle. Other fixtures have been arranged with a number of local clubs.

MUSIC

The twin aims of the group are to foster and encourage an interest in, and provide an opportunity to enjoy, classical music.

These have apparently been achieved as the record library, held by the Cadet Secretary, has been well used and often it is difficult to obtain enough concert tickets to satisfy the demand.

The main centre has been Nottingham, where many cadets attended concerts given by the Bamberger and Hallé orchestras. Several of the keener members made their own way to the R.A.F. Anniversary concert at the Royal Festival Hall.

The healthy state of the society is revealed in that the Albert Hall, Nottingham, regard Cranwell as a regular bulk-buyer of tickets. May this continue.

DEBATING

One formal public debate was held in the autumn term, the motion being "This House believes the Press is failing in its duty." This failed to produce any cut-and-thrust debating, despite an impassioned plea from Flight Cadet Annett, though the principal speakers spoke well and not without point. The attendance was discouraging, and the rather cheerless atmosphere of the Main Hall tended to intimidate speakers. One or two floor speeches showed that talent is available. A visit made to Cambridge Union revealed only too clearly that while Cranwell need not despair, the wholehearted participation of everyone present is a must.

A new charter is being evolved to regroup and develop talent before a further public appearance. Debating has fallen awkwardly

between two stools, as a public College function and a Society activity.

Accentuating the latter, it is thought, will develop a nucleus of keen and competent debaters prepared later to fulfill their public obligation against other teams and guest speakers. "Spying" visits to Cambridge and other colleges and universities will be regular events to which all are welcome.

"NUDE WITH VIOLIN"

On 11th and 12th December the Dramatic Section of the College Society presented Noël Coward's "Nude with Violin" in the Main Hall of the College. The play was produced by Cyril Adcock and Mike O'Rourke, who controlled the actors with discretion and handled the small set with some imagination. Now and then one or two players emphasised the limitations of the stage by emerging hurriedly from an ugly huddle on the left, taking three swift strides and settling into "the spot I should be on at the bottom of page 27," swaying but visible. But the evening was enjoyable, and there were some good performances.

Roger Annett played Clinton Preminger with vitality and a sustained American drawl. His vigour contrasted well with some of the more restrained acting. Sean Maffett's sometimes plausible interpretation of Sebastian Lacreole was particularly good on the telephone in various foreign languages ; but he was too rigid and colourless. Another mannered performance came from Martin Morrow, who made a popular caricature of the part of Colin. Ted Gorton as Jacob Friedland found it hard to act when he was not speaking, and his speeches sometimes lacked spontaneity and sounded as if they were being read. Chris Haysom made a delightful vignette of the part of George, 'throwing away' his lines with splendidly calculated volume and intonation. He also painted the "Nude with Violin." Cyril Adcock was at ease with Fabrice, Mike Shaw's voice grated as Lauderdale, but Winston Forde (Obadiah Llewellyn) sang pleasantly.

A great deal of the success of the play was due to the ladies. Esme Lawton, with the unrewarding part of Isabel, left no doubt that she is an actress of talent ; Joyce Loat gave perhaps the best performance of the evening as Anya. Her Russian accent, her stage presence and gestures were impeccable. Useful support came from Deidre Moss (Jane), who cheered up a dull part, Anne Dunkley (Pam) and Jill Webster (Cherry May).

The prompter was seldom heard by the audience or the actors. The set was solid and the décor convincing.

ENGINEERING

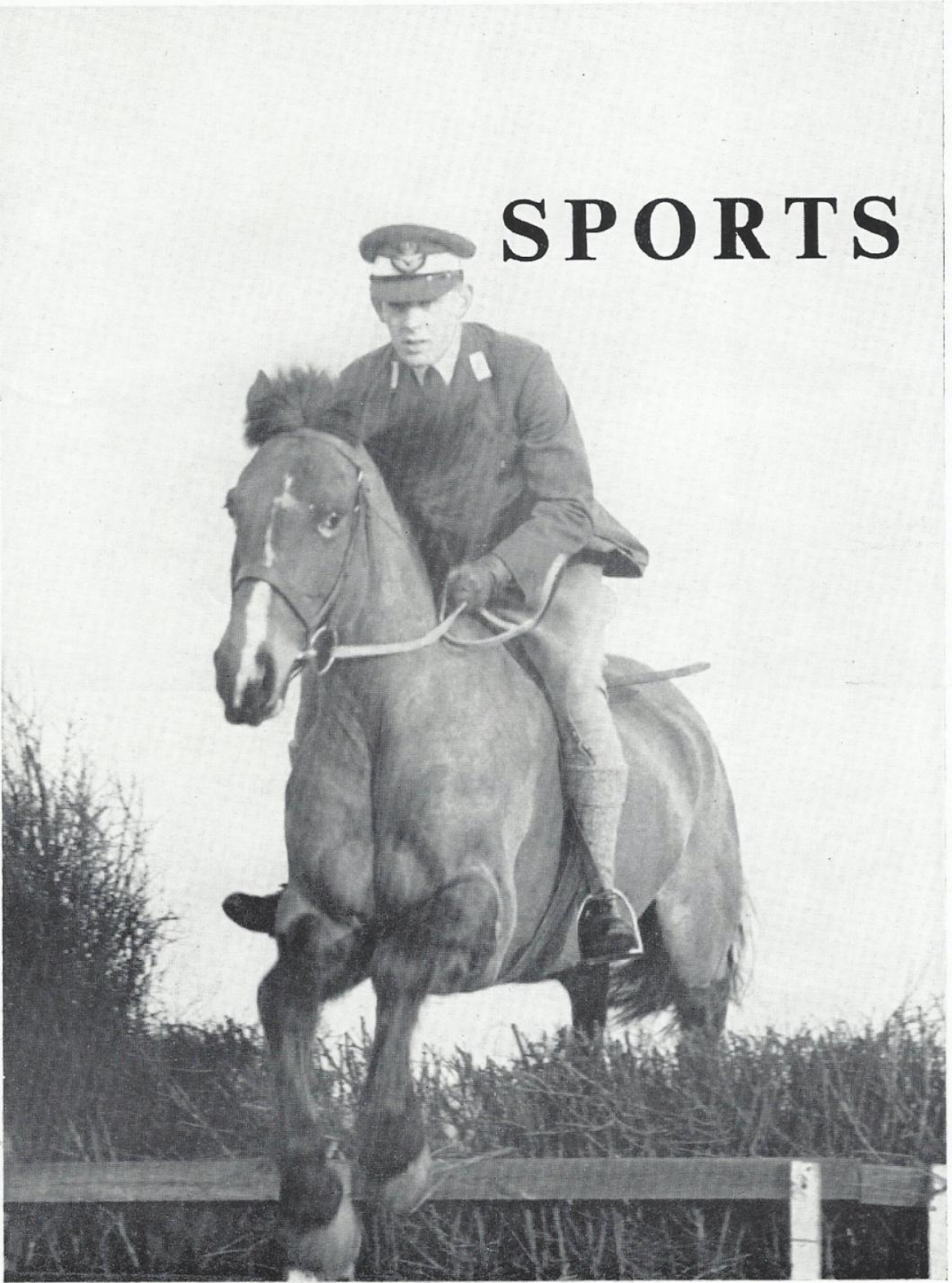
At the beginning of the term a course in welding, brazing and silver soldering was started. This was a popular move and several cadets were keen to make use of it. It was, however, not as successful as had been hoped owing to the number of sports and activities clamouring for use of the time between tea and supper. The number of those attending the course never dropped to zero, though on three or four occasions only one person was able to attend. This fate is the same as that suffered by the lathe course during the previous term. We thank Chief Technician Reeves for carrying on the course so generously in what must have been very disheartening circumstances, but assure him that those few who did manage to attend regularly learned a great deal and hope soon to prove their new skills.

The main failing of the society at the moment is the lack of highly skilled members. This lack hinders the construction of any machine or engine of any value as a piece of engineering practice. Exercises in welding, turning and riveting are excellent for developing the manual skill necessary to the would-be metal worker. Nobody can dispute that lampstands are useful and creative, but if the society is to justify its name it must carry out some genuine engineering.

Now it so happens that our chance to do this has come and we have ahead of us a challenge of no mean quality — the construction of a hovercraft.

The photographs on pages 36, 37, and 38 appear by courtesy of the Imperial War Museum.

SPORTS



RUGBY



Having lost a number of players from last season's team, the 1st XV began the new season with several new members from the junior entries. Everyone looked forward to a successful season under the captaincy of McCarthy. On the first day of term the College beat R.A.F. Cranwell by 12 to 3. For the next few weeks an intensive training programme was followed, both on the field and in the gymnasium, under the guidance of Sergeant Campbell.

The traditional series of matches against London teams was not particularly successful. The team lost to the London Scottish, Rosslyn Park, Blackheath 2nd XV, and Harlequin Wanderers. These matches served, however, as useful experience, improving both fitness and skill.

As always, the most important matches were the inter-Collegiate games, and the highlight of the term was the defeat of Sandhurst. The two other games, against Henlow and Dartmouth, were lost, 5-6, and 6-25 respectively.

Other notable matches included a closely fought game against the R.A.F. Officers XV (3-6), and games against Jesus College, Cambridge, and the Oxford University Greyhounds.

The inter-squadron competition was won by 'A' Squadron, who were undefeated in their three matches though their final victory, against 'C' squadron, was by the narrow margin of 6-3. 'D' squadron was second, winning two matches, 'B' third, and 'C' fourth.

Colours were awarded to Allcorn (who was nominated as the next captain), Latton, Jones, and McKinley.

R.A.F. COLLEGE versus B.R.N.C. DARTMOUTH

It was wet and windy at Dartmouth on the 11th November as the two teams took the field. Dartmouth had a heavy, solid pack, well-drilled and quick into the loose ball. By half-time, the College was trailing 3-11. Dartmouth had scored a try, a goal, and a penalty goal, to one penalty goal by Allcorn.

In the second half, Dartmouth forwards revelled in the mud. Mainly through the efforts of the pack they scored 15 further points while the College could add only 3, thanks to an individual effort by Latton on the right wing.

The final score of 26-6 for Dartmouth belies the actual play. But for an excellent goal kicker, they would have won by a smaller margin.

R.A.F. COLLEGE versus R.M.A. SANDHURST

Two weeks later, the College apprehensively fielded their team against Sandhurst who were having a particularly successful season. They had lost only two matches and possessed a fast, attacking set of three-quarters.

From the start the College forwards played vigorously and purposefully. Thorn, prop-forward, scored a surprise try right under the posts. Allcorn's kick was charged down, but the College were exhilarated. Good play was noticeable in the touch kicking and fielding of Allcorn, in the line-outs of Crook and McCarthy, and in Jones, who at scrum-half, was most active in defence.

After 30 minutes Allcorn kicked a penalty, returned by Sandhurst just before half-time, making the score 6-3 to the College.

Despite a second penalty by the College early in the second half, Sandhurst began to make dangerous attacks and seemingly clinched the match when the score went to 9-11 in their favour. But the Cranwell forwards fought back, and with 15 minutes to go a penalty was kicked by Allcorn again. Despite a desperate struggle, with tension high right up to the final whistle, the match went to Cranwell at 12-11.

RESULTS

	Played	Won	Lost	Drawn	Points	
					For	Against
1st XV	16	5	11	0	115	223
2nd XV	11	6	5	0	103	84
3rd XV	11	8	3	0	159	97
4th XV	4	3	1	0	47	43

MODERN PENTATHLON

Even though the Modern Pentathlon was not a major sport during the autumn term the pentathletes were very active. The new entry, arriving in September, provided half a dozen new pentathletes — half of whom deserted before many weeks had ensued. However, the rest of the team, together with the new recruits, embarked on an intensive fencing training programme. This was run in conjunction with the Fencing Club as some of the pentathletes are also "stars" of the Club.

The training programme was a fairly flexible arrangement so that those cadets who were actively engaged in the fencing team could fulfil their commitments to both sports. Just after half-term we sent two teams to Cambridge to compete against the University

team. This was more of a "social" fixture than a full-blooded tetrathlon match. The standard of both teams was very low as it was out of season and the fixture served as a training session for both teams. The Cambridge teams were first and second and College teams third and fourth.

The pentathlon team looks forward to the spring and summer terms for which an impressive fixture list

has been compiled. The highlight is the fixture with a French team in Paris during the half-term break. It is rumoured, at the time of going to press that cadets are already in training for this match to ensure themselves a place in the team! We could do with a few more pentathletes to swell our ranks—why not give it a try? After all, it is not every cadet who can savour Paris in the spring!



SOCCER



The College Soccer teams began the season well. During the autumn term the First XI lost three matches, the Second XI lost five, while the Third XI finished second in the Inter-Section League.

The First XI, under the captaincy of Thomson, went from strength to strength after an early set back at Scunthorpe. The climax was reached in the resounding defeat of Sandhurst.

Azzaro in goal was safe and his agility, courage, and anticipation were one of the highlights of the team. He was largely responsible for keeping the "goals against" down to 34.

Collier and Priest played well, Collier beating the opposing wingers by hard tackling and intelligent positioning, and Priest relying more on quick interception.

Another College goal against Sandhurst

The team's strength lay in the half-back line. Terrett, Shorrock and Johnston gave little scope to any opposing inside trio and initiated most of the College attacks. Although Terrett was playing in an unaccustomed position, he adapted himself admirably and played well both in defence and attack.

Johnston, at centre-half was the pivot of the defence. His marshalling of the defence and faultless defensive play helped to keep down the goals scored against the College.

Shorrock, at right half, was the source of many moves. Ideally an attacking wing-half, he was often a sixth forward whilst doing fine work in defence.

Bradford, on the right wing, showed great tenacity and skill. Most of the goals — many of which were scored by Blake — came from Bradford's accurate centres.

As usual, Blake was the leading goalscorer and his opportunism was the prime factor in the goal total. Since joining the College he has always headed the goalscoring list and looks like continuing to do so.

At centre-forward, Deakin played a roving, deep-lying game, and, although he scored few goals, his positioning and anticipation provided many goals for others.

Haddock, with a strong shot in both feet and excellent ball control, provided an excellent foil for Blake, as well as scoring a number of goals himself.

On the left wing, Thomson, by his effort and control, contributed much to the success of the side.

R.A.F. COLLEGE versus R.M.A. SANDHURST

Sandhurst visited Cranwell this year and the Soccer team was eager to wipe out the memory of the unfortunate defeat at Sandhurst last year.

The game took place in the morning, with a chilly wind and bright sun.

Cranwell had the best of the earlier exchanges, the two half backs and inside forwards for the College dominating the mid-field. The scoring was opened by Deakin with a running shot from a through ball by Haddock. Ten minutes later Bradford scored with a first-time shot from a centre from Haddock. Just after half-time Shorrock scored from forty yards with a shot hit on the volley which curled under the crossbar. Blake made it 4-0 with a beautiful shot from a narrow angle which glanced off a ruck of players. The last goal, making the final result 5-0, was from Haddock, who hit a centre from Shorrock from 12 yards.



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BADMINTON



The autumn term has been a successful one for the two teams. The standard of play improved throughout the term, thanks to the coaching and encouragement of Sergeant Hall. The highlights of the season were certainly the victories over the B.R.N.C. Dartmouth and the R.M.A. Sandhurst.

After a hectic night at Dartmouth, followed by a morning trip on the river Dart, we succeeded in beating the Naval cadets by seven games to two.

We played Sandhurst at home and were helped, no doubt, by being familiar with the low beams of the College gymnasium. The College won by five games to four, but not without some anxiety. After leading 4-3, the College 1st pair, our Malayan wonders, surprisingly went down to the Sandhurst 2nd pair. Happily the College 2nd pair managed to win the final game, gaining victory for the College.

Despite losing four 1st team members at the end of the term, there are several promising players 'coming on,' and we face the future with hopes of building up a strong team for the next season.

At the end of term, colours were awarded to Mighall and Quek.

The 1st team consisted of Theseira (Captain), Omar, Mighall, Quek, Jayatilaka and Bowler with occasional support from Gaynor and Hughes.

RESULTS

1st Team

Loughborough Colleges	2	7	(L)
Leicester University	7	2	(W)
B.R.N.C. Dartmouth	7	2	(W)
R.M.A. Sandhurst	5	4	(W)
Nottingham University	2	7	(L)
Leeds University	5	4	(W)

2nd Team

Loughborough Colleges 2nd	0	5	(L)
Carre's G.S.	7	2	(W)
Oakham School	8	1	(W)
King's G.S.	8	1	(W)
King's G.S.	4	5	(L)
Carre's G.S.	7	2	(W)

Played 12. Won 8. Lost 4.

HOCKEY

With the backbone of last year's team in this season's XI there were high hopes of good results if the team could produce goal scorers. The Henlow match was the only time during the season when goals were scored at a high rate. The team found that, for once, it was able to think before moving the ball about the field, and this paid dividends. It was a pleasing sight to see the ball being moved swiftly round the field. The forwards had a heyday, and produced eight goals, the scorers being Reynolds, Ross, Quek and Christie-Miller. The half-backs and backs had a relatively quiet match, but when they came under pressure there were signs of insecurity. The captain — Junor — however, held the team together during these periods and led the College to a well-earned victory.



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FENCING



The autumn term is always regarded as one of training for the important inter-Collegiate matches of the spring term, and as such it was successful. In the school and club matches the teams met with some

success, and some useful new talent was found in the junior entries. Our hopes for the future were further brightened by taking over the old Roman Catholic church as a fencing *salle* — thus relieving the congestion in the gymnasium.

Inter-squadron fencing was held on the 6th and 9th December, when Thomson gave a first-class display of foil and sabre and won all of his 12 assaults. All three weapons, and the whole competition, were won convincingly by 'C' squadron, with 'B' and 'D' squadrons fighting hard for second place.

The inter-squadron results were C — B — D — A.

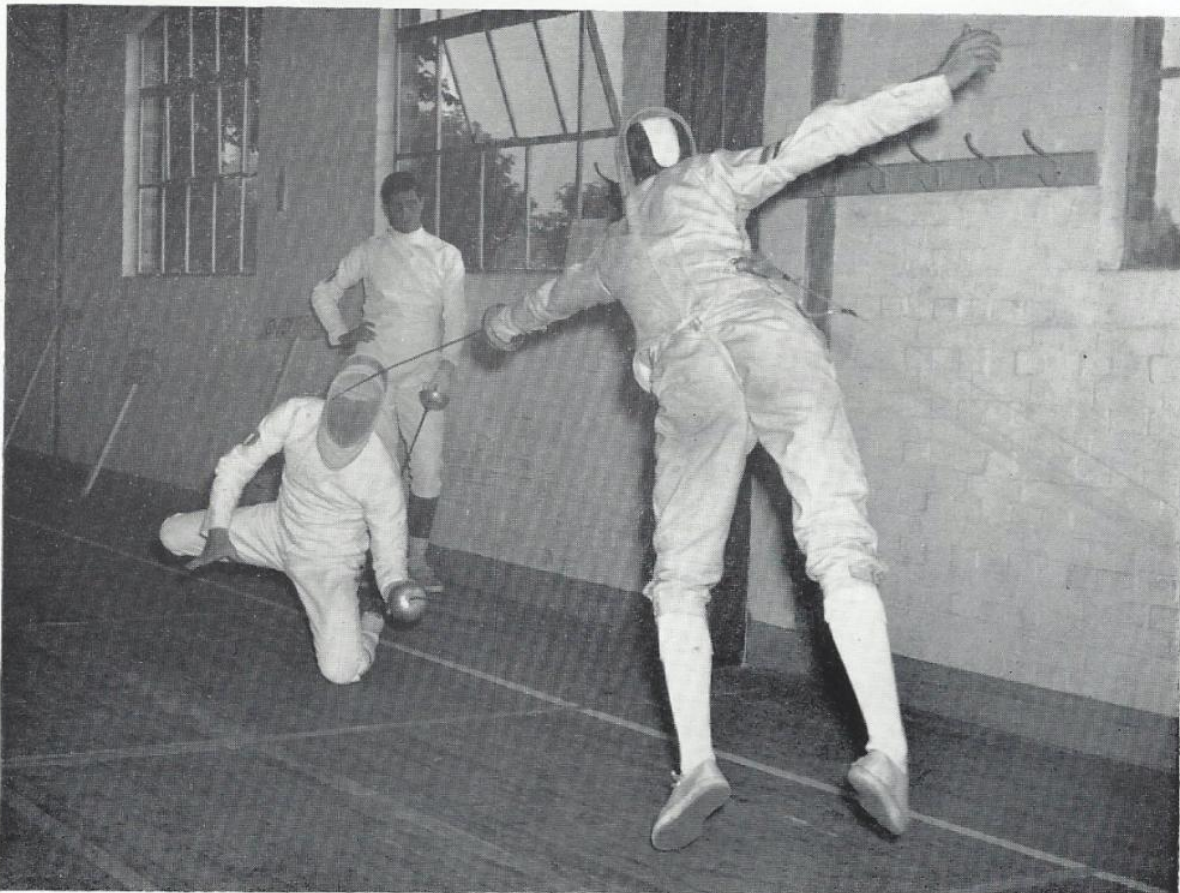
RESULTS

1st team

St. Paul's School	Won 17-10
Peterborough F.C.	Won 18-9
Ransome & Marles	Won 19-8
Westminster School	Lost 10-17
Wandsworth G.S.	Lost 10-17

2nd team

St. Paul's School	Lost 7-11
Peterborough F.C.	Won 11-5
King Edward G.S.	Won 8-8
Ransome & Marles	(hits against) Drawn 4-4
Wandsworth G.S.	Losses 6-12



CROSS-COUNTRY



The term was again not a good one for the Cross-Country team. Altogether the College ran ten matches, winning four and losing the others by varying degrees. One improvement made this year was that the home course, which had been two identical laps, was modified, which made the running more interesting without altering the length of the course.

The term started with a win against Carre's Grammar School. This is always an easy match and the standard of running was relatively low.

The best two matches of the term were those against Nottingham University at Cranwell, and against Sheffield University at Sheffield. In the first match the College succeeded in beating one of its closest rivals and in having the first two runners home. Hardie achieved a good win over Morrison. The other match was notable in that Gibson beat Hardie into second place.

Our one London match was against Thames Hare and Hounds against whom we had not run previously. It was run over a $7\frac{1}{2}$ mile course which proved rather too strenuous for our team. Nevertheless, the match was enjoyed by all and the hospitality afterwards was excellent. It is hoped that this will be a regular fixture.

The less said about the matches against Dartmouth and Sandhurst the better. The Dartmouth course was every bit as bad as had been rumoured, and the extremely cold weather and high winds did little to improve our running. We were also handicapped by the loss of one of our best runners who went down with an injury at the beginning of term. The Royal Military Academy were entertained to a match at home; we came down badly losing 53-27.

University College London turned up an hour late for the match at Cranwell and consequently it was run over a shortened course. The College Captain succumbed to an injury early in the match but this did not deter the team and we won easily.

We bid farewell to Hardie who has been the mainstay of the team while at the College. As Captain during the last two years he has held the team together and restored confidence when things looked black. We shall look forward to running against him when he returns to run for the Milocarians.

Fradley and Morrison are to be congratulated upon being awarded their colours.

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THE
ROYAL AIR FORCE
COLLEGE



JOURNAL

CRANWELL

SUMMER 1962

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Contents

	<i>Page</i>
College Notes	111
Old Cranwellian Notes	123
<i>Articles</i>	
North America 1962	124
Per Ardua Ab Astris	127
Landings Made Easy	129
Hovercraft Review	131
" The Morecambe "	137
A Young Soviet Lieutenant's First Flight in a Supersonic Aircraft	141
" Young Men Shall Go Hooded "	142
Bikes for the Boys ?	147
<i>Short Story</i>	
A Story At Closing Time	134
<i>Book Reviews</i>	
Winged Victory	144
Customs of the Services	145
<i>Poem</i>	
Hope Springs Eternal	151
<i>Activities and Societies</i>	
H.M.S. Pinafore	154
Canoeing	156
Jazz, Bridge, Sub-Aqua	159
Motoring, Karting	161
Ocean Sailing	163
Engineering	165
Mountaineering	167
Debating, Gliding	169
Dinghy Sailing, Riding, Film	171
Ski-ing, Water Ski-ing	173
<i>College Sport</i>	175



*The Chief of the Air Staff on his arrival at the College is greeted by the Commandant,
Air Commodore E. D. McK. Nelson, C.B.*



College Notes

We congratulate the Chief of the Air Staff, Marshal of the Royal Air Force Sir Thomas G. Pike, G.C.B., C.B.E., D.F.C., on his appointment to the rank of Marshal of the Royal Air Force. The Chief of the Air Staff visited the College on 20th March.



It was in December 1960 that the Air Council made the decision to train Technical cadets alongside their contemporaries from the General Duties, Equipment and Secretarial Branches. To most people at Cranwell there has been little outward sign of the preparations to bring the two Colleges together, but to some at Air Ministry, Henlow and Cranwell the merger has meant considerable extra work, a series of conferences up and down the country and at times an inevitable surrendering of cherished notions by one side or another. In short, the task of merging the two Colleges, which are nothing like as similar as one might expect, has proved to be complicated.

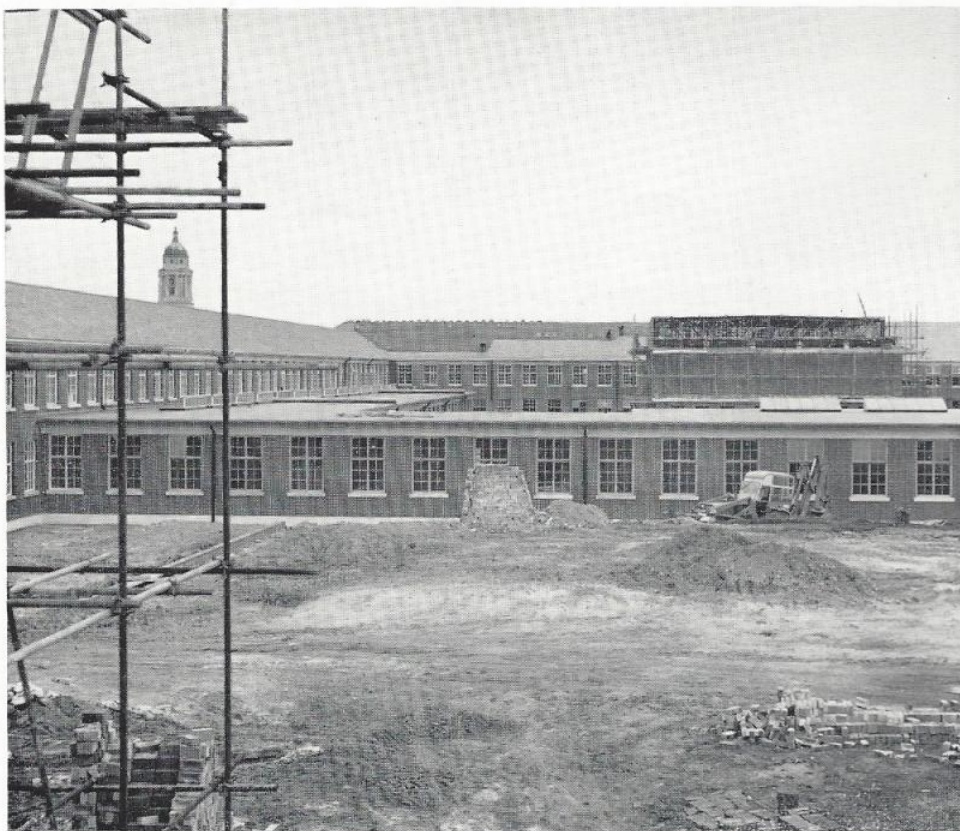
The original aim of the merger was to permit the Service's future permanent officers to spend three years together at a time when they should be acquiring a foundation for their careers which would give them the widest possible appreciation and understanding of all the various facets of the Royal Air Force. This aim was later broadened to include not only cadets but Technical Officer

Students. Thus Cranwell will be taking a step nearer the University concept whereby work at both undergraduate and post-graduate level will be undertaken and in which the educational opportunities for all cadets will be substantially improved. In addition there will be considerable economies in high grade equipment, staff and running costs.

In September 1961, an Air Ministry Committee was formed under the chairmanship of Air Marshal J. D. Baker-Carr. The committee concluded its deliberations in February 1962, and its recommendations for the future organisation of Cranwell and the necessary building programmes are now awaiting final ratification by the Air Council.

In the next issue of *The Journal* there will be much more to tell, but for the moment all that can be said is that Cranwell will see many material changes within the next three years. Buildings already in the advanced planning stage include a large instructional

Part of the new Instructional Block





St. Michael and All Angels' Church. This view of the new Church was taken two weeks before the Dedication on 1st June. This event will be reported in the next issue.

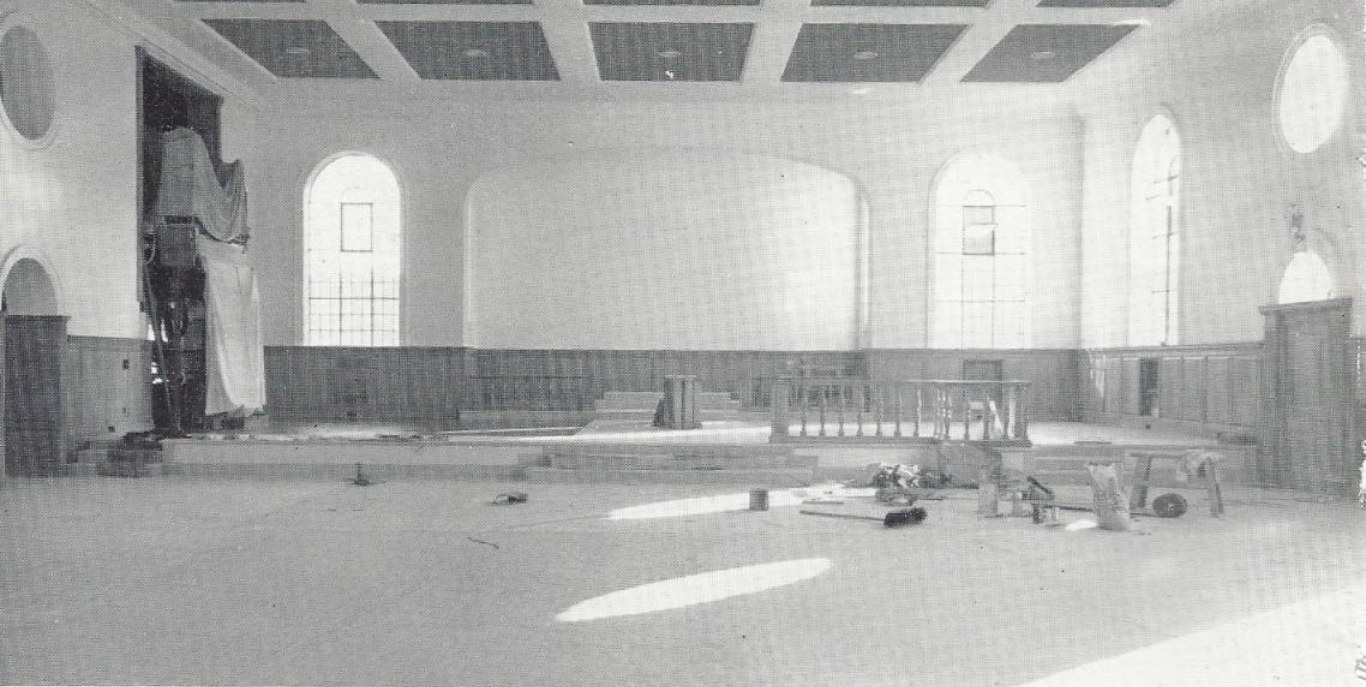
block, a student officers' mess, an aero-thermodynamic laboratory, the conversion of the M.T.S.S. hangar into an Aircraft Hall and the conversion of the Cadets' Instructional Workshops for improved workshop facilities and laboratory development flight. The first 72 of a total of 154 officers' married quarters are already showing above ground.

When shall we see Technical cadets at Cranwell? Provided the building programme runs to schedule we shall be able to welcome the first term cadets in September 1964 and the remaining cadets and student officers in September 1965.



Visiting preachers last term were :

On 4th February The Reverend G. H. Church, Assistant Chaplain-in-Chief, Flying Training Command.



This view of the interior of the new Church was taken in March.

On 25th March, The Reverend T. Ryder, M.A., Resident Chaplain, St. Clement Dane's Church.

On 1st April, The Right Reverend A. M. Gelsthorpe, D.S.O., D.D., Assistant Bishop of Southwell.



On 14th January, the Queen's Colour was handed over by 'C' Squadron to 'A' Squadron who were Sovereign's Squadron for the Spring Term. The Colour was paraded on 4th February at the Founder's Day Church Parade, on 1st April at the Church Parade commemorating the birthday of the Royal Air Force, and on 7th April at the Commandant's Parade.



In the competitions to decide the Sovereign's Squadron 'D' Squadron won the Chimay Cup, but 'C' Squadron won the Knocker Cup and the Ferris Drill Trophy, and are Sovereign's Squadron for the Summer Term.



The College gained considerable success in the sports matches played on 17th February against the Technical cadets at Henlow,

winning the Basketball, Cross-Country, Soccer and Squash matches by handsome margins. The Britannia Royal Naval College was defeated at Cranwell on 3rd March at Basketball, Fencing and Squash. The victory over the Naval cadets at Soccer was narrow but notable ; the pitch, covered by three inches of snow overnight, was cleared on the morning by the concerted, part-time, unpaid labours of all the cadets not engaged elsewhere. Because of the snow, the hockey match was postponed until 18th March and transferred to Dartmouth where Cranwell were defeated by the only goal. A new hazard, German measles at Sandhurst, caused the cancellation of all the College fixtures with the Royal Military Academy.



At the beginning of the Summer Term there were 286 flight cadets on roll at the College. They comprise 237 pilots, 29 navigators, and there are 14 Equipment and five Secretarial cadets and one R.A.F. Regiment cadet. M. A. Rizvi and I. A. Naqvi arrived at the College from Pakistan in February and joined 'A' and 'D' Squadrons respectively of No. 86 Entry.



Flight cadets again made a number of visits last term, especially in furthering their specialised studies. From 12th to 15th February four Equipment flight cadets made daily visits to R.A.F. Waddington to study the operation of a Supply Squadron supporting

The last Vampire T.11 was despatched to Royal Air Force Swinderby on 14th March.



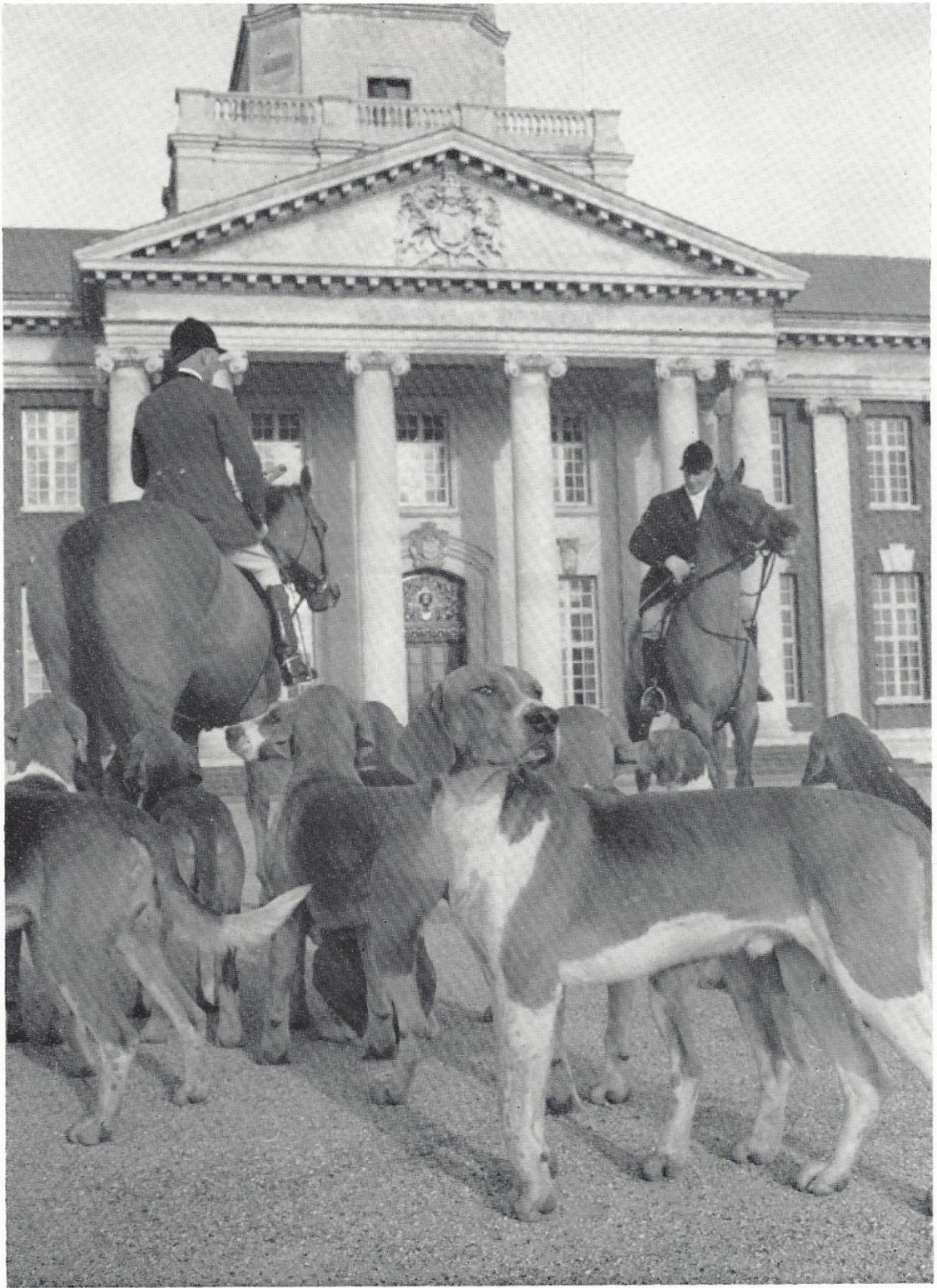
V-bombers. A month later the same quartet travelled to the London Docks, where they studied the loading of cargo ships and passenger trooping by sea. The next day the cadets travelled to Gatwick Airport, where they visited the R.A.F. Movements Organisation and witnessed the processing of Service passengers by charter aircraft. The detachment ended with a visit to Hendon where the cadets watched automatic data provisioning, and learned about the activities of the Joint Air Services Trooping Centre.

On 21st February, four 'B' Stream cadets of No. 84 Entry visited the Royal Air Force Technical College, Henlow, to carry out a programme of testing in the low-speed wind tunnel. On 22nd March, eight 'B' Stream senior flight cadets visited the Royal Aircraft Establishment, Bedford.



Cadet visits in the Easter vacation followed the established pattern but there were notable variations. On 9th April Nos. 81 and 82 Entries flew to the United States where in ten hectic days they visited the Military Academy West Point, the Headquarters of Strategic Air Command at Offutt Air Base Nebraska, the Headquarters North American Air Defence Command, Air Force Academy Colorado Springs, and the United Nations Headquarters in New York. No. 83 Entry split up into three parties which gained first-hand experience of the Navy in visits to the Mediterranean Fleet at Malta, to the Home Fleet at Portsmouth, and to the Joint Anti-Submarine School at Londonderry. No. 84 Entry, subdivided into seven groups, travelled to Germany where they were the guests of several regiments of B.A.O.R. On 15th April No. 85 Entry broke new ground in establishing their parachute tents for their Leadership Camp near the summit of Mount Olympus in Cyprus. Cadets of the junior entry, No. 86, merely dispersed to their homes, with well concealed reluctance and without envy; their turn will come.

Three small groups of cadets visited the R.A.F. Stations at Khormaksar, Wattisham and St. Mawgan. Apart from Service visits the College Outdoor Activities Group organised a varied programme. 17 flight cadets participated in a Gliding Camp held at Cranwell, 21 indulged in ocean sailing, ten travelled to Aviemore



*Last term the Belvoir Hunt met at the College.
Page 117*

to ski, and six entered for the Devizes-Westminster canoe race. Four cadets travelled along and filmed one of the wartime routes used by British airmen escaping from captivity through France and Spain. Reports and commentaries on some of these visits appear elsewhere in *The Journal*.



For the second successive year, Cranwell Little Theatre won the Kesteven One-Act Play Festival when they presented the play "The Ass and the Philosophers" in Sleaford on 31st March. The Little Theatre went on to win the Divisional Final of the British Drama League Festival in Nottingham on 12th May, thereby qualifying for the Northern Area Final held in Middlesbrough on 2nd June.

The Little Theatre gained a further success in the first Kesteven Full-Length Play Competition. Their production of Tennessee Williams' "Suddenly Last Summer" in the Astra Cinema on 1st March was highly commended.



Visitors to the College last term included :

On 15th January, Wing Commander C. B. Wynn-Parry, M.B.E., M.A., D.M., B.Ch., M.R.C.P., D.Phys.Med., who lectured on "Fitness for Sport."

On 2nd February, Wing Commander D. G. Roberts, M.B.E., M.M., Chief Instructor of the R.A.F. Regiment Depot, and students of No. R.11 Senior Officers Course at Catterick.

On 5th February, Mr Colin Jackson who lectured on "Africa Today."

From 23rd to 25th January, four cadets from the United States Air Force Academy, to study relations between senior and junior Cranwell cadets.

On 20th February, Group Captain G. B. Walford, O.B.E., Assistant Commandant, R.A.F. Staff College, Andover, with members of the directing staff and Staff College students.

From 28th February to 3rd March, Lieutenant-Colonel Bjorn Johansen, Officer Commanding, Royal Norwegian Air College.

On 5th March, Mr G. T. Smith, Aero Sales Manager of Bristol Siddeley Engines Ltd., who lectured upon "V.T.O.L. Aircraft and Engine Requirements," and was assisted by Mr T. P. Frost, Chief Test Pilot, and Mr J. M. Porter.



L'Ecole de l'Air beat the College at Rugby.

On 12th March, Air Commodore P. E. Warcup, C.B.E., Assistant Commandant of the R.A.F. Staff College, Bracknell, with members of the directing staff and Staff College students.

On 15th March, the Headmasters of King's School Pontefract, Bournemouth School, Truro School, Hove College, Colchester Royal Grammar School, St. Clement Danes, King's School Grantham, King's School Peterborough, Reigate Grammar School, Cranbrook, Exeter School, Rishworth School Ripponden, Kendal Grammar School, King's College School Wimbledon and St. Hugh's School Woodhall Spa, and the Second Master of Alleyn's School and the C.C.F. Master of the Perse School.

From 22nd to 24th March, General G. Gauthier, D.F.C., Commandant, with cadets of L'Ecole de l'Air, Salon, Provence. The highlights of this traditional visit were as usual the Fencing and Rugby matches, both of which were won by the French cadets.

On 22nd March, The B.B.C. Northern Orchestra, conductor George Hurst, with guest soloist Alfredo Campoli, who gave a broadcast concert.

On 26th March, Air Commodore J. E. Allen-Jones, O.B.E., M.A., Director of Legal Services, who lectured on "The Legal Services and Service Law."

On 4th April, General J. Kammhuber, Inspector of the Federal German Air Force. General Kammhuber, who was accompanied by Air Commodore J. N. Toms, C.B.E., H.M. Air Attaché, Bonn, and Colonel F. F. von Schroetter, German Air Attaché, London, was welcomed by Air Marshal Sir Augustus Walker, K.C.B., C.B.E., D.S.O., D.F.C., A.F.C., M.A., Air Officer Commanding-in-Chief, Flying Training Command.



The following members of 81 Entry were promoted to Under Officer with effect from 1st May :

' A ' Squadron	M. S. Herring
' B ' Squadron	J. G. Lumsden
' C ' Squadron	R. M. Annett
' D ' Squadron	P. V. Pile



Dvorak's 'Carnival' Overture, with its Slavonic gaiety and brilliance, is an excellent curtain-raiser. George Hurst and the B.B.C. Northern Orchestra chose this valiant old war-horse to open their broadcast concert at the Royal Air Force College on Thursday, 22nd March. Tremendous panache and a tender warmth in the quieter passages gave their performance a welcome freshness and avoided the contempt that, as we are so often reminded, is bred of familiarity.

The unashamed romanticism of Max Bruch's first Violin Concerto is quite capable of disarming criticism, provided the performers do not allow any concessions to its somewhat luscious texture ! Campoli, whose interpretation has been admired for many years, kept a tight grip on the rhythm and injected vigour into the form where it is most needed. The poetry of his playing was evident in Bruch's lyrical melodies, and in the cadenzas his technical virtuosity nowhere overshadowed musical considerations of thematic allusion.

Brahms' Variations on the St. Anthony Chorale ended the first—and broadcast—part of the concert. Avoidance of excessive sentiment in the Bruch left a hangover in the Brahms work. Here there seemed to be a restraint in allowing Brahms' admittedly reluctant, emotional gestures to make their effect. This was particularly noticeable in the Grazioso variation. Marked 'Allegretto', this movement was taken more at an 'Allegro' pace. In the less romantic passages, especially the final grave Passacaglia, the style was ideal.

Stravinsky's ballet music 'Petrouchka' formed the second part of the programme. The deliberately scrappy first section, depicting the various, and sometimes nefarious, festivities in a busy market square at the time of the Easter fair, is a conductor's headache. The constantly changing ideas must be welded into a convincing whole. There was no doubt about George Hurst's intention of doing this. It was a delight to observe the subtlety of his gestures as he achieved this integration from the disparate fragments of Stravinsky's score. The remainder of the work was equally successful and in the last section we were made fully aware of the high standard of brass and woodwind playing in our northern orchestras—a certain outcome of our strong wind-band tradition. So good was their playing that, at times, the higher strings seemed to be suffering from an inferiority complex. Admittedly, Stravinsky rarely produces a sustained melody, but there are moments when a richer string tone is needed to develop a melodic fragment.

The audience received this performance with great enthusiasm, and as an additional item the orchestra gave a quite delightful performance of Mendelssohn's Scherzo from A Midsummer Night's Dream. Only the numbing chill of the atmosphere—to which the conductor alluded—detracted from the pleasure of this memorable evening.



Royal Air Force Cranwell Sports Teams have been tremendously successful during the past season. The Station Soccer XI, captained by Flight Lieutenant L. Meadows, has been outstanding. During the Spring the team became champions of the Lincolnshire Services League, winning every match except the last. The First XI entered the Grantham League for the first time, and won the Division II championship and promotion to Division I. On 4th May, the Soccer XI won the Grantham League Culverthorpe Challenge Cup beating

Corby Glen 1-0 in the final. The team's greatest achievement however was to win the R.A.F. Inter-Station Senior Cup, by defeating Royal Air Force Finningley by 3-2 after extra time at Royal Air Force Uxbridge on 25th April. The last time Cranwell won the Senior Cup was in 1937. Now the station has had its fifth success, and, like Aston Villa with the F.A. Cup, has won the trophy more times than any other club.

The Station Soccer XI concluded their successful season with their first tour overseas ; in May the side drew matches with R.A.F. Laarbruch and with the Dutch Third Division Side, Nijmegen.

It will be recalled that the Station Cricket XI won the R.A.F. Cricket Cup in the summer of 1961. R.A.F. Cranwell is the first station to complete the Soccer and Cricket "double." Two officers, Flight Lieutenant L. Meadows and Flight Lieutenant W. Kirk, and three airmen, Junior Technician K. Ellis, S.A.C. C. A. Andrews and S.A.C. M. Burnell were regular members of both teams.

Station players have excelled in other sports. R.A.F. Cranwell has, in all, won four Royal Air Force Inter-Station Cups. The Badminton team won the R.A.F. Cup by defeating Royal Air Force Yatesbury at Stanmore Park on 9th March, and the Squash team won the R.A.F. 'B' cup at Bracknell three weeks later.

The ability of individual players was widely recognised by their selection for representative matches. Those selected to play for Royal Air Force teams include Flight Lieutenant J. N. Gearing (Badminton), Sergeant R. Hextall, Corporal W. H. Dunne and S.A.C. K. Hough (Basketball), Sergeant A. Williams (Fencing), and Corporal R. A. Davey (Soccer). Corporal Dunne also played for the Combined Services against the Amateur Basketball Association. Cranwell sportsmen who represented Flying Training Command include Squadron Leader A. D. R. Dawes (Squash), Flight Sergeant T. R. W. Taylor (Hockey), S.A.C. J. Simpson (Badminton) and S.A.C. C. A. Andrews (Soccer).



The Commandant wishes to thank most sincerely the members of No. 80 Entry for their presentation to the College of a splendid letter rack in light oak.

The photograph on page 117 is by Senior Flight Cadet D. J. Sawyer ; the frontispiece and other photographs in College Notes were taken by members of the Station Photographic Section

OLD CRANWELLIAN NOTES

APOLOGY

We apologise to Air Commodore W. I. C. Inness, C.B., O.B.E., for the error in our reference to his appointment to C.B. in the last issue of *The Journal*.

DEATH

We regret to record the death on 3rd April of Mr H. W. Acomb. A Cambridge graduate, Henry Waldo Acomb began his librarianship career in his old university. From 1929 he was successively librarian of the National Liberal Club's Gladstone Library, librarian of the University of Durham, and, after war service with the Army Educational Corps, Librarian and Administrative Officer at the British Institute, Madrid. In 1949 he came to the Royal Air Force College, where he was librarian for a year.

NEWS OF OLD CRANWELLIANS

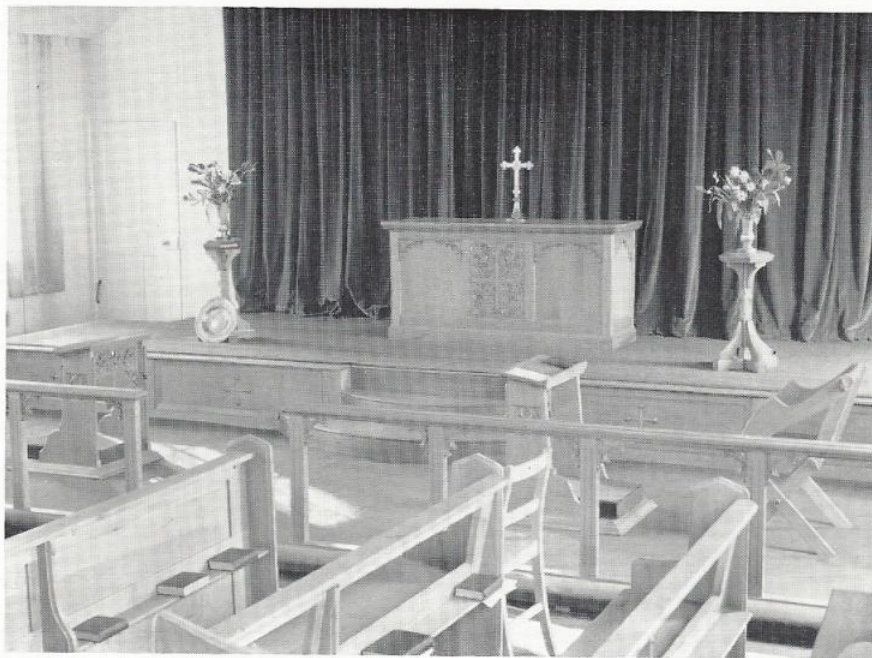
Group Captain E. E. Vielle, O.B.E., A.F.R.Ae.S., R.A.F. (Retd.), writing under the pen name of Donald Gordon, has

written a novel called "Star-Raker," which was published by Hodder and Stoughton on 5th April. "Star-Raker," which is about a supersonic airliner, has been selected for condensation by *Readers' Digest*, and is also being published in (so far) nine other countries, in eight other languages.

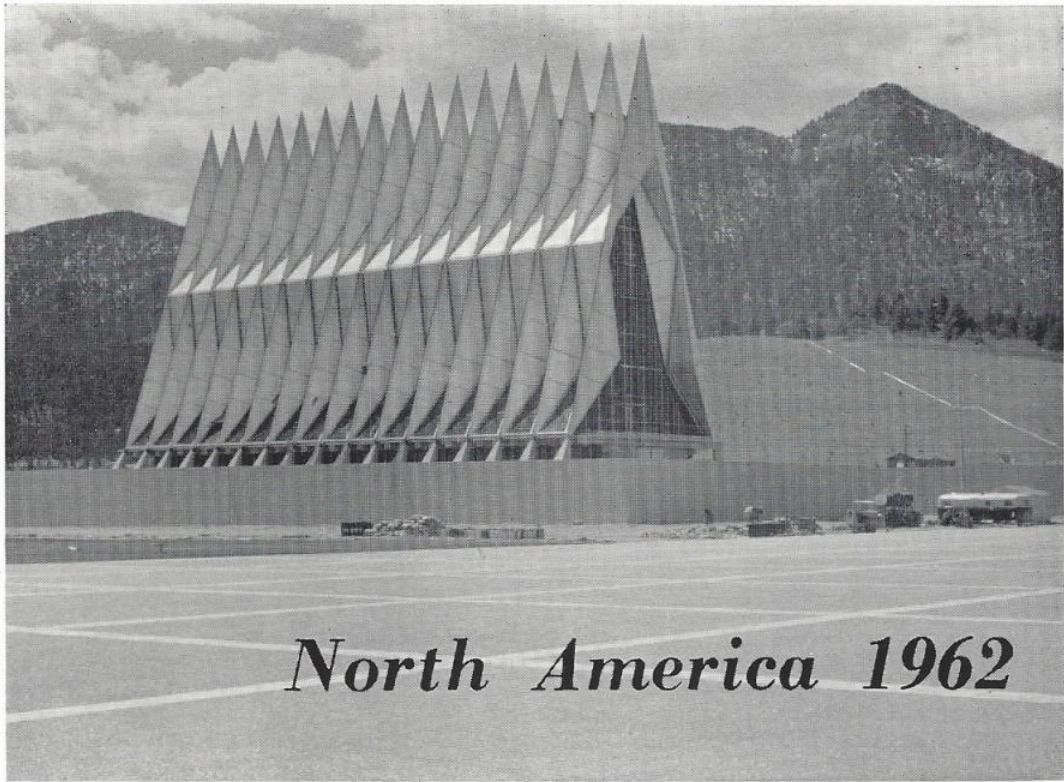
Group Captain C. V. D. Willis, D.S.O., O.B.E., D.F.C., who joined the Royal Air Force as an aircraft apprentice in 1933, and in 1936 was awarded a cadetship to the Royal Air Force College, has recently been appointed Commandant of the Royal Air Force Staff College at Andover with the acting rank of Air Commodore.

MORE NEWS OF OLD CRANWELLIANS

More news of Old Cranwellians is urgently needed. Please write to the Old Cranwellian Editor, Mr John Tanner, Royal Air Force College, Cranwell, Sleaford, Lincolnshire, and tell him anything that may be of interest to us or your contemporaries.



A view of the improved interior of the P.M.U.B. Church.



North America 1962

“ We don't know whether to pray to it, at it, or for it ”

One clear May morning the College Technical Officer waved goodbye to 9000 gallons of AVTUR, as Britannia 'Rigel' of No. 99 Squadron, Transport Command, together with the Commandant, 11 other officers and 95 flight cadets of the Senior and No. 82 Entry, left the College on the first stage of this year's visit to America. With headwinds of over 100 knots, a re-fuelling stop was necessary at Ernest Harmon Air Force Base in Newfoundland, and it was 1700 hours local time when the aircraft landed at Washington, D.C.

During the first morning of the two and a half day stay in the capital, the visitors were welcomed by Lord Hood, on behalf of the British Ambassador, and by Air Vice Marshal R. H. E. Emson, C.B., C.B.E., A.F.C., the Air Attaché and Commander of the Royal Air Force Staff in Washington. Then officers and cadets split up and were hosted by members of the R.A.F. staff. Everybody received exceptional hospitality at the hands of these gentlemen and their families. The A.V.M.'s daughter

organised a party for twenty members of the Senior Entry and her host force, which set the seal on the remainder of the Washington visit. Previously that evening, some of the visitors had already been entertained by the Chairman of the British Defence Staff, Air Chief Marshal Sir George Mills, K.C.B., D.F.C., A.D.C., and Lady Mills. Sir George is surely one of the longest-serving Air Force officers in the world since he is the only remaining member of the first Cranwell entry still in the Royal Air Force.

To many cadets, the most memorable part of the Washington visit, after seeing 'Friendship 7', the Glenn capsule in the Smithsonian Institute, was the sight of the President, the Shah of Persia, 'Jackie,' and Queen Farah Dibah, riding in a state procession through the centre of the city complete with their escort of thirty police motor cyclists, honking horns, sounding sirens, agitating arms and whistling whistles. At the same time, to add to the splendour of the occasion, two of the escorting cars were

filled with F.B.I. men armed with Sten guns held at the ready.

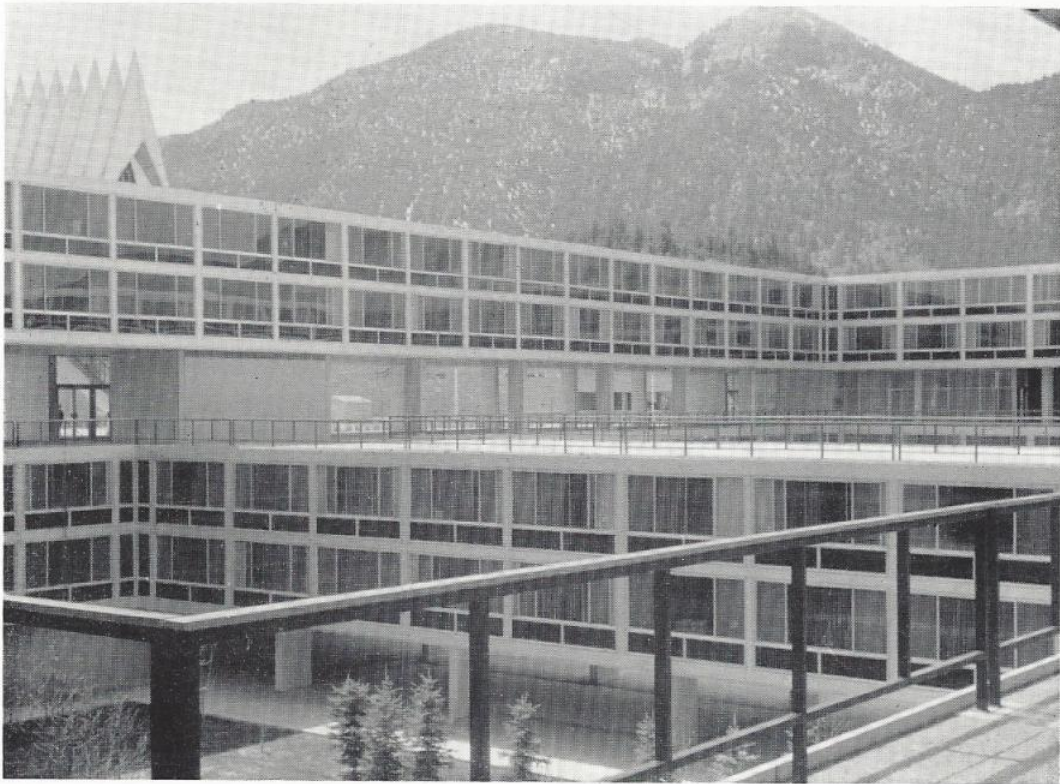
Thus there were many reasons why the journey to Offutt Air Base Force, Nebraska, was quieter than usual. The capital had basked in warm sunshine while we had been there, every park was a mass of cherry trees which had chosen that week to blossom. Many unforgettable friendships had been made and many cadets felt that the 'here today and gone tomorrow' philosophy did not leave enough time. The four-hour journey to the Headquarters of Strategic Air Command at Offutt Air Force Base was mostly taken up in trying to eat the generous U.S.A.F. in-flight meal packages. Everybody was dozing quite happily by the time Offutt was reached and the first thing there on the agenda was a vast three-course lunch with yet another chicken between three to consume. Staggering away from this epic of gastronomical injustice, the visitors went underground to see the centre of Strategic Air Command.

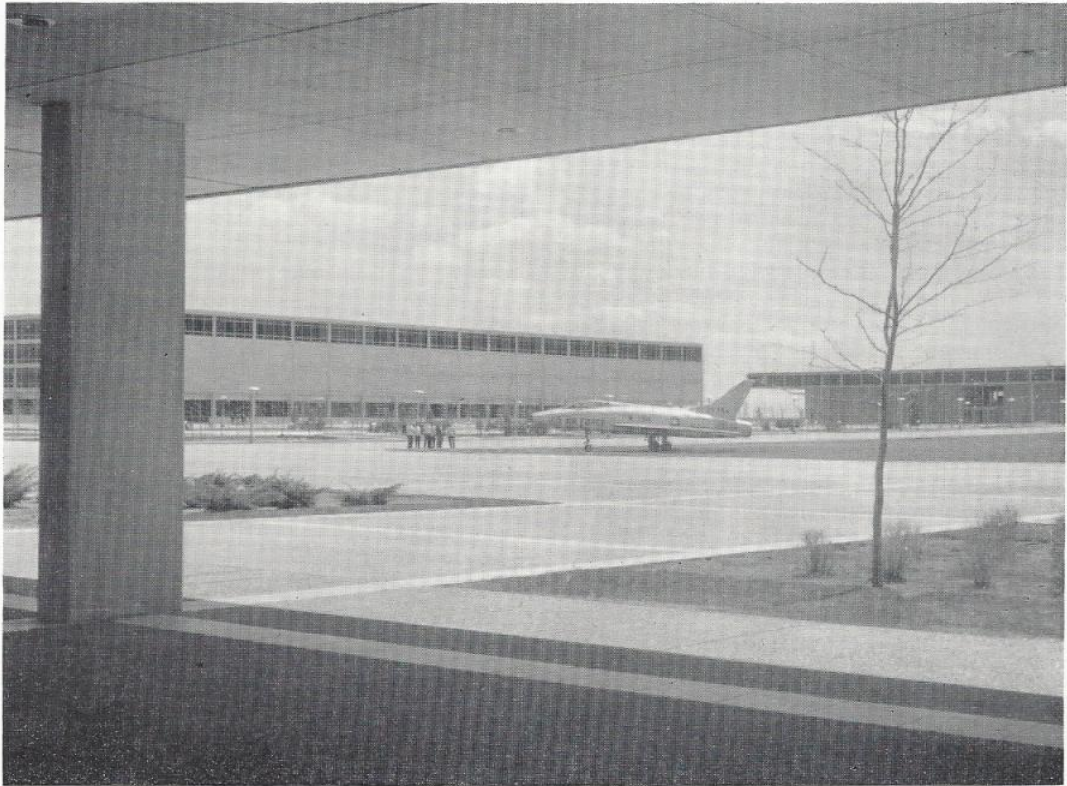
Two hours later, the visibly shaken party emerged from this abyss into the bright Nebraskan sunshine having seen the heart of the most powerful force ever created by man. An impression of incredible efficiency and organisation — nothing left to chance, everybody doing their job calmly and confidently.

After the group had had a quick look at a KC135 Strato-tanker Squadron, 'Rigel' left Offutt on the last leg of the journey to Colorado Springs — the home of the United States Air Force Academy — and arrived during a perfect sunset to be met by the strains of the 'Lincolnshire Poacher,' rendered in swing time by an Air Force band.

Thus began a weekend of perfection : perfect summer weather ensuring everyone became suntanned within a couple of days ; an assortment of very fast cars ranging from M.G.s through Jaguars to endless Corvettes were responsible for showing most of Colorado and the Rockies to everybody ; a gigantic 'blind date' with 200 participants

“ South Brick Lines, eh? ”





“ It’ll never fly, I tell you ”

which allowed everyone to be on equal terms with the ‘ locals ’ from the very beginning; several Colorado steers being killed to enable each cadet to have a T-bone steak so large that another plate was necessary for the vegetables. To add to this, Cranwell players avenged their defeats of last year in the sports fixtures by winning the rugby and drawing the soccer, much to the surprise of themselves and their opponents.

Before the party left Colorado we paid a short visit to the North American Air Defence Command Headquarters where we were briefed by the joint Royal Canadian Air Force and United States Air Force staff. Once more, organisation and efficiency were conspicuous. Thus the eastward journey began in earnest as the *Britannia*, almost reluctantly, staggered from the 7000ft. high

—but obviously short — runway at Peterson Air Force Base on one of the hottest days of the year and headed towards Stewart Air Force Base, West Point and New York.

The United States Military Academy at West Point is only about sixty miles away from New York but as far as its inhabitants are concerned it might be on the Moon. An inordinately severe type of discipline keeps the cadets there almost without a break for four years. Very little professional training is taught, the cadets seemingly spending a lot of time making up for their previous lack of education. An interesting feature at this academy is the high rate of marriage upon graduation. Of the four hundred or so cadets passing out in July this year, one hundred and eighty will be married on their graduation day.

Per Ardua Ab Astris

Has your psycho-analyst played the word association game with you? You know. He says a word, for instance "Black," and you say "White" if you are a whisky man, or you reply "Tan" if you are happier with hops. What you associate with the word that sounds like "Marks" might be "Spencer" if you like your scanty underwear to be sanctioned by St. Michael, or "Das Kapital" if you are an economist or something even shadier, or "Lourenco" if you are a disgruntled geographer just back from counting the mosquitoes in Mozambique. Whatever your answer, it is significant. It enables the psycho-analyst to analyse the psycho. Sir Percy Chambers, my Harley Street man, is an absolute wizard at this sort of thing. Personally, I don't understand how it all works. Of course, I can see that you really are twisted, man, if the word "scintillate" reminds you of protracted orgies, or if you associate "gladiator" with a contented cannibal. But if the word you associate with "strikers" is something unprintable, heard only in a rugby scrum, then you could equally be a flight cadet or a car manufacturer.

"Potty" Chambers of course soon sized me up pretty well and was looking forward to a fat cheque from my old man. But I foxed him last week. When he said "Knit," I replied "Wit," but it wasn't. When he tried out his French and said "Sec" I said "Oh, I didn't know the word could be used in the singular." He made sense of all my other replies until the last. He said "Blizzard" and quick as a flash, I said "R.A.F. Regiment."

..... Looking back I can see that the connection between these two words may not be too obvious to the uninitiated. But, as I explained to Sir Percy, the link became clear to me within a few weeks of joining the Royal Air Force. All my subsequent investigations corroborated my first conclusion. There was an undoubted connection between the R.A.F. Regiment and bad weather. If there was an exercise with the Regiment chaps in charge then it didn't matter how glorious the weather had been

on the previous day, it was irrelevant that the Met. men forecast a scorcher, the fellows out on the heath were greeted by storms, cloudbursts and gales. Look what happened to 84 Entry during their Leadership camp in the Cairngorms — bitter chill and torrential, uninterrupted rain, and in summer mark you. 85 Entry positively cackled with glee when they heard that their camp was to be held in Cyprus. Poor fools! They did not realise that the Regiment has a mastery over the weather which is no petty local affair confined to the Highlands. All through the winter the Regiment chaps made their plans — top secret conferences with Jupiter, Boreas and all the lesser weather gods. The result was very satisfactory. 85 Entry were greeted on arrival at Mount Olympus by a blizzard, bang on schedule. After that they scarcely knew what hit them — fog, mist, ice, blinding rain and, as a special treat, a storm of hail as big as golf-balls which proved hazardous to life and limb, especially to squatters in the open. Only the most carping of the officers inquired when the Regiment wallahs planned to divert the mistral and the sirocco and other unpleasant winds over the camp.

Further investigation has however shown me that the R.A.F. Regiment chaps are not masters merely of bad weather. Put them in charge of the arrangements for a parade, and fine weather on the day is a certainty. When was the last big parade at the College cancelled or held in the hangar? Of course, we have wet weather rehearsals, but this is the Regiment's little joke. They don't boast of their weather mastery. But fine weather for parades doesn't mean pleasant weather; it merely means not unduly wet. The Regiment doesn't set out to make parades congenial; it merely ensures that they take place. So cadets have marched on to the square when it was ankle-deep in snow, when the fog thickened and the mist swirled, when the wind whistled and the chill ate into the marrow. Not for nothing is the Regiment motto *Per Ardua*, but I don't see why so many of the hardships have to be invoked as it were *Ab astris*, from the heavens.

My recent surveys have produced further startling conclusions. It is now clear that not one but several officer branches of the R.A.F. have some control over the weather. The Educators are nearly as bad as the Regiment but, typically, their use of their control of the elements is cunningly insidious. They are not harbingers of hurricanes but of the halcyon days of summer. But they produce the fine weather at the wrong time. How often have I sat in an examination room, trying to gloss over the short-comings of my mis-spent past, when outside the sun has shone with distracting brilliance. My aunt Ethel is convinced that the Educators fix the barometer at "Fair and Sunny" for exams just to torture us the more, and she always asks me when my exams are before she books her holidays at Bognor.

The Physical Fitness fanatics also conspire with the weather gods to make life difficult for us, but they lack depth of experience. On sports afternoons, they commune only with Aeolus and one or two others, and so all they produce is a lot of wind. The real fiends in the weather game

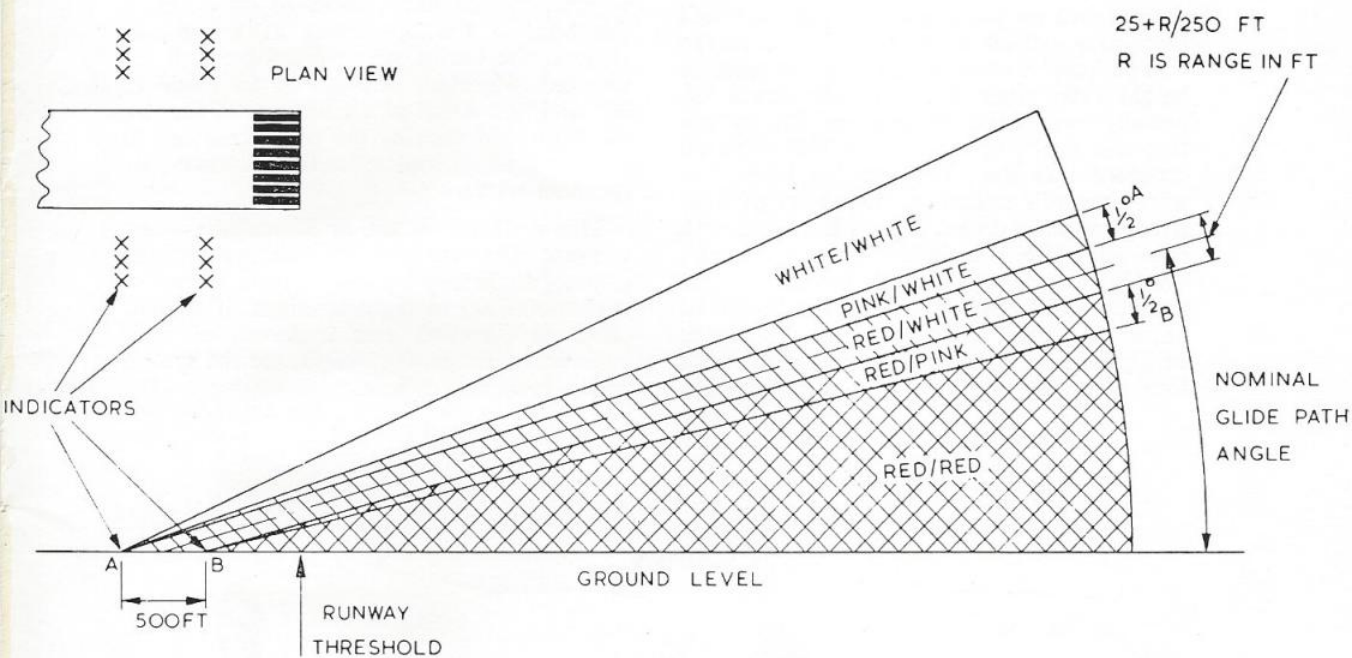
are the Dentists. Their mastery is only local and temporary but devilish. They merely ensure that the immediate vicinity of their grisly grottoes is shrouded in bleakness and gloom. When last I set out for the dentist's the sun shone with irritating exuberance (someone nearby was having exams). But near the surgery the air grew chill, the wind began howling and my destination loomed ahead murky and forbidding. An hour later, I left the dank gloom; within 100 yards the rain had stopped, the air cleared and I rejoiced amid the sunshine that the next appointment was not for another ten days.

Many changes will doubtless occur when I publish my investigations in full. Air Marshals, bent on efficiency will be putting the weather talents of its officer branches to good use. Meanwhile I'm waiting for them to put my preliminary recommendations into practice. It should be quite simple. I want the Educators put on duty in the Met. office at week-ends, and the Dentist's surgery moved to the middle of the Parade Ground.



A Ceremonial Church Parade will be held on Sunday . . .

LANDINGS MADE EASY



COLOUR SECTORS DEFINED BY 2-COLOUR GLIDE PATH INDICATOR SYSTEM

The problem of landing an aircraft has always been one of the trickiest that the pilot has to tackle. He is required to control his aircraft in three planes, those of pitch, yaw and roll, and successfully touch down at a predetermined spot on the runway. This is usually relatively easy to judge in good visibility, but when the weather clamps down, or when a night landing is attempted, the situation changes.

The high intensity Calvert line and cross-bar approach lighting system is already well known. Here guidance needed for roll and azimuth correction is extended by means of lights well beyond the end of the runway. The line of lights extending along the runway direction gives azimuth guidance and the cross-bars give roll guidance in the absence of a natural horizon. The vertical guidance, however, cannot be supplied using this system alone. Ample evidence of this is

supplied by the fact that over half the accidents (costing £35m) involving the big jet airliners in their first three years of commercial service occurred during the approach or landing.

Various tests were made at the National Aviation Facilities Experimental Centre, in the United States, using different types of approach system giving this vertical glide angle information. Many experienced pilots were requested to use the systems and judge the most meritorious. The aircraft used in these tests varied from the Piper Tri-Pacer to the Boeing 707. Soon it was found that only two systems, the Cumming-Lane Australian system and the RAE-Thorn system were giving the information as efficiently as was required. The Cumming-Lane system consists of a bar of lights across the runway and a bar of lights on each side of the approach, those on the runway being amber

and at ground level, and those on the approach being white and raised, so that by aligning the white and amber lights a correct glide-path can be achieved. This system falls down however as soon as the white lights are reached on the approach, for after this there is a period when the pilot is in the 'black hole' where he can lose his sense of height even when being talked down, especially over desert or seashore. The system that was finally approved as a U.S. national standard was the 'Thornray' system. The pilot sees this system as two bars of light straddling the runway. If he is too high, both rows are white, if he is too low both are red, if he is on an ideal approach the far row will be red and the near row white, and he will be descending an "escalator" 25 feet deep. In daytime the lights can be picked up from four to six miles away, and at night from

15 miles. The bars of light are each six box-like lanterns and are 500 yards apart.

The lanterns consist of three lamps apiece, side by side, the upper half of which are covered by red filters focussed on a slit in the box, in the same way as a pin-hole camera, the beams are reversed through the slit and projected, fan out to an angle of 30° and to a depth of 8° . Because of the slit, the transition seen by the pilot from red to white is gradual, and he has time to anticipate the next move.

This system is in use at Wattisham where a press demonstration of the system was given. 'Lightning' pilots agreed it was a very useful aid to night landings. If student pilots at Cranwell ever look out of their cockpits on finals, they might see the system which is installed here.



"Tell me, Dahling, do they play cricket here too?"



Hovercraft Review

Saunders Roe S.R.N. 2

The British Hovercraft industry is the most advanced in the world today, and for one very good reason. In 1959 the Government foresaw the commercial and military potential of the Hovercraft and formed a company known as Hovercraft Development Limited, the primary purpose of H.D.L. being to co-ordinate the development of British Hovercraft. There is certain basic information that is made available to all aspiring Hovercraft manufacturers, and, if necessary, there is also limited financial backing for projects.

Christopher Cockerell's dream of an air-riding vehicle materialised in the form of S.R.N.1., built under contract by the Saunders-Roe Division of Westland Aircraft, Ltd. This was the first of the British Hovercraft and since the day S.R.N.1. made her maiden hover Saunders-Roe have been busily occupied with the problem of how best to employ this fascinating and novel concept in transport. Elaborate testing facilities and detailed experiments are the basis of the Saunders-Roe design philosophy — from which S.R.N.2. has now emerged : the world's largest Hovercraft. The following table of data shows the relative merits of the three main air-riding vehicles in Britain today :—

Type	Saunders-Roe	Vickers-Armstrong	Britten-Norman
	S.R.N.2	V.A.3	C.C.2
Length	64ft. 6ins.	52ft. 6ins.	27ft. 0ins.
Beam	29ft. 6ins.	25ft. 0ins.	17ft. 1in.
A.U.W.	21 tons	8 tons	1½ tons
Payload/No. Passengers	6.14 tons/66	2 tons/25	1¼ tons/10
Power	4 × 815 b.h.p.	4 × 425 s.h.p.	1 × 220 b.h.p.
Hoverheight	1—2.5ft.	8 ins.	1—2 ft.
Speed	70—80 knots	60 knots	48 knots
Range	200 miles	87 miles	500 miles
Cushion Pressure	30 p.s.i.	20 p.s.i.	12 p.s.i.

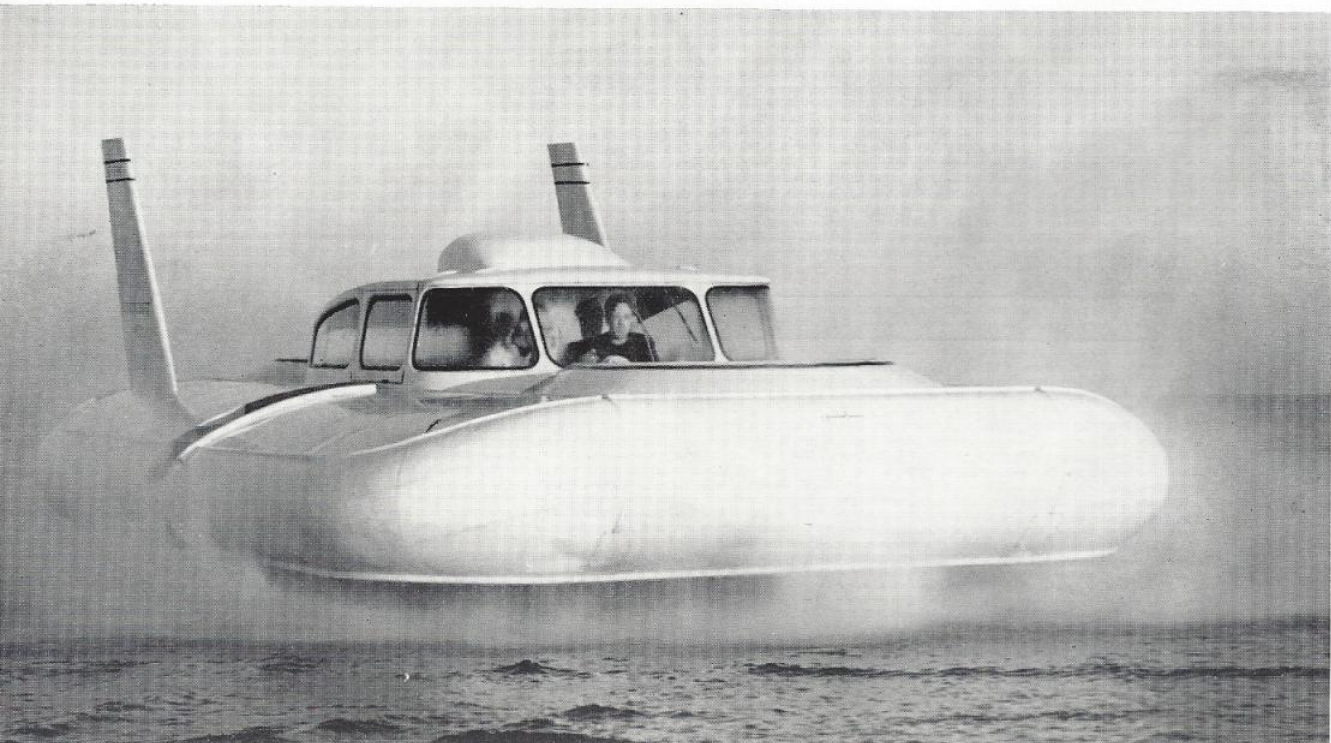
These three versions of air cushion machines share the same advantages, due entirely to their fully amphibious capabilities. They are not limited by tidal waters, or shallow water ; nor are they useless on rivers that run dry for part of the year, and, being air lubricated, these craft enjoy smooth operation, even at their high cruising speeds. Immediately there spring to mind a number of possible uses for these Hovercraft — sheltered water ferries, transport along equatorial rivers, operation on tidal rivers where ships are limited to “ high water ” operation, and so the list goes on. In fact, these are not wild dreams but considered possibilities. Southdown — the south coast bus company — are debating the use of S.R.N.2. as a fast south coast ferry service.

At the moment the Southdown buses running along the Sussex coast roads average 15 m.p.h. Holiday makers would probably be quite prepared to pay the extra fare to travel shorter routes at 80 knots, for this is what S.R.N.2. could achieve. By travelling a few hundred yards offshore the routes between seaside resorts would be more direct and a great deal faster. This is the immediate plan for S.R.N.2. From Southend to Bournemouth by Hovercraft is 200 miles, and at 80 knots the trip will take around the 2½ hour mark. The same journey, but along the most direct road route, is nearly 300 miles and at 15 m.p.h. it would be a 20 hour marathon on the part of the driver! Obviously this is a route chosen to suit the S.R.N.2. with its range of 200 n.m. But it does show very clearly that for certain services the Hovercraft is better than existing transport. The main problem arising from this particular proposal is whether the various seaside town councils will allow the Hovercraft beaching facilities. But such towns depend upon visiting holiday-makers for their livelihood, and it is possible that the better and easier transport by Hovercraft will encourage tourists. There can surely be no serious objections.

Thinking back to the publicity-hunting Channel crossing by S.R.N.1 there is food for thought in the fact that S.R.N.2 could cross from Dover to Calais in less than thirty minutes. Perhaps future developments — e.g. S.R.N.3, a 40 ton, 120 passenger version of S.R.N.2 — will be used in the cross-channel rôle. Before leaving the Saunders-Roe side of the story, it is interesting to note that S.R.N.2 makes the fullest possible use of flexible rubber side curtains to contain the air cushion. Also, S.R.N.2 — unlike S.R.N.1 — uses a centrifugal (radial flow) impeller.

Raging torrents of flood water and dried up river courses — equatorial rivers are both within the twelve month span of each year. Consider for a moment the problems that must face banana growers, for example. For part of the year they have river transport for their crops, but when the river dries up and slows to a trickle so does their river transport slow to a standstill. A list

Britten-Norman C.C.2



of other products affected in this way would include sugar, rum, coffee and diamonds. Such problems are the present headache of Messrs. Elders and Fyffes — but if negotiations with Britten-Norman, makers of C.C.2, go ahead successfully, then very soon bananas will travel by cushion craft.

Although Britten-Norman is the smallest of the “big three” Hovercraft Companies it is the only company to have sold a Hovercraft. The Ministry of Aviation paid £25,000 for the first model of C.C.2 and this craft is now being used for commercial research at R.A.E. Bedford. It is also Britten-Norman's proud boast that they have at least one thousand enquiries about C.C.2. In fact, once the production line for C.C.2 starts rolling there will be a very ready market for these craft.

Getting back to the more conventional use of Hovercraft — Vickers-Armstrong (South Marston) Limited, have recently completed the V.A.3. This craft carries 25 passengers and is intended for commercial evaluation over a west coast route. The V.A.3 goes into commercial operation this summer, but by mid-April (the time this article went to press) it had not hovered. However, Vickers-Armstrong had at least three months to test their craft. Even so, it is worthwhile pointing out that Saunders-Roe have already been testing S.R.N.2 for more than three months and are still not prepared to put their craft into commercial use. Perhaps Saunders-Roe are too cautious, or maybe Vickers-Armstrong intend using the early commercial trips in V.A.3 to finish the testing programme. Bearing in mind that the Vickers-Armstrong craft has an operational hoverheight of only 8 ins. and a range of less than 90 miles, the V.A.3 will be very restricted in the routes it can travel. However these are merely design features and it is quite likely that in designing V.A.3, the Vickers-Armstrong team aimed at low operating costs, thereby sacrificing the performance slightly.

A review of the British Hovercraft Industry would not be complete without some mention of the engines for Hovercraft. It is impossible to make a sweeping statement about Hovercraft powerplants. What it is possible to do is to look at existing craft and consider their engines. The Britten-Norman C.C.2 uses a Rolls Royce L.V.8 engine — a perfectly standard motorcar engine — in a somewhat “hotted up” condition. On the other hand, both Saunders-Roe and Vickers-Armstrong have turned to Bristol-Siddeley for their powerplants. Gas turbines, (Nimbus for S.R.N.2 and Turmo for V.A.3), seem to be the order of the day. Despite their undeveloped state, these engines have such performances that when, during S.R.N.2's initial trials, one of the four Nimbus engines failed, the craft continued to operate entirely satisfactorily. In fact, S.R.N.2 went on to complete the test programme on three engines only. It is obvious that no matter what demands are made by Hovercraft designers, Bristol-Siddeley are capable of producing the engines for the job.

Hovercraft are a commercial proposition and have a military potential. Future developments will see even larger craft, of the 100 ton class, taking their place in the transport picture. With the armed forces already actively engaged on Hovercraft testing at Lee-on-Solent (H.M.S. Ariel, Inter-Services Hovercraft Trial Unit) it is safe to assume that the military potential of Hovercraft will soon be explored to the full. Perhaps there will be Air-Sea Rescue Hovercraft for the Royal Air Force.

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THE JOURNAL

The Royal Air Force College Journal is published three times a year, at the end of the Spring, Summer and Autumn terms. Contributions are invited of articles, poems, photographs and drawings. These need not be confined to Royal Air Force and flying topics, but should be of general rather than technical interest. They should be addressed to ‘The Managing Editor of *The Journal*, Royal Air Force College, Cranwell, Sleaford, Lincolnshire.’ Unsuitable material will be returned. The Managing Editor, Editor and Staff will be glad to advise intending contributors.

A STORY AT CLOSING TIME



Our village is called Woldsby and it is in Lincolnshire. A lot of places in Lincolnshire have names which end in "by": Wrawby, Bigby, Grasby, Bonby, Kettleby, Wickenby, Navenby, for example, as well as the well-known ones like Grimsby.

There is not much to Woldsby. The main road goes through the village and all there is to it is what there is on each side of the road. If you come in from Rasen you pass the "Black Horse" (Hammond's Ales) first. This is right at one end of the village. A silly place for a pub, but as it sells better beer than the other one most of us go there. Then there are three cottages on the left-hand side. My niece Nora and her husband live in the middle one. Next comes the Church, St. John the Evangelist, with the Vicarage behind, and a sharp left turn. This brings you into the main part of the village with old white-washed cottages built nearly up to the roadway on one side and some old estate cottages, all dirty red brick and twiddly-bits on the chimneys and windows, on the other. At the end of the row of white-washed cottages is the "Earl of Yarborough" which stands back from the road, and the W.I. Hall, where they have Whist Drives and Bring and Buy sales and things. Then the road goes down a dip and there is a left-handed corner. Just at the bottom of this dip is Cyril Lidgett's shop, and the farm up a track which runs down by the side of the shop. Four old farm cottages stand back from the road once you get round this corner. And that's all there is to Woldsby. You couldn't say that Willey's farm a couple of hundred yards further, or

the garage opposite (owned by Leemings of Doncaster, who bought it from Fred Turner) were a part of the village itself, though the Willeys have been here for donkey's years of course.

They built the Camp here just before the war. There was opposition naturally. Old Ted Willey had to give up the idea of building a nice bungalow for his John for when he married Dorothy Chapman, because they took the bit of land he had his eye on for the C.O.'s house. Cyril Lidgett complained because his best beet field went to be the sports ground. Cyril's father, Walter, was specially mad. He didn't mind losing good land for Spitfires and things but to see the best beet field go for these people to play football on once a week was more than he could bear. For one thing he reckoned they should have been working anyway, for another he said that if they were interested in football they ought to go and see a decent game. Grimsby Town weren't in the Third Division in those days. Old Walt took it really bad, worse than anybody. He passed away in his sleep before the war had even started.

But we gradually got used to the idea. Cyril found it wasn't too bad because business in his little shop began to look up. Dick and Joyce at the "Black Horse" — they had it until 1950 when Jim Dowse took it — were pleased because they did better trade too. So did the "Earl of Yarborough." Then some of the women managed to get work at the Camp: my niece worked in the kitchen of the Sergeants' Mess. Some of the men got jobs too. Pete

Addison did the gardens with two other chaps who biked in every day from Habrough. Jack Winterton, who'd had a bad back ever since a load of hay fell on him, worked as a batman, and his boy Barry managed to get work driving a lorry.

The people who came to the Camp were decent enough. They kept a good bit to themselves of course. But Mrs. Lidgett saw most of them in the shop and she reckoned they was alright. Better at paying than some I could mention, she used to say. Some of the Camp chaps mucked in with us real well. In 1943 the "Black Horse" won the North Lindsey Licensed Victuallers Association Darts Cup with a Flight Sergeant and a Corporal in the team. Nice blokes they were too. The Flight got 301 in six darts one night. Double top and two trebles, treble 20 again, treble 17 and double 15 for a finish. Never been done here since.

When the war was over we worried a bit. We thought that perhaps the Camp would be closed down. They hadn't built any runways or anything like that, they just flew off the grass and everybody supposed that when it was peace all the flying there was left to be done would be done from camps with proper equipment and that.

The aeroplanes did go. I think it was the back-end of 1948 when the last one left. But they weren't for closing the place. We heard (from Jack Winterton mostly) that the hangars and some of the other buildings were going to be made over to classrooms and it was going to be a sort of school for lads who had just joined up. Mrs. Lidgett said it wouldn't be as good as before because the young chaps wouldn't have much money to spend. But Jack Winterton said that wouldn't matter because there'd be a lot of people who were getting decent money on the staff of the school. And anyway even if the young lads who had just joined up might not have a lot of money *each* there would be a lot of them so that would make up for it.

Jack was right. The camp became a school, and during the 1950s Woldsby was a really lively place. Jim Dowse the new landlord at the "Black Horse" built an extension and had a pianist on Tuesdays and Sundays. Fridays were quiet because they had a dance in their Naffy and Saturday was quiet too because those who hadn't gone home for the weekend, as most of the young ones did,

went in a bus to Skegness in the summer and Lincoln in the winter.

John Willey and his wife Dorothy, who had taken two of the cottages next to the "Yarborough" when they couldn't have their bungalow, turned the two front rooms into a cafe and got a slot-machine for gramophone records. It made a din, and the Vicar's wife said it was the Devil's handiwork. Mrs. Addison said that was because she heard one of those American chaps singing a song called "Jezebel" one night when she was passing on her way from a Mothers' Union meeting at the W.I. Hall.

But the Vicar's wife was an exception. Most of us liked having the lads nearby. The pubs were livelier than they'd ever been. Young John Willey soon had a Wolseley instead of his old Land Rover and he would take his wife down to Lincoln once a month to a shop where she had an account. (First person in Woldsby ever to have an account with a shop in Lincoln). The young lads from the camp did a lot of good too. Like Mrs. Lidgett had said at first they hadn't a deal of money. So they were ready to help out at harvest, and singling beet and suchlike. And Colonel Althorpe's shoot was never short of beaters. And more village people got jobs up at the camp. The two Chapman lads who had a decorating business got the contract to keep the place painted up and at one time they had fourteen working for them, mostly from Habrough. Two local lasses got jobs in the Naffy there (dust coats provided), and Mrs. Addison and her next-door neighbour Rose Horstead got work cleaning the Officers' Mess. Nobody had believed Jack Winterton when he used to tell tales of the parties they had up there, but when Mrs. Addison and Rose kept on saying that some mornings when they went there'd be all glasses and cigarette ends all over the place and everybody looking bleary-eyed, people took notice. Then there was the picture-place they got up at the Camp in 1952, continuous from 7 p.m.

Of course there were problems. The landlord of the "Yarborough" used to sound off about having his nicest ashtrays pinched, but Jim Dowse said that was to be expected and he got big heavy square glass ones with "Senior Service" on, and some cheap tin ones from "Woodbines." He lost his cheap tin ones but the traveller always gave him some more. Nobody took the

glass ones because they were really only fooling — as long as they had something for a "memento" that was the main thing. Worst loss Jim ever had was two glasses for Carlsberg Danish Lager, and an advert for Schweppes that had a woman on that Jim reckoned somebody must have pinched for the pin-up picture.

Then there was the time they were having a concert in the W.I. Hall and nobody could hear the soloist because of the singing going on outside when the "Yarborough" turned out. Somebody wrote to the C.O. about that and he sent a nice letter back. The worst thing that happened I suppose was the business over young Margaret Brownsword last September, but as our Nora said everybody knew she was no angel. You only get what's coming to you, said Nora.

We knew National Service was going to finish, of course. And we guessed that with so many of the lads who came to Woldsby being National Service, and not so many joining up with National Service finishing the place would quieten down a bit. Stands to sense, after all nobody's going to join up unless he has to, unless there's a war on. But at least we reckoned there'll be some people up there. You have to have some people joining up to take the places of those who have died or resigned or retired or whatever.

There was a chap came in the "Black Horse" Easter-time I remember, and we decided to ask him how things would likely turn out. He was in the best room, of course (being an officer), but Jack Winterton and me went through. Jack knew his name and said he was a Flying Officer. Some people couldn't understand this as it was over ten years since they'd had any aeroplanes at the Camp, apart from the odd one just calling in passing, but Jack said this was something to do with the ribbon he wore, and this chap really did all the books at the Camp and actually was the bloke who paid Jack his wages. So he was obviously im-

portant and the sort of chap who would know what was going on.

He told us they would probably close the place down. Me and Jack said it would be a pity. But Jack said it was time he was packing up work anyway and we didn't really think any more about it.

But word got round as it's bound to in a little place like Woldsby. Some people started thinking about what it would be like without the Camp up the road. Pete Addison said they wouldn't close it because there was too much money laid out and anyway the Conservatives were against unemployment. Rose Horstead said they might put rockets there and said she would move to her sister's at Cleethorpes if they did. She said it wouldn't be safe, because they were always making mistakes with rockets as anybody who read the papers would know. Cyril Lidgett said that if they did close the place down he would write to the National Farmers' Union in London because his livelihood would be affected, and demand compensation.

It was last week when the news came at last. The Camp will close in six months, there'll be a skeleton staff till next Easter and then nothing at all and nobody. The vicar's wife says it's about time but nobody else agrees with her.

It's a scandal. It's all very well for those important people in London to go around opening places and then closing them down. They don't seem to realize that people's lives are affected. Or if they do they don't seem to care. What about the extension Jim Douse had built? What about the cafe and that record machine John and Dorothy Willey have? What about the Chapman lads and their decorating business? What about Mrs. Addison and Rose, and young Betty Winterton? And all the others who are out of work? How can we afford a pianist in the Singing-Room on Tuesdays and Sundays? And what about Margaret Brownsword?

The trouble is people don't care about ordinary folk any more.

**LANCASHIRE
AUTOMOBILE
CLUB**

“ THE MORECAMBE ”

**NATIONAL
RALLY**

by a Navigator



Each year, the Lancashire Automobile Club organises its 'Morecambe Rally' which is classed as a national event in the rally calendar. This year the rally took place on 12th and 13th May and Pilot Officer Wood, who recently graduated from the College, and Under Officer Nottingham took part as driver and navigator.

Over the previous few months we had entered various rallies which held a restricted status and decided it was about time we tried a national event. Of the dozen or so nationals held during the year the Morecambe seemed to be the best one to start on. It is a Northern event which goes into country we both know a little, and is usually described as a typically Northern 'no-nonsense' event. Lastly we thought that the competition would not be way above us as many of the rally 'circus' would not have returned from the continent after the international 'Rally des Tulipes.' In fact this was a mistake as there were at least a dozen well-known expert crews in the entry list. Running No. 1 was Don Grimshaw, the 1961 winner, and No. 2 was John Sprinzel who won in 1960. However, the latter obviously did not recover sufficiently from the Tulip Rally and was a non-starter. Also notable was the crew of Jimmy Ray and John Hopwood who were rallying together for the first time since their splendid effort

in taking sixth place in the last R.A.C. Rally. As for Jimmy's privately entered Mini — "Perfectly standard, Old Boy" — lies, all lies!

It was essential that we should be starters to get our money's worth after paying so much to enter. The main cost was the 4 guineas entry fee and the £7 insurance premium. Most companies will cover owners for restricted events on normal policies, but a special policy has to be obtained for nationals and internationals. For this rally, one even had to pay the first £25 of any claim. The highly modified Riley 1.5 we were using was placed in the Sports Car Class, starting No. 30. The modifications put it officially in the Special Grand Touring Group which is assimilated to Sports Car for classification purposes.

From the regulations we saw that the rally was to consist of some 200 miles of 'real' rallying, two special stages and two driving tests. R.A.C. regulations ensure that one must not average more than 30 m.p.h. on public roads and the organisers suggested that some competitors might not lose points on the road sections. To settle these and other ties the results of the special sections were to be used. If these sections are held on private ground, there is no limit to the average speed which may be set and the practice is to specify a virtually impossible

limit to find the speediest competitor. The introduction of these sections is becoming the highlight of many British rallies. On the last R.A.C. Rally, for example, the Forestry Commission had made a maze of tracks available to the organisers and the special sections on these roads ensured that the form of the rally approached that of the classic continental rallies. In the unlikely event of there being any further ties, the results of two driving tests to be held on Morecambe Promenade were to be taken into account.

From advance information I was able to prepare the three required maps to a certain extent, marking off the odd track which we knew from experience was too rough to use, and plotting the official black spots, populated areas placed out of bounds for rallies by the R.A.C. to prevent disturbance. Apart from this we were not given any details of the route before the start, not even the map references of controls. This was to be a genuine 'plot and bash.'

We started the Saturday evening at a garage in Morecambe, signing on, having our watch checked and sealed in a case, and having the car scrutinised. The purpose of the scrutinising was to check that the car was fully roadworthy, complied with rally regulations for classification and to list details of damage to the car, if any existed. There was to be a stiff penalty for any paint lost or bends collected *en route*. After being scrutinised we cruised along the promenade to start as car No. 30 just as it was getting dark. The take-off was from a ramp and the signal was the thrusting of route details into the navigator's hands. Some rallies have a sting right in the nose but competitors had to clear populated areas around Morecambe before getting down to business. The first 15 miles or so were along main roads and I could leave John to stay on the correct road while I plotted control positions and routed the first few sections.

The easy run-out took us to the first special section, which was in the grounds of Underlay Hall, near Kirkby Lonsdale. The tracks were fairly smooth but were of loose

shale and mud and as the set average speed was 50 m.p.h. great skill was required to prevent the back end of the car from overtaking the front. I found it was possible from the detail on the 1in. to 1 mile map to read what was coming to the driver, but this did not stop us from overshooting junctions once or twice on the shingle. Although we never saw him, a photographer had unwittingly put a few earlier cars in awkward spots by using his flash just as it was necessary for drivers to straighten the cars up for a narrow hump bridge. He only stopped when one car nearly took him through too.

From here the road section proper started and we found ourselves on typical Lake District roads. Whether they were as wide as the car was often debatable. Disaster nearly struck when the road almost petered out. A marshal had apparently met a wall coming the other way as he was going to his control. He had killed part of it and left it lying in the road. We met the bits later on which created havoc with the motion of the car so that the side of the car was just shaved by a passing wall. At the same time the brand new speedometer cable somehow came adrift and jammed the accelerator wide open. Expecting four neat round holes to appear in the bonnet at any second, John

... perfectly standard, Old Boy ...





... ran over the Marshal's wall ...

switched off and did a quick repair. A few minutes later valves bounced again on the same fault and the cable was this time taken off. For the rest of the night he had no indication of speed except by guesswork from the rev. counter readings and the frequency of the screams of horror from his balding navigator. We arrived at the following control almost on the limit of our 59 seconds lateness allowance and had to catch this up to feel happier again. However, the next three sections were very short and tight and we were really having to work to stay unpenalised. Three closed gates (more work for the navigator) did not aid matters but by some good co-operation between the crews of three cars in a temporary convoy, we were all able to get in on the time limit. In the middle of all this, the hand map-light failed and although I still had a fixed light there was no effective magnifier until such time as we could get the spare light from the boot.

The following long section was not tight and I could forge ahead with the plotting. It was possible to do this at intervals throughout the rally and few found they had need to plot a route just as they were about to enter the section. Passing through part of the West Riding we went unsteadily north through Cumberland into Westmorland and were able to settle down to the fast pace of the rally. As yet the weather was almost

perfect and we realised that the dropping of a single minute here and there would knock one out of the prize list quite easily.

Three minutes were dropped at one go. On a rather tight section I missed an awkward turning off to the left and we went boring along a goodish road which according to the map was impassable. Realisation came with the meeting of two other 'wrong-slotter' returning at speed. When we all found the road we wanted through a gate, two more closed gates presented themselves and the three of us were no longer with clean sheets. Many others unfamiliar with that 'slot' found themselves behind schedule on this section.

As we got into Northumberland the obvious ploy was to take us between very tight areas along classified roads to allow pre-plotting. At one point we came upon the marshal's car about a mile ahead of where it should have been. Admittedly the two points were very similar in appearance but this did not alter the fact that we had an extra mile to go on the next section in the same time allowance. Once again, a lot but not all of the small lateness allowance was used to avoid penalty. On Section 35 there came the only incident on the rally which could be put down to unfortunate organisation. By this time fuel was getting low and a garage was to be visited on the section, with an extra two minutes allowance on the time schedule. On the run in to the garage a number of cars had become grouped together and we found ourselves on the end of a six-car convoy. Although the attendants were doing a fast job it was still a five minute wait for the essential petrol and we were unable to keep our lateness at the next control below two minutes. Another disturbing incident occurred at the garage. A competitor asked what was wrong with the rear wheel. We thought he was joking until we saw the big dent in the rim, most likely caused when we ran over the marshal's wall. A very large hammer put the rim roughly back in place.

Coming down through Durham into the North Riding we found the roads taking the familiar Yorkshire shape: unfenced tracks,

closed gates and acute humps followed immediately by sharp bends. Throughout the night cars would become airborne over the blind humps and find they would have to take limited excursions into the bundu. As well as tending to under-steer violently when they became airborne, the cars still had to land on a road that could already be coming up for the second time. In some places the marks of sump-guards and at times even sumps attacking the road beneath were evident. John had recently had a heavy plate bolted on the car to shield the sump and this undoubtedly saved us the long walk back several times. One Mini was not so fortunate and had its sump neatly removed by a belligerent piece of rock on the road.

As we came into Kettlewell I put John down the wrong turning and we found ourselves up the wrong side of the River Wharfe. We lost a further minute retracing our steps. Correctly, the organisers were very conscious of preventing disturbances at night by asking us to keep as quiet as possible through villages. At Feizor we were given fifteen minutes to switch off the engine and coast downhill for the mile to the next control. At Stainforth I repeated my wrong-turning trick but some fast driving down a main road kept us within the time limit. The sting in the tail of the rally came with five very tight consecutive sections. One presented us with two closed gates and we were lucky not to lose more than the one minute we did concede. That made a total of seven minutes lost throughout the night as we went towards the second special section at about 6 a.m.

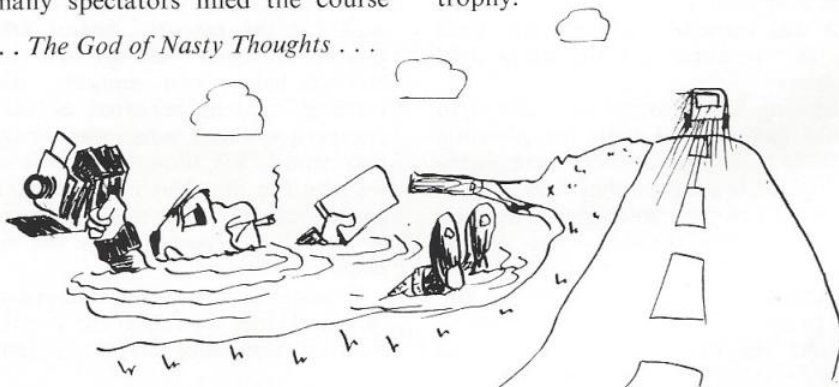
The section was the first one in reverse, and this time was held in daylight which made for faster times. It was surprising to see how many spectators lined the course

at the early hour. We thought we were really rolling along until we saw the fast times put up by some of the works drivers. Our photographer friend was up again and had positioned himself on a narrow gap between the track and a lake. As we passed him we had visions of him leaping into the lake if anyone lost control at that point. The God of Nasty Thoughts obviously did not appreciate this and the back end of the car immediately started to overtake the front on the inside. Our visions changed to one of ourselves entering the water as opposite lock was rapidly applied, but luckily the aforesaid god relented and things straightened out in time for the next corner to be negotiated.

We then made our way slowly back to Carnforth for breakfast and to Morecambe Promenade for scrutinising and the two driving tests. The former was to check for damage collected on the rally so we set to work to make the car clean. The scratch where the wall had brushed us was only polish-deep and was soon removed but we decided to change the wheel with the bent rim. To our horror the inside rim was almost completely curled up! The tyre was not tubeless, but how it kept its pressure in this condition for almost the whole rally still mystifies us. At the driving tests quite a crowd had gathered to see the fun and the better-known drivers put on displays really worth watching.

Everyone adjourned to the Midland Hotel to swap stories over a drink and to wait for the provisional results to be published. These were made available quite quickly and we saw that nine crews had not lost time on the road sections. Of these Don Grimshaw had given by far the best performances on the special sections and thus retained the trophy.

... *The God of Nasty Thoughts* ...



A YOUNG SOVIET LIEUTENANT'S FIRST FLIGHT IN A SUPERSONIC AIRCRAFT

(Translated from "Soviet Aviation")

The roar of engines died away on the aerodrome, and the last aircraft was towed away to its dispersal pan. Meanwhile the Party and Komsomol activists gathered around the Commissar, Major Kirichenko, and talked about the results of the day's flying, and the achievements of the best pupils. Both the pilots and technicians had something to say.

'Lieutenant Kuznetsov is really the man of the day,' said Party member Trunov, Air Force Pilot, first class, 'He did his first solo in great style.'

'Yes, another to our ranks,' said Flight Commander, Captain Simonov, and started to look around for the object of the conversation.

But the man of the moment was standing unostentatiously to one side. His comrades warmly congratulated him on his first success.

'It is not only my success,' replied the embarrassed Lieutenant. 'The whole unit worked hard for my progress.' But of course in fact he was extremely proud. And how! The goal for which he had been struggling was now within reach. And the events of the past flashed through the mind of the young officer. . . .

Training was in progress. Air Force Pilot, third class, Lieutenant Kuznetsov stood silently by his reliable old 'Hawk' aircraft and gazed towards the marshalling point. The supersonic fighters were taking off first. The resonant roar of the jets tore the air, a moment passed, and the aircraft disappeared from view. 'What a speed,' the pilot thought to himself.

His gaze fell to the outline of his aircraft. As a machine there was nothing wrong with it, with its sharply swept back wings, its irreproachable streamlining and its perfect aerodynamic shape. Only the speed . . . ! And for fighters this was perhaps the most important.

How he envied the pilots the take-off which they had just made.

The Squadron Commander, Major Morozkin, walked up to the aircraft. He understood the Lieutenant well and could guess the thoughts that possessed him now. 'Boris Kuznetsov — wingman of Major Morozkin — a capable, industrious and disciplined pilot.' But it was hardly possible to reproach him for anything, except perhaps one thing, an undisguised passion for the new aircraft.

But now something else occurred to him. The dream of a conversion course which Kuznetsov cherished so much had in no way detracted from his sense of duty to fly as well as possible any aircraft with which he was entrusted. Rather the reverse. The more the dream gripped the pilot, the more he disciplined himself. The Lieutenant prepared himself thoroughly and in great detail for each flight, practised a lot with his equipment, performed skilfully in the air and generally completed his training flights excellently and with great concentration.

Major Morozkin took no time at all to delight the Lieutenant with the good news.

'We are going to give you a flight on a supersonic fighter soon. The C.O. has granted your request,' he announced.

Then came the long awaited and difficult period. Boris Kuznetsov did his conversion on the spot at his own unit. Everyone saw the zeal and determination with which he tackled the assimilation of the new techniques. To achieve his most cherished ambition the young pilot spared no time or effort. He strove to understand the aircraft and engine better and to carry out the terse directions of his instructor.

But it is obviously impossible to become a master of one's craft without a firm basic knowledge.

At first the Lieutenant encountered many difficulties, but the Komsomol member did not shirk them. In the aircraft manuals and in his instructors he found exhaustive answers to many questions. But when this was impossible he turned to experienced

pilots such as Captain Simonov and Major Trunov. They had a lot to teach, for it was not their first year on supersonic fighters. The sound advice of his Air Force comrades helped Kuznetsov to get a quicker understanding of the special techniques of flying the new aircraft. The technical work did not come easily but somehow he memorised the working of each complicated piece of machinery. He had to understand the function of many systems and the rules for their operation in the air. Throughout this difficult phase Technical Officer and party member Captain Boyko gave the Lieutenant constant selfless help, and he knew how to explain the most complicated questions simply and understandably.

Anyone who is keen to get on always gets his own way and Boris Kuznetsov was no exception. He passed his theoretical advanced flying tests excellently and manipulated the controls faultlessly during his check-flight. The examiner, Air Force Pilot, first class, Bordun, tested the young officer's flying ability and was completely satisfied. In the Lieutenant's logbook he wrote; 'Authorised for solo flights.'

And so the long-awaited day arrived. Kuznetsov walked confidently out to the

supersonic fighter, strapped in, checked and rechecked the controls and switches. Since it was his first solo on the type he was distinctly excited. 'What will the rest say if I muff it?' he thought.

The most exciting moment was the take-off. With the engine roaring at full power, Kuznetsov released the brakes and immediately felt the aircraft pick up speed. His back was forced firmly into the seat. Great skill and exceptionally quick reactions were required of him to maintain the heading and handle the controls properly. This was where the depth of knowledge and training paid its dividend.

The controller carefully monitored the take-off. He was ready at any moment to give the young pilot any necessary advice and to forestall any mistakes, but none was needed. 'Good good,' Kuznetsov heard his reassuring voice.

Soon a 'lightning-notice' appeared in the crew-room which reported briefly: Komsomol member Boris Kuznetsov has completed his first solo on a supersonic interceptor and has been given the grading of 'excellent.'

“ Young Men Shall Go Hooded ”

FIRST morning of the Summer Term, the season one longs for during the other two freezing, dripping sessions. How fine to see the lush grass on the air-raid shelter and the dandelions peeping out from under the huts. The old cock pheasant strutting outside the window almost welcomes us back as old friends. He knows his calendar too.

Who have we this morning ? 91, 93, 94, 95. Hm, rise of Hitler, assassination of Franz Ferdinand, Battle of Austerlitz, the Reign of Terror : yes, that should get us all off to a good start.

The first lot file in and take their seats, visibly shaken by the dank chill of the hut. In response to enquiry I explain the Canute-like high level decree that Nature will produce the required temperature unaided between certain dates. The enquirer sighs disdainfully and with a slight trans-Atlantic accent explains that " Things were not like

that at Virginia Waters." I sigh too. I'd forgotten the travellers' tales, and this lot have just returned from the United States visit. Farewell Hitler, they'd better get it out of their system. After all, how did Bacon put it ? " *Travel, in the younger sort, is a part of education,*" or something like that. Well, let's see whether it's turned out that way.

" Well, Beytes, and how did you like Washington ? "

" Oh, just marvellous. One of the officers at the Embassy held an informal dance for us and they got us all partners."

" Hm, well didn't you visit the Capitol ? "

They exchange blank stares ; then froulkes-Willoughby volunteers, " You know, John, the cinema where they were showing the double X programme."

Perhaps I'd better pass on.

" Well what about Virginia Waters ? "

" Oh marvellous, Sir, most of our hosts

had cars and they fixed us up with dates in Denver and”

“Yes, but what about the place itself? Aren’t the buildings all very ultra-modern and attractive?”

“Well, there was a very nice hall where we went to the dance on Saturday night and they’d produced the most luscious partners. Charlie here”

“And what did you think of New York?”

“Well we didn’t get very long there but there was a little night spot down in Greenwich Village where the cabaret”

“But you must have seen something of the place. Didn’t they take you round the United Nations Headquarters?”

“Oh yes, we were shown round by the most marvellous guides from all nations. We had a little Chinese girl with a skirt with a slit”

I give up trying to stem the flow.

“ And there was this old-style joint called the ‘Speak-Easy’ with the waitresses strutting around in black tights and frills. And Charlie said to our girl ‘Gee, Betty, that’s a fine figure you’ve got there.’ And she got quite indignant and said ‘My name’s not Betty.’”

The next class arrive. Let’s see, Ninety-three, the Mediterranean visit. Odd that they don’t look as sun-burnt as you’d expect.

“Well, how was life with the Fleet?”

“Oh, marvellous, Sir, there was this street called ‘The Gut’ where every building was either a church or a night-club.

“Hm, this must have made choice difficult as you weren’t of their religion. Still, I’m glad to see you got some time ashore. Did you visit the Grand Harbour and the Citadel?”

“No, I think they’d put them out of bounds. But we went to the Port Said with the belly-dancers.”

“And how about the trips to sea?”

“Oh, well, we went on carriers and submarines and so on. And one chap took us in a dinghy past this beach where all the Wrens”

Ninety-four arrive, back from the healthy open-air days with the Army and perhaps a little background we can tie in usefully now that we’re coming on to Bismarck and the Unification.

“Well, Lustwell, and what part of Germany did you get to?”

“Oh, down near the Rhine, Sir, but they managed to get us into Hamburg a couple of nights.”

“Ah, yes, fine city, Hamburg, I believe. They say they’ve made a very fine job of the rebuilding.”

“Well, I don’t know about that, but this street we went to, the Winkelstrasse, seemed pretty old. And you’d hardly credit this, Sir, but Of course we didn’t go into any of these places, we just had a gentle stroll and gazed in the shop windows.”

“Oh yes, quite right.”

Last period. Ninety-five come in looking really weathered. Yes, of course, they’ve been “surviving” in the Troodos mountains. They at least will have seen plenty of the countryside.

“Well, Browne, what were your impressions of Cyprus?”

“Oh, marvellous place, Sir, and very friendly people. We used to meet them in a little bistro called Charlie’s Bar and watch the television. They used to have ‘Seventy-Seven Sunset Strip’ with Greek sub-titles.”

Lunch-time at last and I wend my way to the Mess with the travellers’ tales beginning to jumble. I’m not sure that Bacon would have approved of froufrou-Willoughby in Greenwich Village, or was he in the Hamburg lot? “*Let young men travel under some tutor whereby he may be able to tell them what things are worthy to be seen in the country where they go for else young men shall go hooded, and look abroad little.*” Yes that’s it, the tutor. He must have some useful impressions of the visit. I find him in the bar.

“Virginia Waters, old boy? Marvellous place. They took us out to some night-club and they had one of those girls with tassels, you know what I mean, old boy”

Alas. “*When a traveller returneth home, let him not leave the countries where he hath travelled altogether behind him let him be rather advised in his answers, than forward to tell stories.*”

“ and these tassels were contra-rotatory, old boy.”

Mm. Sounds an interesting place. Must try and go next time.

WINGED VICTORY

by V. M. Yeates : Cape, 1961 : 25/-

Good books about flying are few and far between. Occasionally, like Shute's *Slide Rule*, there emerges a book about a man's life which has been intimately connected with the growth of flying. But often the value is little more than of historical curiosity. T. H. White in *England Have My Bones* describes vividly his experiences in the thirties while learning to fly for the sheer joy of it. Biographies, memoirs, war memoirs, boys' adventure stories (what better than W. E. John's original *Biggles* stories?) abound, but no one has yet seriously attempted to integrate flying into the greater experiences of literature.

This is surprising because the twentieth century has been characterised by, among other things, war and flying, and particularly war in the air. Poets and novelists have had to concern themselves with war — romantically and patriotically (Rupert Brooke) bitterly (Wilfred Owen), and cynically (Siegfried Sassoon). A legion of introspective young subalterns have been the heroes of novels — self-portraits by Graves in *Goodbye To All That*, and in Sassoon's series about George Sherston. Probably the most serious attempt to put the First World War and the people who fought in it into some sort of perspective is the series *A Chronicle of Ancient Sunlight* by Henry Williamson (unfortunately better known for *Tarka The Otter*), the story of one Philip Madison. In two of the novels, *A Fox Under My Cloak* and *The Golden Virgin*, Madison meets briefly a young Flying Corps scout pilot, Tom Cundall. Cundall is the hero of Victor Yeates' novel, *Winged Victory*.

Williamson says, "by this device I hoped that Yeates and his novel would be re-discovered should it happen that it remains unpublished during my lifetime." Trenchard enthused over the book when it was first published in 1934, and T. E. Lawrence said of Yeates, "how fortunate the R.A.F. has been to collar for itself one of the most distinguished histories of the war." Yet it was very poorly received and lay practically forgotten until its re-issue in 1961. But during the last war aircrew were paying as much as £5 a copy — it was the only book about flying that "wasn't flannel."

It was Williamson who encouraged Yeates after the war, dying of tuberculosis advanced by the strain of his war-time experiences as a pilot, painfully to write in semi-poverty this story, possibly the one great book about war in the air.

The story is simple. It recounts six months in the closing stages of World War I during which Cundall is flying Sopwith Camels over the front near La Basée. It is an almost prosaic day by day account of sorties, life in the mess and local estaminets, of combat, boredom, fatigue, exuberance, and death. One thing that is shaken near to death is Cundall's conviction that what he is doing is right, but he is caught up in events beyond his control, and at times, beyond his understanding. This, youth can shake off, but not so easily the deaths of his comrades. The young, the inexperienced, the foolish whose plane disintegrates in a loop after a victory, join and disappear from the mess. But it is the death of his tasking flight commander, Beale, and of his last real friend (called Williamson), that contribute to the final breakdown. When Williamson is machine gunned from the ground, Cundall for the first time loses his temper and in blind revenge strafes and kills a gun crew. It is his last flight. The months of tension, strain, sleeplessness and worry, blurred and numbed by drink, weakened by influenza, take their toll: Cundall is grounded with Flying Sickness "D" (debility) and returned to England, the war over for him.

It is more than the story of one man and of friendship tested to destruction, but also the story of a service, men and a machine, of humanity. But the world of Tom Cundall is a strange one. He and his companions knew how lucky they were, for unlike the Poor Bloody Infantry (the P.B.I.) they had their moments of peace, usually expressed in "thrashes" in the mess on the least pretext, talk, and the exuberance of flying itself. This legendary boisterousness was a natural reaction to the strains of waiting for the klaxon to call the flights, of "Archie," the cutting fire of machine guns in low-level attack, a collapsing machine. Above all they feared a "flamer," death by burning, which they had so often to inflict on men like them-

selves. The peace Cundall seeks from whisky is not out of cowardice but to prevent himself from thinking and sentimentalising too much about the war.

The men who pass across the pages are strangely mature for their years. The public school atmosphere of so many war novels and plays of the period is gone. The codes of R. C. Sheriff's remarkable play of the trenches *Journey's End*, are expressed in brasher ways, horse-play, "contour chasing," beating-up staff-cars on the long straight roads, aerobatics, and even foolhardy showing-off. To re-create and re-orientate these things is the task of the good novelist. The newspapers of the time almost hysterically created a long-living hero worship of the "aces" to the point of glamourising. But the individual in isolation is of little matter—the autobiographies of Ball and Richthofen are disappointing if one really wants to feel the atmosphere of their age.

Perhaps one other book does this, a series of extracts from an anonymous diary of a fighter pilot published in 1931 and called *Death in the Air*, remarkable also for the photographs taken in combat; the crowded skies are frightening.

The Twenties and Thirties were the golden age of flying, yet untouched by the serious

writer, and of the Second World War, no one seems to have felt with the same intensity as of the First. The Battle of Britain will probably live in history as have the legends of Troy and Agincourt, always keeping the qualities of the David and Goliath story. Little beyond the level of "the Spit's cannons spewed into the Hun's fuselage" has yet appeared. There are many memoirs, a few outstanding in their genre, many if only for the valour of the individuals or the spectacular operation. Perhaps we are too near the event since even historians differ over the facts. Two of the most promising writers, Richard Hilary and the Frenchman, St. Exupéry, were killed, and perhaps others we shall never know of were as well. Time not only mellows the outlines but deepens perspective, as it is only now, some fifty years after, the writer has something of permanent value to say of Vimy Ridge and the Somme.

Yet it is strange that the most imaginatively stirring advance of the age, flying, has received so little attention. Perhaps the experience is something intensely personal beyond the power of words. We must wait for a new Tom Cundall, or is *Winged Victory* going to be the one classic of war in the air?

CUSTOMS OF THE SERVICES

by Group Captain A. H. Stradling, O.B.E., R.A.F. (Retd.)

New and Enlarged Edition : Gale & Polden, 1962 : 10/6d.

Our society now seems to have reached a stage in its development when correct manners are the prerogative of the unduly fastidious and rectangular. In the fighting services fortunately the forces of reaction are well entrenched. Thus social correctness is still valued, often for its own sake, but even more worthily because the alternative is distasteful.

A long time ago when many of us were getting born, Group Captain Stradling codified for us the simple rules of living gracefully in a Royal Air Force community. The code asks little of us but it does behoove us to know it. We would all be the better for reading this book a little more often.

An increasing number of us who come

from environments where the business of living is more practical than gracious might think that the author postulates a world of unnecessary refinement. However, he has shown by his revisions and in particular by his latest revision and enlargement that good manners although basic are not static.

But this little book is not preoccupied with social responsibilities. It has much valuable advice on command, leadership and discipline. We are told no secrets but we do get the benefit of crystallized experience.

Certainly he would be an unwise young officer who did not think it necessary to make himself intimately acquainted with the contents of this book.

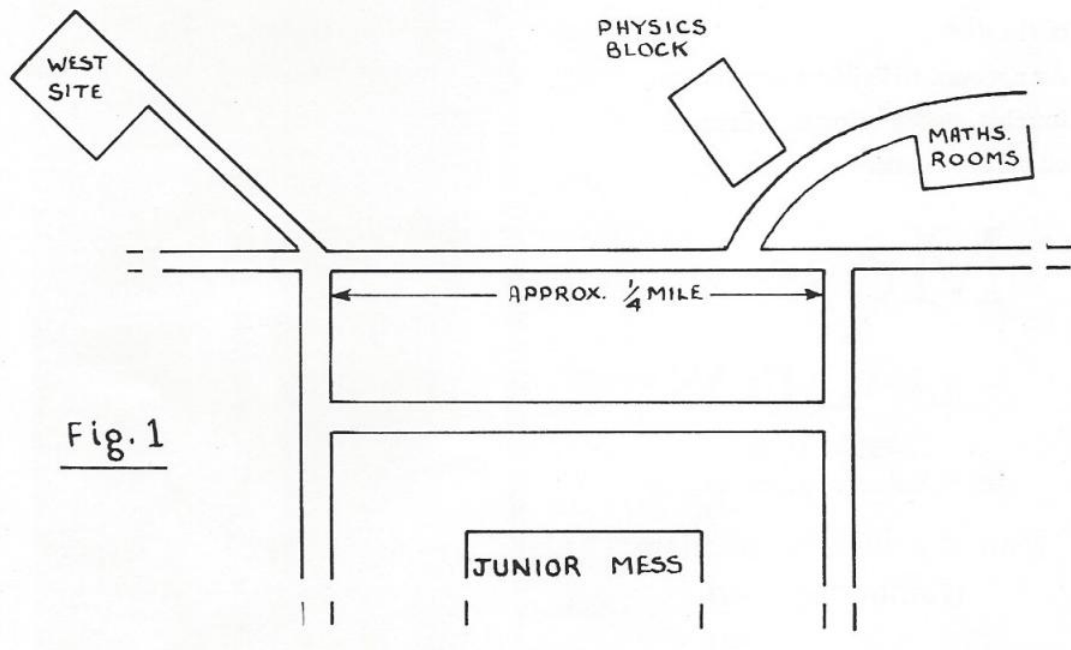
BIKES FOR THE BOYS ?

(Note : In the course of this study, the decision was taken to reposition West Site approximately 200 yards further east. The authors feel that this will have a purely quantitative effect on the conclusions drawn in this article. The conclusions are, they consider, still valid in principle).

“Time is money” is an understatement. Like money, time can be wisely or wastefully spent. Unlike money, it cannot be hoarded. Therefore a continuous watch must be kept on how time is actually being spent. This applies in particular to flight cadets at the Royal Air Force College, Cranwell. Each cadet costs the nation 36 shillings per hour, 24 hours per day throughout the period of his training. Are there any ways of minimising waste of this valuable time ? Before launching their proposed full-scale enquiry, the authors decided to make a small-scale preliminary study, choosing travelling-time between classes as their field of observation. These are the results of this initial study.

The geography of the area under observation is as shown in Fig. 1. The main things to be noted are the good network of roads and the not inconsiderable distances.

The first set of observations yielded the results given in Table 1. These results are interesting in many ways. It was quickly found necessary to distinguish between large and small sets on the march. Large sets appear to have a reasonably constant marching pace. Small sets are far more flexible. After muster parades,¹ in particular, the small sets seem to react exactly as predicted by Parkinson's First Law.² All sets, however, are to some extent influenced by the



- 1 Muster parades are held twice daily, after breakfast and lunch. They are held 20 minutes before the next class, presumably on the mistaken assumption that no one could possibly take longer to arrive there.
- 2 “Work expands to fill the time available.”

Carrot Principle, that less time is needed for the sector work-leisure than for the sector leisure-work. Hence the seemingly illogical results in Table 1 are seen to be perfectly logical, indeed inevitable, in their socio-psychological context.

Some assumptions are made in the analysis of Table 1. The number of cadets involved (in this case, the Junior Mess only) is assumed to be a constant 100. This is only approximately true. A more accurate figure would be reached by applying the Cumulative Chop Factor and the Sickness Constant. The year is taken as including exactly 40 full working weeks. Again, there may be slight discrepancies in practice. However, the analysis of Table 1 (see Table 2) is almost certainly correct to within plus or minus 0.5%. This gives a staggering result. *On this small sample alone, the nation is spending over £20,000 each year on totally unproductive commuting time.*

How can this sum be reduced, if indeed it can? Three suggestions were thought worthy of further investigation.

- (i) Make all sets small sets, and have later muster parades.
- (ii) Issue flight cadets with service bicycles.
- (iii) Allow flight cadets to use their own cars to commute, paying them a mileage allowance.

These proposals were thoroughly evaluated, using the data collated in Tables 3 and 4. Proposal (i) (see Table 3) resulted in only a marginal saving, and is not recommended, as it would involve administrative difficulties.³ Proposals (ii) and (iii), on the other hand, seem eminently practicable and show considerable savings, if the analyses in tables 5 and 6 are accepted.

Recommendations :

The authors are convinced that economy must be sought in this field. They would recommend that two pilot schemes be initiated to assess the practicability and reduction of waste by (a) the issuing flight cadets with service bicycles, and (b) the payment to flight cadets of a mileage allowance when their cars are used for internal commuting within the station.

3 i.e. clerical confusion.

Table 1.

Route	time taken in minutes			Frequency/week
	small set	large set	mean	
Muster—West Site	20	15	17.5	4
Physics—West Site	10 *	10	10	2
Maths—West Site	10 *	11	10.5	2
West Site—Maths	10 *	11	10.5	3
West Site—Physics	10 *	10	10	3
West Site—Jr. Mess	5	8	6.5	2

* via Junior Mess.

Table 2.

Time spent travelling per person per week — 3 hours 5.5 minutes.
 Time spent travelling per person per 40 weeks — 123 hours 40 minutes.
 Time spent travelling by 100 cadets in 1 year — 123,66 hours 40 minutes.
 Cost to nation, at 36/- per cadet per hour £22,260 per annum.

Table 3.

If all sets are small and muster parades 5 minutes later, from Table 2,
 Time spent travelling per cadet per week reduces to 2 hours 50 minutes.
 Saving per cadet per week — 15.5 minutes.
 Saving on 100 cadets per year — 1,033 hours 20 minutes

Saving to nation at 36/- per cadet hour — £1,860

Table 4.

Route	Freq./week	Time in minutes		
		on foot	on bicycle	by car
Muster—West Site	4	17.5	1.8	1.1
Physics—West Site	2	10	1.9	1.2
Maths—West Site	2	10.5	2.0	1.3
West Site—Maths	3	10.5	2.0	1.3
West Site—Physics	3	10	1.9	1.2
West Site—Jr. Mess	2	6.5	1.0	1.1

Table 5.

With Bicycles

Travelling time per cadet per week	28.7 minutes
Cost per 100 cadets per year	£3,444
First cost of 100 bicycles	£1,500
Depreciation over 3 years	£500 per year
Total cost per year	£3,944
Saving to nation per year	£22,260 — £3,944
	<u> </u>
	= £18,316

Table 6.

With Cars

(An average journey length of 1 mile has been assumed, including trips to the cadets' garage).

Number of cars required	20
Number of miles/car/week	16
Car miles per year	12,800
Cost, at 9d. per mile	£480
Travelling time per cadet per week	19.1 minutes
Cost per 100 cadets per year	£2,292
Total cost per year	£2,772
Saving to nation per year	£22,260 — £2,772
	<u> </u>
	= £19,488

Hope Springs Eternal

My formal official letter, I am told
 Is clear, concise, convincing, standardised,
 Accurate, respectful (not too bold),
 Imparting knowledge and, since last revised,
 Expressing my intentions undisguised,
 Persuades, convinces by its logic cold—
 But yet, for reasons quite unanalysed,
 I think my chop for one more day I'll hold.

My brasses may yet prove to be pure gold—
 More pay from Treasury may yet be prized—
 Tomorrow morning may not be so cold—
 On drill I may be near-correctly sized—
 My well-bulled kit may be no more despised—
 Sergeants may into slavery be sold—
 My fondest dreams may yet be realised—
 I think my chop for one more day I'll hold.

Sergeant, pace-sticks may well be metricsied,
 Parade-grounds may well sink beneath the wold,
 I think my chop for one more day I'll hold.



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ACTIVITIES & SOCIETIES





H.M.S. PINAFORE

Dick Deadeye

Photographs by N. S. B. Reynolds

On 2nd April, 1962, 'H.M.S. Pinafore' sailed on to the College stage — eighty-four years after it was launched at the Opera Comique in London. Its music is as fresh and lively as ever and the College production captured much of the spirit and sparkle of the original. On the other hand, the story and dialogue have dated and, at times, the leading players were out of touch.

The story, after all, is little more than that of a cheap novelette. There is a strange disregard of ages. Consider, for example, Josephine and Ralph. They are presumably of similar ages and yet Josephine is the daughter of Captain Corcoran who was the same age as Ralph when they were 'tender babes' together in the careless care of Little Buttercup. And then — to cap it all — Corcoran marries Buttercup! Working that out is as difficult as those problems which begin, 'That man's father is my father's son

Furthermore, the story lacks development. After the interval, there is little to do but stage the denouement and pair off the principals for the final ensemble!

Short of playing the dialogue straight for all it is worth, as does the D'Oyly Carte Opera Company, there is only the Tyrone Guthrie alternative of overplaying it as a Nineteenth Century opera novelette and that is unsatisfactory. Making mock of it is unsatisfactory because Gilbert was, perhaps only half consciously, guying the stage tradition of his day, and a full parody of a half parody is bound to mis-fire.

Such strictures of Gilbert's contribution are fair when one remembers that he regarded himself more as a polished dramatist than as a writer of comic opera. He was the first to take up the defence of his stagecraft!

Mike Dales, as Sir Joseph Porter, was certainly not among those who had any difficulty with the story and dialogue. From

his patent leather shoes to the top of his magnificent cocked hat, he was a true Savoyard. He is certainly a discovery and we look forward to future triumphs.

Frank Hoare, in the part of Captain Corcoran, was successful as a foil to Sir Joseph, but when he was playing with others, particularly Buttercup, he seemed ill-at-ease and under-produced. By contrast, his singing voice was pleasant and strong. He was at his best in the comedy songs, notably the effer-vescent trio, 'Ring the merry bells on board ship.' In this song, Captain Corcoran, Sir Joseph and Josephine were at their best — happy and full-of-ease. It is a pity that they could not have included some "business" in this piece, but the small stage has its limitations.

Josephine was delightfully played by Sandra Wells from Grantham. She made a very pretty heroine — wistful and sad in her anguish, but relaxed and gay in her happiness. Her Act Two solo, 'The hours creep on apace,' which has been the downfall of many a professional singer was her greatest triumph.

Robin Mitchell as the hero, Ralph Rackstraw, was less sure of himself. His voice was pleasing, if a little too light, in the higher register. He gave the impression of simple, young — and even innocent — love most convincingly. The manly Gilbert hero is, alongside the frustrated Gilbert spinster (mercifully absent from 'H.M.S. Pinafore!'), a most difficult role to play and Robin Mitchell did well.

Amongst the crew, the melodramatic villain — Dick Deadeye — was the most successful. John Nottingham played this part with the assurance and polish which stems from considerable experience. He has been the inspiration and driving force of the Choral Section for several terms and it is difficult to visualise next year's production

without him. As Katisha wails, 'Oh, where shall I find another?'

The endearing rôle of Mrs. Cripps — more commonly referred to as Little Buttercup ('though she could never tell why') was played by Patricia Venn. Both in the solos and chorus work she sang well and carried her motherly part most convincingly — although she did not make the most of her sinister and plot-potent secret!

The other leading lady from Grantham, Jean Akrill, as Hebe, was, in spite of dress rehearsal nerves, very good and supported the other soloists well. On the final night, her mischievous chorusing of 'And so do his sisters and his cousins, and his aunts' was especially attractive.

Indeed, the leading ladies were — on the whole — better than the leading gentlemen: a reversal of the current D'Oyly Carte pattern. But this was not true of the chorus where the honours were equally divided. The clear and crisp chorus work was a particular feature of the production and it could only be faulted for an occasional hesitant entrance.

Captain Corcoran and crew



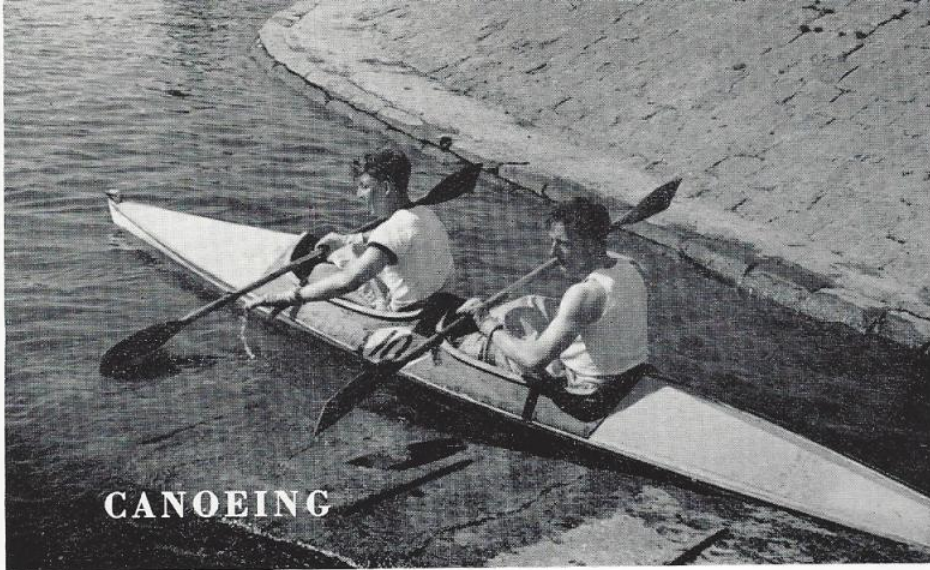
Buttercup and some of Sir Joseph's Sisters, Cousins and Aunts

Cyril Adcock, more at home with real drama, produced the opera and used the limited stage well. It is a pity that he will not be here to display his talent on the new, larger stage.

The colourful set was designed by Chris Haysom. It was unusual, but most effective. Peter Goffin must look to his laurels!

The orchestra was conducted by Flt. Lt. R. E. C. Davies. To him, as Guest Conductor, and to John Nottingham, as Musical Director, must go much of the credit for the musicianship on both sides of the footlights. The Guest Conductor must be specially complimented on the way he used the orchestra to cover up the rare musical lapse on the other side of the footlights.

All in all, 'H.M.S. Pinafore sailed onto the Cranwell stage with what Sir Joseph Joseph would have called 'a remarkably fine crew.' And, on the last night, the audience responded magnificently — what the Mikado would have called a 'very good house'! In fact, it was a 'remarkably fine' and a 'very good' affair all round.



CANOEING

DEVIZES TO WESTMINSTER CANOE RACE—EASTER, 1962

History of the Race.

The first race was held in 1948, when a gentleman of Pewsey offered £20 to anyone who would go by boat from Pewsey to Westminster in 100 hours. Mr O. Brown, the Scoutmaster of the 1st Devizes Group, accepted the challenge only to be told that it was not intended to mean anyone outside Pewsey. This came to the ears of several gentlemen of Devizes, who promptly started a fund and offered £20 if any of the Devizes Scouts could complete the journey from Devizes to Westminster in under 100 hours. They accepted and two very old canoes made the journey in 89 hours 50 minutes.

The idea of making it an annual race came to Frank Luzmore, a veteran canoeist, who twice completed the race, and who is now the Organising Secretary. The first race took place in 1949 and was won with the time of 49 hours 32 minutes (which then included one over-night stop). Frank Luzmore was a member of the winning team. The race included crews from a number of Scout Groups and the Richmond Canoe Club in a total of twenty entrants.

The Course

The gruelling 125 miles course was covered in 1961 in the record time of 20 hours 59½ minutes, by G. R. Howe and C. E. Tandy of the Royal Marines' Canoe Club. Fifty-four miles of the course are along the Kennet and Avon Canal with fifty-seven locks, and seventy-one miles from Reading along the Thames to Westminster with 29 locks around which the two-men teams have to

carry their canoes. The canoes are loaded with a regulation quantity of camping equipment, clothes and food for the whole journey.

Accidents which may befall competitors, preventing many from completing the course, include badly blistered hands, capsizing, running into rocks and stakes in the dark, broken paddles, sun-stroke and plain exhaustion if wind and weather are bad. In 1958 the weather conditions were so bad that only fifteen out of 60 crews completed the course—the worst weather for the race since it was inaugurated. There are two classes of competitors, those over 20 years old, seniors, who race non-stop, and those under 20 years, juniors, who make three enforced nightly stops. What does this rugged race achieve? Apart from the fine performance it has done a great deal to promote research and improvement in canoe design.

The Race this Year

Attempting to write a description of the Devizes to Westminster Canoe Race is a task very similar to writing about a particularly hard night 'on the beer.' The initial memories are quite lucid but after that they are hazy and fumbled.

After six weeks of training on the Trent, Witham, and the course itself, the team assembled at Cranwell ready to travel to Lyneham before the start of the race. The following extract is from a report written by Flight Cadet Coulson, a member of this year's successful crew.

"We started from an insignificant car-park alongside the canal at Devizes. At ten

minute intervals crews 99, 100, 101 paddled off down the Kennet and Avon Canal. By 0845 the last crew was under way on this 125 miles of calculated torture. Fortunately we started with no penalties for defective kit, which was probably due to the glib way we assured the officials that some assorted polythene squares were in fact tents and groundsheets.

The three crews were soon together for the first gruelling stretch of three hours unbroken canoeing. At 15 miles the first lock broke the monotony and eased tired arms and cramped seats. After this locks occurred at frequent intervals and the laden canoes had to be manhandled round each. (Portaging locks often involved lifting the heavy canoes up concrete walls six feet high). On one particularly soul-destroying stretch at Crofton Locks, seven locks within a mile had all silted up and the canoe had to be carried.

A good rate of progress was maintained along the canal despite its shallowness. The main morale-sapper was boredom. One lock very much resembles another and the main object of canoeing on the canal was to reach the next lock, or even on a long term policy to reach the next village. At Thatcham after 38 miles the crew of 99, which was a glass-fibre canoe, had to withdraw because one member had bronchitis.

Shortly after dark, just after Theale about 49 miles from the start, the crew of number 101, which was the NCK 2 (a wooden chine kayak), also had to withdraw because of a dislocated shoulder of one of the crew. But shortly after 0030 Reading was reached, which represented the end of the hardest stretch. The broad waters of the Thames were a welcome sight.

The next morale boost was the overtaking of two army crews at Marsh Lock some 61 miles from the start. At Henley and up to Marlow we were worried by some river mist which threatened to make things awkward. Fortunately at 0300 eight-eighths cloud prevented further mist but unfortunately covered the moon.

Dawn was a very welcome sight before Maidenhead and we were on schedule at Old Windsor, which we reached at 0830. Because of the distance between locks and the warmth of the new day we soon began to feel the effects of twenty-four hours of canoeing with no significant rests.

By 1100 the sun was high and pleasure craft began to appear on the river. From Staines (91 miles from the start) until the end we were plagued with the wake of these craft. Also on this stretch we realised that we were slightly ahead of schedule and would in fact be early for the tide at Teddington. However, as we eased off, fatigue took its toll and Senior Flight Cadet Wood was seen to perform the strange ritual of leaping ashore galloping down the bank and then soaking his head in the river three or four times.

We did reach Teddington before the tide turned, but thanks to a scurrilous confidence trick by the support group who told us that the tide had turned, we set off against the tide.

The fifteen miles to Westminster in our dazed condition seemed nearer fifty, but by 1930 we were swept under Westminster Bridge by the receding tide and we pulled into the finish. Impossible as it was to believe, the race was over."

The crew were hurried off for a shower and a meal in the County Hall at Westminster. Senior Flight Cadet Wood and Flight Cadet Coulson established a new College record for the senior event, of 34 hours 42 minutes, after returning from the United States only the day before. They came 24th in a field of 116, only 41 of whom finished.



JAZZ

Once again the Jazz and Folk Music Society has had a most successful term. The band lost its bass player and drummer at the end of last term, and found difficulty in replacing them. Luckily, 86 Entry provided us with a drummer in the form of Lanham, and an extra banjo plucker, Clarke. Pym took over on the bass and improved tremendously as the term progressed. Once more we had a complete jazz group.

It was only during our third practice that we started playing together, but when this did occur it was quite good jazz. From this time until the end of term, the band never looked back. We played at most guest nights, and on the whole the audiences were pleased with what they heard. Encouraged by the reception at the College, the band then went further afield.

Moving into the 'world of jazz,' the band played at Lincoln and Boston jazz clubs and was warmly received. Two visits were also made to Loughborough Training College.

Although the rhythm section provided a good backing, and did its job well, the 'front line' must take all the honours. Jensen's clarinet playing was superb, and the same can be said for Jarron's trumpet playing. For a comparative beginner on the trombone, Haysom did very well, fitting in sometimes with the other two.

It is hoped that last term's improvement and success will continue in the Summer term, as the band has the same personnel as last term.

At the time of going to press, the band has already had invitations to play at outside engagements. It has played in the College Main Lecture Hall, during the first guest night. This impromptu session was surprisingly well attended, and the jazz warmly received.

After long discussion and argument, the band has decided on a name for itself. From this time on, the jazz band will be known as the 'Gut Bucket Seven.' With a name like this, it is hoped the group will play good, earthy jazz.

BRIDGE

The Society started the term under the handicap of having only two of last term's regular players. But with the aid of

some publicity, about fifteen new members were recruited, including several from the Junior Mess, which bodes well for the future.

Meetings were held throughout the term on Friday evenings and some beginners improved their play.

One match was played, towards the end of the term, against a team of twelve officers' wives, which we lost, though not by a large margin.

SUB-AQUA

The Club is at the time of going to press awaiting some new equipment. When it finally does arrive it should enable us to train more people to higher standards than hitherto possible. We should also be able to mount more ambitious expeditions, since both skin-diving suits and depth gauges are included in the equipment list and are essential features of more advanced diving techniques.

The present membership of some forty fully active members includes eight experienced divers and another eight who need sea experience to complete the initial stages of their training. To this end there are plans for two weekend expeditions.

Recently some investigation into salvaging methods was carried out, and it was found that quite heavy articles can be recovered from depth with the aid of small plastic bags, filled with air. The air can be used direct from the diver's own supply or from a spare bottle taken down in anticipation. At least two experiments have been carried out in the College swimming pool, one on a length of cable and the other on a small packing case, weighted down. The results were distinctly encouraging.

The prospect of becoming affiliated to the British Sub-Aqua Club has also been investigated. The disadvantages of their conditions of affiliation, diving restrictions and fees are considered to be outweighed by the advantages of being part of a body such as this. A particular case is their grading system for divers, which is internationally recognised and in some cases required before one is allowed to dive. We have been following the system for about six months with some success, and the use of the pool in the Spring term for this purpose has kept the Club flourishing in what is normally considered the off-season.

Flight and Space

If you traced the origin and history of every part of the aircraft you fly, of the missiles which are planned and produced, and of the ancillary equipment and devices employed today in flight and space travel, you would find that considerable contributions are made to their development and production by the Divisions and Companies within The Rank Organisation.

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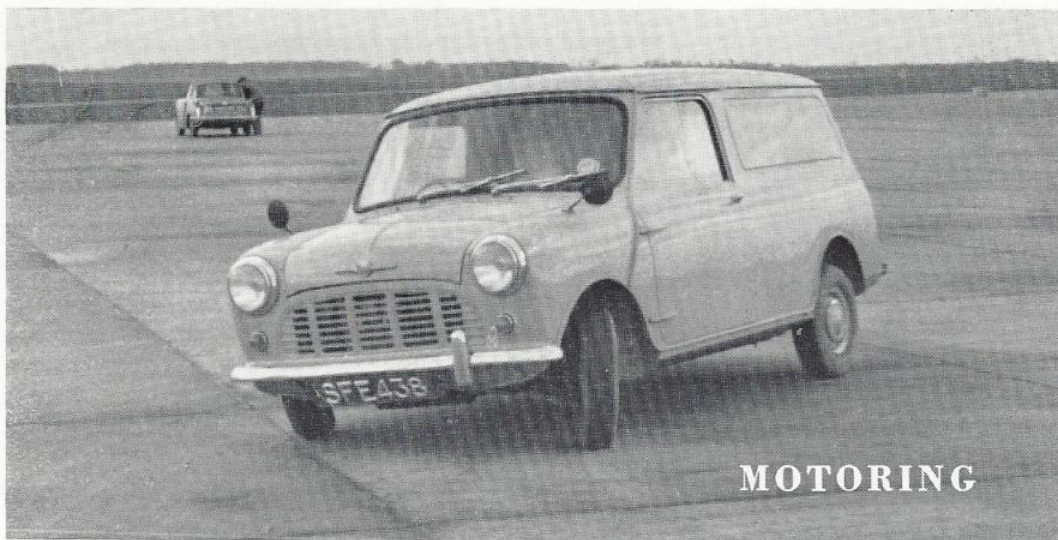
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MOTORING

The Motor Club began the term by showing a number of Shell motor racing films which covered most aspects of the sport. The programmes were chosen to provide something for everyone, whether enthusiasts of the very latest or the most vintage in sports racing machinery. A fair idea of the history of motor car racing was gained from the "Golden Years" film when the Club saw shots of the 1906 Grand Prix, where Fiat battled with 10-litre Mercedes.

On Sunday 11th February, the Club staged a Treasure Hunt, an effort being made this term to devise a course which demanded more Driver/Navigator skill than the ability to build daisy chains. Icy roads and a bitterly cold day reduced the number of entrants to a disappointingly low level, and threatened to make certain sections of the route too tricky. However, every section was included, and all who entered agreed upon the success of the tougher rally. Hidden controls, unmapped roads, and a ford were a few of the obstacles involved in completing the event. Brilliant displays of "controlled" driving were given by Flight Cadet "Sideways" Stewart on the down-grade braking test, and by Flight Cadet Giles, who, despite a lady navigator, managed to win.

In view of the popularity of previous driving competitions, the Motor Club held a Gymkhana on the South Airfield on April 1st and some considerable tyre burning resulted. Once again response to the com-

petition was poor, but nevertheless some inspired car acrobatics took place to the enjoyment of all concerned. Eight obstacles featured in the event and the marshals worked overtime in the blustery conditions to keep the cardboard marker boxes from taxying right off the dispersal. The time taken to complete the events formed the system whereby the contest was judged, although by far the most points were lost as penalties for choosing the wrong route between the boxes.

KARTING

The Club held meetings every Sunday afternoon on South Airfield during the Spring term. Regular attenders at these meetings numbered about twenty-five.

During the term, the Club took delivery of three new Trokarts and one Fasterkart, the latter having a live axle. There is now a complement of ten karts.

The one external race meeting of the term was due to be held at Fulbeck. Unfortunately it was cancelled because the R.A.C. were unable to provide a marshal, this being a condition which has to be fulfilled under racing rules. It is hoped that the Fulbeck meeting will now be held in the Summer term.

Also during the Summer term, the Club will take delivery of three new JLO racing engines of superior performance to any engine currently owned by the Club.

OCEAN SAILING

Skippers' Course

A course was run by the R.A.F.S.A. to qualify students for the "Inshore Skippers' Certificate." The nine members of the course, ranging from Group Captains to Flight Cadets, assembled on 14th April at the R.A.F. Yacht Club, just in time for its "Beginning of Season Party," and included Flight Cadets McKinley and McGregor.

In the interests of economy the two junior members of the course elected to brave the elements overnight and sleep on "Jethou," one of the yachts provided for the course. The cold northerly gale made less than three sleeping bags per man intolerable, especially after a wet trip in a half filled dinghy at midnight.

Partly because of the previous party, and partly because of the weather, the next day was devoted to ground lectures in the best traditions of all R.A.F. courses. By Monday weather conditions had improved slightly, and we at last ventured into Southampton Water. After some strenuous sail changing and reefing, the crew succeeded in breaking the main halyard, leaving everyone under a mass of canvas, and the skipper slightly dazed. Having repaired this, the afternoon was spent amusing an instructor on the course, who insisted on flinging boxes over the side, and screaming "Man Overboard!" — much to the confusion of the crew and skipper. We finally returned to Hamble with a simulated engine failure just to add more confusion.

Tuesday and Wednesday were devoted to short trips visiting most harbours of the Solent, these being enlivened with further simulated emergencies in addition to a real one, when a warp fouled the prop. Because of fog on Wednesday afternoon real navigation was necessary and three hours of I.F. were logged.

Thursday, the final day, was spent racing round the Prince Consort Buoy and back, while the instructors displayed their prowess as skippers. With this shining example of seamanship before everybody, we could do little but accept a final barrage of criticism before departing, as inshore skippers, after a strenuous but instructive week.



Photo by Becken

Easter Cruises, 1962

Three cruises were organised in April; one on the yacht "Lady Corrinne" hired, for the occasion, complete with skipper, and two on the R.A.F.S.A. yacht "Jethou." All three cruises managed to reach Cherbourg, and "Jethou" also visited the Channel Islands.

"Lady Corrinne," April 14-22

Flight Cadets Millar, Moore, Mugridge, Wakelin and Warner were crew for Mr O'Riordan, a sprightly octogenarian. As most of the crew were novices, the first two days were spent "teaching them the ropes." This was followed by a trip across to that well known yachtsman's port of call, Cherbourg. After a day's sailing off the French coast, 'Lady Corrinne' returned to Hamble, without any wind and under power. A quick sail up the Solent to Yarmouth, I.O.W., completed a most successful week's cruising.

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“ Jethou ” 20-27, April

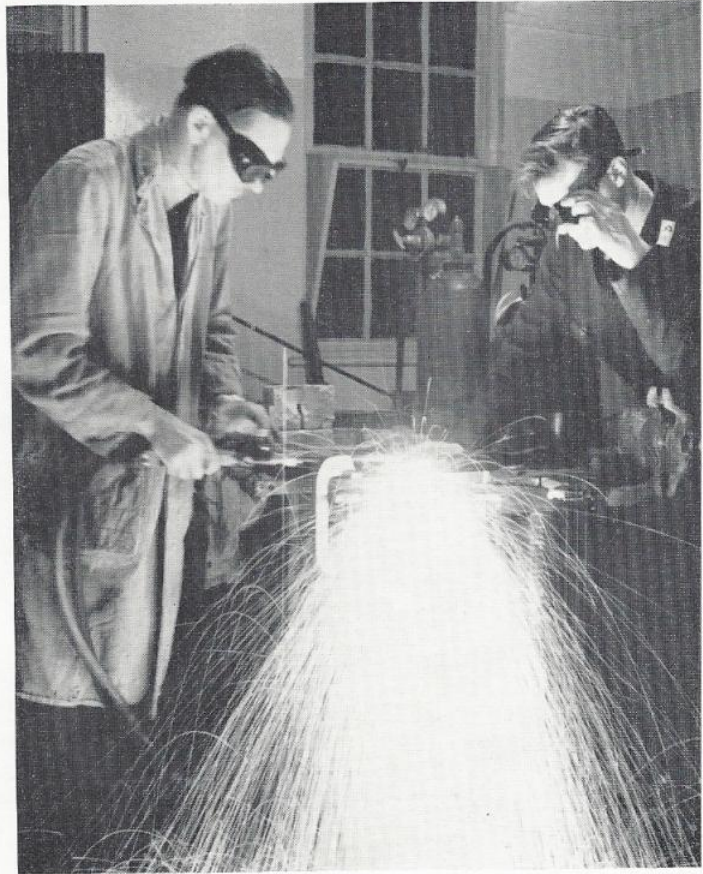
This cruise was undertaken by an all-cadet crew, consisting of Flight Cadets Giles (skipper), Jones, Dick, Debenham, Eeles and Allison. “Jethou” set sail for the Channel Islands on the 20th, but, because of engine trouble, spent 36 hours at sea, and arrived at St. Peter Port, Guernsey, on Easter Sunday. A couple of days were spent here, in glorious semi-tropical weather, and then course was set for Cherbourg. The sun blazed from a cloudless sky all the time, so the trip was made almost entirely under power, when the troublesome power-unit could be cajoled into action. Consequently they established an all-time ‘slow speed Guernsey-Cherbourg record.’ After a day in Cherbourg, which included clashing with a rival Sandhurst crew on the dodgems, sail was set for England, and, after a brief diversion to Yarmouth, I.O.W., “Jethou” was returned to Hamble by a very sunburnt crew.

“ Jethou ” 27 April, 1 May

Flight Cadets Jensen, Seyd, Pym and Shaw took over “Jethou” straight away, keeping Flight Cadet Giles as skipper. As time pressed, they set sail at once for Guernsey, which was reached next day after a bitterly cold night's sail. While at Guernsey the crew visited their yacht's namesake, the tiny island of Jethou. Owned by a retired Group Captain, this island has unlimited opening times ; the crew all considered it the nearest thing to Paradise they had come across ! Cherbourg was the next port of call, but only a brief stay here was possible, so “Jethou” set course for Hamble again and arrived there on 1st May, after another very pleasant cross Channel sail, and the crew returned straight to Cranwell.

ENGINEERING

During last term plans were completed for the building of a hovercraft and some preliminary construction work was carried out. All materials for the project have been donated by the manufacturers to whom everyone is extremely grateful. Without their enthusiasm and their generosity it would have been impossible to embark on the project as the necessary funds are not available.



A 500 c.c. B.S.A. twin cylinder motorcycle engine has been donated by B.S.A. together with the associated equipment. This engine will produce over 30 b.h.p. and yet weighs only 100 lbs. Accles and Pollock have given all the steel tubing needed for the frame and I.C.I. have given sheets and blocks of Polystyrene for the ducting and covering. This is an amazingly light yet strong material and should be ideal, It is also buoyant and waterproof. (It is hoped to use the craft over water as well as land). The all-up weight should be between 550 and 650 lbs and the craft should hover at a height of 6 ins.

The impeller is the only major problem remaining. It is becoming evident that the only way to obtain one to the specifications is to make one ourselves. At first it was thought that this would be too difficult a

task but now, with new ideas on construction, it seems feasible.

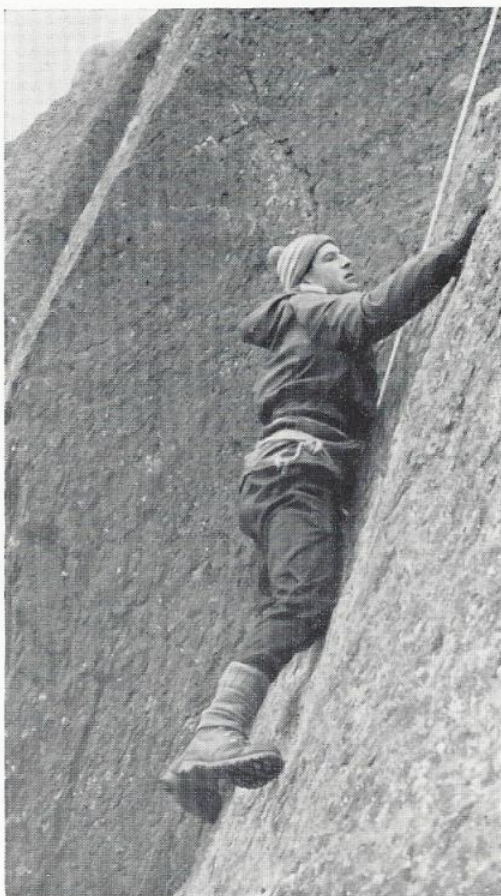
Much useful advice has been received from R.A.E. Farnborough (who also wind tunnel tested a model for us), Saunders-Roe Division of Westlands, Vickers-Armstrong and Britten-Norman. Two of our members have been to the Isle of Wight and visited Saunders-Roe and Britten-Norman, where they saw their respective craft. We were pleased and encouraged to find that many of our pet ideas on the subject were borne out by their experience.

MOUNTAINEERING

The Spring term started badly for the Society when the planned trip to Glencoe had to be abandoned because the roads, in Scotland especially, were impassable with snow and ice. Disappointment was complete when Flight Lieutenant Adams and Flying Officer Plowman, who had travelled to Glencoe earlier in the Christmas leave, returned with glowing accounts of the magnificent climbing they had done.

For the first six weeks of the term the Society lay dormant, the first awakening coming at half term when a party of seven, led by the Flight Lieutenant Adams—Flying Officer Plowman team went to North Wales. In this party was the first member of the Station to take part in our activities—Sergeant Hextall. The party stayed at a cottage in the Llanberis Pass just below Snowdon and, in two groups, first sallied forth on the Saturday morning to climb Snowdon by two routes. The first party—Flight Lieutenant Adams, Flying Officer Plowman, Hoare and Thomstone took a route up Cwm Glas, made the most of a scramble up the southern side of Cyn Las and continued up Clogwen-y-Person to the top of Snowdon. They then descended by the P.Y.G. track to Pen-y-Pas where they met the second party—Adcock, Lanigan and Sergeant Hextall, who had climbed Snowdon via Crib Goch, then around to Lliwedd, an 800 foot cliff, thus completing the Snowdon Horseshoe.

The two parties then journeyed back to the cottage where they changed before dashing down to the regular 'Saturday Night Hop' at the Swallow Falls Hotel, Bettws-y-Coed.



It was a somewhat bleary-eyed group that set out the following morning for the regular climbing area at Idwal Slabs. On the way up Cwm Idwal a few practice climbs were sought and the 'Gully and Slab' and 'Seniors Route' on Clogwyn-y-Bustach chosen. These involved about 200 ft. of climbing graded as 'difficult.' After this 'warming up' they continued up to the 'Slabs' where the 'Ordinary Route' was to be climbed and as the party was now fully confident of its abilities it was decided to do this 470 foot 'moderately difficult' climb unroped, roping up only for the rather exposed exit onto a ledge.

From this ledge they contoured left, around into the 'Nameless Cwm,' then took the very exposed route up the 'Cniefion Arrête' (Nameless Arrête) to the top of the 'Grybin Ridge.' By this time it was

getting late and so the easy route off, via Llyn Bochlwyd, was taken.

Over the Sunday night there was a fairly heavy fall of snow and next morning the party set out to climb Tryfan in fairly Alpine conditions. The route chosen was the north ridge, normally a moderate scramble but made more difficult by the snow and ice lying in the hand and foot-holds. On the way several 'boulder problems' were singled out and climbed.

The top was reached with little difficulty and the 'descent' which was mostly done on the seat, went via Bwlch Tryfan and the Ogwen back to the minibus which was waiting to return the group to Cranwell.

The next meet was on 25th March, when a party of ten, led once more by Flight Lieutenant Adams and Flying Officer Plowman, set off in fairly good weather for Stanage Edge. On arrival, however, a blizzard was blowing, winds of gale force blowing snow, sleet and hail up the face, making it impossible for anyone at the top of the face to look over to give advice to a climber on his way up. Despite this some climbs of a fairly high standard were done before the party was lashed into submission and forced to return 'home.'

The following Sunday, 1st April, a party of 8, led by Flight Lieutenant Adams, set off for Derbyshire once more, this time to Froggatt Edge where they met rather better weather and some good climbs were done, among which was 'Swimmers' Chimney,' graded as 'very difficult' consisting of a prolonged chimney with a very tricky exit. This was climbed by Cox and Newall. Another notable climb done was 'Diamond Crack' which most of the more experienced climbers did after seeing one member 'peel off' on it. The last climb up this crack was finished under the onslaught of a sudden hailstorm which effectively curtailed proceedings for the afternoon only slightly earlier than we should have wished.

The trip to Skye, arranged for the Easter leave, had to be cancelled as there was no driver available for the minibus. However, three small parties climbed in the Lake District, South Wales and Cornwall, these last two being more or less experiments as these are practically new areas for the Society.

It is pleasing to see the increasing membership of the Society, and the increasingly high standard of climbing in the Society in general. The Society has a full programme of events for the Summer term, and has obtained some climbing films which will be shown during the term.

DEBATING

During the term there were three debates of an informal nature, all of which, despite poor attendances, were of a high standard. There are half a dozen speakers of reasonable ability in the College at present, more for their humour however than for any moving speeches.

The first debate, "If London is not burning, it should be," was defeated, after turning into a battle between Londoners and the London area against the rest. The two main speakers from the Junior Mess spoke particularly well in this debate.

The second debate was "Top People are behind the Times." This was again defeated after taking an unexpected turn, the motion being interpreted as meaning that Top People support the times by putting their weight behind all that is done in modern times.

The third debate, "Anger is Essential in any Age" was victorious. Each debate was followed by coffee and conversation of unusually high intellectual standard. All three debates were extremely entertaining, and the cadets who have not attended so far are missing something highly enjoyable.

The Society also continued with its visits to Cambridge University. These appear to be popular and are certainly worthwhile.

GLIDING

The Spring Term never produces ideal gliding weather, but it does sort the enthusiasts out of the mass. It is also a very useful period for circuit training for beginners. This has meant that at the time of going to press there are only a handful of cadets still to go solo, so that any warm weather should give some 'C' certificates, and possibly Silver 'C.' The latter is a little doubtful as we do not have the use of the Olympia which needs a recover.

For this reason the section was forced to hire a glider from Swinderby for the Easter camp, who nobly let us have a very good Olympia at cheap rates.

The section is doing a lot of gliding, but is continually being held back by obsolete and inefficient equipment, and a grave shortage of maintenance staff. The section are very grateful to Flight Sergeant Davies, Sergeant Papworth and Sergeant Bullock for all their efforts.

Flight Lieutenant Boyce and Flight Lieutenant Adams spent much of their time towing us in the Chipmunk, and Flight Lieutenant Johnson has raised the gliding section to a standard which it would be hard to exceed with our present equipment.

DINGHY SAILING

During the Easter term there was no sailing, but the section busied itself with the maintenance of the six 'Firefly' dinghies. This has progressed well, and they will be taken to the sailing centre at Newark during the first week of the Summer term. They were resprayed in the Cadet Instructional Workshops, and the rest of the fitting-out was done by the club members on Sundays. An encouraging number of cadets want to sail this season, and sailing will take place on every Wednesday, Saturday and Sunday of the Summer term. A full match programme has been arranged and a good season is expected. It includes fixtures against Welbeck, Shawbury, Dartmouth, Sandhurst and London University, culminating in the inter-squadron races in July. The Section will also participate in the Universities and Schools Championships on the Clyde in August, sailing 'Dragons' from the Mudhook Yacht Club.

RIDING

Throughout the spring term the riding facilities proved to be unsatisfactory. The times when cadets could ride were once again limited to Wednesday, Saturday and Sunday afternoons and P.S. periods of which there were very few available. As before there were only two horses available for cadets' use, and since these also had to be shared by Mr. Edgeley's other clients they were therefore not always free for cadets to

use. However it is hoped that this state of affairs has now been remedied.

During the term there were a series of conferences about the riding facilities at the College. The College is to purchase solely for cadets' use two horses which are to be cared for by Mr Edgeley. Tack for these horses is to be lent by the R.A.F. Equitation Association. The purchase of these two horses means that cadets will be able to ride at any time they want to, including the evenings after tea. If enough interest is shown in riding, Flight Lieutenant Martin, the guiding officer, hopes to be able to reintroduce riding as a Chimay sport and therefore make riders eligible for "Colours." It is also hoped that the College will be able to enter riding teams in local riding competitions.

FILM

During the Spring term the College Film Society continued to hold its weekly meetings which were warmly received by cadets, although some attendances towards the latter part of the term were rather low. It is difficult to cater for all tastes and there are some who are bound to be disappointed. There was a varied selection during this term, all very interesting and some controversial.

The term began with the Marx Brothers' film "A Day at the Races." This film was received as expected, but many cadets are of the opinion that once seen, a Marx film is the same as those that follow or those that went before. It was followed by the French film, "Les Quatre Cents Coups." This film was directed by Francois Truffant, one of the leading French directors and a foremost agitator in the Nouvelle Vague movement in the cinema today. With this film was shown a contemporary cartoon, "The Little Island." Its interest and importance lie chiefly in its unusual approach. Its director, Richard Williams, together with his staff have evolved a 'primitive' method of cartoon making which scorns the painstaking technique of Walt Disney.

"The Savage Eye," which was to have been shown next in sequence did not arrive on time and so a makeshift programme was devised. This included, "The Captain's Paradise," with Alec Guinness, and Chaplin's masterpiece, "The Kid." "Cat on a Hot

Tin Roof" drew in the crowds and was well received. Some may have found it depressing but Tennessee Williams so often has such an effect.

The much awaited "Eroica" was shown next and to some may have proved a disappointment. The film was inspired by the Polish crisis of 1956 and its director, Andrzej Munk who saw the crisis, observed his people acting with courage and self-discipline and depicted a new conception of heroism by killing the myth of romantic and individual heroism associated with the old Poland. With "Eroica," was shown another Polish film, "Two Men and a Wardrobe." It had a message undoubtedly but it was up to the individual to decide what it may have been.

With "The World of Apu," a film from 'new' India, was "The Running Jumping and Standing Still Film," the Goon's famous comedy. There followed an all French programme, "Summer Manoeuvres" and "The Crimson Curtain." One is a delectable comedy and the other a strange and poignant love story with a somewhat surprising end. The following two weeks gave everyone their fill of Marlon Brando. A turbulent and touchy character he may be, but very definitely a fine actor as was illustrated in "Julius Caesar" and "Viva Zapata." The final programme showed Albert Finney and Shirley Ann Field in "Saturday Night and Sunday Morning," a film that was said to herald a new British Cinema.

With the coming of the Summer term there is difficulty in maintaining the numbers who attend the Society, but it is hoped that with meetings held every two weeks and double features, attendances will not drop and the Society will continue to be the only one in Britain that meets during the Summer.

SKI-ING

Scotland

A party of one officer and nine cadets was flown to Kinloss by the Navigation Squadron to ski in Scotland at half term. At Aviemore, better known to the College as a survival camp area than a ski-resort, the party was joined by Pilot Officer Conran-Smith, late of 80 Entry, and a small party from Edinburgh University. The airlift made ski-ing possible on the Friday afternoon. The new Cairngorm chairlift was put to good use and everyone ski-ed on the open slopes above,

where there was also a short rope-tow lift. In the evening, descent could be made either by the chairlift or down a terrifyingly steep and icy run known as the "White Lady." This three of the braver attempted, with success if without dignity. On the Saturday evening the same performance resulted in a broken pair of skis in full view of the unsympathetic on the chair lift! The weather was excellent at first, but rather windy on the Sunday, and a reluctant party caught the train on Monday to a flat, but equally cold, Lincolnshire.

Colorado Springs

An interlude in the Senior Entry's visit to the U.S.A.F. Academy was a day's ski-ing at Winter Park in the Rockies. Two races were organised, a Giant Slalom and a Miniature Slalom. The course for the Giant Slalom was very steep and fast and the constant practice of the Americans enabled them to take the first three places. The mainstays of the team, Dick, Pile, Shaw, and the captain, R. B. Thomson, acquitted themselves with vigour, but were lacking in skill. Dick's performance was polished and he finished a very creditable second on a tricky course in the second race.

In Europe a swiftly approaching skier shouts "Achtung!", but in America he shouts "Track!". This led to some confusion on the more crowded runs, but no accidents occurred. Down below several cadets (were ski-ing for the first time, including McCarthy and Harding) and several converts were made.

WATER SKI-ING

The water ski-ing section has been formed using a 13.6 foot speed boat "Sea-Swallow." Powered by a 40 h.p. Perkins outboard, giving a speed of 30 knots, it can tow two ski-ers. The section is well equipped, as two sets of skis and other equipment have been obtained. The section also has the excellent hydroplane "Corsair" which, refitted, will be used for racing. "Corsair" was once a speed record holder. Many cadets are showing a keen interest in the sport, and there is now ski-ing on Tattershall Gravel Pits, used exclusively by the Lincolnshire Speed-boat Club to which the section is affiliated. At present ski-ing takes place on weekend afternoons and convenient evenings; in addition the section hopes to spend some weekends sea-water ski-ing at Strubby.

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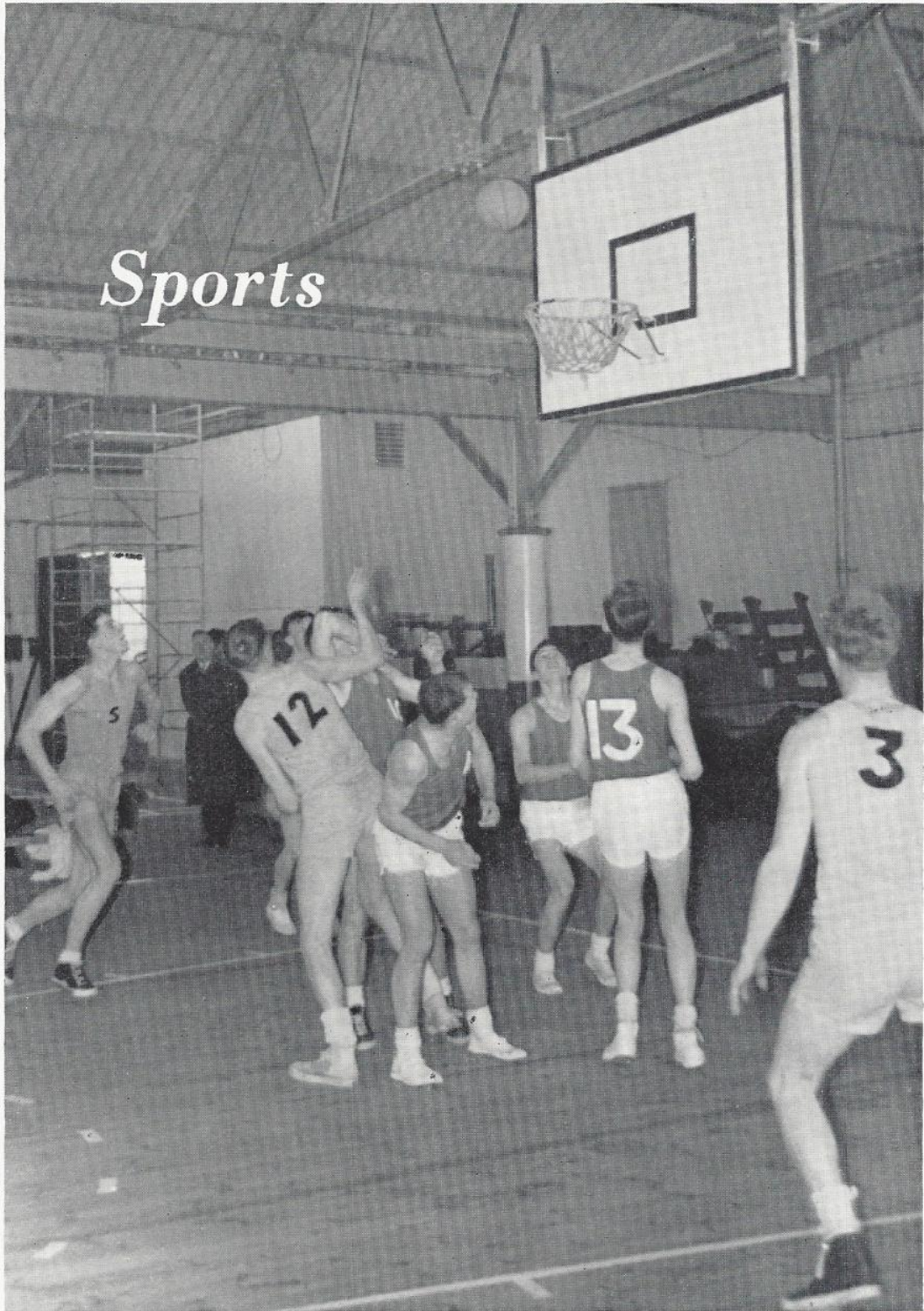
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Sports



BASKETBALL

The final game of the season, a decisive victory against Leicester University, set the seal on a successful season for the Basketball Team. The nucleus of last year's team remained, together with some promising newcomers, as well as the excellent coaching services of Sergeant Hextall. His coaching and enthusiasm have been invaluable throughout the last two terms.

Laurenson was Captain until his departure from the College in December, and was succeeded by Pym; the Vice-Captain was Malhas, and Cousins was elected Secretary. The annual match against Sandhurst was unfortunately cancelled. It had been hoped to complete the hat-trick against the three main opponents, the team having defeated both Dartmouth and Henlow. Under the able captaincy of Pym, the teamwork of the Basketball Team reached a very high standard, but particular credit must go to Malhas in attack, and Crook for holding the defence.

Full Colours were awarded to Adcock, Nottingham Pym, Crook and Malhas.

SOCCER

The College Soccer teams have all had a very successful season.

The first team has done particularly well. The most notable of its successes were the defeat of United Hospitals, which took it into the Semi-Final of the Argonaut Cup, when it lost to Cambridge University Falcons, and the victories over Dartmouth, Henlow and Sandhurst.

The second team, although it had to supply the first eleven with several of its regular players, has played well, with an often ill-balanced team.

The third eleven has provided an excellent opportunity to enable the less talented, but very keen footballers to enjoy competitive games in the Inter-Section League.

Throughout all the teams the spirit has been excellent, which, added to fitness and ability, has made the 1961-62 season a very good one for all concerned.

R.A.F. COLLEGE versus B.R.N.C. DARTMOUTH

Having beaten Dartmouth 9-1 last year, the First team was confident of another victory. But their confidence was dampened when, on the morning of the match, it was seen that three inches of snow covered the ground. Under the supervision of Flight Lieutenant Mills most of the College turned out with shovels and brooms and had the pitch cleared by noon — a remarkable effort and all members of the team wish to express their thanks for this work.

The match started in bright sunshine with a large crowd assembled on the touchline. In the early exchanges the College took a long time to settle down, and had several narrow escapes from Dartmouth's speedy winger shooting on the run.

Haddock opened the scoring for the College and followed with another quick goal. Just before half time Malhas made it three goals to nil. After half time it was Dartmouth's turn to attack which they did, scoring three goals in the space of twenty minutes. However, the College managed to scrape a victory through a final goal by Nicolle making the score 4-3. It was not one of the College First team's best games, possibly because nine out of the eleven players had been clearing snow in the morning.

RESULTS

	Played	Won	Lost	Drawn
1st	24	18	5	1
2nd	24	19	5	0
3rd	24	15	9	0

CROSS-COUNTRY

The cross-country team ran in four races, of which two were championship races with a large number of teams competing.

The greatest achievement of the term was the defeat of the R.A.F. Technical Cadets. This race was run over a rather muddy and sometimes awkward course at Henlow. The whole team ran extremely well, which was rather surprising after the guest night, and the score of 46-90 in favour of the College was thoroughly deserved.

In the Queen Mary College Championship Race run at Coxtie Green, Essex, over a 7½ mile course, the team came 13th out of 18 teams. The length of the course and the rather difficult ground covered constituted a severe challenge to the team and the result was as expected. A new venture this year was the University College Invitation Race run on Hampstead Heath in London. As with most of these large races the teams were widely varying in ability and our placing of 13th was entirely satisfactory.

What is now rapidly becoming an annual event was the race against Milocarian Athletic Club, an all-services officers' club. This was run over the home ground in warmish conditions. Cox was the first Cranwell runner home with a creditable time of 27 minutes 59 seconds in 5th place. The score was 23-55 in favour of the visitors.

The only other race of the term was a triangular one run at Cranwell against Imperial College and Spalding Athletic Club. Morrison ran well and came in third. Imperial College won the race with a good margin over the College.

The team ran well throughout the term but a slightly higher placing all-round is hoped for next year.

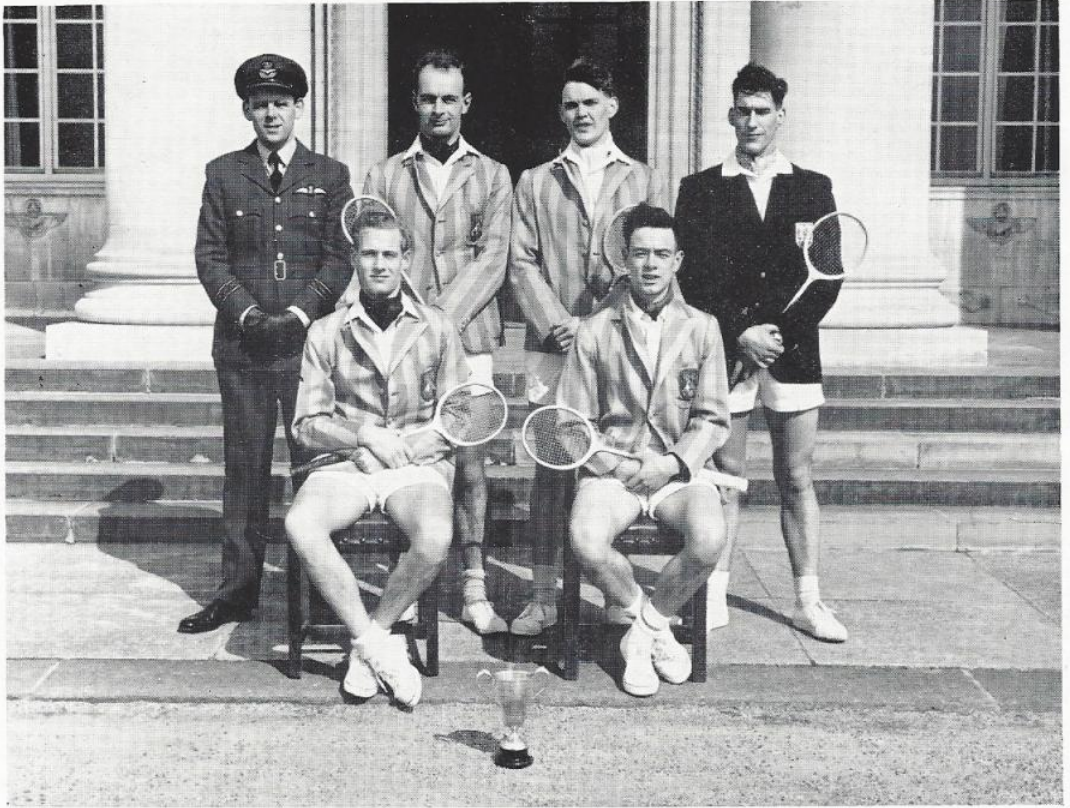
SQUASH

The 1961-62 season has been the most successful in the history of the College with twenty matches won and two lost. This is the culmination of three year's training and team building for the College's Squash team.

The College swept the board against B.R.N.C. Dartmouth, but unfortunately the match with R.M.A. Sandhurst had to be cancelled as they had an outbreak of German measles. This was a disappointment as Sandhurst had only beaten Dartmouth by 3-2, which left the odds strongly in the College's favour.

The match with Peterborough S.R.C. proved to be an excellent fixture and the College had to fight to the last game to win 3-2. Nottingham University, runners-up in the U.A.U. Championships, were beaten 4-1. The best win of the season was over Guy's Hospital, who always produce an experienced and well balanced side.

Abbeyle S.R.C., beaten last year, had a very strong team. The College took a little too long to settle down and lost 2-3. It was unfortunate that the match against such a distinguished club as the Jesters had to be at the end of the season, when they taught the College so much about Squash. The Officers'



*Squadron Leader A. D. R. Dawes, K. G. Lilley, H. V. Seyd, M. G. Christy
R. A. F. Wilson (Captain), B. A. Bliss*

team, Inter-Station Champions, proved an uncrackable nut throughout, but the College team would like to thank them for the valuable competition they afforded.

Bliss has improved tremendously and became the first Cranwell cadet to win the R.A.F. Under-Twenty-Fives Championship. Wilson, the Captain, has had a good season and improved his game greatly with Hanif Kahn's coaching. Seyd has been finding a good length consistently and the cold courts have suited his fast game. Lilley has continued to baffle his opponents with his unorthodox style, and lost only one match. The newcomer to the team, Christy, proved his strength at five and he augurs well for the future of College Squash.

The Second Five had nine wins and four defeats. The Pakistanis, Pervez and Sultan, were the backbone of the team, ably supported by O'Brien and Rolfe. All the local Universities were beaten.

For the first time the College has been able to send three players each week to Nottingham S.R.C. for coaching by Hanif Kahn. This has proved to be very useful and has helped greatly towards the College's success.

RESULTS

Wimbledon S.R.C.	Won	3-2
Imperial College London	Won	4-1
Loughborough Colleges	Won	4-1
Nottingham S.R.C.	Won	4-1
Gresham's School	Won	5-0
Sheffield University	Won	5-0
Leicester University	Won	5-0
Nottingham University	Won	4-1
Tonbridge School	Won	5-0
Leicester University	Won	4-1
Gresham's School	Won	4-1
K.C.S. Wimbledon	Won	5-0
Peterborough S.R.C.	Won	3-2
Nottingham S.R.C.	Won	5-0
Nottingham University	Won	4-1
Abbeylea S.R.C.	Lost	2-3
Loughborough Colleges	Won	5-0
B.R.N.C. Dartmouth	Won	5-0
Guy's Hospital	Won	4-1
Sheffield University	Won	4-1
R.N.C. Greenwich	Won	5-0
Jesters	Lost	1-4

1st V — Played 22, Won 20, Lost 2.

2nd V — Played 13, Won 9, Lost 4.

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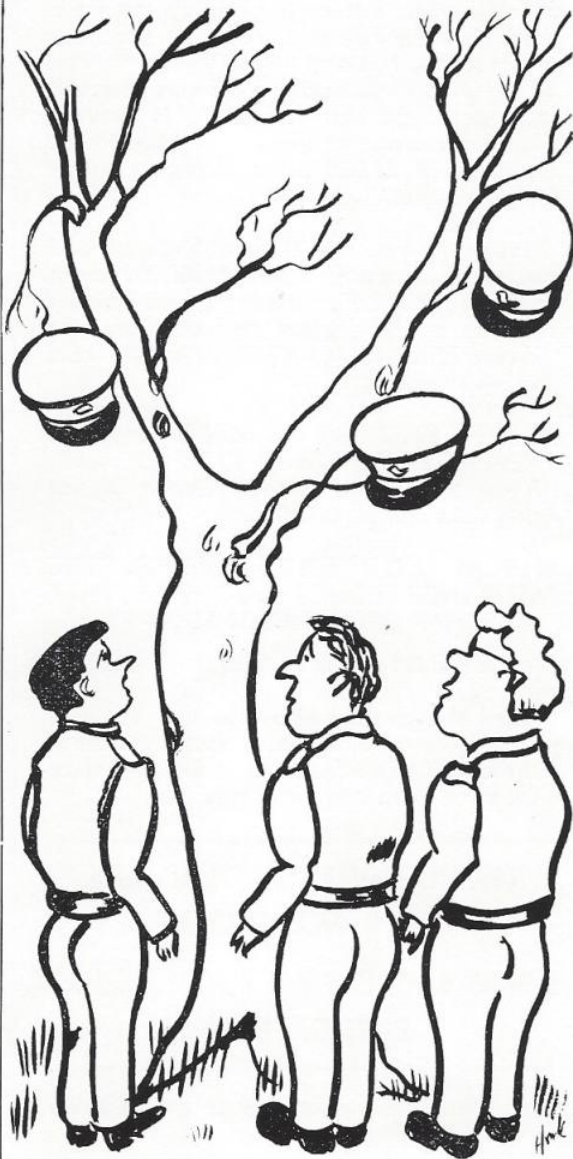
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if you retire at 55.**

BUT MONEY GROWS OVERLEAF

HOCKEY

It would be inaccurate to call this season's hockey anything other than disappointing. There has been an improvement in the standard of play, thanks to several very good coaching weekends, but results have been very poor. This year the team was a lot stronger, on paper, than in previous seasons and hopes for a successful season were high. Despite disappointments the hockey has been enjoyable, played on firm pitches in fair hockey weather.

1st XI

The team has remained almost unchanged throughout the season. The forward line had a lot of hard-hitting potential; Reynolds and Ross on the left wing combined very well at times, and created many opportunities for Christie-Miller. He has only recently taken to College hockey and has enjoyed a good season playing with great verve and determination. At times it was a pleasure to watch the ball being swung across the line and at the same time disappointing to see individual runs break down through lack of co-ordination at the vital moment. Too often the forwards would over-run the ball and get themselves muddled. At half back a newcomer, Willman, proved himself to be a player capable of good defence and attack, but he has a tendency to be slow to pass the ball. He corrected this fault as the season drew to a close. Junor captained the team from centre-half, co-ordinating the College play from this position. Another newcomer was Milsom at right back. Once he had settled in the team he proved to be a quick-thinking and very able back.

R.A.F. COLLEGE versus B.R.N.C. DARTMOUTH

With snow on the pitch at Cranwell this match had to be postponed. The team was, however, lucky enough to be able to fly to Dartmouth at a later date and play the match. The College started in grand style and the ball was moved swiftly round the very fine pitch. The forwards harassed the Dartmouth defence and the half backs had a field day collecting stray hits from the hurried clearances. But when the Dartmouth team scored the College lost heart and lapsed into a worrying defensive game and lost the spirit of attack. The game ended with Dartmouth pressing hard and scoring a convincing win.

2nd XI

The 2nd XI have had a successful season. Captained by C. J. Thomson, they have won half their matches. One match that can be remembered above the others was against the Station XI. With an experienced and accomplished team as opponents the team enjoyed a fine afternoon's hockey before losing 2-3. Griffiths has provided a lot of punch to the forward line and Larbey developed into a plucky and able goalkeeper. Ives, an 'inter-squadron' find, proved to be a good centre-half for the last half of the season.

RESULTS

1st XI Played 15, Won 4, Drawn 2, Lost 9.
2nd XI Played 10, Won 5, Drawn 1, Lost 4.

RUGBY

During the Spring term, the College Rugby teams once again had a fairly full fixture list and efforts were made to build up a side for next season. The term started off, as usual, with vigorous training both on the field and in the gymnasium. The traditional

game against R.A.F. Cranwell was lost, and this was followed by games against the Cambridge University 60 Club and Bedford Wanderers, both of which proved too strong for the relatively inexperienced College side.

As is usual during this term, matches were played mainly against local teams such as Grimsby, Kesteven, Loughborough College of Technology and Sheffield University.

During half term, the College 1st XV played a match against the 2nd T.A.F. Officers' XV at Güttersloh and, after a spirited and very entertaining game, were defeated.

Towards the end of term, the College team played against the Ecole de l'Air team and lost 0-3. On a day which was ideal for open, fast rugby, both sides showed a lot of zest, mainly amongst the forwards, where both packs were evenly matched.

Special mention must be made at this point of McCarthy, who represented the Royal Air Force on several occasions, including matches against both the Army and the Navy in the Inter-Services Championship.

RESULTS

Team	Played	Won	Lost	Drawn	For	Against	Points
1st XV	13	4	8	1	76	189	
2nd XV	11	7	4	0	143	64	
3rd XV	6	2	4	0	38	94	

MODERN PENTATHLON

The aftermath of the Christmas festivities always lies heavily on the athlete. The pentathlete is no exception — in fact for him it is five times as bad! The start of the term found the team very unfit, but as the fixtures were not until late in the term, this was not too much of a handicap. Initial training was tortuous, especially the running, but gradually, the roughness was smoothed away and the team reached the required standard of fitness.

The fixture list for the Spring term was short: only four matches. Very disappointingly, three of the matches were called off by the opponents, and the only match which took place was against Whitgift College. The Cranwell team was beaten by a narrow margin. Whitgift were very eager about having a return fixture, which has been arranged for the Summer term.

Several administrative changes took place during the term. Fitzpatrick became Vice-Captain and Presland took over as Secretary. Sturt remains as Captain and the pentathletes look forward to the coming term under his leadership.

SHOOTING

The Spring term is always a quiet one for shooting, .22 being a major sport in the Autumn Term, and by January the full bore season is in view again. Because of the lull and the pressure of other sports, we have usually found ourselves short of a full team. The tail of keen but less experienced shots did not always make those last few points to win the match. Some of these juniors are potentially good shots and they must not be allowed to lose interest through lack of opportunity to prove themselves.

The .22 indoor range has at last been recognised as inadequate, and plans are going ahead to drag the team out of the cosy dark range into the light where

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Contents

	<i>Page</i>
College Notes	199
Old Cranwellian Notes	229
<i>Articles</i>	
Learning by Degrees	228
Rendezvous in Russia	231
Visiting N.A.T.O.	233
Wheelus	235
VTOL Aircraft Trials	241
Operation P.O.P.	243
Turkish Delight	244
Going Up in the World	247
Knowledge Dispels Fear	253
Norped 1962	257
Through the Looking Glass	261
<i>Activities and Societies</i>	
Mountaineering	263
Film, Karting, Jazz	265
Riding, Gliding	267
Ocean Sailing	269
Angling in Ireland	273
Turbulents in Ireland	275
Sub-Aqua	279
<i>College Sport</i>	280
<i>Miscellaneous</i>	
Commissioning List, No. 81 Entry	224
Cadet Wing Lists	226
Dedication of the Church of St. Michael and All Angels	217





College *Notes*

The Queen's Colour was paraded on five occasions during the Summer Term. On 6th May, it was handed over by 'A' to 'C' Squadron who were Sovereign's Squadron for the term. The Colour was paraded on 1st June at the Dedication Service of the new Church of St. Michael and All Angels, and on the following day at the Cadet Wing Ceremonial Parade held on the occasion of Her Majesty's Official Birthday. The Colour was paraded on 21st July at the Commandant's Parade and on the 31st July at the Passing-Out Parade of No. 81 Entry.

On 3rd June, the Old Colour was marched over, cased, to the new Church of St. Michael and All Angels where it was uncased and then Laid Up in the Memorial Chapel during the Inaugural Service.



In the competitions to decide the Sovereign's Squadron 'D' Squadron won the Knocker Cup and 'C' Squadron retained the Ferris Drill Trophy, but 'A' Squadron, who won the Chimay Cup and were second in the other competitions, are Sovereign's Squadron for the Autumn Term. 'A' and 'C' Squadrons have alternated as Sovereign's Squadron for the past five terms and either 'A' or 'C' Squadron has been Sovereign's Squadron since Spring Term, 1958.

The plans to merge the Royal Air Force Technical College, Henlow with the Royal Air Force College continue to progress. Detailed explanation in *The Journal* is not yet possible because much of the policy recommended by the Baker-Carr Committee is still under consideration. Since the last issue, however, a second Working Party has been set up at Air Ministry under the chairmanship of Air Vice-Marshal M. K. D. Porter, C.B., C.B.E., A.M.I.E.E., Director-General of Ground Training. Its task is to investigate the problems of the actual move of the Technical College in order to draw up a phased movement plan which will cause the minimum disruption to training at both Colleges. The Working Party will thereafter co-ordinate the action to implement the plan. There are many different problems involved, for example, in integrating the syllabuses for cadets of all branches, providing accommodation and amenities for some 100 extra cadets and 250 student officers, working out the organisation and establishment necessary for the functioning of the whole Cranwell complex, and especially in planning the dismantling of Henlow's vast range and volume of equipment in order to move it 80 miles for reassembly in the excellent accommodation now planned for it. These and other problems must be resolved without serious interruption to training at either College.

New Instructional Building





Air Commodore Sir Frank Whittle, K.B.E., C.B., F.R.S., Lt.D. in the Entrance Hall to the new Instructional Building (see p. 205)

The task is complicated and sometimes tedious, particularly for Henlow who at present must bear the brunt of it. Nevertheless, now that plans are well under way and most of the original prejudices set sensibly aside, the tempo is quickening and introducing an air of excitement into the work of planning a venture which will have a vital impact on the future of the Royal Air Force.



At the beginning of the Autumn Term there were 294 cadets on roll at the College. They comprised 241 pilots, 22 navigators, 20 Equipment, 9 Secretarial and 2 R.A.F. Regiment cadets. The new

entry, No. 87, is 65 strong ; of these 53 are training as pilots, 1 is a navigator, 6 are Equipment cadets, 4 are Secretarial cadets and there is 1 R.A.F. Regiment cadet.



Mrs E. D. McK. Nelson at the Handicrafts Exhibition

Mrs E. D. McK. Nelson opened the Flying Training Command Art, Photography and Handicraft Exhibition which was held in the Station Education Section from 9th-11th May. Among those present at the opening ceremony were the Commandant, Air Commodore E. D. McK. Nelson, C.B., and the Command Education Officer, Group Captain A. D. Button, O.B.E., B.Sc., A.F.R.Ae.S. The exhibits, contributed by serving personnel and their families from all stations in the Command, were of a very high standard : many of them were displayed in the Royal Air Force Exhibition held later in the same month in London. The Command Exhibition was admirably organised by Squadron Leader G. Culshaw and Flight Sergeant N. S. B. Reynolds.



Visitors to the College last term included :—

On 4th May, Mr Michael Howard, M.C., M.A., Reader in War Studies, London University, for a War Studies seminar.

On 24th May, the Headmasters of Bangor Grammar School, Co.

Down ; Foyle College, Londonderry ; Stowe School ; Newport Grammar School, Essex ; Sullivan Upper School, Belfast ; Forest Hill School ; Belfast High School ; Regent House School, Newtownards, Co. Down ; Ballymena Academy, Co. Antrim and Welbeck College. Also a House-master of Rugby School ; the Careers and C.C.F. master of Alleyn's School and the C.C.F. Master of Sedbergh School.

On 27th May, Air Chief Marshal Sir Hugh Saunders, G.C.B., K.B.E., M.C., D.F.C., M.M., who took the March Past of flight cadets after the last service in the old Hangar Church.

On 28th May, Brigadier Ibrahim and four officers of the Syrian Arab Air Force.

On 29th May, Air Vice-Marshal E. Knowles, C.B.E., B.Sc., F.R.Ae.S., Director of Educational Services.

On 5th June, Air Chief Marshal Sir Walter Merton, K.C.B., O.B.E., Air Member for Supply and Organisation, Sir Maurice Dean, K.C.B., K.C.M.G., Permanent Under-Secretary of State for Air, and Air Marshal Sir Augustus Walker, K.C.B., C.B.E., D.S.O., D.F.C., A.F.C., M.A., Air Officer Commanding-in-Chief, Flying Training Command, to discuss the merger of the R.A.F. College and the R.A.F. Technical College.

On 13th June, Air Marshal Sir Walter Cheshire, K.C.B., C.B.E., B.A., Air Member for Personnel, Air Vice-Marshal M. K. D. Porter, C.B., C.B.E., A.M.I.E.E., Director-General of Ground Training, Mr G. S. Whittuck, C.B., Assistant Under-Secretary of State, Air Ministry, and Mr M. Gainsborough, Personal Secretary to A.M.P.

From 14th to 16th June, six officers and 124 cadets from the United States Air Force Academy, Colorado Springs.

On 22nd June, Brigadier Ishaq, Jordanian Military Attaché.

From 29th June to 27th July, members of the Leeds University Air Squadron for their Summer Camp.

On 4th July, members of the East Midland Educational Union, who held their Annual Conference in the College.

From 9th to 11th July, Lieutenant-Colonel Björn Johansen, five officers and 21 cadet officers of the Royal Norwegian Air Force.

On 22nd July, 60 members of the Royal Commonwealth Society Youth Organisation.

From 30th July to 8th August, 33 officers and 299 cadets of the Combined Cadet Force who attended a Summer Camp held at Royal Air Force Cranwell. The schools represented at the camp were :



Allhallows ; Bedford ; Bedford Modern ; Bournemouth ; Charterhouse ; Clifton College ; Dauntsey's ; Denstone College ; Downside ; Eastbourne Grammar ; Framlingham College ; Lord Wandsworth College ; Magdalen College School, Oxford ; Merchant Taylor's, Northwood ; Queen Mary's, Walsall ; Reading ; St. Peter's, York ; Strathallan ; Wellington College ; Westminster City and Uppingham.



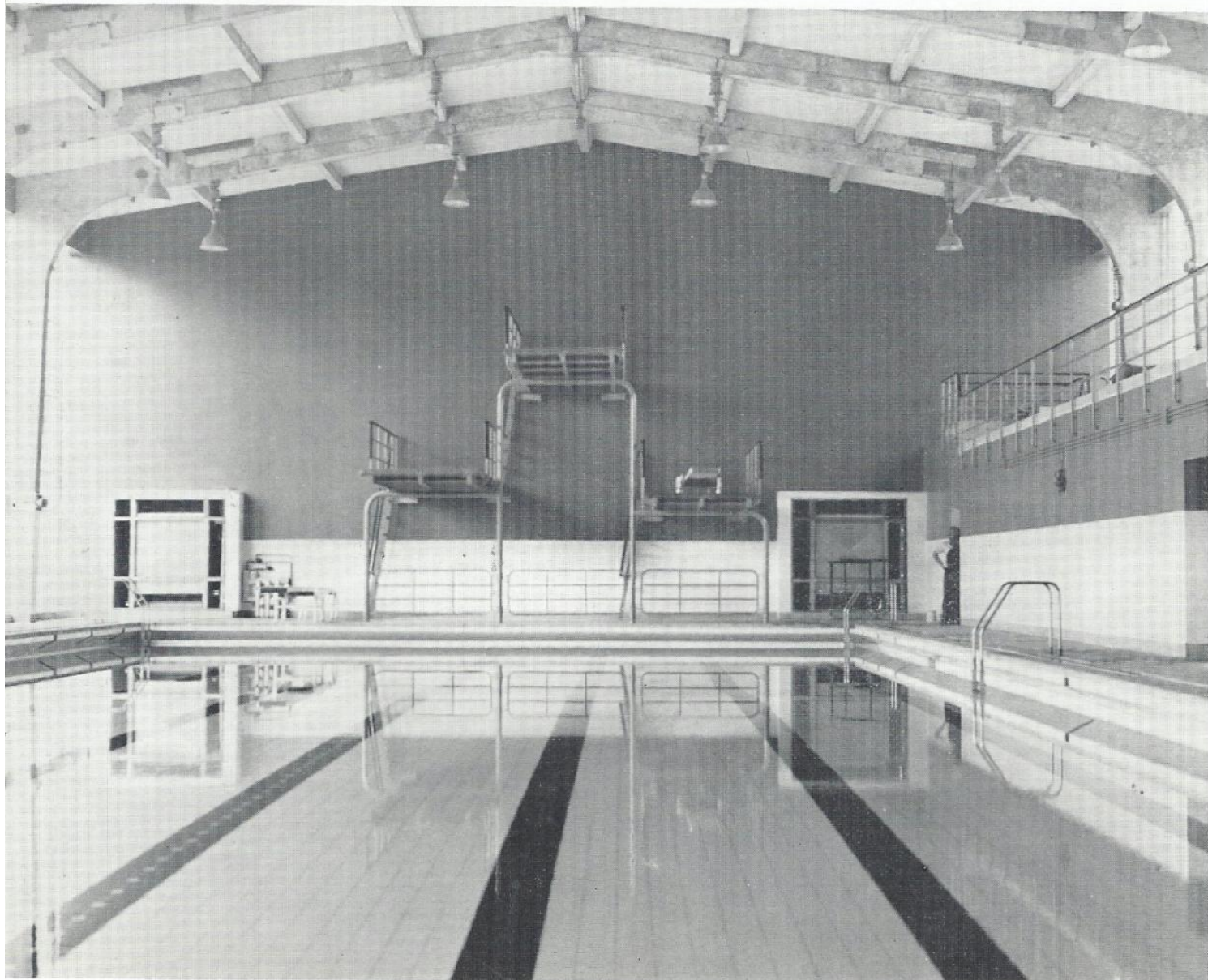
College sports teams played with fluctuating fortune a series of representative matches last term. On 19th May, the Athletics team won their match against the Royal Air Force Technical College Henlow and a fortnight later in a triangular match came second to the Royal Military Academy Sandhurst, but ahead of the Britannia Royal Naval College. At Dartmouth on 26th May, Cranwell teams defeated the Britannia Royal Naval College at Tennis and Golf, drew the Cricket match and were defeated at Swimming, Water Polo and Sailing. Playing at home against Sandhurst on 7th July, Cranwell won the Swimming, Sailing, Tennis and Water Polo and lost the Cricket. Two College teams competed in the Modern Pentathlon

against two Sandhurst teams who came first and second. Ten teams entered the R.A.F. Inter-Station Modern Pentathlon held at Cranwell from 12th to 15th July. Two College teams competed without success. The competition was won by R.A.F. Cranwell — a notable achievement for the Cranwell team comprising Flight Lieutenant M. K. Adams, Flight Lieutenant P. C. Little and Sergeant R. Hextall.



Air Commodore Sir Frank Whittle, K.B.E., C.B., F.R.S., LL.D., officially opened the new Instructional Building on 4th October. Classes in Science and Humanities subjects were held in the new building from the beginning of the Autumn Term before work in the building was complete, but all was ready for the opening ceremony.

New Swimming Pool



The new Instructional Building, between the College and the Sports Arena, has transformed the appearance of the west side of the College and added enormously to College facilities. A report on the opening ceremony and the new building will appear in the next issue of *The Journal*.

The new Swimming Pool was officially opened on 5th September during the Royal Air Force Swimming Championships by Air Marshal Sir Paterson Fraser, K.B.E., C.B., A.F.C., B.A., F.R.Ae.S., Inspector-General. Present at the opening ceremony were Mr Julian Ridsdale, M.P., Parliamentary Under-Secretary of State for Air, Air Marshal Sir Augustus Walker, K.C.B., C.B.E., D.S.O., D.F.C., A.F.C., M.A., Air Officer Commanding-in-Chief, Flying Training Command, Air Commodore E. D. McK. Nelson, C.B., Commandant, and Group Captain G. F. Reid, D.F.C., Station Commander.

The new indoor Swimming Pool, which replaces the old pool near the Officers' Mess, is situated to the west of the College between the new Instructional Building and the old West Site. It adjoins the new Gymnasium, now almost complete, and is near the playing fields end of the Sports Arena. What seemed six months ago to be a giant concrete toast rack has been changed into a tasteful, dignified building full of modern facilities. The west wall is made almost entirely of glass which gives an atmosphere of light and airy spaciousness. The pool is 42 feet wide and 110 feet long which conforms with the Amateur Swimming Association standard of no more than two turns in a 110 yard race. Depth varies from 3½ feet to 13 feet. When full, the pool holds approximately a quarter of a million gallons. It is the only indoor pool in the Service which has a 5-metre firmboard. There are three other diving boards — 3-metre firm, 3-metre spring and 1-metre spring. Beneath the Gallery for spectators are well-appointed changing rooms. The new pool is already much in demand ; it is an impressive and valuable addition to the College.

The pool was first used on 14th and 15th August for the Flying Training Command Swimming Championships, before work upon it was completed. The Command Championship was won by Royal Air Force Oakington. Royal Air Force Cranwell teams won the Inter-Station Relay and the Water Polo Championships, and Senior Aircraftsman D. Ackroyde won the 220 yards free-style.

The Royal Air Force Swimming Championships, organised by Flight Lieutenant J. H. P. Kenefick, were held in the new pool from 3rd to 5th September. The considerable efforts of the contractors to complete their work and of Warrant Officer Gwilliam and his staff



The Pass Out Parade rehearsal held on 30th July was filmed by Anglia Television. An interview with the Commandant was included in the subsequent transmission.

in Station Workshops to supply many items at short notice were successful. The Command Championship was won by Technical Training Command.



On 8th June eight Senior Flight Cadets of No. 81 Entry flew with their instructors in Jet Provosts to Germany to obtain practical experience of an operational station and to practice navigation on overseas flights. The party landed at Royal Air Force Wildenrath. In the next four days the cadets visited operational squadrons and obtained flights in Canberra aircraft before returning on 13th June in the Jet Provosts.



In Her Majesty's Birthday Honours List, Flight Lieutenant P. A. Oakley (now at the Royal Air Force Flying College, Manby) was awarded the M.B.E., and Sergeant L. H. Southey (now at Royal Air Force, Butterworth) received the B.E.M. The Queen's Commendation for Valuable Services in the Air was awarded to Squadron Leader P. D. G. Terry (now at the Royal Air Force Staff College, Bracknell)

and to Flight Lieutenant M. R. Williams (now at the Empire Test Pilots School, Farnborough). Air Officer Commanding-in-Chief's Commendations went to Chief Technician T. Campbell and Sergeant G. R. E. Wilson (now at Headquarters, Maintenance Command) and Air Officer Commanding's Commendations to Sergeant H. E. Hall, Sergeant T. A. Williamson, Senior Aircraftsman A. Martin and Mr J. H. Wrangham.



In August the Rev. G. S. McLeer, B.A., came to the end of 21 years service in the Royal Air Force, and retired to take up an appointment in the Methodist Church at Whitehead in his native Ireland.

Padre McLeer came to Cranwell as P.M.U.B. Chaplain in the summer term of 1959, and the three years during which he was here saw great changes in St. Andrew's Church. He set in hand a programme of redecoration and refurnishing and, thanks to his energy and enthusiasm, he was able to see his plans completed before he left and to leave a lasting reminder of his effective and widely-appreciated ministry at Cranwell.

In all his work he was ably supported by Mrs McLeer, and they have a large number of friends, inside and outside St. Andrew's, whose best wishes follow them to their new church.

Rev. H. M. Jamieson, M.A., B.D., who was here as P.M.U.B. Chaplain 1954-56, has returned to Cranwell from Laarbruch to succeed Rev. McLeer. *The Journal* offers him a warm welcome.



Group Captain G. W. Petre, D.F.C., A.F.C., relinquished the post of President of the R.A.F. Selection Board in early August and was posted to Headquarters Air Forces Middle East (Aden) as Group Captain Organisation and Deputy A.O.A.

Group Captain Petre took up the post of President in March 1960. It was in November of that year that the Selection Board ceased to be an Air Ministry Unit and was transferred to Flying Training Command. The board was then accommodated in the buildings which now form the Station Sick Quarters, and the move to the present offices was made in May, 1961.

During Group Captain Petre's term of office there was a steady increase in the number of candidates attending the Selection Board. 739 candidates were seen in 1960, 879 in 1961.

Group Captain Petre is succeeded as President by Group Captain R. A. L. Morant, O.B.E., who comes to Cranwell from the Directing Staff of the Royal Air Force Staff College, Bracknell. *The Journal* offers a warm welcome to him and to his family.



During the Summer Term a wide variety of visits, official, academic and athletic, helped to extend the knowledge, broaden the experience, and exercise the muscles of the cadets. The visits included :—

From 9th to 11th May, the two Secretarial cadets in No. 82 and No. 84 Entries to Messrs. Cox & King's, to International Computers and Tabulators Ltd. and to Air Ministry (D.P.S.(B)).

On 29th May, eight cadets of the 'B' stream of No. 81 Entry to Royal Air Force stations North Luffenham and Woolfox Lodge to supplement their Electronics instruction.

From 3rd to 7th June, seven Equipment cadets of No. 82 and No. 84 Entries to No. 16 M.U., Royal Air Force Stafford to obtain practical experience of an aircraft equipment depot.

On 7th June, 42 flight cadets of No. 82 Entry to Larkhill to witness the Joint Services Demonstration.

From 8th to 12th June, nine Navigator flight cadets of No. 81 Entry to Gibraltar via Orange.

On 9th and 10th June, two teams of flight cadets to Dartmoor to participate in the Ten Tors Expedition organised by the Junior Leaders Regiment, Royal Signals.

On 29th June, four cadets of the 'B' stream of No. 81 Entry to Cossor Radar and Electronics Ltd., Harlow.

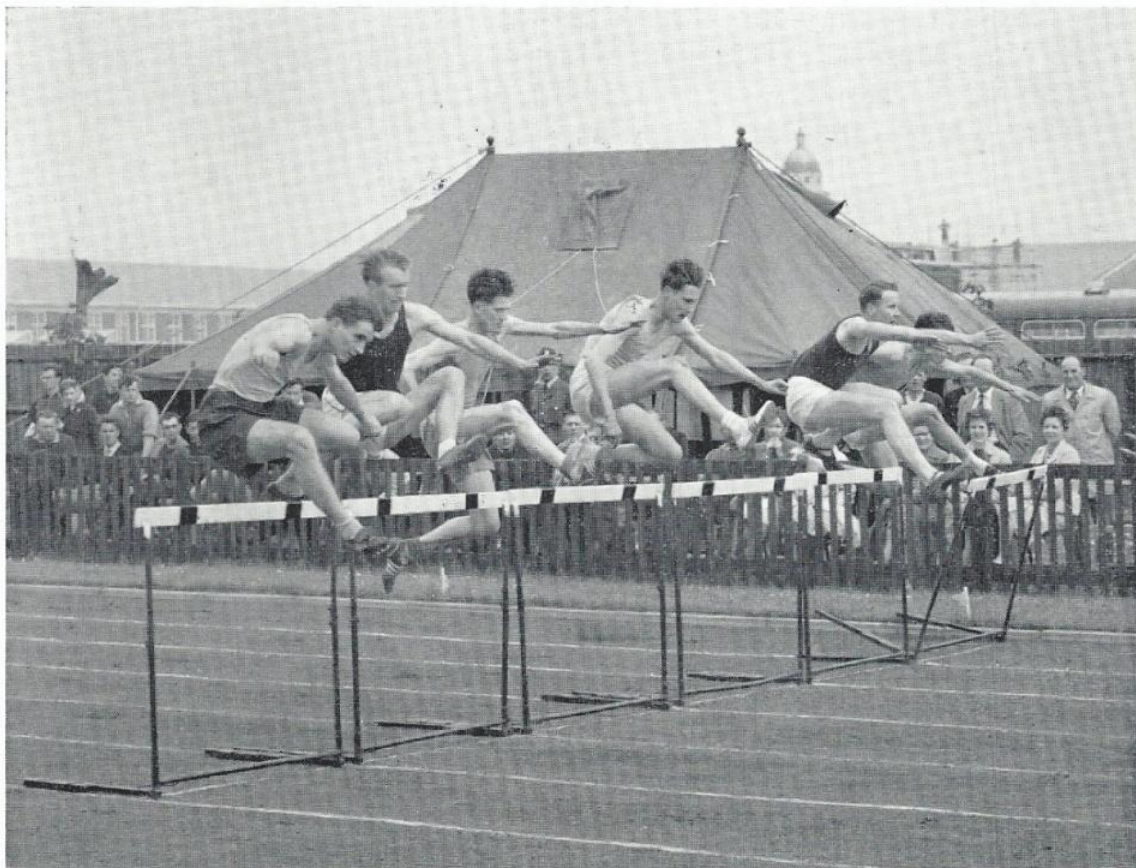
From 30th June to 3rd July, the Commandant, one officer and three flight cadets to the Royal Air Force Yacht Club, Hamble, for a Sail Training Course.

On 2nd July, two Secretarial flight cadets of No. 82 and No. 84 Entries to Royal Air Force Record Office, No. 5 Personnel Despatch Unit and Royal Air Force Base Accounts Office.

From 2nd to 6th July, four Equipment flight cadets of No. 82 Entry to Royal Air Force Lyneham to obtain practical experience of an air movements terminal.

On 6th and 7th July, five flight cadets to L'Ecole de L'Air, Salon-de-Provence, to attend the annual graduation ceremony of cadets of the French Air Force.

On 16th July, the senior flight cadets of No. 81 Entry to Bristol Aircraft Ltd., and Bristol Siddeley Engines Ltd., Filton.



Well, that's one leg over! Competitors jumping the first hurdle in the 120 yds event at the Station Sports

On 18th July, the Assistant Commandant, the Reverend T. Quin and 18 flight cadets to Coventry Cathedral.

On 25th July, seven flight cadets of No. 81, No. 82 and No. 83 Entries to the B.B.C. Television Centre where their Radio syllabus was supplemented by practical demonstrations of broadcasting techniques.



Royal Air Force Cranwell sportsmen achieved successes last term in Cricket, Athletics, Cycling, Swimming and Shooting. The Station Cricket XI reached the Area Final of the Royal Air Force Inter-Station Cup. The Athletics Team was second among 11 stations competing in the Lincolnshire Athletic League, and reached the semi-finals of the Royal Air Force Inter-Station Championships. The Shooting team was very successful in the Royal Air Force Championships held at Bisley in May and June, winning the Command Inter-

Station Combat Snap-Shooting competition, the Command Inter-Station Service Rifle (B) competition and the Command Inter-Station Small-Bore Team Efficiency Cup.

Outstanding among individual performances was the success of Senior Technician D. J. Truluck. At Bisley he won two Royal Air Force Individual Championships, the Group Captain Halahan Cup with the Service Rifle (B) and the Long Range Cup. He also won, at Beckingham, the Lincolnshire Rifle Association Grand Aggregate Cup. In Athletics, Corporal W. H. Dunne represented the Royal Air Force against Loughborough College. He and Corporals I. Dingle, A. Godsmark and G. Fell and Senior Aircraftsman D. G. Marks represented Flying Training Command in a triangular Athletics Match in competition with the Royal Air Force College and Bomber Command. Flight Lieutenant R. E. Pyrah and Corporals Godsmark and Fell represented their Command in the Royal Air Force Championships held at Royal Air Force Uxbridge. In Cycling, Senior Technician J. C. Lane represented the Royal Air Force in the Inter-Service 50-mile Time Trial Championships.



The members of the Sailing Club were very active and successful. The Commandant, one officer and three cadets, sailing in the Class III Ocean Racer "Blue Charm," won outright the Dartmouth-Belle Ile Race. "Dambuster" the new Royal Air Force Sailing Association Class II Ocean Racer entered the Cowes — San Sebastian Race and won, in her class, the race San Sebastian-Belle Ile. Three of her crew of seven were cadets. Another cadet was in "Blue Jacket" the Class II Ocean Racer which won her class in the race Cowes — San Sebastian.



The Station Aeromodelling Club has lost valuable members through posting but by extending its scope has obtained many young recruits. A Junior Section open to boys and girls of Secondary School age has a membership of 20 and meets each Wednesday evening in the Education Section. Two members of the Senior Club competed with success in the Royal Air Force Aeromodelling Championships held at Debden on 1st and 2nd September. Corporal G. W. Gallagher won the Open Glider Event, and Flying Officer G. R. Denny came third in the Radio Control Aerobatic Class.

At Royal Air Force Henlow on 26th July, Pilot Officer N. R. Haywood who, as Senior Under Officer in No. 79 Entry won the Sword of Honour, was presented with the Argentine Air Force Senior Prize by Dr. J. Pena Gaona, Counsellor to the Argentine Embassy. The prize is awarded annually to the cadet who passes out from the Royal Air Force College or the Royal Air Force Technical College with the highest aggregate mark.

In June Flight Cadet W. L. T. Forde received the Sierra Leone Independence Medal.



Visiting preachers at the Church of St. Michael and All Angels were :—

On 27th May, The Reverend Canon Leslie Wright, C.B.E., M.A., who preached at the last service held in the old Hangar Church.

On 1st June, The Venerable F. W. Cocks, C.B., Q.H.C., M.A., Chaplain-in-Chief, Royal Air Force, who preached at the Dedication Service of the new Church of St. Michael and All Angels.

Some of the U.S.A.F. Academy Cadets seeing over a Jet Provost during their visit to the College in June, 1962



The dedication was conducted by The Bishop of Lincoln, The Right Reverend Kenneth Riches, D.D.

On 3rd June, The Bishop of Grantham, The Right Reverend Anthony Otter, M.A., who preached at the Inaugural Service of the new Church.

On 24th June, The Reverend Canon E. T. Hughes, B.D., Vicar of St. Giles', Northampton.

On 15th July, The Reverend Canon P. B. G. Binnall, F.S.A., M.A., Sub-Dean, Lincoln Cathedral.

On 31st July, The Bishop of Lincoln and Monsignor Roche conducted the Services of Dedication of No. 81 Entry.



An extensive article in the Air Ministry News Letter of 26th July began as follows :—

“ Summer holiday expeditions, packed with adventure, thrills and interest, begin for 300 flight cadets of the R.A.F. College, Cranwell, in a week's time. Organised by the College, which sets great store by vacation activities calculated to broaden initiative, character, outlook and education, some twenty projects will take the future senior officers of the Royal Air Force to many parts of Britain, and to North Africa, the Middle and Far East, and to Europe.”

The planned visits which were outlined in the “ News Letter ” did not all take place, mainly because some indulgence air-lifts could not be obtained. All flight cadets made, however, at least one visit. No. 82 Entry gained first-hand experience, in August, of N.A.T.O. by visiting the Headquarters, Allied Air Forces Central Europe, and Supreme Headquarters Allied Powers, Europe, as well as a representative R.A.F. unit in Germany. No. 84 Entry, after being divided into three groups, visited at various dates the Royal Navy at Portsmouth, at the Joint Anti-Submarine School, Londonderry, or in the Mediterranean. No. 83 Entry flew to Germany where they were the guests of several units of the British Army of the Rhine. No. 85 Entry, divided into seven parties, began, in September, their series of Service visits by informative tours of one or more Royal Air Force stations, including Coningsby, Marham, Patrington, Leconfield, North Luffenham, West Raynham, Trimingham, Watton, Kinloss, St. Mawgan and Lyneham. No. 86 Entry nearly completed their Leadership Camp in the Scottish Highlands (as exclusively forecast

in the Summer issue of *The Journal* the weather for the camp was terrible, and, for the first time, it induced the Camp Commandant to end the final exercise prematurely). The host of other visits confirms their variety and extent. From 1st to 11th August, ten flight cadets with six Dental cadets and three Midshipmen from the Britannia Royal Naval College, Dartmouth, practised gliding over Salisbury Plain at a Summer Camp at Royal Air Force Upavon. One officer and eight cadets began on 4th August a fortnight's climbing in the Taurus Mountains in Turkey. Three cadets of No. 83 Entry obtained an air passage to North Africa to the United States Air Force Base Wheelus near Tripoli where they gained an insight into the tasks, organisation, training and equipment of a typical operational U.S.A.F. Base. On 9th August five cadets of No. 83 and No. 84 Entries, who are members of the Angling Section of the College Society Outdoor Group, set off on a fishing expedition held near Ennis, County Clare. On 16th August, one officer and three cadets flew to Trondheim to attend the Graduation Ceremony of the Royal Norwegian Air Force College and the official opening of its new buildings.

Three more visits began on 20th August. 'C' stream cadets of No. 83 and No. 86 Entries started a field survey in the Isle of Man as part of their geography syllabus ; five flight cadets of No. 83 Entry visited Royal Air Force St. Mawgan, while three officers and 19 cadets of No. 83, No. 84 and No. 85 Entries travelled to Royal Air Force Abingdon to attend an Elementary Parachute Training Course at No. 1 Parachute Training School.

Scandinavia was a popular destination. On 23rd August eight flight cadets sailed to Sweden and then crossed the country by canoe. One cadet of No. 84 Entry participated in the expedition to Northern Norway organised by the Britannia Royal Naval College. Pilot Officers M. S. J. McKinley and J. G. Lumsden, who graduated with No. 81 Entry in July, made a flying tour round Scandinavia.

Late in the vacation eight cadets of No. 82 and No. 83 Entries spent five days at the end of August at the Central Fighter Establishment, Royal Air Force West Raynham. In early September two officers and 17 flight cadets, members of the Sub-Aqua section of the College Society, swam happily in and under the Mediterranean off Malta.



Reports on some of these visits appear elsewhere in this issue.

Obituary

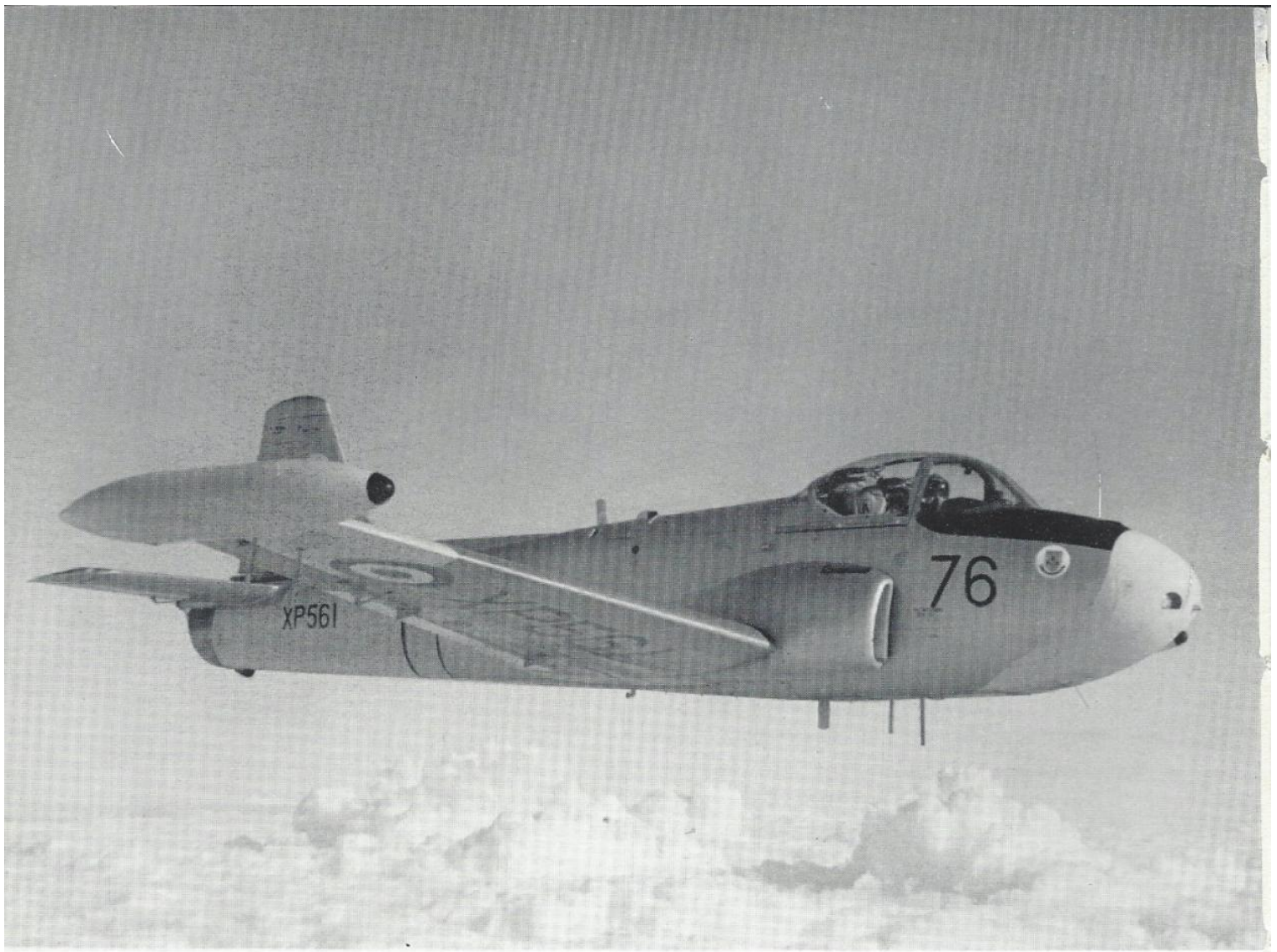
We record with regret the sudden death, at the age of 60, of Squadron Leader 'Bill' Bangay, M.B.E. He died in his sleep shortly after his admission to R.A.F. Hospital Nocton Hall on 26th September.

William James Bangay first came to Cranwell in 1918 as a boy fitter, but was soon the leading trumpeter in the Boys' Band. He remustered as an A.C.2 musician when the College Band was formed in 1920, and rose to become Director of Music. Long before his retirement in April 1959 Bill Bangay had become an institution at the College. He served continuously for 34 years at Cranwell except for five war years (1941-46) when the College was not used to train flight cadets. He was proud that he had been in the College Band for all the years that flight cadets had been trained at Cranwell.

Bill Bangay played the saxophone and clarinet well and was a good performer on most other Band instruments. In the thirties he exhibited his talent for showmanship in a series of variety concerts. These concerts, and his own solo acts, were marked by great skill in presentation. In 1946, when Squadron Leader (later Wing Commander) A. E. Sims, O.B.E., L.R.A.M., A.R.C.M. became Director of Music of the Royal Air Force Central Band, Warrant Officer Bangay returned to the College to take charge of the Band. He was commissioned and became College Director of Music in 1949.

Ten years later, on his retirement to live in Cranwell village, Bill Bangay was presented by Air Commodore D. F. Spotswood, C.B.E., D.S.O., D.F.C., who was then Commandant, with a salver on which were engraved around the College coat of arms the facsimile signatures of the 29 Commandants and Assistant Commandants under whom he had served.

Bill Bangay was as active in retirement as in his long service career and took a great interest in local government and welfare work. When he died, he was Chairman of the Cranwell Parish Council, and a member of the Kesteven County Council and the East Kesteven Rural District Council. *The Journal* extends deep sympathy to his widow, Mrs Marjorie Bangay, and to their two sons. They will know that Bill Bangay will be remembered with affection by thousands of Old Cranwellians.



' On First Flying Above Cloud '

*' I saw for one brief hour, or maybe less
A field of snow, and clouds — a wilderness.
No form was there, but dark and light and mass,
Shadows and sun and eminence of air.
My limbs were weightless, earth did not exist ;
I was numbed and awed and could not think or care.
There is no word for beauty such as this
One can but feel and know that it is there.
There is no purity on earth that can compare
With the vast halls of blue and stainless air.'*



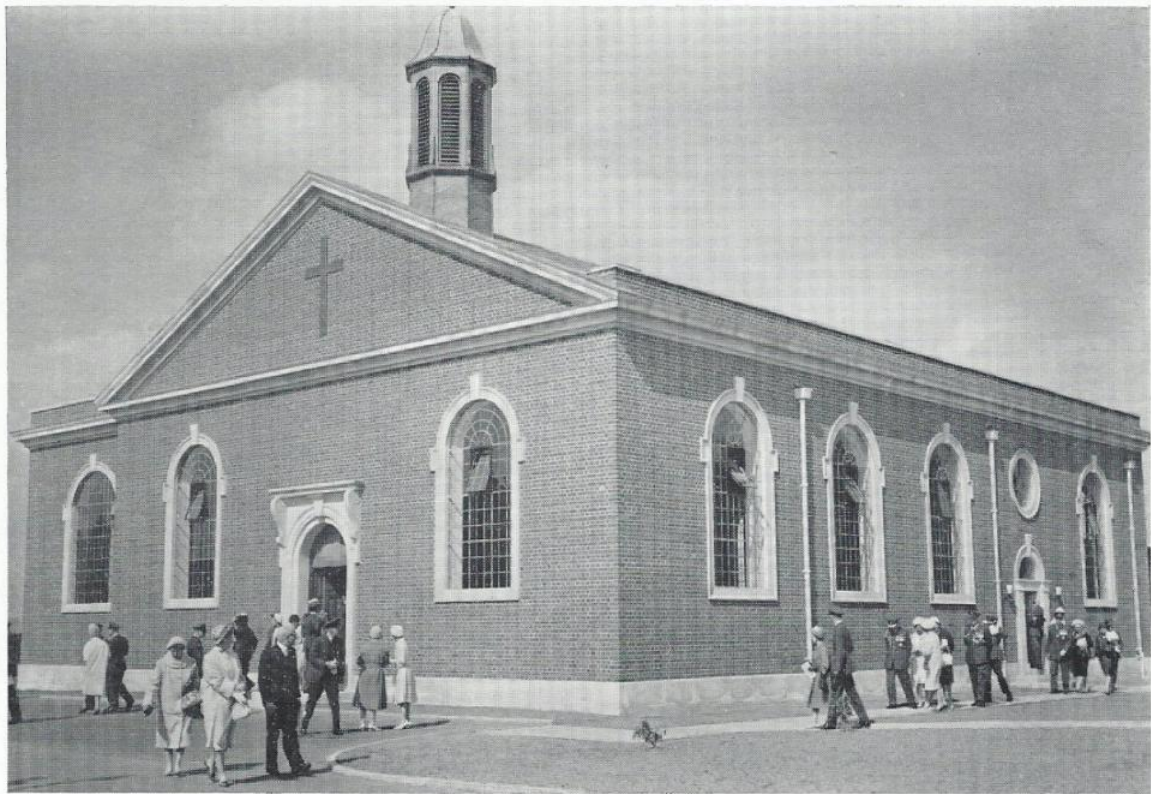
Dedication of the Church of St. Michael and All Angels

On Friday, 1st June, 1962 the new Church of St. Michael and All Angels was dedicated by the Lord Bishop of Lincoln, in the presence of a large congregation which included the Chief of the Air Staff, Marshal of the Royal Air Force Sir Thomas Pike, G.C.B., C.B.E., D.F.C., and members of the Air Council. The sermon was preached by the Chaplain-in-Chief, Ven. F. W. Cocks, C.B., Q.H.C., M.A.

The Service of Dedication began with the procession of the clergy — among whom were many former College Chaplains — and the choir. When they had taken their places, the Queen's Colour was borne to the Chancel steps and placed on the Altar in the Memorial Chapel. The Bishop then knocked three times on the West Door, and entered with his procession. During the singing by the choir of the Psalm, "I was glad when they said unto me, we will go into the House of the Lord," the procession moved to the Sanctuary, where the Commandant, Air Commodore E. D. McK. Nelson, C.B., who also read the Lesson, petitioned the Bishop to dedicate the Church to the Glory of God.

The Chaplain-in-Chief, in his Sermon, spoke of the "dream of a permanent Church which for over forty years has kindled the imagination of Cranwell Chaplains and their congregations." The Service, which was marked throughout with great solemnity, continued with the Bishop and the People saying the College Prayer together, and was concluded by the blessing and the singing by the Choir of the hymn which, for as long as can be remembered, has been sung at the end of Cranwell Church Services :

"May the grace of Christ our Saviour,
And the Father's boundless love,
With the Holy Spirit's favour,
Rest upon us from above."



The Church, built of red brick, faced with Portland Stone, is in the Georgian style. It is situated on the eastward side of the College, near the site of the Old Hangar Church, and has a seating capacity of over five hundred. It incorporates the Re-hallowed Memorial Chapel which had been dedicated ten years previously, and faithfully preserves its original style and beauty.

The interior of the Church, panelled with oak, below pure white walls, and furnished with oak pews and choir stalls, is simple, restrained, and dignified. On entering by the West Door, the attention is immediately drawn to the Altar, with its rich golden-coloured Dorsal Curtain extending beyond the arch of the Sanctuary. The Altar, a memorial to the son of a former Commandant, was made of oak in the Cadets' Instructional Workshops, by Chief Technician L. Cooke, B.E.M. This skilled craftsman also made the Credence Table, the Prayer Desk for the Bishop's Chair, the Frontal Chest, and the Hymn Board. The Altar Cross and the Candlesticks fashioned in beaten silver, on bases of lapis lazuli, are the gift of the Prime Warden and Court of the Goldsmiths' Company. The Church is adorned by many other beautiful gifts, including a magnificent Processional Cross of beaten copper, in the form of a Distinguished Flying Cross, from a former Commandant. The embellishment was made possible by the generosity of hundreds of Cranwellians, past and present, and other friends and donors. The Organ with its fine Renaissance Screen, was moved from the Old Hangar Church, and renovated. The Lectern on which are inscribed the names of men killed on duty at Cranwell many years ago, and with its carved figure of a Falcon (believed to have been made from a photograph of 'June,' a falcon which belonged to a former Chief of the Air Staff when he was on the staff of Cranwell in the early days) was also brought from the Hangar Church. Over an archway leading into the Nave from the Memorial Chapel is placed the Royal Coat of Arms, and directly opposite, over the South Door, is painted the College Arms. Above the West Door can be seen the Arms of the Diocese of Lincoln.





On Sunday, 3rd June, an Inaugural Service was held, at which the preacher was the Bishop of Grantham. It was attended by the Parochial Church Council and members of the Parish Church, with which the College has had such close and intimate associations in life and in death.

During the Service, the Old Colour, which had rested in the former College Chapel, was finally Laid-Up in the Memorial Chapel, there to remain "until such time as it shall pass to dust like those whose courage and devotion are enshrined in its history."

Thus in a memorable week-end in the life of Cranwell, which will live for ever in the hearts of all present, was dedicated "and for ever set apart from all profane, common and ordinary uses, this Church of Saint Michael and All Angels, in the name of the Father, and of the Son, and of the Holy Ghost, Amen."

THE PASSING-OUT OF No. 81 ENTRY

The Passing-Out Parade of No. 81 Entry was held on Tuesday, 31st July 1962, when forty-six flight cadets graduated from the College. The Reviewing Officer was the Chief of the Air Staff, Marshal of the Royal Air Force Sir Thomas G. Pike, G.C.B., C.B.E., D.F.C.

The Cadet Wing marched on under the command of Senior Under Officer R. B. Thomson. The Squadrons were commanded by Senior Under Officer C. J. Thomson, Senior Under Officer G. H. Rolfe, Senior Under Officer J. V. McCarthy and Under Officer R. P. O'Brien.

As the Reviewing Officer approached the dais, the traditional fly-past took place. It

comprised twelve Jet Provosts from the Basic Flying Wing and three Varsitys from the Navigation Squadron.

After the Advance in Review Order, the Reviewing Officer presented the Sword of Honour to Senior Under Officer R. B. Thomson and the Queen's Medal to Under Officer R. P. O'Brien. He then gave the following address :—

“First of all I want to congratulate all of you on an excellent parade. Your turnout and drill do you credit and I am glad to see you are living up to the reputation of our Service — that when the R.A.F. really sets its mind to a job, no one can beat it.



I would like to look back for a moment to one of your predecessors — an ex-cadet of this College who retired a week ago today. In the course of a career of remarkable distinction he served with honour in many squadrons, he was an outstanding leader in war and peace, and he was a great administrator.

His appointments included those of Commander-in-Chief Bomber Command, and Commander-in-Chief A.A.F.C.E. His name is Air Chief Marshal Sir George Mills, and for Cranwell his name carries special distinction.

He was a cadet on the first entry of this College — in 1920 — and he ended his career as he began it, top of the order of merit. I tell you this because his career spans the history of the Royal Air Force College — and his career as an officer started as yours is starting today with a parade, a speech, and a bare entry in the College records. He probably stood much as you are standing today, proud in the knowledge that he was to be granted a commission to serve our Sovereign, but perhaps a little uncertain what the future would bring. Now he has set an exceptional standard for you to emulate, and I hope you will try to maintain that standard as a target for your successors.

You start well. You have been chosen to be officers because you have displayed qualities of efficiency, energy and resolution. You have been tried and not found wanting. You have had the benefit of a first class training. But mere possession of these qualities is not enough. Remember, an officer's job is to show the way and to make others follow him by the high standards he sets. Your chances of continuing to do this will be small unless you leave Cranwell resolved to put into practice all that you have learned here, and all that you will learn from your seniors.

The future in the R.A.F. is an exciting prospect. In the course of your career, the spectacular advances in the air and also in space will certainly continue. Vertical take-off will become a commonplace, ram jets

and atomic power may revolutionise our propulsion systems. We shall certainly be adventurers in space and you can be sure that we shall need manned vehicles in space just as we shall need them in the atmosphere.

And now another thing. Whilst you are young, work hard, play hard, enjoy life to the full, but use your leisure wisely. Sport, the arts, literature, and in particular the study of national and international affairs will have much to offer. Remember, an officer whose horizons are bounded by his own service will never develop the necessary breadth of vision for high rank. So take an interest in everything that goes on around you. Find out all you can about the other Services, as we are surely moving closer together in the years ahead.

Finally, I will give you a motto. Private Speakman, of the Black Watch, was awarded the Victoria Cross in Korea for an incredible act of bravery. Afterwards when he was being congratulated by his fellows, he said :
“ It was nothing special — I only did my best like I always do.”

If that can be said of you at the end of your career, you will have earned the highest praise that anyone can give.

God Speed and good luck to you all.”

Extracts from the Speech by Marshal of the Royal Air Force Sir John Slessor, G.C.B., D.S.O., M.C., on the occasion of the presentation of Wings and Prizes to No. 81 Entry on Monday, 30th July, 1962

“ The Commandant has asked me to say a few words, and you will be alarmed to hear that I am going to give you some good advice . . . but I would like first to congratulate 81 Entry on having the sense to take up the Royal Air Force as a career, and on having surmounted the first very difficult hurdle in passing out successfully from Cranwell. I think the record that the Commandant read out is very creditable.

I think I must mention how glad I am to be here on what really is an historic occasion, because something has happened which has never happened before. A lady has come the whole way from New Zealand to see the second of the family carry off the Sword of Honour tomorrow morning. Mrs Thomson ought to be congratulated on producing a couple of Sword of Honour winners in four years and for coming all the way from New Zealand in a Hastings to see Mark II pull it off as well."



Pilot Officer R. B. Thomson, R.N.Z.A.F., shows his Sword of Honour to his mother and brother

Sir John went on to give advice to the cadets passing out. They had a good start but should not get morbidly anxious about promotion prospects. "As a regular officer out of Cranwell, as I was, you ought to go right on up the ladder, but you won't do it unless you pull out that little bit extra. You have really got to be satisfied with nothing but the best . . . Having said that, I hasten to say, "Don't work too hard." Chaps who do nothing but work are usually frightful bores. Try and cultivate a habit of working quickly if you can. If you can, work quickly and well, particularly on the things which are a bore . . . I think part of the art there is to learn to concentrate on what you are doing ; you get into the habit of pulling down a sort of blind in your mind between what you are doing and what you would rather be doing . . .

Don't accept uncritically anything you read or are told ; have a look at it with a

critical eye and see if you agree with it, and if not why not. It is really a question of cultivating an inquiring mind — of wanting to know why things are done . . . The main test is whether this or that is a good egg from the point of view of the Service as a whole, your Squadron, your Flight, yourself. Will it make the Service more efficient as a whole? I think it is fairly safe to start from the assumption that if it is the traditional Service way of doing things the chances are there is something to be said for it, because it has been worked well on the whole over a number of years by a number of pretty good chaps who were no fools. On the other hand times change, aeroplanes change, and some of us old boys are sometimes a little too slow to change with them.

For instance, a small point to tell you what I am getting at. Always in my day pay parades wasted a frightful lot of time. Everyone fell in and paraded and stood around. Now, I am told, in the 'V' force, pay is brought to the chap on the job, and it saves people hanging around. Nobody really thought about changing the system in my day. So don't be afraid of putting forward good ideas—I think we are rather good at this in the Royal Air Force . . . Think things out for yourself, and remember that the Royal Air Force is not B.O.A.C., it is not a factory, a railway or a bus service . . . The system in the Royal Air Force, like the other fighting services, has got to be capable of working in the totally unfavourable and very exacting conditions of war or extreme emergency, with everybody as frightened as hell, and everybody very tired ; and that is the basic reason for the Service discipline you have got. The system has got to work under strains which are never met with in civil life.

When you get into conditions of war you simply must not spend a second's thought on the routine fundamentals and pitfalls of the job. You have got to have repetitive training so that three-fifths of your brain or mind make you go on doing the things you know perfectly well how to do, so that when you are really up against it you don't have to think . . . I would strongly advise you to cultivate some interests outside the Service. The fellow who has no interests outside the Royal Air Force is a poor chap ; he comes

a most frightful mucker when he retires ! I am not only talking about sporting and games. Have a hobby ; do something with your hands ; have an interest in things and people outside the Service — an interest in bird watching, painting, gardening. It would not be a bad thing to take an interest in racing but for God's sake if you feel inclined to start betting just have a look at the bookies wives in their mink coats and think who pays for them. Mix with people outside the Service . . .

Try if you can to cultivate the habit of looking cheerful . . . I remember when I was a student at the Staff College in 1923, one of the founder fathers of the R.A.F. (Air Commodore Brooke-Popham) used to give us this advice and it has always stuck in my mind. "Look at Chorus girls ! Their feet hurt, and their legs ache, and they know that they are going to have to wait in the bus queue, yet they always look cheerful." Don't look anxious. Lord Beaconsfield said years ago "Nobody ought ever to look anxious, except people who have no reason to look anxious . . . One last bit of advice which I hope your families will not be cross with me for giving and that is . . . don't go and get married too young. . . .

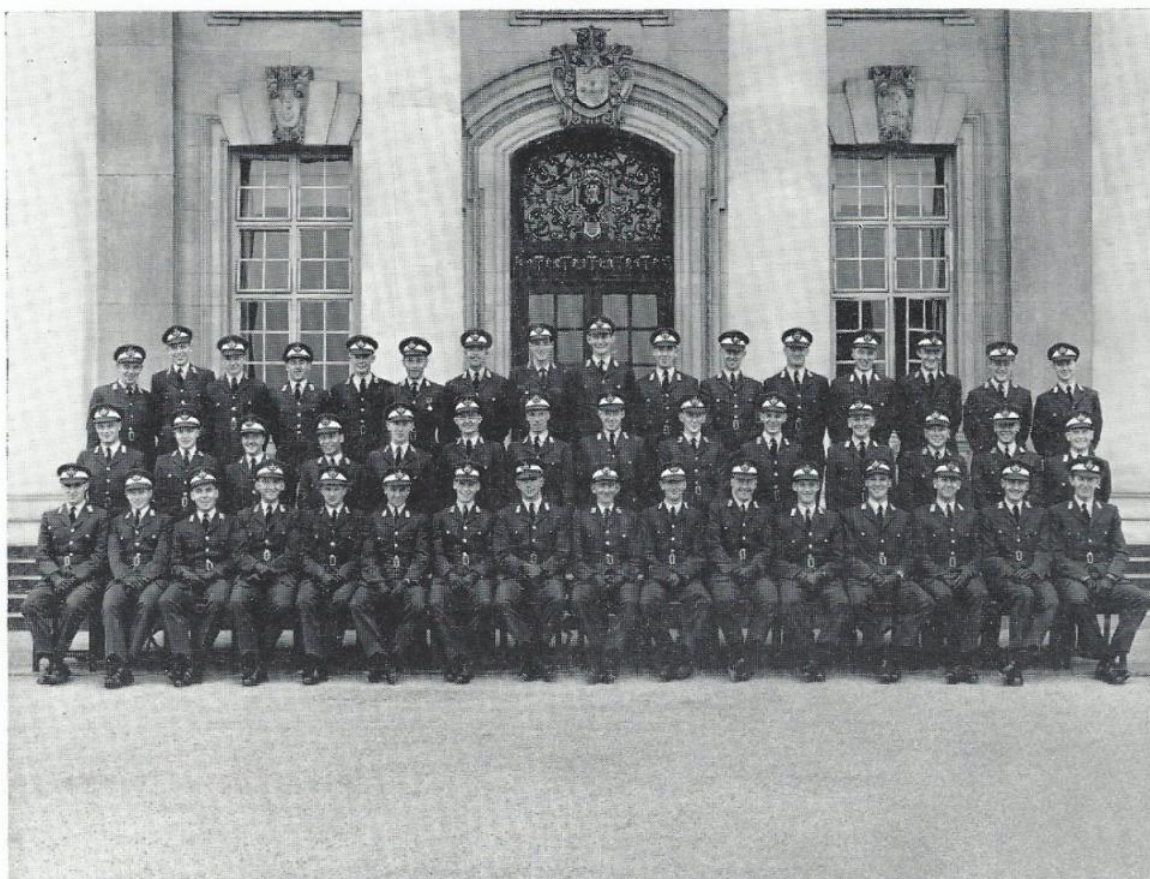
Having given you a lot of useful advice I would wish you great happiness and great fortune in this splendid career that you have taken up."

COMMISSIONING LIST

No. 81 Entry

- R. B. THOMSON, Senior Under Officer : The Sword of Honour ; The R. S. May Memorial Prize ; The J. A. Chance Memorial Prize ; Fencing (Captain, Full Colours) ; Modern Pentathlon ; Potholing ; Jazz ; *The Journal* (Editor) ; Photography ; Ski-ing ; Geographical ; Choral ; Film.
- J. V. McCARTHY, Senior Under Officer ; The Philip Sassoon Memorial Prize ; Rugby (1st XV, Captain, Full Colours) ; Water Polo ; Geographical ; Film.
- G. H. ROLFE, Senior Under Officer ; Squash ; Tennis ; Badminton ; Canoeing ; Film.
- C. J. THOMSON, Senior Under Officer : The R. M. Groves Memorial Prize and Kinkead Trophy ; The Dickson Trophy and Michael Hill Memorial Prize ; Hockey (2nd XI, Captain) ; Squash ; Tennis ; Sailing ; Gliding ; Music ; Film ; Flying Club.
- C. B. ADCOCK, Under Officer : Basketball (Colours) ; Cross-Country ; Athletics ; Mountaineering ; Motor Club ; Debating ; Dramatics (Producer) ; Film.
- R. M. ANNETT, Under Officer : L'Ecole de l'Air Trophy for French Studies ; Hockey (1st XI, Colours) ; Cricket (1st XI) ; Tennis ; Dramatics ; Choral ; Film ; Debating.
- N. B. BALDWIN, Under Officer : Cricket (2nd XI, Captain) ; Soccer (2nd XI) ; Squash ; *The Journal* (Editor) ; Music (Secretary) ; Photography ; Film.
- J. R. HAMBLETON, Under Officer : Athletics (Colours) ; Cross-Country (Captain, Full Colours) ; Music ; Motor Club ; Film.
- J. V. HARDING, Under Officer : Hockey (1st XI) ; Tennis ; Sailing ; Film ; Debating.
- M. S. HERRING, Under Officer : Rugby (1st XV) ; Hockey ; Squash ; Gliding ; Debating ; Choral ; Music ; Film.
- J. G. LUMSDEN, Under Officer : Rugby (1st XV) ; Sailing ; Music ; Film.
- J. NOTTINGHAM, Under Officer : The Institute of Navigation Trophy and the Air Ministry Prize for Navigators ; Basketball (Colours) ; Motor Club (Captain) ; *The Journal* (Editor) ; Choral (Secretary) ; Music ; Film.
- R. P. O'BRIEN, Under Officer : The Queen's Medal ; Tennis (Captain, Full Colours) ; Photography ; Film.
- P. V. PILE, Under Officer : Rugby (3rd XV) ; Shooting ; Swimming ; Motor Club ; Ski-ing ; Photography ; Engineering ; Film (Secretary).
- A. B. STEPHENS, Under Officer : Rugby (1st XV, Colours) ; Golf ; Angling (Captain) ; Mountaineering ; Canoeing ; Choral ; Film.

- R. A. F. WILSON, Under Officer : Squash (Captain, Full Colours) ; Golf (Captain) ; Fine Arts ; Photography ; Film ; Music.
- M. J. R. BALQEZ, Senior Flight Cadet : Soccer (2nd XI) ; Swimming ; Film ; Music.
- R. CANE, Senior Flight Cadet : Ocean Sailing ; Radio ; Engineering ; Film ; Music.
- N. H. L. W. CLEAVE, Senior Flight Cadet : Swimming ; Potholing (Captain) ; Photography ; Film.
- R. D. COLE, Senior Flight Cadet : Swimming (Colours) ; Water Polo ; Riding ; Film.
- M. W. N. CROSS, Senior Flight Cadet : Rugby (2nd XV) ; Badminton ; Ski-ing ; Riding ; Water Ski-ing ; Fine Arts ; Photography ; Film.
- J. H. CURRIE, Senior Flight Cadet : Tennis (Colours) ; Soccer (2nd XI, Captain) ; Radio ; Mountaineering ; Film.
- I. FAZAKERLEY, Senior Flight Cadet : Soccer (3rd XI) ; Cricket (3rd XI) ; Radio ; Film ; Sub-Aqua ; Angling ; Mountaineering.
- J. C. FITTUS, Senior Flight Cadet : Cricket (2nd XI) ; Soccer (2nd XI) ; Squash ; Music ; Film.
- D. FRADLEY, Senior Flight Cadet : Cross Country (Captain, Full Colours) ; Athletics (Full Colours) ; Fine Arts ; Music ; Film ; Choral ; *The Journal*.
- M. A. GAYNOR, Senior Flight Cadet : Rugby ; Mountaineering (captain) ; Field Shooting (Captain) ; Motor Club ; Photography.
- C. GRANVILLE-WHITE, Senior Flight Cadet : The Hicks Memorial Trophy ; Athletics (Captain, Full Colours) ; Gliding (Captain) ; Flying Club ; Film.
- F. J. HOARE, Senior Flight Cadet : Rugby (1st XV) ; Tennis ; Mountaineering ; Choral ; Film ; Music.
- A. J. F. HUNT, Senior Flight Cadet : Rowing (Colours) ; Sub-Aqua ; Go-karting ; Photography ; Radio ; Choral.
- A. H. JONES, Senior Flight Cadet : Rugby (1st XV) ; Tennis ; Dramatics ; Film ; Bridge ; Canoeing ; Sub-Aqua ; Motor Club.
- T. S. KEATS, Senior Flight Cadet : Rugby (1st XV) ; Potholing (Secretary) ; Angling (Secretary) ; Mountaineering ; Riding ; Film.
- D. S. LANIGAN, Senior Flight Cadet : The Abdy Gerrard Fellowes Memorial Prize ; Squash ; Mountaineering ; Radio ; Gliding ; Film ; Chess (Captain).
- M. S. J. MCKINLEY, Senior Flight Cadet : Rugby (1st XV, Colours) ; Rowing (1st Team) ; Film.
- F. MILLIGAN, Senior Flight Cadet : Rugby (3rd XV) ; Tennis ; Sailing ; Photography ; Motor Club ; Dancing ; Engineering.
- B. P. NICOLLE, Senior Flight Cadet : Soccer (1st XI, Colours) ; Tennis ; Athletics ; Sub-Aqua (Captain) ; Motor Club ; Film.
- A. G. PEARCE, Senior Flight Cadet : Modern Pentathlon (Colours) ; Riding ; Field Shooting ; Film.
- B. PRIEST, Senior Flight Cadet : Soccer (1st XI, Colours) ; Tennis ; Canoeing ; Film.
- A. Q. M. ROSS, Senior Flight Cadet : The Air Ministry Prize for War Studies and Humanities ; The Royal New Zealand Air Force Trophy ; Hockey (1st XI, Colours) ; Athletics (Colours) ; Rugby ; Film.
- D. J. SAWYER, Senior Flight Cadet : Cross-Country ; Squash ; Photography (Secretary) ; Ski-ing ; Sub-Aqua ; *The Journal* ; Film.
- T. H. SINDALL, Senior Flight Cadet : Fencing ; Ocean Sailing ; Dramatics (Stage Manager) ; Film.
- P. G. STURT, Senior Flight Cadet : Modern Pentathlon (Colours) ; Fencing (Colours) ; Radio ; Film ; Sub-Aqua ; Sailing ; Riding ; Karting.
- G. J. R. SUTTON, Senior Flight Cadet : Photography ; Music ; Riding ; Field Shooting ; Film.
- G. N. WADE, Senior Flight Cadet : Athletics (Colours) ; Rugby ; Film ; Music.
- J. E. C. WILLIAMSON, Senior Flight Cadet : Shooting (Captain, Colours) ; Rugby ; Motor Club ; Ski-ing ; Fine Arts ; Music ; Photography.
- W. WOOD, Senior Flight Cadet : Cross-Country ; Canoeing ; Angling ; Potholing ; Film.



THE SENIOR ENTRY, SUMMER TERM, 1962

Back row (left to right) : *S.F.C. R. Cane, S.F.C. A. J. F. Hunt, S.F.C. A. Q. M. Ross, S.F.C. B. P. Nicolle, S.F.C. J. E. C. Williamson, S.F.C. W. Wood, S.F.C. N. H. L. W. Cleave, S.F.C. C. Granville-White, S.F.C. F. J. Hoare, S.F.C. A. H. Jones, S.F.C. P. G. Sturt, S.F.C. R. D. Cole, S.F.C. J. H. Currie, S.F.C. T. S. Keats, S.F.C. B. Priest, S.F.C. J. C. Fittus.*

Centre row (left to right) : *S.F.C. A. J. Gowing, S.F.C. A. G. Pearce, S.F.C. H. A. Gaynor, S.F.C. M. J. R. Balqez, S.F.C. W. M. N. Cross, S.F.C. G. J. R. Sutton, S.F.C. G. N. Wade, S.F.C. F. Milligan, S.F.C. I. Fazakerley, S.F.C. D. Fradley, S.F.C. D. J. Sawyer, S.F.C. D. S. Lanigan, S.F.C. M. S. J. McKinley, S.F.C. T. H. Sindall.*

Front row (left to right) : *U.O. J. G. Lumsden, U.O. J. R. Hambleton, U.O. J. V. Harding, U.O. J. Nottingham, U.O. N. B. Baldwin, U.O. M. S. Herring, S.U.O. C. J. Thomson, S.U.O. J. V. McCarthy, S.U.O. R. B. Thomson, S.U.O. G. H. Rolfe, U.O. A. B. Stephens, U.O. R. A. F. Wilson, U.O. P. V. Pile, U.O. R. O'Brien, U.O. C. B. Adcock, U.O. R. H. Annett.*

CADET WING LISTS PROMOTIONS

NO. 82 ENTRY

'A' Squadron : Flight Cadet Senior Under Officer K. B. Latton. Flight Cadet Under Officers S. W. B. Yarrow, R. W. Giles.

'B' Squadron : Flight Cadet Senior Under Officer P. R. C. Jones. Flight Cadet Under Officers I. C. M. H. Dick, R. Mitchell.

'C' Squadron : Flight Cadet Senior Under Officer P. E. Busfield. Flight Cadet Under Officers D. Maslin, B. S. Perera.

'D' Squadron : Flight Cadet Senior Under Officer I. O. Junor. Flight Cadet Under Officers J. A. Bayliss, P. J. Atkins.

No. 87 Entry

'A' Squadron : A. A. Akers-Douglas, Eton College ; J. B. Beards, Royal Wolverhampton School ; J. C. Burton, (E) Southern Grammar School, Portsmouth ; N. Burrows, Queen Victoria School, Dunblane ; W. S. Brereton-Martin (R), Haileybury and Imperial Service College ; O. W. Epton, Queen Elizabeth's School, Faversham and R.A.F. Halton ; A. V. B. Hawker, Wymondham College, Norfolk ; R. C. Lambert, Kimbolton School ; W. R. Lewis, Kimbolton School ; R. F. Mead, Farnborough Grammar School ; J. W. Pierce, Wycliffe College, Stonehouse, Gloucestershire ; N. J. Pollard (E), Queen Elizabeth's Grammar School, Barnet ; B. V. Sandford, Wandsworth School ; P. Smith, Bourne-

mouth School ; D. J. Sowler, Sir William Turner's School, Redcar ; M. T. Wilson, Spennymoor Grammar Technical School, Durham.

'B' Squadron : M. K. Allport, Framlingham College ; A. C. W. Boxall, Dean Close School, Cheltenham ; J. D. Coker, Cooper's Company's School, E.3 ; R. Dixon, Longton High School, Stoke-on-Trent ; N. R. Dyer, Fairfield Grammar School, Bristol ; D. L. Felwick (E), Devonport High School ; K. G. H. French, Saltash County Grammar School, Cornwall ; D. J. Gurney, Stratton School, Biggleswade and R.A.F. Halton ; P. J. Haywood, St. Bartholomew's Grammar School, Newbury ; C. M. Humphrey, St. George's College, Salisbury, Southern Rhodesia ; D. V. Loveday, Commonweal Secondary Grammar School, Swindon ; D. Lowe, Rowley Regis Grammar School ; A. R. C. Mathie, Canford School ; T. H. Peacock, Allerton Grange School, Leeds ; P. J. G. Sanders, Ampleforth College ; P. A. Walliker, Cranbrook School ; A. G. Williams (S), Southall County Grammar School and R.A.F. Bircham Newton.

'C' Squadron : V. E. Ayres, St. Mirren's Academy, Paisley ; P. T. Baker, Lancaster Royal Grammar School ; K. A. Crowley, The Cedars School, Leighton Buzzard ; P. R. J. Derviller, Brighton, Hove and Sussex Grammar School and R.A.F. Halton ; A. C. Dobbs (N), Magdalen College School, Oxford ; J. S. Fountain (S), Reading Technical College ; P. J. Gooding, Framlingham College ; J. C. Hill, Worthing High School ; E. A. Jones, Plymouth College ; M. A. Kirk, Dartford Grammar School ; M. H. Macartney, Ruthins School, Denbighshire ; A. P. McGrath (S), The Harvey Grammar School, Folkestone ; C. M. Rice (E), Eastbourne College ; T. C. Swinney, Beverley Grammar School, Yorkshire ; D. H. Thomas, Halesowen Grammar School, Birmingham ; D. A. Wadsworth, Cranbrook School ; A. J. Withey, Rodway Technical High School, Bristol.

'D' Squadron : P. D. Brookes, Heversham Grammar School, Westmorland ; W. M. Burnett, Inverurie Academy, Aberdeenshire ; J. A. Ford, Framlingham College ; P. M. Grosset (S), George



Watson's College, Edinburgh ; J. B. Hill, The Becket School, Nottingham ; R. H. O. Johnson (E), Framlingham College ; D. McQuillan, St. Mary's Christian Brothers Grammar School, Belfast ; R. K. Moore (E), Queen Elizabeth's Grammar School, Gainsborough ; G. Rayfield, Chatham Technical School and R.A.F. Halton ; K. D. Rhodes,

Preston Grammar School ; G. Shields, St. Aloysius' College, Glasgow ; P. D. Thomson, Stamford School ; W. F. C. Tyndall, Commonweal Grammar School, Swindon and R.A.F. Locking ; R. K. J. Whaley, Gateway School, Leicester ; R. Wright, Graeme High School, Falkirk.

LEARNING BY DEGREES

A flight cadet at Cranwell can profitably fill his time without taking on the additional burden of trying for a degree. To learn to fly, to become a competent, professional officer, to make a respectable contribution to the activities of the College, to pass his examinations, and to enjoy life to the full, all this might well be reckoned a sufficient assignment for the space of three years.

Even so there will remain a minority coming to Cranwell who have the intellectual endowment, the educational background, and the necessary ambition to achieve something tangible in the academic field. There would be something amiss if this were not so. This minority might well have faced the choice of entering Cranwell or going up to a university. Having chosen Cranwell, it is right that they should feel constrained to put their academic ability to the test, and for the good of themselves and of the Service to take up a course of study more ambitious than the normal curriculum allows for.

The present syllabus, introduced in the autumn of 1959, both demanded a higher and broader standard from all, and made allowance for the minority who wished to attempt degree standard. No. 81 Entry were the first to start on the syllabus. A handful of them entered the specialist streams ; a dozen or so scientists into the "B" stream for Parts I and II examinations for Associate Fellowship of the Royal Aeronautical Society and eight Arts men into the "C" stream for London University's B.A. General degree in War Studies and two other subjects of their own choice.

By the time of their final examinations last July, membership had been pruned to eight in the "B" stream and six in the "C" Their results were published just before the summer passing-out. Three of the six B.A. candidates were successful : Under Officer O'Brien, Under Officer Annett and Senior Flight Cadet Ross. Senior Under Officer McCarthy failed only in one subject. Of the eight A.F.R.Ae.S. candidates, two were awarded complete passes : Senior Flight Cadets Lanigan and Sawyer ; and three more, passes reserved in one subject : Senior Flight Cadets Fazakerley, Keats and Sturt. Not, perhaps, a sensational result, but certainly a fair beginning. And these were the first cadets ever in the General Duties Branch to achieve degree-level qualifications while under training.

Was it worth it ? Those who were successful had the reward of a tangible achievement and a permanent qualification ; those who failed, at least the benefit of an academic course that stretched them and took them to their limit. As members of the specialist streams they had to work many hours when their colleagues were relaxing. Sometimes they ran into difficulties with the conflicting demands of squadron life. Sometimes the whole effort seemed out of proportion. Like St. Paul's Cloud of Witnesses, they were tempted, afflicted and tormented. As a rule they took the difficulties in their stride, and enjoyed both the work itself and the sense of achievement that it gave ; and at the end probably not one of them regretted it. All honour to them, and good luck to those that are following them.

Pilot Officer R. P. O'Brien, B.A.

Pilot Officer A. Q. M. Ross, B.A.

Pilot Officer R. M. Annett, B.A.

(See Photograph page 227)

OLD CRANWELLIAN NOTES

HONOURS AND AWARDS

We congratulate the following Old Cranwellians who received honours or awards in the Birthday Honours List :

K.C.B. : Air Marshal L. W. C. Bower, C.B., D.S.O., D.F.C.

K.B.E. : Air Marshal M. L. Heath, C.B., O.B.E.

C.B.E. : Group Captain J. O. Barnard.

O.B.E. : Wing Commander C. W. McN. Newnam, D.F.C.

A.F.C. : Squadron Leader J. M. Henderson.

REUNIONS

A GOOD START IN CYPRUS

17 Old Cranwellians gathered at Episkopi on 15th June to enjoy the first reunion dinner to be held in N.E.A.F. The senior Old Cranwellian present, Air Vice-Marshal J. Worrall, D.F.C., welcomed as guest of honour the A.O.C.-in-C, Air Marshal Sir William L. M. MacDonald, K.C.B., C.B.E., D.F.C. The evening, described by our correspondent as "a great success," looks like becoming an annual event. The Old Cranwellians present in addition to Air Vice-Marshal Worrall were :

Squadron Leader D. J. Belsen, P.S.O. to A.O.C.-in-C. ; Squadron Leader J. F. H. Chick, H.Q., N.E.A.F. ; Squadron Leader R. L. Tavanyer, Akrotiri ; Flight Lieutenant P. G. Blake, A.D.C. to A.O.C.-in-C ; Flight Lieutenant P. J. Blewitt, Akrotiri ; Flight Lieutenant J. H. Martin, H.Q., N.E.A.F. ; Flight Lieutenant T. N. King, Nicosia ; Flying Officer M. J. C. Dicken, Akrotiri ; Flying Officer K. J. Dearman, Akrotiri ; Flying Officer M. Freeman, Akrotiri ; Flying Officer A. L. Hooper, Akrotiri ; Flying Officer V. B. Howells, Nicosia ; Flying Officer D. M. Waller, H.Q., N.E.A.F. ; Pilot Officer J. K. S. Tagg, Akrotiri.

APPOINTMENTS

Guided Weapons Chief : Air Marshal E. M. F. Grundy, C.B., C.B.E., who was commissioned from Cranwell in 1928, was appointed Controller of Guided Weapons

and Electronics from 1st June by the Minister of Aviation.

Flight Safety Director : Air Commodore A. G. Dudgeon, C.B.E., D.F.C. became Director of Flight Safety at the Air Ministry in September. Air Commodore Dudgeon was born near Cairo in 1916 and was a prize cadet at the R.A.F. College, passing out in 1935. He flew in No. 111 Squadron at home and in No. 11 Squadron in India. In 1940 he took command of No. 55 Squadron in the Middle East and was awarded the D.F.C. in February 1941. Later, in Iraq, he took part in the operations mounted against the Rashid Ali revolt. From 1943 to 1945, he held posts in Transport Command and then served in the Far East. In 1952, he took command of the Wing at Abingdon which ferried 400 Canadian built Sabre fighters across the Atlantic for the R.A.F. When this Wing moved to Benson, he became Station Commander and shared in the pioneer Service experiment aimed at removing regulations of long standing but of doubtful value on a modern R.A.F. station. From 1954 to 1957, he commanded R.A.F. Bruggen in Germany, and from 1957 to 1960 was attached to the Ministry of Aviation. For the past two and a half years he has been Air Officer Commanding Air Cadets and Commandant of the Air Training Corps.

Director of Joint Plans : Air Commodore A. H. Humphrey, C.B., O.B.E., D.F.C., A.F.C. has been appointed Director of Joint Plans at the Air Ministry. Born in Edinburgh, Air Commodore Humphrey was educated at Bradfield College and entered the R.A.F. College in 1939. His unusually varied flying career started in No. 266 Squadron (Spitfires) in the Battle of Britain and continued with No. 175 Squadron ("Hurribombers"), ground attack operations in North Africa and instructing in India. In 1943, while in North Africa, he instructed No. 6 Squadron (Hurricanes) in the use of the new rocket projectiles for ground attack. After the war, he flew Lancasters in No. 82 Squadron which surveyed large areas of East and West Africa, set up a new Cape Town to London record in 1953 and, in 1954, made the first R.A.F. jet flight to the North Pole. (These last two flights were in the Canberra "Aries

IV" of the R.A.F. Flying College). Air Commodore Humphrey is one of the few officers to hold the A.F.C. and two bars. He was awarded the A.F.C. in 1943 for instructional flying at home, the first bar in 1945 for Middle East instructional flying and the second bar in 1955 in recognition of his work at Manby. Following a tour at the Air Ministry as a Deputy Director of Operational Requirements, Air Commodore Humphrey commanded R.A.F. Akrotiri (Cyprus) from 1959 to 1961. He has now just completed the Imperial Defence College Course.

A.O.A. : Air Commodore H. E. C. Boxer, O.B.E. has just become A.O.A. at R.A.F. Coastal Command. Born at Harlingstone and educated at Shrewsbury, he won the Sword of Honour at Cranwell in 1935. Until 1937, he flew in No. 1 Squadron and was a member of its aerobatic team of Hawker Furies well known at European air displays. Having specialised in navigation, he instructed from 1940 to 1944 and from 1944 to 1945 flew Mitchell light bombers with No. 180 Squadron, 2nd Tactical Air Force. The first three post-war years he spent in America. Returning in 1948, he took the Staff College Course and remained on the directing staff. He was then Deputy Director of Navigation Training at the Air Ministry and Station Commander, R.A.F. Thorney Island. He took the 1959 Imperial Defence College Course and for the past two and a half years has been Senior

NEW CHURCHES AT HALTON

Three new Churches are planned at Halton to replace the improvised accommodation which has been in use since the station was opened.

The C. of E. and Roman Catholic Churches are under construction, and the Presbyterian, Methodist and United Board are preparing plans for a new Trinity Church. The new C. of E. church will replace the Church of St. George, destroyed by fire in May, 1960, whilst the Roman Catholic Church of the Holy Family has been planned as the R.A.F. memorial to those Roman Catholics who gave their lives in two World Wars.

The main structure of the churches is to be provided from public funds. The embellishment will have to be provided by private subscription, and an appeal has been

Air Liaison Officer and Air Adviser to the High Commissioner in Canada.

News from Old Cranwellians will be welcomed by the Editor who is also ready to consider for publication general or special interest articles, photographs, drawings or other contributions to the *Journal*.

GLIDING DOUBLE

Two former Cranwell Captains of Gliding carried off the honours in League 2 of the National Gliding Championships in June. Flight Lieutenant I.W. Strachan (No. 75 Entry) took first place and running a close second was Flight Lieutenant J. Delafield (74 Entry).

Flight Lieutenant Strachan (R.A.F. Marham) is C.F.I. of the R.A.F. Gliding and Soaring Association's "Fenland" Club while Flight Lieutenant Delafield (R.A.F. Waterbeach) is C.F.I. of their "East Anglian" Club.

SKY PILOT

Australia's flying doctors are well known but perhaps her flying priests have had less publicity. *The Journal* has recently heard from one Old Cranwellian (No. 59 Entry), Flight Lieutenant P. D. Orton (Retd) who will shortly join their ranks. After his retirement, Flight Lieutenant Orton spent a year at Sydney University before entering Theological College in Brisbane. When he is ordained, his duties will include flying over crocodile infested swamps to visit outlying parts of his parish.

launched by a Committee under the chairmanship of Air Marshal Sir Alfred Earle, K.B.E., C.B. This committee is co-ordinating plans to provide the furnishings and adornments for all three churches. Donations will be most gratefully received by the Honorary Treasurer of the Embellishment Fund at Royal Air Force Halton. Donors may, if they desire, indicate which church they wish to assist; otherwise donations will be divided between the three.

The names of all contributors will be displayed in a "Book of Donors" in each church.

The organisers of the appeal hope that all who have served at Halton, and, indeed others, will help them to ensure that the churches are furnished in a manner worthy of the traditions of Halton.

Rendezvous in Russia

This is the first of three articles by a former R.A.F. officer who graduated from Cranwell in 1927, and was sent to the U.S.S.R. in 1941 to supervise the reception and distribution of British aircraft and equipment to the Russian front.

As events turned out he led an Alice in Wonderland existence from the time he embarked in Scotland until he returned there by flying boat nearly a year later.

PART I JOURNEY TO RUSSIA

We assembled in an hotel somewhere in Scotland in a "cloak and dagger" atmosphere, in which we regarded all females as possible "Mata Haris" and all males as "enemy agents," to embark for the Soviet Union, at that time taking a tremendous hammering from her erstwhile allies, the Huns.

Our ship was a shock. Long in the tooth and decidedly trampish in appearance, she was built for the West Indies trade. Part of her had been hastily converted to carry troops, principally Polish Air Force personnel being released from Russian prison camps, and she was scarcely suitable for "skylarking" in the Arctic Circle and North Russian winters. So, our enthusiasm dampened somewhat, we went aboard — up a rope ladder, a nerve-shattering exercise for uninitiated landlubbers, as there was a swell on at the time — and I, as the senior officer on board, walked straight into trouble.

The captain, that rarest of creatures, a humourless Irishman, sent for me as soon as my nose appeared over the side to tell me a thing or two. "Colonel," he said (actually I was a wing commander, but the formation of the R.A.F. in 1918 had obviously passed him by), "As the senior military man in this ship you will be responsible for its defence if we are attacked and what's more you will be in charge of the civilian passengers. I'll have no truck with ruddy civilians." All this in a rich fruity brogue! No doubt he preferred carrying bananas which couldn't answer back!

As he had just come aboard and obviously had a lot on his mind — including his shore-going bowler hat which looked rather odd with his gold laced jacket — I didn't stop to argue that the defence of his ship and

ruddy civilians weren't in my brief either, and left the bridge to have a look at the civilians and later to delve into the mysteries of defending a ship against all comers. A distinctly new experience for me!

In the saloon a "free for all" was in progress. A newspaper correspondent, slightly one over the eight, three Russian couriers and an ambassador, newly appointed to the U.S.S.R. by a foreign power in exile in Britain, his military attaché and his secretary were all shouting the odds about the accommodation. It was lousy; there wasn't enough of it; they had been promised cabins to themselves, (by some "clot" in the Foreign Office); the British were cads and what was I going to do about it.

I realised that a strong line was needed from the very beginning and told them it was nothing to do with me; this was a banana boat and not the Queen Mary; and that as I, as O.C. Troops had to share my cabin with two others, and there was a war on, I really couldn't care less. Much to my surprise not another word was said.

In passing, a word about the three Russian comrades. They were very grim, suspicious, stiff and correct, each with a bulging hip pocket — pistols not vodka — and throughout the month's journey to Archangel they took it in turns to sit on half a dozen large sealed diplomatic bags in their cabin. Later in the voyage one of them, in his cups, confided that they all contained tins of a well known brand of English tobacco for Comrade J. V. Stalin. We were learning fast!

In addition to the civilians there were a number of R.A.F. officers, the ship's doctor, an R.A.M.C. captain, known as the "brown doc." and an R.N.V.R. surgeon-lieutenant, known as the "blue doc." The newspaper type, who drank a bottle of whisky a day, and must have had the constitution of an ox, won most of the passengers' money at poker

before we reached our destination. Fortunately I didn't play!

After settling in the thirty or so troops, mostly R.A.F. technicians asked for by the Russians to erect Airacobra aircraft being diverted by us from our American contracts, I tackled the burning problem of the ship's defence. What I saw astonished me. Most of the equipment looked as though it was on loan from the Tower of London and ancient was the word. Bows and arrows wouldn't have surprised me after a peek at this lot and I sent up a fervent prayer that we would not be attacked on the trip.

On the credit side we had a Bofors "ack-ack" gun and a Royal Artillery gun crew, but that was all of note. For the rest we had a brass cannon polished to high heaven, (it could have been used against the Spanish Armada) mounted on the blunt end, and in charge of it a lugubrious Royal Marine corporal, a real old timer called up from the reserve, and he loved this gun as a mother loves an only child. He got very angry when I ordered its immediate camouflage and no more Brasso! I felt certain that to fire it would result in the stern being blown off with the shock! There was also a motley collection of ancient machine guns; a barrage balloon which we lost in a gale; and an astonishing contraption of rockets, with lengths of cable and a parachute attached to each, which, at the touch of a button would hurtle upwards and tangle up any low flying enemy aircraft — at least that was the general idea and my finger itched to press that button to see what would happen! Fortunately, we didn't go into action, which was probably just as well, as I am sure we would all have been bound hand and foot with cables and parachutes!

Our convoy of twenty-eight merchant ships, some destroyers and corvettes formed up off the coast of Ulster and it was not long before we were being heartily bucketed about in an Atlantic gale.

We had a considerable number of crated Hurricane fighters, some lashed to the deck, and others in the hold with some British tanks. Two of the latter broke loose in the gale and played touch-me-last until, at great risk, they were caught and battened down. It was a nerve-racking business listening to the ominous rumblings coming from below, and wondering whether they would go through the ship's side which

would have been "curtains" for us in that gale. One of the Hurricanes was washed overboard — one less for "Uncle Joe."

At Reykjavik in Iceland we took on water and refuelled, and with seven other ships, a cruiser and some corvettes of the Royal Navy set course for the Arctic Circle, taking care to keep out of range of enemy aircraft operating from Norway. In Iceland we were presented with a crate of comforts, supplied by some generous Mothers' Union in England: beautifully knitted sweaters, stockings and some magnificent underwear, mostly combinations. Unfortunately the kindly donors had slipped up over the sizes: instead of using a blown-up "Arthur Askey" as their model they must have used "Carnera" instead, because, although a six-footer, there was almost room for two in my issue of combs! Nevertheless I was very glad of them when we reached Russia.

Our journey through the Barents Sea was uneventful, apart from keeping the peace among the passengers, although we had a few submarine scares which had our escorts scurrying around like terriers after a rat. Our cruiser, H.M.S. Belfast I believe, put in some gunnery practice and taken by surprise we thought we were in for something. It was comforting to have such a powerful box of tricks looking after us in those vast wastes of sea, with heaven knows what snooping around to stop us getting to our destination. Fortunately it was dark day and night at that time of the year which made it more difficult for the enemy, but later convoys, such as the ill-fated P.Q.17 suffered some terrible casualties and I take off my hat to the men of the Royal and Merchant Navies for the great work they did on that dreadful northern route. As it turned out, the Russians were not one whit grateful for their efforts and took everything as their just due. It was the Politburo's policy to give the Russian people no inkling of what was being done for them by the hated foreigners.

The beauty of the Northern Lights was a sight to see, as they played weird tricks of reflection on the clouds and partially frozen sea. In the middle of the White Sea it was startling to hear the heavy packs of ice shake the ship as if it had hit rocks, and it was here that we met were by the icebreaker "Joseph Stalin," then the world's biggest. It was fascinating to watch her cut the way through, as we trailed along like sheep behind her.

A day or two later, across vast areas of flat snow and deep shore ice, appeared the skyline of Russia and there was a buzz of excitement throughout the ship as we were shepherded to the port of Molotovsk, built out of a wasteland of swamp and tundra, some thirty miles north of Archangel. Little

did we realize, as this hitherto forbidden country came nearer, what we were in for, and that we were to be horrified and sickened by the appalling brutality, ruthlessness, soullessness, and squalor of the communist system as practised by the Union of Socialist Soviet Republics in 1941.

VISITING N.A.T.O.



On Tuesday 14th August, 1962, a party of 7 officers and 39 flight cadets of No. 82 Entry left Cranwell in an Argosy of Transport Command on the start of their annual visit to N.A.T.O. formations and units in Europe, to the Headquarters of Allied Air Forces Central Europe, and S.H.A.P.E. in Paris.

The first stage of the journey was to R.A.F. Laarbruch, where there was a welcoming address by Squadron Leader Ramus followed by a cocktail party in the evening. The next day the party split into four groups for a tour of the station. After addresses by the Station Commander and Wing Commander Operations, the four parties were shown round the Operations Centre and the three squadrons stationed at R.A.F. Laarbruch.

As the station covers a wide area and transport from one squadron to another took some time, this programme lasted for the whole day.

The following day, the party was taken on a tour of the technical wing, which included M.T. depots and armament workshops, and later in the morning, a tour of the excellent facilities provided in the Airmen's Mess. After lunch, two trips by coach to either Arnhem or Nijmegen, over the Dutch border, were organised, both of which were thoroughly enjoyed.

On Friday 17th August, the party was once again divided, this time into two groups for visits to the Tactical and Strategic Oper-

ations Centres, which were some 30 miles from the station. Here general briefings were given about the functions and tasks of each centre, but, due to security classifications, it was impossible to obtain answers to many of the questions asked. After an extensive tour of both centres, during which the inter-allied co-operation between British, Dutch and German officers was self-evident, the party returned to R.A.F. Laarbruch. The evening was one not easily forgotten by many people, as an excursion to Düsseldorf had been arranged.

The following day the party left, somewhat strangely regretful, for Paris in another Argosy of Transport Command.

During the weekend there were no organised visits and so individual members of the party were left to their own devices. As the weather was very hot, many people found their way to the excellent swimming pools beside the Seine, or to other places of interest. The general opinion was that the week-end had been well spent.

After the hectic week end and late nights, a sleepy-eyed party embarked in a bus on Monday morning for the visit to Headquarters, Allied Air Forces Central Europe. However, a welcome cup of coffee was provided on arrival at Fontainebleau, after which the opening address was given by the Senior R.A.F. Staff Officer, Air Commodore B. P. Young, C.B.E., R.A.F. He introduced the party to the other speakers, Wing Commander F. J. P. Haynes, R.A.F., Colonel H. G. Turner, U.S.A.F., and Lieutenant A. W. Gallion, U.S.A.F. Their subjects ranged from "Logistics" and "Air Defence" to "Offensive Operations." Once again security gradings prevented full answers to questions, but nevertheless, the morning visit was well worth while and most informative. A cocktail party in the Inter-Allied Officers' Club, and an excellent lunch followed. The afternoon's programme con-

sisted of a conducted tour of the historic Chateau of Fontainebleau. For the historically minded, this visit proved to be most interesting.

The last full day of the visit was spent at the Supreme Headquarters Allied Powers, Europe. After an opening address, there was a series of lectures entitled "Organisation of S.H.A.P.E. and A.C.E.," "S.A.C.E.U.R.'s Mission" and "The Problems of Air Defence." These were highly informative and were given by officers from the R.A.F., the German Air Force, and the Dutch Air Force. After these lectures, Air Vice-Marshal D. F. Spotswood, an ex-Commandant of the College, answered questions put to him by members of the party. Once again drinks and lunch followed, and then a visit was made to N.A.T.O. H.Q. at the Porte Dauphine, Paris. This proved to be one of the most interesting parts of the whole visit. A Portuguese Public Relations Officer gave an introductory address, which was followed by the showing of the film "High Journey," which is a documentary consisting mainly of air-to-air camera shots by the air forces of all the N.A.T.O. countries. The general opinion was that this film was one of the best documentary films ever seen. There followed a general briefing on non-military aspects of N.A.T.O., in which the speaker underlined the problems of N.A.T.O. and the way these are being overcome. He also stressed the tremendous co-operation between all member countries and this was the most reassuring fact which emerged from the lecture. After a period of discussion and questions the party left, most impressed by the whole day's programme.

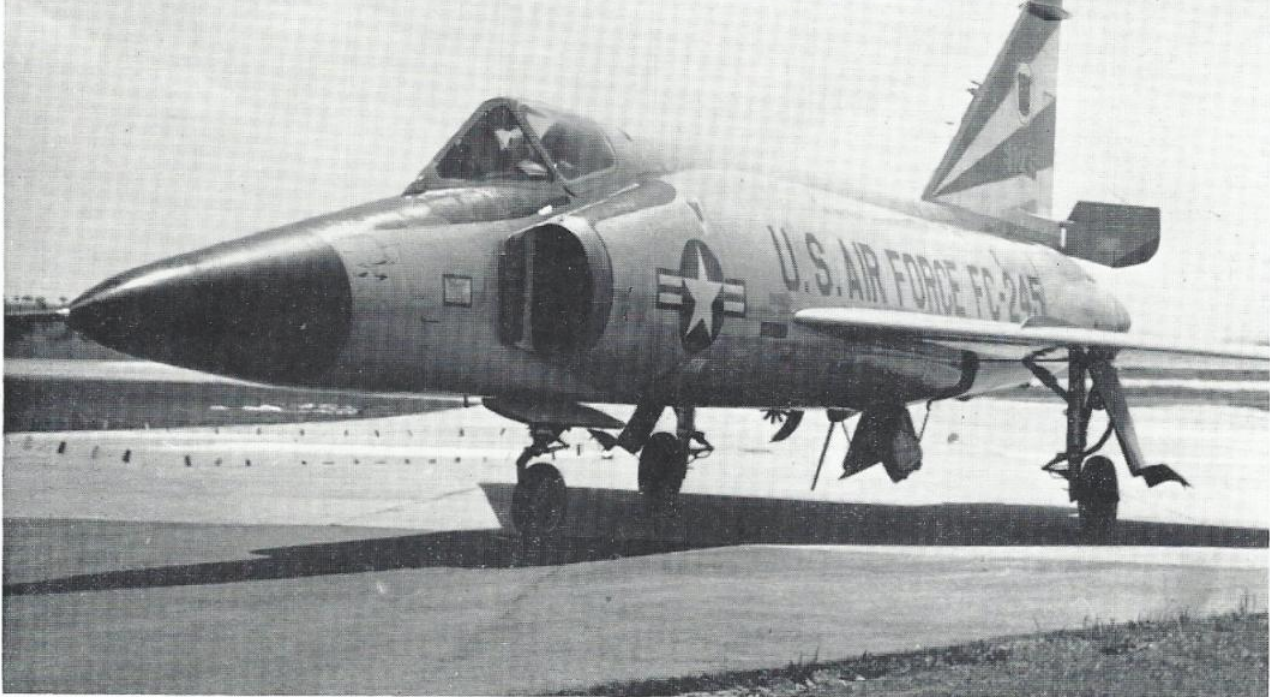
The next day, the 22nd August 1962, the party embarked in an Argosy once again, this time on the homeward journey. Without doubt, memories of this interesting and instructional visit will long remain in everyone's minds.

VALE

We take this opportunity of saying farewell to Flight Lieutenant C. G. Dodd who has been posted to Akrotiri. Charles Dodd came to the College in March, 1958 as a tutor in English. During his stay, he contributed handsomely to the work of the Drama Group and characteristically to that of THE JOURNAL, serving as

Managing Editor for the last three issues. In Cyprus, he will be working with Squadron Leader D. Nabarro, his predecessor as JOURNAL Editor. Perhaps Akrotiri will give him scope to further the cause of litterae humaniores and a chance to modernize his Greek.

WHEELUS



Wheelus Air Base lies on the sunny Mediterranean coast of North Africa, in the province of Tripolitania. The history of the Air Base goes back to World War II, when, known as "Mellaha" it was operated by the Italians as a fighter strip. Captured by the British in January 1943, it was handed over to the Americans in 1944. The U.S. Air Force kept Wheelus on its 'surplus' list until February 1948 when it was reactivated as a training base, and from then until now it has constantly expanded and improved.

Wheelus A.F.B. is probably the largest U.S.A.F. installation outside continental U.S.A. and is the home of the U.S. Weapons Centre (Europe). The primary role of the base is to provide and supervise a programme of weapons proficiency training designed to keep the American tactical units in Europe combat-ready at all times. Gunnery, rocketry and bombing are all practiced by the various squadrons which visit Wheelus on a rotational basis.

Amongst the interesting combat aircraft to be seen at Wheelus are included the F.100 Super Sabre, the F.101 Voodoo, the F.102 Delta Dagger, and the F.105 Thunderchief.

After nearly a year's preparation mostly consisting of obtaining various official

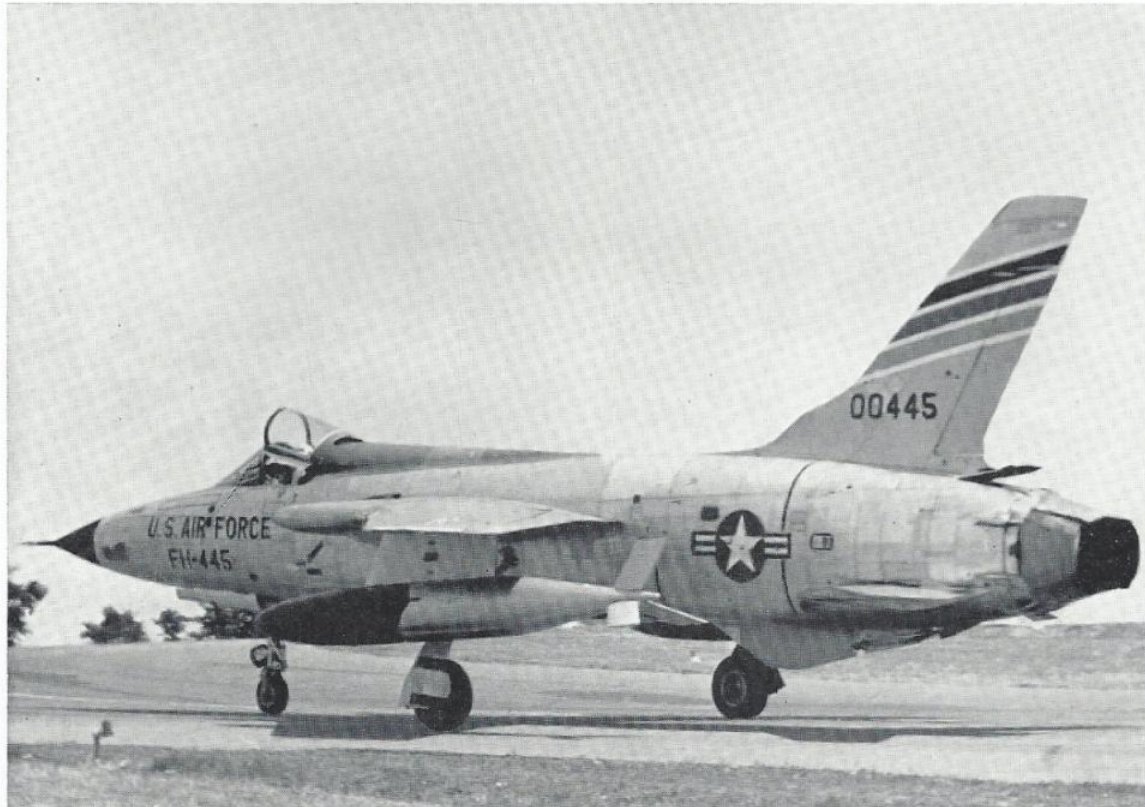
sanctions, a trip to Wheelus was finally arranged, and three flight cadets made the visit.

We had left the sunset at 15,000 ft. and descended warily into the African night. The landing was another good one following the example set at Bentwaters, Bitburg and Hahn on the journey down. After clearing the runway, the door of the C.130 was opened and we stepped into the heat of the evening. Lights blazed everywhere; in brightly lit hangars we could see groups of men working on the hunched shapes of Super Sabres. On the horizon vague silhouettes of palm trees rustled in the hot Mediterranean breeze.

We soon met our host and after a lightning tour of the base — reminiscent of a Saturday night in Piccadilly, we were installed in our quarters. The immediate action was "Fans — ON!" and a quick strip out of our clinging clothes, then a shower and so to bed. The official programme for our visit, we were told the next morning, would not start until Monday and so we had four days in which to relax. Our American hosts flung open the base to us, even issuing us with 'AFEX' tickets, enabling us to purchase amongst other things cigarettes at 8/- for

200 ! The beach was straight out of a Hollywood South Seas production, with golden sands, a pavilion selling iced drinks and an at first frighteningly hot sun. Taking advantage of this aerial phenomenon, we basked on the beach for the first two days. On the third day we visited the town of Tripoli, five kilometres from the base. The town is in two parts, the old and the new, domes, minartes and arcaded structure, in the Arabic style, are found in close proximity

On Monday morning we awoke to the reverberations of Thunderchief afterburners, and this set the tone for the remainder of the visit. After reporting to Headquarters, we started our tour with a visit to the Base Radio and T.V. station. This service is of great value as a morale booster, and Radio broadcasts are available 18 hours a day, and T.V. nine hours a day. After we visited the Rescue Organisation, which is fitted in with the U.S. Space Programme, for the recovery



to ultra modern villas and striking new office buildings. In the 'old city' we waged a verbal battle with a small Arab boy over the best price for a silk stole for an hour before beating him down to half price.

On Saturday evening we attended a very cosmopolitan party, given by the O.I.C.A. in Tripoli. With a Spanish guitar strumming in the background, and with soft lights playing over the tables in the garden, we could have been in a villa in Madrid.

On Sunday we visited the Lido, an Italian bathing beach near Tripoli, where plump Italian girls lazily sunned themselves, and twisted languidly to a gigantic juke box.

of manned space capsules. This service is vast in extent, covering the whole of the Mediterranean and Northern Africa, and stretching to Pakistan as its eastern fringes. The afternoon was spent visiting 'Flight Operations,' and there we met a very personable group of pilots, all very keen to show us all we wished to see. This, the only squadron permanently at Wheelus, is primarily engaged in target towing using F.100C. Super Sabres. The visual target is a wood and aluminium 'dart,' and the other is a smaller radar target, the 'Delmar.' The Super Sabres fly a radar course at altitude and high mach number, and F.102's are

vectored on to them by ground radar until they 'lock-on' with their own. We watched such an operation from the base radar station, then returned to the crew room for drinks all round.

The next day was spent visiting Tactical Operations where all the tactical fighter units are co-ordinated in their use of the ground range. Included was a visit to a F.102 and F.105 Squadrons. With a demonstration radar unit we picked up aircraft in the circuit and locked on to them. The pilot has two control columns, one controlling the aircraft, the other controlling the scan position of the radar dish in the nose. The Thunderchief was next, and we were most impressed immediately by the size of it (larger than a Wellington). The single pilot is flying one of the most complex weapons systems today, and is one of the few fighter pilots with a bomb-bay. With super-simplified instrumentation, and navigation equipment the pilot's task is made relatively simple on a super complex aeroplane. After a long period discussing the aircraft we were taken to a security shrouded missile assembly and testing plant. Many of our rather searching questions about the missiles' performances (amongst which were included the 'Sidewinder' and 'Bullpup') were skilfully avoided by the sergeant in charge.

On the third day of the guided tour we boarded a Hillier twin-rotor helicopter, and took off for the range about fifty kilometers away. This proved a most enjoyable ride, since it took us over the Mediterranean, through which the sea bottom could be clearly seen, and the fringes of the Sahara. After an hour's flight we dropped down to the tiny group of huts comprising the living quarters for the range party. The men here seemed to enjoy themselves immensely, and were helped by complete air-conditioning to combat the average 120 degree heat. The targets consisted of large canvas screens for strafing and skip bombing, and hundred-foot concrete pillars for bombing. Three symmetrically placed towers enabled an accurate triangulation to be made of each

smoke marker as it was dropped, and scores for each pilot compiled.

After a quick lunch, the afternoon session started. We watched from the main centre tower as a flight of Super Sabres initiated their bombing runs with steep dives from about five thousand feet. The bombs used are 3016 smoke bombs which bury themselves up to 12 feet in the desert sand. The target, one of the concrete pillars, was surrounded by hundred-yard concentric rings bulldozed from the desert. After this, a high speed strafing from forty-feet, followed by L.A.B. done with a high speed run 'on the deck,' a climb 'on burner' above the target, a roll off the top at height, and then in complete and eerie silence, thirty seconds from the initiation of the pull-up, a puff of smoke appearing close to the target. As soon as the F.100's had disappeared, a group of F.101 Voodoos hustled in for strafing runs, followed almost immediately by five F.105 Thunderchiefs. The Thunderchiefs repeated what the F.100's had done, and added a parachute-bomb drop as an extra — this being yet another method of allowing the attacker to escape before the supposed nuclear weapon explodes. The strafing with their Vulcan six-barrelled rotary cannon was particularly impressive, and for spectacle's sake alone it seems a pity the F.105 is being superseded by the F.110 Phantom.

With the desert on both sides of us still being 'filled with lead' by the F.105's we took off again and flew back to Wheelus, much impressed with the day's proceedings.

That evening we made arrangements for our trip back to England, reluctantly however, for the trip had been a great success, both as a vacation, and as an eye-opener both to the U.S. Air Force and the American way of life.

As the C.130 left the following day, climbing over the Mediterranean, we knew we were leaving behind both an outstanding military unit and for us a very memorable experience.

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On 15th October, Mr. A. A. Lombard, a representative of Rolls-Royce, Ltd., visited the College to lecture on VTOL aircraft and created considerable fresh interest in this subject. His firm has now released the following story of some recent flight trials of this revolutionary aircraft.

BALZAC PROTOTYPE VTOL AIRCRAFT 1962 FLIGHT TRIALS

The concept of V/STOL propulsion has been convincingly demonstrated in the recent flight trials with the Marcel Dassault Balzac prototype VTOL aircraft powered by a bank of Rolls-Royce RB 108 lightweight lift jets. The rapid progress achieved by the Balzac reflects both the fundamental simplicity of these lift jets and the confidence of Dassault in the aircraft's multi-jet lift system.

The Balzac completed its first tethered hover at the Melun Villaroche Flight Test Centre on October 12. Six days later the aircraft, flown by Dassault's chief test pilot, M. R. Bigand, made its first free hover. Within three weeks of the first lift-off the Balzac had ascended to 50 ft. (15 m) and had been flown horizontally forwards, backwards and sideways, including forward jet-borne flights up to 550 yds. (500 m) in distance.

M. Bigand's previous VTOL experience included eight jet-borne flights in the Short SC1. The pace at which he is taking the Balzac through its flight trials is an indication of the excellent performance and stability of the aircraft and of the high degree of control afforded by the rapid response rate of the small lift jets to throttle movement.

It also exemplifies the pilot's confidence in the inherent safety of the composite power plant system. This stems not only from its use of multi-lift jets but also from the fact that the air for the aircraft stabilising jets is bled from each of the lift jets rather than from the main propulsion unit as with the single lift/thrust engine system.

On the ground the Balzac's lift jets are started using air bled from the propulsion engine, and when airborne by the use of ram air via the retractable intakes.

The Balzac is the forerunner of the production version of Dassault's new VTOL strike aircraft, the Mach 2 Mirage III V. With this aircraft, Dassault has been able to take full advantage of the small dimensions of Rolls-Royce latest lift jet, the RB 162 and give V/STOL capability to the Mirage fighter, one of the most proven Mach 2 combat aircraft in service today. This flexibility of application is a prime feature of the composite power plant system.

The Mirage III V, which is to equip the French Air Force, is scheduled to commence flight testing next year. It will be the first supersonic VTOL aircraft to fly.

OPERATION 'POP'

Blowing one's own trumpet is a military virtue which has outlasted the trumpet itself. At a time when all three Services are losing to the barbaric civilian hordes in the desperate battle of recruitment, it is not surprising that furious propaganda assaults are made on the eyes and ears of the civilian population. In this attack, the Army has just lost a major weapon. To compete with Naval hornpipes and sirens (foghorn-type) and Air Force sonic bangs and Jet Provost bellows, the Army relied heavily on the well-tried genuine British all-leather boot hitting a parade ground. But the boot, one of the big guns in the recruitment drive, has now been silenced by the introduction of rubber soles and heels. And great was the wailing and gnashing of teeth in the War Office when they found out what they had done. A replacement for the boot had to be found, and quickly—and as a result Operation Pop was born.

Operation Pop was originally conceived as a propaganda campaign which would also provide constructive employment for the Army's ten thousand bandsmen and P.T.I.'s. The idea was to present a public image of the Army as a really hip collection of kool kats. The programme was to include a series of jazz festivals and all-night hops, backed up by an intensive plugging campaign of Army bands and suddenly-discovered pop singers on Radio Lux. Although War Office opinion was unanimous that the scheme could not possibly be anything other than an instant success, it was decided that a small-scale pilot campaign should be run first. The time and place chosen for this was the Edingurgh Tattoo of 1962, and the signal for the start of the campaign was to be the band striking up a Twist tune. To the utter amazement of the Powers-that-be, this pilot scheme was a failure. Angry colonels wrote to 'The Times' about this "betrayal of the finest traditions of the service," police had to be called in to save a man who tried to defend the Twist at the Eistedfodd and the Cornish Democrats held a twenty-four hour vigil outside the Exeter recruiting office. In other words, public opinion with one voice condemned the idea of a twisted Army. Not without regret, the scheme was shelved.

While however news of the Army's intentions had leaked down Whitehall to the Air Ministry, a conference was hurriedly called to discuss counter-measures, and Operation Gran'pop was born. It was obvious to the Psychological Warfare Department that the Army trick cyclists had, in typical fashion, grabbed firmly at the wrong end of the stick. The Army's mistake had been to try to adapt a civilian custom to military use. The Air Force, with its customary subtlety, would go two better, by making civilians adapt a military custom to their own use. When that had been achieved, they would be ripe for mass enlistment.

A planning staff of over two hundred was kept busy for a year in modernising and popularising the 'R.A.F. Manual of Drill and Ceremonial.' The results were well worth the effort. Steely Tom, for instance, sings:

"I'm gonna march right round that square
tonite,
I'm gonna march, march, march, left
foot, then right,
When I'm told to halt,
Turn into line,
Oh, how my boots are gonna shine,
As I'm marching round that censored
square tonite."

The piece de resistance, the dance which was to sweep the nation, was rendered by Deaf-Aid Smith and his Kingsley Trio:

"Feet at 45 degrees,
Legs quite straight, no bend at knees,
Fingers touching trousers seam,
And no daylight to be seen
Tween arms and body, head upright,
Chest out, reaching your full height,
Woe, Woe, Yea, Yea, !
And I suppose I'd better mention,
This crazy dance is called 'Attention'."

As one might well have predicted, Air Ministry had turned out a winner. Professional advertising agencies were quite outclassed, and telegrams of congratulation poured into Whitehall. There was, admittedly, one tiny flaw in the execution of the campaign, but this is being put down to inexperience and Air Ministry hope that their next campaign will raise another hundred thousand recruits—this time for the Air Force.

Turkish Delight..?

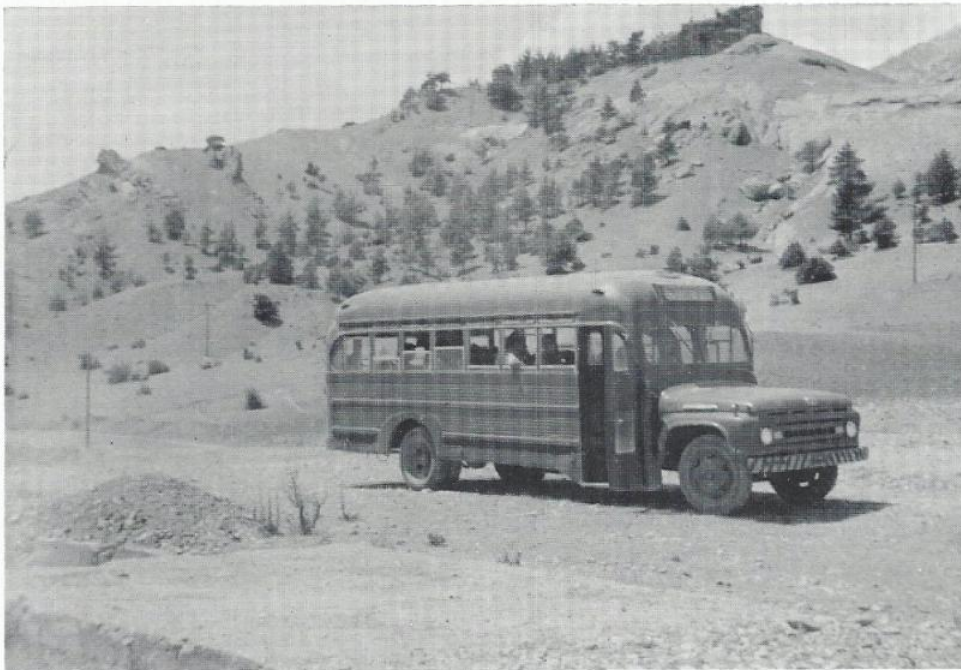
What does this title evoke in the average mind? Is it a picture of veiled dancers, or is it of magic carpets flying with nonchalant ease? Frankly I do not know! Nor do I know what could prompt any normal human being to embark on a climbing expedition to Turkey — a country which today is still shrouded by a mysterious past. It could, I suppose, be curiosity — but let us not forget that curiosity killed the cat. Yet, here is someone who has trodden many weary miles over the rugged Turkish massif, and still lives to tell the tale.

What is modern Turkey really like, and how does it compare with the relatively advanced Western civilisations of today? This is indeed a tricky question; for the history books tell us that Turkey lies at the cross-roads of history, from time immemorial torn by political and social strife. Today, many strong Western influences can be seen in the more civilised parts of the country, but even Ataturk could not change the face

of a nation overnight. There is inevitably still much to be desired of this rather under-developed land-mass, if it is to keep pace with the “giants of the century.”

The interior of Turkey embraces a kind of Central Asian Steppe — high, wide and barren — covered with snow in winter and scorched by the sun in summer. Reckless denudation in the past, mainly for war purposes, has stripped the terrain of any vegetation, giving it a stark and inhospitable appearance. Inadequate water supplies do not help to alleviate this general barrenness, and cause gross underpopulation. (It is interesting to note in passing that although Turkey has one of the highest birth rates in the world — 23 per 1,000 — the converse is also true).

Our destination was to be near Adana, the fourth largest city in Turkey; where the narrow, coastal plain broadens out beyond the city into the Plain of Cilicia. Here we find some of the most intensively



*Into the
mountains by
U.S.A.F. Ford*

worked land in the whole of Turkey. Being a sub-tropical region, tobacco, cotton and fruits of all descriptions are plentiful. There is also much large-scale agriculture, carried out by a lowly, peasant class. Yet education is rare, even non-existent in many places, and illiteracy has given birth to a dismal feeling of complacency.

After a hair-raising, fifty-minute flight from Cyprus to Turkey on "Turk Hava Yollari," (or in layman's terminology Turkish Airlines) we were convinced that their pilots must be Kamikaze-trained. Our alarm was made even greater by the knowledge that they had taken off some fuel, in order to accommodate our excess baggage. Needless to say, we were all quite relieved to find ourselves on terra firma once more. Perhaps this was why we were surrounded by local journalists and pressmen, intent on taking flash photos of the party and making objective, journalistic enquiries about our intended expedition. With some difficulty we finally extricated ourselves from what could have become a most embarrassing situation — but not before we had all shaken hands with the grey-haired antiquarian, whom everyone assumed to be the editor of this particular journal, and promised him that we would all buy copies of the next edition.

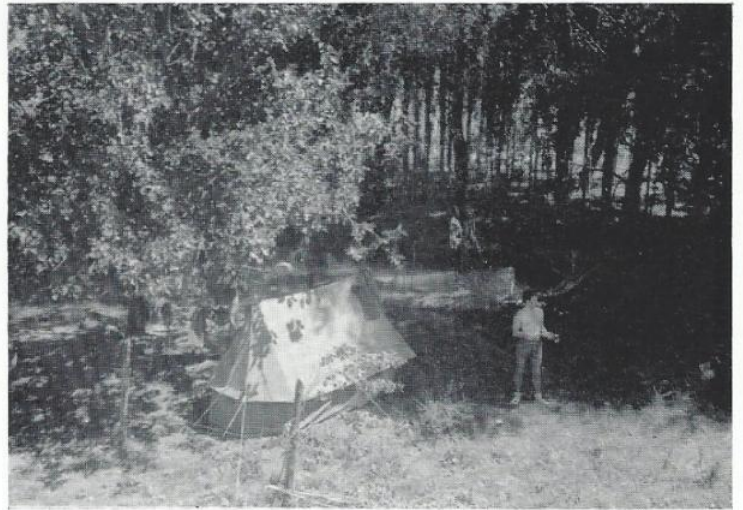
This was our first meeting with the Turk! Luckily, the U.S. saved us by having a luxury bus waiting outside the airport. Somewhat relieved, we clambered aboard to commence our long, 80 kilometre ascent into the mountains.

Although it soon grew dark and we were greatly fatigued, our guide and interpreter, together with his U.S.A.F. comrade, maintained an endless commentary for the entire journey. After a while, a polite, soporific nod was all we could muster in the way of response, and a pregnant silence descended upon the vehicle. Occasionally, we were awakened by the grunts and exclamations of the swarthy, Turkish driver, who himself found difficulty in staying awake at the wheel as the bus climbed unerringly up the tortuous, zig-zagging roads — but sleep soon overpowered us again.

We passed through the Cilician Gates, of Alexandrian fame, at about 0040, but we were not in a position to appreciate this very much at the time. As some of us peered out into the inky blackness, unable to discern any recognisable feature of this historic

landmark, we wondered who would be foolhardy to fight a battle in such a place — but yet it did happen!

We reached the town of Pozanti at 0230, and as the bus jarred to a halt there was a piercing whistle. The door of the bus swung open and in jumped a most curious fellow, dressed in beige-coloured uniform and sporting a magnificent pair of moustaches. In a cracked, falsetto voice he made it known to us that he was the local police force. When he heard we wanted to camp there, he immediately offered to wake the governor of the town and ask his advice. Before we could say anything to the contrary, he had vanished as mysteriously as he had arrived. Meanwhile we awaited his return in apprehension.



All right you flies—come and get me!

A few moments later he re-appeared, to tell us that everything was settled. A torch emerged from one of his numerous pockets, and without a word he rushed out in front of the bus, waving his light like an excited glow-worm. We followed blindly, but before we knew where we were, we found ourselves bogged down in a wide and fairly fast-moving river. "Either the fellow is mad, or he is a practical joker!" was the unanimous verdict. But the 'one-man police force' carried on unperturbed. After he at last realised that we were unable to move any further, he bade us a polite good-night, and disappeared. Next morning, we could see what really happened and we laughed uproariously. Before long we had set up our tented camp,

and the U.S. bus had departed. At first, the site seemed ideal, but it was not long before we found a large number of difficulties in being out in the open.

Insects — such as mosquitoes, flies and giant red ants — seemed to rejoice at our arrival, and swarmed round us in myriads. Our only remedy was to keep moving, but, as soon as we abandoned the shade afforded by the maple trees around the camp site, we encountered our worst enemy — the sun! Even at 5,000 feet the heat was unbearable. Whatever climbing we did had to be confined to evening or early morning. At other times, the bare, bleached-white mountain slopes offered no protection against the fierce down-beat of the solar system. Various parties would return to base completely exhausted, only to languish in subdued silence — a prey to the wiles of the insect community. This self-inflicted agony was perpetuated for some time, until everyone was affected in some way or other; most people just lay down to sleep, but one or two developed a sudden passion for locking themselves in tents with giant lizards of dubious origin, merely to take some imaginative and unique photographs.

When we were not climbing, we had several opportunities to see and meet the local populace of Pozanti. We were usually highly amused by what we saw; inevitably our entrance into the town would quickly bring us a vast train of inquisitive followers, either feeling the texture of our clothes, or gaping in awe as we bought a mere half dozen water melons, or a glass of iced "limonata." It was here that we were well able to survey this curious mixture of races at our leisure. The majority were swarthy, dark-skinned individuals, who wore ridiculous caps, bright-coloured shirts and generously baggy trousers.

After a time, we became quite blasé and spoke with them in pidgin-Turkish. This situation inevitably drew many laughs from both sides, and here we discovered the friendly side of their character. Yet this friendly atmosphere could be quite superficial, and one had the impression that it would only last as long as one's money.

The great mystery still lies, where it has done for centuries in the Middle East, with the female sex. They seem to lead a very sheltered existence, for we could count on our fingers the numbers of women whom we saw in the town in our short stay there. This, in a way, reflects the Turkey of old — where the woman played a very minor part in life, but had a more exalted position than her counterpart today. Modern Turkey is without doubt a man's domain, with its past history and tradition jealously guarded by often such small communities as that of Pozanti.

What binds this nation together more than anything is its old established religion. Everywhere one goes, rather ostentatious minarets can be seen towering above the most humble roofs.

Time passed too quickly for us. Our return journey was made in the daytime, and now we could see and appreciate the scenes we had missed before. Anyway, although the bus blew up 35 km from Adana, typical U.S. efficiency enabled us to reach the city in good time to book rooms at the "majestic" Santral Palas (nicknamed "Sanitary Palace").

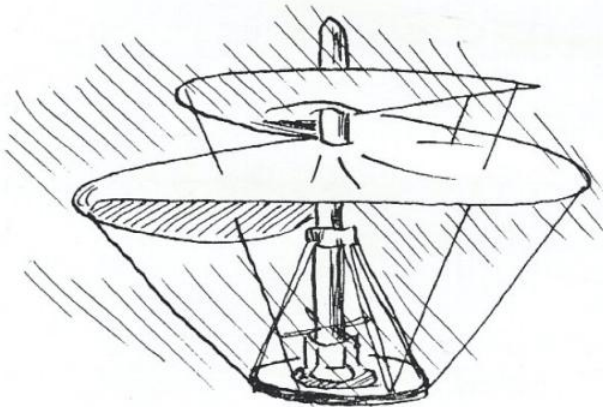
The time for departure had come at last. Although we had to pay 10 lira each to leave Turkey, we took with us a lifelong memories of its people and its culture.

The hardest thing to understand is how Turkey, once such an omnipotent and rich Power, has declined, and one remembers the lively curiosity and friendly disposition of the people in the Turkey of today. How much will the situation improve in future years? Anyone can hazard a guess. At least, some of us have benefitted from our brief insight into the Turkish mode of life, and will take a keen interest in its future developments.

Their food is very simple, consisting mainly of 'heavy' bread and the well known 'shish and doner kebabs' (slivers of lamb with various garnishings). They drink large quantities of "ayram" or yoghurt, and tea is also very popular as an appetiser.

WORLD THE IN UP GOING

Five decades ago people laughed at the “maniacs” who foresaw heavier-than-air flying machines. How loud the laughter must have been when Leonardo da Vinci suggested the helicopter — nearly five centuries ago ! But nothing could have been more serious or carefully planned than Da Vinci’s corkscrew helicopter. In his own words :—



“ I say, that if this instrument made with a helix is well made, that is to say, of flaxen linen, of which one has closed the pores with starch, and is turned with great speed, the said helix is able to make a screw in the air, and to climb high

Unfortunately this machine was never constructed, let alone test flown. In fact, it was not until early in the 20th century that the Frenchman, Breguet, managed to get off the ground in a helicopter he had designed himself. In Denmark Ellehammer produced the next successful ‘screw-plane’ as they were then called. Unhappily, both these gentlemen met so many difficulties, and so little encouragement, that they gave up their ideas for the time being.

At about the same time Sikorsky — a Russian — was having moderate success. It was not until he fled the Russian Revolution and went to the U.S.A. that his ideas were fully developed. De Bothezat, one of Sikorsky’s countrymen, also emigrated to the U.S.A. and continued his helicopter research. De Bothezat produced a monster machine, capable of lifting four men clear of the ground. Spain also offered her contribution in the form of Juan de la Cierva’s autogiros which had considerable success and were built in conjunction with a British firm.

Of all these aspiring designers it was Sikorsky who finally designed and produced the first practical helicopter. For the first time he showed the world a machine that took off and landed straight up and down, hovered, and flew forwards and backwards. This was a great breakthrough and very deservedly, Sikorsky gained the first helicopter pilot’s licence. The evolution of the helicopter followed quite naturally to give the high performance craft of today.

Basically there are two approaches to the problem of rotary wing aeroplanes. The first, and most usual, is to use an engine to turn the rotors. This provides lift, and by tilting this lift vector there is a component for propulsion. In this case the gyroscopic effect, (making the machine revolve), must be counteracted by either (a) using a counter rotating rotor or (b) using a tail rotor. The second approach is rather unorthodox, but nevertheless, equally valid. This

approach involves a free rotor to provide lift, with an engine to provide direct propulsion. The forward speed of the machine 'windmills' the rotor which creates the required lift force.

The first approach has been followed resulting in the conventional helicopter. And now, after a long period of stagnation, the autogyro principle is at last being applied to a practical craft. At first sight it might appear that an autogyro simply means making a rotor which will

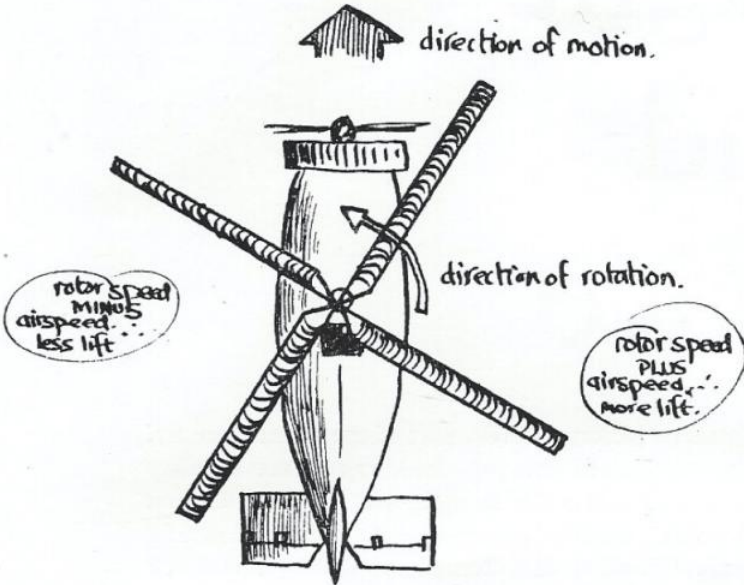


fig. 1.

pitch to provide lift forces that are in equilibrium. In this case, where there would be no positive pitch control on the rotor blades, the craft would have to have small ailerons to provide lateral control. However, the problems do not end here and provision still has to be made for the stresses that the rotors must withstand. The effects of these stresses are illustrated in Fig. 3.

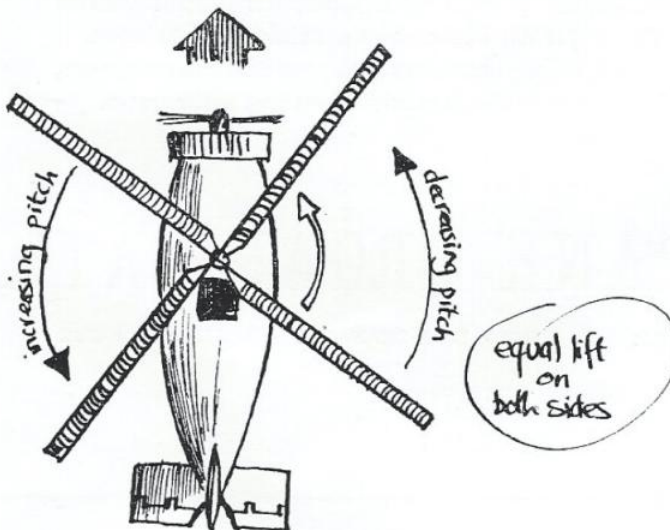


fig. 2.

windmill freely, mounting it on some frame with means of forward propulsion and hey ho—off into the wild blueyonder. Not so!—

A fixed rotor would give more lift on one side than the other (Fig. 1), which would result in a wallowing flight path. The obvious answer to this problem is to decrease the lift produced on the forward going rotor blades, or to increase the lift on the rear going blades. To do this a change of the pitch of the blades is necessary as they rotate.

This variation of pitch could for example, be as much as 3° to 18° . It is possible to construct the rotor head in such a way that the rotor blades will automatically adopt the correct angle of

To understand fully this concept of aeroplane it must be remembered that the rotor replaces the normal fixed wing. Therefore, because the autogyro needs very little forward speed to maintain lift from the rotors, this machine can hover at virtually zero forward speed. A 'glider' version could quite easily be constructed. This craft would incorporate a free rotor and simple elevator, aileron and rudder controls. Tubular steel construction, canvas covered and wooden rotor blades would be adequate. By towing the 'glider' autogyro behind a car, sufficient speed could be reached to lift the machine high when

Flight and Space

If you traced the origin and history of every part of the aircraft you fly, of the missiles which are planned and produced, and of the ancillary equipment and devices employed today in flight and space travel, you would find that considerable contributions are made to their development and production by the Divisions and Companies within The Rank Organisation.

Surface-finish, roundness, straightness and other important measurements to very high degrees of accuracy are obtained by Taylor-Hobson instruments. Lenses and optical systems designed and perfected by this same Division are known throughout the technical world.

Many aspects of flight-training are helped by the cinematograph and electronic techniques and devices developed by The Rank Organisation. Aiding technical development are the Xeronic Computer Output Printers ordered for use by The Royal Air Force and the Ministry of Aviation.

The Man-with-the-Gong, so long associated with your film entertainment, is gaining a wider significance in the realms of flight and space travel.



THE RANK ORGANISATION

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it could cast off and manoeuvre until it sank back to earth. Once the rotor system had been proved, it would be comparatively simple to mount an engine behind the pilot with a pusher-prop to give the craft its own propulsive power. Whether a glider or powered version, the autogiro is controlled in the same way as an aircraft with fixed wings.

There are obvious refinements to this basic outline design—such things as collective pitch control to replace the ailerons — but there is plenty of scope in the crude craft for an aspiring aeronautical engineer.

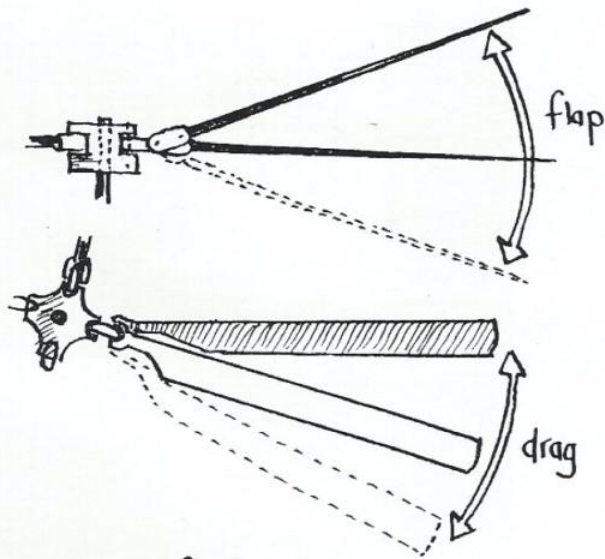
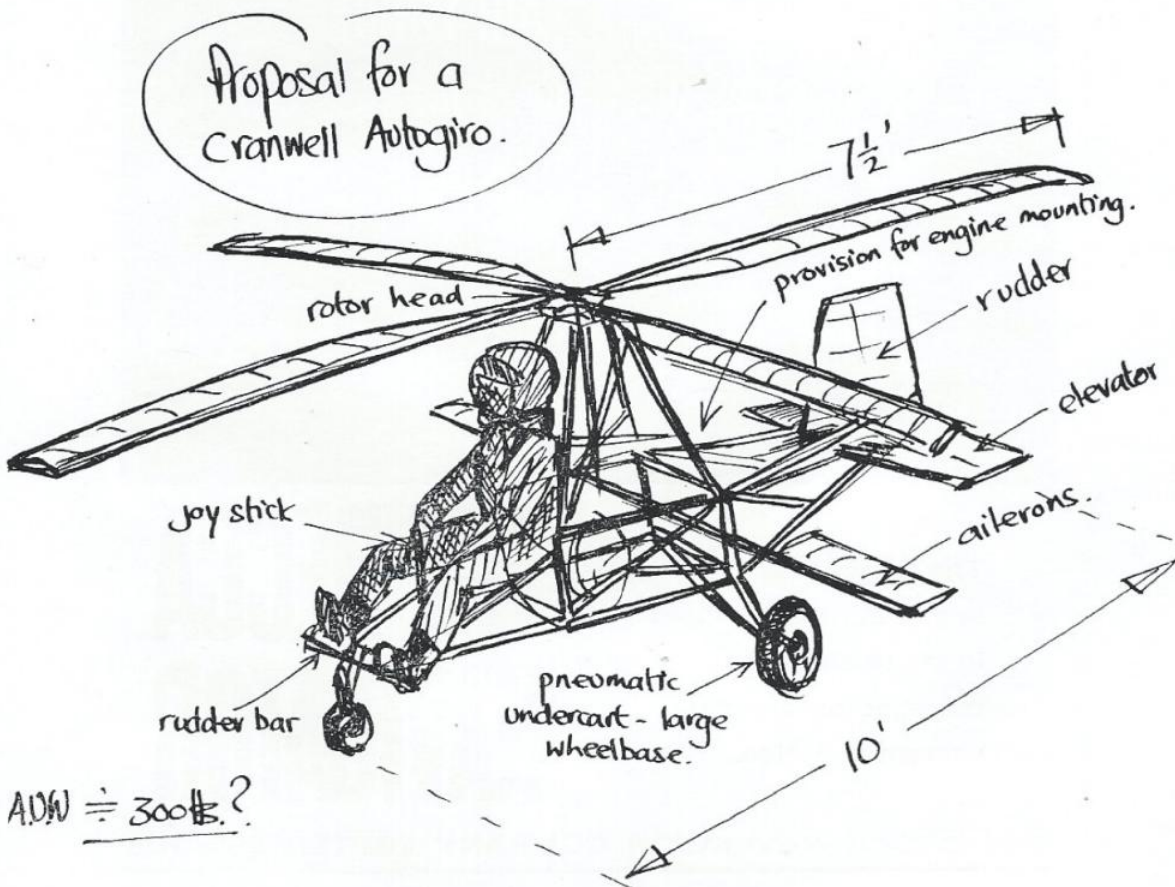
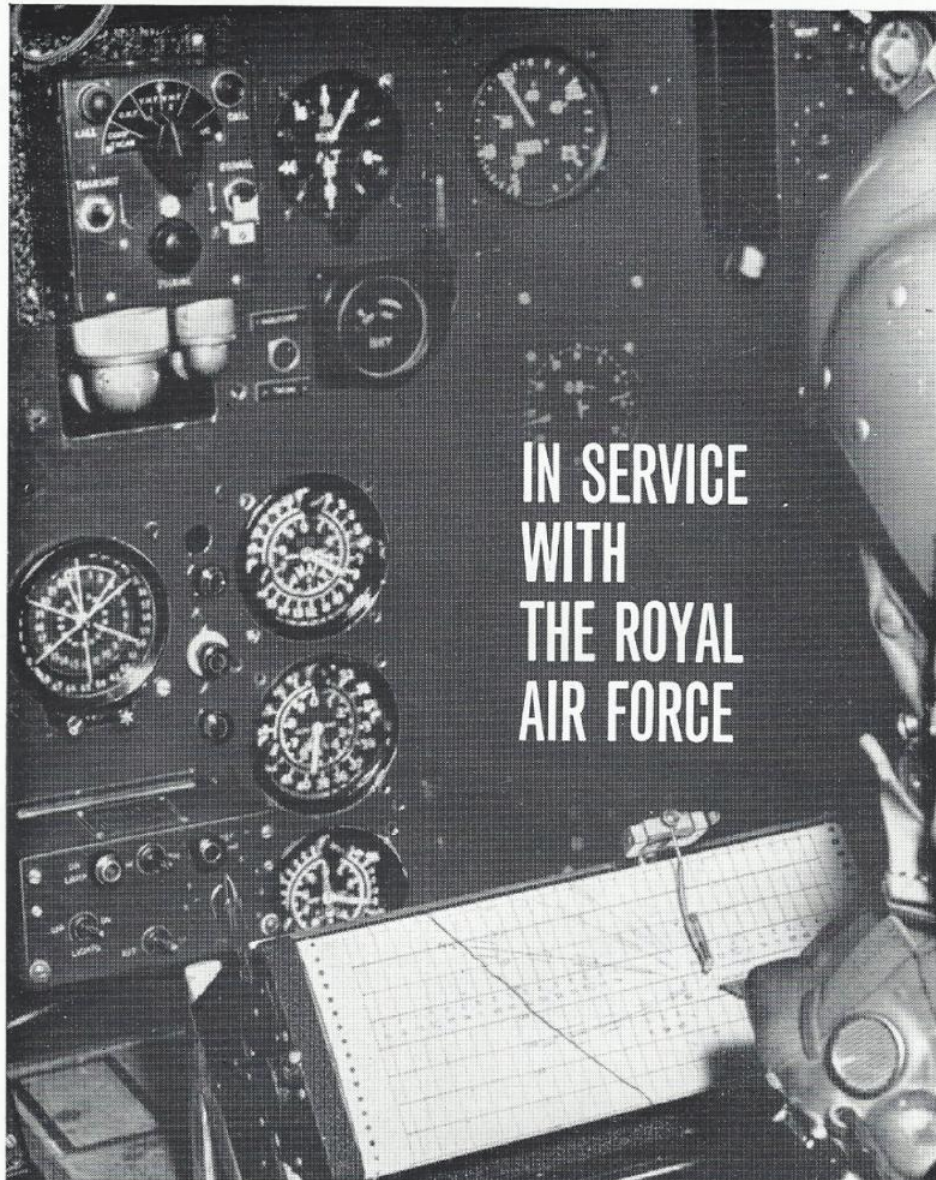


fig. 3.





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Knowledge Dispels Fear

The motto of No. 1 Parachute Training School at R.A.F. Abingdon forms the title of this article. For the second year, a party of officers and cadets from Cranwell, accompanied by two Halton officers and two Henlow cadets, attended a course at the school for two weeks in August.

The course opened with an introductory address by the C.O. of the school, when we learnt of what the course would comprise. There was to be training in exit, flight, and landing techniques, aircraft and balloon drills, and then four jumps, two each from a balloon and an aircraft. The first week was to be taken up with training, and the second with jumping.

The instruction began in earnest after this introduction, when the party was split into three sections, each section being placed in the charge of a sergeant instructor. Most of the training took place in a large hangar equipped with numerous strange devices, all of which were to become increasingly familiar as the week wore on. The greatest emphasis was placed, naturally enough, on landings, and the party was soon rolling vigorously on the coconut-matted floor. Once the basic series of rolls had been mastered, ramps, ladders and slides were used to simulate the last few feet of flight before the landing and commencement of the roll. The final stage of the indoor landing training came when we were introduced to a fearsome piece of equipment known as the "Fan." This was a platform some thirty feet off the ground off which we jumped, having, naturally, first attached ourselves to harnesses connected to a retarding device on the platform. This allowed us to fall, at roughly the speed of a live descent, to the floor, where one alternatively executed a perfect parachute roll or landed in a sprawling heap.

In between our periods of landing training, we spent several hours jumping out of dummy fuselages and swinging to and fro in harnesses suspended from the roof fending off imaginary fellow-parachutists, avoiding mythical trees and landing in numerous hypothetical lakes. A certain amount of time was spent in learning how to adjust and

fit parachutes, and that very important morale booster, the reserve parachute, was also demonstrated.

Towards the end of the week, we moved out of the hangar to the area where are situated two gigantic towers and an exit trainer. The Cranwell party did not use the towers, but we had our fair share of the exit trainer, designed to simulate the action of the slipstream when one jumps from an aircraft. One starts again at about 30 feet off the ground but this time the harness is connected to a steel cable which runs some 70 yards through the air. On jumping off the platform the victim is whipped along the cable performing several interesting gyrations before coming to a shaken halt at the far end. Another intriguing period was spent learning how to release oneself from a parachute which was dragging its user along the ground. At the time there was a high wind and several cadets were observed travelling at high speed along the ground cursing volubly and profusely as they fought to control a parachute which appeared to have assumed the character of a large and playful dog which wanted to go for a walk.

By the end of the first week the party was adjudged to be ready to jump. This was the signal for earnest and prolonged study of the weather, as there are strict wind limitations for parachutists under training. In fact the first jump was postponed with monotonous regularity from Friday afternoon until Tuesday night. At this stage there was some fear of our not being able to jump at all before the course ended. Wednesday morning dawned misty, but sunny, cloudless and still. The mist soon dispersed and this time there was no postponement. By mid-morning everyone had jumped twice. Everyone had asked himself what had induced him to volunteer (on the way up), and had appointed himself Hero, First Class (on the way down), and had walked off the dropping zone in an aura of self adoration.

After the bad weather of the past week, it was a pleasant surprise when Thursday and Friday both provided suitable jumping weather. The first aircraft jump took place

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EDUCATION. If you have or plan to have children, I suggest that you should safeguard their future. If you agree, I should be glad to discuss your problem and advise you of the best action for you to take.

SELECTION. There is a deal of difference between Companies and between various types of Policy. Therefore, do NOT deal directly with any Company or its representatives. You need the unbiased advice of a Broker specialising in Service problems. I offer this advice without fee or obligation. I am not tied to any Company, and select the most favourable for each type of risk.

INFORMATION REQUIRED. May I suggest you should let me know your date of birth, whether married or single, dates of birth and sexes of children, rates of pay and next increase, and how much you can afford in addition to any existing outlay. If you have any Policies in force, I recommend you to let me inspect them and tell you whether they are good value. In any case they may affect the type of new Policy you should consider. With this information, I can give you recommendations which you can accept or reject as you please.

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on the Thursday evening and the second on Friday morning. In between, there had been the inevitable party, but despite this, everybody was on parade on time in the morning. Both aircraft jumps were made from an ancient looking Hastings which, however, did its job satisfactorily. The dropping zone, which for the aircraft jumps was Weston-on-the-Green, was somewhat congested as a Beverley was dropping a large contingent of T.A's at the same time as our Hastings was circuiting.

The course had been an unforgettable experience, not least because of our excellent instructors. One disconcerting characteristic, however, was their somewhat suspect sense of humour. One cadet obediently flung himself into space on the bellowed order "GO" only to hear, as he streaked earthwards, the order "As You Were." His slightly insubordinate reply was, fortunately perhaps, not recorded.



"Oh, We will all go together when we go"

..... like yesterday

was all sun, so I was taking some air on the drill square.....but square, man..... and was digging the scene.....when suddenly this square guy with arrows and crowns on his biceps come busting up to me.....like he had a real complex man.....

.....so I said to him "Look, daddy, whose pad is this? Don't the individual get any privacy these days?"

.....but he was playing it real cool, man..... just looked at me as if I was a cold rice pudding and said....."Like, make with the razors and scissors, man, or....."

.....so I said "Don't give me all that jazz, daddy, I'm a beatnik and I don't dig all these square haircuts.....you look like Punch on Ice to me....." he didn't



appreciate that too much..... He looked at me again all cool, and then like did a Houdini.....before my very shades! .. very hip!.....

.....so I got to figuring it this way.....either he was a Russian spy, or maybe it was the Gieves representative in disguise, or maybe this square haircut jazz is the mostest.....like, maybe it exists.....!

.....so this term I'm playing along with it, just in, case you know; all them square haircuts and hats and like drill too.....crazy, huh?.....so, like, I mean, you dig the message.....

so this term.....

NORPED

1962

A party of 18 left London Airport late in the evening of Friday 17th August for a month in Norway. The expedition was led by Lieutenant Commander Burne, R.N. and was composed of officer cadets from all three services, as well as two rock climbing Royal Marine sergeant instructors. A keen interest was taken by the Press and we held a Press Conference before we left London, much to the amusement of our fellow travellers.

The aim of the expedition was to "learn to live and survive in the mountains under all conditions"; in fact to put "mind over matter" as we were soon to learn.

The weather quickly became an added hazard, in fact I believe we lived on the opposite side of a mountain that was in a perpetual rain-shadow. Although it rained ceaselessly—most days barely three hours between showers—we still kept rigidly to our programme.

We set up a "stores camp" at the foot of the mountains at the farthest point up the Sognefjord at a place called Tongasetta. The first five days were spent establishing a "base camp" 4,000 feet above the "stores camp" on the edge of a small tarn (and above the snow line), where we lived on "compo" and six-man day-rations, dispensing with all comforts. Having established ourselves as a fully self-supporting party at the base camp, we began an intensive ten day instruction period on how to live, survive and move in the mountains and on the Ice Cap. This included a programme of mountain and rock climbing, abseiling down sheer rock faces and overhangs, ski-ing and crevasse rescue work. It is surprising how quickly one learns to get out of the latter when dangling in one such "hole."

The last twelve days were spent doing four-day expeditions on skis in the area of



the ice-cap, carrying some 50 lbs. of food, clothing and tentage on our backs. We experienced a blizzard on each occasion and during the second expedition we were forced to remain during 40 out of 48 hours in our sleeping bags with the temperature as low as -8 degrees.

Although such an expedition is hard work it is an experience one never regrets and an opportunity to learn the basic points in mountain survival, which one never quite knows may be useful some day.

The success of the expedition can best be illustrated by the report seen in the "Evening Standard," on 13th September, 1962.

THREE WEEKS ON A 6,000 FEET ICE-CAP

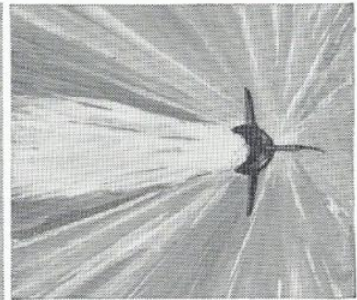
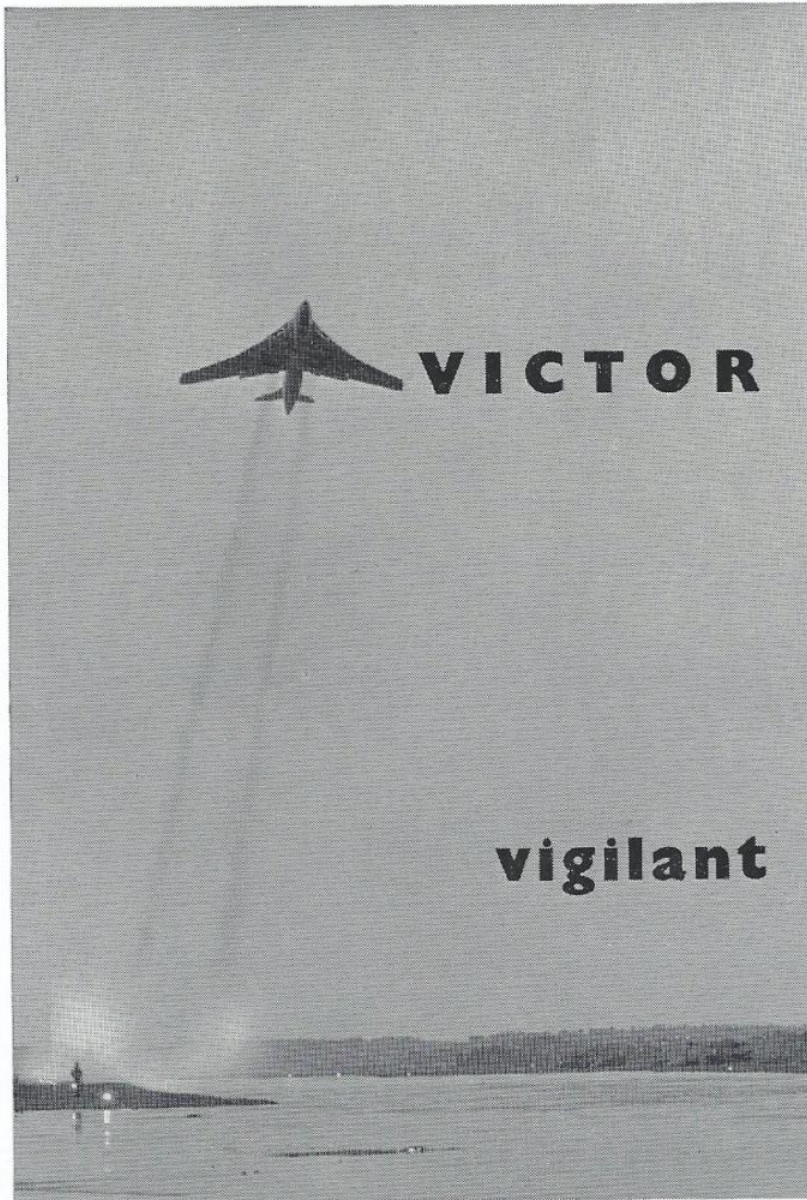
A weary group of Army, Navy and Air Force cadet officers trooped through London Airport today after spending three weeks on a 6,000 feet Norwegian Ice-Cap.

The eighteen cadet officers were being trained to live in mountain conditions, explained their leader, Lieutenant Commander Christopher Burne, after they had flown in from Bergen.

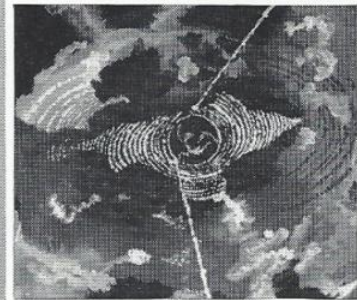
The expedition had been hampered by bad weather, but despite the fact that it rained nearly all of the time it was definitely a success.

*Activities
and
Societies*

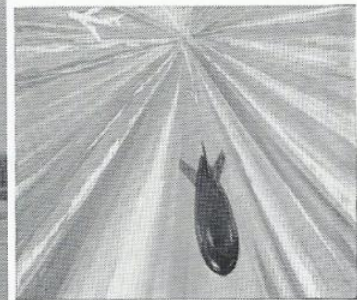




Missile carrier



Reconnaissance



Bomber

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In the face of such a deterrent sanity decrees that global war is now unthinkable.

HANDLEY PAGE · LONDON & RADLETT

Through the Looking Glass

"O wad some pow'r the giftie gie us, Tae see ourselves as ithers see us," as the chief sales representative of the Haggis Marketing Board once wrote. As is well known, in many trans-Atlantic institutions they go some way towards supplying this gift with such items as "Voted by his classmates the man most likely to succeed," "Voted by her sorority the girl most likely to", etc.

The biographies of the recent great, including the current U.S. First Lady, feature such items and indeed they seem rapidly to be becoming the sine qua non for advancement. Inevitably, therefore, departments of social studies have made analyses of the criteria of "Getaheadmanship" and we are indebted to the journal of the Llewarc Aeronautical Academy, Lincoln County, New England, the "*Sprite-Hawk*," for permission to reproduce the following examples from a recent "Getaheadman" score sheet :—

Has no girl friend	Lose	2	Is selected for inter-Squadron football game	Score	3
Has steady girl friend	Score	2	Misses vital tackle in front of Superintendent and lady	Lose	2
Has senior officer's daughter as steady girl friend	Score	6	Swears violently on missing tackle	Lose	3
Has several girl friends	Score	5			
Is married	Lose	50			
			Attends meet of local possum hunt	Score	5
Has no transportation	Lose	2	Doesn't wear hat	Lose	3
Drives family sedan	Score	1	Squadron Commander's lady intrigued by new after-shave lotion	Score	2
Drives large convertible	Score	3	Hounds also intrigued and drawn off scent	Lose	4
Drives M.G. sports	Score	4			
Drives original Model T. Ford	Score	8			
Puts it in ditch	Score	10			
			Enjoys chat with Squadron Commander at formal barbecue	Score	3
Obtains Bachelor of Humanities degree with honours	Score	2	Laughs at Squadron Commander's joke "Joke" turns out to be serious anecdote	Score	6
Wins flying prize	Score	3	Squadron Commander doesn't notice anyway	Regain	8
Is outstanding in drill competition	Score	6	Attends same church as Dean of Humanities	Score	2
Plays centre-back for Academy football side	Score	10	Attends same church as Squadron Commander	Score	6
Plays trombone in trad group	Score	15	Is seen rushing from one church to the other	Lose	10
Ejects from aircraft	Score	20			
			Tries hitching lift	Lose	2
Chosen to carry banner on President's birthday parade	Score	2	Gets lift in Superintendent's car	Score	4
Banner gets wrapped round legs in strong wind	Lose	2	Is recognised by Superintendent	Lose	6
Falls over with banner	Lose	4			
Retrieves mud-spangled banner and carries on regardless	Score	6	Has same name as two-star general	Score	5
			Is son of two-star general	Score	15
Is invited by Superintendent to cocktails at Residency	Score	3	Father retires	Lose	20
As evening wears on, is slapped on back by Superintendent	Score	4			
As evening wears further on, slaps Superintendent on back	Lose	4	Writes scurrilous article for <i>Sprite-Hawk</i>	Score	2
Is sick on Residency carpet	Lose	6	Authorship of article recognised	Lose	6

How did you rate ? The Llewarc surveyors considered that a maximum scorer in comparable situations had four-star-general potential, a ninety per cent scorer had three-star potential, and so on downwards in proportion. Our readers will of course have realised that these criteria could not be applied in their own situation but at a rough estimate any flight cadet ending up with a positive score would appear unlikely to pass out.

MOUNTAINEERING

The summer term was one of the busiest for some time. In all there were six Sunday afternoon trips to the various Derbyshire edges, a half term trip to North Wales, and the summer leave expedition to Turkey.

The term's activities began when a party of ten set out for Gordon's Edge, where a number of climbs ranging from 'very difficult' to '(hard) severe' were climbed, including Och Aye Wall ('(hard) severe') and Overhang Buttress. The general standard of climbing and leading on this first time out was high.

This was quickly followed the next Sunday by a trip to Gordon's Edge. A party of 15 tackled climbs of an even higher standard up to '(hard) very severe,' on Elliot's Buttress, a standard which had not been reached by members for some time.

At half term, a small party of six, led by Flight Lieutenant Adams decided to sacrifice their leave and set off in the College Minibus for North Wales.

After a scorching afternoon and fine evening the party arrived just after nightfall. By 1030 the next morning the party set off for Tryfan which had been chosen for the first day, climbing en masse up the east side of the mountain to 'Heather Terrace.' There they split into three pairs to make independent routes to the top, where they reunited, and had lunch. From the peak the party proceeded south up the Bristly Ridge on to Glyder Fach and Glyder Fawr, thence to Devil's Kitchen and down Ogwen and back to camp.

The following morning dawned cooler and overcast, a marked contrast to the heat of the previous day, and a rather later start saw the party en route for the Snowdon Horseshoe. After some initial difficulty in finding parking space for the Minibus (it was Whit Sunday) the party split into two groups; one pair who wanted scrambling exercises around the Horseshoe Walk and two pairs who wanted more advanced rock climbing as supplied by the 1,000 foot cliff of Lliwedd. At the face the first rope (Flight Lieutenant Adams and Sergeant Hextall) chose a variation on East Gully as they were more interested in making a good time in order to 'do' the rest of the Horseshoe. The second rope (Adcock and Cox) chose

a route up the Central Gully and West Wall, a rather longer, more arduous and in places extremely exposed route. The climbing here, while it would have provided few difficulties on, say, Gordon's Edge, was an entirely different matter when combined with a drop in one part of up to 900 feet to the lake below. The three groups after finishing their climbs met at the Minibus.

On the last full day of the trip it was decided to visit an entirely new area, the Carneddau, and accordingly a comparatively early start was made. The route taken started up Y Braich to below Pen-yr-helgi-ddu (Head of the Black Hound) and then descended from the col to the bottom of the glowering cliffs of Craig-yr-Ysfa where lunch was taken and the impressive faces surveyed for possible routes. Lanigan and Quek decided on the 900 foot 'difficult' route up Amphitheatre Buttress while the other four moved up into the extremely impressive 'amphitheatre' where they decided to try the Central Rib climb marked 'very difficult.' However, by mistake both pairs started up 'Nameless Rib' which, although an amusing and scenic climb, did not provide the hoped for standard of climbing. The party rejoined at the top of the climb and set off for a ridge walk around the peaks of the Carneddau (David and Llewellyn), coming off by a fast scree run to Ffynnan Lloer and thence to the vehicle.

The next day, as the party had to be back at Cranwell by midnight, it was decided to try some pure rock climbing on Milestone Buttress. The morning was marked by a singular lack of success on the part of the more experienced ropes. The Adams-Hextall team fell off Rope Wall and the Adcock-Cox team were forced to abseil off Soap Gut when time ran out. Lanigan and Quek enjoyed a partial success, climbing Canopy and then having to traverse off the long way round. But by lunchtime the party was homeward bound.

During the second half of the term preparations for the summer expedition to Turkey were completed. These included four training meets in Derbyshire, two more at Gordon's and one each at Bircher's and the Froggat-Curbar Edges. Turnout was

encouraging and the general standard of climbing became higher than ever.

An hour before the Graduation Parade, news came that passages were available on an Argosy on the 3rd August. A group of nine finally arrived in Turkey on the 7th, after spending three days in Cyprus waiting for an aircraft. An article on the expedition appears elsewhere in *The Journal*.

The next large trip planned by the section is one to Glencoe in the New Year and tentative plans are being made for an expedition to the Alps next summer.

FILM

The Film Society met during the summer with fairly large audiences attending the five performances presented during the term. As many cadets tend to disappear on Sunday afternoons and evenings to sample the delights of the English summer evenings, it was planned to have only five performances during the term and that these would be 'double features.' The programmes were therefore considerably longer than others seen during the autumn and spring term. This plan, coupled with the English summer, allowed all the Society meetings to be well attended.

The term began with the adaptation of Nevil Shute's novel about the aftermath of the Third World War. "On the Beach" proved a sobering film. Stanley Kramer, the director, conveyed the story with stark simplicity and the implications of a Third World War were all realised by the audience. With it was seen Eisenstein's "Time in the Sun," a joint U.S.A. — U.S.S.R. production. The photography was brilliant and the hardships of the Mexican peasants' existence at the beginning of the century was most forcibly brought home.

Jules Dassin's comedy about an American tourist's idealization of a Greek prostitute, "Never on Sunday," together with the "nouvelle vague" comedy thriller "Tire sur le Pianiste" formed the next programme. The latter film was another in the "nouvelle vague" series and in so being left cadets a little behind in its meanings.

Jean Renoir's classic and profound drama about French prisoners of war coupled with a realist drama with an unglamorous New York background formed the third programme of the term and for many the most interesting. "Le Grande Illusion," depicted

aristocracy in the First World War still clinging to one another even though they were on opposing sides. The study was of the French nobleman, who in remaining true to his comrades would not break his word of honour to the commandant of the prisoner of war camp not to escape. "The Savage Eye" lived up to its title. What little story there seemed to be was only an excuse to take the audience around New York and to show them the things that constitute a big city. What the eye saw was indeed savage and what the eye showed us, it showed us in a savage manner.

The College was next entertained by Bing Crosby, Frank Sinatra and Grace Kelly, starring in "High Society." With this film, that surly character Brando was to be seen in "The Wild One." It was a disturbing picture of a motor-cycle gang, apparently still very much a problem.

The final showing was of "Summer with Monika," directed by Ingmar Bergmann. This showed the idealistic view of love as experienced by the younger generation in all countries, but when the ideal becomes material neither of the lovers is strong enough to rise above the responsibilities.

KARTING

After a period of inactivity at the beginning of the summer term, regular meetings of the club were again held. During the second half of the term there was a reasonable attendance of flight cadets and it was pleasing to see some cadet wing officers.

Some of the club's keener members graduated with 81 Entry last term. New members are needed, particularly from the junior entries. Any cadet from 87 Entry who is interested, or thinks he might be interested, is welcome to come out to the Navigation Squadron on South Airfield any Sunday afternoon.

JAZZ

After much improvement during the spring term, the band looked forward to a highly successful summer term. Before the term had been under way for more than a week or two the band lost Jensen, our inspired clarinetist. This left a large gap in the front line of the band which was not adequately filled until later in the term.

MAE WEST — OR MILLSTONE?

Service life brings special problems of insurance. We made mistakes ourselves - once. Years later we wished we had had us to consult then! However, our experience is at your disposal now, and we invite you to help yourself. Write, or ring and reverse the charges, either to:—

Gp. Capt. M. DUKE-WOOLLEY *or* Wg. Cdr. R. J. BURROUGH
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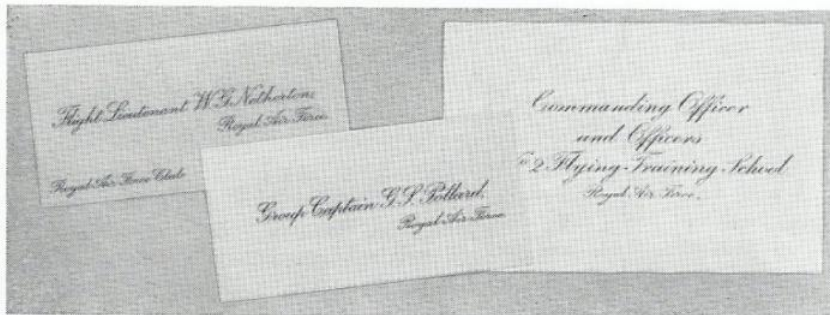
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'ALL THAT JAZZ'



The band carried on with Rump on the clarinet. He fought desperately to change from Sibelius to Sunshine and by the end of term the battle was almost won.

With the new line-up the band played as guest artists at Boston Jazz Club and Kesteven Training College. The band tried hard as usual, but the Jensen magic was sadly missed. A representative from the B.B.C., a jazz enthusiast, also came to the College to record the band, but there was something lacking and the recording was rather a failure.

With prospects growing of a new trombone and bass and our converted clarinetist improving in every practice, the "Gut Bucket Seven," under its new leader Jarron, feels confident.

The team will be :—Jarron — Trumpet, Haysom — Trombone, Rump — Clarinet, Pym — Bass, Lanham — Drums, Clarke and Mitchell — Banjos.

RIDING

The Society's first horse, Giles, was bought at the beginning of term and has proved to be a very suitable animal. The R.A.F. Equitation Association donated £300 to buy two horses and the companion for Giles is to be bought shortly.

During the term the R.A.F. Equitation Association held its first championships at Cranwell. The College entered a team of three, Pearce, Hood and Carrington for the competition which comprised a Prix Caprilli event followed by a cross-country event. It is of interest that Pearce would have won the competition on Giles, if he had not gone round the wrong side of a marker flag at one point.

GLIDING

Summer camp this year was held at R.A.F. Upavon. Although rather hemmed in by danger areas, this site provides a convenient base from which to explore the ridges in this area.

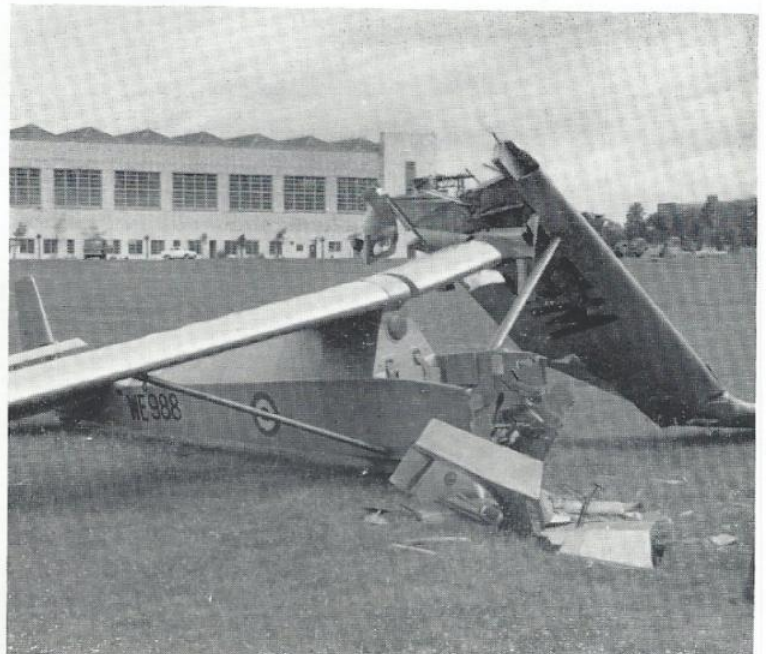
On the camp also were nine 'ab initios' — six dental officers and three Dartmouth cadets. As there was only one T.21, instruction was made very difficult, until the loan of a T.Mk.III from the local Moonrakers Club eased the situation. By the end of the ten-day camp, six of the pupils had obtained their A and B certificates.

"... check *WHAT* greens?"

The College also sent Pearce to a Prix Caprilli event organised by the Lincoln Riding Club in which he acquitted himself honourably.

The term ended with the R.A.F. Pentathlon championships in which Pearce and Carrington qualified to ride the cross-country course.

The term was rather disappointing for only seven cadets rode regularly. But the visits organised to various 'horsey' events, Melton Hunt Club Point-to-Point, the Lincolnshire Show, and the Royal International Horse Show at the White City, were all very well supported.



Winches were taken to the camp and these were used to capacity with the Mk.II and Mk.III doing circuits in about three minutes nearly all day. The Chipmunk was also kept busy towing the T.21 and the Olympia both of which made some long flights. Later in the camp an Eagle was borrowed from R.A.F. Bicester which enabled dual soaring instruction to be given on an aircraft with

a performance comparative to an Olympia. The camp was marred by the crash on the second day of the Prefect. Turning back from a cable break it appeared to stall on its final turn and crashed from about sixty feet straight into the ground near the launch point.

The camp, however, did achieve five silver 'C' legs, so it can be labelled a success.

OCEAN SAILING

The programme ahead of the ocean sailors this summer was an impressive one, including races from Cowes to San Sebastian and San Sebastian to Belle-Ile. The two yachts used this year were "Blue Charm" and "Dambuster" both of which achieved reasonable successes.

The "Blue Charm" Cruise

Skipper : Air Commodore E. D. McK. Nelson, C.B. Crew : Flight Lieutenant D. H. Johnson, S.U.O. Jones, U.O. Giles, S.F.C. Hulse.

Having assembled on the evening of August 8th the crew set out aboard "Blue Charm" early next day to take part in one of the Cowes Week Races, with the intention of regaining their sea legs as much as trying to win. Unfortunately a spinnaker pole connection came adrift and the race was abandoned. The next day was spent preparing for the Cowes — San Sebastian race, due to start at 6.15 p.m. on 11th August.

Cursed by bad luck, this race too had to be abandoned after only two hours, because the main halyard parted while attempting to tighten the luff. This was even more unfortunate because "Blue Charm" was first across the line. Despite a gallant effort by the mate, in a Force 8, to repair the damage, "Blue Charm" was finally forced to retire.

It was then decided to enter the Dartmouth — Belle Ile race, and the next few days until 18th August were spent relaxing in Dartmouth and Salcombe. A sunny day and a fresh breeze heralded the day of the race. "Blue Charm" made a good start, holding in second place until darkness fell. Due to the light wind, dawn saw the boat only 20 miles south of Start Point, still in sight of "Annasona" (the crew's main rival from the previous year). The day

passed uneventfully with the wind freshening towards evening until at 9.30 p.m. the decision was made that Ushant would be reached on one more tack. In the early hours of the next morning, in a race against the tide, "Blue Charm" slipped past the rocks and the lighthouse which had guided her through the previous night, and made sail for the Armen Buoy, the next turning point. Now, turning onto the final 70 mile leg "Blue Charm" picked up a following wind, and the crew enjoyed the sunshine. Excellent progress was made down the Biscay coast of France; and by nightfall "Blue Charm" was only 20 miles from Belle Ile. After a tricky search, the finishing line was found and crossed at 3.20 a.m.

There were great celebrations next day when the crew discovered that they had won, and after they had collected the prizes from the Mayor of Belle Ile, they repaired to the more informal surroundings of the local dance hall, where a dance was held in honour of the British yachts from San Sebastian and Dartmouth.

The next day "Blue Charm" set sail once more, this time for Benoitet, which was reached that evening. After staying for two days while the winds in the Bay of Biscay died down, the morning of the 25th saw "Blue Charm" en route for Camaret; this was soon changed for Guernsey. After motoring through the Channel du Fort with no wind available, the weather suddenly changed to a gale, and all canvas at the working jib had to be removed. After a tempestuous night landfall was made at Brixton where an astonished Customs officer found no bonded stores on board. After a brief stay until tea-time, "Blue Charm" set sail for the last time on the cruise for Hamble.

The "Dambuster" Cruise

Skipper : Sqn. Ldr. Edwards. Crew : Sqn. Ldr. Boyer, Flt. Lt's Delap and Woodward, Flight Cadets Griffiths, Ward and Haysom.

The crew of "Dambuster" met at the Royal Air Force Yacht Club at Hamble on 9th August, 1962. This crew was destined to sail "Dambuster" for the following three weeks. The overall plan for the period was, first to enter the San Sebastian Race, secondly to enter the San Sebastian — Belle Ile race and thirdly to spend the remainder of the time cruising slowly back to Hamble. All of these objectives were achieved.

The Cowes — San Sebastian race was due to begin on 12th August and so there was little time to get the crew working as an efficient team, which is so important in ocean racing. The crew assembled, and the following day saw them working on "Dambuster" at the small jobs that are so much a part of ocean sailing.

On Saturday the crew took "Dambuster" out of Hamble and over to Cowes, there to rest for a couple of hours before the beginning of the race. Watches were decided and final plans made. At 5.30 p.m. the crew took "Dambuster" out to watch the start of the Class III boats in which "Blue Charm," skippered by the Commandant and crewed by cadets, was to take part. We saw the "Blue Charm," first over the line and then settled down to jockeying for a position for the start of the Class II yachts. At 6.15 p.m. the starting gun sounded and in a choppy sea with a force 6 wind blowing, the race had started.

The first watch took over until 10 p.m. taking "Dambuster" through the Needles, having unfortunately passed "Blue Charm" who we saw putting into a sheltered inlet in the Solent. We learnt later that she had broken a main halyard, but we were to meet her again at Belle Ile where she won the Dartmouth — Belle Ile Race. The watch system was to be 4 hours on and 4 off during the nights and 6 hours on and 6 off during the day and at 10 o'clock the second watch took over, setting "Dambuster" on course and beginning to beat down the Channel.

It would take too long to write on all the events during the 4½ day trip to San Sebastian. Suffice it to say that the crew settled down very quickly and learnt rapidly. The weather was relatively unkind. The first day saw us becalmed in the Channel and forced to

ledge. This then changed as the wind blew up in the Bay of Biscay, turning into a force 7 gusting gale force 8. With just the working jib up, "Dambuster" averaged 7½ knots during the 4 hours that this weather held sway. Although at times very wet, the crew were working well and still in the best of spirits. By Wednesday the 15th, the wind had dropped and the north coast of Spain was just coming into view some 35 miles ahead. "Dambuster" moved steadily towards the coast and at 12 noon, to show us that she was not always rough, the Bay had become a millpond, with no wind and a blistering sun above. From a few miles from the mouth of the cove that harbours the resort of San Sebastian to the finishing line it took some 3½ hours. At approximately 3.45 "Dambuster" crossed the finishing line some 4½ days after setting out from Cowes and with some 540 miles behind her.

All too soon the ensuing resting period came to an end, and on Sunday evening at 6.00 p.m. all the yachts began the race to Belle Ile. The wind blew up to a force 5 to 6 and the yachts set down to a steady beat northwards to Belle Ile. It was an uneventful trip. The wind remained consistent and the sailing brisk, and 2½ days later saw "Dambuster" putting into Belle Ile, the winner of her class. It was here that we again met up with "Blue Charm" and learnt of her accident and success. At Belle Ile a reception and a dance were again arranged for visiting yachtsmen. Between eating and sleeping the crew settled down to enjoy their short stay and to look forward to the more leisurely cruise along the coast of Brittany.

Belle Ile was left astern some two days later and the cruise home began. The idea was to cruise home slowly, sailing during the day and putting into the small Brittany harbours where the dishes of this coast were sampled. The first port of call was Benodet and during the next four days the "Dambuster" took in Camaret and La Bonach. At La Bonach the weather again blew up to a gale force 8 and it was decided to stay until it blew out. Eventually it died away and the crew once again took "Dambuster" out and set sail for the Channel Islands.

Our cruise was coming quickly to an end and on the 28th of the month the final leg from St. Peter Port to Hamble was completed.

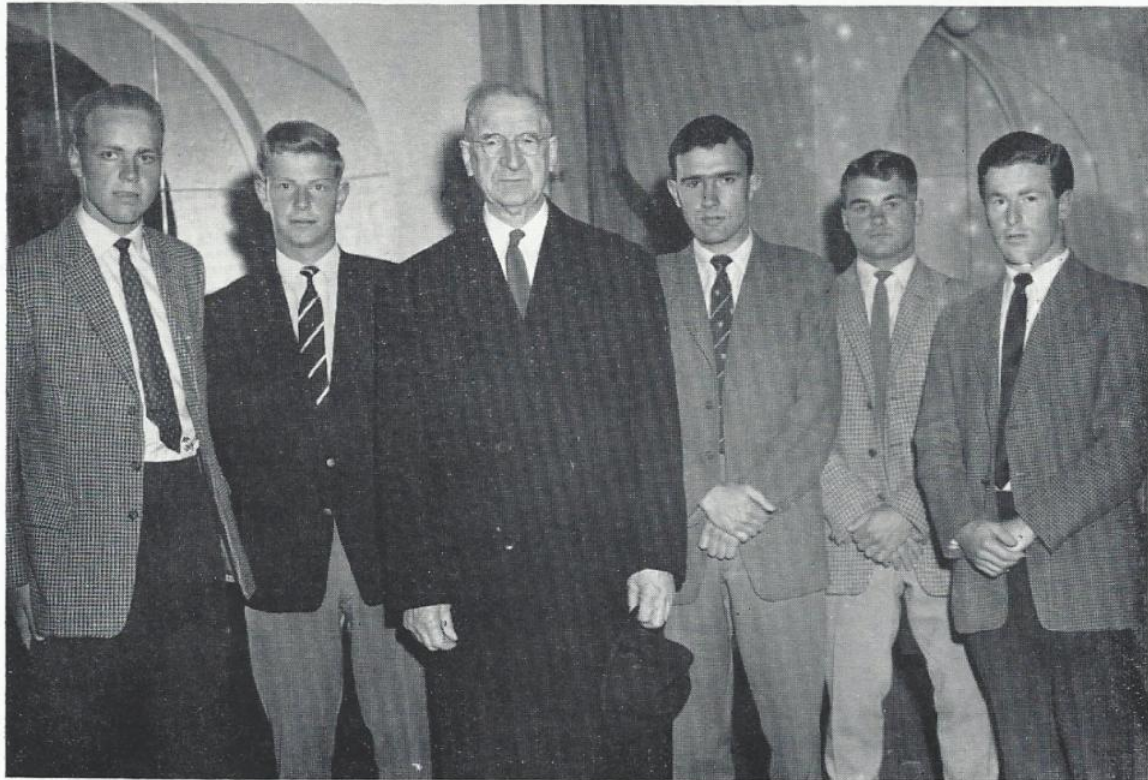
ANGLING IN IRELAND

On the 9th August five flight cadets, after a day-long journey by air, rail and coach across Ireland, arrived at the Old Ground Hotel in Ennis for a week's fishing.

The party consisted of two relatively experienced anglers and three novices, all eager to try their hands at a varied programme of trout, pike, perch and, the most appealing of all, deep sea fishing for tope, shark and monk fish. Not having the College dormobile which is normally used for this visit, the party first tried to hire a car, but the exorbitant rates forced them to use bicycles. This mode of transport is ideal for seeing the beautiful scenery around Ennis, which is typical of the 'Emerald Isle.' but

not so ideal from the point of view of effort on the party of cadets with a week's leave already behind them

But lakes and streams could be reached without too much effort and the first two days were spent introducing the rudiments of angling to MacFadyen, Lilley and Evans who were keen to understand the mysterious art. The party's luck was out and it was not until the fourth day when, after a morning's spinning from a rowboat propelled by a tireless ghillie, the party adjourned to the stream which flowed from the lake and here more success was gained, Shorrocks and Duckett catching four brown trout and two perch between them. Although only about



*Cadets in Ireland on a fishing expedition meet the President,
Mr. Eamonn De Valera*

a pound in weight they fought well and gave both cadets some exciting fishing. Fresh water fishing in lakes and streams was not particularly successful, mostly due to bad weather conditions. Pike fishing, for instance, requires a rough surface to mask the movement of the boat through the water, and as luck would have it the lakes were glossy smooth.

It was the deep sea angling that really caught the imagination of the party and a day was laid aside entirely for this type of fishing. This day turned out to be glorious. In hot sunshine and a cloudless sky, most cadets stripped to swimming trunks, basking happily in the sun. The boat was anchored in the Shannon estuary just off Kilrush and the lines, one rod, and four hand-lines, were cast overboard and watched carefully.

By lunchtime nothing had been caught and it was decided to shift the anchorage farther inshore. This entailed hauling in the lines, and in the process of doing this, Shorrocks, much to his and the party's amazement, had a large 36 lb. monk fish on the end of his line.

The boatman and his young son gaffed the fish and surrounded by four envious cadets, hauled it inboard. The four suddenly lost their interest and scattered over the boat as the fish, with thrashing tail and dangerous teeth, endangered life and limb. With murmurs of 'lucky' and 'it must be

the rod,' Shorrocks vacated his position and took over a hand line. Ten minutes later the same cadet caught his second fish, the heaviest of the day.

This produced renewed watchfulness and more murmurs, but MacFadyen and Duckett proved their worth, the former catching a 36 lbs. monk fish, and the latter catching two of the same fish of 34½ and 35½ lbs. weight. Shorrocks rounded off a most successful day with a 32 lb. monk fish. Although Evans and Lilley were still uninitiated, they both agreed that the day was undoubtedly the most successful of the visit. Six large monk fish were caught totalling 217 lbs., the ironical twist being that the day before 16 boats, taking part in the Ennis Deep Sea Angling Competition, caught only two fish totalling 70 lbs. weight. Therefore we were regarded with awe and respect by the many fishermen who came to the quayside to survey our catch and note the weights.

Most of the week's fishing entertainment was centred around the day at sea, but perhaps the most remembered occasion was our introduction to His Excellency the President of Ireland, Mr. De Valera, an honour appreciated by all the cadets. The visit was thoroughly enjoyed and fishing tales told over a glass will remain part of the cadets' repertoire for many years to come, and no doubt some of them will return to Ennis to try their luck again.

TURBULENTS IN IRELAND

To any motorist, the man who drives a Jaguar while working and then goes for a holiday on a motor scooter, would seem in need of an overhaul. It was just this change that we made during the summer vacation this year. After a term's flying in Jet Provosts we relinquished the more homely comforts of 'bang' seats and oxygen and took to the air in open cockpits with canvas covered wings as support. The aircraft were in fact the little Druine Turbulent. Powered by converted VW car engine, two of these aircraft have been with the College Flying Club for a year and a half. In this time they have been used for flights ranging from a tour of the south of France to local weekend 'flips.'

The two aircraft based at Cranwell are owned by the Tiger Club and form part of their fleet of twelve Turbulents. Each year the Club organises a tour abroad and this year Rooum and Lodge were invited to join in the tour — to Ireland. Also in the tour were six other club aircraft, five Turbulents and a Jodel aircraft in support with such refinements as radio.

We arranged a rendezvous with the Tiger Club at Swansea as they had managed to start a day earlier, staying overnight in Gloucestershire. Thus on the morning of the 20th August we headed for Swansea hoping to make it in one hop. As we approached Bristol, however, the weather closed in and in pouring rain we were forced

to land at Bristol Airport. The warm front soon passed over and we were soon on our way and made Swansea without further incident. In the early afternoon the whole formation, 7 Turbulents and the Jodel, took off for Eire. The Irish gremlins were with us already, however, and just half way across the Channel the spinner of aircraft CZ flown by Rooum blew off. After a few heart-stopping moments waiting for the propeller to follow it, all seemed well and we formed up and continued on our way. On arrival in Eire we landed at Dunmore East to clear customs and here we had our second set back. The second College aircraft had to be left behind with an unserviceable engine. Another lucky escape for us as Lodge closed his throttle for landing the engine stopped.

From Dunmore the rest of us flew north to Dublin where we spent the first night. The next morning we spent the first hours flying — practising short landings. This well in hand, we flew from Dublin to Lambay Island. Owned by Lord Revelstoke the island has an airstrip 200 yards long and approached over a 400 foot hill. Much to our surprise we landed safely, although the overshoot area was the open sea, and spent the rest of the day exploring the island. In the evening we flew north to Headfort near Kells. The airfield, owned by the Marquis of Headfort, was to be opened officially the following day, with, much to our surprise, a display by the Tiger Club. With only seven of the normal Tiger Club display team of forty aircraft we had quite a lot of head scratching. That evening we planned a display in conjunction with Irish Air Corps Vampires and a Chipmunk, before abandoning ourselves to the more pleasant pastime of roulette. The following day the display went very smoothly to the delight of a large crowd, many of whom had never been close to an aeroplane before. The programme that we flew varied from formation flying by four Turbulents, to balloon bursting, and flour bombing of a vintage car. Although not many hits were scored this provided

just as good fun for the pilots as for the crowd.

The next day we were due to fly south to Cork and try our hands at shark fishing — from motor launches, and not aircraft as was suggested. The sharks were relieved however as the weather clamped down and the base fell to 200 feet. It brightened in 24 hours and we were off on Friday morning, our formation being considerably increased by the bulk of the Meta-Sokol owned by Lord Headfort who, as a member of the Tiger Club, was accompanying us for the rest of the flight.

We flew to Cork for lunch arriving in the circuit at the same time as a Dakota. This caused chaos in the tower who were obviously unused to having six non-radio aircraft tail-chasing their scheduled movements. We could only stay long enough to kiss the famous Blarney Stone which we were assured would improve our R/T procedure, and then we were off to Killarney. The airfield is a strip of shorter grass in the centre of the racecourse. The direction of the strip is due north-south which provided for exciting landings as the prevailing winds were westerly at 25 kts. We all landed safely, even the Meta Sokol which tried to land in the opposite direction to and at the same time as the Jodel, and the aircraft were parked behind the tote for the night.

Limerick was our target for Saturday and we took off in the morning arriving there just in time for lunch with the Shannon Aero Club. After lunch they asked if, before leaving, we could fly around the city in formation. During the briefing for this flight 3 aero club pilots were given permission to take off in Austers and watch the formation from the air. We took off and formed up



our formation and headed over Limerick. After flying for about ten minutes one of the Austers flew up the right hand side of the formation, parallel to the four in line astern, and eventually into the number two aircraft. The Turbulent broke up and crashed in the street below, its pilot killed by the impact of the Auster which made a successful forced landing on a football pitch. The rest of the formation broke to avoid the wreckage and headed back to the aero club where we landed. We were driven immediately to Limerick but there was no hope for the Turbulent pilot.

Still in a state of shock we flew back to Killarney, leaving two behind to attend the inquest and inquiry. We were due to fly back on Sunday but the weather forecast for the sea crossing prevented us and it was not until Monday morning that we finally

set out for home. We cleared customs at Dunmore East, where once again the whole population was out to see us, and flew out over the Irish Sea. This time we headed straight for Bristol and with the wind behind us we reached it in two hours. Unfortunately the unserviceable College aircraft had to be left in Ireland to be collected later. After clearing customs at Bristol CZ left the formation and flew back to Cranwell.

Although our trip ended so tragically, the first few days of the tour provided us with a kind of flying completely free and uncramped as compared with the rather strict discipline of civil flying in this country. Here at Cranwell we are ideally situated for this kind of tour with the Flying Club, with the aircraft and the Flight Planning section who are most helpful with maps and route 'gen.'



Yes, Sahib, as you say- Him damn fine carpet;
also him stressed to 4-g,

SUB-AQUA

The activities of the Club this term were very near to perfection. Throughout the preceding year, time had been devoted to training in the pool as well as to the more practical activities at R.A.F. Valley. During the training a number of prospective Malta participants passed their elementary tests and were saved having to do it in Malta. At Valley, the murky depths necessitated an acute sense of underwater orientation as well as the ability to see beyond one's nose.

The summer leave was naturally the best time for a 'grand slam' in Malta and the section was able to carry out 'operation Amphora'. This was the most ambitious expedition to date. The reconnaissance was made by Kendrick, the captain, and Reddy, the club secretary, who, unable to go with the group because of their Service visits, had to go alone and without financial assistance. Their sacrifice was certainly worth while. The Club was helped a great deal by their valuable information about diving. The party of seventeen flight cadets, led by Flight Lieutenant Horsfield, were airlifted in a Britannia which was already going to Malta on a service visit.

By diving in pairs and using one person to snorkel on the surface, it was possible to send beginners down to 100 feet and sometimes even deeper. Of the 82 dives logged, 14 exceeded 100 feet. Five and a half out of the seven days spent in Malta were taken up with diving activities. One day was spent in packing and unpacking, leaving one afternoon free for everyone. Most cadets chose particular days on which to develop sinus trouble and visit Malta as a tourist.

Flight Lieutenant Andrews was seconded to the party to help and advise on diving sites, and to advise generally. He is a member of the R.A.F. Malta Sub-Aqua Club and had a wealth of experience to pass on to us. The R.A.F. Malta S.A.C. also made a 3-tonner available each day and compressed air to fill the bottles at night. The newly

purchased compressor was also used on the beach to fill bottles as they were emptied, although not quite as quickly as expected. Initially a morning was spent sorting out teething troubles in the machine.

For the first few days everyone was too fascinated by the colours and a visibility of up to 100 yards under water to look for amphoral. The water was warm — 80° and above — and the sun was doing its best either to grill the sunbathing sub-aqua man or fry the snorkel man. It did both, and soon everyone was highly prone to charges of "self-inflicted injury." After every dive, the divers would crowd round Werb to ask how many more dives before embolism, nitrogen narcosis and the like set in!

Enquiries are still being made as to how one of the party, who, after three dives in one day (and hungry for more), is still alive. Theoretically he is at the bottom off Morfa Point with his lungs full of water.

The diarist's own end nearly came when he entered the water somewhat prematurely, overloaded with lead, and with his air supply turned off.

The 'catch' did not amount to much. One sea-snail was precipitated out of its shell back at the mess by a process known as the boiling water experiment. An electric ray was speared, and remained unidentified until one curious sub-aqua man tried to pick it up. As the search progressed it was decided to look for amphorae only. The hot sun drove everyone underwater in search of a large jar of "chian." The dream never materialized and we still remain ignorant as to the effectiveness of Horace's wine, so frequently mentioned in his Odes. But three very small pearls were found in a large shell, and an anti-octopus drive was made on the last day.

Everyone felt that this was a first class expedition. As well as interesting and enjoyable, considerable experience was gained, and the Section is very grateful to R.A.F. Malta for the help received.

SPORTS



ATHLETICS

With substantially the same team as that of the previous season it was expected that the team would prove formidable opposition for the majority of the clubs to overcome. This proved so, and the team was beaten only by the University and Command teams. Once again the results show that the team is one of the more successful in the College—four defeats out of sixteen challenges. The future seems even brighter as it will lose the services of only one member, whilst gaining those of two new entries.

During the season the team competed against some more experienced clubs and although sometimes resulting in a home defeat this provided the experience and serious opposition which are essential for improvement. It was noticed how many of the teams met in the course of the season were substantially stronger than those fielded in the past.

The season opened with a match against Carre's Grammar School. This set the tone for the term as the College won comfortably. It was no surprise therefore when the College won at Worksop College the following week, on a day when conditions were akin to a gale. The following Saturday the College was at home to the Milocarians, Henlow and Welbeck College, the first time that such a quadrangular match has been presented by the cadets. The Milocarians proved the stumbling block, defeating the College team.

At Nottingham University the College team met possibly the best club side of the season. It was no easy matter to compete against a club which was experiencing one of its most successful seasons. The defeat was expected, but it proved useful experience for the triangular fixture against two other Academies, Sandhurst and Dartmouth. In this fixture the College came second to Sandhurst whose defence in numbers makes one long for the Henlow-Cranwell merger when the advantage of having all the Air Force cadets under one roof can make itself felt.

The team was then rested, due to Chimay sports, until 23rd June, 1962, when it was moved "en masse" to Guernsey to take on the Channel Islands' Athletic Club in what must have been the most enjoyable match of the whole season. Here the College was victorious, Swatton equalling the Channel Islands All-Comers 100 yards record of J. Young. The following Wednesday the College met the most determined teams of the season, those of Fighter and Bomber Commands. The College was decisively beaten by both teams who were having a full-scale try-out for the R.A.F. Championships the following week.

At Nottingham Training College the team met a very strong athletics club which beat the College. On the following Saturday the team lost at Wellington College in a strongly contested match. The last two remaining fixtures of the season saw the College triumphant once again, when both Holbeach Athletic

Club and Leicester College of Arts and Technology were defeated.

Notable performances of the season were those of Grey and Weaver who broke the records for the javelin, hammer and discus. Two of these records were broken in the last match of the season.

CRICKET

The 1962 cricket season was not a good one for the College First XI. Despite the fact that 85 and 86 Entries provided at least three 1st-XI class players and seven remained from the 1961 side, the team was incomplete. This was primarily due to the lack of an experienced spinner. The captain, Bliss, bravely undertook to fill this gap, but was never penetrating enough to beat good batsmen. Throughout the season it seemed that the team would never settle down. There was no tenacity in the fielding, no determination in the batting; for some reason the desire to win seemed to be lacking. Perhaps next season will see an improvement.

Among the batsmen only Morrow and Christy achieved any form of consistency. The former in particular, ably supported by Holliday, provided the side with several good starts. But the middle batsmen rarely succeeded and too often a collapse occurred where a stand was essential. The highlight of the season's individual performances was Christy's 108 not out, against the Old Cranwellians.

The bowling attack was unbalanced and, combined with poor fielding, achieved little against experienced batsmen. Thorn showed considerable promise as an opening bowler and when on form was the greatest asset. Christy with his intelligent medium-pace bowling started well, but towards the end of the season he appeared to go a little stale. Unfortunately neither Busfield nor Annett made the grade as opening bowlers although both produced some good performances. The rest of the bowling came primarily from Bliss and Earl.

The game at Dartmouth came early in the season, but lack of practice cannot be held responsible for our failure. It was a cold day and the tempo of the cricket until the last 30 minutes was as low as the atmospheric temperature. During the last half hour the College, which appeared to have been playing for a draw from the start, woke up, and Howse and Busfield began chasing a target of two runs a minute. After a courageous display they fell only 15 runs short, and the game ended in a draw with the scores, B.R.N.C. 176 for 7 dec., R.A.F.C. 161 for 7.

As usual the two-day encounter with R.M.A. Sandhurst was blessed with fine weather. This match illustrated the weakness of our bowling attack and the lack of determination of our batsmen. A first innings total of 196 was reasonable, but a fine 117 by Kaye helped R.M.A. to a 1st innings total of 236. In the second innings Cranwell lost their chance by being dismissed for 123, 60 of these runs scored by Christy. The match ended in an 8-wicket win for the R.M.A.

The two-day game against the Adastrians was lost and the match against the Old Cranwellians was drawn. Of the 17 games the 1st XI played, 5 were won, 5 drawn, and 7 lost.

The College 2nd XI, ably led by Baldwin, achieved mixed results. Of the 13 games played, 5 were won, 5 lost, and 3 drawn. There were no individual stars,



almost everyone politely taking their turn to play the hero and from all reports, everyone enjoyed themselves.

The College 3rd XI, captained by Yarrow, plays the more light-hearted brand of cricket and the majority of fixtures were with local village teams. There were however, some notable performances, mainly by Rump, who had several scores over 50. The outstanding success of the season was the 9-wicket win over Heckington C.C. with a second wicket stand of 135 by Rump and MacFadyen.

MODERN PENTATHLON

The Pentathlon is often regarded as a new sport and to the majority an unfamiliar one. It was in fact first recorded in Greek times, when it was an athletic contest consisting, as the name suggests, of five exercises (leaping, running, throwing the discus, throwing the spear, and wrestling), performed on the same day by the same athlete.

Modern Pentathlon is essentially the same idea, though the events have been altered, and are based on the five qualities once required of a good cavalry officer—riding, fencing, shooting, running and swimming. Here is a challenge to the athlete's skill as well as endurance.

The College Club entered three competitions during last term and although there were no outstanding performances, there are encouraging signs of a stronger team in forthcoming seasons. Three cadets took part in a match at Whitgift School in which eight teams were entered; this was only a Triathlon and we were placed sixth, the swimming event being rather poor. The inter-College match was this year held at Sandhurst and three outside teams were also invited to take part. Here the riding events went badly as only three out of six cadets entered, two of whom were eliminated in the preliminary round. Carrington completed the course but fell at the second to last fence: The poor riding ability of the College was again made apparent in the R.A.F. Championships which were held at Cranwell between the 11th and 15th of July, for which two teams were entered.

This season has in no way been a failure despite the unsatisfactory results. Some individual efforts have been quite considerable, but there is always room for improvement.

Fitzpatrick succeeds Sturt as Captain, with Presland as Vice-Captain, who was also awarded colours.

SHOOTING

By the closing date for calendar entries for the Summer Term, no decision had been taken on what form the shooting would take. It was not possible to compete either individually or as a team in the R.A.F. meeting at Bisley.

Instead the Captain and Secretary organised a series of matches very much like the small-bore shoots. Five matches were shot during the term and of these the last match, against Oundle School, was the only one to be lost. A cloudburst was endured at 200 yards, but it was obvious we would not even see the targets at 500 yards, so the match was decided on the range scores, when Oundle were leading. It is however against the shooting schools rather than the Universities and Clubs, that the real competition is met, since most of them practice regularly for the Schools meeting at Bisley in July. The hurt pride resulting from defeat by 14-17 year olds produces some very good scores by the cadets.

The last fixture was the Inter-Squadron shooting at Beckingham Range on July 11th. 'A' Squadron produced a formidable team to win with 762 out of a possible 800. Williamson had the best score of the day with 147/200; which is a better shoot than the figures might suggest.

It was a successful term, and given a good range like Bisley, and a well-regulated rifle, some very good scores emerge.



GOLF

The golf season proved to be much more successful than anticipated. With only four golfers of any reasonable standard, the College managed to beat both Sandhurst and Dartmouth, but were soundly beaten by the Old Cranwellians.

Wilson captained the side on all occasions, inspiring them to many a victory.

The first match against Dartmouth was played at Thurleston Golf Course, and won by $2\frac{1}{2}$ - $1\frac{1}{2}$.

Against Sandhurst at home the fighting spirit was again aroused and won 3-1. Samuel was the cadet who really won the match, by being 3 down and 6 to play, yet winning on the 18th green.

The Old Cranwellians put forth a very strong team defeating the College 4-0. This match was played at Stoke Rochford in excellent weather with the course in good condition. In the top match Air Marshal Sir George Beamish and Group Captain Nuttall defeated Wilson and Mackenzie-Crooks. The cadets suffered a severe bout of nerves under such formidable opposition and lost the first five holes. They managed to recover a little and took the match to the 16th green. Much the same story applied to the other matches. In these Air Chief Marshal Sir Theodore McEvoy and Group Captain Seymour beat Gaynor and Samuel 3 and 2; Mr. Mumby and Squadron Leader Neale beat Bayliss and Sims; Squadron Leaders McArthur and Devey-Smith beat Bailey and Pearse 6 and 5.

In the Probyn Cup Mackenzie-Crooks beat Flight Lieutenant Gibb to reach the final against Group Captain Nuttall. On a day pouring with rain Mackenzie-Crooks, seeking revenge after the Old Cranwellian match, was able to take Group Captain Nuttall to the 39th before being defeated once again. He was however consoled by beating Gaynor 6 and 5 in the Cadet's Tankard Trophy.

With some promise of new talent in the new entries we look forward to an aqualy enjoyable and successful season next year.

ROWING

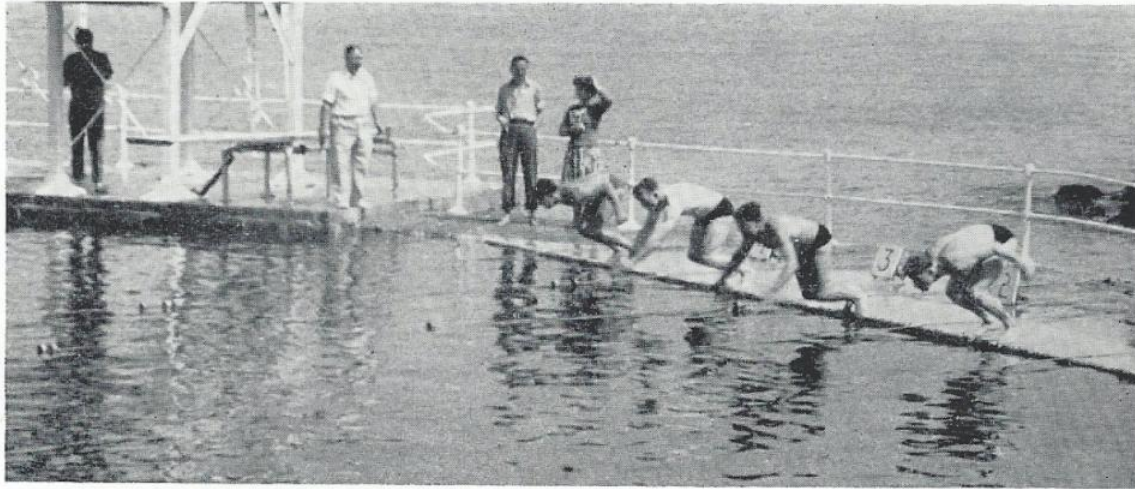
The rowing season this year started on a cheerful note. Talent was once more abundant but, as usual, did not develop along the expected lines. The College first four spent the first week of the leave at R.A.F. Abingdon and rowed from St. Edward's School boat house in Oxford. Here they gained much experience and for once had some continuity in their training.

On return to the College morale in both crews was high and was not shaken until the first defeat at the Royal Air Force Regatta, where the College first four was beaten by a combined four from R.A.F. Finningley, R.A.F. Leconfield and R.A.F. Cottesmore in the finals of the senior fours event. The second four was beaten by a four from R.A.F. Henlow.

At Nottingham McKinley reached the semi-finals of the sculling event while the second four was beaten in the first round of the Junior Fours event.

The two races against R.M.A. Sandhurst were most exciting and it was unfortunate that the second four was beaten by only a canvas after a startling recovery at the finish, where they gained a length and a half over the opposing crew.

Only one crew rowed against the R.A.F. Technical College, Henlow, and this was won easily



because Henlow caught a crab after the first two minutes.

The season drew to a close with the inter-squadron rowing. The regatta was enjoyable and well run this year and the rowing standard was high. 'A' Squadron won all the four events but lost the overall event, because of McKinley's excellent sculling for 'B' Squadron.

SWIMMING & WATER POLO

The departure of 79 and 80 Entries left the teams rather depleted, but in spite of this a reasonably successful season was recorded.

The matches against B.R.N.C. Dartmouth and R.G.S. Newcastle were lost. A triangular match was held with City of London School and Bishop's Stortford G.S. as an experiment which proved interesting, and it is hoped this will be repeated.

The match against Guernsey Swimming Club was hard, but was enjoyed by everyone who took part even though the waters of the English Channel proved very cold.

The outstanding result was the victory against R.M.A. Sandhurst in both the Swimming and Water Polo.

With the advent of the magnificent new Swimming Pool, a general improvement all round can be expected in 1963.

DINGHY SAILING

The season has been active, several helmsmen qualifying for the R.A.F.S.A. helmsman certificate. It is intended that the majority of club members will have qualified by next summer.

At the beginning of the season there was a large number of beginners to cope with, and so the team did not get as much practice as was hoped. By team practices on Sunday afternoons, it was possible to devote most Wednesdays and Saturdays to the instruction of beginners.

Team tactics and co-operation have improved throughout the season, and several races were won purely on tactics. The match against B.R.N.C.

Dartmouth was somewhat disappointing, but the team were at a considerable disadvantage in that both races were sailed in light airs and a strong tide. Local knowledge in such conditions was a great advantage, but in the second race the team overcame these conditions to an extent, though insufficient to win.

The match against R.M.A. Sandhurst was sailed on home waters. The team exploited this advantage to the full, and beat the R.M.A.

The Inter-Station league sailed at the Midland Sailing Centre, has provided many interesting races throughout the season. Although the team did not lose a race, unfortunately we were placed second, due to a change in the College programme which meant we had to concede a walk-over in one race.

The following sailed for the team :—Flight Cadets McKinlay, Shaw, Wright, Seymour, Kemp, Jones, Willman, Hulse, Moore, Clark, Tyack.

TENNIS

After losing two of last season's 1st VI a new third pair had to be found, and Bowler and Radforth filled the gap admirably. The beginning of the season was not notably successful with the 1st VI losing to Jesus College, Cambridge and Loughborough College. Most of the success at this stage came from the captain, O'Brien, and Curry.

As the season progressed the team became more confident and the results improved; in particular a 9-0 victory against the Station team led to the achievement of beating both B.R.N.C. Dartmouth and R.M.A. Sandhurst, the first time that this has been done during one season.

During the summer vacation, two pairs from the College took part in the Royal Air Force Lawn Tennis Championships at Wimbledon. They were Allcorn and Slack, and Bowler and Radforth. There was a distinct lack of success in the singles, but Allcorn and Slack succeeded in reaching the quarter-finals of the Station Doubles, eliminated by the eventual winners.

This was a good season with tremendous enthusiasm from everyone and it is hoped that next season will be just as successful.

