

RAF COLLEGE CRANWELL

“JANUARY EVENTS”



Events Recorded in College Journals
1920-2020

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This Album forms part of the Cranwell Historical Society's *Feature of the Month* series, in this instance collating extracts from College Journals covering some of the events that have taken place at the College in the month of January throughout the first 100 years of operation. Other albums in the *Feature of the Month* series pay homage to those Cranwellians who lost their lives serving their country and to pivotal historical events (e.g. Schneider Trophy, inaugural Jet flight, Battle of Britain) and the contributions made by Cranwellians.

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Fifth Commandant - William Gore Sutherland Mitchell



Commissioned into the Devonshire Regiment in 1906 as an infantry officer, Mitchell attended CFS in 1913 and was awarded his Royal Aero Club certificate No 483 in May of that year, before becoming a pilot in the RFC. During WW1 he commanded 10 Squadron.

Awarded a permanent commission in the RAF in 1919, he served in India and also commanded No 1 FTS.

In 1929, he was Director of Training before being appointed as Commandant of the RAF College on 30 January 1933 and promoted to Air Vice Marshal on 1 July 1933. He was the AOC when College Hall was opened in October 1934 - just before he handed over command.

Subsequently, he achieved the rank of Air Chief Marshal on appointment as AOC-in-C Middle East Command and then appointed Inspector-General of the RAF, on both occasions being succeeded by ACM Longmore.

On retiring from the RAF in 1941 he became the first RAF officer to hold the post of 'Black Rod' in the House of Lords.

Born 8 March 1888. Died of a heart attack 15 August 1944.

Autumn 1936 - Journal Lead Article (1)

LAWRENCE OF ARABIA

(Being an address delivered by Lord Halifax in St. Paul's Cathedral at the unveiling of a Memorial to Colonel T. E. Lawrence on 29th January, 1936.)

I TAKE it as an honour paid to the University of Oxford that her Chancellor should have been selected to perform this ceremony, and to say something about one of the most remarkable of Oxford's sons. It is my misfortune that it never fell to me to enjoy that close friendship with him, the memory of which is the possession of many here, so it cannot be of their Lawrence that I must principally try to speak. Rather from a standpoint more detached must I make some attempt to appraise the character and performance which we here commemorate.

It is significant how strongly the personality of Lawrence has gripped the imagination of his countrymen. To comparatively few was he intimately known; his fame rested upon achievement in distant corners of the world; to the vast majority he was a figure legendary, elusive, whose master motives lay far outside their cognizance. So true it is that men often admire most what they are least able to understand.

There has been no character in our generation which has more deeply impressed itself upon the mind of youth. Many of us can remember when we began to be told stories how impatiently we used to ask the teller if it was really true; and Lawrence's life is better than any fairy story. As we hear it we are transported back to the days of medieval chivalry, and then we remember that these things happened not yet twenty years ago, and were mainly due to a force present in one man, that we acknowledge under the title of personality.

To Lawrence in an especial sense Oxford played the part of understanding guardian. Trained of old to discern the signs, she readily knew in him the divine spark that men call genius, tended and breathed upon it until, self-taught, it kindled into flame. And it is perhaps not untrue to say that the discovery by Lawrence himself of his own powers and destiny was in no small measure due to their earlier recognition at Oxford by Dr. Hogarth, whom he was accustomed to describe as a great man and the best friend he ever had. So, with the stamp of her approval, Lawrence set forth from Oxford eastwards, a crusader of the twentieth century on behalf of peoples and causes which must remain for ever associated with his name.

It was an accident that this phase of Lawrence's life should have synchronized with that most searching trial of his country which was the occasion of his rendering her such signal service. He had long dreamed of the restoration to freedom of the inhabitants of Palestine and Arabia, and it was through the reactions of the Great War upon those lands that the chance came to realize his dreams. Others worked with him through the perils of the strangest warfare that those years witnessed, and share with him the glory of achievement. But he, as his collaborators were first to own, was the inspiration and fiery soul of the revolt which shattered Turkish misrule and made free men of the children of the desert.

In 1914 Lawrence was barely twenty-six, known only to Oxford and the small circle of his friends; when the war ended his name was on the lips of all the world. For nearly three years he had organized and directed against the enemy a race of nomadic tribesmen, difficult of combination in sustained military effort, and, great captain that he was, had turned what might have seemed their chief disadvantage to the invention of a new strategy. Conscious that he had at last found a cause to which he could consecrate all his energies, privation and physical danger became only incidents in the attainment of the great end of his endeavour. By true gift of leadership he was able to communicate to others his own standard of achievement. Each man who looked to Lawrence for instructions knew that he was asked to undertake no duty that his leader would not, and could not better, discharge himself. Small wonder that he could count upon a devoted loyalty almost unique in the annals of military adventure, a loyalty which over and over again carried forlorn hopes to complete success.

The campaign ended, Lawrence found himself engaged in what was for him the more arduous struggle of the peace. Even before the war ended questions, to which for him only one answer could be given, were being caught up in cross-currents of international policy and rival national interests. The mark that these days left upon him was deep and ineffaceable. The strain of their anxieties was heightened by the strain of writing his own record of events, to which at whatever cost he felt impelled by historical necessity.

Even at Oxford, where he sought in All Souls to find the rest that the University offers to her returning sons, he found himself unable to escape the burden that pressed upon his soul. Relentless his fame pursued him, forced him from Oxford, made him fly even from himself, to find in change of name, scene, and occupation that loss of identity through which he hoped to win reprieve from his distress.

Thus he came to join the humblest ranks of the Royal Air Force, the youngest of the Services. The future lay with youth, and here for Lawrence was the very embodiment of youth, with all its life before it. His imagination became suddenly on fire with the thought of what the air should be. Sharing its fortunes on terms of simple comradeship, he might inspire the young Service upon whose quality he felt that some day the safety of his country might depend. He called the conquest of the air the one big thing left for our generation to do. It is not without significance that the bulk of the contributions for the memorial unveiled to-day has come from shillings and sixpences given by the ranks of the Royal Air Force. To his decision we owe it that he was able to put into final form the narrative of those desert days, in prose which will live so long as men read the English language, and give Lawrence yet another claim to immortality.

These years from 1922 to 1934 among the unnamed rank and file were perhaps the happiest of his life. Both his mechanical and creative sense were satisfied in the work of perfecting the new speed-boats for the Air Force, and when he returned to private life it was a man restored, desiring yet doubting the taste of leisure, who went to make a quiet home for himself

Autumn 1936 - Journal Lead Article (2)

deep in the land of Wessex, beloved of that other master of the English tongue whom he so much revered. Here it was that after a few brief weeks he met catastrophe in what seems to have been characteristic sacrifice of self to avoid a collision, and a week later died.

So passed Lawrence of Arabia, leaving behind him a memory and an example. For he always maintained that he was no more than the average of his time; what he could do another might, granted the will and the opportunity.

What was the secret of the almost mesmeric power that he exerted? So different was he from other men that they could often only catch part of his singularly complex personality, and it is perhaps just in this difficulty of judging the man whole that lies the true evidence and measure of his greatness. Nor, with his strain of puckishness, was Lawrence himself averse from deepening a mystery, at times not less baffling to himself than to many of his friends. No one can read his private letters, in some ways the most arresting of his literary work, without being conscious of sharply alternating moods, almost the conflict of competing personalities.

But, this said, there are certain fixed points that hold firm in contemporary judgment. All those who knew him agree that he possessed some quality to be best described as mastery over life. While, like all men, he owed much to the influence of heredity and environment, he, more than most men, had or acquired the capacity to mould life instead of lending himself to be moulded by it. Here lay the secret of his command over affairs, over others, and last, but not least, over himself. It is seldom that the direction of world events can be so clearly attributed to the dynamic force of a single individual. He saw a vision which to the ordinary man would have seemed like fantasy, and by the sheer force of his character made it real. From his fellows he drew without exertion an allegiance unquestioning and absolute. Most men when they are asked to give are tempted, like Ananias, to keep something back, but Lawrence asked everything, and, because of the authority with which the demand was made, everything was given. Many elements contributed to the acceptance of this superiority, unchallenged and unsought. Great powers of intellect, of imagination, of intuitive understanding of other men's thought, but above all else must rank the overwhelming conviction that he gave of moral purpose.

It was not merely that he brought to bear upon life the concentrated strength of all his being, but that this faculty was eloquent of victory in the stern struggle for self-conquest. All the things that clog—ambition, the competitive race, possessions, the appetites of the natural man—all must give way if real freedom is to be won. Life, free, unhampered, unalloyed, alone deserves the name. As he said: "The gospel of bareness in materials is a good one."

I cannot tell what fed the consuming fire that made him so different from the common run of men. It has been said of him that no man was ever more faithful at any cost to the inner voice of conscience. Everything he did fell under the lash of his own self-criticism, and the praise of men

was unsatisfying and distasteful. But I cannot doubt some deep religious impulse moved him; not, I suppose, that which for others is interpreted through systems of belief and practice, but rather some craving for the perfect synthesis of thought and action which alone could satisfy his test of ultimate truth and his conception of life's purpose.

Strange how he loved the naked places of the earth, which seemed to match the austerity of life as he thought that it should be lived. And so he loved the desert where wide spaces are lost in distance, and, wanderer himself, found natural kinship with the wandering peoples of his adopted home.

His was the cry of Paracelsus:

"I am a wanderer: I remember well
One journey, how I feared the track was missed
So long the city I desired to reach
Lay hid: when suddenly its spires afar
Flashed through the circling clouds: you may conceive
My transport: soon the vapours closed again:
But I had seen the city: and one such glance
No darkness could obscure."

Yet side by side with this craving to accomplish ran another strand of feeling that lifts the veil from the inner struggle which I suppose grew harder in his later years. In August, 1934, he was writing to a friend about his own disquiet: "I think it is in part because I am sorry to be dropped out. One of the sorest things in life is to come to realize that one is just not good enough. Better perhaps than some, than many almost. But I do not care for relatives, for matching myself against my kind. There is an ideal standard somewhere, and only that matters, and I cannot find it. . . ."

There we must leave it, for the waters of genius run too deep for human measure.

Lawrence himself was never free from the challenge of his nature's secret. Perhaps he came nearer to the answer during those last days when he lay in the uncharted land between life and death, and saw his life no longer in part, but whole before him. Once more, it may be, he visited the Norman castles which first in boyhood had excited his romantic sense, or walked again amid the ancient works of Palestine. Or there came back to him the vision of the endless desert, rocking in the mirage of the fierce heat of noontide, and once more he trod the dusty ways of Akaba, Azrak, and the city of the Caliphs and, last of all, his beloved Damascus, with her green gardens by the river, these fading in turn before the places of his spiritual hermitage, Henlow, Bovington, Cranwell, and the Air Force stations of India—Peshawar, Miranshah, Karachi. And before the end came, I like to think that he saw again the spires of Oxford, unearthly in their beauty, set in the misty blue of early May, until at last he reached no earthly city, but that city of his vision where he might see no longer as in a glass darkly, and know at length as he was known.

Journal Article - Royal Visit January 1938 (1)



[Photo: "Graphic Photo Union."]

HIS MAJESTY THE KING LEAVING THE COLLEGE AFTER HIS INSPECTION ON 26th JANUARY, 1938.

*Also in the picture, from left to right, are:—*Wing-Commander E. J. Kingston-McCloughry. Air Marshal Sir Charles Burnett. Mr. V. Gordon. Mr. F. Brown. Air Vice-Marshal J. E. A. Baldwin. Mr. J. Carr. Mr. P. Snoxell. F./Lieut. J. S. Sabine. Major J. W. Collinson. F./Lieut. C. E. J. Baines. F./Lieut. L. V. Andrews.

Journal Article - Royal Visit January 1938 (2)

THE VISIT OF HIS MAJESTY THE KING TO THE ROYAL AIR FORCE, CRANWELL, ON 26th JANUARY, 1938.

BY FLIGHT CADET R. B. WRIGHT.

ON 26th January, 1938, the Royal Air Force, Cranwell, was honoured with a visit by His Majesty The King. The visit was of particular interest, as he had served at Cranwell in the spring of 1918 as an officer in the Royal Naval Air Service.

The Royal aeroplane, a red, blue and silver Airspeed Envoy, piloted by Wing Commander E. H. Fielden, M.V.O., Captain of the King's Flight, arrived over the aerodrome at 1129 hrs. It made one circuit, landed and taxied up to the tarmac opposite "D" Flight.

His Majesty was met by Air Chief Marshal Sir Cyril L. N. Newall, K.C.B., C.M.G., C.B.E., A.M., Air Marshal Sir Charles S. Burnett, K.C.B., C.B.E., D.S.O., the Air Officer Commanding-in-Chief, Training Command, Air Vice-Marshal J. E. A. Baldwin, C.B., D.S.O., O.B.E., the Air Officer Commanding, Cranwell, Group Captain C. N. Lowe, M.C., D.F.C., and Wing Commander A. R. Churchman, D.F.C.

As His Majesty left the machine the Royal Standard was hoisted and the guard of honour, composed of a hundred flight cadets, gave the Royal Salute, while the Band of the Royal Air Force College played the National Anthem. His Majesty inspected the guard of honour, which was commanded by Flight Lieutenant W. W. Stainthorpe, the College Adjutant, and afterwards walked down the tarmac between the personnel of the Advanced and Flying Training Squadrons and the aircraft, which were drawn up in three rows on the grass in front of the flights.

He next visited the College Instructional Workshops, where the N.C.O. Instructors were formed up under the command of Flight Lieutenant W. S. Hebden. His Majesty inquired the reason for the presence of a Supermarine Southampton hull, and examined the patches made on it by flight cadets. The Commandant informed him that the engineering training had had to be curtailed, and His Majesty asked why this was necessary.

From the College Instructional Workshops His Majesty proceeded on foot past the West Camp parade ground to the former College Mess, where he re-entered his car. Thence he proceeded to the Station Church, where he was received by the Rev. Leslie Wright, the Senior Church of England Chaplain. The other Station Chaplains were then presented, viz., the Rev. R. Briscoe, the Rev. W. S. Woosnam-Jones, Father Lavin and the Rev. J. Appleyard. His Majesty entered the church and during his inspection expressed his appreciation of the size of the church and the beauty of the altar and chancel, remarking how different it was from the place where they had to worship when he was stationed at Cranwell. He was glad to note the improvements made since those days.

He was particularly interested in the banners of the squadrons which were first formed and trained at Cranwell in 1914, which are now preserved in the church. On leaving, he complimented all those responsible for the good condition of the church.

He then drove to the Signals Squadron, arriving in front of the hangars at 1205 hrs. He was met by the Officer Commanding the Electrical and Wireless School, and Squadron Leader L. T. Keens was presented. He inspected a Vickers Valentia "flying class-room" with its crew and pupils, who were standing by the machine. The Electrical and Wireless School is the only unit which uses aircraft so equipped, and the Officer-in-Charge of the Air Operating Section explained the arrangement of the aircraft and the type of work for which it is used. His Majesty remarked that much time must be saved and much confidence gained as a result of the Instructors being able to supervise wireless operators on their initial flights.

He next examined the automatic pilot instructional panel used for the training of apprentices in the trade of instrument maker, and was impressed by the grouping of the gyroscopes and their associated controls to facilitate the instruction. He inquired about the steadiness of the aircraft during flight, and appreciated how air-sickness must affect the pupils during instruction. He also inquired sympathetically how long the officer responsible for the instruction had been engaged upon this type of work.

He remarked to the Officer Commanding the Electrical and Wireless School that it was twenty years, almost to the day, since he had last arrived at Cranwell, and the Officer Commanding mentioned that the head gardener of the Electrical and Wireless School (whom he hoped to present later) had been a boy in the School twenty years ago, and that His Majesty had awarded him six days' C.B. He replied that no doubt he had deserved it.

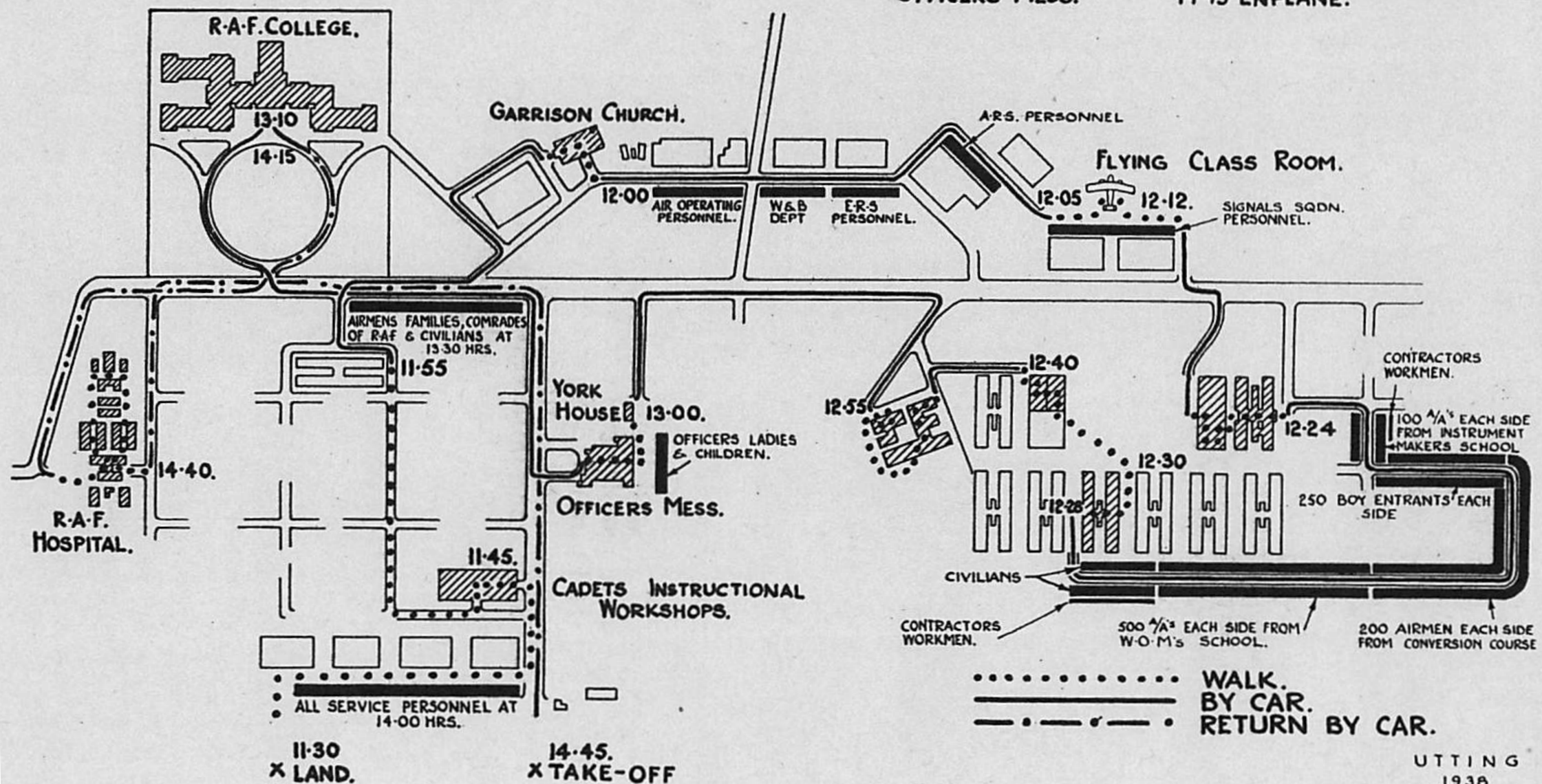
He next walked along the tarmac of the Signals Squadron and inspected a line of Westland Wallace aircraft drawn up there. He then drove to the East Camp parade ground, where he was met by Wing Commander O. W. de Putron and Squadron Leader G. P. H. Carter. He inspected the Wireless Operator-Mechanics' School workshops. He first saw classes in their second and third years at basic fitting. After examining the workshops exercises of A.C.1 Tomblin, who, as Corporal Apprentice, gained the highest marks in the last Central Trades Test Board workshops test, His Majesty watched for a few moments an apprentice carrying out the operation of "knurling." He then examined some of the work done in the W/T repair shop. In the last of the workshops visited he saw the exercises completed by the next entry to pass out. Here he spoke to Corporal Apprentice Noyes and asked him how he liked being in the Royal Air Force; how long he had been serving; and if he had personally carried out the work in front of him. He added, "You must have been sixteen years old when you joined."

In the Technical Section he saw the petrol electric room, where a class was occupied in tuning magnetos and assembling Norman-Lyon engines; the demonstration laboratory, where instruction was being given on instruments; and the ground transmitter laboratory, where T70's and T77's were

Journal Article - Royal Visit January 1938 (3)

Route taken by His Majesty King George VI on theOccasion of his Visit to Cranwell on January 26th 1938.

11-30. LANDS & INSPECTS GUARD OF HONOUR. 12-00. EMBARK CARS TO N. AERODROME. 12-30. PROCEED TO & INSPECT THE
11-45. INSPECTS CADETS INSTRUCTIONAL 12-12. " " PROCEED TO & INSPECT W.O.M.'s WORKSHOPS. 12-40. EMBARK CARS PROCEED TO &
WORKSHOPS. 12-24. EMBARK CARS PROCEED ROUND NEW HUTTED CAMP. 12-55. EMBARK CARS PROCEED TO &
11-55. EMBARK CARS & PROCEED TO GARRISON CHURCH. 12-28. INSPECT BARRACK BLOCK. 12-55. EMBARK CARS PROCEED TO &
INSPECT YORK HOUSE &
OFFICERS MESS.
13-05. EMBARK CARS PROCEED TO R.A.F. COLLEGE FOR LUNCH, 14-15. EMBARK CARS PROCEED TO &
INSPECT MAIN BUILDING. 14-40. EMBARK CARS PROCEED TO S. AERODROME. 14-45. ENPLANE.



Journal Article - Royal Visit January 1938 (4)

being tuned. He commented that a W.O.M. has to be familiar with a great variety of equipment.

At the end of the inspection Flight Lieutenant H. J. Adkins, who was an officer on the station when His Majesty was here, was presented and they talked about those times. Flight Sergeant Harris, who was a boy mechanic under training during the same period, was also presented.

He then drove past the additional buildings of the new W.O.M. School and the Instrument Makers' School, round the new wooden-hutted camp, past the Educational School to Barrack Block No. 327 of "B" Squadron, No. 2 Wing. Entering the left-hand ground-floor dormitory of this block, he remarked that he had been responsible for the inclusion of the N.C.O.'s room in the dormitory, as he was serving here when the blocks were built. He left this block by the south door and walked across the parade ground, where squads of aircraft apprentices and boys were doing drill and physical training. Squadron Leader F. G. A. Robinson, D.F.C., Commanding No. 2 Wing, was presented. He commented on the boys' smartness. He went on to the new gymnasium, where he was received by Flying Officer A. W. Taylor. For a short time he watched the physical training display and then walked on to the old gymnasium; thence to the cinema, where Flight Lieutenant W. R. Castings, M.B.E., and Flight Lieutenant F. S. Wainscot, Officer-in-Charge of the cinema, were presented.

He then walked to the Aircraft Apprentices' and Boys' Institute and entered by the games-room entrance. Outside the Institute, Mr. Leyland, a clerk in No. 3 Wing Headquarters, and Mr. Marshall were presented. Mr. Leyland, an ex-warrant officer and officer on this station, requested permission to send His Majesty's good wishes to a meeting of the British Legion at Sleaford; His Majesty graciously agreed to this. Mr. C. A. Marshall, an ex-flight sergeant (who now owns a garage on this station), said that it was the second time he had had the honour of being presented to His Majesty.

Inside the Institute, Wing Commander O. W. de Putron was presented, and His Majesty then passed through the Institute, examining in detail the facilities for games. He walked past the tennis courts to the Sergeants' Mess, where he was graciously pleased to sign the visitors' book.

His next visit was to the Officers' Mess, where he went over York House, recognizing his old rooms. As he passed close to the officers' wives and families (who were waiting on the lawn to see him), he saluted with a pleasant smile and expressed his sympathy with them on the cold wind which must have caused them some discomfort during their wait.

In the Mess he visited the dining-room, the ante-room and the card-room, showing great interest in several pictures, including the portrait of King George V, the Verpilleux pictures in the dining-room, and the photographs of King George's visit in 1918, and his own visit of inspection as a Squadron Leader in 1921.

His Majesty seemed very glad of the opportunity of renewing the memories of his association with the Mess.

At 1310 hrs. he drove to the Royal Air Force College Mess, when the Royal Standard was hoisted at the R.A.F. College mast as he entered the main gates.

Wing Commander E. J. Kingston-McCloughry, D.S.O., D.F.C., the President of the Royal Air Force College Mess, received His Majesty on the steps of the College, after which the Royal party proceeded to the small Guest Room.

Major J. W. Collinson, who was in command of the R.N.A.S. Wireless School during His Majesty's period of service at Cranwell, was presented. His Majesty spoke to him for three or four minutes concerning those days, mentioning several contemporaries and discussing their subsequent careers. In particular he remembered the Photographic Officer of those days, Lieutenant-Commander Will R. Rose, and also a later Commanding Officer of the Boy Mechanics, Colonel Barnby, whose obituary notice His Majesty had seen a short time before.

Flight Cadet Under-Officers A. M. Murphy and B. P. Young were also presented.

The Royal party then proceeded to luncheon. His Majesty, as host, sat in the central position at the top table; on his right sat Air Chief Marshal Sir Cyril L. N. Newall, and on his left sat Air Vice-Marshal J. E. A. Baldwin. He mentioned that he had watched the aurora for more than an hour during the previous night, a friend having warned him about it by telephone.

After lunch His Majesty returned to the Guest Room, where Wing Commanders J. R. Cassidy and E. J. Sayer, M.C., Dr. I. B. Hart, O.B.E., and Mr. H. A. Matthews were presented. While speaking to Dr. Hart, His Majesty commented on the growing number of knobs, buttons and similar gadgets in the modern aircraft, and how their significance was conveyed to those under training. He also inquired about the recruiting of aircraft apprentices and boy entrants, and asked how far the standard of entry was being maintained.

He spent some time discussing the aurora borealis of the previous night with Mr. Matthews.

After this he inspected the main lecture room of the College, where Professor O. S. Sinnatt, M.C., Captain G. J. Pytches and Mr. W. T. Holloway were presented. He showed great interest in the photographs of past Commandants of the College, and especially in the model of the old College.

He next visited the hairdressing saloon, where Mr. G. H. Green, the College hairdresser, was presented. His Majesty inquired when he joined Cranwell, and if he was here all the time that he himself served at Cranwell, and Mr. Green replied that he was. During his inspection of the saloon, His Majesty seemed pleased with its appearance. He asked Mr. Green if he had been stationed at Cranwell continuously since 1917, to which he replied that he had been. He was posted to Cranwell in the R.N.A.S. in June, 1917, and, after the usual interview with the First Lieutenant, had been selected for duty as officers' steward in the Ward Room.

Journal Article - Royal Visit January 1938 (5)

The College Library was a source of particular interest to His Majesty. Here were presented Professor R. de la Bère and Mr. A. G. Boycott. He looked at several albums containing photographs of Cranwell in 1918, when he served as Adjutant in the Boys' Wing. He also saw photographs of himself at the College in 1920, and of his father's visit to the Western Front, and others of early aeroplanes and airships.

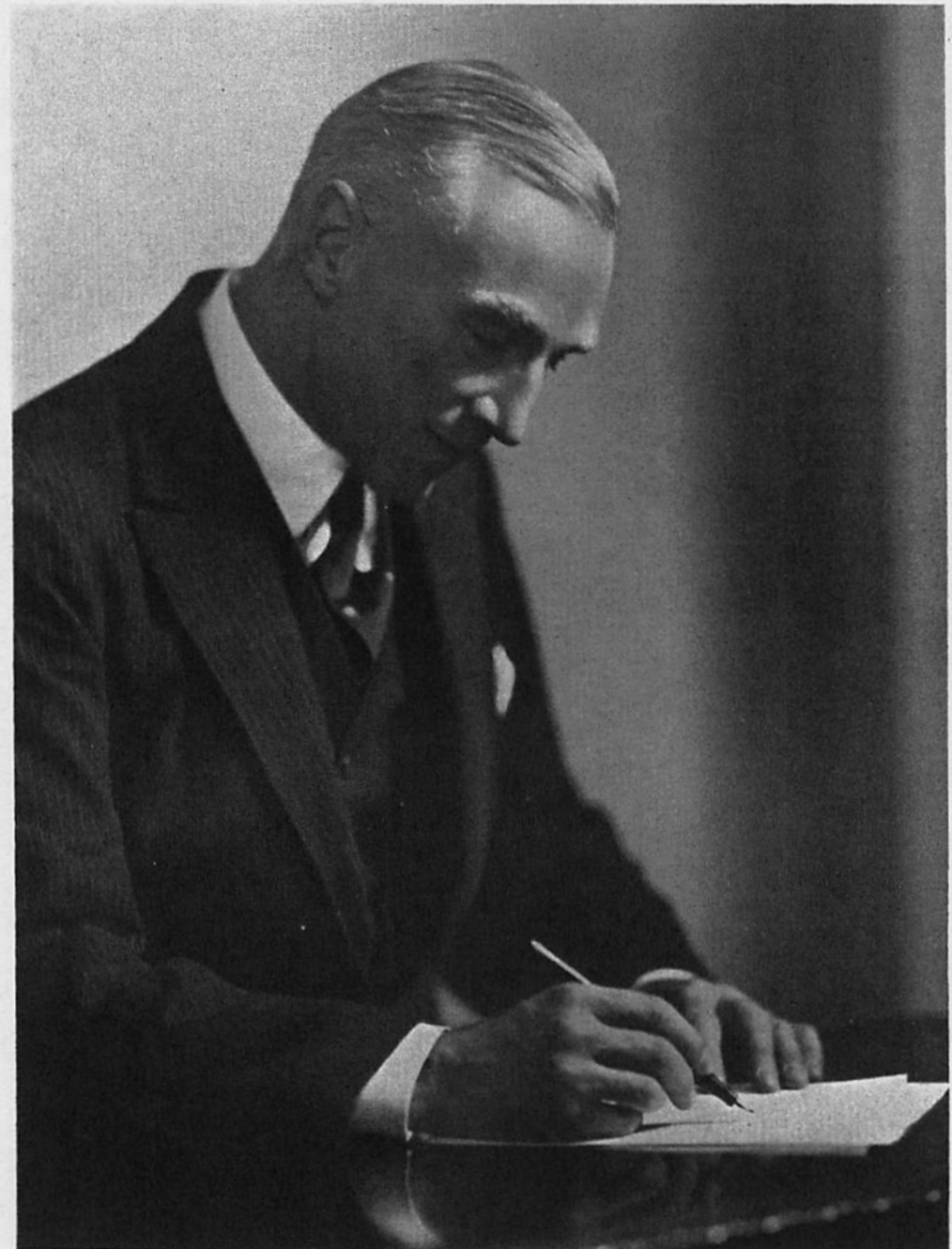
He was especially interested in some old and dilapidated copies of *The Piloteer* which Professor de la Bère showed to him, containing ancient photographs and caricatures, including some of his Commanding Officers. He referred to two of these in a lighthearted manner which greatly amused everybody who was in the Library.

His Majesty left the College at 1415 hrs., to the cheers of the officers assembled at the entrance. The drive of the College was lined by flight cadets, without rifles. At 1420 hrs. he went to the west entrance of the hospital, where he was met by Group Captain A. E. Panter, Commanding the Hospital, and the Matron, Miss W. M. Coulthurst, O.B.E. He was shown through the officers' ward and the sitting-room, where Wing Commander G. J. Hanly, in charge of surgical division, and Sisters Miss E. K. Griffin and Miss N. Meikle were presented. In the cadets' ward he spoke to the officers and inquired the nature of their ailments and how they had been contracted. He next went to the maternity ward, where Squadron Leader H. C. S. Pimblett, Officer-in-Charge, and Sister Miss M. T. Thorburn were presented. He paused to speak to some of the mothers, and ask the ages of their infants. He was informed by the Matron that the hospital was proud of its maternity ward, to which his reply was, "You have need to be." His Majesty then visited Ward 1 (surgical), where Sister Miss A. M. Williamson was presented; Ward 2 (surgical), where Sister Miss E. W. Griffiths was presented; and Ward 3 (medical), where Sister Miss A. M. Angus was presented. He was next shown round the operating theatre, where Sister Miss H. D. Terry was presented. He inquired about the lighting. In the X-ray department, where Flight Lieutenant R. F. Wynroe was presented, he asked how long the X-ray plant had been installed.

He left the hospital at 1430 hrs. and proceeded by car to the aerodrome. As he passed the West Camp guardroom the Royal Standard at the Royal Air Force College mast was lowered.

The informality of His Majesty's departure contrasted strongly with the formality of his arrival. At 1445 hrs. he arrived at "A" Flight and was enthusiastically greeted with cheers and the waving of caps by thousands of airmen, aircraft apprentices and boy entrants who had been waiting on the South Aerodrome for over an hour. The cheering continued whilst he shook hands with those who had accompanied him during his tour. As he entered his aeroplane the cheering increased, and as the machine began to take off hundreds of airmen raced in a final attempt to catch a last glimpse of His Majesty, who could be seen graciously acknowledging these demonstrations as the machine left the ground.

Eighteen minutes later His Majesty landed at Bircham Newton.



[Photograph by Swaine.]

CAPTAIN RUPERT DE LA BÈRE, M.A. (Oxon.), F.R.Hist.S.,
Diploma of Education, etc.

Professor of English and History at the Royal Air Force College,
Cranwell, 1921 to 1938.

11th College Commandant - George Robert Beamish



[Photo: Bassano Ltd.]

AIR COMMODORE G. R. BEAMISH, C.B., C.B.E.
Commandant of the Royal Air Force College

Assistant Commandant - JOW Oliver



GROUP CAPTAIN J. O. W. OLIVER, C.B., D.S.O., D.F.C.
Assistant Commandant

March 1957 Journal - First Navigator Training

THE CRANWELL NAVIGATOR

IN January 1956 the first cadet navigator started his training at the College. He has been here for a little more than a year now and it is interesting and possibly of some help if a look is taken at what he is accomplishing, hopes to accomplish and how his training compares with that of the more widely known pilot training.

Like all other cadet training here, the first and foremost task is to lay the foundations of a good officer.

A great deal of juggling was required originally so that the navigator could take, with the pilots, classes directed towards this end. The humanities, Squadron training, general service subjects, etc., are the same for both navigator and pilot and it sounds at first as though no real difficulties

are to be encountered. Then one realizes that whereas the pilot can report to the flight and be absorbing airborne instruction after a relatively few minutes' briefing on the ground (except for cross-countries, of course), the navigator is required to prepare his maps and charts, calculate his flight plan and have the purpose of the exercise explained as fully as possible if any value at all is to be obtained from the flight.

This is in addition to the full crew briefing which takes place just prior to take-off. Also the flight must be of at least two to three hours' duration. All praise then to the planners for managing to incorporate this extra time into the normal syllabus.

Now what about the rest of the ground training? The navigator receives roughly twice

the amount of Electronics instruction as the pilot. A further departure from the normal is the fact that a large amount of practical work has been introduced. With soldering iron and tools various, the navigator is kept busy making and dismantling amplifier units, power packs, receivers, etc., so that eventually he will be able to diagnose and correct faults as they occur or at least be able to give precise details of unserviceability to ground crew upon the aircraft's return.

His flying starts from the first term and in the initial stages he receives 6s. per flying day in addition to his basic pay, with full cadets' flying pay from the start of the second year. These same conditions exist for the pilot.

As far as his practical navigation is concerned, he is led gently into map reading, thence to simple air plots interspersed with practice in the use of radar aids until he is in a position to be sent off as the executive navigator which is somewhat comparable to the pilot's first solo. The navigation then becomes progressively more advanced both with and without the supervision of a screen navigator and at the end of this three years' work at the College he should be able to make use of all aids including Astro, and also have some experience of the techniques used by Fighter, Bomber, Coastal and Transport Commands.

An interesting proposal at present is that of the cadet navigator being shown how the Provost flies. A flying instructor would, in a very few hours, demonstrate the effect of controls, stalling, spinning, etc., so that the navigator may appreciate more readily how the aircraft works and benefit from really comprehensive air experience.

During his second year it is also proposed that he will navigate the Vampire or Meteor aircraft, thus gaining practical experience of the problems involved in high-speed high-level flight as soon as possible. Overseas exercises are also included in order to broaden experience in long-range navigation, crew co-operation and officer training.

The academic syllabus covers a great deal

more than that of the normal Air Navigator school and the Cranwell navigator will be well equipped to take up Staff duties when the time comes. Most important from his point of view is the indisputable fact that, backed by his College experience, he will have every opportunity of pursuing a career equal to that of the pilots with whom he is now training.

With the aid of their crystal ball, without which all navigators are lost, the Navigation Section at Cranwell has peered into the future and produced No. 270 Entry's Astrogation paper. After completing these questions, keen types can find specimen answers below.

No. 270 Entry

Subject: Astrogation Place: Planet 3 (Terra)
Time: 1st Phase 2057

Observe: All Extra Sensory Perception screens are to be in place before commencement.

1. Describe the modification you would make to a Mk III Interplanetary Drive in order to adapt it for interstellar acceleration.
2. With the aid of a diagram, show the working principle of an Hieronyman machine.
3. (a) What precautions would you take before entering space warp?
(b) Would these precautions apply in the Southern Celestial hemisphere?
4. Your Spherical celestial computer reads:
Venus 37-23-36 Beta Orion 12-17-48. The Star Cluster in Andromeda 4 is in sight line. You are proceeding from Terra to Dryndel 4 (Sol Type system X 1a). What is:
(i) Track made good.
(ii) Space speed in parsecs per sec.
5. Why is it necessary to remove a space vehicle five diameters from a planet before the Lawlor Drive becomes effective?
6. (a) Detail any five of the Space Code enforcements.
(b) Describe the form of salutation required when meeting a class II Venusian Intermediary.

Spring 1960 Journal - Change of CAS



Sir Dermot Boyle

mandated No. 85 Group, 2nd T.A.F., for three months. He became A.O.C. No. 11 Group, Fighter Command, in July 1945, and after taking the 1946 course at the Imperial Defence College was Assistant Commandant of the R.A.F. Staff College, Bracknell, for 18 months before going to the Air Ministry. In April 1951 Sir Dermot became Air Officer Commanding No. 1 Group, Bomber Command. Late in 1952 he led the Royal Air Force tour of goodwill to Latin America by No. 12 Squadron Canberra jet bombers and captained one of the Canberras as pilot throughout the flight of over 24,000 miles.

In September 1952 he flew a Canberra bomber from R.A.F. Station, Binbrook, Lincs, to Malta and back in 6 hours 5 minutes flying time, at an average speed of 485 m.p.h. for the 2,914-mile journey.

On becoming Chief of the Air Staff in January 1956, Sir Dermot piloted a Canberra on a 20,000-mile tour of R.A.F. units in the Middle and Far East, and in January 1959 made a similar tour of 22,000 miles, flying a Canberra B6.

In 1956, in a message to the Commandant of the College, Sir Dermot said:

'My appointment is an honour not so much to myself as to the Royal Air Force College where the seeds were sown and nursed, and to our great Service which has provided an inspiring field for development and achievement. I do not overlook the fact that had not some of my contemporaries given their lives in devotion to their duty it would have been one of them and not I that would have had the unique distinction of being the first ex-Cadet to be Chief of the Air Staff.'

'It is now for me to attempt to enhance still further the Cranwell tradition. To know that in this difficult task I have the support of all Cranwellians, past and present, is a great encouragement and inspiration.'

HER MAJESTY THE QUEEN has been pleased to appoint Air Chief Marshal Sir Thomas Pike, K.C.B., C.B.E., D.F.C., as Chief of the Air Staff with effect from 1st January 1960, in succession to Marshal of the Royal Air Force Sir Dermot Boyle, G.C.B., K.C.V.O., K.B.E., A.F.C.

Marshal of the Royal Air Force Sir Dermot Boyle, G.C.B., K.C.V.O., K.B.E., A.F.C.

Born at Durrow, Abbeylisc, Queen's County, on 2nd October 1904, Sir Dermot was educated at Saint Columba's College, Dublin, and the Royal Air Force College, Cranwell, from which he was commissioned in 1924. He returned to Cranwell for two years prior to the war as chief flying instructor.

He served in Bomber Command during part of the war at Headquarters as an Air Staff Officer in June 1940, on his return from France, and later commanded No. 83 (Bomber) Squadron at Scampton until early in 1941, when he was appointed Assistant Secretary to the Committee of Imperial Defence. In January 1942 he was given command of the bomber station at Stradishall, Suffolk, and later became Senior Air Staff Officer of No. 6 (Bomber) Group at Abingdon, Berks. He was S.A.S.O. of No. 83 Group, 2nd Tactical Air Force, from May 1943 to April 1945, and afterwards com-

Air Chief Marshal Sir Thomas Pike, K.C.B., C.B.E., D.F.C. Sir Thomas was born at Lewisham, Kent in June 1906, and was educated at Bedford School and the Royal Air Force College, Cranwell, from which he was commissioned in December 1925.

During the war he served in the Directorate of Organization at the Air Ministry until 1941 when he took command of No. 219 (Fighter) Squadron with which, in a few weeks, he won the D.F.C. for skilful night interceptions of enemy aircraft over Britain, destroying one on his first patrol and soon afterwards three more to win a Bar to the D.F.C. Later that year he joined Headquarters, No. 11 Group as an Air Staff Officer for night operations duties. From February to August 1942 he commanded R.A.F. North Weald, and then returned to No. 11 Group as Senior Administrative Officer.

In May 1943 he took command of No. 1 Mobile Operations Room Unit for service in the Middle East and North Africa. Early in 1944 he became Senior Air Staff Officer, Desert Air Force, and in June 1945 returned to Britain to command No. 1 Officers' Advanced Training School. Later he became Director of Operational Requirements at the Air Ministry for two years, before taking the 1949 course at the Imperial Defence College. He became Air Officer Commanding No. 11 (Fighter) Group in January 1950, then Deputy Chief of Staff (Operations) at Headquarters, Allied Air Forces Central Europe, followed by Assistant Chief of the Air Staff (Policy), and in August 1956 Air Officer Commanding-in-Chief Fighter Command.

Sir Thomas Pike



Spring 1964 Journal - Cranwell & Henlow Merger (1)

THE HENLOW-CRANWELL MERGER

This article is based on a talk given by Squadron Leader P. B. MacCorkindale, who is responsible for the planning and co-ordination of the merger, at a conference held in the Whittle Hall on 7th January 1964.

In 1959 the Commandants of the R.A.F. Technical College and the R.A.F. College made a combined study of Air Vice-Marshal Marson's report on the Technical College. As a result of their conclusions, the Air Officer Commanding-in-Chief, Flying Training Command recommended that a merger of the two Colleges was necessary to bring permanent General Duties and Technical Officers together and in particular to start them off in the Service with a common basic training. In March 1961, after the ways and means had been agreed, the Secretary of State for Air announced to the House that the two Colleges would be merged. He said, "Cadets of all branches will be trained together, and, in addition to achieving greater administrative flexibility we believe that the Service and the cadets of both branches will benefit by working under the same roof."

A Committee under the Chairmanship of Air Vice-Marshal, now Air Marshal, Sir John Baker-Carr was formed to continue planning the works service programme, to consider the best means of intergrating training, and the organisation necessary for the Cranwell of the future. As the Baker-Carr Committee's proposals are still *sub judice* they cannot be reported here. Nevertheless, whatever organisation is finally decided upon, the cadets of the Technical Branch will be fully integrated into the four existing squadrons of the Cadet Wing. They will all be called flight cadets and will stay at the College for three years. However, owing to the high grade academic content of the course which is complementary to the technical instruction, it is unlikely that any integration can occur in academics, except perhaps in Humanities and War Studies. After the Technical Cadet has been commissioned alongside his contemporaries of the other branches, he will continue his studies for the Diploma in Technology or Higher National Diploma for a further one and a half years. This phase of his course will be done within the Student Technical Officer Element at Cranwell and he will live in the new Student Officers' Mess.

Cadet entries 84 strong are expected to enter the College twice a year — 60 General Duties, Equipment, Secretarial and Regiment and 24 Technical. Discounting wastage, the planned peak cadet population is expected to be 504. The student officers, who will be undertaking engineering courses of varying length and type, some at post-graduate level, should reach a peak of 320 by 1969.

The first of the many building projects is now much in evidence just East of the Taj Mahal (the present Education Section) which is complementary to it. This three storey building will be 150 yards wide and the two wings 100 yards long. The intention is to replace the Taj Mahal and complete the square in ten to fifteen years time. The building will contain the Electrical and Weapons Systems and part of the Mechanical Engineering Wings, now at Henlow, together with Administrative Headquarters.

Plans for the building of the Aerothermodynamic Block, the Aircraft Hall, the Instructional Workshops, the new Students' Mess, and the extension of the present Officers' Mess, which were outlined in the Spring 1963 issue of the *Journal*, remain unchanged. 72 Officers' Married Quarters have just been built, 75 more just begun and 15 more approved. A N.A.A.F.I. sub-shop will be built in the area. 54 Airmen's Married Quarters are to be built at Cranwell, 100 will be made available at Winthorpe and 73 at Spitalgate.

To enable it to have its own specialist department and to allow maximum concentration in the Tutorial Wing of academic classrooms, the Equipment and Secretarial Wing has moved into buildings previously occupied by the Royal Air Force Selection Board. The ground floor (West) of Barrack Block 329 will be converted for the use of the Station Education Section.

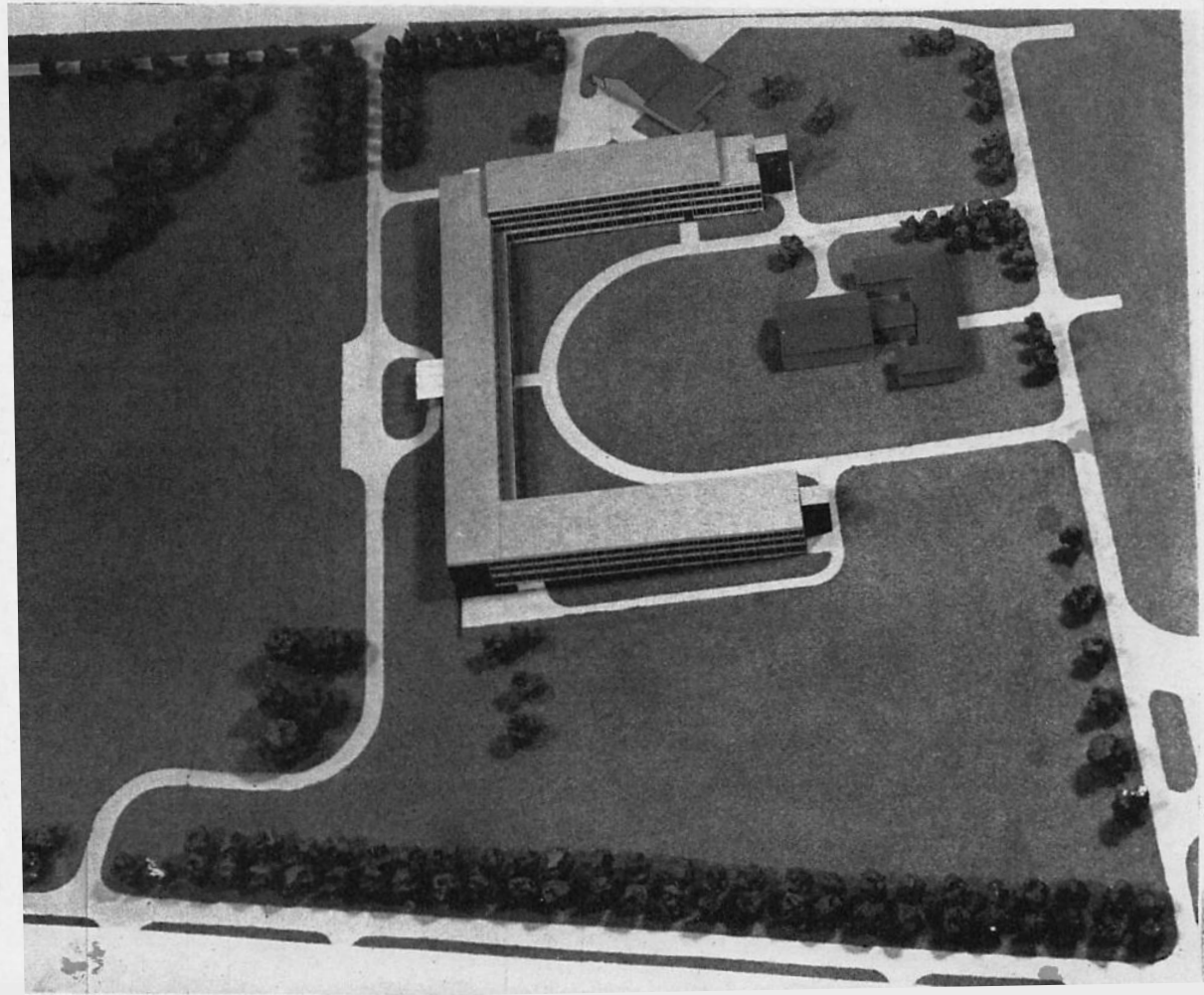
Cadet accommodation will be increased by using Daedalus House, and, it is hoped, by converting two more huts of the South Brick Lines which will be centrally heated. The Group planning staffs will occupy most of the top floor of the existing Headquarters building. The Telecommunications Centre will move out to an adjacent building, where a new automatic exchange will be installed. This will leave the whole of the ground floor and part of the first floor for Station Headquarters. College Headquarters will be housed in the former museum, memorial chapel and fiction library of the main College building.

The existing Tutorial Wing, together with all the new engineering instructional facilities to be built for Henlow, will be for the common use of cadets and student officers. Broadly speaking, the Basic Sciences and Humanities will be taught in the Tutorial Wing and applied subjects in the new building.

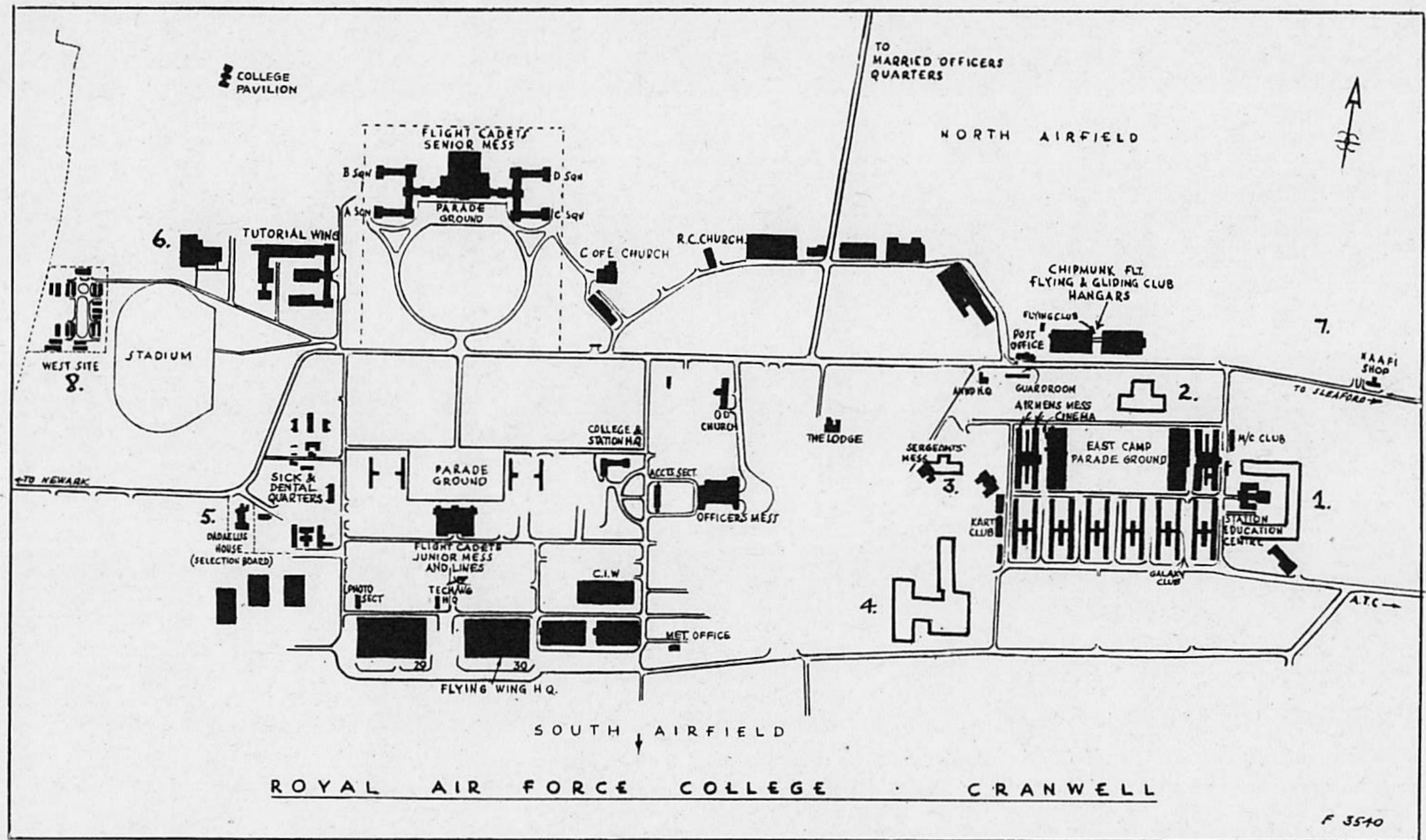
The task of removing Henlow's vast range of equipment to Cranwell is formidable but plans for the move are already well advanced. Personnel and advance parties of departments will begin to arrive at Cranwell in April 1965, and the Technical Cadets will start training at the beginning of the Autumn term the same year.

The merger will have a significant effect on Cranwell and on the Service as a whole; the amenities will be the envy of all and they will be adaptable for any pattern of Royal Air Force training decided upon for the next twenty years.

Architect's model of the R.A.F. Institute of Technology



Spring 1964 Journal - Cranwell & Henlow Merger (2)



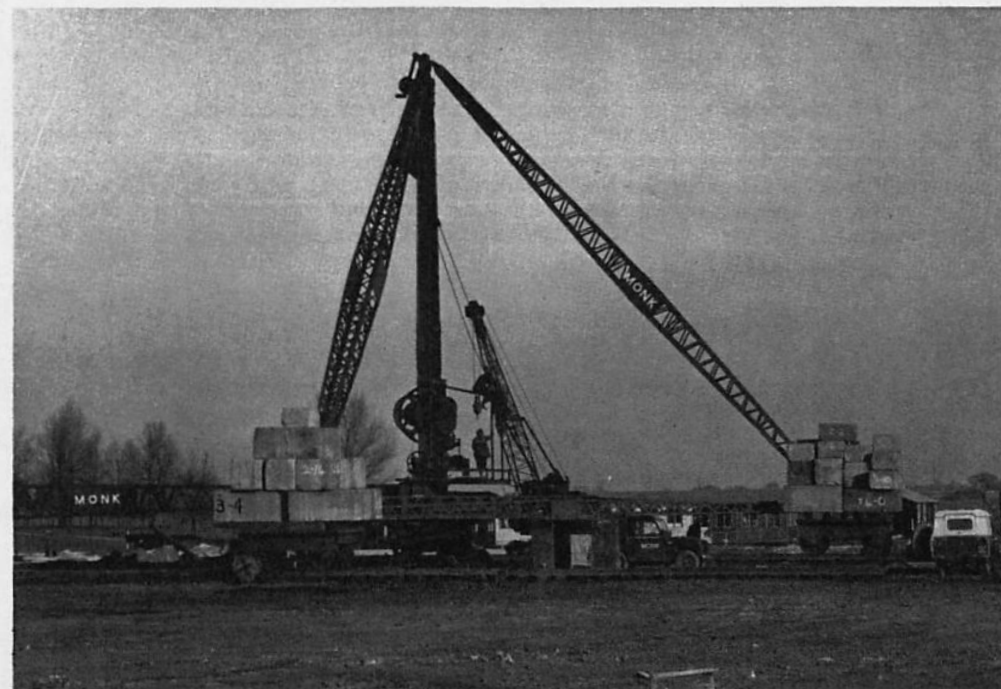
SKETCH MAP KEY

1. The R.A.F. Institute of Technology.
2. The Airmen's Mess.
3. New Sergeants' Mess.
4. New Student Officers' Mess
5. Daedalus House : Equipment and Secretarial Wing
6. Gymnasium and Swimming Pool.
7. New Children's School (open last year)
8. West Site : R.A.F. Regiment and Navigation Training

Spring 1964 Journal - Cranwell & Henlow Merger (3)



Cutting the first sod—The Commandant and his 'spade'



A sight that would have been welcome to the Pharaohs' labourers ?

Spring 1964 Journal - Head Batman 'Jimmy' Green

1919
to
1963

For 44 years Mr. Frederick Green, B.E.M., known to hundreds of flight cadets as "Jimmy," was head batman of "B" Squadron Royal Air Force College, Cranwell. He retired in January and, in an interview with AIR CLUES, gave a few of his impressions of life at the College.

The other day as we talked in "Jimmy" Green's pleasant bungalow in Cranwell village, Provost T.4s were overhead on their approach to the airfield just a stone's throw away. The noise of the aircraft reminded Mr. Green and his wife, Dorothy, of the "hairy" days of the 1930s when they had the bungalow built. Then the pilots would often seek out Jimmy at the College and suggest that he warned his wife to take in the washing which they had spotted on Finals — rain was on the way.

It was typical of the friendly relations which existed between the head batman and the young cadets. In fact, that mutual friendliness is one of his main impressions of life at Cranwell over the years. It still gives him pleasure to know that he was able to help so many cadets over their first hurdles of Service life; and the cadets have always looked to him as a friend and guide. Many of his "charges" have risen to high rank in the Service and the many letters he has received from them over the years show how much they valued his early care.

Were those cadets of the early thirties any different, as viewed by their batman, to the cadets of the jet age? "No different, really," emphasises Jimmy. "They are still a gay crowd and a great company of men. They all have their own little ways, which we have to get used to while they settle in, and you couldn't hope to meet a fitter bunch of chaps anywhere."

So many cadets have passed through his hands that today he finds it hard to recall many by name. But he never forgets their faces. Some return to the College for Reviews and special ceremonial occasions. "They all remember me and ask how I'm getting on," he confided. "They are just as friendly as they always were no matter how high their rank."

It was on 2nd February, 1920, that Mr. Frederick Green, recently released from service with a famous British cavalry regiment, presented himself for duty at the College. He was one of 11 civilians who had applied for jobs at Royal Military Academy, Sandhurst, and were sent on to Cranwell for duty.

Three days after his arrival, the Royal Air Force College was opened, on 5th February. There were 50 flight cadets in the first intake, he recalls, made up of 25 Sub-Lieutenants and Midshipmen and 25 new R.A.F. entrants.

A feature of the training was that the Royal Navy personnel spent only a year at the College before being posted to squadrons, while the course lasted two years for other cadets. Aircraft in use at that time included the Avro 504J, popularly known as the Mono-Avro (it had a 100h.p. Gnome Monosoupape engine), and two famous aircraft he had first seen on active service with the 11th Hussars in France — the Bristol Fighter and the Sopwith Snipe. Total flying time up to wings standard was 60 hours.

In place of today's impressive buildings there were the original hangars and tin huts put up in 1915 for the Royal Naval Air Service, when the airfield was known as H.M.S. Daedalus.

Mr. Green recalls that cadets had a small room at the end of each hut which was used as a study. There were also rather down-to-earth washing facilities, and one of the batman's duties, he remembers, was to keep the fires in the huts going all night during the winter to prevent the water pipes from freezing. It could be pretty cold and many times he found cadets' shoes frozen to the floor when starting his duties in the morning.

In the tradition of good batmen, Mr. Green was suitably reticent about some of his more amusing recollections of cadet life. "Some of them might not like to be reminded of them

today," he said with a chuckle. But he did pass on one story of the time when 50 hurricane lamps went missing from road works in Boston one evening. Unaccountably these turned up in the cadets' rooms. Trouble ahead, thought Mr. Green, and decided to take action. Unknown to the sleeping cadets the lamps found their way in the dead of night to a disused stores hut. The odd thing about it, Mr. Green assured the police next morning — nobody seemed to know how they got there!

One of his most treasured memories is of the laying of the foundation stone for the new College building in 1929 when Lord Trenchard officiated. Mr. Green had a ringside view of the ceremony from a ground floor window.

In 1940 Mr. Green felt he should do his bit in the war, so he joined the R.A.F. — as a batman, of course. But the College decided it could not do without him and he was promptly posted to Cranwell, this time as Corporal Green. When the war was over he continued to do the same job as a civilian.

He is particularly proud of the fact that two of "his" cadets became Chiefs of the Air Staff — Marshal of the R.A.F. Sir Dermot Boyle, G.C.B., K.C.V.O., K.B.E., A.F.C., and Marshal of the R.A.F. Sir Thomas Pike, G.C.B., C.B.E., D.F.C. Other of his "charges" who rose to high rank include Air Chief Marshal Sir Edmund Hudleston, G.C.B., C.B.E., Air Chief Marshal Sir Theodore McEvoy, K.C.B., C.B.E., Air Chief Marshal The Earl of Bandon, D.S.O., G.B.E., C.B., C.V.O., Air Marshal Sir Douglas McFadyen, K.C.B., C.B.E., and Air Marshal Sir George Beamish, K.C.B., C.B.E.

At a presentation ceremony on 24th January Air Commodore M. D. Lyne, A.F.C., the Commandant, presented a silver salver to Mr. Green on behalf of the Old Cranwellian's Association. It is inscribed: "With affection and gratitude for 44 years loyal service to the Royal Air Force College." Mr. Green was also presented with a barometer from the cadets of "B" Squadron and a gold watch from the civilian staff.

Marshal of the R.A.F. Sir Thomas Pike sent the following signal to Air Commodore Lyne: "Please pass the following message to Mr. J. Green. On the occasion of your retirement after such long and splendid service with the Royal Air Force I join with the many officers serving in this Command in sending you our thanks for all that you have done in the past and every good wish for your happiness and prosperity in the future."



March 1957 - Fifth Article (2)

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(b) Describe the form of salutation required when meeting a class II Venusian Intermediary.

July 1968 journal - Management Training (1)

MANAGEMENT AND MANAGEMENT TRAINING

by WING COMMANDER D. WOODS

I have written this article as the first of a series to be produced by Engineering Management Wing and published half yearly in the College Journal. The Engineering Management Wing is the junior member of all the Wings of the College and has been in existence since January 1967, although most of the staff did not arrive until the summer of that year. Although the task of the Wing is primarily to teach management principles and practice to Engineer Officers on courses run within the Department of Engineering, the expertise of the management teaching staff is used generally in the College and training is given to engineer, equipment and secretarial cadets and, eventually, will be given to GD cadets. This first article attempts to look at management in general terms and serves as an introduction to future articles from Engineering Management Wing Staff on specific subjects that each member is experienced in.

Management Defined

Firstly then, what do we mean by management? How many of us can precisely define what it is? Very few I'll be bound. We would even be hard pressed to find amongst the many books written about management, two which would give the same definition. Nevertheless if we are to learn about management and in the process analyse its various functions then we must know its meaning. In his book on 'Management, its Nature and Significance' Brech suggests that management is a social process entailing responsibility for the effective planning and regulation of the operations of an enterprise. Louis Allen, in his book 'The Management Profession,' defines management as the mark of planning, organising, leading and controlling, performed by a person in a leadership position to enable people to work effectively together to attain identified ends. Yet another definition is by Koontz and O'Donnell in their 'Principles of Management,' who say that management is the

accomplishment of desired objectives by establishing an environment favourable to performance by people operating in organised groups. There are many other definitions, some short and some long, some meaningful and some obscure, but all slightly different in one way or another. However, from the multitude of words of the many different definitions at least one common thought tends to emerge which is that management is concerned with people. Without people there cannot be management. Perhaps we should pause here because your immediate reaction will be to challenge this statement. What about the small shopkeeper running his own business you'll say, or any one man enterprise for that matter? Are these people, who are working for themselves, not managers? Do they not plan, organise and control their business toward the objective of making profit? Of course they do, and if management is defined solely as the act of planning, organising and controlling, then indeed they are managers. But this is not all that management is about; it is about the co-ordination of people at work and the creation of an environment within which human beings can be directed to achieve objectives both effectively and efficiently. Management is about people and is an activity which any person can perform given the authority to do so; although even without authority managers (or leaders) emerge from groups of people working together. If a person exercised authority to co-ordinate the work of others toward the achievement of an aim, then he is a manager. In the process, he is expected to make the optimum use of all his resources.

The Development of Management

In co-ordinating work and in optimising the use of resources, the manager follows a process, or series of processes, which guide his actions. These concern the forecasting of trends and developments to determine ob-

jectives; the organisation of resources; the delegation of responsibility; the direction and motivation of staff; the control of work. These processes are determined from principles arrived at over many years and documented only in haphazard fashion. There are few books which codify management principles to any serious degree, because principles have been slow to emerge and, until recently, there was a dearth of management literature. It is worthwhile studying the work of management pioneers of the nineteenth and twentieth centuries. Only in the nineteenth century were great advances made in management thinking largely as a result of the Industrial Revolution. But the art of management is not new for it has been in existence almost as long as man has existed. In earliest civilization the human race still had its problems of organization and control. The tasks which were performed in days gone by were perhaps less complicated, but were often most ambitious. A good example is the construction of the pyramids of Egypt where planning and organization for the project, formidable by any account, required many years of co-ordinated effort of men and materials, coupled with the expert use of the most rudimentary of equipment. Compare this project to that of a present day construction task of, say, a thirty storey building. There is not so very much difference. But the application of modern ideas and modern equipment of the present day results in shorter time scales and an improved finish to the product. Until the nineteenth century industrial production was carried out largely in small scattered units, other than in the larger industries of steel and ship building. With the advent of the steam engine and power driven machinery the need for large scale organizations was created. From many one man businesses, partnerships and other associations evolved alongside the rapid technological advance of the Industrial Revolution. A new era began in the application of management, giving fresh relationships between men, materials and machines. The main advances were in scientific thinking, in administration and in the investigation of human problems. Improvements were also forthcoming in financial management, marketing, recruiting of labour and in personnel management.

Perhaps the most outstanding man in the nineteenth century for his ideas on scientific management was the American, Frederick Winslow Taylor. He laid down the essential principles of the scientific approach to business management. He was a brilliant engineer and his work on the philosophy of organization is perhaps the most important of his achievements. He was a well educated man but started work as a machinist, and it was then he became aware of the restrictive practices carried on at the shop floor. He wanted to tackle this particular problem and the opportunity arose when he was promoted shop foreman. The problem was largely one of ignorance by the works management who had no idea what men could and should produce, or how to provide the right incentives giving fair rewards for a fair day's work. In those days the environment at the shop floor was long established and management accepted such things as the indifferent supply of materials and tools, the erratic running of machines, petty disturbances to the work routine and so on. Far from putting these right, management was often unaware of them. Also, rates of pay for production were decided without any real fact finding and without precise and accurate knowledge for calculating what they should be, as a result they were often wildly astray. If they erred on the side of the producer then they were arbitrarily cut. Taylor set out to change all this. He started by examining in detail the work of a single worker on a lathe working through the complete process of metal cutting. He systematically analysed the problems to find what caused them; he investigated the reasons for delays and corrected them; he isolated the more difficult problem areas and gave them special attention. He took measurements wherever possible and set about improving those factors which would lead to high performance. He found that many delays in production were not attributable to the machines but were caused by a lack of planning. For instance, materials might not arrive on time, at the finish of one job no other was there immediately to take its place and so on. The organisation of the factory in those days required specialist foremen to cope with their own planning, and this they were invariably unable to do. So Taylor changed the organization, separated planning from the functional production line and

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created functional foremanship with separate planning departments. This is quite remarkable when one realises we are talking about events in the 1880's.

Throughout his life Taylor spread an understanding of his ideas. The principles he advocated are most evident in the words he used at a formal gathering much later in his life. He said :

'Scientific management is not any efficiency device nor is it any bunch or group of efficiency devices. It is not a new system of figuring costs ; it is not a new scheme of paying man ; it is not holding a stop watch on a man and writing things down about him ; it is not time study ; it is not motion study nor an analysis of the movements of men ; it is not the printing and ruling and unloading of a ton or two of blanks on a set of men and saying 'Here's your system ; go to it.' It is not divided foremanship or functional foremanship ; it is not any of the devices which the average man calls to mind when scientific management is spoken of

'Now, in its essence, scientific management involves a complete mental revolution on the part of the working man engaged in any particular establishment or industry And it involves an equally complete mental revolution on the part of those on the management's side — the foreman, the superintendent, the owner of the business, the board of directors And without this complete mental revolution on both sides, scientific management does not exist.

'The great revolution that takes place in the mental attitude of the two parties under scientific management is that both sides take their eyes off the division of the surplus as the all important matter, and together turn their attention toward increasing the size of the surplus There is one more change in viewpoint which is absolutely essential to the existence of scientific management. Both sides must recognise as essential the substitution of exact scientific investigation and knowledge for the old individual judgement or opinion, either of the workman or the boss, in all matters relating to the work done in the establishment.'

Management and the Behavioural Sciences

Although Taylor firmly believed in the need for scientific thought, he was aware of the limitations of scientific knowledge when he said :

'There is another type of scientific investigation which should receive special attention namely, the accurate study of the motives which influence men.'

This quotation is evidence of his awareness of the human side of management. As a man he was generous and large-minded, but it was for others to explore how individuals react in particular work settings. Such a person was Mary Parker Follett, a political scientist and philosopher, whose main interest was the psychological foundation of human activity and the emotional reactions which come into play in the working of human groups. An important part of her doctrine was an acceptance by her of the universal nature of the principles of organization. By this she meant that in whatever field of management one might be engaged, be it government, industry or in a military setting, the fundamental principles of organisation were the same. Unlike Taylor she was not concerned with expounding the systematic method of conducting and controlling work, or with analysing the function and duties of managers. She concerned herself solely with the basic human emotions and forces that underlie the process of organization — the dynamic as opposed to the static or structural aspect of the subject.

Winslow Taylor and Mary Follett are two of the pioneers of management ; I could equally have mentioned the works of others. I chose these two because they were concerned with two principal areas of management teaching ; namely, the approach which is mathematical and systematic, and that which concerns human behaviour. There are also other studies of management and many books outline the empirical approach (the case study method) and the operational approach which simply is a combination of the other schools. In my opinion the last named is the more practical way to learn about management which is a subject which cannot be isolated solely into a study of

behavioural science, of economics, of quantitative analysis, or of any single discipline, but is a combination of all these disciplines (and many more), married together by a good understanding of how to apply this knowledge. Management is often talked about as a system and indeed this is a sound way of understanding the management process. The often described functions of management involving planning, organizing, directing and controlling, which are so often put across in such dreary fashion, are the foundation of the management system. Whether we consider a simple task in our own home or the most involved military project, both are managed by a process of planning and organization, by telling people what to do and by monitoring what they do and correcting their deviations. Having said this in half a dozen lines I hasten to add that for a large complex project, the management function requires a degree of sophistication to match the complication of the task and would at all stages involve the use of modern ideas and techniques to implement the four functions : techniques involving the use of computers for forecasting and for resource allocation, mathematical programming, replacement theories, data processing, simulation techniques and so on. All of these and more might be employed extensively if the size and complication of the task justified it. The use of extensive and time consuming specialist skills must however be applied only to the right degree, for it is never necessary to 'use a sledge hammer to crack a nut.'

Our management teaching at this College is viewed as a total process. From a foundation of fundamental principles a sound understanding of the process is established together with a deeper understanding of human behaviour and the application of quantitative techniques. This might also involve other disciplines, such as economics, and indeed it can be said that management, above all subjects, is truly interdisciplinary.

There is not space in this article to consider in detail the subject material embraced by behavioural science or by systems analysis and operational research. The intention is to discuss more fully these subjects in future articles in this Journal, and then follow them by further articles from engineer members of the management staff, who will put forward their own thoughts on the application of these topics to the management task of Engineer Officers and to the Royal Air Force in general.

January 1969 Journal - Battle of Britain Film (1)



Dual Spitfire 8 being flown by the author

THE MAKING OF THE FILM

BATTLE OF BRITAIN

by

SQUADRON LEADER D. H. MILLS

The film of the Battle of Britain, including the events which led up to it, is due for release in London in September 1969. It was originally intended that it would be released in September 1968, in time for the 50th Anniversary of the Royal Air Force. Unfortunately, however, the proposed backers of the project lost interest, and it took a year for new backers to be found.

The producer is Harry Saltzman, well known for his series of James Bond films, the co-producer is Benjamin Fisz, who flew with the Royal Air Force in the war as a member of a Polish Squadron, and the film is backed and distributed by United Artists, an American film company. The director is Guy Hamilton, who directed at least one of the James Bond pictures, as well as a number of other well-known films and he was assisted as aerial director for most of the flying sequences by David Bracknell.

The film is based broadly on the book 'Narrow Margin,' and the official histories of the battle. It purports to be completely unbiased, and to show each side of the story without frills or embellishment.

The line-up of stars taking part in the film is most impressive, and most of them take fairly small parts as mythical Station Commanders and Squadron Commanders. For instance, Kenneth More, plays the part of a Station Commander, and Michael Caine, Robert Shaw and Christopher Plummer are Squadron Commanders. Among the main characters in the story are Sir Lawrence Olivier as Lord Dowding and Trevor Howard as Sir Keith Park. There are also well known continental actors playing the parts of the various German Staff Officers and Squadron Commanders, from Goering downwards. Apart from the obvious characters mentioned the film deals with factual history, built around fictional characters, and all squadrons and people manning them are fictional.

The film will last for two and a half hours, and there will be forty minutes of flying sequences.

Apart from the studio work done at Pinewood Studios, airfield locations and sets were built in Spain, where the German airfield scenes were shot, Duxford, which had

four different sets built on it, North Weald, Hawkinge and Bovingdon. Flying also took place from Debden, Panshanger, Sywell, Lydd and Montpellier in Southern France.

Model shots were made on the South Coast, and when I left, a model unit was scheduled to spend a fortnight or so in Malta, in search of good weather. We operated for the most part from Duxford, with some time spent at Debden and Bovingdon.

The primary camera aircraft was a converted B25 Mitchell, with camera positions in nose and tail, and also two waist positions. It is very well equipped, including closed circuit television, with a play-back facility for use by the director. Also used extensively for camera work was an Allouette helicopter, which had a camera mounted in the port passenger position. These two aircraft were used for most of the air to air shots: the B25 for large formation work, and the helicopter for smaller formations and for filming particular manoeuvres.

The Heinkel III bombers, 2-seat Spitfires, 2-seat ME 109, and one Mk 9 Spitfire were also used to carry cameras at various times.

A total of twelve Spitfires took part in the film; this number included two dual Spitfires and three belonging to the Royal Air Force Memorial Flight at Coltishall.

One Spitfire (Mark 2) had in fact taken part in the Battle of Britain, and until the last fortnight or so still had the original engine. This engine gave up eventually, luckily with no more than a slightly apprehensive pilot to show for it, and the aircraft has now been re-engined with a Merlin 35, and will be added to the Royal Air Force Memorial Flight fleet in the near future.

There were three Hurricanes comprising one belonging to Hawker Siddeley, one belonging to the Royal Air Force Memorial Flight, and one which had been rebuilt privately in Canada, and which now belongs to a Mr Samuelson.

Sixteen Messerschmitt 109s were used, including one dual aircraft. They are all Spanish built, and have Merlin engines. Thus, their nose shape is not quite the same as the

January 1969 Journal - Battle of Britain Film (2)

aircraft used during the actual battle. They were the newest aircraft in the film, the Spanish Air Force having used them operationally until about five years ago.

Two Heinkel IIIs were brought to this country, but up to twenty were used for the shots taken in Spain. The Spanish Air Force still use them operationally.

It had been hoped that the Stuka in the Henlow museum would be made airworthy, and in fact the engine was started. But in spite of only fairly minor work being required on it, the money was not forthcoming, and the project was dropped. However, there is a Stuka shaped ex Proctor, which looks the part from most angles, and this will no doubt appear in the film.

It is worth noting that all the ME 109's, the two HE III's, one Spitfire 9 and the Stuka/Proctor were bought by the film company for the film. The other aircraft were either hired to the company by private owners, and the Royal Air Force, or, as in the case of the Hawker Siddeley Hurricane, and Rolls Royce Spitfire 14, loaned to the company.

Other aircraft involved were two static Hurricanes, several static, and several taxiing Spitfires, and a large number of full size static fibre glass models of Hurricanes, Spitfires, ME 109's and Stuka's for shots of dispersal scenes.

They also used half scale free fall models for shots of crashes, and quarter scale radio controlled models of various types for other flying sequences. In addition to these aircraft models were a large number of models of Chain Radar masts, a French chateau, the London skyline and other topical items.

Originally there were ten pilots seconded from the Royal Air Force: the Commanding Officer, Wing Commander George Elliott, four Squadron Leaders, and five Flight Lieutenants, all from Flying Training Command. However, one member left early on in the detachment, so for the most part we were nine pilots strong.

The Royal Air Force Memorial Flight aircraft were always flown by Coltishall

pilots, and in addition there was one civilian pilot employed by the film company, Vivian Bellamy. He was extremely useful to have, having been a test pilot at one time, and knowing the Spitfire very well. He also knew all the 'ins and outs' of civilian flying, and the Board of Trade rules and how to interpret them.

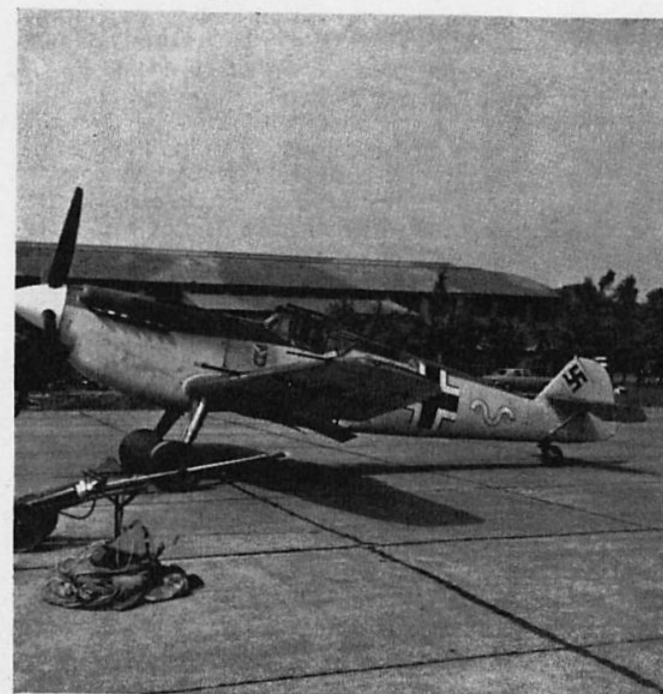
The ME 109's and HE III's were flown, in the main, by Spanish Air Force pilots, with some help in Spain from four members of the Texan organisation known as the 'Confederate Air Force.' One American, Connie Edwards, remained and flew the ME 109 throughout the filming in England. We got on well with the Spaniards, and found them to be generally very able pilots. They were led by the Chief Test Pilot of the Espana Aircraft works at Seville, Commandante Santa Cruz, an excellent man in all respects.

Four of the Spanish pilots, and the American, checked out in Spitfires, and six of us in the ME 109.

The Spitfires and Hurricanes were all initially serviced and refurbished where necessary, by a firm called Simpson Aviation Services, of Elstree. They continued to do second line servicing of the British aircraft throughout the film, and in fact, are still involved with servicing the aircraft before they are returned to their various owners.

First line servicing of the British aircraft was done by Royal Air Force personnel, all of whom had volunteered for the job. This not only included the flying aircraft, but also the static and taxiing ones. As might have been expected, there was a very large percentage of senior NCOs in their number. They all worked very hard, and produced excellent results from old and in some cases, very tired aircraft.

The Spaniards had their own servicing team, led by an engineer officer of the Spanish Air Force. They initially carried out both first and second line servicing, but as time got more and more protracted so they gradually left, and eventually much of the Spanish first and second line servicing was done by the Royal Air Force and Simpson Aviation ground crews.



ME 109

The fact that, once in good flying condition, the aircraft continued to fly with relatively little unserviceability, is a great tribute to all the ground crews involved, especially those loaned by the Royal Air Force.

I reported to Royal Air Force Debden on 28th April, and met five other pilots, who had already been there a week, and the other four who were reporting at the same time as myself. We went to Pinewood Studios the next day, and learned something of the background to the film, what we were expected to do, the aircraft we were to fly, and so on. Flying started on 30th April at Debden.

At this stage we had one dual Mk 8 Spitfire and two Mk 9 Spitfires. Conversion consisted of 40 minutes in front of the dual aircraft with a pilot who had converted the day before in the back, and consisted of general handling and three or four circuits. Then a couple of solo details in Mk 9's, then formation, attacks and tail chasing. We continued to make the odd trip in dual when the Mk 9's were not available or full. The weather was very dull during this period, and I did not seem to fly much above 700 feet for the first half dozen sorties.

Two pilots only were cleared to fly the Hawker Siddeley Hurricane, one of whom I volunteered to be. I collected it from Henlow in early May, having had a briefing at Dunsfold on how it worked. So then we had three Spitfires and one Hurricane.

We left Debden and operated from North Weald for about a week in May, until the Spaniards arrived at Duxford. At North Weald a lot of ground shots were done, with us taxiing past as background action with real actors doing the running to and climbing into the static aircraft in the foreground. A little flying in support of this was involved, but not much.

Finally we got to Duxford at the end of May, and started doing upper air work. However, we had to move back to Debden in early June while they did a large amount of ground shooting on various sites built at Duxford, and some Hurricane flying took place at Duxford, from a grass strip, at this time. However, the main flying, large formation shots, was done from Debden during this period.

Back to Duxford in late June, and six Spitfires went off to Hawkinge for the week. The Hurricanes, and myself stayed at Duxford.

During this build-up period, further refurbished Spitfires appeared from Henlow, most of which initially had overheating troubles. However, once sorted out, they kept remarkably serviceable. Also at this time the Coltishall aircraft came on to the scene, and so did the Canadian Hurricane.

Generally speaking from then on we were at Duxford until the aircraft went to Sywell for filming of grass take offs and landings in late September, and got bogged down for a week. We all moved to Bovingdon at the end of September.

January 1969 Journal - Battle of Britain Film (3)

In the meantime, after a fortnight of extremely bad weather at Duxford in early August, the Spitfires, three ME 109's and the camera B25 went for ten days to Montpellier in the South of France, to film formation shots in good weather. They did a large amount of flying there, most pilots getting 25-30 hours during the period, in transit and filming. Those, like the Hurricane pilots, who stayed at home hoping to achieve something with the Hurricanes, ended up doing endless taxiing at Duxford on non-airworthy Spitfires, amid exploding holes in the ground. Exciting in a way, but not exactly like the South of France by Spitfire.

Once at Bovington, everything got slower and slower, and more and more half-hearted, and the dread day came on Friday 11th October, when all but one of us were told we were not required back on Monday. Typically it was a wet, miserable day, so we could not even make an excuse to have a last ride in a Spitfire.

The flying was very varied, and in some instances very exacting. It ranged from special take off and landing shots, which had to be positioned in a certain way, formation take offs and landings in similar conditions, individual and formation manoeuvres with the helicopter camera aircraft, to large formation mix-ups to simulate dog fights behind the B25 camera aircraft.

All flying exercises were preceded by a briefing in some detail, of what the airborne director and cameramen wanted, and this did not always match up with what was physically possible. Even when this was pointed out, the filmers who after all, controlled the money, tended initially to ride rough shod over our suggestions, and we would have to go ahead and try what they wanted. After several wasted sorties, with perhaps 28 aircraft airborne for an hour and a half, they did start to see reason, and our suggestions were sought more readily. This, the very bad weather, the language difficulty with the Spanish pilots, and some rather poor communication equipment, all added up to a large number of wasted sorties, and frustrations all round.

The method of trying to stage a dog fight provides an excellent case in point. The idea was to lead the formation in the B25, using

the tail camera position. Follow that maybe, by the two HE III's in loose formation, and on perch positions on either side to have a mixed bag of Spitfires, Hurricanes and ME 109's, say a dozen on each side. Over and above this was usually a Spitfire and a ME 109 on a separate perch, whose job it was to provide foreground action close to the B25 using the various smoke devices with which they were fitted. Several aircraft in the main formation, both the HE III's, and even the B25, were also fitted with smoke. On the command 'Action!' the two large formations would converge behind the HE III's, within camera view of the B25, fan out into individual aircraft, weaving and tailchasing, smoking where they could, and the two individualists would make a close pass on the B25, one on the other's tail. In amongst all this, one Heinkel would normally smoke and fall out of the formation. As can be imagined it now and again got quite exciting in the middle of this lot, and it was very frustrating when one saw the rushes to see how unexciting it often looked on the screen.

Add to all this, a film director in the B25, who was impatient for every one to reform formation as quickly as possible for it all to happen again, the B25 pilot knowing that he was going outside his designated area and wanting to turn round, a camera man interested in which way the sun was, HE III's which could only go at 160 kts or less, having to re-form formation, Spanish pilots who initially were not too happy with speaking English, or with navigating over a foreign country, and who did not like their ME 109's for manoeuvring at much below 170 kts, and pretty poor communications, and it is not surprising that people tended to get a little despondent now and again.

However, one or two shots they did take of such formations were spectacular, and can obviously be used with different cuts, and different emphasis, time and time again in the film.

In addition to the large formation filming, individual formations of Spitfires, Hurricanes and ME's were filmed making attacks on their opposite numbers, from both the B25 and the helicopter and some of these look very good indeed.

The two seat Spitfires were used in large formations in the background where they will not be noticed, as were the Mk 14 and Mk 19 Spitfires with their rather different nose and tail shapes. The two seaters also used to carry camera men who took film of formations from within, and one of them was converted to be flown from the back cockpit, with a camera/mirror combination which provided film taken through the gunsight. Some good film was obtained in this way, and I was lucky enough to do some of this flying, chasing a smoking ME and attacking HE III's; so can claim to be director and cameraman of two or three sequences; whether they use them in the film remains to be seen.

Another interesting camera mount was built into the wing of a Mk 9 Spitfire, in which the camera watches the pilot as he flies the aircraft, and searches the sky. ME 109's appear in the background and flash past, the aircraft smokes, and the pilot opens the hood and starts to undo the straps. Not unnaturally, it is not carried to the logical conclusion, the final part being from a mock-up at the studio.

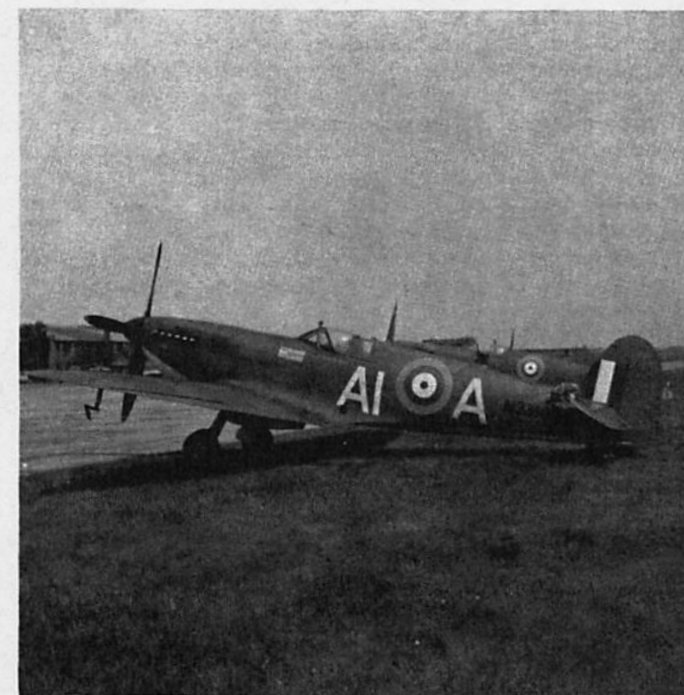
The poor weather was the biggest bugbear of the whole film. We were not permitted to fly in IMC by the Board of Trade, and not many of us particularly wanted to, with some of the older and more unreliable instruments. For historical accuracy all filming had to be done in sunlight, if possible, with white fluffy cumulus cloud about. There was very little of either this summer and we waited endlessly at all the places we operated from, in varying degrees of comfort, for a miracle to happen, and seldom did it. Even on perfectly flyable days by any other standard we often could not fly, because the weather, or light was not just right. This, and the fact that continuation training was practically non-existent because of the cost to the Company, were among the biggest morale drainers of the detachment.

To say that I am delighted and thankful for having been given the opportunity to fly Spitfires and Hurricanes, is a thorough understatement. I cannot remember, in 3,000 hours of flying, enjoying any type of aircraft as much as the Spitfire, very closely followed by the Hurricane.

I was thankful that there was a dual Spitfire available for the familiarisation sortie, because it was rather a surprise to have all that noise, rather rough sounding noise after a Jet Provost or a Chipmunk, not to be able to see well for landing, and to find such sensitive elevators. However, after forty minutes I was very happy to go off, in poorish weather, in the Mk 9, which I enjoyed very much. But the aircraft I liked best of all is a Mk 5 now belonging to the Shuttleworth Trust, which is a delight to fly, being lighter than the Mk 9 and better harmonised on the controls. I cannot imagine a nicer pure flying aeroplane.

The Hurricane I flew from scratch, and found very comfortable, but not as cleancut on the controls as the Spitfire. However, it has several good points, being very nice for general handling, more easily flown ade-

Spitfire 9 - G-ASSD



January 1969 Journal - Battle of Britain Film (4)



A typical 'Battle of Britain' film summer scene at Duxford

quately by inexperienced pilots, and, of course, having a wide under-carriage, is easier to control on the runway after landing. A bit lacking in performance compared with the Mk 9 Spitfire, but nearly as good as a Mk 5. Another delightful aircraft to fly.

I was also lucky enough to fly the ME 109 for one sortie. I would have liked a couple more, to enable me to assess it better, but it again seemed a very pleasant aircraft once one got used to the unusual sports-car type seating position, non-adjustable rudder pedals, seat which had to be adjusted before flight and the coffin-lid type canopy, which once shut can hardly be opened from inside. It does tend to swing about rather, particularly on take off, because of the narrow track undercarriage, which is a long way in front of the centre of gravity. I am told that this led to a large number of accidents during the war, and it certainly led to one at Duxford, in which the aircraft swung on landing and was written off. The pilot, a Spaniard, was unhurt. In the air, it handled very well in the rolling plane, not as well as a Spitfire in the pitching plane, and tended to slip and skid without the pilot noticing it. This largely because there is no adjustable rudder trim on the aircraft. Those with a little more experience in the type liked it very much.

Although the part of the film we were

mainly concerned with was the pure flying of the aircraft, we did have some opportunity of seeing something of the filming on the ground, particularly during shots at the various airfield locations at North Weald and Duxford. Here, as spectators, one got the idea of the tremendous amount of organising which falls on the location manager, who has to organise all the props, extras, actors, directors, cameras, camera men, make-up men, hair-dressers, carpenters and labourers into the right places at the right time, also house and feed them, and attend to complaints from local farmers about people on their land, and local school teachers about aircraft endlessly low-flying over the school. Also,

the mixture of organisation and artistic ability required of the assistant director, who, with his various assistants, sets the whole scene up for the director proper. This really becomes harassing when aircraft are to be taxied as background to actors playing some scene, with mock bombs blowing up not far away, and the one off shot of the Duxford hangar blowing up and burning down, also not far away. Add to this vagaries of wind direction, blowing smoke over the cameras, and the sun only shining fitfully, and life for everyone becomes rather hectic, and at times a certain tartness between directors and others tends to creep in.

However, once we realised their problems, and once they realised we were not prepared to attempt the impossible, or even imprudent, at their whim and fancy, we did get along very well, and found it was a pleasure to work under conditions so different from the normal Service ones, and with people with such a different outlook.

I must finally mention the meticulous attention to detail in camouflage and markings of all the aircraft, and the enormous expense incurred in obtaining or making up authentic period MT and other vehicles, the provision of authentic uniforms, including flying helmets and flying kit generally, and the creation of airfield dispersals with fibre

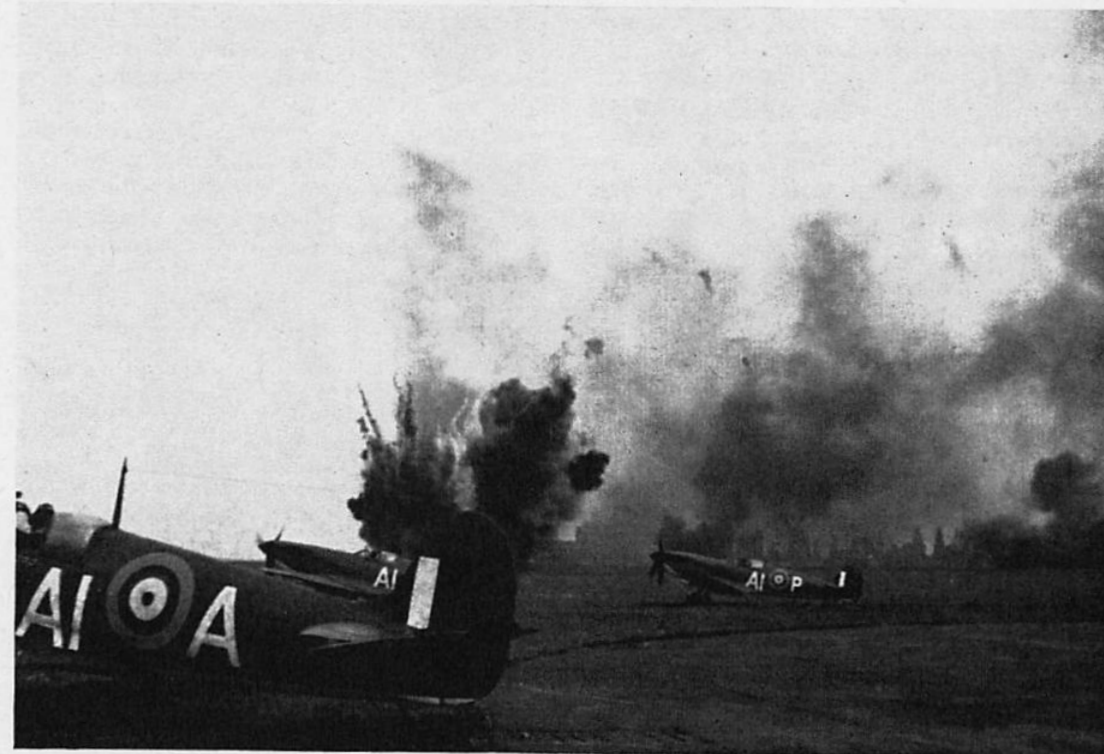
glass buildings, turf covered plywood dispersal pens, and the full sized fibreglass models, and, in one case, facade of a French chateau, I mentioned earlier. All this only on the airfield dispersals. Far more was done in the studios and in Spain before we joined the film, and one can see that all this, with the immense cost of buying and operating the large numbers of aircraft involved, adds up to an extremely expensive film.

I flew 49 hours on Spitfires, 32 on Hurricanes, and half an hour on the ME 109, over a period of nearly six months. Those lucky enough to go to France achieved about 28 hours more than I did. This flying in itself

was great fun, and ample recompense for long hours of sitting around waiting for things to happen. But add to it the chance to see a film of this size being made, to meet the people making it, including the Spanish pilots, with whom we got on very well, and to serve as a member of a 13 UE Spitfire Hurricane Squadron of tremendous spirit, in 1968, and one can appreciate what a marvellous, rewarding and unforgettable experience it was.

I am assured by those few who have seen the first rough cutting of the film put together, that the whole thing is a tremendous success, and I, for one, am very much looking forward to seeing it.

Taxying through bombursts — North Weald



July 1969 Journal - The College in January



ACM Sir Arthur Longmore - A Memorial Tribute

AIR CHIEF MARSHAL SIR ARTHUR LONGMORE, GCB, DSO

A tribute by Air Chief Marshal Sir Wallace Kyle, GCB, CBE, DSO, DFC, RAF Retd, at the Memorial Service for Air Chief Marshal Sir Arthur Longmore, GCB, DSO, held at the Royal Air Force Church of St Clement Danes in the Strand on Wednesday, 27 January 1971.

'Most of us will have our special and personal memories of Arthur Longmore, the great gentleman we knew ; and we will cherish them. But all of us are here today to honour his memory and pay tribute to his contribution to his country ; and especially to the Royal Air Force. For he was one of the early pioneers of military aviation ; one of the first four Naval officers to be chosen for flying duties ; and as early as 1911 he qualified as a pilot and was awarded the Royal Aero Club certificate. And many of us, some who were witness to events at the time, will think with admiration of him and those other gay adventurers who learnt to fly in those early days, partly for the fun of it, but also to find out in practice the possibilities of military operations in the air. They made light of the constant hazards and the unreliable equipment ; and frequently risked their all in meeting this challenge.

Significantly, and ever since to our great advantage, their enthusiasm and courage were infectious and have remained a stimulant and a bond for all of us who, throughout the years, became involved in military aviation. He often talked of this, and set much store by it. But Arthur Longmore was not a visionary ; nor was he a man whom we associate with some great dramatic, or particularly vital, event in our affairs. Rather was he a man who charted his course and made his decisions instinctively, though with sure judgment. And it was this characteristic which determined his actions and made him recognise the need to explore all the possibilities of the new environment for military purposes ; so that we would be ready to exploit to the full the technical advances which he knew would come. And it was this characteristic, too, which influenced him to join with those who recognised that military flying must be allowed to develop independently, untrammelled by traditionalism and prejudice. And so he was, in truth, one of the early founders of the Royal Air Force. And we will always remember him with pride and affection, for the part he played in the formation of this Service of ours, and with admiration, for the contribution he made to its success.

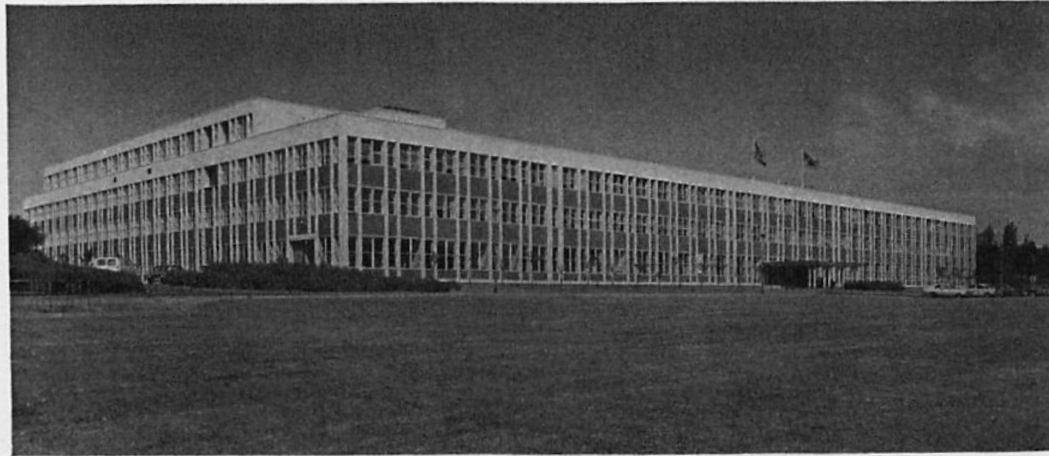
I first met Arthur Longmore when he was Commandant at Cranwell in 1929. I was a cadet, occupied well enough with day to day problems and events, but lonely, sometimes, as my home was in Australia. It was then that I had first-hand knowledge of his kindness and his understanding ; for he recognised my need and sometimes took me to his home where I enjoyed the warm friendliness of his family.

I know that I am but one of the many who will always be grateful for his understanding and perception, particularly at that early time in our careers. For we became aware that here was a man, a very senior officer, who could adapt himself to our immature ways and gain our confidence and our complete respect. As a sportsman and a games player he was well endowed ; a keen and experienced yachtsman and a member of the Royal Yacht Squadron ; an accomplished horseman, and also with a natural aptitude for most ball-games. This is known well enough and not of itself particularly unusual or significant, but he used those skills not only for his own pleasure, but effectively as a means of getting to know his officers and men and establishing common ground with them. This was significant. And when age started to reduce his personal prowess, he delighted in teaching and passing on his experience to younger folk whenever the chance came. And so it is not surprising that he held most of the important command appointments both in operations and training. Nor is it surprising that he was admired for the way he carried his own responsibilities, sometimes with far less than his proper share of support ; or that he was held in great affection by the officers and airmen who came to know him for his understanding, not only of his own job, but of their problems. And so it continued throughout his life. After he retired from active service, he retained his intense interest in Air Force affairs and especially in those who were still serving.

More than ten years after he retired, he continued to give his service as he took on the job of vice-chairman of the Imperial War Graves Commission, and fostered its work as actively as anything he'd done before. And now, as we pay our tribute to him, we extend to his wife and his family our deepest sympathy. But we also applaud with them his great contribution to his fellow men, his Service, and his Country ; made willingly and with so much dignity. For this indeed was the measure of this gallant gentleman.'

1974 - DGST (1)

THE DEPARTMENT OF SPECIALIST GROUND TRAINING



The hub of Engineering Training, Trenchard Hall, Department of Specialist Ground Training.

Engineer Officer training was introduced to the Royal Air Force College in January 1966 when the Royal Air Force Technical College at Henlow merged with the Royal Air Force College and became the Department of Engineering accommodated in the newly erected Trenchard Hall. At that time the Department comprised four wings, namely Electrical, Mechanical, and Systems Engineering Wings and an Engineering Management Wing. In 1972 basic science studies were transferred from Whittle Hall to form a Basic Sciences Wing, thus allowing the Department to cater fully for the training of all Engineer Officers.

In January 1974 the organisation was again restructured to include the Secretarial and Supply Wing, and the department was renamed Department of Specialist Ground Training. The current structure of five wings includes the original Electrical and Mechanical Engineering Wings, and the newly transferred Supply and Secretarial Wing. The Basic Sciences Wing has broadened its responsibilities to include computer training, aerodynamics and aircraft design and has been retitled the Engineering Sciences Wing, whilst the Systems and Management Wings have amalgamated. The new Department's

task involves the professional training of nearly all Ground Branch Officers of the Royal Air Force, together with a commitment to train many officers from overseas Air Forces.

Courses in Trenchard Hall are many and varied, but all have the same aim: the consistent achievement of the highest operational effectiveness for the Royal Air Force at the least cost in resources. Increasing accent is being placed on effectiveness of training to allow the officer to cope with the ever increasing areas of responsibility and associated complex equipment and systems. Training in the Department is reinforced by visiting lecturers and course visits to other Royal Air Force establishments and civilian research and industrial organisations.

The pattern of training is continually changing, and the introduction of the Graduate Entry Scheme had particularly marked effect. The cadet entries undertaking the CNAA Degree Engineering Course have now been phased out, and students of No 100 Entry, which was the last entry to include engineers among its numbers, completed their degree studies in July 1973, and passed out after their technology phase in March 1974.

The 2½ year Standard Engineering Course leading to the award of the Higher National Diploma in Engineering will also cease when No 11 Entry completes training in March 1975. Discontinuance of these courses has led to increased numbers of students taking the Initial Engineering Courses (IEC). The IEC has superseded the well known Technical Officer Graduate (TOG) and Applied Engineering courses which ran so successfully for some 20 years, and now accepts students from both the Officers Cadet Training Unit at Henlow and the Graduate Officer Training Course run at the Royal Air Force College. Also catering for candidates from Henlow is the Maintenance Engineering Course designed for commissioned ex-NCO's holding Ordinary National Certificates or equivalent.

After officer training all Secretarial Officers are trained on a common 9½ week Secretarial Officers' Initial Course (SOIC) in the Department. The course trains the student in the field of administration to enable him to fill junior administrative posts at station level. Permanent commission officers continue training at Cranwell for another 12½ weeks on the Accountant Officers' Course (AOC).

Royal Air Force and certain overseas officers entering Supply Branches of their respective Services attend the 13 week Initial Supply Course (ISC). The course is modular in structure and, after an introductory module, the student trains on packages specifically related to the appointments he may hold as a junior supply officer at unit level. Such appointments may cover stock control and accounting, technical supply, electronic supply, fuels (POL), mobility and domestic supply.

The Department runs several post experience courses, the longest being the Aero-systems Engineering Course of 15 months' duration. The more highly qualified engineer officers and some education officers are selected to attend the course which is pitched at Master's Degree level. The internal Aero-systems course is designed to meet the specialist needs of officers concerned with new projects, operation requirements, and technical intelligence duties. The emphasis is on breadth rather than specialisation. The course culminates in a 7 week feasibility study to meet a simulated operational requirement. An audience, expert in the particular field, is

invited from both civilian and service establishments to attend the one day project presentation.

Other suitable qualified students read for appropriate Masters' Degrees at selected universities. When the Advanced Training Scheme was introduced most candidates either studied Electronic Engineering at the University of Southampton, or Aircraft Engineering Subjects at the College of Aeronautics, Cranfield. However, currently students are being selected to study for Masters' Degrees in a wide range of discipline and this year's subjects, to mention just a few, include Behavioural Science, Industrial Engineering and Management, and Operational Research, in addition to the more usual engineering studies. The spread of universities attended has also increased, and this year students are attending under the supervision of staff of the Department of Engineering, some eight different institutions.

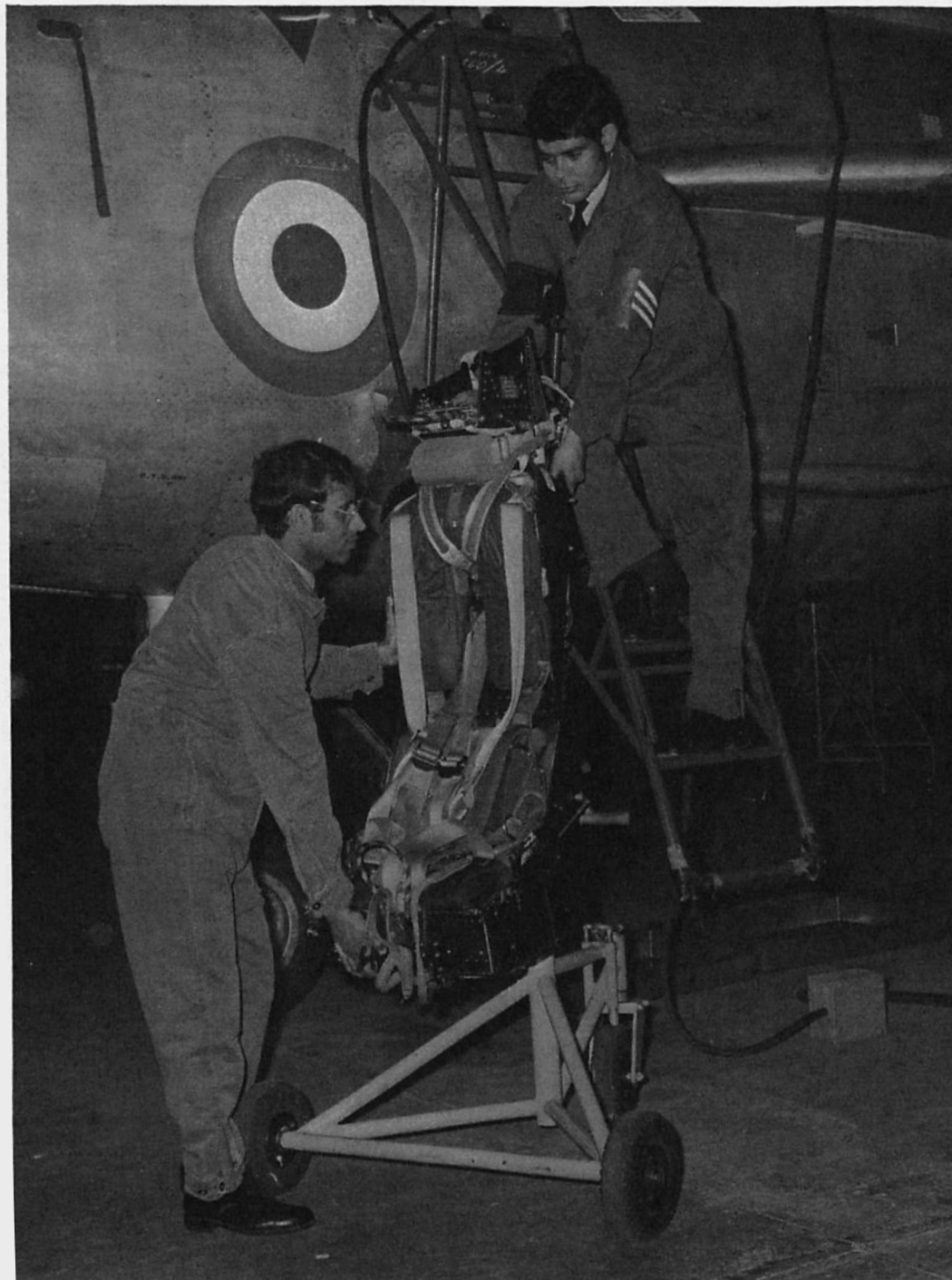
The young junior engineer in his early appointments usually operates as a leader of a team of subordinates in a hierarchical structure. As he advances into middle management he progressively has to operate as one of a team of colleagues of equal status in face to face situations. The Advanced Maintenance Engineering Course (AMEC) run by the Department aims to develop promising junior engineers (who will usually have completed three operational tours) into middle managers capable of framing policy relating particularly to the introduction of new weapon systems. The 18 week course familiarises students with behavioural and quantitative principles and techniques through participation in integrated team exercises. After six weeks each team is given an Air Staff Target to study and eventually manage. This type of training involving management games was introduced into the syllabus in 1972, and recently directing staff were placed clear first for their presentation on the development of the management phase of the course in the first round of a nationwide competition organised by the British Institute of Management. The second place in the competition was won by a team of former students now on the staff of the College Unit Engineering Wing for their presentation on Monte Carlo Simulation, a technique introduced to them on the Initial Engineering Course, and now used in controlling the College's aircraft servicing task.

1974 - DGST (2)



Members of 10 Maintenance Mechanical Course accompanied by Air Commodore Taylor and other staff members photographed with guides and "showpieces" on Course visit to Hawker Siddeley Aviation Ltd., Manchester.

1974 - DGST (3)



37 Armament Course. Lieutenant Bedaway, Royal Saudi Air Force. Lieutenant Shiyab, Royal Jordanian Air Force.

Supply Branch junior squadron leaders and senior flight lieutenants who are midway through their careers are selected to attend the eight week Advanced Supply Course, which is structured to update the student in current supply concepts and policies, and to equip him to deal effectively with logistic matters in his future appointments. Students on the course are made increasingly aware of the financial constraints on the Defence Budget, and are taught techniques for planning the best use of resources available. The operational needs of the Royal Air Force are continually changing, particularly in the field of mobility and rapid deployment; the Supply Officer must objectively assess the logistic effort required in meeting the operational task. Whilst on course the student considers

both the present, and probable future, role of the Air Force with particular accent on his own role as a manager in an efficient, developing supply organisation.

The departmental scene would be incomplete without mention of the courses specifically designed for overseas Air Forces. The three courses which are run specialise in Electrical and Instrument Engineering, Armament Engineering, and Mechanical Engineering. Each of the courses is of one year's duration and over 400 overseas officers from some 30 countries have been trained in the past 20 years. Some overseas officers also attend courses designed for Royal Air Force Engineer Officers, and in 1974 there are some 46 officers of 15 nationalities under training.



10 Maintenance Mechanical Engineering Course on Crash Recovery Practice (Aircraft Hall.)

1974 - DGST (4)



*Supply Students of No 305 ISC taking a close look at the Dominie during their visit to Engineering Wing on the first day of their Course.
(This was the first combined Direct Entrant—Graduate Entrant Course).*

1974 - DGST (5)



37 Armament (Overseas Officers Course) Gun Pack Change.

1977 - Tributes to MRAF Sir Andrew Humphrey (1)



Marshal of the Royal Air Force Sir Andrew Humphrey GCB OBE DFC AFC

TRIBUTE TO A GREAT AIRMAN

MARSHAL OF THE ROYAL FORCE SIR ANDREW HUMPHREY, GCB, OBE, DFC, AFC, CHIEF OF THE AIR STAFF 1 APRIL 1974 to 6 AUGUST 1976 — CHIEF OF THE DEFENCE STAFF 24 OCTOBER 1976 to 24 JANUARY 1977

It was with shock and great sadness that the Royal Air Force College heard the news of the untimely death on 24 January 1977 of Marshal of the Royal Air Force Sir Andrew Humphrey. The hearts of everyone at Cranwell, staff, students and families, went out immediately in deep and sincere sympathy to Lady Humphrey.

Sir Andrew was one of the College's most respected and distinguished graduates. He was the first ex-Flight Cadet to become Chief of the Defence Staff and we were — and are — very proud of him. It was a cruel tragedy and a serious blow to national defence when he was struck down after such a short time in post, just when he had begun deploying his remarkable qualities of leadership and many talents at the pinnacle of the military profession in our country.

We at the College recall with the greatest pleasure the many visits to Cranwell by Sir Andrew and Lady Humphrey during his time as Chief of the Air Staff. We take some slight consolation in recalling that we dined them both out in College Hall in July 1976, just four weeks before Sir Andrew handed over the Air Force to his successor. And we are pleased that on that occasion we gave them ample evidence of the warmth of our regard for them both.

The *Journal* feels that it can do no better as a tribute to a great airman than to place on permanent record, verbatim in our columns, the *Times* obituary by Marshal of the Royal Air Force Sir John Grandy, and the Memorial Address by Marshal of the Royal Air Force Lord Elworthy in Westminster Abbey.

Marshal of the Royal Air Force Sir John Grandy, Governor of Gibraltar writes :

Marshal of the Royal Air Force Sir John Grandy, Governor of Gibraltar writes :

The death of Marshal of the Royal Air Force Sir Andrew Humphrey at the early age of 56 is a tragedy of far reaching consequence. After thirty-eight years of diverse experience and responsibility in the Royal Air Force culminating in two years as Chief of the Air Staff, he had been Chief of the Defence Staff for only three months.

A member of his pre-war cadet entry at Cranwell has said of him how apparent even then were the human qualities that were to be found in the public figure he later became : his modesty, his consideration for others, his sensitivity and his warmth. He fought in the Battle of Britain and later served in a wide variety of flying and staff appointments during and after the war. He was Senior Instructor at the Royal Air Force Flying College between 1953 and 1955, and he is remembered by his students as a resolute, tough instructor and one always reluctant even in the small hours to abandon a discussion on flying and operational problems. His acknowledged skill as a pilot provided many 'firsts' at Manby. He captained Canberra Aries IV on its record-breaking flight from Capetown to London, and later took the same aircraft on the first flight by a British jet over the North Pole. For these flights he was awarded a second bar to his AFC. Less well known, but still very significant for the Service, was his work in the Operational

1977 - Tributes to MRAF Sir Andrew Humphrey (2)

Requirements branch to ensure that the prototype Lightning became a successful front-line fighter aircraft. He insisted on testing and refining his ideas in the air in what was for those days an exceptionally advanced aircraft. For this outstanding work he was made a CB whilst still a Group Captain, an honour of rare exception in the Service.

Andrew Humphrey next commanded the very busy airfield at Akrotiri while it was being developed from virtually a tented camp to the huge permanent base it later became. Following this he served as the Royal Air Force Director of Defence Plans, during what was to be a very difficult period. By now there was no doubt among his contemporaries that he was a future CAS, an opinion that was confirmed later during his tenure as the last AOC Middle East. In this post he was intimately concerned in the withdrawal from Aden, particularly the crucial air transport aspects of it which are still generally regarded as something of a model.

After innovative years first as AMP and then as AOC in C Strike Command, he was appointed CAS in 1974. By now he had developed a deep concern about the increased build-up of Soviet Forces and our ability to defend ourselves, and he said so. He said so at moments that not everyone found convenient, and he said so at times when silence would not have been criticised. But these strong views were not an obsessive focus; his perspective took in the complex patterns of modern history, and it extended forward to explore the trends that he believed his Service should prepare itself to meet. In that sense he was a strategist; but he was not a dogmatic one. He had such an obvious willingness to listen that even the most junior of his colleagues found him receptive to their ideas. An encounter of that kind usually led to a rapid and penetrating analysis but it was never crushing, it was always constructive and above all it was delivered quietly and with immense charm. He encouraged, exercised, and — in the very widest sense of that word — educated those who were fortunate enough to serve close to him.

Always a very active man, Andrew's very close interest in the Royal Air Force Athletics Association kept him in touch with the sport he had loved since Cranwell days, and in the nine years of his presidency the Royal Air Force team never lost the Inter-Services Championships.

He travelled a great deal and made it a point of honour to be seen around his Service as often as he could manage. In his short time as CDS he showed the same approach and it was just after such a visit, that he was taken ill three weeks ago.

I said that his loss is tragic, and so it is. He would have brought to the onerous post of CDS the wisdom, knowledge and experience that stem from long service and great responsibility. He was eminently fitted for the role, not only because of his background, but far more than that, he had a tenacious and penetrating mind and he had a comprehensive grasp and an inter-Service understanding of the immense problems facing those responsible for our defence policy today. Those who guide defence in Whitehall have suffered the loss of an incisive and inspiring intellect that neither Services, Government nor country can afford. Even in a Service that has never found itself short of talent it has been rare to find in one man such skill in the air, so powerful an intellect and so warm a human being.

The hearts of countless Service men and women and their families at all levels go out to his widow, Agnes, herself a former Women's Auxiliary Air Force officer, who, in whatever appointment her husband was filling at home or abroad, endeared herself to all through her unremitting efforts to improve the welfare needs of Service personnel and their families. Theirs was a partnership devoted to the Royal Air Force. The contribution made by Andrew Humphrey to his country, to its defence and to the Service he so loved, was outstanding. He was unquestionably a great airman.

Marshal of the Royal Air Force Lord Elworthy's address in Westminster Abbey :

Andrew Henry Humphrey was born in January 1921. A few days after his 56th birthday, when a Marshal of the Royal Air Force and the newly appointed Chief of the Defence Staff, he died. We are here today in Westminster Abbey to give thanks for his life, work and inspiration. There is so very much for which to be thankful.

I am greatly privileged to have been asked to give this address. Though I could not help knowing of him, I did not know Andrew until some fourteen years ago and in attempting now to do some justice to his memory, I am indebted to many people who knew him well, saw his work and have written or spoken about him to me.

The young Andrew was fascinated by aircraft even in early Prep. School days and long before he left his Public School — Bradfield — he had decided upon a Royal Air Force career.

He passed out of Cranwell and was awarded his Wings in April 1940. In September, after a ten day conversion course on Spitfires, he was in action against the enemy, but he was soon switched into the then almost unknown business of night fighting. It was at this time that Andrew Humphrey began to reveal his truly remarkable potential as an aviator. It is impossible to talk about him without constantly returning to the subject of flying. As the years went by and as a result of his exceptional natural ability coupled with his determination, courage and his meticulous preparation for the task in hand, he acquired an ever increasing reputation as a pilot of the very highest calibre. He never lost his love of flying, he never lost his skill. Even in later years when he was no longer in flying appointments, he flew whenever it was humanly possible and remained to the end a master of the art.

But to go back to 1941, he was that year awarded the DFC for his destruction of enemy bombers at night and then, when posted as an instructor to a night fighter OTU, so outstanding was his performance that he was awarded the AFC. His instructional duties were interspersed with further operations and his tally of enemy aircraft destroyed increased. In 1943 he was posted to North Africa, happily for the efficiency of the rocket-firing Beaufighter and Hurricane squadrons there, again as an instructor. A bar to his AFC gives some indication of what he achieved. For the last year of the war and the first few after it Andrew served in India, the Far East, at home and in the Middle East and East Africa, mostly on flying duties.

In 1951 he was posted to Manby for the Advanced Flying College Course. To nobody's surprise he was the outstanding student and at the end of the course was promptly posted to the staff, first as a syndicate leader and then as senior instructor. For his work at Manby, which included two record breaking flights, the first from Capetown to London and the second over the North Geographic Pole, he was awarded a second bar to his AFC.

After the Staff College — even there he somehow managed to log 50 flying hours — and then a very distinguished tour of duty as Deputy Director of Operational Requirements at the Air Ministry, he went to Cyprus to command Akrotiri and it was there that I first knew him and where, even as a visitor, I could not fail to be impressed by a commander of quite exceptional ability. On promotion to Air Commodore Andrew went to the Imperial Defence College and from there to the very testing post of Director of Joint Plans at the Air Ministry which then became Director of Defence Plans (Air) at the newly constituted Ministry of Defence. I was at this time Chief of the Air Staff and we worked very closely together. With a major Defence Review in progress, the Services were going through difficult times and the Chiefs of Staff and

1977 - Tributes to MRAF Sir Andrew Humphrey (3)

the Planning Staff were deeply involved in controversial issues some of which raised inter-Service tensions particularly between the Navy and the Air Force. Andrew proved himself a superb staff officer. He got through prodigies of work, all of it meticulously prepared and reasoned, and he debated fearlessly but fairly.

In 1965 he was posted to Aden as Air Officer Commanding, Middle East. Just before he went, the newly appointed Unified Commander in Chief, Middle East, who was to be his boss there, asked me whether I really thought that an Air Force Officer who had been so involved in inter-Service controversy, was the right man to send to a Unified Command, faced with a task that would demand the utmost in terms of inter-Service agreement. I assured him that the Air Force was giving him the best man it possessed. It is unlikely that his doubts were then dispelled, but two years later he wrote me a letter from which I quote. "Humphrey brought to the joint deliberations of the Command a freshness of outlook, a flexibility of mind and a maturity of judgement which were quite invaluable. He has more than proved himself in this exacting appointment and I would set no limit on his potential as a holder of the highest post in the Air Force, or indeed in the Defence Services at large." Those were prophetic words! Ironically that Unified Commander in Chief was that great sailor Mike Le Fanu. Within the space of seven years, here in Westminster Abbey, we have mourned the untimely loss of two outstanding military men: Admiral of the Fleet Sir Michael Le Fanu and Marshal of the Royal Air Force Sir Andrew Humphrey, both appointed to the highest military post in the realm, the first denied it by illness and subsequent death and the second to die after only three months in office.

In Aden at the same time, as the last High Commissioner in South Arabia, was Sir Humphrey Trevelyan, now Lord Trevelyan, who was reading the Lesson a few minutes ago. His was the prime responsibility for what in a recent letter to me he described as that "virtually impossible Aden operation made possible by two great men who died at the height of their powers". Speaking of Andrew, he went on to say "He had a brilliant and incisive mind and was a wonderful person to work with in difficult days. And he was a warm person. When he met, his face would light up with an infectious smile and a twinkle in the eye. It was a wonderfully welcome message that he was pleased to see one". How many of us have enjoyed that same experience!

Although when appointed Air Member for Personnel, Andrew's service background was one of flying, Air Staff and command, no man could have been better equipped to deal with the more human aspects of Service life. He had always had a wonderful ability to talk to anybody about his or her job with a genuine and lively interest, though that job might range from the operation of a highly sophisticated control system to the sweeping of a hangar floor. He had understanding and he had compassion.

In 1971 he became C-in-C Strike Command. Again he could indulge his passion for flying and put it to most useful purpose, for he was uniquely capable of assessing the strengths and weaknesses of our front line equipment and the proficiency of our aircrew. His was a copybook example of the exercise of command by a combination of superb professional knowledge and natural instinctive leadership.

Andrew became head of his Service in 1974 and clearly there was a need for an exceptionally able man at the helm for there were troubled waters ahead. He was deeply concerned by what he believed to be dangerous shortcomings in our defence capability and he had the courage openly to say so. As Marshal of the Royal Air Force Sir John Grandy has written "He said so at moments that not everyone found convenient and at times when silence would not have been criticised". But his own comfort counted for nothing when set against his duty as he saw it.

For many years it had been generally accepted that Andrew Humphrey was destined to become Chief of the Defence Staff — perhaps the earliest to record that conviction was that perceptive Field Marshal, Sir Gerald Templer. Within three months of assuming the post he had already made his mark. In January he performed what was to be his last duty, a visit to Army and Air Forces in Germany, during which, need I say it, he got in some helicopter flying. There was no premonition of disaster ahead, but within two weeks of his return he was dead.

The contribution that this modest and unassuming man made to his country and to the Service he so loved, was outstanding. His loss is tragic and a serious one for us and, I believe, for our NATO Allies too.

I have spoken of his life as a serving officer and that was a life filled with activity. Yet somehow he contrived to find time for all sorts of other interests — church architecture, cabinet making, gardening, history and the re-reading of Scott and Dickens — to mention but some. But neither his service duties nor these other interests prevented him from developing warm and generous friendships which have given such enjoyment to so many of us and which we shall so greatly miss.

The hearts of countless service men and women and the hearts of many others in many different walks of life, go out to his widow, Agnes. Theirs was a wonderful partnership, each complementing the other, both respected, admired and loved by all. Agnes was no stranger to Service life; she had been a Flight Officer in the Women's Auxiliary Air Force and wherever she and Andrew were, at home or abroad, she endeared herself to all through her charm, through her care and concern for her husband and through her unremitting efforts on behalf of the welfare of service families.

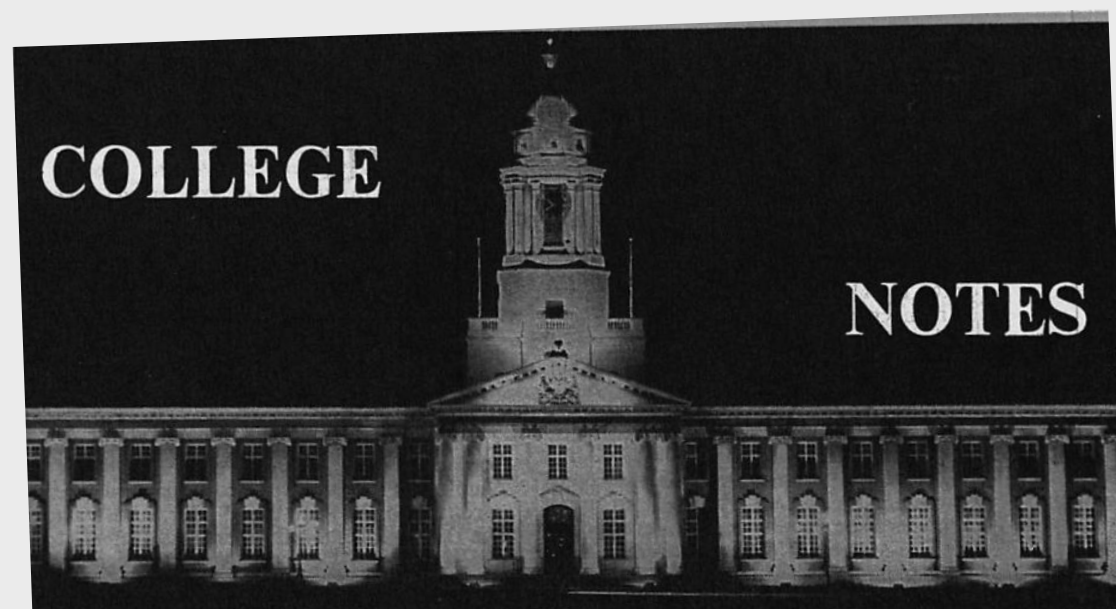
She will not be unaware of the great affection and respect in which her husband was universally held and a measure of which is shown by the great number of his colleagues and friends from so many nations, here in Westminster Abbey.

In Shakespeare's words "His life was gentle and the elements so mixed in him that nature might stand up and say to all the world — This was a man."

20th Commandant - AVM David Harcourt-Smith



Air Vice-Marshal D Harcourt-Smith DFC Air Officer Commanding and Commandant



COLLEGE

NOTES

THE COMMANDANT

AIR VICE-MARSHAL D HARCOURT-SMITH DFC RAF

Air Vice-Marshal David Harcourt-Smith succeeded Air Vice-Marshal Edward Colahan as Air Officer Commanding and Commandant of the Royal Air Force College Cranwell on 28 January 1978. Air Vice-Marshal Harcourt-Smith was born in Singapore in 1931. He was educated at Felsted School, trained as a Flight Cadet at the Royal Air Force College, and was commissioned into the Royal Air Force in 1952. He has served in a number of Fighter / Ground-Attack squadrons and took part in the Suez campaign in 1956 for which he was awarded the DFC. He has commanded Nos 6 and 54 Squadrons

equipped with Phantoms and Hunters respectively, and from 1972 to 1974 he was Commanding Officer of Royal Air Force Bruggen in Germany. His staff appointments have included tours as a member of the Defence Planning Staff in the Ministry of Defence, a Group Captain in the Royal Air Force Central Tactics and Trials Organisation, and most recently as Director of Operational Requirements in the Air Force Department of the Ministry of Defence, responsible for the procurement of future aircraft and weapons.

The *Journal* extends a warm welcome to the Air Marshal, his wife Mary and their family.

1978 Journal Article - Single Gate IOT (1)

SINGLE GATE INITIAL OFFICER TRAINING

In 1977 the Air Force Board decided that, in future, entry to commissioned service in the Royal Air Force would be through a 'single gate' located at the Royal Air Force College. Since then the phrase 'single gate initial officer training' (SGIOT) has become an essential and constantly recurring phrase in the vocabulary of all those involved in the formulation of future training plans. For an insight into the origins of this important development and an appreciation of the impact it will have upon the Cranwell scene, it is necessary to review some of the related events of the past 15 years and the current organization which has resulted from them.

The Royal Air Force Technical College at Henlow merged with the Royal Air Force College in 1965 to become the Department of Engineering located in the custom-built Trenchard Hall. Technical cadets lived alongside flight cadets and received their officer training in the Department of Cadets. The decision to discontinue both the Flight Cadet and the Technical Cadet Schemes in favour of the University Graduate Scheme led to the arrival in 1971 of the first university graduates to receive their initial officer training at Cranwell. The last of the old-style cadets graduated with No 101 Entry in March 1973.

The year 1973 saw another major development for the College. The Royal Air Force College of Air Warfare at Manby closed and the training conducted there was transferred to the new Department of Air Warfare (DAW) which opened at Cranwell in January 1974. Training accommodation for the DAW was made available in one wing of the Whittle Hall which underwent considerable modifica-

tion in preparation for its new task. Previously, the area had contained laboratories and lecture rooms for the use of the old Basic Studies Wing, part of whose function was to provide a scientific and technical education for cadets. With the introduction of the Graduate Entry Scheme, it proved possible to reduce this commitment significantly and to transfer what remained to the Trenchard Hall.

To these and several other changes, the College has reacted by making the necessary adjustments in organization and redistribution of accommodation and facilities in order to provide for the expanded range of training activities now concentrated at Cranwell. Titles and taskings have changed quite rapidly, the Department of Cadets, for example, becoming the Department of Officer and Flying Training, before assuming its present title of the Department of Initial Officer Training (DIOT), and the Department of Engineering being replaced by the Department of Specialist Ground Training (DSGT). In view of the possible confusion, it may be advisable to remind the reader of the current College organization.

The College, under the command of the AOC and Commandant, has group status within Royal Air Force Support Command. The various training functions are discharged by :

- a. The DAW, which is responsible for the postgraduate training of a wide cross-section of officers drawn mainly from the GD Branch.

- b. The DIOT, which conducts initial officer training and exercises functional control of the 16 University Air Squadrons.

- c. The DSGT, which provides mainly for the professional training of officers of the Engineer, Supply and Administrative (Secretarial) Branches.

- d. Flying Wing, Royal Air Force Cranwell, which is responsible for basic and intermediate pilot training for some 50 per cent of new pilots entering the Service. Royal Air Force Cranwell also provides administrative support for the whole College.

In 1966, the Officer Cadet Training Unit (OCTU) moved from Feltwell to Henlow taking over the accommodation vacated by the Technical College. The Aircrew Officer Training School at South Cerney merged with the OCTU in 1969 and since then Cranwell and Henlow have provided the only 2 points of entry into commissioned service. With the graduation of No 101 Entry from Cranwell in 1973, both establishments were conducting essentially similar initial officer training programmes. Although Cranwell trainees were all university graduates, some university graduates completed their initial officer training at Henlow. The stage was set for the eventual merger of the OCTU and the DIOT.

The decision to introduce SGIOT at the College was based upon studies which confirmed that the syllabus for initial officer training at Cranwell was basically the same as that of the OCTU at Henlow. Furthermore, there was no noticeable difference in

the standard of performance in early appointments between the Cranwell and Henlow products. The merging of the 2 courses at Cranwell will make available to all the unique environment of the College, encouraging the creation of an improved esprit de corps.

Some progress towards the implementation of SGIOT is already evident. The AOC and Commandant assumed responsibility for OCTU training in July 1978 when Royal Air Force Henlow joined the College Group. Ten students who are not university graduates began their training on No 34 Course in the DIOT in December 1978. Plans have been developed for a gradual build-up of activity in the DIOT culminating in the full implementation of SGIOT during 1980. The College is therefore poised on the brink of the most momentous training development of recent years.

At present the DIOT accepts only 2 courses of 60 students at any one time. Sometimes only one course is in residence. By the summer of 1980, it will be possible to accommodate almost 500 students under training continuously, yielding an annual output of approximately 1200 new officers. Clearly the DIOT will need access to a great deal more domestic and training accommodation. The impact of these demands will make itself felt throughout the College. An extensive programme of works services has been scheduled and is already well under way.

The DSGT has been reorganized to release a large volume of training accommodation in the Trenchard Hall. After the necessary

1978 Journal Article - Single Gate IOT (2)

modifications have been completed, the DAW will transfer from the Whittle Hall to this new location. The DIOT will expand into the space vacated by the DAW and will then occupy the whole of the Whittle Hall.

To provide the additional domestic accommodation required by the DIOT, a barrack block in the East Camp is to be made available and the old Junior Cadets' Mess is to be reopened. In the recent past, students undergoing initial officer training in the DIOT have lived in the College Hall Mess together with officers undergoing initial specialist training in Flying Wing or the DSGT. In the future DIOT students will spend their first 6 weeks in the East Camp area, their second 6 weeks in the Junior Lines and their final 6 weeks in the College Hall Mess, which they will fill to capacity. Having completed initial officer

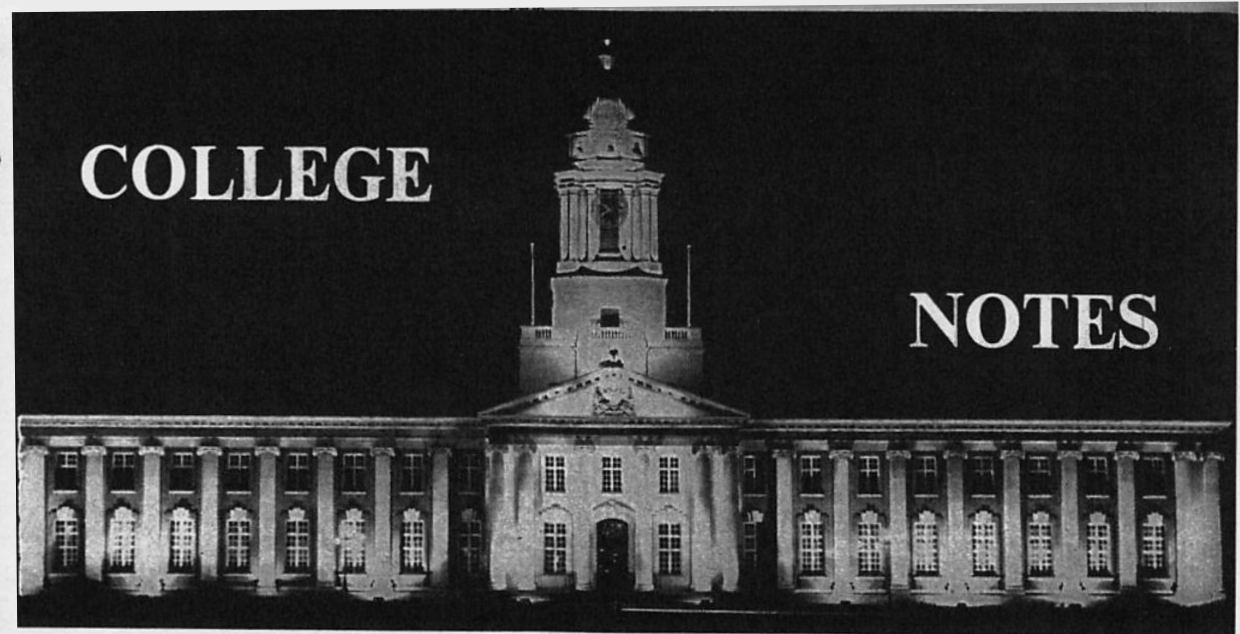
training, students remaining at Cranwell to train in Flying Wing or in the DSGT will transfer to the Trenchard Hall Officers' Mess. York House Officers' Mess will be used to accommodate officers attending post-graduate courses and study periods.

There can be little doubt that the impending population explosion will impose a considerable strain upon all the resources of the College. There will of course be some relief if recruitment figures fall below the targets set but this would be most unwelcome in view of the implications for the future of our Service. We must hope that the required numbers will materialize and attempt to find effective solutions for the many attendant problems. The next few years promise to be particularly significant in the continued evolution of the College.

21st Commandant - AVM 'Bernie' Brownlow



*Air Vice-Marshal B Brownlow OBE AFC
Air Officer Commanding and Commandant*



CAREER BRIEF

Air Vice-Marshal B. Brownlow OBE AFC RAF

Air Vice-Marshal John Brownlow entered the Royal Air Force in 1947 and trained as a navigator. He served with No 12 Squadron at Binbrook which was equipped with Lincolns and, later, Canberras. After a staff appointment at Headquarters No 1 Group in 1953 he trained as a pilot, and subsequently flew Canberras with No 103 and 213 Squadrons in RAF Germany. In 1958 he took the Empire Test Pilots' School course, and on graduation became a flight commander in the Experimental Flying Department of the Royal Aircraft Establishment, Farnborough. After attending Staff College in 1962 Air Vice-Marshal Brownlow served in the Operational Requirements Branch of the Air Ministry. He returned to flying in 1964 on becoming OC Operations Wing at RAF Lyneham. During this tour he commanded the transport force deployed to fly oil from Kenya to Zambia after the unilateral declaration of independence by Rhodesia.

On completing the Joint Services Staff College Course at Latimer in 1967 he joined the Directing Staff at the RAF Staff College, Bracknell. He

was accredited as Defence and Air Attaché to Sweden in 1969 as a group captain, and on returning to the UK in 1971 took command of the Experimental Flying Department at Farnborough. In July 1973 Air Vice-Marshal Brownlow became Assistant Commandant (Officer and Flying Training) at the RAF College, Cranwell. He was appointed Director of Flying (PE) in September 1974, and Commandant of the Aeroplane and Armament Experimental Establishment in March 1977. He assumed his appointment as Air Officer Commanding and Commandant of the RAF College Cranwell in January 1980.

Air Vice-Marshal Brownlow has been a gliding instructor since 1955, and has served for over 12 years as a member of the RAF Gliding and Soaring Association's Executive Council. He is an active competition glider pilot at National level, holding a Gold C with one diamond, and plays tennis, squash and golf.

He is married and has a daughter who started undergraduate studies at York University in October 1979, and two teenage sons who are at boarding school near Bury St. Edmunds.

1980 - SERE

INITIAL OFFICER TRAINING FOR THE SPECIALIST ENTRANT AND RE-ENTRANT OFFICER

How/whom/what/when/why should I salute? . . . How will I recognise an airman/Air Marshal? . . . How do airmen get paid? . . . HOW DO I GET PAID? . . . What are my responsibilities as an officer? . . . The answers to these and many related questions are to be found in the 18 weeks of initial officer training (IOT) during which the new recruit becomes accustomed to the Service way of life and gains an understanding of his responsibilities on being awarded his commission. However, for the students of the Specialist Entrant and Re-Entrant (SERE) course, these questions are real and immediate as they are already commissioned on arrival. These students have only four weeks in the Department of Initial Officer Training (DIOT) in which to lay the foundations of their Air Force careers, a brief period indeed in which to absorb a wealth of information and equip themselves with the skills and attributes required of them. The primary aim of this article is to show how the SERE course helps them attain these objectives.

The SERE Course caters for those whose commission has been gained by virtue of their professional qualifications or on the strength of their previous commissioned service in either the Royal Air Force or one of the other United Kingdom or Commonwealth Armed Services. The course had been previously run by the Officer Cadet Training Unit at Jurby, Feltwell, and, more recently, Henlow, before arriving at Cranwell in January 1980. Prior to 1974 it was known as the Professionally Qualified and Re-Entrant (PQ&RE) course, or epitomizing the short service terms of many of its members, as "Pick one Quick and Retire Early". The aim of the course is to introduce newly commissioned officers of the Medical, Dental, Chaplains and Legal Branches, Princess Marys' Royal Air Force Nursing Service, Royal Auxiliary Air Force, Royal Air Force Volunteer Reserve and re-entrant Officers of all branches, to the Service way of life, its administration generally, and to their responsibilities as officers. A slight variation on the syllabus is also provided for officers of the Royal Observer Corps. The course therefore has to cater for a wide variety of backgrounds and vastly differing levels of ex-

perience. Nine courses are run during the calendar year and, with numbers averaging 16/17, and a maximum intake of 20, a 2 flight system is operated.

The course covers all the subjects taught on the basic IOT course but in the limited time available there is only scope to give the very broadest of broad brush treatments to any one subject. There is much reliance therefore on preparing individual students so that they will be able to gain as much as possible from their early service careers. To guide them in their initial stages they are given the same instructional notes as are issued to the cadets on the full IOT course. The planning, administration and to a large extent the teaching commitment on each course are undertaken by the 2 flight commanders and the squadron commander, whilst specialist subjects such as War Studies, Ground Defence Training, Security, Drill and PE are taken by the respective specialist departments or by visiting lecturers.

Each SERE course begins on a Sunday evening when the new arrivals are met in College Hall Officers' Mess by a member of the DS who briefs them on the following day's course of events. On the Monday morning they are welcomed by the Director of the Department of Initial Officer Training and are then interviewed individually by their respective flight commander. Kitting out follows during which they are issued with 'combat kit' and DMS boots which they will wear with varying degrees of comfort for the first 2 weeks of training. 'Blue' uniforms are not normally ready until the beginning of the third week. Course and individual photographs are taken at the end of the first Monday morning before the academic programme starts in earnest.

In very simple terms the course can be considered in 3 interdependent segments: Professional Studies, Leadership, and Ground Defence Training. Binding the whole together is a network of ancillary subjects and sporting and social events. The culmination of the training programme is an examination in the final week which, besides providing an incentive during the course, also gives the DS a yardstick by which they can validate the instruction they provide. The sedentary lecture

day is alleviated whenever possible by periods of drill and PE, during which, to the hitherto undreamed delight of the students, quite high standards of military precision and fitness are achieved. However, despite the attentions of the College Warrant Officer, the standards of drill are unlikely to worry the Queen's Colour Squadron.

In Professional Studies the students receive a basic introduction to Officers' Responsibilities, Duties and Regulations, Customs Etiquette and Social Responsibilities, Signals and Casualty Procedures, Accounts, Supply, Personnel, Welfare, Flight Safety and Air Force Law. Instruction in the conventions of Service Writing is consolidated by the submission of narrative entries in the second and final week of the course during which the students make progressive comments on their training and incidentally provide valuable feedback to the DS. Further consolidation in this area is effected by the office simulator phase which takes place in the final week with all students playing the role of junior officers on a typical RAF station and coping with a variety of day to day problems. The simulator exercises are designed to put into perspective the whole of the professional studies aspect of the course, from welfare interviews to signal writing and Air Force Law. To develop skills and confidence in oral communications the students are given the opportunity to practise briefings and 5 and 10 minute talks in front of their respective flights and the CCTV cameras. This is an experience new to most of them and



SERE draining National Trust land in Derbyshire.



Route discussion

many students are surprised at the marked improvements in their performance by the end of the course. As an indirect result of these talks the DS are becoming experts on anything from home brewing to leprosy. In the Oral Communications briefings the students are given a useful introduction to the leadership phase of the course and it is to this that we turn our attention next.

Following basic lessons in field living and navigation, the Leadership phase commences with instruction in the functional aspect of leadership. This in turn is followed by classroom and airfield exercises in command, management, and leadership as a build up to the camp which takes place over 3 nights from the Friday of the second weekend. Executives selected during the first week take over the organisation and running of the camp under the watchful eye of the DS who plan exercises to give each student the opportunity to gain confidence and experience in leading a team. The exercises, which are varied in length and physical demands according to the strengths or weaknesses of particular courses, are planned for each morning, afternoon and evening, and wherever possible interplay between flights is organised. Exercises last for 2 to 3 hours and cover between 5 and 10 kilometres during which the leader has to cope with a variety of problems designed to put him/her under varying degrees of stress and to bring out different aspects of leadership. The camp is held in one of the Practical Training Areas (either Stanford or The Dukeries) or in conjunction with the National Trust in Derbyshire. In the latter case the course carries out National Trust projects such as fencing or ditching and drainage in lieu of some of the

normal leadership exercises. Whilst at the time camp is a challenge for all and a struggle for some, it is almost invariably enjoyed in retrospect.

The third main area of the course, Ground Defence Training, is designed to make students aware of the importance and complexity of modern warfare and, in particular, the problems of casualty handling. All students are given training in the Royal Air Force Ground Defence Policy and practical aspects of Nuclear, Biological and Chemical warfare, culminating in a model station defence exercise. In addition, the combatants spend a day undergoing personal weapon training and instruction on guards and sentries. During this time the non-combatants, who normally comprise the majority, have the opportunity to visit an operational station, which consolidates much of the classroom instruction.

It should perhaps be stressed at this point that the learning environment is not wholly confined to the classroom or field. The students attend, as part of their training, one of the IOT Dining In nights. They are actively encouraged to take full advantage of Mess and sports facilities, and most courses organise some form of sporting or social function during their short time at Cranwell.

The course is rounded off by the students being given the opportunity to present a course critique. This is followed by the final interviews in which flight commanders discuss with individual students their strengths and weaknesses. The course culminates in a graduation ceremony in which a visiting reviewing officer, after a short address, presents course certificates prior to luncheon in the College Hall Officers' Mess. The students then clear from the unit whilst the DS complete course administration and clear the decks for the next intake.

As can be seen, the course is intensive and is designed to cover as many aspects of General Service Training as possible in 4 short weeks. To this end it is made varied and stimulating, but its success can only be measured by the ability of each student to answer favourably the question "Have I sufficient knowledge to be able to go out into the Royal Air Force with confidence in my ability to carry my responsibilities as an officer?" The students leave Cranwell with, if not all the answers, then at least the knowledge of where to find the solutions to the many problems that will tax them during their varied careers in the Royal Air Force.

23rd Commandant - AVM Eric Macey

CAREER BRIEF

AIR VICE-MARSHAL E H MACEY OBE



Air Vice-Marshal Eric Macey was educated at Shaftesbury Grammar School and, following a short period as a Flight Test Observer at A&AEE Boscombe Down, he entered the Royal Air Force in 1954 as a Direct Entrant.

After completing pilot training in the United Kingdom on Provost and Vampire aircraft, he served on Nos 263 and 1(F) Squadrons at Wymeswold, Wattisham and Stradishall where he flew Hunters in the Day Fighter role. He transferred to the Medium Bomber Force in 1958 and, following a co-pilot tour with No 214 Valiant Squadron in the air-to-air refuelling role, he converted to Vulcans in 1961 and completed a first tour as a captain with No 101 Squadron at Waddington.

On promotion to Squadron Leader in 1966 the Air Marshal attended the RAF Staff College, Bracknell before undertaking his initial staff tour at MOD in the Operational Requirements Division. He returned to Lincolnshire as a Wing Commander in 1970 where he first commanded No 101 Squadron at Waddington before becoming the Chief Instructor of the Vulcan Operational Conversion Unit at Scampton, a tour which led to the award of the OBE. Following a period with the Chiefs of Staff Secretariat in the MOD, he was promoted to Group Captain in 1975 and returned once again to Waddington to command the station. From 1977 to 1979 he served on the personal staff of the Chief of Defence Staff after which he was promoted to Air Commodore and appointed Senior Air Staff Officer at HQ RAF Germany. He returned to the United Kingdom to attend the 1983 RCDS course before completing a short tour as Director of Defence Commitments (Rest of the World) on the Central Staff of the MOD.

Air Vice-Marshal Macey, who took up his present appointment as the Air Officer Commanding and Commandant, Royal Air Force College Cranwell on 18 January 1985, is married and has 2 children, aged 26 and 21, both of whom are unmarried.