

The Haltonian Magazine

65 Edition

May 1953

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GRADUATION PARADE OF THE 65th ENTRY

On 27th March, 1953, the Right Honourable the Lord de L'Isle and Dudley, **V.C.**, Secretary of State for Air, visited Halton to review the 65th Entry at their Graduation Parade. He was accompanied by Air Vice Marshal N. H. D'Aeth, **C.B.**, **C.B.E.**, representing the Air Officer Commanding-in-Chief, Technical Training Command, who was prevented from attending by sickness; Air Vice Marshal J. G. Franks, **C.B.E.**, Air Officer Commanding No. 24 Group; Air Commodore J. G. W. Weston, **C.B.**, **O.B.E.**, Commandant No. 1 School of Technical Training; Group Captain R. J. Carvell, Senior Training Officer, No. 1 School of Technical Training; and Wing Commander A. H. Patton, Officer Commanding No. 1(A) Wing.

The Parade, held in fine weather on the Henderson-Groves Parade Ground, was under the command of F/S/A/A Garlick, 65th Entry. Entries on Parade were the 65th, supported by the 66th—72nd. Parade appointments were as follows:

Colour Bearer	S/A/A D. R. Bissell
Colour Escort	C/A/A A. K. Chodhry
	C/A/A P. E. Newton
i/c Junior Entries	S/A/A R. A. De-Sainte-Croix
Parade Warrant Officer	S/A/A W. G. Hawthorne
No. 1 Flight Commander	S/A/A M. F. Eggleton
No. 2 Flight Commander	S/A/A D. F. Coleman

Later in the Burnett Gymnasium the Commandant read his Report to visiting officers, to the 65th Entry, and to their friends and parents.

He began by welcoming the Secretary of State for Air and other visitors, especially Mrs. Quinton who had kindly consented to come to present for the first time the Quinton Trophy which is to be presented to the best ex-A.T.C. Apprentice in each Entry in memory of her late husband, Flight Lieutenant Quinton, **G.C.**

Before proceeding to matters actually connected with the School, he referred to the alterations in the Parade which were due to Court

Mourning for Her Late Majesty Queen Mary of gracious memory, and paid tribute to her example of devoted service which had stood throughout her long life.

On a happier note he then referred to the approaching Coronation, saying that the School's Queen's Colour, the Apprentice Military Band, and a number of officers, apprentices, airmen, and airwomen would be taking part in the ceremonies. This is a great honour for the School and the Station.

On the whole the 65th Entry had attained a technical standard which may be regarded as satisfactory, although for various reasons the wastage rate had been rather high. In all, 108 British and Pakistani Apprentices were graduating, of whom 30 had qualified for the Ordinary National Certificate in Engineering, a rather higher proportion than usual. In sport the Entry had done fairly well, and special mention should be made of S/A/A Eggleton in Athletics, C/A/A Pascoe in Rugby Football, and A/A Ryan in Swimming. The Commandant concluded by wishing the British Apprentices all good fortune in the Royal Air Force, and the Pakistani Apprentices all good fortune in the Royal Pakistan Air Force.



At this point Mrs. Quinton presented the ceremonial stick, which was given in memory of her husband, to F/S/A/A Garlick, and spoke briefly. She said she was grateful for the opportunity to present the Trophy in her husband's honour, and trusted that it would remain as an incentive for all apprentices at the School.

The Commandant then asked the Secretary of State to present the prizes and address the Entry.

Lord de L'Isle and Dudley began by thanking the Commandant for his invitation to review the 65th Entry's Graduation, and then congratulated the Entry on their Parade.

They ought, he said, to remember their Graduation Day and their time at Halton throughout their service, for through these they had come upon the immense opportunities which now lay before them. They had had the spirit and the foresight to offer themselves for three years' apprenticeship, and now was the time to justify the patience and skill of their instructors. In particular they must justify their own strength of purpose. "I would like," he said, "to emphasise this last

phrase—strength of purpose—because you will have many ups and downs in your career. I hope there will be many more ups than downs, but when things look black—they sometimes look very black—do not despair, for you will remember that you did not enter the Royal Air Force merely to make a career for yourselves, but to serve your Queen and Country.”

Though the Royal Air Force is the youngest of the three Services, it already has its own high traditions, and with the march of events it has become of ever-growing importance, commanding the highest standards of knowledge, skill and efficiency. And so an apprentice's opportunities enlarge. But that is not all. “It must never be forgotten,” he continued, “that nothing is being achieved in the march of Science that can or will replace the qualities of leadership, study, and forceful example which are essential on the ground as well as in the air.” It is to this end that Apprentices undergo General Service Training on which the Commandant places such proper emphasis.

He went on to hope that the new Quinton Trophy would be an inspiration to all apprentices, and concluded by saying, “And thus we place great faith in you young men who have great opportunities to



The Queen's Colour being Marched Past in Slow Time

prove yourselves, as no doubt you will, worthy of your trust—a trust which was so well represented on today's parade by the Queen's Colour.”

And so there came a time for more farewells as yet another entry left Halton to carry the spirit and training of the School throughout the Royal Air Force.

PRIZE-WINNERS — 65th ENTRY

MONSEIGEUR BEAUCHAMP PRIZE (BEST ALL-ROUND APPRENTICE)

F/S/A/A GARLICK Gladstone St. Secondary Modern School,
Darlington

HIGHEST IN ORDER OF MERIT, ALL SUBJECTS

S/A/A JONES Boroughmuir Senior Secondary School

HIGHEST IN ORDER OF MERIT, GENERAL SERVICE EFFICIENCY

1st S/A/A EGGLETON Purbrook Park County High School

2nd S/A/A BISSELL North Hammersmith Secondary Central School

HIGHEST IN ORDER OF MERIT, EDUCATIONAL SUBJECTS

1st L/A/A NORTH-GRAVES Dunstable Grammar School

2nd C/A/A TEARNE Bordesley Green Technical School

HIGHEST IN ORDER OF MERIT, T.S. PRACTICAL FITTING TEST
(AND WINNER OF CREBBIN ROBINSON CUP)

F/S/A/A GARLICK Gladstone St. Secondary Modern School,
Darlington

HIGHEST AVERAGE FOR PRACTICAL FITTING TEST OVER 3 YEARS' COURSE

A/A SARKAR

HIGHEST IN ORDER OF MERIT, GENERAL STUDIES
 (AND WINNER OF ELLIOTT MEMORIAL PRIZE PRESENTED BY
 ROYAL AERONAUTICAL SOCIETY)

C/A/A NEWTON Purley Grammar School
 HIGHEST PAKISTAN APPRENTICE IN ORDER OF MERIT (WINNER OF AZHAR TROPHY)

L/A/A RIZVI
 HIGHEST A.T.C. CADET IN ORDER OF MERIT (WINNER OF QUINTON TROPHY)

F/S/A/A GARLICK Gladstone St. Secondary Modern School,
 Darlington
 BEST TRADESMEN IN T.S. TEST

Airframe Fitter
 A/A GLOVER Southall Junior Technical School

Engine Fitter
 F/S/A/A GARLICK Gladstone St. Secondary Modern School
 Darlington
 Armament Fitter

A/A BONE Falmouth Technical Institute

Electrical Fitter (Air)
 S/A/A EGGLETON Purbrook Park County High School

Electrical Fitter (Grd)
 L/A/A HARRISON Canterbury Technical School

Instrument Fitter (Nav)
 A/A RYAN Wandsworth Grammar School

Instrument Fitter (Gen)
 C/A/A CHODHRY

SERGEANTS

BISSELL North Hammersmith Secondary Central School

889 JONES Boroughmuir Senior Secondary School

HAWTHORN Musselburg Grammar School

COLEMAN Ashford Grammar School

EGGLETON Purbrook Park County High School



F/S/A/A Garlick showing his prizes to some of the other prize-winners and sergeants of the 65th Entry

65th ENTRY POSTING LIST (in order of merit)

Jones, J. D.	32 M.U. St. Athan	Lightfoot, G.	32 M.U. St. Athan
Tearne, J.	32 M.U. St. Athan	Thatcher, G. W.	St. Mawgan
Garlick, F.	Conningsby	Kirkham, R. R.	Hemswell
Marasinha, H. G. S.	32 M.U. St. Athan	Brooks, A.	Ballykelly
North-Graves, A. P.	32 M.U. St. Athan	Dawkins, P. E.	32 M.U. St. Athan
Eggleton, M. F.	231 O.C.U. Bassingb'ne	Richards, D. J.	College, Cranwell
Newton, P. E.	Hemswell	Laken, R. A.	Aldergrove
Bissell, D. R.	Marham	Holton, D. G.	Conningsby
Luesley, B. R.	Conningsby	Collinson, P. W.	College, Cranwell
Harrison, F. H.	St. Eval	Atkinson, L.	32 M.U. St. Athan
Bird, R. A.	231 O.C.U. Bassingb'ne	Rees, D. N.	32 M.U. St. Athan
Ryan, P. E.	Aldergrove	Austin, B. J.	32 M.U. St. Athan
Hawthorn, W. G.	Thorney Island	Barnes, J. K.	32 M.U. St. Athan
Coleman, D. F.	Aldergrove	Collins, P. G.	32 M.U. St. Athan
Barson, M. W.	32 M.U. St. Athan	Bone, A. T. F.	Waterbeach
Bird, F. E.	231 O.C.U. Bassingb'ne	Pickford, J. W.	Aldergrove
Mundy, R. G. A.	Ballykelly	Humphrey, D. L. V.	Marham
Ridley, J.	Upwood	Leggett, W. B.	32 M.U. St. Athan
Welsh, G. T.	St. Mawgan	Pascoe, A. J.	St. Mawgan
Day, F. A.	32 M.U. St. Athan	Holloway, D.	32 M.U. St. Athan
Jones, B. A. C.	Conningsby	Chandler, G. P.	Linton-on-Ouse
Brice, A. I.	231 O.C.U. Bassingb'ne	Freeman, S. J.	233 O.C.U. Pembrey
Carwithen, K. J. R.	St. Mawgan	Coe, J.	Ballykelly
Lowe, J. E.	32 M.U. St. Athan	Neve, D. J.	Leuchars
Wheaton, B. C.	St. Mawgan	Taylor, G. A.	32 M.U. St. Athan
Springett, P. J.	32 M.U. St. Athan	Turton, R. F.	32 M.U. St. Athan
Headlam, S. L.	32 M.U. St. Athan	Hawkins, R. S.	Kinloss
Murphy, T. V.	32 M.U. St. Athan	Spray, G.	32 M.U. St. Athan
Patton, B. W.	St. Eval	Tigwell, A. G.	Conningsby
Dodsworth, J. R.	Waddington	Phillips, G. H.	32 M.U. St. Athan
Morris, D.	Pembroke Dock	Searle, J.	32 M.U. St. Athan
Boaler, A. H.	Aldergrove	Leggett, B. J.	Marham
Davey, P. E.	St. Mawgan	Earis, M. A.	231 O.C.U. Bassingb'ne
Balchin, M. F.	Thorney Island	Primmer, K. E.	Marham
Glover, M. B.	32 M.U. St. Athan	Armes, R. W.	32 M.U. St. Athan
Taylor, H. F.	Marham	Richardson, J.	Aldergrove
Bronger, J. E.	College, Cranwell	Oakey, D.	Calshot
Davis, P. I.	233 O.C.U. Pembrey	Barltrop, B. A.	Kinloss
Bowman, D.	32 M.U. St. Athan	Cammish, J. R.	32 M.U. St. Athan
Wills, A.	32 M.U. St. Athan	Puttock, R. D. S.	32 M.U. St. Athan
Goodacre, E. A.	Aldergrove	Allen, J. H.	228 O.C.U. Leeming
Brown, W. T. R.	B.C.S.B. Lindholme	Mills, L. J.	C.G.S. Leconfield
Hughes, L. K.	Pembroke Dock	Banks, M. L.	7 F.T.S. Cottesmore

The following ex-64th Entry (January 1950)

also qualified as Junior Technicians:

Gregg, M. J.	C.N.C.S. Shawbury	Pickering, J. D.	32 M.U. St. Athan
Johnson, R.	6 F.T.S. Ternhill	Richardson, R.	32 M.U. St. Athan
Johnson, P.	Marham	Walker, A. C.	Conningsby

ROYAL PAKISTAN AIR FORCE APPRENTICES

Rizvi, S. I. H.*	Rahman, A. T. M.*	Rizvi, S. A. H.	Malik, A. D.
Siddiqi, S. H.*	Sayeed, M. A.	Shah, S. M.	Haque, N. U.
Atique-Ullah, M.	Zakaria, A. F. M.*	Sarkar, M. A. R.*	Khawaja, M. A.
Chodhry, A. K. M. S.*	Choudhury, M. R.	Khan, M. L.*	Ahmad, M.

* Qualified as Junior Technician

WING NOTES

NO. 1(A) WING

It is perhaps a happy coincidence that the writing of notes for the Halton Magazine usually coincides with the end of term. Thus the writer can find solace in his task, and in the thought of pleasure close at hand find inspiration to dash off a cool thousand words or so. Certainly the grinding halt due to occur at midday on Wednesday next, which will denote the arrival of Easter leave, will provide a most welcome respite for staff and apprentices alike.

This term it has fallen to the lot of No. 1 Wing to have the Senior Entry at Halton, with all that that entails. It is felt that this is a good opportunity to convey our congratulations to the 65th Entry on the successful completion of their training. Especially are our congratulations due to those apprentices who distinguished themselves in the workshops, schools, or on the sports field, and consequently have been awarded prizes or colours. It is pleasing to record that 65th Entry lost very few of their numbers in clearing the last and most difficult of their hurdles. At the time of writing only one day remains before their graduation. Rehearsals have shown that we may expect a polished performance on the great day; undoubtedly the fine example of Flight Sergeant Apprentice Garlick has assisted greatly in the standard achieved. In view of the distinguished gathering who will attend the graduation, headed by the Secretary of State for Air, Lord de L'Isle and Dudley, V.C. it is hoped that the 65th will maintain the Halton tradition on the day which climaxes their efforts of the last three years. One factor however which is the cause of some misgiving is the weather, which for the last month has been quite exceptional, but which appears now to have broken up. We are all hoping that the gentlemen on the Air Ministry roof will provide us with a fine day so that the graduation can be held in the open.

Naturally the passing out of the 65th has occupied most of our time and interest for the last few weeks, but at Halton, as elsewhere, time does not stand still. Even before the departure of our friends of 65th Entry (we wish them every success in the outside Air Force), whilst the ink is still wet on their graduation certificates, we are actively preparing for the arrival of our newest Entry, the 74th, due in the middle of April. It is anticipated that this Entry will increase the size of the Wing by roughly 200 apprentices compared with our present strength.

This term has been a very active one also in the field of sport, embracing as it does amongst other things the Barrington-Kennett matches for most of the winter games. Detailed information and results in the various sports are given elsewhere in this magazine. Generally speaking we have not done as well as we would have wished. We can say however without fear of contradiction that experience has enabled our Wing to establish an enviable position as what are picturesquely described as gallant losers—in the best British tradition. Before leaving sport, however, we feel we ought to make mention of our old friend Judo, which No. 1 Wing has long pioneered. We are advised by our principal Judoka, Sergeant Davies, that there is an enthusiastic and

still increasing following for this sport and that an ambitious display programme has been arranged.

Since our last 1 Wing notes the Officer Commanding No. 1 Squadron, Flight Lieutenant Tombling, as he then was, has left us for St. Athan on promotion to Squadron Leader. His deputy, Flight Lieutenant S. W. Archer, D.F.M., has assumed command of the Squadron. Apart from this there have been no changes of staff in the Wing, but courses and sickness have been very prevalent of late, and have taken a heavy toll, leaving us most of the time very much diminished in numbers.

On the 24th March several of the New Zealand apprentices of No. 1 Wing, including C/A/A's Eaves, McLean, Pratt, L/A/A's Blewett, Howell, West and Shaw, attended an "At Home" given by the Committee of the Dominions Fellowship Trust at the Goldsmiths' Hall, London. Unfortunately H.M. Queen Elizabeth the Queen Mother was unable to attend, as she had hoped to do, owing to the sudden worsening of the illness of H.M. Queen Mary. Since then we have heard the sad news of the death of Queen Mary and we all mourn her passing.

It is with regret, also, we record the death of one of the apprentices of our Wing—A/A T. E. Philpott of the 68th Entry, at Ely on 15th March.

However, with a promise of Spring very much in the air, we feel it is only proper to end our notes in a cheerful vein. So in wishing all readers good fortune in the coming term, we conclude with a firm conviction that we in No. 1 Wing will find inspiration in the finer weather and longer evenings to regain our former glory in the sporting world as well as in our academic and technical studies. It is also a comforting thought that we shall have ample time to get the Wing gardens into a blaze of glory for the Coronation in June.

NO. 2(A) WING

We might have been excused for hoping that the Easter term, just passed, would be less eventful than the one preceding Christmas; but as the unexpected so often occurs at Halton, we were not surprised when this forecast went astray. The 73rd Entry had just joined us when an epidemic of influenza caught most apprentices and staff in the Wing, and indeed swept through the others as well. It caused a great deal of disruption to work, and was especially troublesome to the 70th Entry who were preparing for their first year examination. We were grieved to lose A/A Mehers of the 70th Entry, 2 Squadron, who died of pneumonia, and our deepest sympathy goes to his family.

As we go to press we mourn the death of Her Majesty Queen Mary, but soon we hope to see a far happier Royal occasion in the Coronation of our Sovereign Queen Elizabeth II. We of 2 Wing are proud that the honour of bearing Her Majesty's Colour to this School goes to S/A/A Milne of No. 1 Squadron.

We welcome to Halton the 73rd Entry, approximately 240 strong. This term has been hard and perhaps bewildering for them, but they have settled down and are now beginning to enjoy Halton's innumerable amenities. Their academic and sporting progress has already shown promise and they acquitted themselves well on their first Commandant's Parade.

We extend a sincere welcome to Wing Commander Lane who took command of 2 Wing at the beginning of the Easter term. He was in

the 10th Entry which transferred from Cranwell to Halton in 1926, and many boys have already profited by his advice and knowledge of their problems. His previous post was at the Royal Aeronautical Establishment where his department was concerned with all aspects of parachuting, including ejector seats. We might say he is a pioneer in the new art of explosive propulsion.

We say farewell to Squadron Leader Rogers after a brief period in 2 Wing, and welcome Squadron Leader Davis who has recently returned from flying instruction duties in Southern Rhodesia, as Officer Commanding No. 3 Squadron and Wing G.S.T. Officer. We also welcome Flying Officer Bennett who joins No. 2 Squadron as a Flight Commander, replacing Flying Officer Louis who is now in charge of Electrical Fitter Training at Workshops. Flying Officer Bennett was recently stationed in the British sector of Vienna as part of the Allied Forces of Occupation in Austria. A more interesting city than the home of the waltz and Harry Lime is difficult to imagine. Flying Officer Bennett must be one of the very few officers at Halton with first-hand experience of the Russians, through their occupation forces.

Flight Lieutenant Searles is to be congratulated on his excellent direction of the recent performance of "The Messiah" which is mentioned more fully elsewhere in this issue.

Tentative arrangements are being made for the St. George's Choir, under Flt.Lt. Searles, to sing in St. Paul's Cathedral with the London Choir School some time next term. It is to be hoped that these arrangements may be confirmed, and we are sure that if they are the choir will acquit itself very creditably.

In this season's sport 2 Wing have won the Senior B.K. Rugby and Football, and were second in the Boxing and Basketball. This is a great accomplishment and the Soccer team especially deserves a mention for some very fine team work and cool defence under its captain, L/A/A Green, who is also the School Captain. A/A Holman's goalkeeping for the Wing and the School has been noticeable. L/A/A Mitchell, as well as being the Wing Rugger Captain, plays for the School and the Station, and as Halton reached the semi-final of the Inter-Station League this is indeed a fine effort.

Although the juniors have not won any of the B.K. sports this year, there have been notable performances by 70th Entry Apprentices, particularly in Boxing. A/As Rayfield, Pilgram, Mooney and Partridge were prominent and made 2 Wing runners-up for the Scott-Payne Trophy for which all Apprentice and Boy Entrant Wings compete.

The first Sergeant Apprentices in the 67th Entry are S/A/As Milne, Wild and Seekings. S/A/A Seekings and members of the Apprentices' Re-diffusion Network have been performing pleasantly with a new tape recorder. The possibilities of this new toy are immense. We expect a greater variety in future programmes, with the Apprentices playing a larger part in live shows. An excellent three-piece dance band under L/A/A Ballamy is well established at the Toc H on Saturday nights. These dances are becoming increasingly popular, as are the other evening activities at Toc H, which, under Padre Hastie, has been given a new life. Apprentices in 2 Wing are invited to make greater use of these facilities

When this edition is published the Summer Term will be into its stride. We wish our readers a successful term, and although Halton will be looking its best in late Spring, with blossom on the boughs and the trees in early leaf, we trust that all frivolous thoughts will be banished from the mind, all noses pressed firmly on the grindstones and shoulders against those wheels.

NO. 3(A) WING

We started the Spring Term with a very bleak outlook with the Wing and sports fields under a thick layer of frozen snow, but as the term progressed, so the conditions improved, until by the middle of March we were having an early summer with our spirits and achievements reaching a very high level.

Apart from sweeping aside nearly all opposition from the other Wings to our B.K. superiority, there have been few incidents of note in the past term. Our Wing has been the "Guard of Honour" Wing and on two occasions the 69th Entry have been called upon to fulfil this important function. Each squadron provided a third of the guard and it first appeared for the informal inspection of the School by the Air Officer Commanding - in - Chief, Technical Training Command, Air Marshal Sir Victor E. Groom, K.C.B., C.B., D.F.C. On this occasion it was commanded by C/A/A Walter and C/A/A Gordon. For the 65th Graduation the Guard of Honour were once again on parade for the reviewing officer, The Secretary of State for Air, The Lord de L'Isle and Dudley, V.C., and this time it was commanded by S/A/A King and C/A/A Gordon. All concerned are to be congratulated on the hard work that has been put into rehearsals and the high standard of turnout and drill that was achieved.

The spring term was our most successful sports term for many years and in the B.K. games we won nine trophies out of a possible fourteen, and these comprised Senior Hockey, Boxing and Basketball, Junior Hockey, Boxing, Basketball, Soccer, Cross Country and Shooting. In addition, we shared first place in the Junior Rugby and won the deciding game for the award of B.K. medals, and came second in the Senior Rugby, Cross Country and Soccer. Overall and individually, these are very fine performances and we all heartily applaud the efforts of our teams. In victory, let us not belittle the very good opposition that we have met from the other Wings. After all, with our superior numbers in Wing strength, we have little difficulty in selecting a strong team for the many B.K. sports. Our Wing players have provided many representatives for School and Station teams, their standard of play and sportsmanship always being of the highest order. With so many outstanding individual performances it is difficult to single out any particular sportsman for special mention, but it is noteworthy that we should record the rapid rise to fame of our road walker, A/A Haynes. In one year from taking up this sport, he has become Station champion and was fifth in the R.A.F. Championships. Another member, A/A Collen, has gained R.A.F. honours at sailing and at the moment is partaking in qualifying Olympic heats.

Next term we shall be expecting great achievements again from the Wing, not only in the summer sports, but from our Graduating Entry and Junior Entries in their work at Schools, Workshops and G.S.T. In closing, we would like to wish the 66th Entry the best of good fortune in their coming final examinations.

WORKSHOP NOTES

AIRFRAME SECTION

It is with regret that we report the posting of Warrant Officer C. Ryman to O.C.T.U. Spitalgate. We wish him every success in the future. We would also like to congratulate Warrant Officer J. Ghey on his recent promotion.

The Airframe Fitters' Instructor's Shield was awarded to A/A R. Kendall of the 67th Entry, and we offer him our congratulations for a stout effort. A/A Majid was a close runner-up and deserves a pat on the back for a good try.

We shall be taking the 72nd Entry into the Section next month. This will considerably increase our population and will mean a certain amount of re-organisation.

The 65th Entry had two very interesting visits recently. The first was to Vickers Armstrongs, Weybridge, in the charge of Fg.Off. Louis and Chf.Tech. Harding. The party toured several sections of the Works but were mainly interested in the impressive machine-shops where they saw many specialist machines working at full pressure on a variety of jobs. The party were most impressed by the size and weight of the raw material required for the manufacture of a component such as an oleo compression strut compared with the finished article. The guide explained that it was only by "carving from the solid" that the highest strength-weight ratio of the finished article could be obtained. A great deal of interest was shown in the new Hufforth stretcher-press. This machine is one of the latest of its type and considerably speeds-up production. The lithographic department was of very special interest; it produces "drawings on sheets of metal" for the manufacture of aircraft components. The party had a quick look over the main assembly line before leaving the Works.

The second visit was to R.A.F. Odiham in charge of Fg.Off. Jordan and Chf.Tech. Pointing. On arrival at the Station all eyes were focussed on the runway where four Meteors were about to take off. The party was taken over by the Orderly Officer who conducted for the remainder of the visit. The Flying Control Tower was visited first and the Squadron Leader in charge explained the system of fighter-control from take-off to landing back at base. The four Meteors we had seen take off were now clearly seen at altitude many miles away to the east. There followed a complete demonstration of a controlled descent through cloud to the vicinity of the airfield where the Controller took over and talked the aircraft down safely on to the runway. The party watched another Flight take-off then departed for an excellent lunch. After lunch came a tour of the Technical Wing with visits to the various Sections where a great deal of information was collected.

ENGINE SECTION

During the term we said goodbye to Corporals Frost and Austin who are taking up instructional duties with the Royal Ceylonese Air Force, and we wish them every success in their new jobs. We also welcome Flight Sergeant Hillyer back to Halton; unfortunately he is no longer in the Section.

We are very happy to report that the whole of the 65th Entry managed to pass the Final Trade Test Board. This success reflects great credit on the Entry and the instructional staff in particular.

There have been a few changes in the training routine since the last issue. The Engine Servicing Phase has been transferred from Airfield Training to this Section and is being expanded to fill its rightful place in the training pattern. Other changes planned include the introduction of Avon engines and a new type of written examination paper.

The 65th Entry made two very interesting visits during the last month. The first was to Messrs. Napier's plant at Acton in the charge of Flight Lieutenant Colston and Flight Sergeant Clough. The party was conducted by the firm's apprentices throughout the tour. A very interesting time was spent in the firm's "museum" of past products, but the main interest lay in the extensive and modern machine-shops and the wide range of work undertaken. All concerned were very intrigued with the Standards Room and the fact that measurements to $2\frac{1}{2}$ millionths of an inch were accepted as daily practice.

The second visit was to R.A.F. Station, Duxford. On arrival the Entry were given a lecture by the Station Commander and his Technical and Flying Wing Commanders who outlined the role of Fighter Command and the part that Duxford had to fulfil. The more fortunate members of the Entry were given a flight in an Oxford by one of the aerobatic team. It is understood that certain of the "aircrew-minded" passengers are now thinking again. All concerned enjoyed the excellent aerobatic display by the resident Squadron and were most impressed by the happy atmosphere throughout the Station. The posting-list for the Entry was eagerly scanned but, unfortunately, Duxford was missing.

ELECTRICAL SECTION

We welcome Fg.Off. Louis to the Section. He has now taken over from Fg.Off. Herring who is now in charge of the Instrument Section. We also congratulate Mr. J. Bradley on his promotion to Supervisor (Electrical Trades), a popular and well-deserved success. Warrant Officer Detain has been admitted to P.M. Hospital but we understand he will soon be back with us again; in the meantime, Warrant Officer Baxter holds the fort. New arrivals are: Mr. Selden and Mr. Vout from Weeton, Corporals Shephard, Palmer and Knight from overseas, and L.A.C. Collingbourne (ex-M.T.R. and I). Sgt. Bailey (ex-49th) has returned to civilian life, and we wish him good luck in his new venture at De Havillands. Flt.Lt. Gilbert from the Schools (Electrical Science) has left for Pakistan. He will be greatly missed by both the instructional staff and the trainees; he did a fine job of work for the Section and his untiring effort was very much appreciated.

Readers will no doubt be very interested to hear that a few of the 66th Entry are sitting for the City and Guilds Electrical Technology Exam. this month; we hope they will do as well as the 63rd Entry Instrument Fitters last year. We are looking forward to the introduction of the additional Electrical Fitter Examination in Aircraft Servicing and Associated Equipment next year; this should prove a valuable incentive to the more ambitious trainee.

We have been fortunate in getting some of the long awaited ground-equipment and certain of the phases are being re-organised to cater for the increased training load.

The 65th Entry visited Messrs. Frigidaire at Kingsbury during the term. On arrival they were first shown a display of sectioned products and then heard a series of short talks on the principles, uses and historical background of refrigeration. This was followed by a conducted tour of the factory where they saw the production of thermo-switches, "meter-misers" and rotary-transformers. They also witnessed many interesting processes such as automatic resistance-welding, armature-winding and vitreous-enamelling, the latter process being in

one of the largest enamelling plants in Europe. The "glass-house" components were assembled in air-conditioned shops to ensure perfect cleanliness of all moving parts of the "meter-miser"; testing to 1/10,000 part of an inch was accepted as routine practice. An overhead conveyor system operated throughout the plant connecting all production departments and thus ensuring economy of labour and protection for material in transit. The Entry much enjoyed an excellent lunch and tea and are very grateful to the company for a most interesting and instructive visit.

INSTRUMENT SECTION

Fg.Off. Herring has now taken over the Section from W/O Slack. Shortly after Christmas Fg.Off. Weston left us for the Technical College, Henlow. He has since received promotion to Flt.Lt. and now has a son and heir. May his successes continue. We have had more than our usual share of postings during the term: Cpl. Watkins has gone to Melksham, Cpl. Davies to Cardington, and Flight Sergeant Clements to Colerne. More recently we lost Sgts. Shonk, Dalrymple and Brown also to Melksham. Cpl. Griggs has been promoted to Sergeant and Sgt. Fitt and Flight Sergeant Stock have returned to civilian life; the latter, however, is still with us as a Civilian Instructor. A new arrival is Cpl. McCleary. We hope he sees his tour out with us. Warrant Officer Slack is currently in P.M. Hospital but we understand that he will soon be out and about again.

The Section has had a very busy term. Many new training aids have appeared and a very considerable effort, including much voluntary time, has gone into a large variety of jobs for other Sections and Halton Society activities. It is with great regret that the Section parts with the Crebbin-Robinson Cup to the Engine Section. We are sure that the 66th Entry will do their best to retrieve it next term.

The 65th Entry managed a visit to Messrs. Smiths in February when they were accompanied by their Flight Commander, Flt.Lt. Dunn, Flight Sergeant Edwards and Sgt. Dalrymple. The Navigation Fitters saw the Mk. 9 Auto-pilot being assembled and tested and, incidentally, met an ex-Halton Apprentice who showed them some very interesting test-equipment ordered for the Service. He also explained a new method and equipment for balancing gyro rotors. The party were very interested in the firm's Technical School with its excellent layout and working conditions. After an excellent lunch the party saw armature-winding processes and the manufacture of various instrument parts on modern high-speed automatics. The visit was most instructive and thoroughly enjoyed by all concerned.

Two days later the Entry visited R.A.F. South Cerney, this time in the care of Warrant Officer Whibley (H.Q. T.T.C.), Flight Sergeant Bowers and Sgt. Nicholls. The object of the trip was to see present-day servicing methods and practices at a busy Flying Training Unit. The party started off with the Parachute Section, then went on to the various Bay-servicing Sections, to see "the other chap's job" at close quarters. The Radio Section interested most of the party, particularly the air-to-ground radio conversations with the Control Tower. The latter was next visited for a detailed explanation of the various methods of Beam Approach controlled from the Tower. Later, one group went flying while the other adjourned to the Link Trainer Section for a short talk on Link operation, followed by a spell of "flying" during which some of the visitors managed to aerobat, crash-land and experience such hazards as iced-up pitot-head, loss of horizon-suction, etc., without so much as a reprimand. All voted the trip well worth while and were very appreciative of the manner in which the Unit had really put themselves out for our benefit.

ARMAMENT SECTION

We take this opportunity to send greeting to all ex-Halton members of the "Plumber's Union" at home and overseas.

We are very sorry to have to report that, soon after a happy recovery from his operation Squadron Leader Akhurst is to leave us on posting to Armament Section. He has been Station Armament Officer and Officer i/c Armament Training for some time now, and before that he had been a Squadron Commander in both 2 Wing and 3 Wing, and acting C.O. of 3 Wing. We shall certainly miss him, and we wish him all good fortune in his new unit.

We have two Staff changes to report since the last issue. Flight Sergeant Gillet has left us for Farnborough and Flight Sergeant Lloyd has re-mustered to General Engineer. In answer to many enquiries we can say that all the civilian "old hands" are still with us. Sgt. Hand and Cpl.Tech. Wilson have left Airfield Training Section to become "turret kings."

Members of this Section continue their successes with .22 rifle and pistol shooting. It is with great pleasure that we are able to report that Chf.Tech. D. R. Newman won the R.A.F. .22 Pistol Championship (Individual Cup). He achieved this remarkable success against such renowned opponents as Wg.Cdr. Guy, Sqn.Ldr. Willott and Flight Sergeant Harrop. Hearty congratulations, "Wally!" Other creditable performances were put up by Snr/Tech. Philpott who scored 146/200 and the W.R.A.F. team from this Station who won the "Leconfield Cup" by the wide margin of 35 points and deserve a very special bouquet for this fine effort. The St. Dunstan's Trophy was won by a team composed entirely of members of the Armament Staff and included Chf.Tech. Wilson and Corporal Holt.



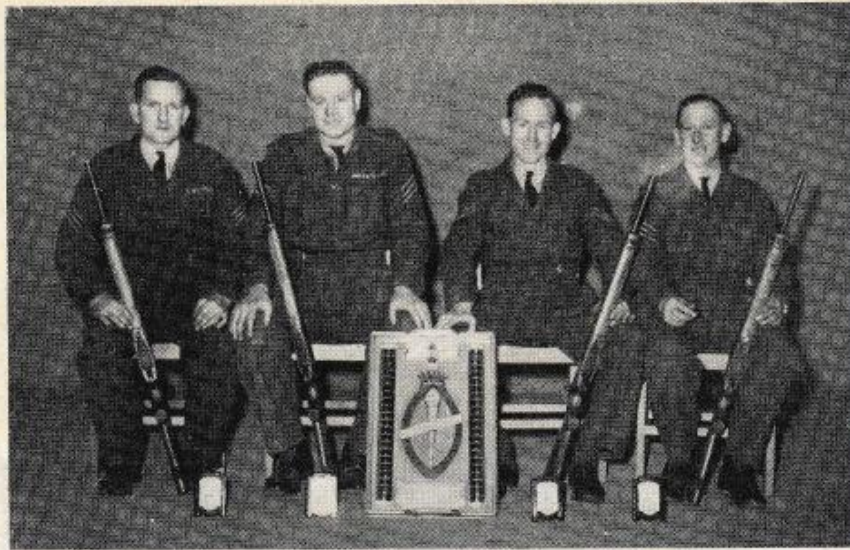
Armament Training Section—Staff and Instructors—January, 1953
 Back Row L. to R. : Cpl. Morton, Cpl.Tech. Bentley, Cpl. Smith, Cpl. Taverner, Snr.Tech. Philpott, Mr. Kirby, Sgt. Carr, Mr. Bishop, Sgt. Snape, Cpl. Mundy, Cpl. Harris, Mr. Elwell, Mr. Tranah
 Middle Row L. to R.: Snr.Tech. Creffield, Cpl. Holt, L.A.C. Lee, Sgt. Dobbin, Mr. Miles, Sgt. Hand, Snr.Tech. Bowers
 Front Row L. to R. : Chf.Tech. Newman, F.S. Lloyd, Mr. Dovey, Mr. Harrison, Sqn.Ldr. Akhurst, W.O. Skevington, Mr. Miller, Mr. Jenkins, Mr. McLean

Increased Entry strengths have changed the cathedral-like atmosphere of Bay 10 to one of the proverbial "hive," but above the low murmur of the "bees" the shrill cry of the "Welvic Plug" still rends the air to our distraction.

With the exception of one member, the 65th Entry weathered the Final Trade Test Board and have departed from Halton. The Instructional Staff, which includes

Sqn.Ldr. Akhurst	1st Entry	Chf.Tech. Newman	36th Entry
Sgt. Taylor	33rd Entry	Snr.Tech. Crowson	35th Entry
Sgt. Hand	36th Entry	Cpl. Morton	44th Entry
Sgt. Carr	42nd Entry	Civ/Instr. Elwell	No. 570261

will be harking back to their own Passing Out.



No. 2(A) Wing Permanent Staff Team—Winners of the St. Dunstan's Trophy 1953
L. to R.: Chf.Tech. Newman, Snr.Tech. Philpott, Cpl. Holt, Chf.Tech. Wilson

The 65th Entry made two visits during February. The first was to Leconfield with Sgt. Taylor and Cpl.Tech. Brown. The tour included Workshops, Servicing Bays and Dumps, and the visitors were much impressed with the speed and efficiency displayed by the staff. Whilst in the Servicing Bays the Entry renewed acquaintance with Cpl. Austin (ex-60th) and Cpl. Stiles (ex-61st). Both have settled down and are doing very well. The trip out to Skipsea Ranges to witness rocket and cannon air-to-ground firing by Meteors and Vampires was most impressive but the highspot of the visit was a 3½ hour flight in a Lincoln over Lincolnshire, Yorkshire and the North Sea. Incidentally, this particular aircraft was the ill-fated "C" for Charlie which was later shot down over Germany.

The second visit was to the Martin Baker Aircraft Company. The party visitors were given a most instructive lecture on the latest type of ejector-seat and saw a film showing the development stages from the earliest model. They also saw the latest developments in Belt-feed Mechanisms and ejector-seat cartridge-filling processes. The works provided a most enjoyable lunch, after which the party toured the various workshops and met Mavis, the firm's "Pin-up Girl." The visit ended with the party being "shot up the ramp" on the 60ft. test rig. The visit was a pronounced success and much useful information was gleaned by the Entry.



Market Square, Aylesbury

THE STORY OF THE MARTIN-BAKER EJECTION SEAT

(A number of apprentices have in the past been to Messrs. Martin-Baker's factory and test sites on visits during their last term at Halton, but here Mr. James Martin, Managing Director and Chief Designer to the firm, gives us all, seniors and juniors alike, an insight into the development and function of the ejection seat.)

Early History

Design work on Martin-Baker Ejection Seats was started early in 1944 and the first ejection ever carried out in England with an ejection seat took place at Wittering R.A.F. Aerodrome on 11th May, 1945, a dummy being shot out of a Boulton and Paul Defiant, the gun turret of which had been removed and replaced by an ejection seat. Further tests were carried out at Beaulieu, and for the last seven years these tests have been carried out at Chalgrove Aerodrome, Oxfordshire.

The first live ejection ever carried out in England was at Chalgrove Aerodrome on 27th July, 1946, by Mr. B. Lynch of the Martin-Baker Aircraft Company Limited.

In November, 1945, M.O.S. appropriated to the use of Martin-Baker one Mark 3 Meteor and this was converted to take two ejection seats. This machine has been used exclusively for this work over the past seven years and has done literally hundreds of ejections.

Design and Development

The design and development of the ejection seat falls under several categories.

(1) How much G can a person stand without physical injury? As no data existed at that time on this matter Martin-Baker designed an ejection tower on which the seat could be shot up and conditions similar to air ejection could be simulated on the ground. After a number of tests had been carried out it became obvious that the amount of G a person could stand was governed not so much by the amount of G, as by the rate of G per second. It was found that the rise or rate of G application could be between 200 and 260 G per second without physical injury. It was therefore decided that the maximum G should never exceed about $18\frac{1}{2}$ to 20 G, and at the rate of rise of G just mentioned no physical injury happens to anyone's vertebra.

(2) One important feature in an ejection seat is that the ejection velocity shall be such that at the highest possible speed at which an aeroplane can fly the seat will clear the tailplane and fin by a good margin. An ejection velocity of 60 feet per second was decided on for fighters.

(3) Another important point in connection with the ejection gun is that under multiple G conditions—that is to say that if at the moment of ejection there were 4 to 5 G on the aircraft—the rate of rise of G should not vary appreciably and the ejection velocity would still be high enough for the seat to clear the tip of the fin.

(4) Tests are carried out on the cartridges to simulate extreme conditions: in one case the cartridges are put in a refrigerator to represent arctic conditions; in another they are kept in an oven at a high temperature to represent tropical conditions, and over these extreme temperature ranges they must give an acceptable rate of acceleration.

Manually Operated Seats Converted to Automatic

The seats that have been made and supplied to the Royal Air Force are what are described as manually operated seats. By that I mean that if the pilot wishes to eject himself from the aeroplane he must jettison the hood, pull the face screen and he is then shot out. Immediately after being shot out he must then undo his seat harness, fall out of the seat and pull his D ring to get his main parachute working. All this takes up a certain amount of time during which the pilot is falling quite fast. So, what can be described as an automatic seat has been designed, and arrangements have been made for these components giving automatic functioning to be added to existing Mark I seats so that they shall become fully automatic. With the automatic seat it is only necessary for the pilot to jettison his hood, pull the face screen over his face and he is shot out; five seconds later he is lifted out of the seat with the main canopy fully developed. Tests have proved that in horizontal flight it is possible to do an ejection at 500 feet above the ground and still have 250 to 300 feet to spare after the canopy has fully developed. This is a very great improvement over the Mark I manually operated seat. There is also the question of high altitude ejection at 30,000 to 40,000 feet or more. If the pilot ejects himself at such a height he would fall through space on a small drogue parachute falling at approximately 12,000 feet per minute. When he reaches the pre-determined height at which the barostatic control was set the main canopy is then released and he is lifted out of his seat automatically, even if he were unconscious.

Capsules and Detachable Cabins

From time to time one reads in the papers about capsules, and detachable cabins. With the detachable cabin arrangement several very large parachutes would be needed to give an acceptable landing speed if the occupants wish to stay inside the cabin. It would also require several thousand feet to use such a device, as it would have to be slowed up before the main canopy could be deployed, otherwise the parachute would burst.

With the enclosed ejection seat, unless it were fully pressurized it would not seem to have any practical advantage over the normal ejection seat, and it would certainly add a lot of complications to the already complicated cockpit.

Our records of emergency escape would seem to indicate that with an aeroplane capable of speeds of—say—600 m.p.h. or more if, for some reason, the pilot has to abandon the aeroplane—which would be due to a variety of causes such as a collision in the air, tailplane or wings breaking off, shortage of fuel and so on—the moment before ejection takes place the speed of the aeroplane would be very greatly reduced. The reason for making this remark is that frequently we are asked what happens if the pilot does an emergency escape at 600 m.p.h. The answer is that records to date indicate, as already mentioned, that such a state of affairs has not yet arisen. But, we are confident that with our latest type automatic seat and leg restraint it will be possible and practical to do an ejection at 700 m.p.h. without physical injury.

Necessity for Pressure Suits

To conclude, I would mention that, for high flying at over 40,000 feet, pressure suits would be an absolute essential.